

Transparency of the Price Signal

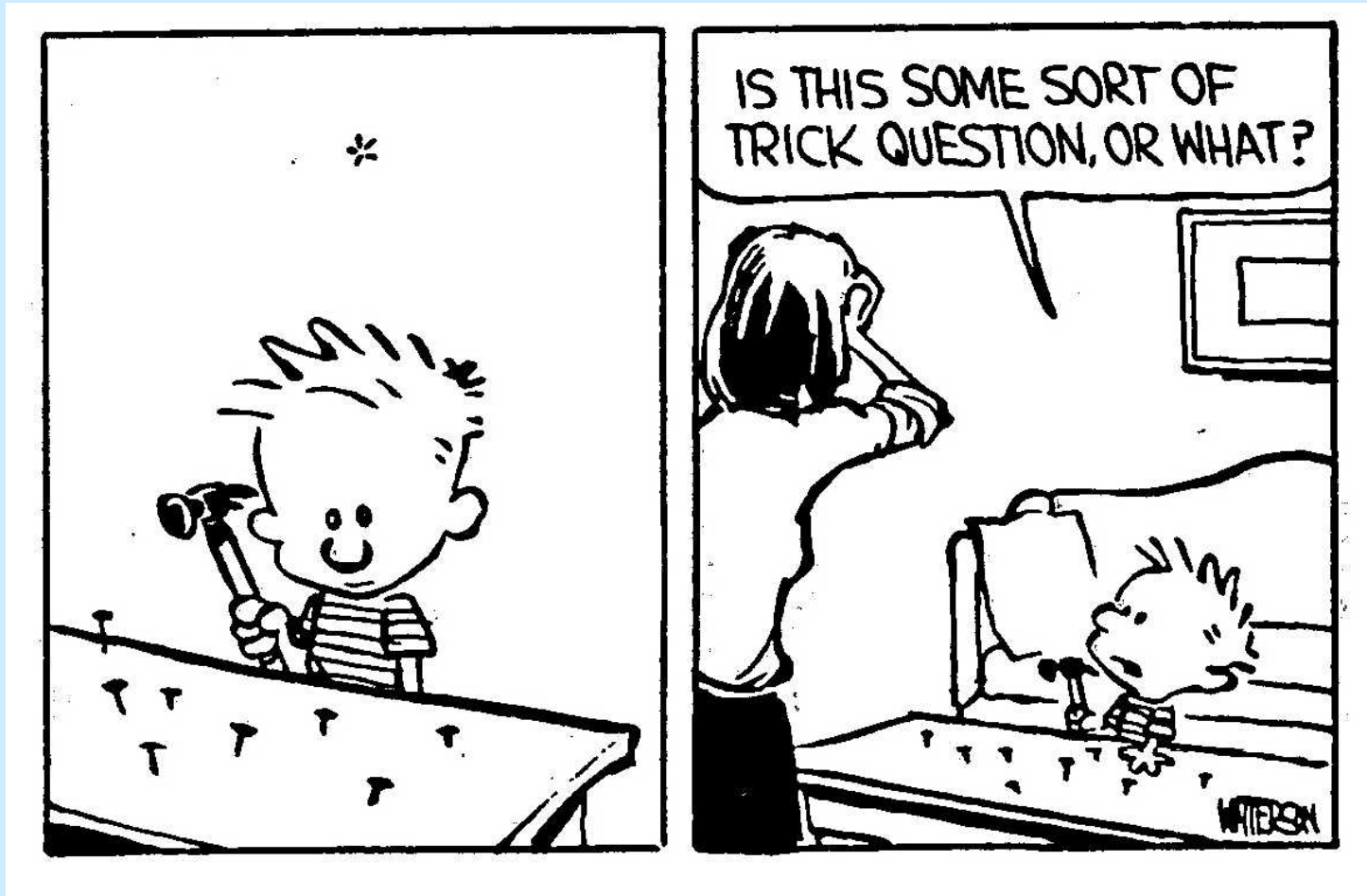
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Let's open with this innocent little question. . . .





But rather than a simple trick question, perhaps a set of useful inquiries. . . .

A Warm-Up Question: Exactly What Determines a Given Price?

- ❖ The great UK economist Joan Robinson noted in 1947 that “economics science has not solved its first problem — namely, what determines the price of a commodity?”
- ❖ Price clearly is influenced by Supply and Demand; but those, in turn are shaped by:
 - Beliefs, Values, Habits, Alternatives, Necessity, Income, Responsibility, Commitment, Uncertainty, Time; and
 - The interaction of supply (producers) and demand (consumers) within a given market arrangement.
- ❖ But note that all of the above can be influenced by evolving or changing perceptions, policies, and programs.

Is Price Transparency Sufficient for Technology Deployment?

- ❖ This question presumes the possibility of “a correct price signal”
- ❖ But shouldn't we also ask the question, “a correct price signal with respect to what?”
 - Sufficient returns to ensure an adequate energy supply?
 - An optimal set of prices among all commodities and services?
 - Improved environmental quality and health impacts?
 - Stability and growth of employment opportunities?
 - Incentives for new technology development?
 - Diversity of resources to minimize security risks?
 - Today, tomorrow, the next decade, or even the next century?
- ❖ With the interaction of these and many other social and economic objectives, can we ever really know what the “correct price signal” might be? Especially given the limits of complete and timely information?

An Example: SO₂ Cost and Benefits

- ❖ The recent 2005 SO₂ Allowance Auction suggested bid prices ranging from \$300-\$700 per ton; or a cost of about \$0.80 to \$1.80/MWh.
- ❖ A variety of economic studies suggest avoided health costs of perhaps \$7,300 per tons; or about \$19.35/MWh — an order of magnitude larger.
- ❖ Under current market arrangements, then, prices do not appear to convey full cost for just one economic objective of serious concern.

Source: Working estimates made by the author for purposes of this discussion only.

A Second Example: Efficiency and GDP

- ❖ A large number of studies sponsored by the American Council for an Energy-Efficiency Economy (ACEEE) and others suggest a significant level of cost-effective efficiency gains are possible for both gas and electricity services.
- ❖ Properly evaluating the efficiency investments and resulting energy bill savings suggest a net positive GDP impact of \$5-30/MWh for reductions of about 20-25 percent from the reference case over the period 2010 through 2020.
- ❖ Energy prices are unlikely to reflect the possibility of these larger economic benefits.

Source: Working estimates made by the author for purposes of this discussion only.

Hence, a Set of Second Best Solutions?

- ❖ Policies, including both price and non-price signals, which inform the market about the full range of opportunities, and which provide clear expectations and performance standards.
- ❖ Policies which enable the marketplace to learn and adapt to those expectations.
- ❖ Policies which facilitate appropriate choices within and by the marketplace.

And Perhaps This Final Perspective

Nolan Ryan is a hall of fame pitcher who closed his career in 1993 with the President's former team, the Texas Rangers. But he would have won considerably fewer than his 324 games had he taken the field without his catcher, his infield, or even outfield. *In a similar way, the full mix of efficiency and environmental technologies should be among the serious modeling and policy options as we map our future scenarios and evaluate the economic impacts of our alternative technology paths.*

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