

Discussion Paper:

Pipeline Profitability – Myths and Reality

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By

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Introduction / Overview

We have all heard variations on these two story countless times:

- pipeline costs need to be held down so that the resource at the start of the line can compete with similar resources better situated; and
- the pipeline business just isn't very lucrative. Many pipelines are old and need a lot of maintenance; others are not yet built because the capital costs are too high and the regulated return is simply not worth the risks of changing economic conditions, cost over-runs or spills.

I want to challenge both statements. I think the first is a truism of limited use and I will present some data that call the validity of the latter argument into question. If the second proposition falls, that undermines the significance of the first.

This discussion is organized around four subjects:

- Pipelines as Cost Centers / Theory and Practice of Cost Containment
- Historical Perspective on Petroleum Pipeline Financial (and Environmental) Regulation
- Pipeline Profitability
- Recommendations

Cost Containment and Pipelines as Cost Centers

Modern industrial organization measures and manages its operations through cost centers.

Pipelines are a cost center.

In each of cost center, we can probably find pipeline managers who sleep well at night, content that they have fought “the good fight” with management to secure additional funding to assure safe and environmentally sound pipeline operations.

But the deck may be stacked against these good folks.

(Two examples – one hypothetical and one from the real world.)

Report from Alaska

In March and again in August of this year, BP was surprised by corrosion problems that caused the largest oil spill in the history of North Slope operations and the shutdown of the nation's largest oil field. Both times, BP expressed surprise. But these events were really no surprise at all. Rather, they were part of the entire North Slope oil industry's 30-year failure to live up to its promises. On the Slope and on the Trans-Alaska Pipeline System (TAPS), the major oil companies are chronically too slow to identify problems and too slow to fix them. This malady has four root causes:

- Lax government oversight;
- Chronic cost-cutting pressure by owners (and upward-bound or office-bound mid-level managers);
- Lack of good (timely and accurate) field information; and
- Engineering myopia (or bias) in evaluating that information.

To deal with these problems, a number of environmental groups have joined together to call for:

- an independent audit of maintenance and operations practices of Alaska oil production and transportation facilities, with focus on the North Slope and TAPS; and
- creation of a citizens' oversight group that uses dedicated funds to serve as an independent watchdog over North Slope and TAPS operations.

Ironically, this cost-cutting environment flourishes around two cost centers that have generated inordinate profits. For example, the Regulatory Commission of Alaska (RCA) – which governs shipping charges on approximately 8% of the oil on TAPS (the portion destined for in-state refining and marketing) – determined that the owners should charge \$2.00 per barrel. But the remaining 92% of the oil shipped on TAPS is bound for interstate markets and is therefore regulated by the Federal Energy Regulatory Commission. Under the FERC tariff, the owners are allowed to charge more than \$4.00 per barrel – saving the TAPS owners approximately \$0.40 per barrel in reduced state royalties and severance and handicapping competitors to the pipeline owners.

(If you're interested, you can find more substantive information and documentation to support this report at my web site, <http://www.finebergresearch.com>.)

Pipeline Ratemaking: History, Methodology and Observations

History

Pipeline antitrust regulation dates back to 1906.

Despite the promise, for the next 70 years there was little regulatory action (only four pipeline cases decided).

Over the years, the regulatory system grew “more like Topsy than Minerva” (U.S. Supreme Court in TAPS rate case, 1978).

At FERC, a pattern that I would describe as benign neglect continues today.

FERC has an environmental protection mandate for natural gas facilities and pipeline siting but does not have a similar portfolio for oil pipelines.

This accident of history may explain in part the difficulties that concerned citizens encounter today getting government traction on environmental consequences of pipeline problems.

Pipeline Ratemaking : Methodology

We start with the standard formula for utility rate-making, which is known as the depreciated original cost (DOC) methodology, If a pipeline tariff were set under the DOC methodology, the tariff (per-barrel shipping fee) would equal:

$$\frac{(\text{Original Cost less depreciation}) * (\text{rate of return}) + \text{operating and maintenance costs} + \text{taxes}}{\text{barrels shipped}}$$

The DOC methodology is a useful benchmark, but it is not used by FERC for determining oil pipelines tariffs.

On oil pipelines, the pattern of benign neglect continues today

Oil pipeline models used at FERC:

- Valuation (1906 – 1985)
- TOC (Williams II, 1985)
- Indexed status-quo tariffs

Observations:

- The data on pipeline economics compiled under FERC reporting requirements are so obscure and complicated that even the U.S. Department of Energy financial experts say they can't understand it. I don't think you'll find either agency's data useful.
- Under whatever ratemaking system is in use, veteran industry accounting specialists know that the complexities of accounting and tax policies create a fertile field for making a great deal of money on a pipeline that is charging shippers an ostensibly mediocre rate of return.

Penetrating the Pipeline Profitability Paradox

Good information on pipeline profitability is hard to come by. Nevertheless, from the brief discussion of pipeline ratemaking above, it is evident that pipeline operations can be highly profitable, in large part due to arcane tax and accounting practices. This section introduces two pieces of empirical data that suggest that pipeline operations may be a very good investment.

- Pipeline Sector Ranks High in *Fortune* “500” and “1,000” Listings: In *Fortune* Magazine’s annual review of the nation’s largest corporations, pipeline companies perform well above average. Since 1995, the median *Fortune* “1,000” pipeline company averaged an annual total return to shareholders of 15%. Eleven categories performed better, 49 performed worse, and three tied pipelines. By comparison, an investor in the median gas and electric utility would have realized a total return of 8% per year. Pipeline companies also outperformed the median *Fortune* “500” firm on a one-year, five-year and 10-year basis. Three of the top four companies in the *Fortune* “500” delivering the most revenue per employee in 2005 were pipeline companies.
- Stock Analysts Tout Pipeline Partnership Performance: In May 2006, after a ten-year run with the highest average return to investors in the *Fortune* pipeline listings discussed above, executives at Kinder Morgan Energy decided to buy the public company and take it private. That action led market analyst Jim Jubak to comment, “I think investors ought to pay attention . . . the buyout at Kinder

Morgan is just another sign that energy distribution has by no means finished its run from stodgy backwater to hot stock sector.” Noting that Kinder Morgan executives were buying their company because they knew that although pipelines require large capital investments that do not provide short term cash flows, “once the pipeline is built, they won’t have any trouble generating enough cash to pay off the capital costs and to assure long-term investors a hefty profit on their investment.” Jubak therefore recommended three other publicly traded pipeline company stocks

- A second analyst offered a list of pipeline companies for consideration with this advice: “Oil and gas pipeline partnerships deliver solid returns, offer rock-solid security -- and produce outsize dividends year after year.” According to investment analyst Harry Domash, “pipeline MLPs are such boring investments because nothing can go wrong.” He reported that run-of-the-mill performers outperformj the S&P 500 index, “paying big dividends because they don’t have to pay federal income taxes if they pay out most of their cash flows to shareholders.”

These reports deal with the operations of independent pipeline companies. There is no reason to think that the pipeline segments of large oil companies do not provide similar financial rewards for their parent companies. Moreover, pipeline investment offers this special benefit to vertically integrated oil companies: Because pipeline returns tend to be steady, pipeline investments provide guaranteed cash flows when oil prices drop – something that is probably most useful to company financial managers.

Recommendations

In the wake of BP's North Slope corrosion problems, a number of environmental groups in Alaska recently joined together to call for:

- an independent audit of maintenance and operations practices of Alaska oil production and transportation facilities, with focus on the North Slope and TAPS; and
- creation of a citizens' oversight group that uses dedicated funds to serve as an independent watchdog over North Slope and TAPS operations.

(These proposals should not be confused with – and are not satisfied by – the state of Alaska's belated establishment of a new "Lease Monitoring and Engineering Integrity Coordinator's Office." In light of the well-documented history of lax oversight on the North Slope and TAPS, the state's action strikes this observer as little more than the stenciling of new names on the backs of re-arranged deck chairs on an ocean liner heading toward a giant iceberg.)

Although pipelines are often said to be poor investments, recent stock market analyses confirm the statistics from the 2006 *Fortune* 500 rankings indicating that over a 10-year period pipeline investments have delivered returns superior to the market as a whole, and to other regulated utilities. Additional research into pipeline economics can provide useful support for advocating increased spending on pipeline safety,

To better understand the economic implications of arcane aspects of pipeline economics, greater transparency in the reporting of pipeline costs and revenues should be required from federal agencies, including (a) FERC, (b) DOE and (c) Securities Exchange Commission and state agencies.