H. Evan Drummond

'A Bushel for a Barrel' in Retrospect

Why a Grain Cartel Never Would Have Worked

It was seven years ago that farmers with the American Agriculture Movement descended on Washington to protest low farm prices and high input prices. Many concerned farmers drove through the streets of Washington in what proved to be a vain effort to dramatically change U.S. policies. I vividly remember one farmer who rode down Independence Avenue in the comfort of a heated cab over his four wheel drive tractor. He had a sign on the side of the tractor that read "A bushel for a barrel."

Seeing OPEC's success in driving up energy prices during the seventies, many frustrated farmers who were caught in a cost-price squeeze sought a way out with a grain cartel. The idea of a grain cartel certainly seemed feasible since the United States and Canada alone supplied a larger percentage of world grain shipments than OPEC countries did in the petroleum market.

Most economists argued against the formation of a grain cartel for two reasons. First there was the humanitarian argument that to withhold grain from world markets would cause the least fortunate of our foreign consumers to go hungry. Second there was an economic argument that even if a cartel were effective in the short run, in the long run it would generate its own seeds of destruction. This, of course, is what we see happening to OPEC today.

As this is written, the spot price for crude oil on the world market has fallen below $15 a barrel—less than half of what it was seven years ago. The drop is even more remarkable when allowance is made for inflation. Unfortunately, farm prices have also fallen in the interim so the prospect of a bushel for a barrel is still a long way off.

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Economics of a Cartel in the Short Run

We can use the economist's favorite tools of supply and demand to understand what has happened to OPEC, and why a grain cartel was considered to be such a bad idea by most economists.

In 1973 OPEC announced they would reduce the quantity of oil they supplied annually to world markets. Since non-OPEC oil producers could not quickly increase production, a shortage was created and the world market quickly bid up oil prices.

Oil buyers are relatively insensitive to prices. Consequently, the percentage increase in oil prices was greater than the percentage decrease in quantity produced. The total receipts of all oil producers increased.

Non-OPEC exporting countries were overjoyed with OPEC's new game. They were able to increase their exports and receive the higher price that OPEC had forced. They were "free riders" who reaped the price benefits of the higher cartel prices without having to pay the cost of reduced exports.

Economics of a Cartel in the Long Run

Now the appropriate question is how do markets react to a cartel over time? To understand the longer run implications of OPEC we need to consider three groups in the world oil market: consumers who must import oil; free riders who can export oil; and the members of OPEC.

—Consumers who must import oil. In the short run of a year or two, the demand for oil is not very price sensitive. We can turn down the thermostat a bit and take a vacation closer to home, but most of the consumptive uses of oil continue even if the price of oil increases dramatically.

But over the longer run, the high price of oil encourages the construction of homes with energy efficient features and the purchase of automobiles that get better mileage. It encourages farmers to adopt minimum tillage to reduce energy costs. The long run effect of these changes is a reduced demand for oil.

—Free riders who can export oil. Free riders are big gainers in a cartel situation. The aggressive export reduction strategy of OPEC served to encourage non-OPEC exporters to expand exploration and production.

Expansion takes time; so in the short run there was little that could be done to shift non-OPEC supply. But today free riders abound. Great Britain and Norway export from the North Sea fields; Canada exports from Alberta and Mexico exports from its Gulf coast fields. None of these was significant in world oil markets in 1973.

—OPEC Members. Once a price target is established, OPEC must determine the level of exports necessary to maintain that price. Members must then decide how to divide those exports among themselves.

In the long run, the OPEC nations found themselves caught in the jaws of a vice. On one side, consumption is falling and on the other production by non-OPEC nations is increasing. In