Structure Matters:
Oil Markets Enter the Adelman Era

Executive Summary

Philip K. Verleger, Jr.
October 2015

The 2014/2015 oil price collapse surprised many economists who have published brilliant econometric explanations of oil price behavior. The sharp decline would not have caught Morris Adelman (1917-2014) unawares. Professor Adelman's lifelong research focused on the link between market structure and price behavior. His seminal work on industry structure, beginning with grocery retailer A&P, has provided a framework that can be used to explain oil price fluctuations that have occurred over the past four decades. His approach may not be as accurate as the elegant econometric models that dominate today's literature but it does have one clear advantage: it provides far greater clarity on the way forward.

This paper, written to be included in a group of papers collected in a volume that honors Professor Adelman's life and achievements, describes how, had the professor had the opportunity, he would have an explanation for the 2014 price collapse that differed from the "party line" blaming supply-and-demand factors. Indeed he would likely have focused on the economic expectations of Saudi Arabian leaders and "described how the Saudis' perception of the global energy market's changing structure prompted them to act as they have." This view would probably have gained little traction with major central banks or multinational organizations like the International Monetary Fund, where econometric models rule. Even so, his instinct to shun statistical methods would have been correct. Models that depend on them failed, for example, to predict the 2008/2009 economic collapse. Yet, despite such deficiencies, academics, central banks, and influential global entities like the IMF continue to rely on them.

The organization of "Structure Matters" is simple. The paper first discusses Professor Adelman's "structural approach" to economic problems, beginning with his writing on the Great Atlantic & Pacific Company (A&P). That work focuses on the economic structure of retail grocery marketing. The discussion then moves on to note how Adelman's writings on oil markets followed the global oil industry's evolution from oligopoly to cartel to quasi-competitive markets, then back to a cartel, and finally to a competitive structure where producers with the lowest costs produce at maximum rates. The market's path forward today may be shaped by impending limits on fossil fuel use, limits dictated not by markets but by governments. Adelman seems to have anticipated this "final" outcome in his work.

An industry's structure matters because it affects how prices are determined in a market. Adelman recognized this from the start of his career. His thesis on the A&P antitrust suit is a classic study of how structure affects market prices. Indeed, his analysis was awarded the Wells Prize by Harvard's Economics Department, an honor bestowed on the best thesis each year.

A telling comment in that study would weave through all his later research on the energy industry. In it, Adelman describes how the benefits of diversification into various business lines had been vastly overrated:

> The greater number of profit centers, the greater the insurance. But even an infinite number of profit centers would do nothing to raise the average profit over any particular time period; all this kind of insurance does is protect again crippling loss in any one short time period.

Forty years later, the importance of this message was heard by the world's integrated oil companies and a radical restructuring of the oil industry began. Over the first fifteen years of the twenty-first century, integrated oil companies divested refining and retail assets to focus on fossil fuel production.

In fact, changes in market structure have contributed to all significant oil price increases or decreases experienced since 1970. The path of prices would have been far different in their absence. Obviously market behavior would also have been very different had we experienced certain structural changes that did not occur (such as competent management of strategic stocks by consuming governments). The structural changes that did happen introduced significant noise into markets, noise that must detract from the forecasting accuracy of models recently created to project prices. Future structural changes will cause further distortions. "Structure Matters" focuses primarily on analyzing the major price shifts in the oil market since 1973 and notes the key structural changes, "Adelman moments" if you will, associated with each.

In its concluding sections, this paper illustrates how and why the noncompetitive crude oil market may have ended on November 28, 2014, when OPEC announced that producers would no longer limit production. If it did, the transformation will be consistent with the alteration of retail grocery marketing described by Adelman in 1959. The oil industry has been remade by innovation, changes in demand structure, and the introduction of new fuels as well as the decline in global energy consumption, just as food marketing shifted from small corner stores to larger markets to supermarkets and finally to the mega markets seen across the world today. Adelman chronicled the role of structural change brought about by competitive forces in grocery marketing and then petroleum. He also chronicled the efforts of governments to frustrate the benefits increased competition would bring to both industries. Ultimately, the efforts to regulate and block competitive forces have failed.