

CHAPTER 7

Business Enterprise, Competition, and the Determination of the Market Price

For markets to exist there must be continuous and sequential transactions of specific products and the transactions must enable the enterprises to reduce themselves. Both of these requirements require an extensive social network underlying the transactions. At a minimum the social network must consist of some form of property rights, a social and physical infrastructure that facilitates transactions, and a set of understandings about the nature of the relations between competitors, buyers and sellers about how business is done and what are the appropriate structures and practices that comprise business activity. In fact, without such a social network, it is not possible for markets to exist. Therefore, let us take a closer look at four of the essential components of the social network. The first component is for capitalist markets to exist there must be clear definitions of capitalist property rights.

[MORE WORK HERE]

The second component are the general rules in a society that define relations of competition, cooperation, and market specific definitions of how enterprises should be organized. These general rules will take two forms: laws and more informal institutional practices. Laws specify how enterprises may cooperate, compete, or merge. These laws, generally called antitrust, competition, or anti-cartel laws, are contested as well. All advanced industrial societies have some form of these

laws. This contestation occurs over their evolution from proposal, to passage, to enforcement, and to judicial interpretation. The informal institutional practices are embedded in existing organizations as routines. The mechanisms of transmission are numerous and range from the exchange of professional managers to the existence of professional associations and management consultants. They concern a large number of issues from the structure of the enterprise, to writing labor and management contracts, and where to draw the boundaries of the enterprise. They also include the current conventional view of what constitutes legal and illegal behavior of enterprises vis-a-vis one another.

The third component is the conception of market control that is specific to the participants in a specific market or closely related markets. Enterprises in markets are interested in controlling their internal organization and their environment so as to be able to ensure their reproduction and growth. In order to do so, they must have a set of understandings of how their worlds work that operate to structure their perception of their world, allow them to interpret their world, and act. This kind of local knowledge means that enterprises with two different conceptions of control will analyze the same situation in different ways. One can also conceive of a conception of control as a political compromise that management across enterprises use to stabilize their relations with one another. The purpose of action in a given market is to create and maintain stable worlds within and across organizations in the market. This requires a

conception of control that implies a cultural view of the world specific to the market and a set of enforcement mechanisms whereby that view is held in place. The state must ratify, help create, or at the very least, not oppose the conception of control. The specific form of control will reflect agreement on principles of internal organization, tactics for competition and cooperation, and the hierarchy or status ordering of enterprises in the existing market.

The fourth component are the rules of exchange, that is rules that define who can transact with whom and guarantee that the conditions surrounding the transactions are met. Rules must be established as relates to shipping, billing, insurance, and exchange of money. These conditions are important, not just within societies, but become even more important across societies. Clearly states are essential to the creation and enforcement of rules of exchange.

Competition

The most important form of potential instability in a market is price competition and the major objective of enterprises in markets is to produce a form of control which will produce a stable market. Before discussion those points in detail in subsequent chapters, let us first discuss the notion of competition and what affects its degree of severity within a market. Competition between enterprises in the production and the sale of goods is the effort of such enterprises, acting independently of one another, each trying to make a profitable volume of sales in the face of the offers of other enterprises

selling (or possibly) selling identical or closely similar products. Aspects of competition include: price, selling costs - advertising and service, and product 'development'.

The factors that might affect the strength of market competition include the size of the business enterprise size and market concentration. To investigate the relationship between enterprise size, market concentration and market categories, we first need to define what is meant by size and then determine whether it is appropriate for our use in discussing market concentration. Enterprise size can be defined in a variety of ways: (1) total assets, (ii) value added (iii) invested capital, (iv) sales, and (v) employment. Because we are interested in market concentration and the relationship between the enterprises in the market with respect to the determination of the market price, the only relevant definition of enterprise size is sales.

More specifically, because we are only interested (for the moment) in the enterprise's size with respect to a single market, its size can only be defined in terms of its specific market sales. Therefore a multi-product enterprise might have a total sales of X but only a percentage of it is found in any one market; hence the enterprise's size for any particular market can be defined as $y = aX$ where y is the total sales in a particular market per time period, say, accounting period, a is the percentage of total enterprise sales, and X is total enterprise sales for the accounting period.

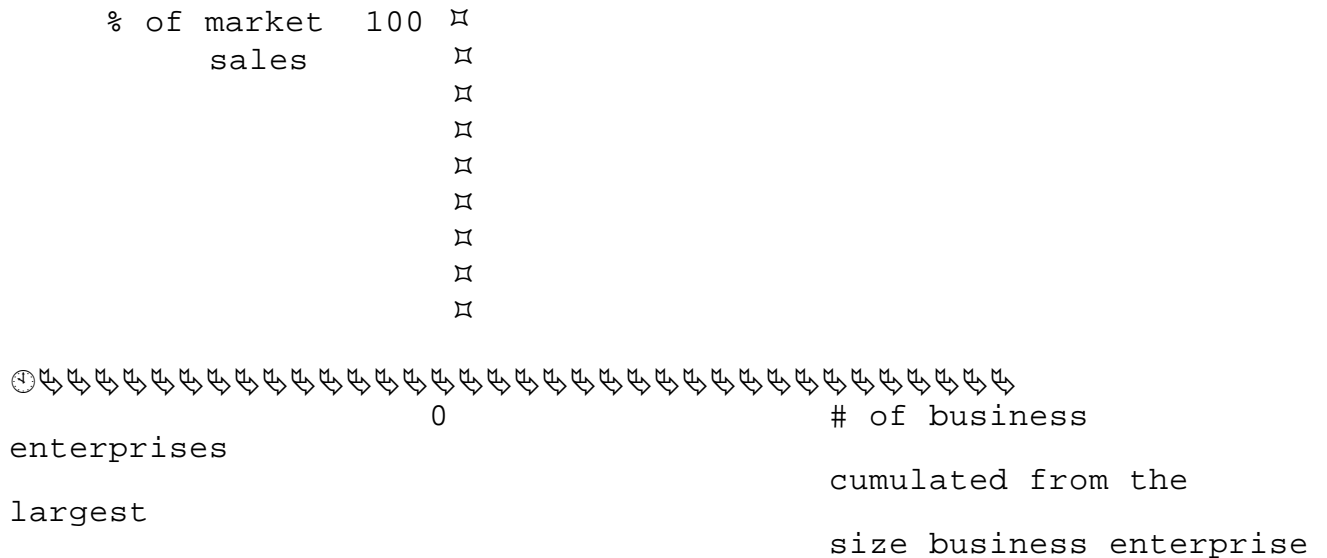
Now we are in the position to discuss market concentration. Like enterprise size, market concentration can be defined in

terms of invested capital, total assets, value added, sales and employment; but we are only concerned with it being defined in terms of sales. Moreover market concentration can be measured in a variety of ways, each providing a specific kind of information.

a) Absolute Measures of Market Concentration

- (i) Concentration curve: it simply traces out in a cumulative manner the percentage of market sales with respect to the cumulative number of enterprises starting with largest size enterprise first.

Figure 7.1



- (ii) 4-enterprise concentration ratio - it is a point on the concentration curve which denote the top four share of total market sales.

b) Inequality Measures of Market Concentration

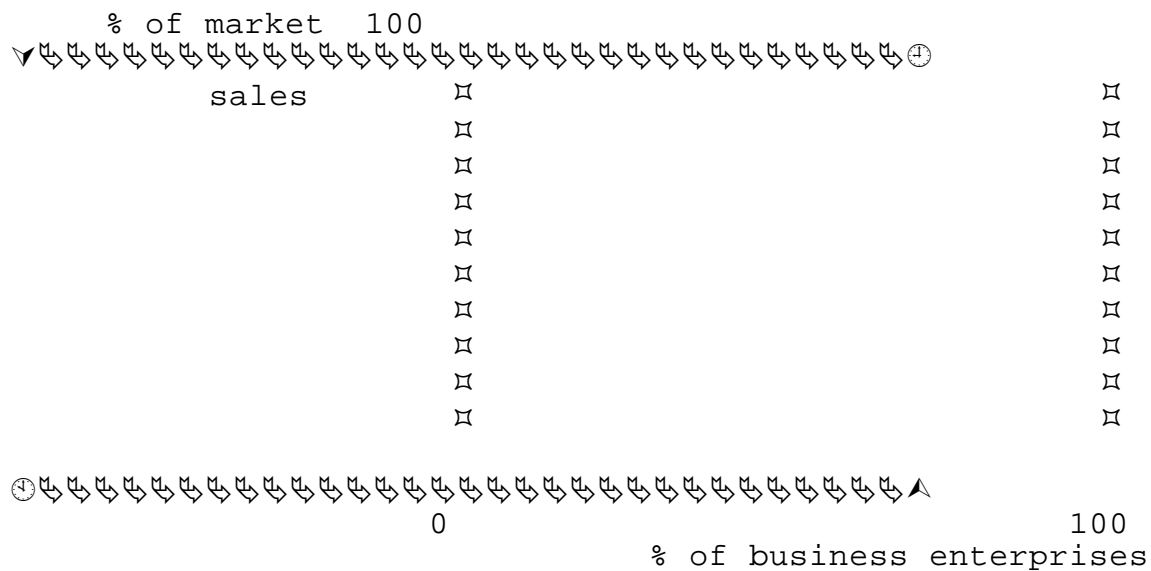
The above measures of concentration deal with only part of the enterprises in the market and have a difficult time

expressing the impact of the dispersion of enterprise sizes might have on our understanding of market concentration. Hence a summary measure which accounts for firm size inequalities is needed.

(i) Gini coefficient - it is derived from the Lorenz Curve, which shows as a continuous function the percentage of total sales accounted for by any given fraction of the total enterprise population, with the enterprises ranked in order of market share.

Lorenz curves can be characterized numerically by means of the Gini coefficient, which measures the departure between the Lorenz curve actually observed and the curve that would appear if all enterprises had equal market shares. A Gini coefficient of zero indicates perfect equality of enterprises shares; a coefficient of 1.0 reveals total inequality. The principle problem with the Gini coefficient is that it does not readily distinguish between markets that have few enterprises of equal size and many enterprises of equal size.

Figure 7.2



cumulated

from the smallest size business
enterprise

(ii) Herfindahl-Hirschman Index - $H = \sum s_i^2$ where s_i is the market share of the i th enterprise. When a market is occupied by only one enterprise, the index attains its maximum value of 1.0. the value declines with increases in the number of enterprises n and increases with rising inequality among any given number of enterprises. By squaring market shares, the H index weighs more heavily the values for large enterprises than for small enterprises.

Of all the measures of market concentration, the Herfindahl-Hirschman Index comes the closest to providing an understanding of the correlation between market forms, and numbers of enterprises and market concentration. A "low" value would indicate that there are many enterprises in the market and that size differentials are not great compared to the market as a whole. Hence, jumping ahead a bit, such a market could be characterized as an associate market in that the enterprises must co-operate, say through a trade association, to set a stable uniform market price. On the other hand, a high index would indicate that there are few enterprises in the market and that size differentials are great compared to the market as a whole. Hence such a market could be characterized as a leadership market in that a price leader could exist who would set a stable market price. Finally an "in between" index would characterize a leadership/associative market.

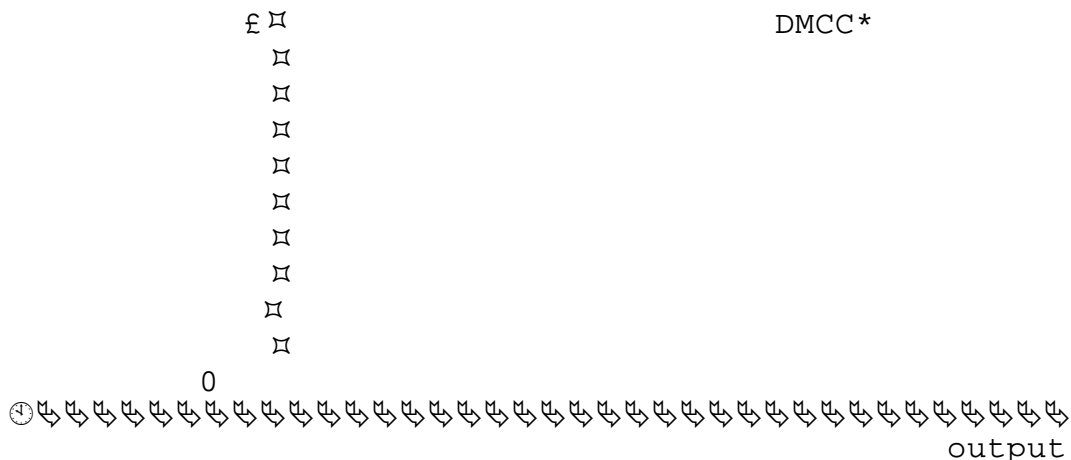
Market Power and the Market Price

All enterprises have some sort of market power and this creates problems. Market power is the ability to inflict unacceptable consequences upon competitors, suppliers, and/or customers; enterprises with market power have the ability to eliminate the positive net cash flows of competitors, suppliers and/or customers in so far as that cash flow derives from, or depends upon, activities in the markets in which the holder of market power trades. The basis of market power are the following: nature of market, demand and inter-dependency; controlling inputs/outputs of competitors; raising input prices of competitors; lowering output prices/cost advantages; financial strength--banks and funds generated in other unaffected markets; and relative market concentration.

Since all enterprises in the market have some degree of market power, the problem of establishing a common uniform market price emerges through the interaction between enterprises because of their different characteristics. One such difference between enterprises can be located in their cost structure with respect to sequential production. To show this, let us first consider a descriptive market cost curve. To construct such a curve, let us assume that the number of enterprises in the market is given and fixed, and that each enterprise in the market is producing at normal (or standard) capacity utilization. Given these assumptions, and ranking the enterprises by cost, a descriptive market cost curve (DMCC) can be drawn:

Figure 7.3

Descriptive Market Cost Curve



where DMCC* is the descriptive market cost curve when each enterprise in the market is producing at normal output.

Now assuming that the market price is fixed, that each enterprise has decreasing ATC, and that relative market shares remain constant in face of fluctuations in market output, the descriptive market cost curve would lie above the DMCC* if the actual output of the i th enterprise is less than its normal output. Conversely, the descriptive market cost curve would lie below DMCC* when actual enterprise output is above its normal flow rate of output. Given this analysis of the DMCC, let us now investigate it within the context of sequential production.

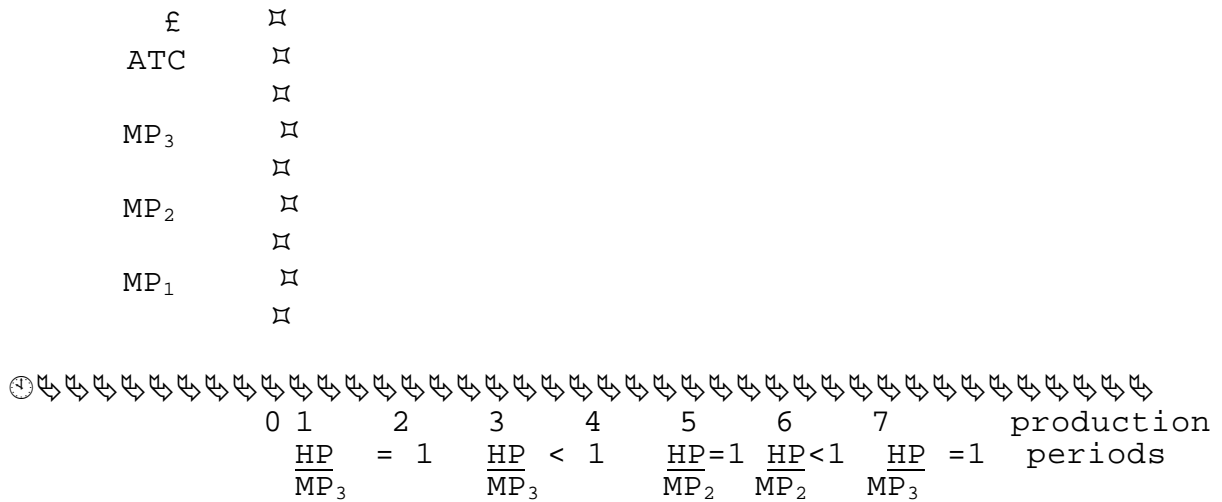
The movement of the DMCC over production periods can be presented in the following manner:

Figure 7.4



which is lower than its competitors prices in an effort to increase sales and to produce a positive profit margin. If all enterprises in the market immediately match the lower price, the net result will be a lower costing margin hence profit margin at any flow rate of output. This can be seen above if the market price falls to MP_2 or MP_1 all the enterprises in the market will be worse off, especially the high and medium cost enterprises. The above conclusion indicates that any price reduction will be fruitless and implicitly undermines the enterprise's ability to engage in sequential production. Therefore the question that must be asked is why do enterprises initiate such acts of self destruction. The answer can be found in the nature of sequential production. If a enterprise can charge/set a price lower than its competitors' prices without them knowing it, then its sales will increase relative to the other enterprises as the floaters and less strongly attached buyers change their buying patterns. The price differential will last only as long as its existence is kept from the other enterprises. Thus because price information is not generally instantly available to all enterprises in the market, individual enterprises can engage in one-upmanship economic behavior which can generate immediate profits but ultimately results in a completely demoralized market and individual self-destruction. This argument can be illustrated in Figure 7.5.

Figure 7.5



where HP is the price charged by the high cost enterprise;

$$HP = MP_2 \text{ when } HP/MP_3 < 1; \text{ and}$$

$$HP = MP_1 \text{ when } HP/MP_2 < 1.$$

As Figure 7.5 indicates, the price policy of one-upmanship leads to extremely low market prices and to the self-destruction of the initiating enterprise. To eliminate it, the enterprises in the market must be able to control future prices.

A second such difference can be found in growth or market sales rate expectations. Because enterprises initiate plans to increase capacity ahead of actual sales, a change in the market - hence enterprise - growth rate will initially exhibit itself as a slump in sales or no growth. Thus the enterprise's actual ATC would most likely be higher than its counterpart NATC.

Therefore, given any market price, there will generally be some high cost enterprise that will try to shade it in order to increase its short term level of output. However, such a enterprise policy, as noted above, would only be successful if it

remained hidden from its competitors; but that is generally unlikely except for the briefest of time. Consequently destructive price competition generally breaks out in this transition period, leading to price instability and lower enterprise profits. Underlying this, 'superficial' response to the change in the market growth rate is the overall conflict of the enterprises' growth plans within the market. That is, some enterprises in the market might try to maintain their accustomed growth through eliminating the higher cost enterprises by a price war and occupying their economic space. Thus market price instability and low enterprise profits will exist for the period of time while the enterprises in the market "work out" their mutually inconsistent growth plans.

There may be other reasons and characteristics of enterprises which make it impossible for a group of individual enterprises to arrive at the same market price. Consequently, there emerges a set of market institutions and arrangements established by the enterprises themselves to do the trick. These institutions and arrangements go under the names of trade associations, price leadership, government regulation and collusion.

Terms

competition
social network
concentration curve
4-enterprise concentration ratio
Gini coefficient
Lorenz Curve
Herfindahl-Hirschman Index
market power
descriptive market cost curve
one-upmanship

Exercises and Questions

1. Describe the forces which determine the strength of market competition.
2. Discuss the extent that the severity of competition can differ between markets.
3. Define market power and what is the basis of market power?
4. Why does market depression destabilize the market price and reduce profits?
5. Why does a significant and permanent drop in the market growth rate destabilize the market price and reduce profits?
6. Identify two differences between enterprises in the same market which creates the problem of establishing a single market price. Why do these problems push enterprises to set up market institutions and other arrangements whose purpose is to establish a single market price?

Readings

1. Clifton, J. A. 1987. "Competitive Market Process." In The New Palgrave Vol. I A to D, pp. 553 - 556. Edited by J. Eatwell, M. Milgate, and P. Newman. New York: Stockton Press.
2. Richardson, G. B. 1972. "Organization of Industry," The Economic Journal 82 (September): 883 - 896.
3. Fligstein, N. "Markets as Politics: A Political-Cultural Approach to Market Institutions." American Sociological Review (forthcoming).
4. Moss, S. 1981. An Economic Theory of Business Strategy. New York: John Wiley, ch. 8.