Oil: Alternative Perspectives on the Decade

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The dynamics of oil-price formation are similar to my cooking Indian food; my curry tastes different each time I make it. Sometimes, when one stirs the pot of oil-price curry, a strong taste of economics comes through. At other times, politics is the dominant flavor. And right now, the curry has the distinct flavor of psychology and military science.

Over time, I expect the economic flavor to come through more distinctly and force prices down from today's level. But these conditions may materialize only after some sharp turns in oil prices in response to developments in the Persian Gulf crisis. They may also take months to be realized.

Over the next several years, rivalry among members of OPEC may exacerbate this price decline as they try to put Humpty Dumpty together again. Who will reduce output to allow Iraq and Kuwait back into the club? Over the long run, it is difficult to know whether the Iraqi invasion of Kuwait has permanently altered the sustained price path for oil. This outcome will depend significantly on whether the monarchical states, such as Saudi Arabia, or the populist Arab states, such as Iraq, dominate in the post-invasion political scene. Does a continued U.S. military presence reduce the risk of oil investment in the region or increase the tension of a rising Arab populist mood against Western incursions into this politically volatile region? And what about the actions of major oil-consuming countries? Does a third shock in 18 years significantly increase their efforts to find alternatives to gasoline as a transportation fuel?

Acknowledgment

I have greatly benefited from the many ideas and insights of the EMF 11 Working Group members and the group's chairman, W. David Montgomery. I want to acknowledge their significant contributions, but I also emphasize that the conclusions in this article are mine and should not necessarily be attributed to the working group.
For all these reasons, I suspect that it will be difficult to discern for some time whether we have actually entered a new regime for oil markets. Any evaluation will have to deal with some basic economic factors that shape this market, and those are the issues that I would like to discuss.

The Energy Modeling Forum Study

My remarks focus on long-run oil market trends, not on short-run consequences of oil disruptions. My conclusions are based on results from an Energy Modeling Forum (EMF) comparison of model results focusing on international oil supplies and demands. EMF was founded in 1976 at Stanford University to help improve the use and usefulness of models for developing insights about energy markets and key energy issues. Each study is conducted through an ad hoc working group of some 40 decisionmakers and analysts from industry, government and academia. The current working group is chaired by W. David Montgomery, assistant director for commerce and natural resources, U.S. Congressional Budget Office. The analysis for our oil study was completed before the Iraqi invasion of Kuwait, so my remarks assume that oil prices will return to pre-invasion levels over the next year.

My major points include three key observations. First, after many years of changing energy prices, fluctuating economic growth and shifting government policies, there is little agreement about future oil supply and demand trends. Second, this range of views on supply and demand can lead to very different assessments of the long-run, sustained oil-price paths over the next decade or two. Decisionmakers should plan for a range of future prices. And third, despite these uncertainties, there is agreement on the increasing dependence on Persian Gulf oil across a range of models and scenarios. Furthermore, policy actions for limiting oil imports may be costly and difficult.

The working group analyzed 12 different scenarios, examining the oil markets under a range of different conditions. One scenario was based on the mid-price case in the Energy Information Administration's 1989 International Energy Outlook (IEO). After remaining relatively flat in the high teens through the early 1990s, the long-run, sustained oil-price path rises to $30 per barrel (in 1990 dollars) by 2000 and to $39 per barrel by 2010. This path shows the oil-price path that can be sustained over the long run; prices in the short run can be either above or below this path. Also, the possible effect of exchange rates on the dollar price of oil is not incorporated. The market economies are assumed to grow at 2.9 percent per annum over the 1988–2000 period in this scenario, called the 1989 IEO price case in the study. Finally, any additional policies to reduce oil demand in the major economies are not incorporated. While one