A Realistic Redirection of the Theory of the Firm:

The Relevance of Averages, Marginals and Subjective Adjustments

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Abstract

Economic decisions made by producers, and for that matter by economic agents, in general, are infrequently made at the margin and even less, if at all, from moves made over known and factual continuous functions. Decisions are mostly based on averages derived from approximations of discontinuous measurements and combined with expected changes; many of which are subjective in nature. Economic theories dependent on the "marginality principle" or concept end up being like a game of virtual reality. Such games trap the participants in a tightly and rationally woven but surreal landscape, structured with fictional interdependencies as well. They make the players feel assured in their game-based steps, but also unsettled within by the obvious but side-stepped conceptual dissonances.

Introduction

Microeconomic decisions made by managers, and for that matter by economic agents, in general, are infrequently made at the margin and even less, if at all, from moves made over known and factual continuous functions. Those decisions are mostly based on averages derived from approximations of discontinuous or static measurements and combined with expected changes; many of which are mostly subjective in nature. Economic theories dependent on the "marginality principle" or concept, developed by Carl Menger in Austria and William Stanley Jevons in England, by the middle and second half of the XIX century, end up being like a game of virtual reality. Such games trap the participants in a tightly and rationally woven but surreal landscape, structured with fictional interdependencies as well. They make the players feel assured in their game-based steps, but also unsettled within by the obvious but side-stepped conceptual dissonances.

By looking at a firm's supply function as being derived from continuous production and cost functions, and from producers' natural inclination towards technical and economic efficiency and total profit maximization, is at best a leap of faith. Such unreal beliefs ignore the intermittent but frequent adjustments to production cost factors demanded by ever changing operational needs and the subjective elements in decision making.

How are the real supply functions determined?

Supply functions are determined after the facts and not a priori. They are the summation of historic and/or expected data points of product prices with their corresponding average total costs (ATC) at each respective output level being contemplated.

They are not derived from continuous, nor theoretical functions; a firm's real supply function is not derived from the increasing segment of a known and continuous marginal cost (MC) function

above and beyond the interception with the average variable cost (AVC) curve.

By extension, it is not points on a marginal cost curve, either above the related minimum tangencies with the average total cost curve (MATC) or the average variable cost (AVC) curves. The actual supply curve for a typical producer is the aggregate of the ATC values from accumulated step increases of increments in output established internally by the firm. The specific supplied output is in turn determined at the point where the attained product price (P) equates to the applicable ATC value.

Also, experienced firms know that they can readily and covertly to the competition, maintain if not increase their profit margins at higher outputs by increasing the internal efficiency of their operations. This will allow them to retain their profitable P=ATC for longer production runs without having to address MC concerns in both the short and long terms.

What are the firm's actual decision rules?

First, producers and consumers do not know, or care to know, the current theories' (Consumer and Producer Behavior) speculated continuities of their respective Demand and Supply functions. As a result such hypothetical continuities are irrelevant to their actual total profit maximizing decision rules. Further, discriminating producers and consumers are also aware of the irrelevance of the axioms underpinning the respective theories (Consumer and Producer Behavior) and the resulting unrealistic outcomes.

Second, changes in product and resource prices do impact the ultimate quantities offered and demanded. However, this is not the same as saying that there are, or ought to be, continuous demand and supply functions, with corresponding price and quantity combinations, as well as clearly demarked total profit maximizing equilibrium point.

Third, producers recognize that at batches of output where P>ATC, economic profits will be achieved as long as the applicable ATC figure includes both explicit and implicit costs.

Moreover, producers are also aware that even at outputs where P<ATC, and opposite of the standard total profit maximizing output where P= or >MR=MC, positive economic profits are also achievable. They know that the turnover component (Sales/Assets) of the detailed total

profit equation (Sales/Assets x Net Income/Sales) allows for a decrease in net income from an output where MC>P as long as the turnover components increases enough to prevent a loss. Furthermore, producers also realize that higher market shares from selling to new customers even at a loss, can be a short lived event and may ultimately represent a profitable undertaking. They know through experience that the more and longer existing and additional customers become familiar with their product, the higher and sooner the possible outward shift in demand. Demand determinants such as the demonstration effect, taste solidification, and buzz marketing will sustain higher sales at the existing or even higher prices.

Fourth, the higher the output sold the greater and more sophisticated the capital utilized in production becomes, even in the short run. This is so because of the immediate incentives from cost reductions, and from the exposure to the technical opportunities envisioned while processing the higher outputs. Therefore, the long run average total cost (LRATC) for distinct output batches becomes a reality sooner than traditionally theorized.

These adaptations in production naturally increase productivity and lower the corresponding ATC and MC values, in turn inducing a virtuous cycle of productivity and profitability.

Conclussion

As long as P>ATC (as indicated on the Third point above), individual firms will gradually continue expanding their output until reaching their profit optimizing point at P=ATC. In addition, the greater the firm's elasticity of demand becomes (should increase with gains in market share), the more profitable each move to expand output also becomes. That is, the longer the amount of output and the more profitable each expansion becomes until P=ATC. In other words, the longer the concave segment of the ATC curve becomes at any given price level.

Furthermore, the LRATC amounts are not the envelope of all the minimum short run average total cost (SRATC) points. The LRATC is the combination of the connecting points between the intersections of the product price at all possible output mixes where it equates the various SRATC at P=ATC.

Finally, the concept of marginal revenue (MR) is not a relevant issue for any firm as it is based on foregone and also unknown market price and quantity sets from indeterminate demand functions. Ultimately, total profit maximization is achieved without economic efficiency from an engineering standpoint. Managers do attempt to maximize total profits, but only after they and their subordinates in authority have adjusted the firm's operations to fit their individual personal preferences. Suppliers and firm employees do the same as long as they can get away with it. In essence, the only continuity is the ongoing and erratic discontinuity constantly materializing within a firm's production processes.

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