THE PRECAUTIONARY DEMAND FOR INVENTORIES: ENDING WAIVERS ON IRANIAN OIL IMPORTS COULD BOOST PRICES SEVENTY PERCENT

The announcement from Washington that exemptions from the sanctions imposed on Iran will not be renewed could add seventy percent to oil prices *even if other countries boost production as they have promised*[1] because the action will trigger an increase in the precautionary demand for inventories across the globe. This will not be a new phenomenon.

Precautionary stocks or inventories are volumes of a commodity held by processors and consumers to assure smooth, continuous operations. Every processing business holds precautionary stocks. Every large consumer will hold precautionary stocks. Even individual consumers hold precautionary stocks.

Hoarding practices were highlighted recently by *The Wall Street Journal*'s Douglas and MacDonald, who wrote early this month that "Fearing a No-Deal Brexit, British Companies Hoard Like It's Wartime."[2] The authors explain that British companies have built their supply chains and export markets around Europe fearing that trade will be impaired with the British withdrawal from the European Union. Data show UK companies adding to inventories of raw materials and components at the fastest rate of any industrialized nation since 1992, while inventories of finished goods rose at the fastest rate ever recorded. Billions were tied up in stocks.

Oil is no different. Consumers are well known for topping off their gasoline tanks at the first sign of an impending shortage. Refiners, traders, and end users do the same. The invasion of Kuwait by Iraq provides an example. Following the attack, Iraqi exports were banned from the market through sanctions. A modest surplus was turned into a modest shortage. However, inventories at the time were considered high.

Policymakers at the US State Department, as well as many commentators, failed to comprehend the impact of the sanctions being imposed. They asserted that prices would not increase because stocks were adequate. John Lichtblau, a recognized oil market analyst then, was one of those observers. I quoted one of his remarks in *Adjusting to Volatile Energy Prices* as I tried to explain hoarding:

> John Lichtblau probably expressed the confusion of petroleum economists best when, at the end of September 1990, he told a reporter for the *Washington Post,*

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[1] *Rania El Gamal, "Saudi Arabia says to coordinate with other producers to ensure adequate oil supply," Reuters, April 22, 2019 [https://tinyurl.com/y2hb95qb].*

[2] *Jason Douglas and Alistair MacDonald, "Fearing a No-Deal Brexit, British Companies Hoard Like It's Wartime,"* The Wall Street Journal*, April 4, 2019 [https://tinyurl.com/y4gtt5eg].*

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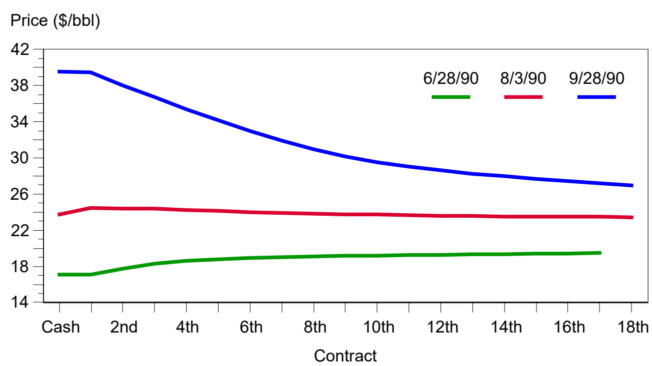
> "The problem now is that mathematically it [the oil market] is in balance. Psychologically it's in imbalance, it is a strange situation."[3]

The oil market was nearing balance last Friday following months of supply reductions by oil-exporting countries led by Saudi Arabia. These actions had helped trim inventories. There was disagreement, though, between Saudi Arabia and Russia as to whether the cuts would need to continue to the end of the year to further reduce stocks.

The oil market today is psychologically out of balance. The process of hoarding has begun.

The events of 1990 show how the market can develop. Two months after Iraq invaded Kuwait, the oil market had moved into serious backwardation, as can be seen from Figure 1. This graph compares the crude oil forward curve in early July 1990 with the forward curve on August 3, the day after the invasion, and the forward curve at the end of September. The day after the invasion prices for all delivery dates were around $23 per barrel. Two months hence, the cash price had increased to $39.

Figure 1
WTI Forward Price Curve One Month Before, the Day After, and One Month After Iraq Invasion of Kuwait



Source: PKVerleger LLC.

Today, by refusing to renew sanctions exemptions for any importer of Iranian oil, Secretary of State Mike Pompeo set in motion the same process that President George H.W. Bush and Prime Minister Thatcher unleashed in 1990. The consequences will be the same unless some other actions are taken—such as releasing crude oil from strategic stocks. In any case, hoarding will begin.

One can also look for oil ministers and most reporters to keep saying oil markets are in balance. Sadly, none of the economists who follow oil markets today understand the hoarding process. Sadly, none of the commentators at academic institutions, such as Columbia University's Jason Bordoff, understand inventory behavior. Sadly, none of the consulting firms that opine on oil and none of the analysts at banks understand the issue. Sadly, very few reporters understand the process—Bloomberg's Liam Denning and Javier Blas are the exceptions.

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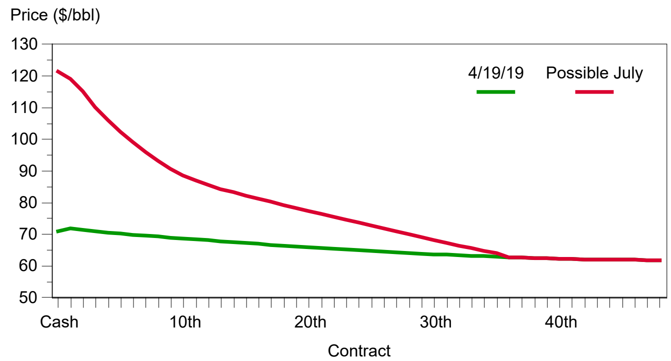
[3] *Philip K. Verleger, Jr,* Adjusting to Volatile Energy Markets *(Washington, DC: Institute for International Economics, 1993), p. 49.*

Blas especially is well placed because he covered commodities for *Financial Times* before turning to oil. On several occasions, he wrote about hoarding. Other than Denning and Blas, though, few have delved into the obscure, dark area of economics.

Figure 2
Brent Forward Price Curve on April 19, 2019, and Possible Curve in Early July if 1990 Hoarding Pattern Repeats



Source: PKVerleger LLC.

Given this widespread ignorance, one should expect markets to move into backwardation. Figure 2 shows what would happen if markets today follow the 1990 experience. A $50-per-barrel increase in crude prices is coming if history repeats. US average gasoline prices could jump to $4 per gallon. The crude price rise will result from buyers adding to precautionary stocks and will occur even though the market is numerically in balance. As the Nobel-winning economist Robert Shiller has often written, markets are heavily influenced by psychology.

Should prices rise as they did in the summer of 1990, one should expect one other result from Secretary Pompeo's actions: recession. The Business Cycle Dating Committee of the National Bureau of Economic Research dates the beginning of the 1990 recession to July of that year. The recession lasted nine months.[4]

One should expect that a year from now the committee will date the beginning of the 2019 recession to June or July 2019. Perhaps they will even identify the culprit: Secretary Pompeo.

[4] *NBER, US Business Cycle Expansions and Contractions [https://tinyurl.com/y27qexbl].*