

Thought Experiment Transfer Pricing Alternatives in Corporation under Demand Fluctuations

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Abstract

The object of this study is to compare numerical results for a hypothetical numerical model comparing transfer pricing alternatives of a multi-division corporation selling cement facing demand fluctuations, prosperity versus depression, with two alternate technologies, high fixed cost versus low fixed costs. The transfer pricing alternatives: A) short-run marginal cost pricing high price volatility over the business cycle versus B) John M. Clark's workable competition pricing low price volatility over the business cycle. The article is a thought experiment in economics, carried out only in the imagination. The article presents a detailed numerical model of a two-division corporation having a manufacturing division that produces cement and a marketing division that sells cement from the manufacturing division. In the model cement manufacturing plants have linear total cost functions with absolute capacity restrictions. The article considers two alternative technologies: 1) plant_L old plants with low fixed costs but high marginal costs and 2) plant_K new plants with high fixed costs and low marginal costs. In opposition to marginal cost theory, this study argues in support of John M. Clark (1884-1963) workable competition theory. The study assumes frequency of off periods 6/7 and frequency of peak periods 1/7. The study claims, under the assumptions of the model, workable competition transfer pricing B adds to consumer surplus and to corporate profits over the cycle in comparison to marginal cost pricing A because the gains in consumer surplus in peak demand times 1/7 frequency with more output and lower prices will outweigh the loss in consumer surplus and to corporate profits in off-peak times 6/7 with higher prices and lower output. The gains in prosperity times, though infrequent 1/7, are large, especially with relatively elastic demand curves. The loss in depression times, though frequent 6/7 are small, especially with inelastic demand curves.

Keywords

Transfer Pricing, Manufacturing, Business Cycle, Peak-Load Pricing, Cutthroat Competition, Workable Competition

1. John M. Clark: Overhead Costs and the Business Cycle

The fundamental challenges of the economic cycle, according to John M. Clark (1884-1963), are due to the dominance of fixed costs that are incurred regardless of output rates. According to Clark (1923), overcapacity is typical and expected for the vast majority of the time (Clark, 1923: pp. 437-439):

“What governs the supply of productive capacity in an industry? The usual answer is that it adjusts itself to the demand by the construction of additional facilities whenever producers see a profit of marketing their output at a profit. This, it is natural to assume, will not happen until there is demand in sight sufficient to utilize all the existing capacity at a profitable price. But the thing is not quite so simple as this, and will repay a more detailed analysis. In the first place, owing to the forces already studied in connection with the business cycle, plant capacity is governed far more by the peak demand than by the minimum or the average. If this were not true, and if business did not build for the peak at the time of the upswing, one of the chief causes of business cycle would disappear. This very building for the peak, timed as it is, tends powerfully to increase the height of the peak itself. ...To sum up, it appears that there are strong forces at work which tend naturally to produce an oversupply of permanent capital, and there are decided indications that such as oversupply exists.”

Fluctuations in demand for agriculture, raw materials, and manufacturing intermediate products are far more intense than fluctuations in demand for final goods and services. This is due to economic reasons that Clark explains well¹:

“The demand for means of production fluctuate more violently than that for finished consumers’ goods, and also appears to fluctuate sooner, taking the lead in a way which would suggest that its changes are a cause, rather than an effect, of the changes in consumers’ demand. In point of fact they are both effect and cause, as we shall see in a moment. Something similar is true of raw materials as compared to finished goods, while wholesale prices fluctuate more than retail.”

Clark is a business-cycle economist. Clark writes (Clark, 1934: p. 3):

“The reader should be warned at the start that this study is not exclusively or mainly devoted to the current depression, but is a study of business cycles in general, as they have been experienced during the period for which

¹Ibid. 389.

fairly comprehensive and organized statistical records have been gathered.”

In my study on Clark and the U.S. cement industry (Aranoff, 1991), I propose a definition of industry under-capacity: “Industry under-capacity exists if persistently, over considerable periods, there are acutely raised prices, product shortages, costs and inconveniences of waiting lines and higher costs of substitutes at times of high level or peak demand.” With my definition industry under-capacity can exist even in a depression with rampant idle capacity. Why? Because the next business upturn will be stopped for lack of capacity to meet peak-cycle demand.

Clark’s view is that low depression prices make the business cycle worse. Low prices lead to further shrinkage of manufacturing and construction activities. What then is there to do during a depression? Clark is generally against price-cutting during economic downturns, calling it suicidal. Globalization makes countries similar to two local supermarket chains. In depression, it doesn’t pay for one chain to offer free bread. The other chain would simply match it and both chains would be worse off. Clark calls this spoiling the market.

The Talmud discusses depression in wine and olive oil in Palestine and linen in Babylon, the manufacturing industries at the time, and the major sources of income for the people. The Talmud calls for crying out to God when prices are ruinously low²:

“Our Rabbis taught: Public prayers are offered for goods [which have become dangerously cheap], even on the Sabbath. R. Johanan said: For instance linen garments in Babylon and wine and oil in Palestine. R. Joseph said: This [is only so] when [these have become so] cheap that ten are sold at [the price of] six.”

Research Structure

This study compares numerical results for a hypothetical mathematical model of a corporation selling cement facing demand fluctuations, prosperity and depression. The corporation has a manufacturing division that produces cement and sells its output entirely to a marketing division that sells cement it buys only from the manufacturing division to the construction industry. Each division is a responsibility center. This study compares two transfer pricing alternatives, short-run marginal cost pricing and John M. Clark’s workable competition pricing each with two alternate technologies, high fixed cost and low fixed costs.

2. Transfer Pricing: Peak-Load Pricing Problem

Transfer prices are prices that units of a corporation charge each other for goods and services. Transfer prices have no direct effect on a consolidated corporation income statement. In this analysis, we assume transfer prices have no tax or control frictions. Transfer prices have an indirect effect on a consolidated cor-

²Baba Bathra 91a.

poration income statement. The marketing division buys the intermediate product from the manufacturing division and sells the final product at profit maximizing prices and quantities it calculates looking at its costs and demand data. I claim (Aranoff, 1995: p. 1):

“The writer contends that the transfer pricing problem in pricing goods or services from one division to another within a corporation, as many people understand the term, is in reality another form of the peak-load problem.”

Transfer pricing is an important topic in cost accounting texts (Polimeni et al., 1986: p. 973).

“Transfer pricing has become one of the most important and sometimes most controversial elements in performance measurement.”

Transfer Pricing Alternatives: SRMC v WC Pricing

Transfer pricing alternative short-run marginal cost pricing means setting the transfer price at exactly the short-run cost of manufacturing cement, the intermediate product. In depression times the manufacturing division shows \$0 contribution margin.

Transfer pricing alternative John M. Clark’s workable competition pricing means setting the transfer price in depression times slightly above short-run marginal costs of manufacturing cement. In depression times the manufacturing division shows a positive contribution margin. In Clark’s view short-run marginal cost pricing in depression times is against the social interest in production (Clark, 1923: Chapter 21: Cut-throat Competition and the Public Interest).

3. Research Questions

Welfare economics theory claims that under certain conditions short-run marginal cost pricing under demand fluctuations maximizes consumer surplus. Consumer surplus is the theoretical maximum consumers are willing to pay above what they actually do pay for goods. Consumer surplus in economics is used as a measurement of social welfare. Consumer surplus can be defined as the area under the demand curve above the cost line. This study examines in a numerical model A, short-run marginal cost transfer pricing versus B, workable competition transfer pricing with only plant_L technology and with only plant_K technology.

In **Figure 1** for only plant_L and **Figure 2** for only plant_K, the consumer surplus is the area under the D_1w_1 off-peak period and D_2w_2 peak period demand curves above the cost lines A_2D , B_2C , B_1F , and A_1H .

The research questions include: What can we reasonably expect on the differences between prices and quantities in high demand times versus low demand times with plant_L and plant_K? What can we reasonably expect on the differences in consumer surplus and in corporate profits with plant_L and plant_K?

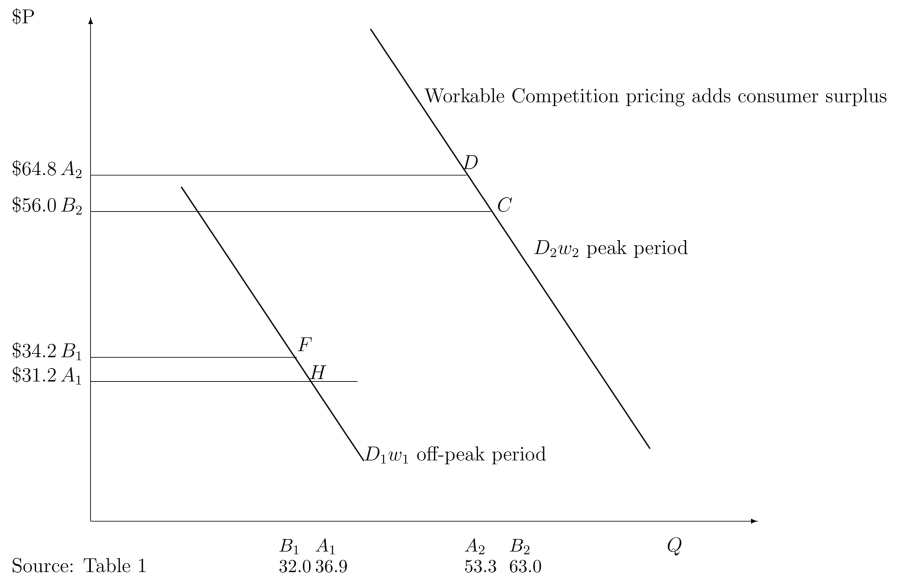


Figure 1. Only Plant_L transfer pricing A (SRMC) v B (WC).

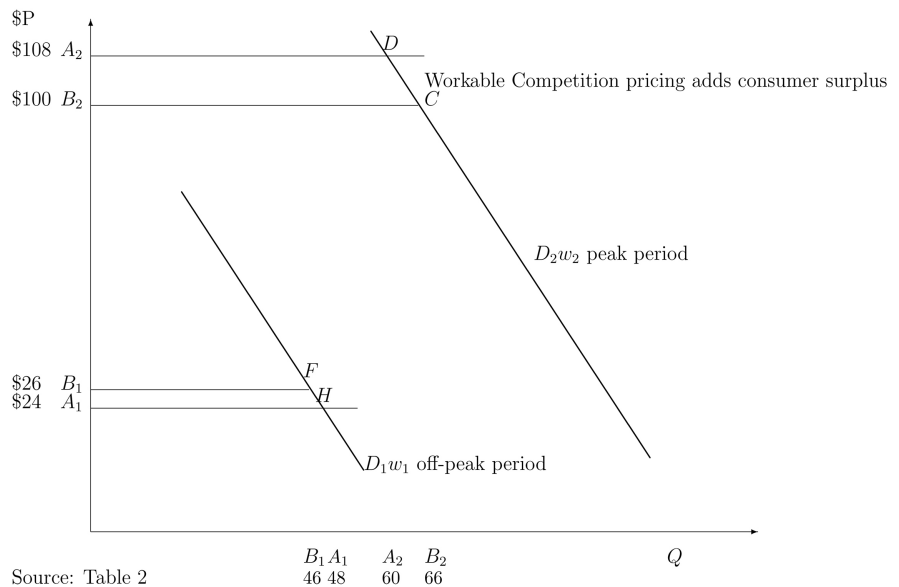


Figure 2. Only Plant_K transfer pricing A (SRMC) v B (WC).

4. Model

This study models a hypothetical a corporation selling cement, product Q , a homogeneous costly-to store, low-cost product, used in the construction industry. The corporation has two independently managed divisions: 1) a manufacturing division that produces cement and sells only to the selling division and 2) a selling division with many offices that buys cement only from the manufacturing division with its many plants and sells cement to the construction industry using a quote price system.

The model assumes periods of a week. q is the operating rate in the manufacturing division, tons of cement, produced in a week. The corporation seeking to

invest in manufacturing product Q can choose between two hypothetical plants: 1) modern high FC Plant $_K$ and 2) old low FC Plant $_L$. Both plants have durable and specific assets and linear short-run total costs curves with absolute capacity limits. The plants differ in per-unit variable cost, b , per-unit fixed cost, β , and capacity per plant, q . b is the constant per-unit variable operating cost. β is the per-unit fixed capacity cost where the numerator is the constant fixed costs per week and the denominator is the maximum the plant can produce in a week. n is the number of plants, a continuous variable. Fractional plants are permitted. In the model there are no long-run economies of scale for each plant.

In the model, the corporation can order any number of plants $_K$ or plants $_L$ but never a mixture. Thus, in the model Plants are either plants $_K$ or plants $_L$ never a mixture. The manufacturing division as a whole operates only plants $_K$ or plants $_L$. In the model all divisions of the corporation know the industry supply and demand data.

5. Theoretical Analysis Transfer Pricing System A: SRMC Pricing

See **Table 1** data transfer pricing pricing set at short-run marginal cost pricing. The two left columns of **Table 1** show data for the corporation using only technology $_L$. The two right column of **Table 1** show data for the corporation using only technology $_K$. See **Figure 1** only plant $_L$ a graph of the data of the left columns of **Table 1** and **Table 2**. See **Figure 2** only plant $_K$ a graph of the data of the right columns of **Table 1** and **Table 2**.

The model assumes $w_1 = 6/7$ and $w_2 = 1/7$. The model assumes $TC_L = b_L q_i + \beta_L q_L$ and $TC_K = b_K q_i + \beta_K q_K$. The model assumes values: $b_L = 31.2$, $\beta_L = 4.8$, and $q_L = 0.9$ to give $TC_L = 31.2q_i + 4.8 \times 0.9$. The model assumes values $b_K = 24$, $\beta_K = 12$, and $q_K = 0.72$ to give $TC_K = 24q_i + 12 \times 0.72$.

The model assumes for only plant $_L$ $P_{A1} = VC_L = \$31.2$. The model assumes for only plant $_L$ $Q_1 = A_1 = 36.92$ tons.

The model assumes for only plant $_K$ $P_{A1} = VC_K = \$24$. The model assumes for only plant $_K$ $Q_1 = A_1 = 48$ tons.

The model assumes for only plant $_L$ $P_{A2} = VC_L + \beta_L/w_2 = \64.8 . The model assumes for only plant $_L$ $Q_2 = A_2 = 53.33$ tons.

The model assumes for only plant $_K$ $P_{A2} = VC_K + \beta_K/w_2 = \108.00 . The model assumes for only plant $_K$ $Q_2 = A_2 = 60.00$ tons.

The number of plants for only plant $_L$ $n_L = Q_2/q_L = 59.26$ plants $_L$.

The number of plants for only plant $_K$ $n_K = Q_2/q_K = 83.33$ plants $_K$.

For only plant $_L$ long-equilibrium. $E(TR_L) - E(TC_L) = E(\pi) = 0$.

For only plant $_K$ long-equilibrium. $E(TR_K) - E(TC_K) = E(\pi) = 0$.

For only plant $_L$ $P_{A2} - P_{A1} = \$33.60$. For only plant $_K$ $P_{A2} - P_{A1} = \$84.00$.

For only plant $_L$ $Q_{A2} - Q_{A1} = 16.41$ tons. For only plant $_K$ $Q_{A2} - Q_{A1} = 12.00$ tons.

Table 1. Transfer Price = SRMC Pricing Plants_L (A₁A₂) Plants_K (A₁A₂).

| | | | |
|-----------------------------------|-------------------------|---------------------------------|-------------------------|
| Let $w_1 =$ | 6/7 | | |
| Let $w_2 =$ | 1/7 | | |
| $TC_L = b_L q_i + \beta_L q_L$ | | $TC_K = b_K q_i + \beta_K q_K$ | |
| $TC_L = 31.2q_i + 4.8 \times 0.9$ | | $TC_K = 24q_i + 12 \times 0.72$ | |
| $VC_L =$ | \$ 31.20 per ton | $VC_K =$ | \$ 24.00 per ton |
| $FC_L =$ | \$ 4.32 plant per cycle | $FC_K =$ | \$ 8.64 plant per cycle |
| $q_L =$ | 0.90 tons per cycle | $q_K =$ | 0.72 tons per cycle |
| Let $P_{A1} = VC_L =$ | \$ 31.20 per ton | Let $P_{A1} = VC_K =$ | \$ 24.00 per ton |
| $Q_1 = A_1$ | 36.92 tons | $Q_1 = A_1$ | 48.00 tons |
| Let $P_{A2} =$ | | Let $P_{A2} =$ | |
| $VC_L + \beta_L/w_2 =$ | \$ 64.80 per ton | $VC_K + \beta_K/w_2 =$ | \$ 108.00 per ton |
| Let $Q_2 = A_2$ | 53.33 tons | Let $Q_2 = A_2$ | 60.00 tons |
| $n_L = Q_2/q_L$ | 59.26 plants | $n_K = Q_2/q_K$ | 83.33 plants |
| $P_1 Q_1 w_1 + P_2 Q_2 w_2 =$ | \$ 1481.14 per cycle | $P_1 Q_1 w_1 + P_2 Q_2 w_2 =$ | \$ 1913.14 per cycle |
| $VC_L(Q_1 w_1 + Q_2 w_2) =$ | \$ 1225.14 per cycle | $VC_K(Q_1 w_1 + Q_2 w_2) =$ | \$ 1193.14 per cycle |
| $FC_L n_L =$ | \$ 256.00 per cycle | $FC_K n_K =$ | \$ 720.00 per cycle |
| $E(\pi) =$ | \$ 0.00 per cycle | $E(\pi) =$ | \$ 0.00 per cycle |
| $P_{A2} - P_{A1} =$ | \$ 33.60 | $P_{A2} - P_{A1} =$ | \$ 84.00 |
| $Q_{A2} - Q_{A1} =$ | 16.41 tons | $Q_{A2} - Q_{A1} =$ | 12.00 tons |

Comparing SRMC pricing (A) to WC pricing (B) we see wider prices differences for SRMC pricing $P_{A2} - P_{A1} > P_{B2} - P_{B1}$ and narrower output rates differences $Q_{A2} - Q_{A1} < Q_{B2} - Q_{B1}$.

6. Theoretical Analysis Transfer Pricing System B: Workable Competition Pricing

See **Table 2** data transfer pricing pricing using John M. Clark's workable competition pricing. The two left columns of **Table 2** show data for the corporation using only technology_L. The two right column of **Table 2** show data for the corporation using only technology_K. See **Figure 1** only plant_L a graph of the data of the left columns of **Table 1** and **Table 2**. See **Figure 2** only plant_K a graph of the data of the right columns of **Table 1** and **Table 2**.

The model assumes to raise transfer prices above SRMC pricing in off-peaks and to lower transfer prices below SRMC pricing in peak periods. The model assume downward sloping demand schedules so that a rise in prices leads to less quantities demanded and a reduction in prices leads to more quantities demanded. A reasonable assumption is that off-peak demand is relatively inelastic so that a rise in prices would lead to higher revenues for sellers though they are

Table 2. Transfer Price = WC Pricing Plants_L (B₁B₂) Plants_K (B₁B₂).

| | | | |
|-----------------------------------|-------------------------|---------------------------------|-------------------------|
| Let $w_1 =$ | 6/7 | | |
| Let $w_2 =$ | 1/7 | | |
| $TC_L = b_L q_i + \beta_L q_L$ | | $TC_K = b_K q_i + \beta_K q_K$ | |
| $TC_L = 31.2q_i + 4.8 \times 0.9$ | | $TC_K = 24q_i + 12 \times 0.72$ | |
| $VC_L =$ | \$ 31.20 per ton | $VC_K =$ | \$ 24.00 per ton |
| $FC_L =$ | \$ 4.32 plant per cycle | $FC_K =$ | \$ 8.64 plant per cycle |
| $q_L =$ | 0.90 tons per cycle | $q_K =$ | 0.72 tons per cycle |
| Let $P_{B1} = VC_L + 3.00 =$ | \$ 34.20 per ton | Let $P_{B1} = VC_K + 2.00 =$ | \$ 26.00 per ton |
| $Q_1 = B_1$ | 32.00 tons | $Q_1 = B_1$ | 46.00 tons |
| Let $P_{B2} =$ | \$ 56.00 per ton | Let $P_{B2} =$ | \$ 100.00 per ton |
| Let $Q_2 = B_2$ | 63.00 tons | Let $Q_2 = B_2$ | 66.00 tons |
| $n_L = Q_2/q_L$ | 70.00 plants | $n_K = Q_2/q_K$ | 91.67 plants |
| $P_1 Q_1 w_1 + P_2 Q_2 w_2 =$ | \$ 1442.06 per cycle | $P_1 Q_1 w_1 + P_2 Q_2 w_2 =$ | \$ 1968.00 per cycle |
| $VC_L(Q_1 w_1 + Q_2 w_2) =$ | \$ 1136.57 per cycle | $VC_K(Q_1 w_1 + Q_2 w_2) =$ | \$ 1172.57 per cycle |
| $FC_L n_L =$ | \$ 302.40 per cycle | $FC_K n_K =$ | \$ 792.00 per cycle |
| $E(\pi) =$ | \$ 3.09 per cycle | $E(\pi) =$ | \$ 3.43 per cycle |
| $P_{B2} - P_{B1} =$ | \$ 21.80 per ton | $P_{B2} - P_{B1} =$ | \$ 74.00 per ton |
| $Q_{B2} - Q_{B1} =$ | 31.00 tons | $Q_{B2} - Q_{B1} =$ | 20.00 tons |

selling fewer units.

The thought experiment of the hypothetical cement industry starts with long-run equilibrium under SRMC pricing as shown in **Table 1**. The thought experiment for workable competition raises prices in low demand times so firms have a positive CM, contribution margin, $P - VC = CM$. In pure SRMC pricing in low demand periods prices exactly equals VC. In SRMC pricing firms have losses in low demand times equal to their fixed costs in low demand times. In SRMC pricing, for long run equilibrium to emerge over the cycle, prices are very high in high demand periods.

The model assumes in transfer pricing using workable competition pricing firms will expand capacity more over the cycle. In high demand times transfer prices would be lower with workable competition pricing than would be under transfer prices SRMC pricing. **Table 2** shows a reasonable long-run equilibrium arrangement under workable competition pricing. I use round numbers and rough estimates in **Table 2** for workable competition to get approximate zero expected profits over the cycle. In **Table 1** for SRMC pricing I use precise numbers to get exactly zero long-run equilibrium.

The model assumes $w_1 = 6/7$ and $w_2 = 1/7$. The model assumes $TC_L = b_L q_i + \beta_L q_L$ and $TC_K = b_K q_i + \beta_K q_K$. The model assumes values:

$b_L = 31.2$, $\beta_L = 4.8$, and $q_L = 0.9$ to give $TC_L = 31.2q_i + 4.8 \times 0.9$. The model assumes values $b_K = 24$, $\beta_K = 12$, and $q_K = 0.72$ to give $TC_K = 24q_i + 12 \times 0.72$.

The model assumes for only plant_L $P_{B1} = VC_L + 3.00 = \$34.20$. The model assumes for only plant_L $Q_1 = B_1 = 32$ tons.

The model assumes for only plant_K $P_{B1} = VC_K + 2 = \$26$. The model assumes for only plant_K $Q_1 = B_1 = 46$ tons.

The model assumes for only plant_L $P_{B2} = \$56.00$. The model assumes for only plant_L $Q_2 = B_2 = 63.00$ tons.

The model assumes for only plant_K $P_{B2} = \$100.00$. The model assumes for only plant_K $Q_2 = B_2 = 66.00$ tons.

The number of plants for only plant_L $n_L = Q_2/q_L = 70.00$ plants_L.

The number of plants for only plant_K $n_K = Q_2/q_K = 91.67$ plants_K.

For only plant_L long-equilibrium. $E(TR_L) - E(TC_L) = E(\pi) \approx 0 = \3.09 .

For only plant_K long-equilibrium. $E(TR_K) - E(TC_K) = E(\pi) \approx 0 = \3.43 .

For only plant_L $P_{B2} - P_{B1} = \$21.80$. For only plant_K $P_{B2} - P_{B1} = \$74.00$.

For only plant_L $Q_{B2} - Q_{B1} = 31.00$ tons. For only plant_K $Q_{B2} - Q_{B1} = 20.00$ tons.

As can be seen the high FC plant, plant_K under workable competition pricing requires wider price differences between P_2 and P_1 and narrower output rates differences between Q_2 and Q_1 .

With transfer prices set at workable competition pricing in off-peak periods, transfer price is above VC. This allows the manufacturing division to show modest contribution margins during off-peaks. I assume manufacturing division produces to meet the demand schedules in the off-peak, no more and no less. In low demand times with only plants_L I assume $P_{B1} = 31.2 + 3.00 = 34.20$ \$ per ton and $Q_{B1} = 32$ tons based on a rough estimate of my demand curves. In low demand times with only plants_K I assume $P_{B1} = 24 + 2.00 = 26$ \$ per ton and $Q_{B1} = 46$ tons based on a rough estimate of my demand curves. For simplicity in the model I drew parallel lines for the two demand curves D_1 and D_2 . More realist would be that D_1 be inelastic, meaning that B_1 be higher than 32.0. The idea is that in low demand times with transfer pricing workable competition pricing the manufacturing division would likely make more plant investment to meet high demand under long-run equilibrium. See only plant_L **Table 3** and **Figure 1**. See only plant_K **Table 4** and **Figure 2**.

Table 3. Corporation profit comparison only Plant_L.

| Pricing rule | Equilibrium points | Frequencies |
|-----------------|-----------------------------------------|---------------------------|
| A: SRMC pricing | (H,D) (36.9, \$31.2), (53.3, \$64.8) | $w_1 = 6/7$, $w_2 = 1/7$ |
| B: WC pricing | (F,C) (32.0, \$34.2), (63.0, \$56.0) | $w_1 = 6/7$, $w_2 = 1/7$ |

Source: **Figure 1**.

Table 4. Corporation profit Comparison Only Plant_K

| Pricing rule | Equilibrium points | Frequencies |
|-----------------|------------------------------------------|---------------------------|
| A: SRMC pricing | (H,D) (48.0, \$24.0), (60.0, \$108.0) | $w_1 = 6/7$, $w_2 = 1/7$ |
| B: WC pricing | (F,C) (46.0, \$26.0), (66.0, \$100.0) | $w_1 = 6/7$, $w_2 = 1/7$ |

Source: **Figure 2.**

7. Corporation Profit Comparisons

Long-run equilibrium requires expected profits for the manufacturing division over the cycle = 0. I proved mathematically that a rigid pricing system over demand fluctuations that gives same expected revenues and same expected outputs is superior to a varying pricing (see [Aranoff, 2011](#)). My results are not dependant at all on the frequencies of the periods. Often what end a business upturn are product shortages during peak demand times. I argue we should keep focus on adequate capacity to meet peak demand. Typically demand curves in off peaks are inelastic and in peak times elastic. In off peak times, buyers look for the lowest price. In peak periods buyers look for availability with price a minor factor. Increasing capacity, however infrequent peak periods are, will surely add to expected consumer surplus over the business cycle. I argue that we should always focus on adequate capacity to meet peak demand.

I claim here that transfer pricing using workable competition pricing adds to consumer surplus whether only plant_L or only plant_K in comparison to transfer pricing using short-run marginal cost pricing. The thought experiment here demonstrates this with reasonable demand and cost numbers. For completely inelastic demand schedules short-run marginal costing and workable competition pricing give identical consumer surplus. More elastic the demand schedule in high demand leads to more consumer surplus under workable competition transfer pricing.

8. Conclusion

We present a theoretical model of corporation division manufacturing cement with two technologies, plant_L and plant_K. We compare two transfer pricing policies for each technology short-run marginal cost pricing versus workable competition over the business cycle. We show in our model a gain in expected consumer surplus with workable competition transfer pricing. We give a detailed numerical example with graphs for each transfer pricing system. The main result is that workable competition pricing over the business cycle increases the amplitude of Q outputs over the cycle and increases consumer surplus for both technologies under certain conditions. The positive effects of workable competition transfer pricing seem more pronounced with plant_L.

Much of our work is based on John M. Clark. He argued against SRMC pric-

ing in industries facing cyclical demand fluctuations. Clark writes that with SRMC pricing in cyclical industries firms would be operating at a loss for the great majority of the time, with vain hopes of exploiting the infrequent peak times (Clark, 1961: pp. 121-122):

“It is decidedly doubtful whether it would be economically feasible to make profits enough in such periods to offset the losses incurred in normal and subnormal periods. And if it were economically feasible, there might be other serious obstacles and drawbacks in the way of exploiting the profitable periods by raising prices as graspingly as would be necessary to balance accounts.”

Clark’s last paragraph in his 1961 book applies today (Clark, 1961: p. 490):

“Meanwhile it remains true that the imperfectly competitive mixed economy we have is better than the impossible abstraction of perfect competition... The system has serious shortcomings, but there is room to hope that our performance in these respects may be substantially improved, if all groups concerned to attack the problems with a realization of their importance and with the necessary understanding and goodwill.”

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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