

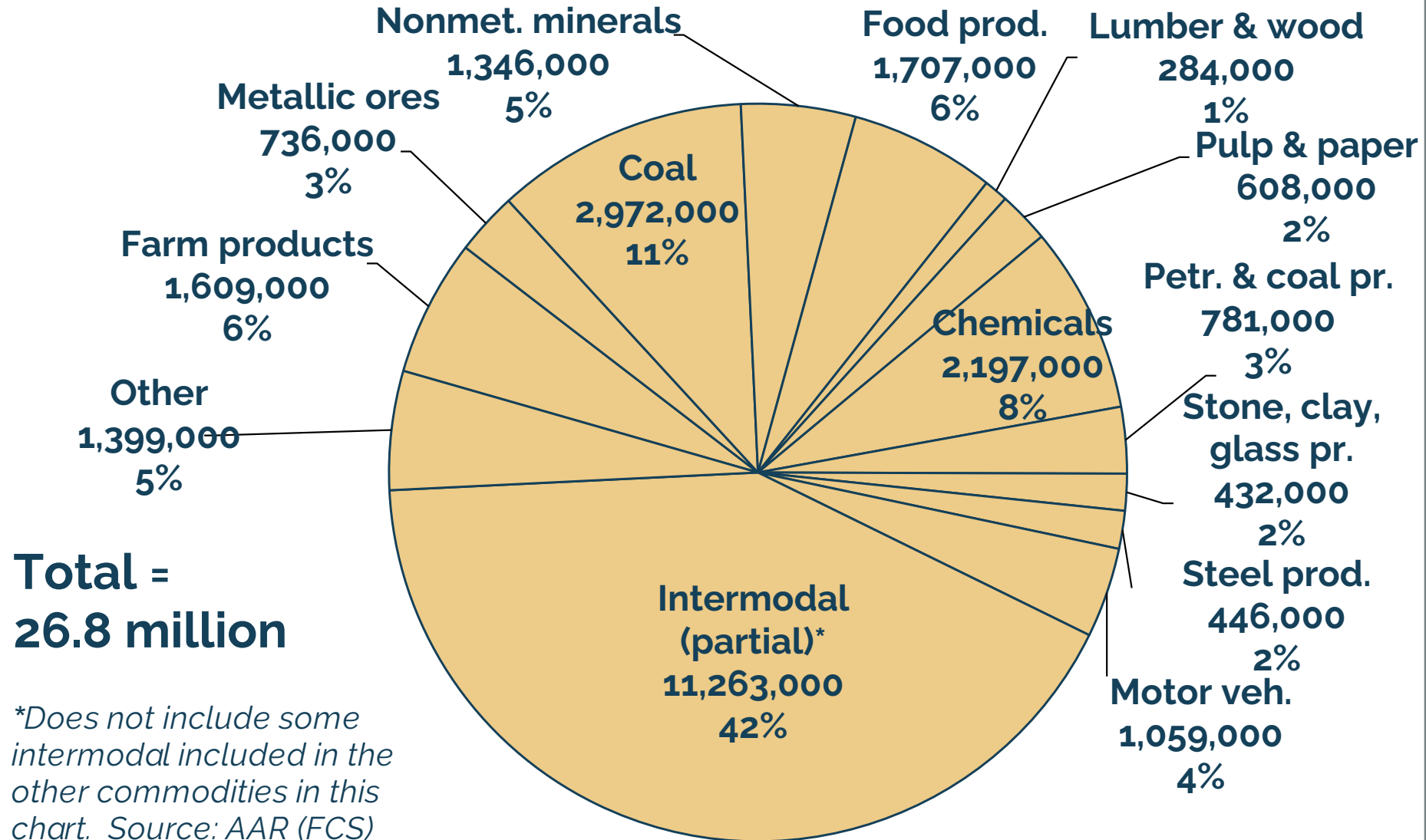


Railroad Update

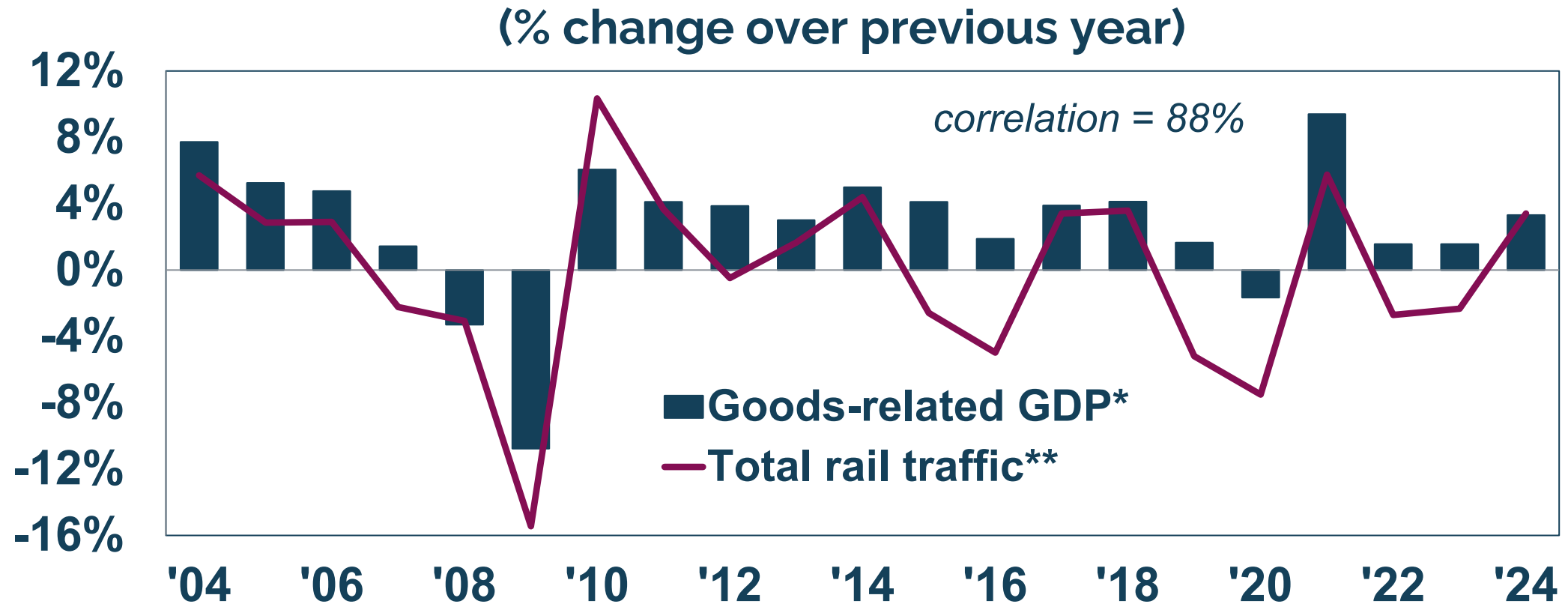
Rail Energy Transportation Advisory Committee

May 29, 2025

Originated Units by Class I Railroads in 2024



Rail Traffic Levels Depend Largely on the Economy, Especially Goods

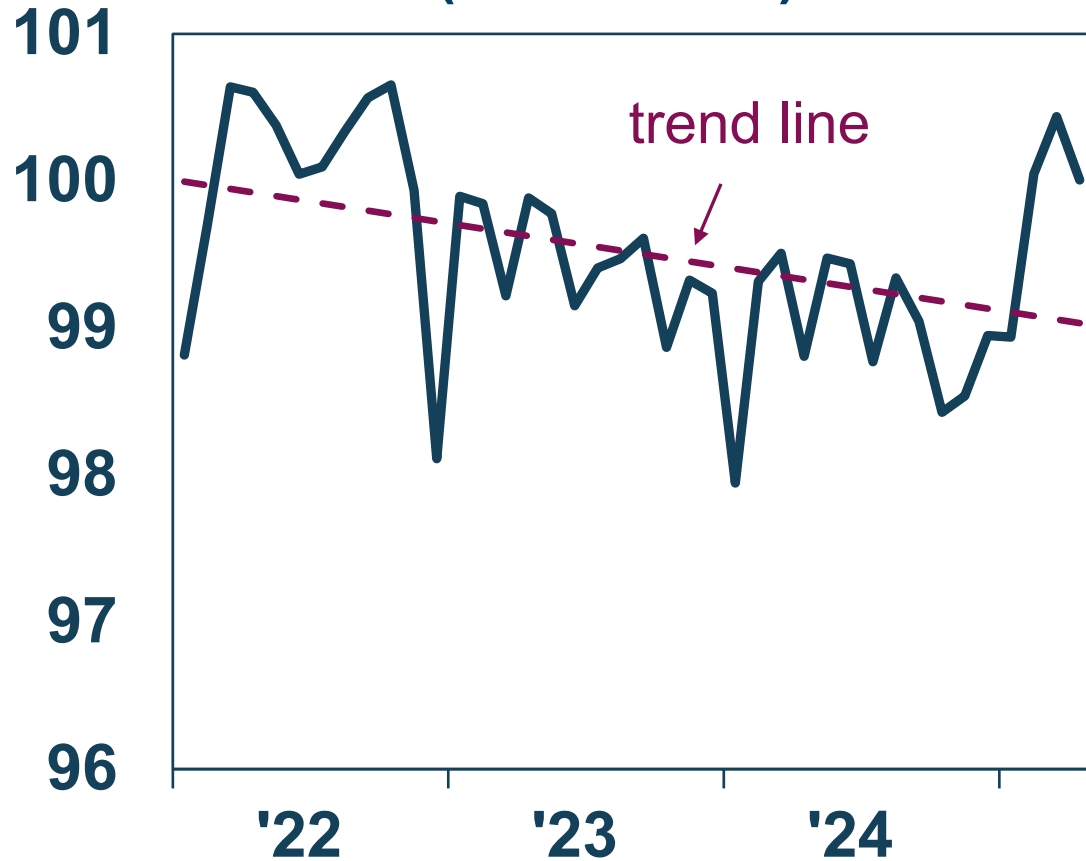


*Imports, exports, & personal consumption of goods; fixed residential investment; business investment in equipment & structures; govt. gross investment; and change in inventories

**Total originated U.S. carloads and intermodal units. Rail traffic excludes the U.S. operations of Canadian and Mexican railroads. Source: BEA, AAR

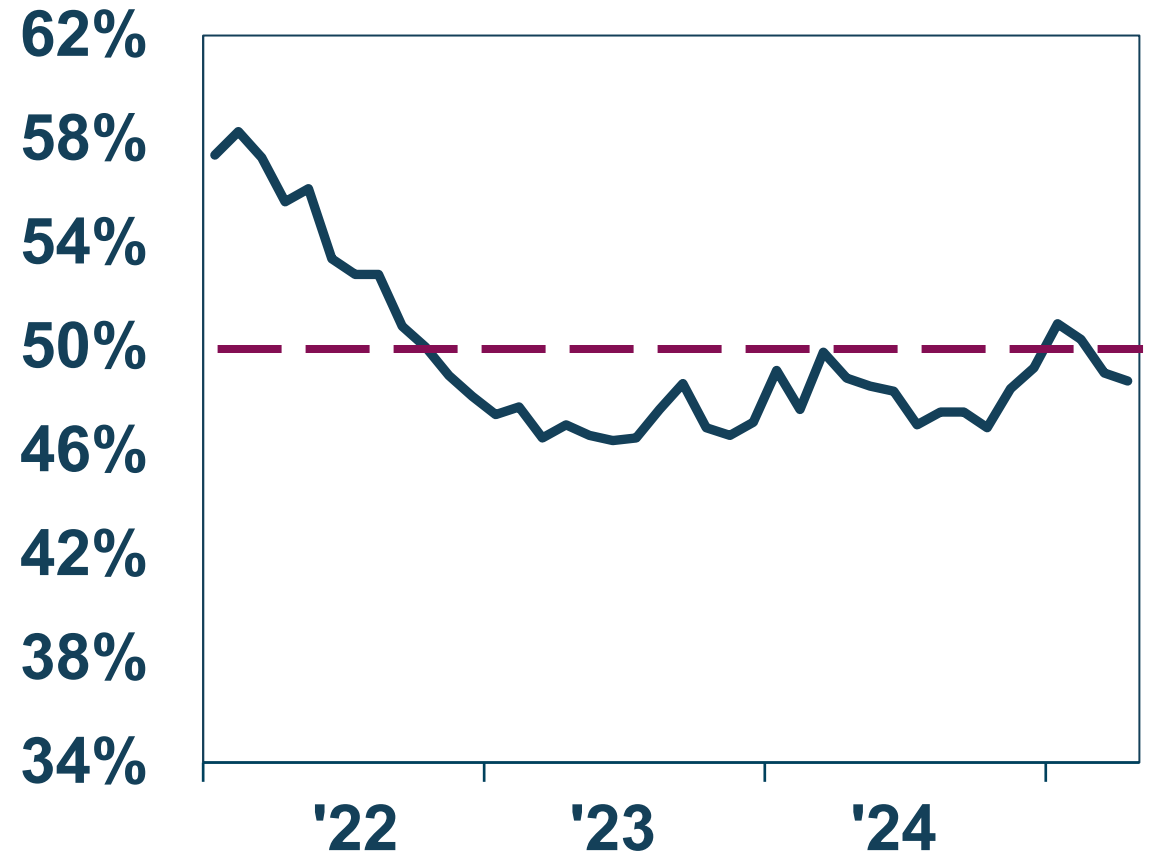
Weakness in Manufacturing

**U.S. Manufacturing Output
(2012 = 100)**



Source: Federal Reserve Board

**Manufacturing PMI®
(< 50% = contraction)**



Source: Institute for Supply Management®

Change in U.S. Rail Traffic: 2024 vs. 2023

Total carloads: -343,300, -2.9%

**Total carloads excl. coal:
117,500, 1.4%**

Intermodal: 1,174,500, 9.3%

*Bars are based on originations,
do not include intermodal, and
do not include the U.S.
operations of CN, CPKC, and
GMXT. Source: AAR*

Coal: -460,700, -13.6%



Crushed stone, sand, gravel: -85,900, -8.0%

Grain: 83,900, 8.5%

Chemicals: 66,200, 4.1%

Petrol. & petr. products: 48,000, 9.6%

Grain mill products: 26,200, 5.5%

Motor veh. & parts: 9,000, 1.2%

Carloads n.e.c.: 8,500, 3.4%

Waste & nonferrous scrap: 8,500, 4.5%

Primary forest products: 4,400, 8.2%

Pulp & paper products: 2,400, 1.1%

Stone, clay & glass prod.: 2,000, 0.5%

Coke: 1,500, 1.1%

Farm products excl. grain: 800, 1.9%

Food products: -1,200, -0.4%

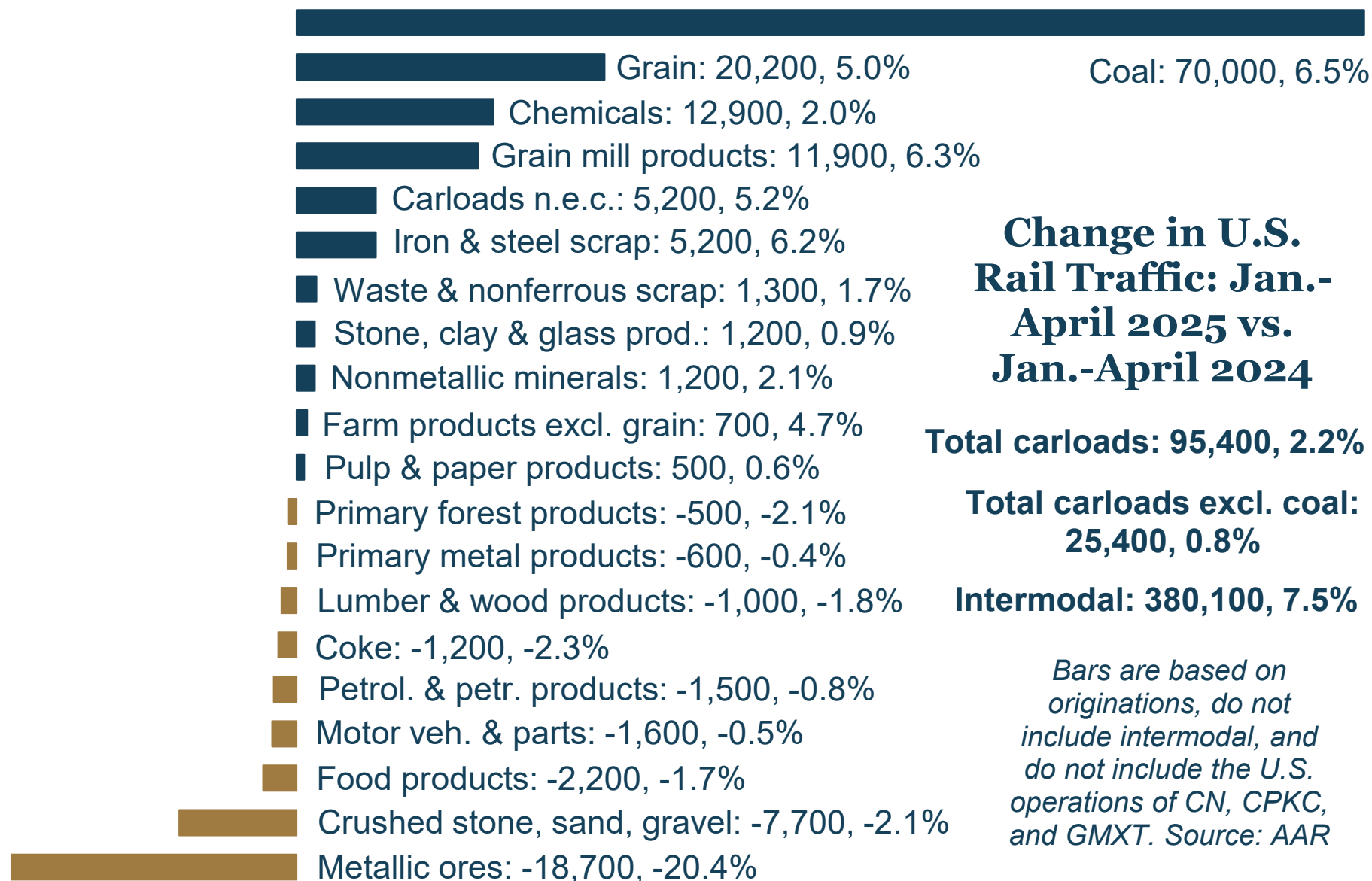
Lumber & wood products: -2,600, -1.8%

Iron & steel scrap: -4,800, -2.2%

Nonmetallic minerals: -12,600, -7.6%

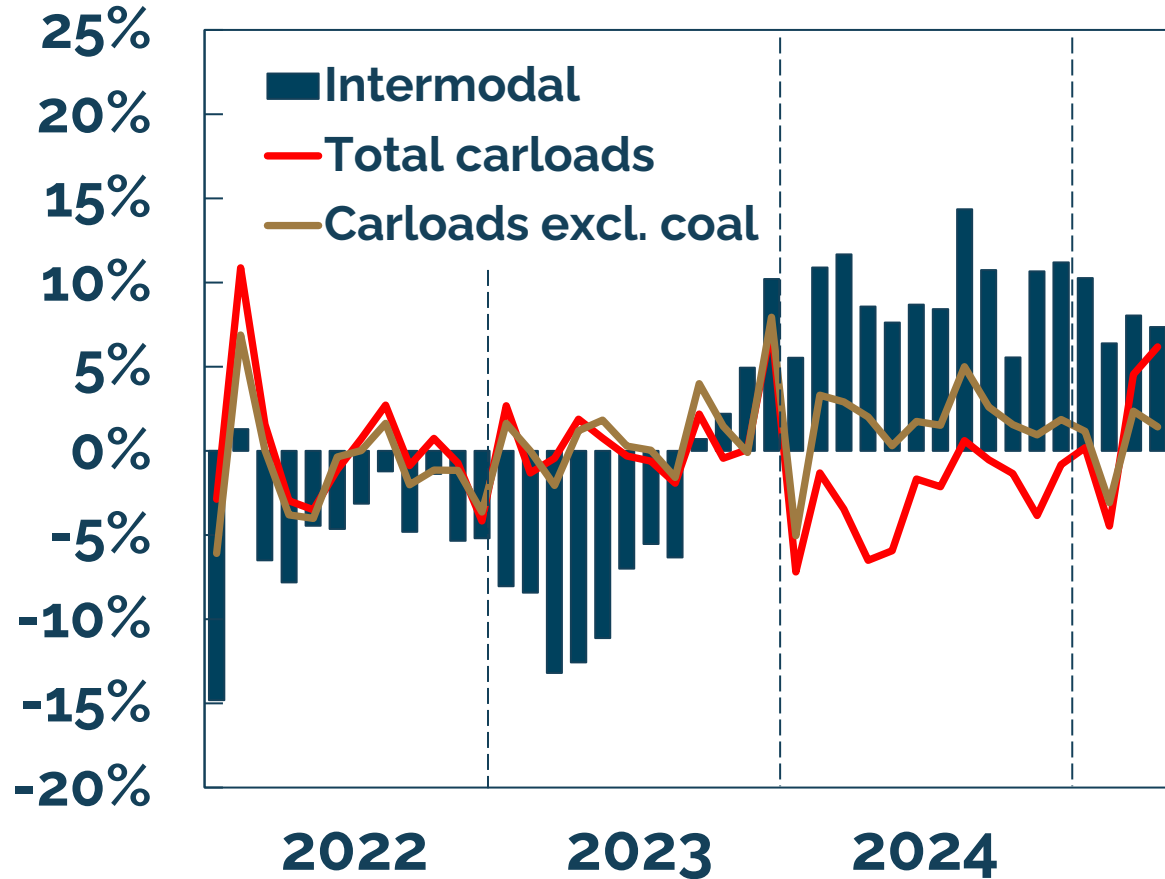
Metallic ores: -14,000, -4.8%

Primary metal products: -22,800, -5.4%

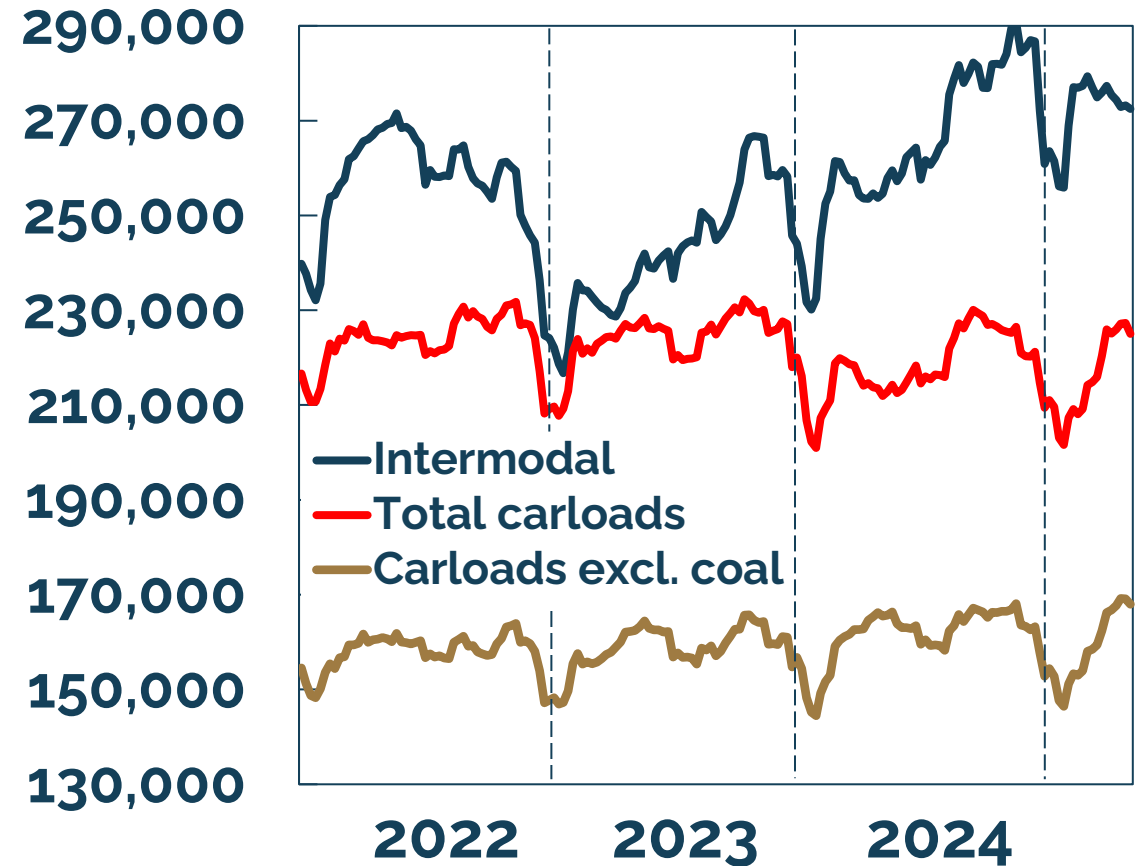


U.S. Rail Traffic: Jan. 2022-April 2025

% Change Same Month Prior Year

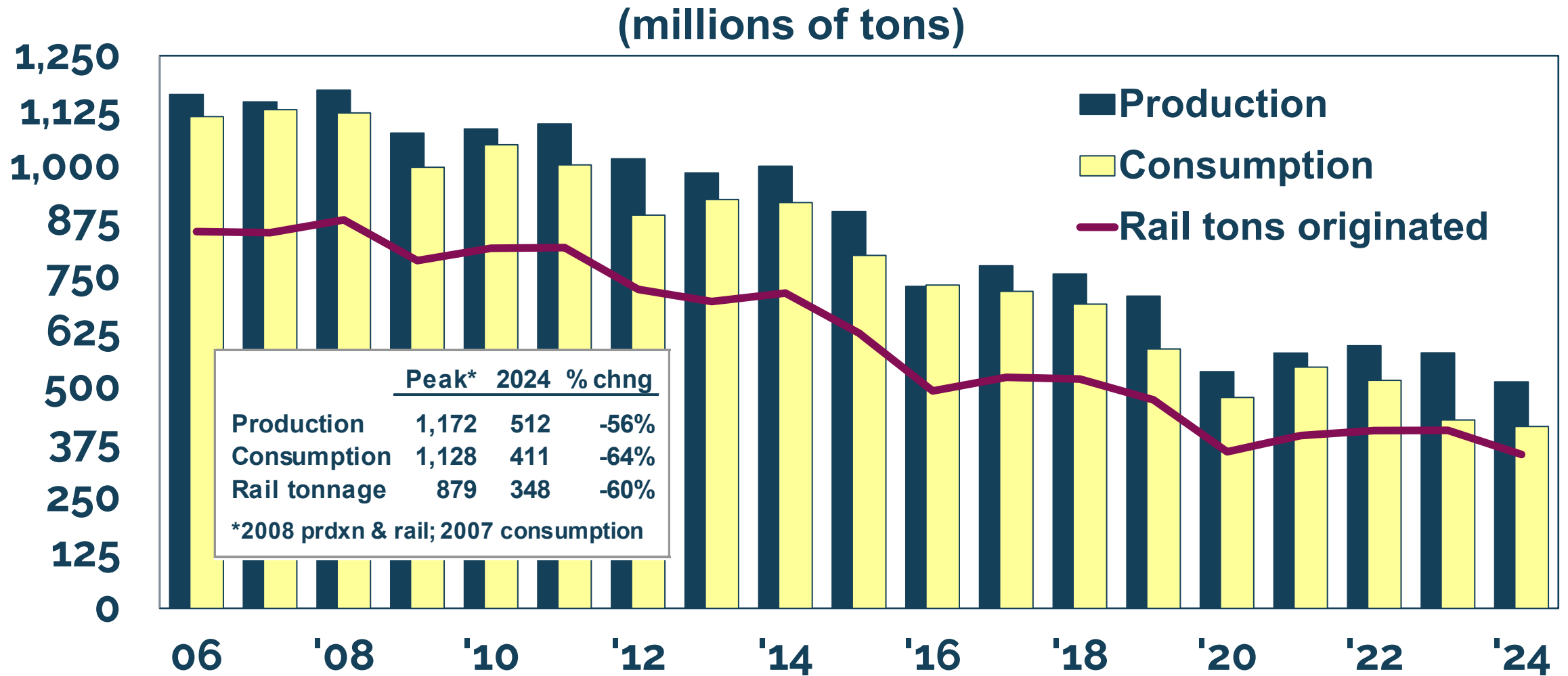


6-Week Moving Average



Data are based on originations, are not seasonally adjusted, and don't include the U.S. operations of CN, CPKC, and GMXT. Source: AAR

U.S. Production, Consumption, and Rail Originations of Coal

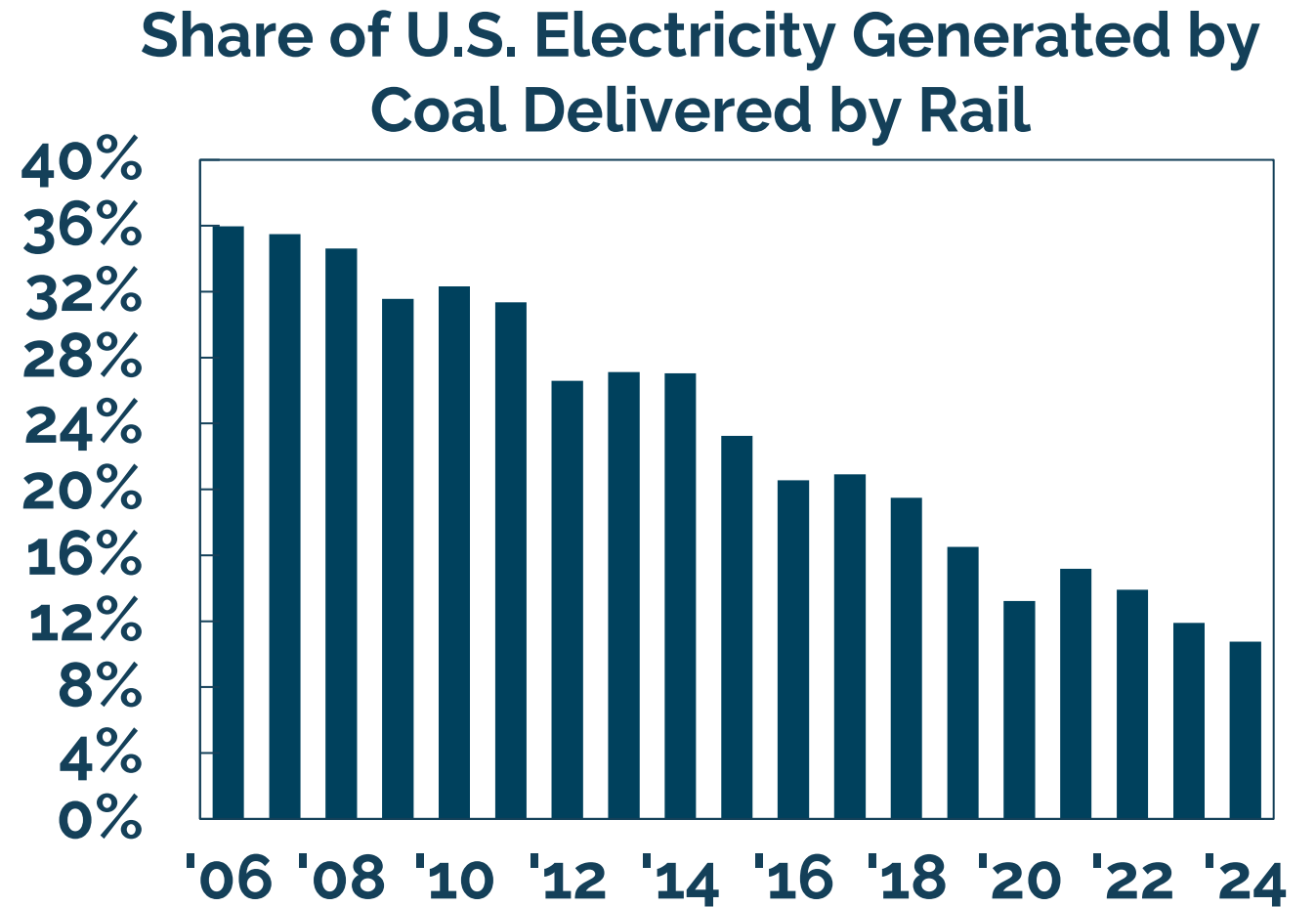


Source: EIA for production and consumption; AAR for rail tons originated.

Coal Tonnage Down 60% 2008-2024

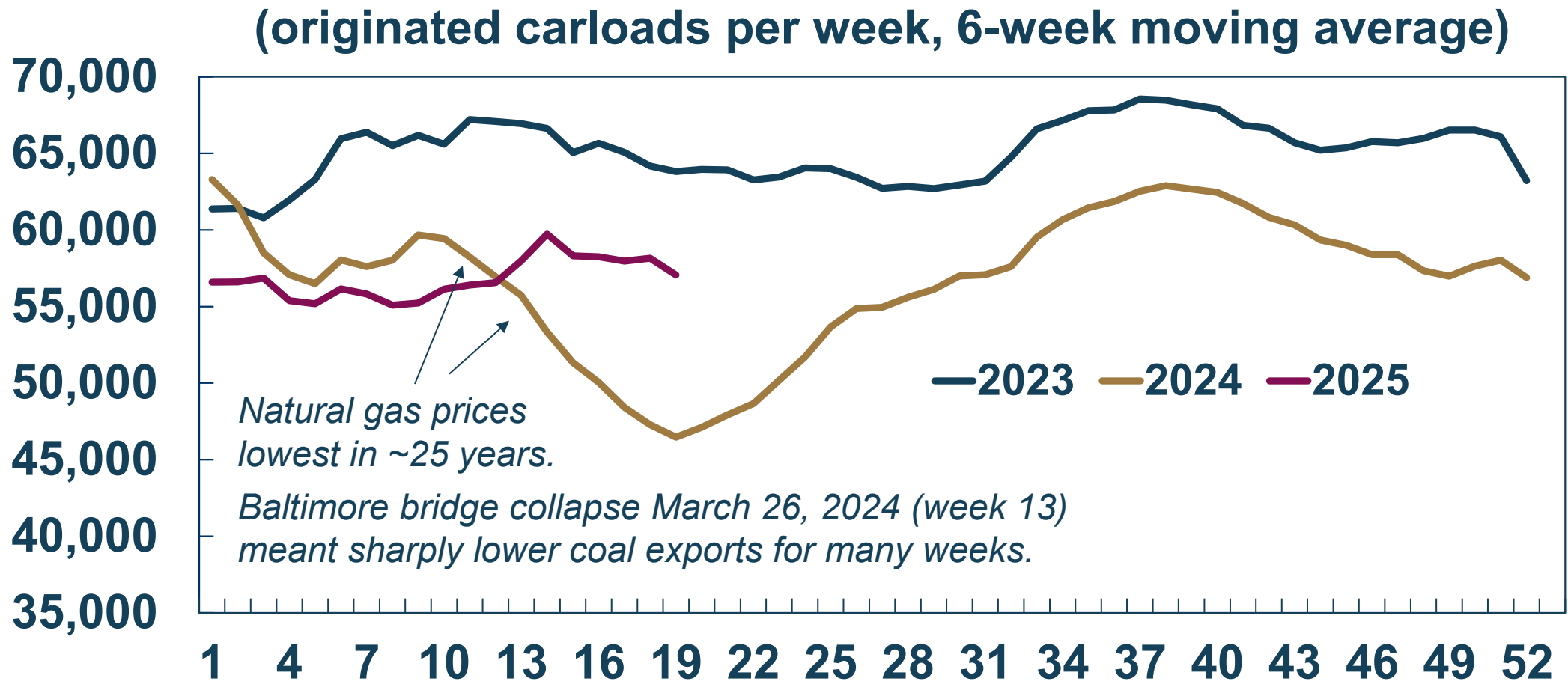
% U.S. Electricity Generation				
	2000	2010	2020	2024
Coal	52%	45%	19%	15%
Natural gas	16%	24%	41%	43%
Nuclear	20%	20%	20%	18%
Renewables	2%	4%	12%	17%
Hydro	7%	6%	7%	6%

Source: EIA



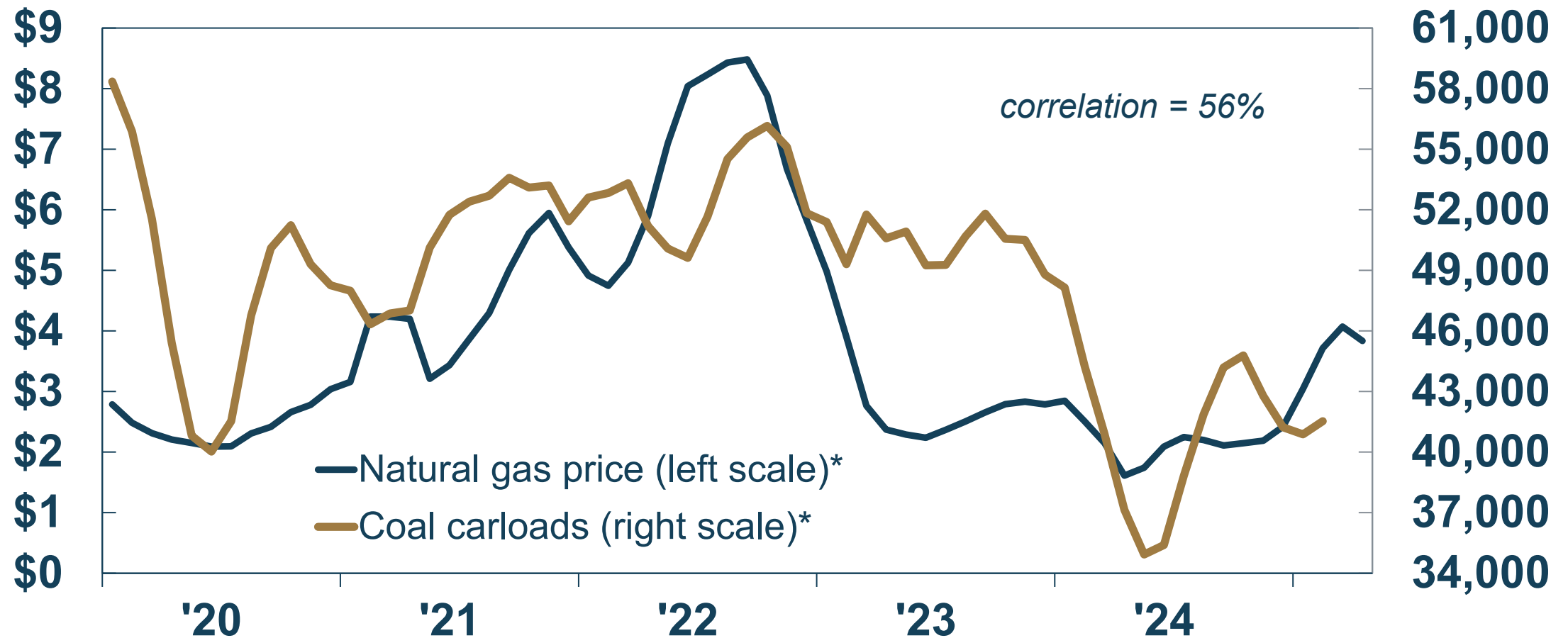
Figures are AAR estimates based on EIA data.

U.S. Rail Carloads of Coal



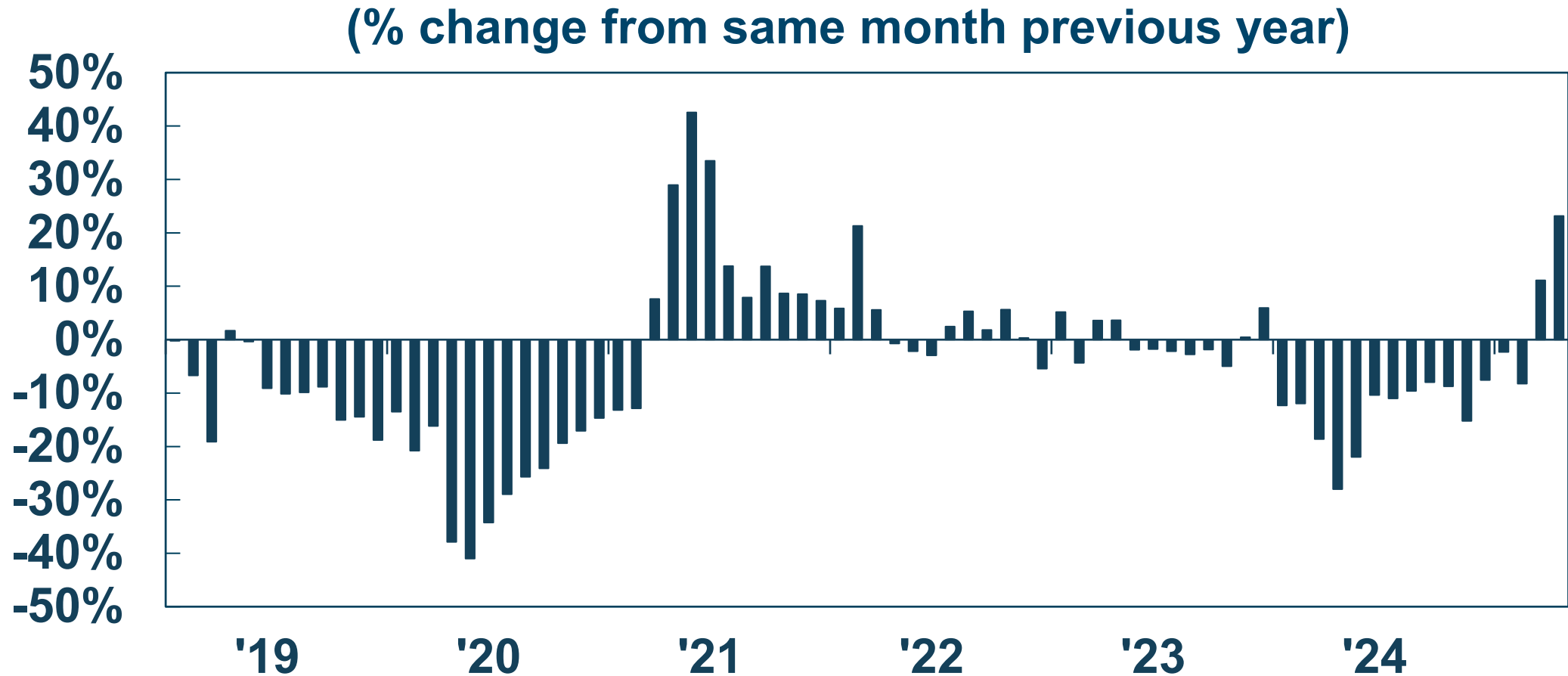
Data do not include intermodal, are not seasonally adjusted, and do not include the U.S. operations of CN, CPKC, and GMXT. Source: AAR

Natural Gas Prices vs. Carloads of Coal for Domestic Use: Jan. 2020 - April 2025*



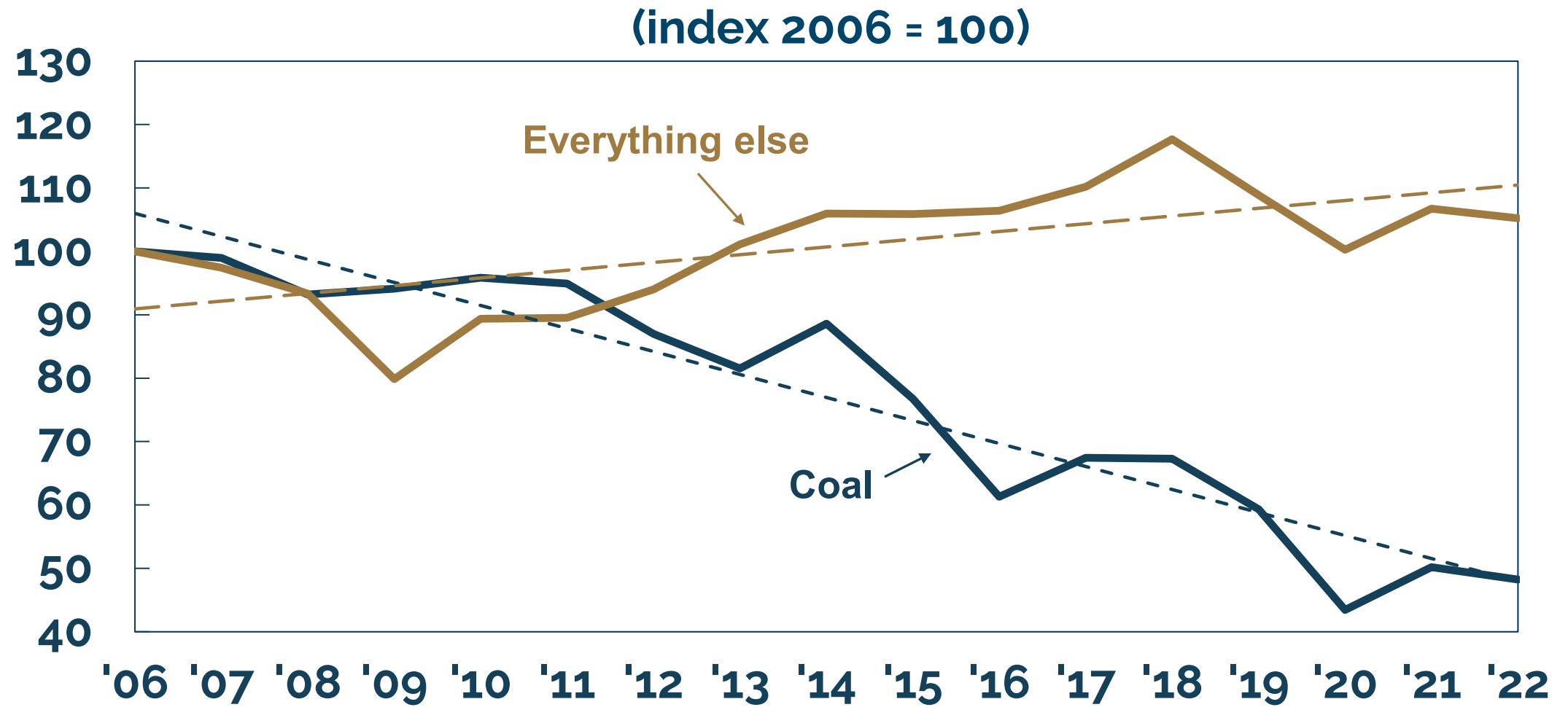
*Natural gas price is Henry Hub spot price (\$ per million BTU) in 2024 \$. Coal carloads for domestic use are total coal carloads minus an estimate of carloads associated with coal exports. All figures are 3-month averages. Coal carloads are through Feb. 2025 because coal exports are only available through Feb. 2025. Source: EIA, AAR

U.S. Rail Carloads of Coal: Jan. 2019 - April 2025



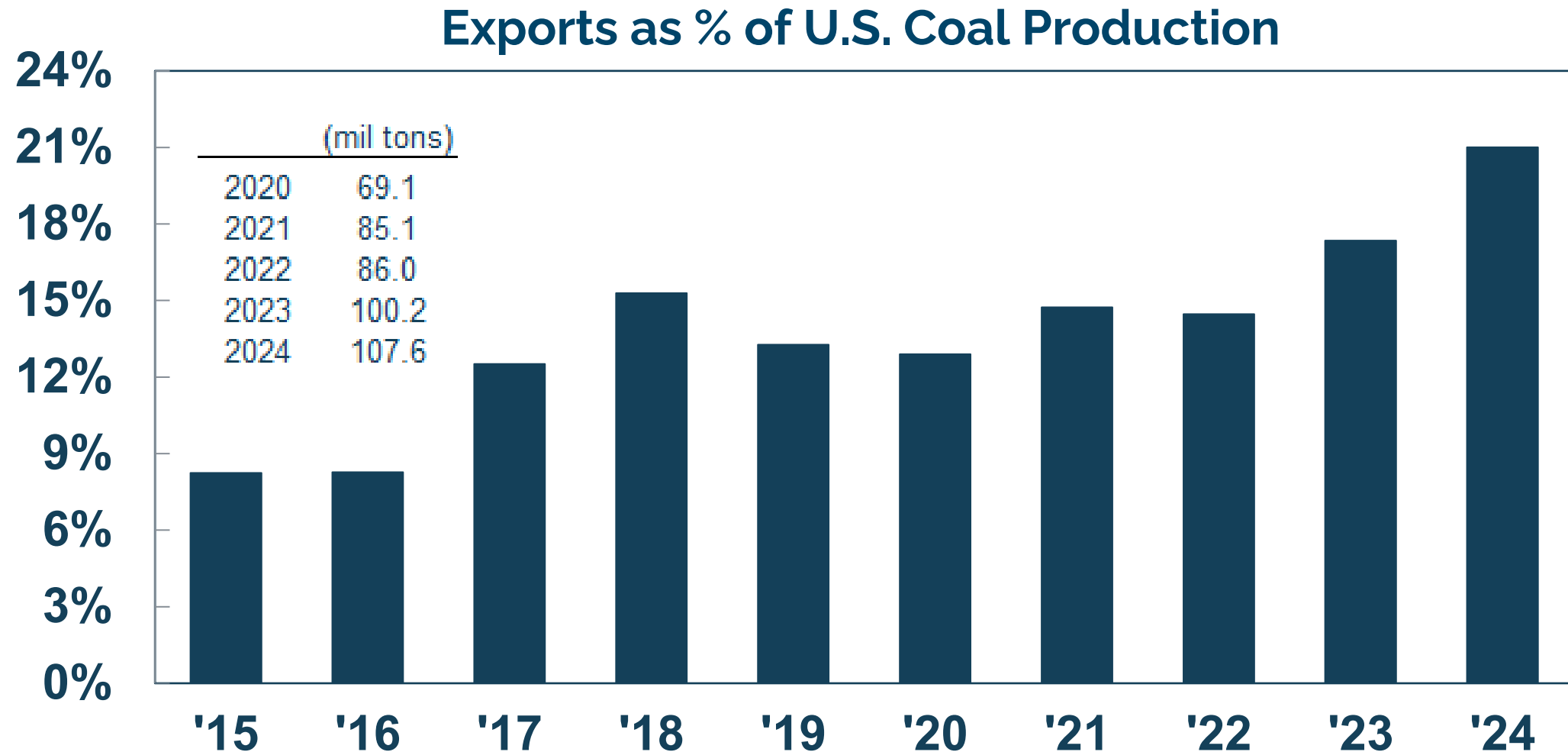
Data are based on originations, are not seasonally adjusted, don't include intermodal, and don't include the U.S. operations of CN, CPKC, and GMXT. Source: AAR Rail Time Indicators

U.S. Rail Ton-Miles



Dashed lines = trend lines. Source: STB

U.S. Coal Exports Have Become More Important

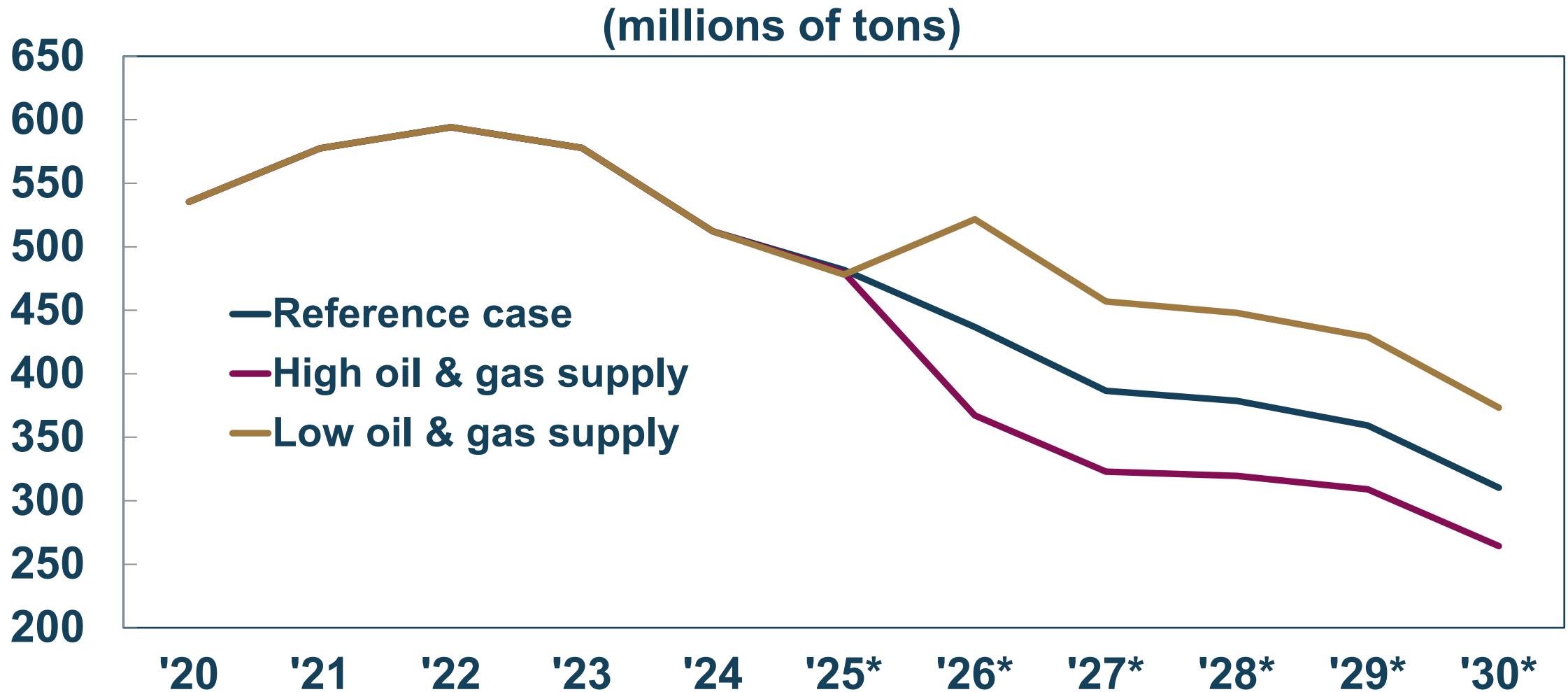


Impact of Coal's Decline

- Reduced resources and assets across coal supply chain
- Less stable energy markets
- Coal volumes more volatile
- Stranded rail assets continue to incur expenses



The Future of Coal is Uncertain



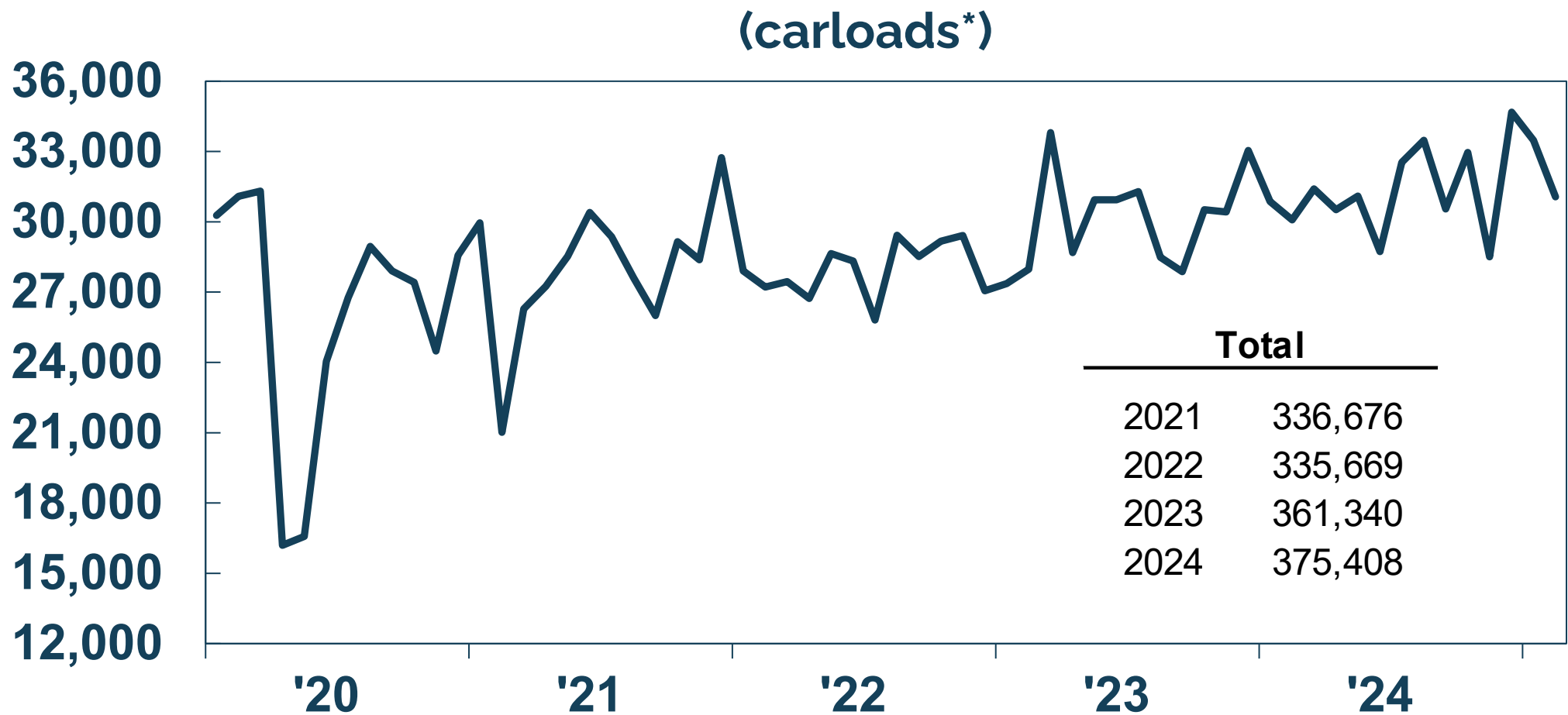
*EIA projection Source: *EIA Annual Energy Outlook* released April 15, 2025.

U.S. Crude Oil Carloads



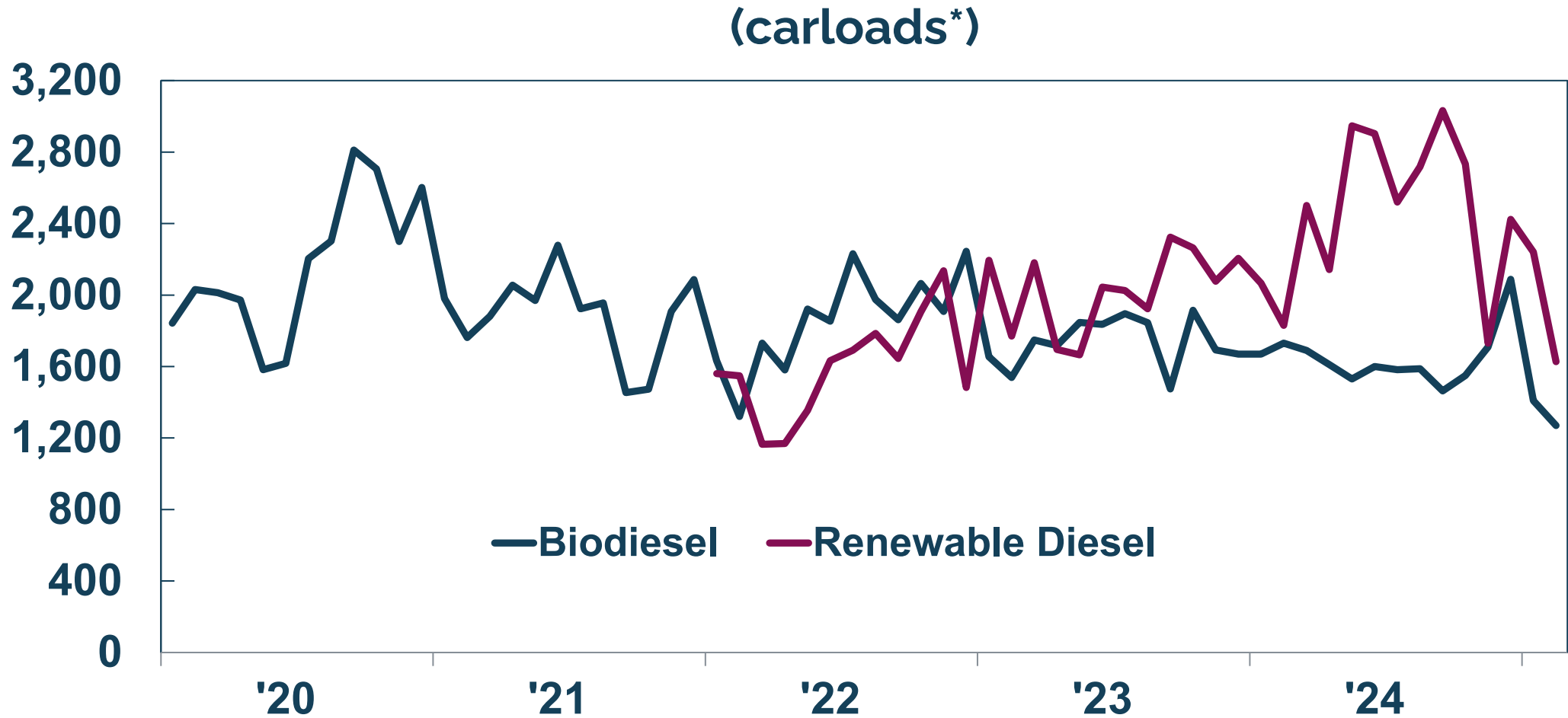
Data are for Class I railroads. Source: AAR Freight Commodity Statistics

U.S. Ethanol Shipments by Rail



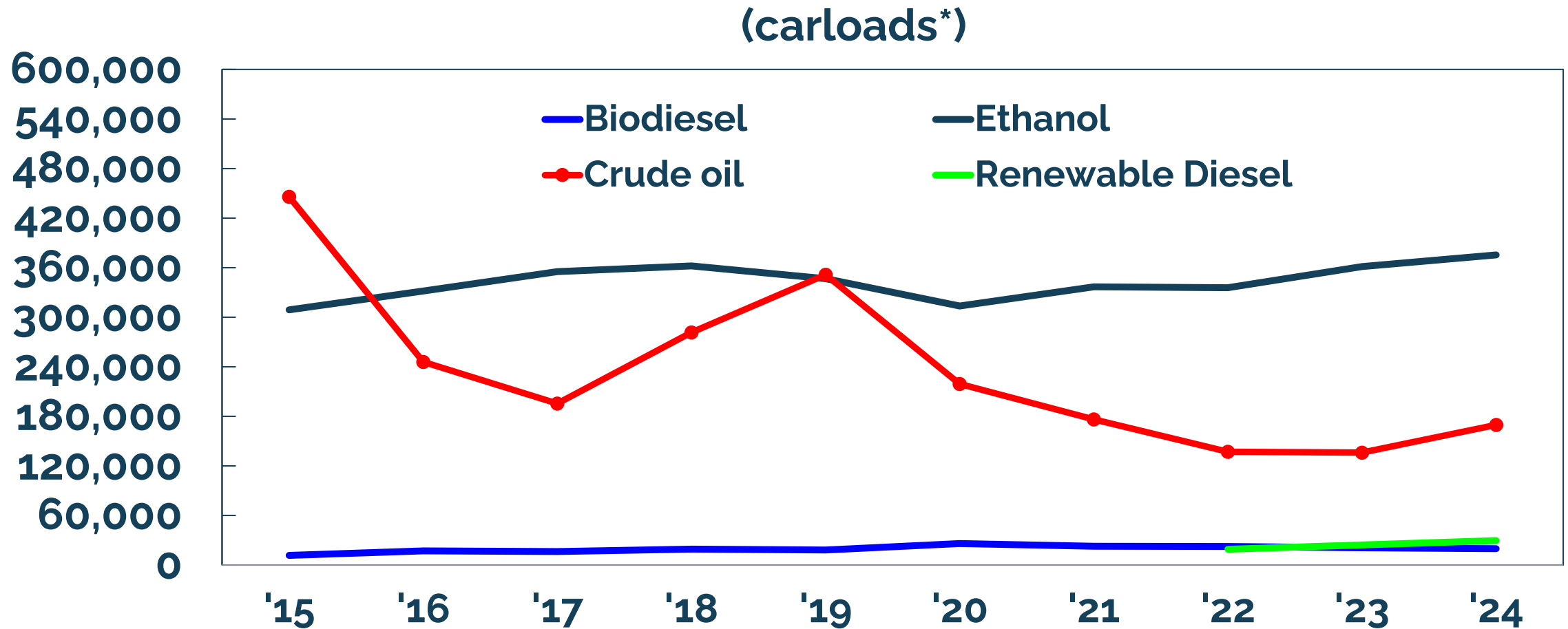
**Assumes 715 barrels (30,030 gallons) per carload. Source: EIA*

U.S. Biodiesel and Renewable Diesel Shipments by Rail



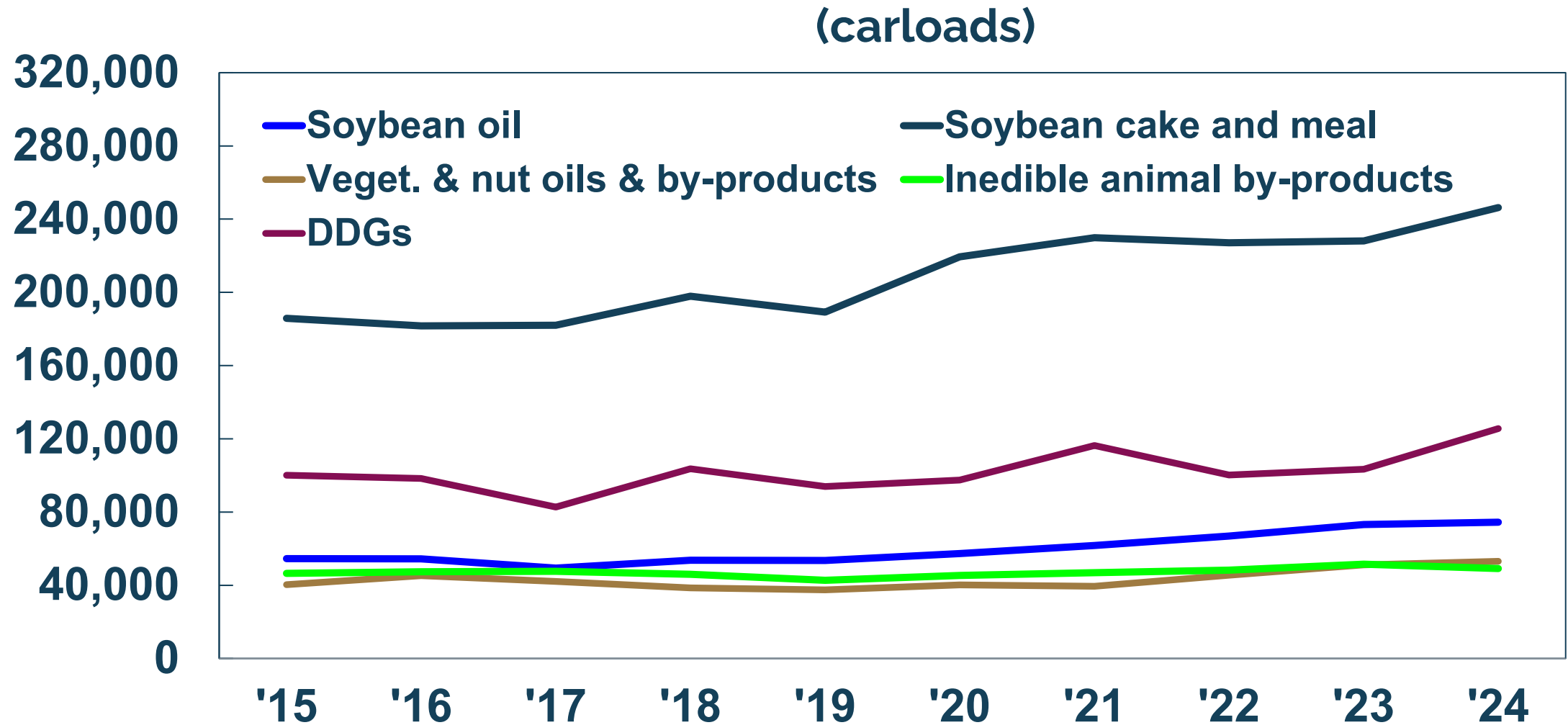
*Assumes 715 barrels (30,030 gallons) per carload. Source: EIA

U.S. Shipments of Energy Products by Rail: 2015-2024



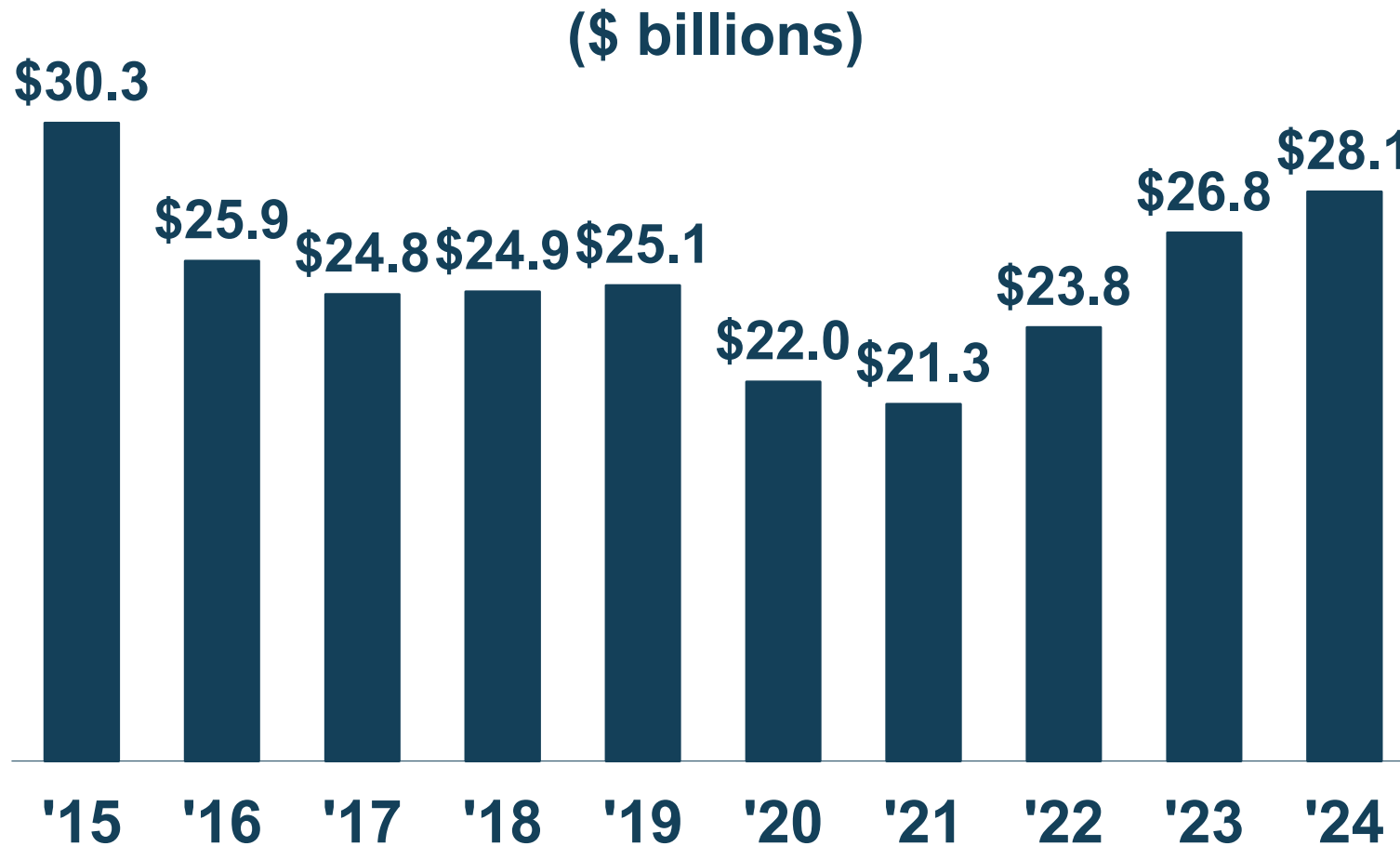
*Assumes 715 barrels (30,030 gallons) per carload. Figures in these charts might differ from figures from different rail traffic sources. Source: Energy Information Administration

Rail Carloads of Related Inputs and Outputs



Figures are for Class I railroads. Source: AAR Freight Commodity Statistics

Class I Railroad Spending on Infrastructure & Equipment*



*Capital spending + maintenance expenses. Source: AAR

Capital Spending as % of Revenue*

Average all manufacturing	3.0%
Petroleum & coal products	2.3%
Food	2.3%
Machinery	2.6%
Motor vehicles & parts	2.8%
Fabricated metal products	3.2%
Primary metal products	3.2%
Wood products	3.4%
Plastics & rubber products	3.8%
Chemicals	3.8%
Paper	4.3%
Nonmetallic minerals	4.4%
Computer & electr. products	5.0%
Class I Railroads	18.4%

*Avg. 2012-2021

Source: Census Bureau, AAR

