Thomas Petrie. 2014. *Following Oil: Four Decades of Cycle-Testing Experiences and What They Foretell About U.S. Energy Independence.* The University of Oklahoma Press, pp. 288.

In his forty plus-year career as an oil and gas investment analyst, investment banker, and adviser on petroleum-sector mergers and acquisitions, Thomas Petrie has certainly witnessed historic cyclic changes in the oil business. In Following Oil, he shares his insight from his vantage point, experiencing domestic and global trends in his life, the highs and lows of oil marketplace based on changing resources, variable national energy policies, and dynamic changes in geopolitics. Petrie applies his lessons learned in projecting a direction for the nation's energy development into the 21st Century.

Petrie does a good job of bringing us through four decades of his experience in oil from the rather depressed '70s to today. Petrie delves into great detail on historic events, such as the rise of power of the Organization of Petroleum Exporting (OPEC), which changed the power dynamics of oil as it shifted from the U.S. and its Western allies to the heart of the Middle East. Also, he discusses the emerging conflicts over Alaskan North Slope oil development and the innovative struggle to tap into the large North Sea oil discoveries, which were later utilized as case studies for measuring capitalism's effectiveness in energy development nationally as well as globally. In ensuing eras, that premise became powerfully questioned with waves of mergers, multiple Middle East wars, stock market and oil collapses, and the many entrepreneurial rejoinders to shifting economic incentives. Petrie feels that in these stories there are lessons from the past, not that history repeats itself exactly. Petrie says that we are often overly dependent on looking backward. He cites Mark Twain, who said, "History doesn't repeat itself--at best it sometimes rhymes." He provides the example of the Long-Term Capital Management (LTCM) failure of the late 1990s stemmed from a "backward-looking approach to investment analysis" (pg. 19). He also discussed the Amaranth Energy failure in 2006, which was a partnership based on historical relationships, and the JPMorgan Chase "whale trade" hedge fund that failed to meet expectations in 2012.

He has worked with the likes big Oklahoma billionaires Boone Pickens and Harold Ham as well as other oil industry luminaries, i.e. Frederic Mayer, founder of Exeter Drilling and Cortlandt Dietler, founder of Associated Natural Gas. However, Petrie's name largely has been absent in oil industry lore because he is merely an analyst, working mainly behind in the scenes.

His lessons are many in the book. For example, he believes in the power of markets, but they work at their own pace and in their own time. He is critical of tinkering too much with the market because he says flawed policy and economic incentives can exaggerate supply and demand curves. In addition, when we apply well incentivized capital focused on high priorities, we can do almost anything. Also, mergers that reorganize and consolidate are a natural part of the petroleum sector. Finally, when the macro-economic forces on the global level undermine the most well-executed plans, it is appropriate to do a mid-course adjustment.

Petrie seems to me to be a traditional pro-market oil man, but he is willing to acknowledge the vagaries of the marketplace. He likewise recognizes the Hubbert Curve, which predicts a peak of inexpensive oil. However, he dismisses this curve when he states that technology -- such as fracking -- has made the Hubbert Curve inaccurate for decades. At the same time, it is something that we need to consider for the future as we look toward new resources.

His answer to future energy demand is that he expects oil as well as coal to continue play a role, though a diminished one. This will require greater investment in clean coal technologies and coal exports.

Petrie seems to find that the most important resource for investors to chase is in fact natural gas. He predicts it will dominate resource trends for the next several decades. He cites the Pickens Plan, which is Billionaire Boone Pickens' plan to decrease American dependence on oil imports though new turbine investments, freeing up natural gas currently used for power generation to instead fuel CNG vehicles. He sees natural gas usage shooting up astronomically as people will more likely embrace CNG vehicles.

While there are some interesting contextual and historical ideas in this book, I am still somewhat skeptical of it. One reason to be critical is timing. Of course, he could not have predicted the oil and gas market downturn of 2014 as his charts stop a year earlier. It's too bad as it might be interesting to whether if he would have explained how it was a failure of the market or just outside forces that caused it. My expectation would be the latter rather than for former.

When it comes to climate change, Petrie says that while climate change may be real, it is rather exaggerated. His answer -- of course -- is natural gas. The natural gas sector's growth is surging mainly due to the extensive use of hydraulic fracturing. However, the Natural Resource Defense Council found that "often-dangerous chemicals are mixed with large quantities of water (or other base fluid) and sand and injected into wells at extremely high pressure." And, fracking again is connected to earthquakes.

Also, it seems that Oklahoma readers would be particularly interested in fracking and its connection to earth quakes. Both the United States Geological Survey (USGS) and the Oklahoma Geological Survey (OGS) have both come out to acknowledge a connection. However, Petrie dismisses naysayers as merely making "fear-inducing" claims. He alternatively celebrates fracking without question throughout the book.

Petrie's book is an interesting read if you would like to learn more about the cyclical history of the oil industry. Nevertheless, if you are actually interested in how to deal with our energy future, Following Oil only gives you what you would expect from the oil industry--more of the same.

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