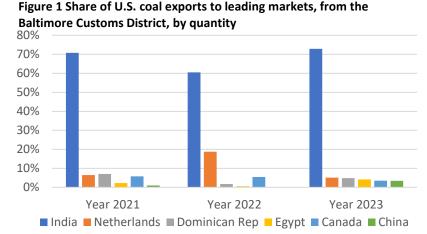
Baltimore Bridge Collapse: U.S. Coal Export Disruptions

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The collapse of the Baltimore Bridge on March 26, 2024, temporarily suspended vessel traffic into and out of the Port of Baltimore, until it reopened on June 12, 2024. The United States is the world's third largest coal exporter and Baltimore is the second-largest coal export hub in the United States. Shipping delays and supply disruptions drove up prices as exporters had to pursue alternative shipping routes. This Executive Briefing examines the state of coal trade before the bridge collapse and its early impacts.

Coal is a solid fossil fuel, classified as metallurgical (coking) coal for roasting into coke or thermal (steam) coal combusted primarily to generate electricity or heat.²

U.S. coal production and exports: U.S. coal production from northern Appalachia, including West Virginia and Pennsylvania, which produced 31 percent and 14 percent of U.S. thermal coal in 2022, respectively, supplies both domestic and export markets (figure 1). Geographic proximity to the northern Appalachia's coal fields positioned the Port of Baltimore as an attractive export hub. In fact, bulk commodity exports from the port were led (by volume) by shipments of thermal coal.



The United States exported \$2.4 billion (38.9 million metric tons) of thermal coal in 2023. India

was the leading destination country, receiving 36 percent, by quantity. India was also by far the largest destination from the Baltimore Customs District³; more than 70 percent, by quantity (12.4 million metric tons), of the U.S coal exports from Baltimore went to India in 2023 (figure 1).

India's coal demand: The United States is the largest supplier to India (35 percent in 2023). India's demand for thermal coal has been rising in recent years and is reportedly projected to increase another 25 percent in the next six years, reflecting robust demand for use in electricity generation.

Short term impacts: In the United States, a short-term decrease of coal exports was expected due to the Baltimore harbor disruption. Coal normally exported through Baltimore's harbor were diverted to nearby ports, such as Norfolk, Virginia. Consequently, shipments of coal and other products were delayed and altered modes of transportation increased the cost and time of shipping. Also, coal producers exporting from Baltimore were expected to experience some stock price volatility. For major U.S. export markets, such as India, a temporary increase in the price of thermal coal was expected.

¹ The export volume from the port of Baltimore was second to the Port of Virginia around the Hampton Roads Harbor on Virginia's southeast coast in 2023. The Port of Virginia generally exports coal mined in Virginia, West Virginia, and Kentucky.

² Coal refers to products covered under HS subheading 2701.12. This subheading contains both metallurgical (anthracite) and thermal (bituminous) coal. U.S. thermal coal exports are covered under Schedule B subheading 2701.12.0050.

³ The district of entry, such as Baltimore, refers to where the merchandise clears Customs. Also known as the Port of Baltimore.

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U.S. exports of thermal coal decreased in 2024 by 40.5 percent in March, 23.6 percent in April, and increased 15.1 percent in May relative to those months in 2023, reflecting the Baltimore disruption. Baltimore Harbor's market share of U.S. coal exports fell in April year over year from 24 percent to 0.7 percent; Baltimore's exports were limited to India. In addition, due to the supply interruption, India offset the lower coal imports from the U.S. with coal from South Africa.

Impact on U.S. coal producers: The top five publicly traded coal producers account for 45 percent of all U.S. coal production.⁴ The temporary closure of the Baltimore terminals had the greatest effect on the stock prices of Arch Resources Inc. (Arch) and CONSOL Energy Inc. (CONSOL),⁵ which ship significant amounts of coal through Baltimore's terminals. The share prices for these companies decreased by 3.1 percent and 6.8 percent, respectively, on the day of the bridge collapse and it is unclear if the reopening impacted their share prices.⁶ Since then, these stock prices have been influenced by other news.

Transportation disruptions: Baltimore has historically operated two coal terminals: one by miner CONSOL and another by the rail operator CSX Corporation. CONSOL accounted for approximately 46.2 percent and Arch contributed 13.4 percent (using the CSX terminal) of the volume of coal exports out of both Baltimore terminals. The bridge collapse cut off access to the terminals, forcing CONSOL and Arch to find alternative modes to export coal. After the initial shipping delays, much of the U.S. coal shipments that would have gone through Baltimore have been diverted to the port terminals in Norfolk, Virginia, significantly increasing (181 percent relative to March 2024) this district's exports of thermal coal.

Coal prices: Global coal prices had been decreasing due to weak demand and oversupply in much of the decade before the Baltimore bridge collapse. The disruption drove up Appalachian coal prices. Although most U.S. coal prices were unchanged after the accident, the average Northern Appalachia coal prices increased by 15.4 percent before reopening (March to June). Since the reopening, the average price has dropped by 20.1 percent (mid-July).

Outlook: The short-term impacts of the bridge collapse initially depressed stock prices for certain producers, caused shipping delays, higher prices for Northern Appalachia coal, and lost sales in an important export market. U.S. coal exports appear to have recovered as they adjusted to being diverted to nearby ports until access to the Port of Baltimore was restored.

Sources: Appalachian Region Commission, Subregions in Appalachia, accessed April 30, 2024; Arch Resources, Inc. (ARCH) Prices; Bright et al, Baltimore Bridge Collapse, March 27, 2024; The Coal Hub, World coal market, April 29, 2024; The Coal Hub, International coal prices continue upward trend, April 15, 2024; ChemAnalyst.news, Coal prices plunge globally, February 9, 2024; CONSOL Energy Inc. (CEIX) Prices; EIA, Coal commodity spot prices, accessed April 25, 2024; EIA, EIA reduces its forecast, April 9, 2024; EIA, Coal Explained, October 24, 2023; EIA, Coal 2023, December 2023; EIA, Annual Coal Report, Table 10, 2022; FreshPlaza, Baltimore bridge collapse, April 11, 2024; Mining Engineering Magazine, Baltimore bridge collapse, May 2024; Reuters, India's coal sector, February 28, 2024; Reuters, Baltimore port closure, March 28, 2024; Roberts, New Data, June 12, 2024; Rogers, Find another way, April 3, 2024; The Virginian-Pilot, Hampton Roads terminals help, April 24, 2024; Virginia Tech, Virginia Coal, accessed June 3, 2024.

⁴ In 2022, the five largest publicly traded coal producers in descending order were Peabody Energy Corporation, Alliance Resource Partners LP, NACCO Industries Inc, Arch, and CONSOL.

⁵ In 2023, more than 60 percent (more than \$1 billion in revenue) of the coal produced by CONSOL in Pennsylvania was exported to other countries, through either CONSOL's owned and operated marine terminal or the CSX coal-loading terminal, both in Baltimore.

⁶ The share price of CONSOL dropped from \$86.35 at the close on March 25, 2024, to \$80.50 at the close on March 26, 2024, and was \$80.61 at the close on May 1, 2024. CONSOL's price on June 12, 2024 closed at \$98.90. The price of Arch dropped from \$163.11 at the close on March 25, 2024, to \$158.13 at the close on March 26, 2024, and was \$158.02 at the close on May 1, 2024. ARCH's price on June 12, 2024 closed at \$158.66

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