The Rennie Quarterly Return

Rennie & Associates
Financial/Investment Planning
Volume 7, Issue 4
March 31, 2015

Petroleum Engineers – Just Doing Their Job but Changing the World

For several years prior to June 2014, the price for a barrel of oil hovered around the $110 mark. Virtually all of the economies of the world seem to accept this as normal. Historical trends suggested that gradual price increases were expected in the future. No big deal. But in less than one year, the bottom fell out; it is now around $50. Who woulda thunk?

The reason for this is mundane, gritty, fairly straightforward, not the stuff of headline news. As we see it, it is all about petroleum engineers just doing their jobs. The ramifications of it, however, are monumental.

In the U.S. in the 1940s, the best source of oil was sandstone reservoirs. The expertise and technology at the time could recover only 10% to 15% economically leaving the rest in the ground. Thanks to an unrelenting obsession to improve, recovery rates are now in the 40% to 50% range.

It wasn't until 1999, however, that that vertical hydraulic fracturing was proven as a viable production technology. Shortly thereafter, EOG Resources, a small company jettisoned by Enron, refined horizontal drilling techniques for natural gas—directing the bit sideways through layers of shale—and soon became an industry leader.

EOG maintains no central research-and-development department. Many of its first wells were unsuccessful. As knowledge and experience accrued, EOG finally ended up hitting the right recipe for success. EOG's decentralized technical operations and minimum bureaucracy encouraged engineers to experiment well by well. The results speak for themselves. EOG is now the largest crude oil producer in the lower 48.

The future should be interesting. There are huge oil deposits in Europe. Locally, New York and California sit on liquid gold. It seems probable that eventually, given governmental propensity for additional revenue, these resources will be realized.

Macroeconomics

The effects of the drop in oil prices have been relatively muted so far. But as worldwide cash flows demand adjustments, a myriad of significant changes must take place.

The U.S. is likely to be the major beneficiary. Some estimates suggest that if prices remain at current levels, it is equivalent to a $300 billion tax cut for U.S. consumers. This money will purchase goods and services resulting in increases in employment, wages and economic activity. On the negative side, marginally profitable oil producers will suffer.

Worldwide, oil exporters will see revenues fall; importers will see expenses decline.

Russia loses about $2 billion for every dollar fall in oil prices. This will potentially leave a gaping hole in its national budget, which draws 45 percent of revenues from oil taxes. Russia's 2015 draft budget assumes oil at $100/barrel. Something's got to give.

Venezuela, with the world's largest estimated petroleum reserves, has mismanaged its economy; it is already having trouble paying its bills. Inflation is currently about 60%. Even more dependent on oil taxes than Russia, Venezuela's future is sure to entail turbulence.

Saudi Arabia, the world's low cost producer appears well positioned to weather any storms. With $700 billion in reserves, it can pressure all other producers. It is the most influential member of OPEC. The United Arab Emirates and Kuwait, much smaller OPEC members, are similarly positioned; Nigeria, Syria, Iran, and Iraq are not.

While the economies of Europe, China and Japan are unique in many respects, lower oil prices should have a generally favorable impact—all other things being equal.

So, petroleum engineers have caused the winds of change to blow at gale force. The status quo is no more, at least for a while.

Note: A tip-of-our-hat to the Wall St. Journal's Joseph Rago for his 12/5/14 article on EOG's CEO Mark Papa.

Gary B. Rennie, CFP®, AWMA®
Chief Executive Officer
Phone/Fax: (949) 679-4775
Cell: (949) 769-1343
Email: gbrennie@cox.net

E. P. Rennie, CFP®, CFA®
President
Phone: (949) 650-8622
Fax: (949) 650-6683
Email: ecrennie@att.net

www.rennieandassociatesfp.com

Our Two 

You can't manage what you don't measure.

Peter Drucker

Quarterly Trivia:

As of late 2014, which country was tops in Total Oil Production (in millions bbls/day)?

U.S.A. (12.3)
Followed by
Saudi Arabia (11.7)
Russia (10.8)
Canada (4.1)