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COMPETITION

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ABSTRACT

In this essay, I examine the connection between pricing, profit mark ups, competition, and economic activity from a heterodox perspective. These issues are examined utilizing a two-industry Burchardt-Kaleckian production model and a labor-based mark up pricing model; the conclusion reached is that market structure and competition have no fundamental role in affecting pricing, profit mark ups, or economic activity. However, it is generally perceived in heterodox economics that competition does play an important role in the economy. This theme is discussed in conjunction with the going business enterprise.

Key Words: Heterodox, Pricing, Competition

JEL Code: B5, D4,

OLD CONTROVERSY REVISITED: PRICING, MARKET STRUCTURE, AND COMPETITION

In 1994, I wrote an article on Post Keynesian price theory (Lee, 1994) in which I made a number of claims and criticisms. When responding to the article, Marc Lavoie (1996) rejected them on the grounds of the need to simplify the building of models (more specifically macroeconomic models). Paul Downward and Peter Reynolds (1996) also criticized the article on a number of grounds. Coming from an emerging critical realist perspective, my claims of empirical grounding and the use of a Sraffian-like pricing model appeared to them as naïve and working in a closed-system framework. Moreover, they disagreed with my position that pricing models should be empirically constrained and hence should not be ‘ad hoc’ specified to suit the purpose at hand; thus they disagreed with my dismissal of Kaleckian and Weintraubian pricing and price models. In my response (Lee 1996), I focused mostly on the issue of modeling and associated theoretical issues. Needless to say, my critics were not satisfied with my response and wrote a further response (Downward, Lavoie, and Reynolds 1996) focusing on my use of realism and the lack of realism of the simulation pricing model I used to address particular theoretical issues; and ending with the claim that using simplified macroeconomic models is legitimate. The debate qua controversy came to an end with the critics the clear winners; and with it an end to almost any theoretical and empirical engagement among Post Keynesians or heterodox economists over pricing theory and its modeling.

One of the issues that I had thought I laid to rest in the 1994 article as well as in my book *Post Keynesian Price Theory* (1998) is the supposed connection between pricing procedures, pricing policy, the profit mark up, and the degree of market competition. I argued that there was no connection in that irrespective of the degree of market competition (or degree of market

imperfect competition) enterprises used variants of profit mark up on costs and associated pricing policies. Therefore, the distinction between neoclassical pricing models of perfect competition and imperfect competition has no basis in Post Keynesian pricing theory and more generally in heterodox pricing theory. In addition, the distinction between classical competition with its uniform rate of profits and imperfect competition is also unwarranted. The gist of my argument was that, while enterprises saw themselves in a competitive environment, the nature of competition was different from both the classical and neoclassical views of competition and that pricing procedures were independent of the degree of market competition. Since then, I have also concluded that the profit mark up and its magnitude are largely unrelated to the degree of market competition and that the degree of competition qua profit mark up does not affect the degree of economic activity in the economy. In the next section, I review the response to my 1994 *ROPE* article and particularly the criticisms I directed at the mark up prices doctrine; but I conclude the section arguing that the really important issue that needs to be dealt with is the supposed connection between pricing, profit mark ups, competition, and economic activity. In the second section, these issues are examined utilizing a two-industry Burchardt-Kaleckian production model and a labor-based mark up pricing model; the conclusion reached is that market structure and competition have no fundamental role in affecting pricing, profit mark ups, or economic activity. However, it is generally perceived that competition does play an important role in the economy. This theme is discussed in the third section in conjunction with the going business enterprise. The conclusion to the chapter follows.

Old debate: pricing and market structure

The theoretical milieu that formed the context of Post Keynesian price theory in the 1990s consisted of ideas and arguments that congealed around three price doctrines--

administered prices, normal cost prices, and mark up prices--and their associated pricing procedures qua models: target rate of return pricing, normal cost pricing, and mark up pricing. Although the doctrines and their pricing models are not incommensurable with each other (Lee 1998), variations in their cost accounting foundations generate different pricing equations. Individually, of the three, the mark up pricing model has much less empirical support in terms of costing and pricing procedures used by business enterprises relative to the costing and pricing procedures of normal cost and target rate of return pricing models. Moreover, all three models (especially the latter two) are easily grounded in Leontief-Sraffian circular production models, which have universal empirical support. In contrast, mark up pricing models are generally embedded in an Burchardt two-industry production models in which there is no circular production, but rather a one-way configuration of production grounded in the original factor of production labor.¹ Finally, the profit mark up in all three doctrines are under-theorized and lack empirical foundation beyond their mere existence in that there are very few empirical studies on how enterprises actually determine their profit mark ups for their various products. In particular, Andrews's degree of competition and Kalecki's degree of monopoly are, once the ideology is ignored, more or less the same thing—that is the mark up is somehow related to market competition (or the lack there of) which is determined by the competitive structure of the market that can be empirically approximated by enterprise size, degree of concentration, and other factors affecting competition. The various strengths and weaknesses of the three doctrines suggested, to me at least, that they could be combined in such a way that the weaknesses are significantly reduce if not eliminated while the strengths magnified. But this meant that the mark up prices doctrine, which most Post Keynesians preferred, would lose its preeminence become, at best, co-equal with the other two doctrines. [Lee 1994, 1998]

This outcome was and is unacceptable to most Post Keynesians and heterodox economists, as evident in the responses to my article by Lavoie, Downward, and Reynolds. The reaction to my synthesis of the three doctrines into an integrated Post Keynesian-heterodox theory of pricing and prices was directed towards my rejection of the near universal assumption of constant average direct costs, differentiation between normal cost and mark up pricing, and proposing the use of a multi-market interdependent pricing model. Each of the objections, if sustained, would rehabilitate the one- or two-sector labor-based mark up pricing model. Common to and essentially underpinning the objections was a methodological concern over the relationship of the real world to economic models and their ‘internal world’.

When developing the pricing model, I took the position that it must be empirically grounded, which meant that it must incorporate the diversity of pricing procedures found in the real world. Drawing upon the empirical evidence I gathered at the time (Lee 1995, 1998; also see Gu and Lee forthcoming), I developed a general pricing model based upon the diversity of pricing procedures that was theoretically differentiated, like the real world. The model stood in contrast to the simplifying assumptions and stylized facts used to articulate the much simplified mark up pricing model. It is easy to show that the two models generate different quantitative results (Lee 1996); but are the results theoretically significant? This point generated much heated debate since it appeared to Downward, Lavoie, and others that without the use of simplifying assumptions and their resulting models, it would not be possible to carry on a range of research of interest to Post Keynesian economists. In particular, the methodological position adopted by many Post Keynesian-heterodox economists is that simplified empirically inaccurate models can actually contribute to understanding the real world and hence it is appropriate to

construct different kinds of models, including quite inexact but simple models, to examine different kinds theoretical and real world issues and arrive at empirical and practical results.

Little methodological justification (other than referring to open system theorizing) has been put forth for the position. There is, after all, a difference between a simplified model that includes the appropriate structures and causal mechanisms and an empirically inaccurate or false model in terms of structures and causal mechanisms, for the latter cannot provide meaningful empirical and practical results. Moreover, given the mathematical tools available, it is unclear why it is not possible to utilize a differentiated yet simplified model that can be used to investigate theoretical issues of interest to heterodox economists and arrive at empirical and practical results. However, because inexact and simple models have a tenuous connection to the real world and hence are not structurally or causally constrained by it, it is possible to examine its operation and outcomes on its own terms. Hence, it is possible to explore the world of the model and then claim (but without any methodological justification) that what is analyzed in the model has something to say about the real world. This is perhaps the basis for support of this methodological position—that is, working with models where the real world is an inconvenient backdrop.

These particular concerns are minor relative to a possibly more important theoretical point, that there is a disjuncture between the pricing model of the economy and its corresponding output-employment model and hence the elimination of any price-output/employment relationship. That is, the factors that determine the prices are distinct and separate from those that determine output and employment. This not only means that demand curves of any sort cannot be located in the analysis as well as the notion of profit maximization; it also suggests that variations in the profit mark up (or Kalecki's degree of monopoly) do not affect economic

activity. But there is also a much deeper issue which was not part of the old controversy and which I did not fully perceive at the time—that is the degree of competition/monopoly, which represents whether markets are imperfectly competitive or not, actually has no analytical foundation or role in Post Keynesian-heterodox analysis. That is, the often made assumption of imperfect markets qua imperfect competition to justify a mark up pricing (or any pricing) model is without meaning or relevance. This is in fact the fundamental issue that can be taken from the old controversy.

Competition, profit mark ups, and economic activity

In heterodox pricing literature, it is often argued that under the market conditions of imperfect competition, enterprises use mark up pricing procedures and the degree of imperfect competition or monopoly determines the profit mark up;

$$(1) \quad [ADC][1 + k] = \text{price}$$

where ADC is average direct costs and is either assumed constant or determined at normal capacity utilization, and

k is the profit mark up or degree of monopoly or competition.

Since ADC is assumed as to be known, the determination of the price requires that k be known.

So to close the pricing model, two arguments are used. The first is that the profit mark up is determined by fundamental (as opposed to immediate market) forces, such as market concentration, sales promotion, and the ratio of overhead costs to direct costs, all of which imply a market structure where enterprises have at least some control over competition. The second argument first assumes ADC is constant and equal to marginal costs, then introduces a enterprise demand curve, and finally equates the profit mark up to the price elasticity of demand (e_d) derived from the demand curve:

$$(2) \quad k = (e_d - 1)^{-1}.$$

Given this derivation of the profit mark up, it is also possible to say that the enterprise is engaged in profit maximization since mark up pricing is equivalent to equating marginal costs to marginal revenue. More significantly, as the price elasticity of demand descends from infinity (perfect competition) towards one, the profit mark up increases, thus giving the impression that it emerges within in the context of market exchanges and competition: so the more competition the smaller the mark up and vice versa. However, the concept of the enterprise demand curve is highly problematical in mainstream theory, and there is no theoretical (and empirical) basis for such a demand curve in heterodox theory. In addition, there is very little evidence that enterprises consciously and explicitly adjust their profit mark ups in light of changing degrees of competition. Therefore, if a case is to be made that mark up pricing and the profit mark up are linked to a certain kind of market structure qua degree of competition, then some other arguments are needed.² [Lee 1990-91a, 1990-91b, 1998]

Since the above problems emerge because of the need to close the pricing model is needed. There is a possible alternative approach that is Kaleckian in origin and hence thematically consistent with mark up pricing is a two-industry price-output-employment model where workers spend what they get and capitalists spend all their profits on investment goods. To see what it is, first consider the following very inexact two-industry price-output-employment model of the economy:

$$(3) \quad Q_m(l_m w_m)(1 + r_m) = Q_m p_m$$

$$Q_c(l_c w_c)(1 + r_c) = Q_c p_c$$

where Q_m is the output of machines,

Q_c is the output of the consumption good,

l_m is the constant labor production coefficient for the machine industry,

l_c is the constant labor production coefficient for the consumption good industry,

w_m is the wage rate in the machine industry,

w_c is the wage rate in the consumption good industry,

r_m is the profit mark up in the machine industry,

r_c is the profit mark up in the consumption good industry,

p_m is the price of machines, and

p_c is the price of the consumption good.

Assuming that only labor costs are used as the cost base for setting the price, the pricing model of the economy is

$$(4) \quad (l_m w_m)(1 + r_m) = p_m$$

$$(l_c w_c)(1 + r_c) = p_c.$$

Production in the model consists of machines with labor producing machines and machines with labor producing consumption goods. In order for the economy to be productive, that is to produce more machines than used up in the production of machines so that the ‘surplus’ machines could produce consumption goods, the output-machine ratio for the machine industry, q_{mm} , must be greater than one. On the other hand, the output-machine ratio for the consumption goods industry, q_{cm} , needs only to be greater than zero. Finally, given the constant labor production coefficients and assuming homogeneous labor, total employment, L , is proportional to the output of machine and consumption goods: $l_{mm}Q_m + l_{cm}Q_c = L$. For the moment, it is assumed that all the machines produced in the machine industry are entirely used up in the production of machines and consumption goods, thereby making the surplus of the economy

consist entirely of consumption goods, Q_c . Thus the output-employment model of the economy is

$$\begin{aligned} & [q_{mm}/(q_{mm} - 1)][Q_c/q_{cm}] = Q_m \\ (5) \quad & q_{cm}M_c = Q_c \end{aligned}$$

$$l_m[q_{mm}/(q_{mm} - 1)][Q_c/q_{cm}] + l_c q_{cm}[Q_c/q_{cm}] = L$$

where M_c is the number of machines currently used in the consumption goods industry.

The technical givens of the price and output-employment models are the labor production coefficients l_m , l_c , and the output-machine ratios q_{mm} and q_{cm} ; values for the given for the money wage rates w_m and w_c are exogenously given; and the quantity of Q_c is assumed. The unknowns of the model include p_m , p_c , Q_m , M_c , L , r_m , and r_c . With five equations from (4) and (5) and seven unknowns, two additional equations are needed to close the model. Utilizing the Kaleckian proposition that capitalists spend all their profits on machines, we have the following:

$$(6) \quad Q_m(l_m w_m)r_m = (Q_m - M_c)p_m$$

$$(7) \quad Q_c(l_c w_c)r_c = (M_c)p_m.$$

Equation (6) states that all the profits in the machine industry are spent on purchasing machines to replace those that have worn out; while equation (7) states that all the profits of the consumption good industry are spent on purchasing machines to replace those that have also worn out. Thus all profits are spent on purchasing investment goods (that is machines). With these two equations the model is fully specified and given the above assumptions, all the unknowns are determined.

What is significant about these results is what determines the profit mark ups. In the case of r_m , it is technically determined by q_{mm} :

$$(8) \quad r_m = 1/(q_{mm} - 1).$$

As for r_c , it is determined by the technical givens of the model as well as the assumed values for the wage rates:

$$(9) \quad r_c = \frac{l_m w_m}{l_c w_c} \times \frac{q_{mm}}{q_{cm}(q_{mm} - 1)}$$

One implication of equations (8 and 9) is that the profit mark ups *per se* emerge prior to market transactions and so are non-price phenomena, and hence exist prior to any degree of market competition, because the machine industry produces more machines than it uses up on production, $q_{mm} > 1$ and more generally because $Q_m > 0$. A second implication is that their magnitude is determined by the fertility of the production process modified in the case of r_c by wage costs; hence changes in the profit mark ups arise from changes in the external technical conditions of production and the wage rates: the more fertile the technology, the greater q_{mm} and q_{cm} are and hence the lower the profit mark ups are. Thus, the magnitude of and changes in the profit mark ups are not affected by any degree of competition; in fact, market competition has no role to play in the determination of the profit mark up, prices, or any other aspect of the model.

One outcome of this structural determination of the profit mark ups is that variations in Q_c neither affect the profit mark up or prices—that is Q_m and Q_c are unrelated to their prices, which means that there are no enterprise demand curves and the price elasticity has no role in determining the profit mark up. This implies that there is no role for any ‘market power’ derived from some structural characteristics of market exchanges in the determination of the profit mark up. A second outcome is that the profit mark ups in general are technically qua structurally differentiated, meaning no uniformity of profit mark ups (which is nearly equivalent to saying that there is no uniform rate of profit). Moreover, there is no reason that they should be equal. That is, given technology, the profit mark ups are designed to ensure that for any given Q_c , Q_m is appropriately divided between two industries to ensure production. A final outcome is

that the profit mark ups per se has no impact on overall economic activity since Q_c is determined independently of them. Thus, technical change that reduces q_{mm} and/or q_{cm} resulting in the reduction of the profit mark ups does not affect Q_c but does affect the total amount of labor employed. Similarly, changing wage rates can affect r_c but has not affect on total economic activity, but rather only on the division of Q_c among the workers in the two industries.

In short, what the above analysis indicates is that competition and market structures have no fundamental systemic theoretical role to play in the model. Thus, the Post Keynesian reliance on market structures, imperfect competition, degree of monopoly, and downward sloping demand curves to explain the profit mark up and the use of mark up pricing procedures has no basis in the model. On the other hand, their support for differentiated mark ups is well corroborated by the model; however, the differential mark ups carry no implications regarding the degree of competition or market power. Moreover, the expectation that strategic competition (Moudud 2010) will drive profit mark ups to uniformity has no support as well as there is no room for profit maximizing behavior to exist. Finally, if the model is slightly extended to the production of more machines than used up in production, then profit mark ups are affected, moving in the same direction as the production of the surplus machines.³ This outcome supports the Post Keynesian view noted above that links investment to the profit mark up, but this has little to do with competition or a uniform rate of profit.

Of course these outcomes are clearly specific to the overall inexact model developed above (equations 3-7). However, they do not significantly change when the model is made more empirically exact and is extended to circular production with non-basic surplus of fixed investment, government, and consumption goods, profits being spent on fixed investment and consumption goods, and the state demands and purchases the state goods with state money (Lee

2011). In particular, profit mark ups retain their non-market origins and determination, their non-uniformity, and their stability in faced of different degrees of monopoly qua competition. Yet there is a wide spread belief among heterodox economists that competition in one form or another plays an important role in the economy, even if it does not play a fundamental role. To examine this point, it is necessary to go to the concept of the going business enterprise.

The going enterprise and competition

The concept of the going concern refers to business enterprises with continuity of economic activity and an indefinite life span (as opposed to a terminal venture or an enterprise in the process of liquidation). It consists of a going plant or productive capabilities and a going business which referred to managerial activities, such as investment, research and development, and pricing, that affect the enterprise's market transactions over time. For the going plant and the going business to work together to ensure a flow of actual and expected transactions, there must be working rules (institutions) within the going concern that make it happen; and also an external array of working rules which ensure that the flow of transactions in the market place occur in a manner which enables the going business enterprise to continue indefinitely.

Moreover, the going enterprise needs to reckon its costs, revenues, and income (profits) in a manner that does not disrupt its productive capabilities; and this requires the implementation of appropriate working rules known as pricing procedures. Thus, a going business enterprise has the productive capabilities, managerial capabilities, and the working rules including pricing procedures that enable it to have expectations of a future which is in some degree of their own making. This means that the going enterprise has the capabilities qua power (that are independent of the market and hence market imperfections) of affecting market transactions.⁴

[Storey 1959; Sterling 1968]

The theoretical significance of the going enterprise is that it is the organizational mechanism by which the capitalist class gains ongoing access to the state-monetized social provisioning process through the continuous flow of profit-derived dividends and salary income. Thus the motivation of the business leaders of a going enterprise is to maintain and augment this cash flow, and this is accomplished through a hierarchical set of goals, the most basic being survival qua reproduction and continuation of the business enterprise. This requires a positive business income, that is profits; but seeking profits is not an end in itself. Rather, profits are needed to maintain the going enterprise and for the capitalist class to have access to the social provisioning process. Consequently, business leaders are not seeking to maximize profits but to generate a flow of business income needed to meet their goals and access to social provisioning. Therefore, the going enterprise adopts a variety of sub-goals or particular business strategies with different temporal dimensions, such as increasing market share, increasing the profit mark up through raising it or reducing costs, developing new products and creating and/or entering new markets, engaging in collective price-determination, and/or seeking government support, to meet this objective.⁵

As suggested above, to be a going enterprise, it is necessary to employ pricing procedures that are designed in some manner to set a price that both covers costs and generate profits. To illustrate this point consider a very simple model of the going enterprise where its going plant produces a single product at normal capacity utilization. For production to occur, the enterprise must have enough working capital on hand to procure the necessary amount of direct and overhead inputs. Once obtained, production occurs, the output sold, and the revenue collected. If the amount of total revenue received at the end of the production period equals the initial expenditure of working capital for the inputs, the enterprise can repeat the process for succeeding

production periods thus reproducing the going enterprise over time as long as the original sum of money advanced is returned:

$$\begin{aligned}
 &\text{production period 1: } M_{wc} \rightarrow TC_n \rightarrow P_n \rightarrow TR_n \\
 (10) \quad &\text{production period 2: } M_{wc} \rightarrow TC_n \rightarrow P_n \rightarrow TR_n \\
 &\text{production period n: } M_{wc} \rightarrow TC_n \rightarrow P_n \rightarrow TR_n \\
 &\text{etc.}
 \end{aligned}$$

where M_{wc} is the cash advanced in the form of working capital;

TC_n is total costs at normal capacity utilization;

P_n is production at normal capacity utilization; and

TR_n is the total revenue at normal capacity utilization.

Thus in the simple model, the going enterprise can only engage in sequential acts of production at normal capacity utilization only when total costs equals total revenue, or, more specifically, only when the enterprise sets its price equal to average total costs at normal capacity utilization: $p = NATC$. The model can be extended beyond the simple reproduction of the going enterprise by postulating that total revenue is greater than total costs at normal capacity utilization, which necessitates setting a price that covers costs and produces a profit: $p = [NATC][1+r]$. Through the use of mark up, normal cost, or target rate of return pricing procedures, the going enterprise can (assuming normal capacity utilization or greater) ensure that it remains a going concern that both generates incomes for the business leaders which gives them access to the social provisioning process and at the same time enables the enterprise to reproduce and as well as to expand and develop.⁶

The implication of the above model is that the price set by the going enterprise is crucial to its reproduction and expansion over time. That is, if the enterprise's price fell below costs,

NATC > p, then it could not long continue to engage in sequential acts production and reproduction. Moreover, if its price is below $[\text{NATC}][1 + r]$ so that the 'target' profit mark up is not achieved, then the enterprise would have a cash flow short-fall resulting in delaying or dropping investment and product development plans, and a reduction of dividend payments. Thus, the model suggests that the going enterprise is driven, irrespective of competitive market conditions, to adopt and utilize normal cost, mark up, and or target rate of return pricing procedures to first ensure that the price covers costs at normal capacity utilization and secondly to apply a profit mark up consistent with its cash flow or profit needs.⁷ Determined through administrative action within the enterprise prior to production (hence knowledge of actual costs) and market exchange, the enterprise administers its normal cost prices to the market. The primary property of such administered prices is that they remain unchanged from three to twenty-four months, for many sequential transactions, and for variations in output qua sales.⁸

Because the going enterprise exists in markets with other competing enterprises, competitive conditions may generate market prices that would seriously affect the going enterprise's ability to reproduce and expand. As noted above, going enterprises have capabilities of affecting market transactions, hence the ability to inflict unacceptable consequences upon competitors. In particular, they have the ability to a greater or lesser degree to eliminate the positive net cash flows of competitors, in so far as the cash flows are derived from, or depend upon, activities in the markets in which they participate. Competition between enterprises in the production and the sale of goods involves the use of these capabilities and is the effort of trying to make a profitable volume of sales in the face of the offers of other enterprises selling identical or closely similar products. Aspects of competition include advertising, service, product development, and price. The combination of capabilities to affect market transactions and

competition creates the all too real possibility of price wars and destructive competition. So given the immediate impact a price war has on the enterprise's profits and hence cash flow, enterprises are driven to establish market governance organizations that would eliminate the problem of destructive price competition and establish a stable market price: going enterprises are always in search of orderly markets through collective, cooperative action.⁹ Such organizations that engage in market governance and regulate competition include trade associations, cartels, open price associations, price leadership, and government regulatory commissions; in addition, governments enact legislation that also regulates competition.

The foundation of all market governance organizations are social network relationships of the competing enterprises, some of which are multilateral relationships while others are associational relationships.¹⁰ That is, enterprises engage in collective action to bring competitive order to their markets. In some cases, market governance is carried out via a cartel where collective action sets prices and regulates competitive interaction; but in other cases, it is carried out via price leadership with an underlying associational relationship among other enterprises to follow the price leader. Moreover, whether the degree of market concentration is high or low or the barriers to entry are significant or not, they have little impact on market governance *per se*; rather they only affect the organizational form that market governance takes. Therefore, all markets are characterized by regulated competition constructed by going enterprises. So all markets are equally competitive; and all enterprises take into account other enterprises when making pricing (and investment, research and development, and marketing) decisions. And most significantly, the going enterprises create a form of market governance that regulates competition in their interests: competition is pervasive but not pernicious or destructive.¹¹

Conclusion

Philip Andrews characterized the combination of oligopoly and competition as competitive oligopoly (Lee 1998, ch. 5).¹² But since competitively regulated markets via a market governance organization exist for all industrial, wholesale, and retail markets, the neoclassical distinction of competitive vs. imperfectly competitive markets and the heterodox-Marxian distinction of competitive vs. oligopoly-monopoly capitalism have no basis. Because competitively regulated markets have existed (at least in the Great Britain and the United States) since before 1800, the view that competitive capitalism existed in the 19th century and monopoly capitalism existed in the 20th century also has no basis. To be sure, the organizational form of market governance changed from associational to large enterprise price leadership, but the degree of competition remained regulated.¹³ Finally, regulated competition is not the same as classical competition. What this suggests is that going enterprises are embedded in a regulated competitive environment of their own making. So competition is perceived as pervasive, but competition shorn of its destructive potential. In this context, competition affects the life span of a particular going enterprise, but not the going enterprise in general. That is, competition is something that individual enterprises are concerned about, but it has no impact on the fundamental social relationships that govern capitalism, on the existence of profit, profit mark ups, or economic activity.

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Notes

¹ This type of production model has no empirical support whatsoever: see Lee (1998: ch. 12) and Miller and Blair (2009: Appendix B).

² There is a third argument which has the profit mark up determined by the need to fund investment. Hence enterprises consciously change their mark ups to adopt their cash flows to match their investment financing needs. However, there is almost no empirical evidence to support this very interesting theoretical position. [Lee 1998]

³ While the pricing model of the economy (equation 4) remains the same, the output-employment model becomes

$$(5a) \quad \begin{aligned} [q_{mm}/(q_{mm} - 1)][Q_c/q_{cm} + M^*_m + M^*_c] &= Q_m \\ q_c M_c &= Q_c \\ l_m [q_{mm}/(q_{mm} - 1)][Q_c/q_{cm} + M^*_m + M^*_c] + l_c q_{cm} [Q_c/q_{cm}] &= L \end{aligned}$$

where M^*_m and M^*_c are the extra machines to be produced; and
 $Q_m = M_m + M_c + M^*_m + M^*_c$.

Finally, the Kaleckian equations become

$$(6a) \quad Q_m (l_m w_m) r_m = (Q_m - M_c - M^*_c) p_m$$

$$(7a) \quad Q_c (l_c w_c) r_c = (M_c + M^*_c) p_m.$$

When solving for the profit mark ups, we find that they are now a function of the production of the additional machines:

$$(8a) \quad r_m = \frac{[q_{mm}/(q_{mm} - 1)][M_c + M_m^* + M_c^*] - M_c - M_c^*}{M_c + M_c^*}$$

$$(9a) \quad r_c = \frac{l_m w_m}{l_c w_c} \times \frac{[q_{mm}/(q_{mm} - 1)][M_c + M_m^* + M_c^*]}{q_{cm} M_c}$$

Thus for a given M_c , increasing either M_m^* or M_c^* will result in higher output, employment, prices, and profit mark ups; but since the amount of the consumption good has remained the same, the real income of workers decline.

⁴The going concern conception of the business enterprise originated with Veblen and Commons and is virtually identical to the conception of the business enterprise used by Post Keynesian and Marxist economists. [Commons 1957; Ramstad 2001; Kaufman 2006; Veblen 1904]

⁵The implication of sub-goals or strategies with different temporal dimensions is that they overlap with each other. Consequently, it is not possible to argue in terms of short period or long period or the classical-Marxian long period, or any other kind of analytical ahistorical time period. The only permissible analytical time period is historical time.

⁶The model can be extended to include variations in capacity utilization and differential allocations of profits between dividends and the procurement of the plant and equipment needed to expand capacity. The model can also be extended to the case of a multi-product enterprise.

⁷Whether such a profit mark up is competitive or not cannot be ascertained in large part because the mark up itself is not based on competition per se. Evidence is sparse on the determinants and behavior of profit mark ups of specific products, but it appears that the need for a particular cash flow contributes significantly to the magnitude of the profit mark up and that profit mark ups remain stable of extended periods of time, such as five or ten years or more (since prices themselves remain constant for up to two years—see fn. 8). But when they do change, competitive pressures are often referred to, not fluctuations in demand. [Lee 1998]

⁸ The evidence of price stability is extensive—see Lee (1998), Blinder, et al. (1998), and Fabiani et al. (2007). This suggests that administered prices are set largely without reference to an inverse price-sales relationship and are not set to achieve a specific degree of capacity utilization. In various studies of price determination, business enterprises have stated that variations in their prices within practical limits, given the prices of their competitors, produced virtually no change in their sales and that variations in the market price, especially downward, produced little if any changes in market sales in the short term. Moreover, when the price change is significant enough to result in a non-insignificant change in sales, the impact on profits has been negative enough to persuade enterprises not to try the experiment again.

⁹ This claim is highly contentious since suggests that going enterprises and their business leaders are collectivists, co-operators at heart and not the aggressive individualist concerned about nothing else than their own narrow self-interests. It is rather remarkable that Marxists (and other heterodox economists but generally not Institutionalists) hold this latter position, which is also held by Austrian and most other mainstream economists.

¹⁰ The social network represents the social and economic interaction of the agents in terms of codes of moral-economic behavior, trust, familiarity, and business customs. Thus, it both constrains the set of actions the agents can choose as well as facilitates market transactions.

¹¹ Breakdowns of market governance occur, but they are exceptions not the rule. And when they do, efforts are immediately undertaken to re-establish some form of market governance. In fact, in many cases, the breakdown of one form of market governance was the result of the establishment of a different form of market governance. Moreover, there are cases where new entrants into a market are incorporated into the existing form of market governance as a way to re-establish market stability.

¹² Oligopoly exists when enterprises recognize the existence of other competing enterprises and thus realize that their strategic decisions regarding prices, for example, will elicit responses from their competitors. While oligopoly does suggest fewness (and corresponding large size and high barriers to entry), the exact number is indeterminate. In fact, through social networks and associational relationships, enterprises and their business leaders can recognize interdependency over a very large number of competitors that can be geographically dispersed and so adopt a motto that an injury to one is an injury to all.

¹³ This rejection of the competitive-monopoly dichotomy of the Paul Sweezy and the monopoly capital school as well as the social structures of accumulation school leaves untouched its core theoretical contribution of ‘the tendency to economic stagnation. My argument is, instead, that capitalism has always been prone to economic stagnation for reasons unrelated to competition. [Baran and Sweezy 1966; McDonough 1994]