

This Time Is *Different*

The potential for an energy recession could have an effect equivalent to \$225 per barrel of oil.

BY PHILIP K. VERLEGER, JR.

Recently, we have seen unprecedented rises in coal and natural gas prices along with higher oil prices. China's aggressive buying seems behind much of the increases. But the point here is not to focus on the source of the increases. Instead, what is more interesting is the macro impact. The table shows my rough estimates of global expenditures on oil, gas, and coal in 2020 and 2022, assuming prices do not decline. (Note: Several analysts who focus on energy markets argue that prices will continue to increase.) Energy accounted for 3 percent of global GDP in 2020.

The 2022 projection is based on International Energy Agency forecasts for 2022 and the continuation of end-of-September prices. For example, in Europe I assume gas prices average around \$15 per MMBtu, the border prices which EIG published for end of September. Oil is assumed to average \$90 per barrel and coal prices are put at \$125 per tonne.

The table makes clear that "this time is different." In other words, past energy crises have been driven by rising oil prices. The increase in oil prices has been described as a tax. Economists Edward Fried and Charles Schultze wrote in 1975:

In essence, the initial impact of the oil price increase can be compared to the imposition by the producer of oil of a large excise tax, the proceeds of which were not immediately used to buy goods or services. Consumers in the importing nation paid more for energy and therefore had less to spend for other products.

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With these assumptions, energy will account for approximately 9 percent of global GDP. Consumers will pay an “energy tax” of almost \$6 trillion. Using basic macro-economic multiplier analysis, an increase of \$1 in taxes is generally thought to cut GDP by \$1.50. Thus, one can estimate that global GDP will be cut by around \$9 trillion by the increase in energy prices. For comparison, global GDP declined by \$3 trillion from 2019 to 2020, making this shock three times as large as the 2020 economic shock.

Natural gas consumers in the United Kingdom may see their heating oil bills quadruple over those last winter. For some, the cost may increase by £1,000. The increased expense will mean consumers have less to spend on other items. Across the United Kingdom and Europe, the increase in spending on gas and electricity will lead to reduced purchases of other items just as an increase in the value-added tax leads to reduced spending. Through economic multiplier effects, demand will decline as will non-energy GDP.

Similar reductions will occur in Asia and, to a smaller extent, in the United States. This economic response should not be a surprise—past increases in the price of oil, for example in 1974, 1979, and 2008, have had the same impact.

This time, though, coal and natural gas are driving the “tax increase.”

A key point is shown in the second column of the table. Historically, expenditures on natural gas have been one-fifth the expenditures on oil. In 2022, expenditures on natural gas will almost equal expenditures on oil. The disruption then is much more of a natural gas phenomena than an oil phenomena.

This time around, expenditures on oil will increase by 140 percent from 2020 if oil prices remain at current levels. Natural gas expenditures, meanwhile, will rise by 435 percent, while coal expenditures rise by 236 percent. This is a coming “all of the above” crisis.

The rise in energy costs will almost certainly be greater than the likely increase in global nominal GDP. Unless

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governments in Asia and Europe step in and increase deficit spending as they did in 2020 after the Covid-caused global shutdown, the increase in energy expenditures in 2022 will cut the amount consumers can spend on other goods. Absent such an effort, it looks like the non-energy portion of global GDP could decline in 2022, perhaps by as much as 3 percent.

The impacts will be greatest in Europe and Asia. Increased prices of natural gas will have significant impacts on the economies of China and India. High coal prices could also have significant impacts on these countries if domestic producers in India and China are allowed to charge world prices to their home-country consumers. High prices for imported natural gas will have similar impacts on consumers in Europe.

The United States, Canada, and Mexico will initially fare better for two reasons. First, the increase in oil prices, while large, is not the principal cause of the economic disruption. Second, the increase in prices of natural gas in these countries will be constrained by their limited capacity to export natural gas.

Over time, though, North America will likely see reduced economic growth as demand for exports from Asia and Europe declines. The globalization of the world economy spreads the impacts of recession or growth across all regions. A strengthening U.S. dollar may accelerate the spread of recession as U.S. manufactures are priced out of European and Asian markets.

The global slowdown will, in time, affect energy prices as consumption declines.

In short, this time is different. ♦

Rough Estimates of World Expenditures on Oil, Gas, and Coal: 2020 vs. 2022 (\$ Billion)

	Oil	Natural Gas	Coal	Total	Global GDP	Energy as a Percent of Global GDP
2020	1,351	568	600	2,519	84,537	3.0
2022	3,219	3,039	2,200	8,458	96,000	8.8

Source: PKVerleger LLC.