

**Due:** March 1

Case Study: Natural-Gas Costs Hurt U.S. Firms

Rising natural gas prices make companies switch packaging material and shift work to other parts of the world—which ultimately means the loss of U.S. jobs—where energy prices are lower. Higher natural-gas prices also undermine U.S. efforts to reduce the nation's dependence on overseas sources of energy. Together with increasing health-care costs for their workers, high natural-gas prices mean another unavoidable cost for manufacturers that can't be passed on to customers. Much of what these companies produce vies for customers in a global market with many lower-cost overseas rivals. In addition, the squeeze between cost and pricing pressures means less money for capital investment and for hiring new workers.

To be sure, high prices are taking their toll on energy consumers. While some sectors of our economy benefit from high prices in the short term—notably producers and the companies that provide services to producers—in the longer term, high prices are not in anyone's interest. While the only sensible option for policymakers in the short run is to let market forces work, in the longer term the most important thing that Congress can do to help ensure natural gas supply keeps pace with demand is to remove the unnecessary barriers to domestic natural gas development.

In order to stay competitive and keep prices low Amazon.com Inc. is replacing its air pillows by wraparound cardboard boxes. Even though, customers prefer the plastic pillows, filled with air made from natural, this is a direct consequence of the inflating costs cause by higher natural-gas prices. However, more severe is the situation in the chemical industry, which uses natural gas as a fuel and as a raw material. Therefore, the new production of chemicals and plastics will more and more take place in the Middle East and Asia. Dow Chemical decided to shift one of its plants to Germany, in part because it expects high U.S. natural gas prices to persist. And on thing is for sure: big companies won't go out of business—they will move!

On the other hand, smaller companies are cutting their dependence on pricey U.S. gas by importing more materials from overseas. Owens Corning, for example, is searching for cheaper sources of producing polypropylene bags and other packaging material in order to lower its costs by 20% to 25%. Toledo, Ohio, experiments how to improve efficiency without sacrificing product quality by installing meters to measure natural-gas usage by the minute. And it seems that even the smallest adjustments matter and save companies money.

A host of federal policies encouraged increased use of natural gas, in part to improve air quality, while policies based on outdated concerns about impact of natural gas production make it increasingly difficult for producers to meet growing demand. Rising demand, especially from electric utilities that welcomed the clean-burning fuel as a substitute for coal, is outstripping supplies now heavily dependent on aging North American gas fields; and just modest gap between supply and demand is causing havoc. Furthermore, producers struggle with the supply of natural

gas due to environmental restrictions that prevent them from drilling on many of the most promising areas. And as long as the policies concerning royalties and on some gas production and the incentives to substitute natural gas for electricity generation won't be altered investments and jobs will increasingly go to Asia and the Middle East.

Moreover, sustained high natural gas prices are likely to prove a drag on U.S. economic activity. Higher energy prices are indicative of increased scarcity of natural gas, which is a basic input to production. As such, rising natural gas prices result in a classic supply-side shock that reduces potential output; consequently, output and productivity growth slow down. The decline in productivity growth lessens real wage growth and increases the unemployment rate at which inflation accelerates. If market participants expect the near-term effects on output to be greater than the long-term effects, they will attempt to smooth their consumption by saving less or borrowing more, which boosts the interest rate. With slowing output growth and an increase in the real interest rate, the demand for real cash balances falls, and for a given rate of growth in the monetary aggregate, the rate of inflation increases. Therefore, rising natural gas prices reduce the GDP and boost real interest rates and the measured rate of inflation.