

Governing Energy

Towards Zero

Volume 4 Number 3—February 4, 2015

Mathematicians tell us that, “The distance between the curve and the asymptote tends to zero as they head to infinity.”ⁱ From the ancient Greek, Zeno we learn the ‘dichotomy’ paradox—the repeated division into two leads to an infinite number of steps to cover a finite distance to which one can never arrive.ⁱⁱ

In 1997, this author introduced the construct of the Expected Value of Marginal Information (EVMI), which was defined as the (Expected value of the best decision with new information obtained at no cost), minus the (Expected value of the best decision without new information). Economist will know that this model has its roots in economic utility theory.ⁱⁱⁱ

Moreover, the late Nobel laureate R. H. Coase posited the hypothesis that the existence of the *firm* is justified when its internal set of transactions costs are less than the cost of using external resources.^{iv} In this model, costs are not just monetary but the total cost of doing business—those economic costs including opportunity cost.

What do these axioms have in common? In a word—**zero!**

In our Fahrenheit world, we define zero degrees as the freezing point of water or 32 degrees. Even on the Kelvin scale, absolute zero is defined as the degree where there is minimal particle movement—approximately minus 459.69 degrees Fahrenheit.^v True zero remains elusive.

Therefore, we can expect that zero is an unobtainable value. However, the above examples suggest:

- In the physical and mathematical worlds systems tend towards a very small value
- The expected value of new information has real value even when it is very small
- Business models may drive transaction costs very low

We raise these points, particularly the last two bullets to posit that in our physical and behavioral world the construct of zero is foundational. Another example, in the era of the Internet and mobility devices we have grown used to *free* data and information.

Organizations that continually focus on lowering costs are well positioned to assure sustained operations and profit in an era where transaction costs are trending toward zero. By extension, this suggests that in our new economy, *pricing power* is limited and when strong it will not be sustainable.

For most firms, a strategy to become and remain the *economic low cost producer* may be the best strategy. We use the term economic to reflect the sum total of all costs, monetary and other including human costs.

Low cost producers historically have focused on the small details of the business. Much like High Reliability Organizations must focus on operational details.^{vi}

Today's firms in the energy value chain are required to do both. Successful ones will return shareholder value. Others may face a more uncertain future.

How well is your organization positioned to be the low cost producer?

About the Author

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End Notes

ⁱ <http://www.mathsisfun.com/algebra/asymptote.html>

ⁱⁱ <http://plato.stanford.edu/entries/paradox-zeno/>

ⁱⁱⁱ Shemwell, Scott M. (1997, September). The Economic Value of Timely Information and Knowledge, Key to Business Process Integration Across Boundaries in the Oil & Gas Extended Value Chain. Proceedings of the Gulf Publishing 3rd International Conference and Exhibition on Exploration & Production Information Management. Houston. Reprinted with permission in

^{iv} Shemwell, Scott M. (2002, February). Economic Theory Supports E-Business Model. Executive Briefing: Business Value from Technology. Reprinted in [Essays on Business and Information II: Maximizing Business Performance](#). New York: Xlibris.

^v <http://dictionary.reference.com/browse/absolute+zero>

^{vi} Shemwell, Scott M. (2014). Governing Energy: Organizational Governance—Issues of the 21st Century 2012-2013 Edition. Houston: RRI Publications. pp. 34-35. <http://www.amazon.com/dp/B00NB8C91Q>