

## Theories of competition and monopoly

A NUMBER of US Marxists characterise the contemporary stage of capitalism as that of monopoly capitalism. These analysts, including Baran, Sweezy, Steindl, O'Connor and Sherman, distinguish between two stages of capitalist development: the stage of free competition and the stage of monopoly capitalism. They maintain that competitive capitalism revealed an inherent tendency towards the formation of monopolies at the end of the 19th Century as evidenced by the growth of large units of capital. Monopolies are now a general phenomenon (see Baran/Sweezy 1966, p18). The market prices of monopolised commodities were raised and 'the equal profit rates of competitive capitalism (were) turned into a hierarchy of profit rates, highest in the most completely monopolised industries, the lowest in the most competitive', (Sweezy, 1968, p285).

From these observations the theorists of monopoly capitalism conclude, first, that the law of value as a law of regulation of exchange values in competitive capitalism is no longer valid. They argue that monopoly prices cannot be derived from values as was previously possible (Sweezy, 1979). Accordingly, prices become an arbitrary phenomenon and the law of value is valid only for the economy as a whole. For prices a law no longer exists. Or, as Sweezy expresses it: 'No reasonably general laws of monopoly price have been discovered because none exist'. (Sweezy 1970, p271). The second conclusion is that

monopoly prices and a hierarchy of profit rates between monopolised and non-monopolised industries, or between large and small firms, lead to stagnation and increasing instability in the monopoly stage of capitalism.

This view of contemporary capitalism has become very popular, especially since the publication of Baran and Sweezy's book, 'Monopoly Capital' in the 1960s. However, many other Marxists have felt that the notions of competition and monopoly used by these authors are based more on the orthodox theory of perfect/imperfect competition than on the notions of competition worked out by Marx in his economic writings. As a result the following questions have been raised:

■ Have the theories of monopoly capitalism correctly interpreted the Marxist (and the classical) notion of competition and can 20th Century Capitalism be adequately interpreted as 'a stage of monopoly capitalism'?

■ Is it correct to refer to writers who followed Marx, such as Lenin, Hilferding, Bucharin and Varga, as the forerunners of the theory of monopoly capitalism, or does this neglect important streams of thinking in Marxist theory?

■ Is there sufficient empirical evidence of monopoly prices persistently above prices of production and a persistent hierarchy of profit rates, to support their position?

■ If differential profit rates between or within industries really exist can they not be explained on the basis of the classical and Marx's own theory of competition? Is a new framework really necessary?

■ Don't we need to distinguish between the notion of monopoly, which refers to market power, and the socio-economic power of large units of capital (or in other terms between monopoly power and corporate power?)

In the first part of this paper I will compare the neo-classical and classical theories of competition with Marx's own theory and that of Marxist writers that followed him. In the second part, I will discuss the empirical evidence on monopoly prices, monopoly profit rates and a hierarchy of profit rates. The third part asks whether the empirical 'fact' of differential profit rates contradicts the theoretical position of classical and Marxist political economy. In the last part of the paper, I will return to the difference between so called 'monopoly power' and 'the power of large units of capital'.

## Neoclassical Theory

Neoclassical economists often consider the classical theorists to be the founders of neoclassical general competitive analysis, (Arrow/Hahn 1971, p2, and Stigler 1957). There are of course

some elements in classical theory, particularly in Smith's work *The Wealth of Nations*, which lend themselves to the neo-classical conception of economic life (see Smith 1974, Chapter VII). Competition in Smith's sense meant 'free competition': everyone should act according to their self interests. There should be no barriers to economic activities. The market is the place where individuals and their interests are co-ordinated and disturbances eliminated. The fundamental mechanism that produces an efficient allocation of resources is the supply and demand mechanism. Moreover, this mechanism is considered to be the only economic institution that can guarantee freedom, equality and justice for the individual.

Neoclassical writers extended this aspect of Smith's theory of a market system by formulating several conditions under which efficient resource allocation and an optimum level of social welfare would be realised. The main conditions necessary for a perfectly working competitive market system are seen as: profit maximising producers and utility maximising consumers; a sufficiently large number of market agents; no externalities among their activities; perfect mobility of resources between industries; and perfect foresight. Given these preconditions the competitive process guarantees that prices converge towards equilibrium prices. This allows a continuing exchange of commodities between market participants. Not only is the existence of equilibrium prices guaranteed by the market system, but the elimination of disturbances and an optimal allocation of resources is brought about by competition.

These characteristics of the standard neoclassical view of competition require some qualification. First, this theory of competition can be seen as a 'quantity theory of competition'. (Weeks, 1978). The intensity of competition in the market, for example, among producers, is measured by the quantity of firms in the industry. It is assumed that the larger the number of firms the closer to the optimum level the results will be. Second, a central and major assumption is that prices and quantities converge towards an equilibrium driven by competitive forces. Disequilibrium between supply and demand will be eliminated by price and quantity reactions and exogenous distortions of the market mechanisms will disappear in the course of time. A change in the technique used by producers and a change in their structure will, after a short adjustment time, lead to a new competitive equilibrium. Equilibrium will not be brought about by a violent equalisation of disequilibrium (by a crisis, Marx assumed) but is a result of a continuous and smooth process of convergence. A third



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characteristic of the neoclassical view is the exclusion of uncertainty, risk and expectation – all factors which are very important elements in the capitalist mode of production.

Once these idealised market conditions are accepted as prerequisites for perfect competition and the achievement of a social welfare optimum, deviations can consequently be considered as leading to 'imperfect', 'restricted' or 'monopolistic' competition. Deviations are caused by (1) industrial concentration which allows a greater share of the market for leading firms, (2) coalitions, agreements and collusion among participants in the market, and (3) a limited mobility of resources between different industries (market entry and exit barriers). All three factors allow leading firms to influence prices and quantities by withholding production and raising prices. Thus once the theory of perfect competition is accepted, the notion of monopoly or oligopoly power is determined in advance by the assumptions and treated as an anomaly. Deviations from 'competitive prices' and the existence of differential profit rates are then left to be accounted for by a theory of 'imperfect competition'.

Although neo-classical economists trace their theoretical roots back to Smith, classical political economy (Smith, Ricardo) developed a notion of competition and long-run equilibrium that is different from the neoclassical theory of perfect competition. The main features of classical political economy are the concept of reproduction and social surplus, a concept of a centre of gravity for market prices, and a particular notion of 'equilibrium'. These three features are closely related to the particular concept of competition found in classical political economy. Classical political economy assumed that once the technical conditions of production (i.e. the real wage and workers per unit of output) are given, the system of production generates a surplus product that can be distributed among the remaining classes of society. Since in classical theory workers' consumption is regarded as a necessary part of the social reproduction, the surplus is defined as: Surplus product = social product – (replacement of means of production + necessary consumption). Competition determines the distribution of the surplus product, not the size of it.

The *values* of commodities are seen as determined by their *costs of reproduction*. The costs of reproduction of commodities are the centre of gravity for market prices, around which actual prices fluctuate. Adam Smith called this centre of gravity *natural* prices. These are composed of the rewards of

### **The Classical Theory of Competition**

the factors of production (wages, profits, and rent). The natural prices of commodities and factors of production, in Smith's sense, which together form the centre of gravity for the movement of market prices, are independent of supply and demand. Natural prices are the long-run effects of competition, which, according to Smith, determine 'the natural employment of each factor of production'. It is assumed that rates of return on factors of production are equalised as a result of the tendency of factors to move from areas of low to high returns.

Assuming equalised prices of production and abstracting from the existence of landed property, Smith's natural prices may be expressed as vertically integrated wages and profits. Thus we can write the price of the commodity  $i$  as:  $p_i = w_i + \pi_i$ , where  $w_i$  and  $\pi_i$  are the vertically integrated wages and profits. This is also called the adding up theory of prices. Relative prices are then given by the following relation:

$$\frac{P_i}{P_j} = \frac{w_i + \pi_i}{w_j + \pi_j}$$

For Ricardo, the centre of gravity for market prices is determined by the direct and indirect labour required for the production of commodities. Relative prices are thus considered to be a function of the labour embodied in the commodities. We can express this price determination in the following way:

$$\frac{P_i}{P_j} = f\left(\frac{\lambda_i}{\lambda_j}\right)$$

where  $\lambda_i, \lambda_j$  represent the labour embodied in the com-

modities, (Shaikh 1976). Ricardo, especially in his later writings, also analysed how relative prices are influenced by changes in the distribution of income between labour and capital. This labour embodied theory was a good first approximation of a theory of value and of the determination of a centre of gravity for market prices. However, the classical theory of price determination should not be interpreted as one containing an equilibrium price in the sense of the general equilibrium theory. It is a centre around which actual prices (market prices) fluctuate. It is not assumed that prices react to excess supply and demand and converge on an equilibrium.

Classical political economy sees prices as being determined by two elements (Deleplace 1981). Firstly, natural prices determine the centres of gravity around which market prices fluctuate. Then, secondly, supply and demand (the only law that is fundamental in neo-classical economics) determine the

fluctuations. This latter element plays a lesser role in classical theory than in modern competitive equilibrium theory. Demand and supply, like other forces (e.g. random events, speculation, restricted mobility of capital or temporary monopolies), cause deviations from the centre, but they do not determine the centre of gravity itself. It is the failure to grasp this two step process found in classical economics that marks the neoclassical theory of competition and price formation.

### **Marx's theory of competition and disequilibrium**

Compared with Smith and Ricardo, Marx had a very much more elaborate and differentiated concept of competition. For Marx competition is the result of the self-expansion of capital and is related not only to the circulation of commodities but also to *production, realisation* and *distribution* of surplus value. In production the result of competition between capitals is to produce surplus value. In circulation, competition of capitals means extending the market share and improving the conditions of realisation of surplus value. Competition between different sectors of capital is related to the distribution of surplus value and tends to equalise rates of profit across all sectors. For Marx, the regulating centres for market prices are prices of production, given by  $(1 + \pi)(c + v)$ , where  $c$  and  $v$  represent constant and variable capital, and  $\pi$  the average rate of profit. Since prices of production can be derived from values, market prices are in the last instance regulated by socially necessary labour time. For Marx competition has two distinct tasks, that of equalising prices within sectors which leads to the emergence of different rates of profit within them, and that of promoting the mobility of capital so as to form an average rate of profit across different sectors. Competition does not bring about a smooth process of adjustment and convergence toward equilibrium prices, but disequilibria and deviations from the centre of gravity.

Within each industry we can see the existence of differential rates of profit because of the deviation of market prices from prices of production, following from the fact that production techniques are not the same for all firms in an industry. Firms with better techniques can capture surplus profits. Thus within a single industrial sector, differential profit rates are quite normal and the existence of differential profit rates does not contradict Marx's theory of competition. They do not imply, nor are they identical with, 'decreasing competition', 'imperfect competition' or monopoly power.

Competition between capitals also means that market prices are regulated by prices of production and the actual

profit rates are regulated by the social average. Whereas differential profit rates among capitals within one industry always exist without any tendency towards equalisation of profit rates, the question arises as to how long it will take for market prices to adjust towards prices of production. Another related question is how long it will take for industry profit rates above or below average to disappear and approach the social average rate of profit. Marx's answer is that the time required to adjust supply to demand, market prices to prices of production, and profit rates to the social average, depends on the concrete conditions of production and circulation of commodities. The time required to build up new capacity in industries where the profit rate is above average, to withdraw money capital from fields of employment with low profit rates, to produce and circulate commodities – that is the turnover time of capital – is different in each industry.

The amount of capital that is necessary to produce at the socially necessary cost of production also differs between industries. At one level *restrictions on the mobility of capital* can be overcome by the credit system, but they nevertheless exist and are different in each industry. In Marx's theory, these restrictions on capital and mobility inhibit the tendency towards equalisation of profit rates between sectors. Thus, supply and demand may play a certain role in the formation of differential profit rates. For example, the demand for a commodity increases and the commodity cannot be reproduced immediately – as a result the market price will rise above the price of production and an above average profit rate will appear.

Marx then did not assume that profit rates will be equalised in all spheres of production. The process of competition between capitals produces differential profit rates as well as an equalisation tendency. As Marx puts it: '... the average rate of profit does not obtain as a directly established fact, but rather is to be determined as an end result of the equalisation of opposite fluctuations', (Marx, *Capital* Vol III, p368). Within the general body of his theory, Marx thus analyses three main causes of differential profit rates. The first arises from the differences of productivity of different capitals within an industry, leading to the emergence of surplus profits for more efficient capitals and lower profits for the least efficient capitals. The second occurs when access to the conditions of production is restricted and the entry of new capital, or the exit of old established capitals, is limited. The third arises as a result of disequilibrium of supply and demand.



In the literature which develops a theory of two stages of capitalist development three causes are posited as the reasons for the genesis of monopoly capitalism and monopoly profits: the *concentration* of production within industries (combined with centralising of capital across industries), increasing *constraints on the mobility of capital* because of a high proportion of fixed capital in certain sectors, and the *collusive behaviour* of corporations and trusts.

In the last quarter of the 19th century Engels was already describing the genesis of trusts and corporations in European countries. But Hilferding was the first Marxist to systematically analyse the changing character of capitalism when, in his book, *Finance Capital*, he posited that increasing concentration in production and circulation, together with the formation of trusts and cartels, marked out a new stage for capitalism. At the same time he analysed in detail the barriers to capital mobility across industries, arguing that increasing organic composition and the accumulation of fixed capital were the most important. As he saw it, competition was decreasing because competition between big capital encouraged collusion and the formation of cartels through which the production and distribution of income became organised. He saw national cartels as being unstable, for they would be overcome by trusts and cartels operating on a world scale. In this way, according to Hilferding, the laws of motion of capitalism are replaced by regulation. Power becomes the dominant force in the economy. Concentration, entry barriers, and collusion result in monopoly prices, monopoly profits, and disruption of the tendency towards equalisation of profit rates. Marx's theories of competition and differential profit rates are no longer discussed. They are regarded as obsolete.

Lenin (1965), by referring to the empirical results of Hilferding, also analysed the replacement of free by monopoly competition. He, however, considered the capitalist mode of production as one of self-expansion and accumulation of capital. He posited that competition is not abolished by concentration but renewed on a higher level, (see also Weeks 1978). Thus Lenin speaks not only of *increased monopoly*, but also of *monopolistic competition*. Concentration and oligopolisation of industries imply not increased stability but rather the increased instability of capitalism. Bucharin (1973) another writer in the twenties, extended Lenin's theory but at the same time limited it to national capitals on the world market. For him, competition and rivalry existed only among capitals of different nations.

Thus, in the early part of the twentieth century, we can

see different streams in the discussion of the monopolistic stage of capitalism. One stream emphasises the abolition of competition. Power, especially regarding prices and profits, becomes the dominant force in the economy, bringing about a persistent hierarchy of profit rates. The other stream keeps Marx's theory alive, holding that – regardless of the genesis of monopolies – capitalism is regulated by the self-expansion and competition of capital. Monopoly profit is related to special cases (Varga 1968) and, in the long run, is threatened by competition from other capitals.

Later economists, such as Dobb, Kalecki, Lange, Sweezy, Steindl and Sherman pick up only one tradition in Marxian literature by concluding that concentration leads to the emergence of a persistent hierarchy of profit rates. They no longer refer to Marx's theory of competition and profit rate differentials and, in essence, have adopted a neoclassical rather than Marxist view of competition, within which 'imperfect competition' explains the replacement of the tendency for profit rates to equalise by a hierarchy of profit rates. Not only do these theoretical positions neglect a very important stream of thinking in the earlier literature, the empirical evidence in support of them is ambiguous as well. A number of empirical studies of monopolistic and oligopolistic pricing and profit, differential profit rates, their causes and persistence, have been made and the next section gives a short survey of their methods and results. In the following section we will come back to Marx's theory of competition, by looking at whether it is contradicted by these empirical studies.

## **Empirical evidence**

There have been a large number of econometric studies of the effect of monopolisation on the rate of profit, though these have nearly all been conducted within a neo-classical framework. Nevertheless, an attempt will be made to see what light they can cast on the debate within marxian economics.

The studies assume that the degree of monopolisation within an industry is determined by the following factors:

1. the degree of concentration in the seller market, which is a measure of the number of independent firms in the market and their capacity to influence the market prices of commodities;
2. the height of entry barriers to industries, which is a measure of the mobility of capital between industries; and
3. the degree of collusion between firms within one industry or across industries, which is a measure of the extent to which competition has been eliminated.

**Profits** are measured in three different ways. There is the price-cost margin,  $\frac{P - C}{P}$  where  $P$  is the price of commodities and  $C$  the competitive cost (including a competitive profit rate). Then there is the profit margin  $\frac{P - C}{C}$ , which relates profits to the cost of production. Finally, there is the profit rate,  $\frac{\pi - T}{A}$  or  $\frac{\pi - T}{E}$ , where  $\pi$  is the mass of profit,  $T$  is tax,  $A$  is assets, and  $E$  is equity. All three measures are problematic. The profit margin and the price-cost margin do not measure the profit rate. The profit rate may be above or below the profit margin. Even with the same profit margins, profit rates might be different because of industries' different capital-output ratios. The profit rate is itself an ambiguous measure of the monopolisation of industries. On the one hand the cost of maintaining a monopolistic position (such as excess capacity) may increase the cost of production. Then the empirically measured profits will differ from real profits. On the other hand, in the course of time monopoly profits are generally capitalised by firms. This has an effect on assets. Consequently, if monopoly profits persist over time, the profit rates of monopoly firms converge towards an average.

**Concentration ratios** measure the market share of a certain number of the largest firms within an industry. Those published by the US Department of Commerce as an approximation for the degree of oligopolisation in industries are too rough to measure monopoly. The ratios are therefore generally adjusted for industry groups, for regional markets, for the distribution of firm size within industries, and for the proportion of imports and exports within industries (see Shepherd 1970). Yet after all these adjustments, concentration ratios remain a very rough measure of monopoly because other kinds of concentration (vertical or conglomerate) which increase market power within an industry are not considered.

**Entry barriers** is a concept that was first introduced in the 1950s by Bain. Four types are referred to in the literature: product differentiation; economies of scale; the absolute cost advantages for established firms in comparison with new competitors; and the large minimum capital required to produce competitively. Product differentiation is measured by the advertising expenditures of firms. Economies of scale are measured by the minimum efficient scale of production (the smallest amount at which all economies of scale are realised). Absolute cost advantages can be calculated if the cost of credits, raw materials, and patents are compared for firms or industries.

Capital requirements are usually measured by the amount of investment in industries or by the capital-output ratios.

**Collusion**, the cooperative behaviour of capitalists within industries or across industries, is the most difficult variable to measure. Since it involves all kinds of formal and informal agreements among firms, data is largely unavailable. Some authors have used the number of firms found guilty of co-operative conduct in the US under the Sherman Act, but these cases can not reveal the real extent of collusion among firms.

The empirical studies have employed four types of regressions.

1 In earlier studies a very simple type of regression was used to measure the dependence of profit rates on market power. Market power is measured by concentration ratios. The hypothesis is that concentration leads to collusion, and collusion to higher profit margins or profit rates. Cross-sectional and time series studies for the 1930s, 40s and 50s usually reveal a significant positive relation between concentration and profit rates (see Bain, 1951; Schwartzman, 1957; Mann, 1966; Stigler, 1963; Collins & Preston, 1970), although the correlation coefficients are sometimes very low (see Bain). According to Bain's results, concentration leads to higher profit when the concentration ratio for eight firms is greater than 70%, and according to Stigler's results when the concentration ratio for four firms is greater than 60%.

The methodology and data base employed in these studies were in the main very weak. Moreover these studies could not explain the possible persistence of higher profits due to concentration in the seller market (see Brozen, 1971; Demsetz, 1973a and 1973b). It has been argued that competition and rivalry, even among big companies, make the profit rates of oligopolies converge towards a normal one. Indeed, once the data employed by Mann and Stigler are reexamined after including more industries and extending the time period, profit rates are no longer found to be affected by concentration (see Brozen, 1971a, 1971b, and 1973). Furthermore, the persistence of high profit rates has been found to be due, not to market power but to the higher productivity of firms in concentrated industries (see Demsetz, 1973a & 1973b). Demsetz has shown in numerous studies that a significant relation between profit rates and concentration ratios exists only for large firms – those with assets above \$50,000,000. He therefore concluded that differential profit rates reflect not market power but the efficiency of large corporations in concentrated industries.

2. Multiple regressions have been used to measure the

dependence of profit rates on barriers to entry. One approach has been to run one regression for industry groups with a high level of concentration, and another regression for groups with low concentration. This is in order to separate the effect on profit rates of entry barriers from that of concentration. A number of studies conducted in the 1960s and 70s revealed a significant positive correlation between high profits (profit margins or profit rates) and entry barriers (Bain, 1956 Mann, 1966; Comanor & Wilson, 1967; Stonebraker, 1976; Ornstein, 1973; Qualls, 1972 & 1974). They also demonstrated that it is *only* when there are high entry barriers that high concentration ratios have an effect over time on prices and profits. (Potential competitors could otherwise enter the market and bring down the profit rate to the average.) If market barriers are low, concentration ratios do not show any significant positive relation to profit rates; if there are high entry barriers, high concentration ratios have a significant effect on profit rates (Qualls, 1972; Mann, 1966; Stonebroker, 1976).

It has also been shown that there is a large dispersion of profit rates in industry groups with high entry barriers (see McNally, 1976). This is associated with an extension of the concept of entry barriers to a more general notion. Firstly, it has been suggested that, when oligopoly groups are threatened by new entrants, they develop counter-strategies, such as increasing production. Barriers to entry are thus no longer seen as structural determinants of oligopolistic markets (like economies of scale, heavy capital requirements and concentration), but as an outcome of the activities of oligopolistic firms themselves. This has been argued since the 1950s by people like Harrod, Modigliani, Sylos-Labini and Lombardini, and it has recently been repeated by Caves and Porter (1977). However, the strategies and activities of large firms are difficult to measure, and there are no empirical studies of this.

The second way in which the concept of entry barriers has been extended is that not just entry barriers but also exit barriers might cause differential profit rates. Firms might stay in industries with profit rates below the average if there are exit barriers might cause differential profit rates. Firms might stay in development, high minimum efficient scale of production and heavy capital requirements. In an empirical paper Caves and Porter (1976) showed a significant negative correlation between exit barriers and profit rates. Since the exit barriers are measured in almost the same way as entry barriers were before, the concept of entry barriers has become very ambiguous.

In West Germany, I have found that during the period of stagnation in the 1970s, profit rates in industries were not correlated with concentration. Rather they were highly neg-

actively correlated with the wage share and capital-output ratios, the latter being an indicator for the organic composition of capital (see Semmler, 1979). This can be explained by capital not being able to leave the industries even if profit rates are low: in a period of stagnation and declining demand, entry barriers turn out to be exit barriers and for some time profit rates may be below rather than above the average. (This point was made by Hilferding in *Finance Capital*.)

These results do not contradict those of earlier studies, since those related to the more prosperous period of the 1950s and 60s. Heavy capital requirements and high capital-output ratios may be barriers to entry, but in a period of stagnation and declining demand they are also barriers to exit. Thus these barriers are, in fact, barriers to the mobility of capital. (The steel industry in the 1970s is a good example of how heavy capital requirements act as a barrier to the mobility of capital.)

3. Another type of regression has tried to measure the effect of collusion on profit rates. In order to distinguish the effect of collusion from that of other factors, these studies employ concentration ratios and industry growth rates, as well as an indicator for collusion, as independent variables. The results are surprising. Ash and Seneca (1976) found that collusion may be a result of low profits rather than a cause of high profits. However, since the cooperative activities of firms are secret, these results may not be very convincing (see Fräs & Grees, 1977).

4. Since the rate of profit might be significantly influenced not only by market power but also by other industry variables we find a fourth type of regression. In addition to concentration, these test the influence of supply and demand conditions on the rate of profit. Proxies for entry barriers might also be included. For the most part, the hypothesis being tested is that the rate of profit is more influenced by conditions for the production and realisation of profit than by concentration and entry barriers. These studies demonstrate that profit rates are significantly related to productivity, capital-output ratios and unit wage costs in industries (see Bodoff, 1973 and Schwartzman, 1956) and to growth and demand conditions of industries (see Ornstein, 1973; Hall & Weiss, 1974; and Winn & Leabo, 1974). When the effect of concentration and entry barriers is also taken into account in multiple regression equations, industry supply and demand conditions are shown to have a dominant effect on profit rates (see Ornstein, 1973 and Winn & Leabo, 1974). Studies for other countries have demonstrated the same results (for France, see Deleplace; for Germany see Sass, 1975 and Semmler, 1979). However, these results are convincing only if

we assume barriers to the mobility of capital.

Finally a few studies discuss the relation between profit rates and the size and growth rates of firms. None of these reveals an unequivocal dependence of profit rates on firm size (see Marcus, 1969 and Ornstein, 1973). It is usually taken that medium-sized firms have the highest profit rates and growth rates (see Stekler, 1963). However, other studies reveal that it is not profit and growth rates, but the variance and stability of profit and growth rates that differ for groups of firms of different size. Smaller firms may have the same profit rates as big firms, but their profit rates are more unstable and vary strongly in the course of the business cycle (see Singh & Whittington, 1968 and Eatwell, 1971).

1 Let us now turn to the question of whether the results of the empirical studies on causes of differential profit rates contradict the Marxian theory of competition outlined earlier in this article. As shown above, one type of empirical study was concerned with differentials in industry supply and demand conditions and their consequences for differential profit rates. Studies available from the U.S., France, Canada and Germany reveal a remarkable influence of productivity, capital-output ratio, wage share, share of exports to sales and growth rates, on differential profit rates. Those differentials of profit rates can be explained easily by the Marxian theory of competition. According to this theory, supply and demand are never equal. Differences in profit rates caused by differences in productivity, capital-output ratio, wage share and growth rates of industries may be explained by differences in time to adjust supply to demand – that is to say, the time to build up new capacity, to produce and circulate commodities where the profit rate is high, and to reduce capacity and withdraw capital from industries with low profit rates. The circuit of capital takes time, and this period of time varies among industries. Thus, disequilibria between supply and demand caused by those natural restrictions on capital mobility cause deviations of market prices from prices of production. This seems to be the reason that empirical tests reveal a strong relation between supply and demand conditions of industries and differentials of profit rates.

2. Another type of study refers not to those natural causes of restricted capital mobility but to the monopolization of industries, concentration, entry barriers and collusion – the main reasons for differential profit rates. Most of the recent studies have revealed that there is no persistence of profit rate differentials solely due to concentration. High entry barriers (product differentiation, large-scale production, absolute cost

### **Modern studies and Marxian Theory**

advantages, heavy capital requirements, high capital-output ratios, and entry-preventing strategies of oligopoly groups) which deter new competitors and allow entry-preventing pricing are necessary preconditions for a decreasing internal competition in industries. High profits are revealed only when high concentration is correlated with high entry barriers. On the other hand, unconcentrated industries with homogenous commodities, small-scale production, low capital requirements, low capital-output ratios, numerous firms and an ease of entry result in a profit rate below the average, according to the empirical literature. But these results should be questioned in light of several considerations:

First of all, these empirical results do not mean that there is a stable and persistent hierarchy of profit rates in the long run, or even in the course of the business cycle. Studies for the seventies have revealed that entry barriers turn out to be exit barriers in periods of stagnation and declining demand. Large-scale production, high capital requirements and high capital-output ratios are synonymous with a high proportion of fixed capital in industries. Large capital losses will be the result if the capacity has to be adjusted to declining demand. The rate of profit will fall when capital is unable to adjust sufficiently quickly by vacating a particular industry. Not concentration and entry barriers specifically, but barriers to capital mobility in general seem to be the reason for differential profit rates.

Mobility barriers are different across industry. For industries where the period of adjustment is longer the profit rate will stay above or below the average much longer than in industries with low capital requirements and ease of entry. The mobility of capital and the period of adjustment towards an average profit rate are different. This is confirmed by the empirical tests of concentration and entry barriers. The empirical data can be interpreted in such a way that the profit rates in industries with heavy capital requirements fluctuate much more slowly than in so-called 'competitive industries'. Industries with fewer suppliers and high entry barriers may require a longer adjustment time to reach an average profit than other industries. But, nonetheless, their profit rate is regulated by the average rate of profit. (This conclusion can also be drawn from empirical observation of price movements in so-called oligopolized sectors where the price movements are much slower than in competitive sectors). On the other hand, the degree of concentration, large scale capital requirements, and capital output ratios, do not remain constant in the face of capital accumulation and growth. Industries with a small scale of production, low capital requirements, and low capital-output



ratios can develop into large-scale, capital intensive industries. This happened in most consumer goods industries and even in the service sector in the post-war period. Those industries now have high entry barriers and profit rates above the average.

However, a small number of firms, high entry barriers, and the possibility of collusion, does not mean that the competition among capitals is abolished. As Marx and a certain stream in the post-Marxian literature assume, regardless of concentrated and centralized capital, capitalism is regulated by the self-expansion and accumulation of independent units of capital. Competition among capitals in production, realization and distribution of surplus value cannot be abolished by concentration and entry barriers. In production, the aim of capital is to produce surplus profit by inventing new methods of production, increasing the productivity of labour, and decreasing the cost of production. In circulation, the purpose is to improve the conditions of realization of surplus value by extending the market share. Intersectoral competition, carried out at the level of investments, is related to the distribution of surplus value. The principle of competition is to cheapen the commodities by changing methods of production and capital accumulation.

While fewer independent units of capital in production and heavy capital requirements interdependence among capitals. Product differentiation also has a very ambiguous effect on competition. If the product is differentiated, a monopolistic position can arise, but at the same time new products can be invented as substitutes for old products by new capitalists.

These two considerations lead us to conclude that concentration and entry barriers might decrease competition temporarily in the market and market prices can rise above prices of production temporarily. Since entry barriers are also exit barriers, monopoly profit is related to special conditions and cases, and may, for example in the case of strong exit barriers, turn into heavy losses, (see the U.S. car and steel industries at the end of the '70s). Moreover, in the long run it is threatened by the self-expansion of, and competition with, other capitals.

3. Differential profit rates among firms are to be found in many studies. But there are no studies that can support the hypothesis that the profit rate varies only with firm size. Rather, they demonstrate differences in the variance and stability of profit rates among small and big firms. This finding is also consistent with empirical results about price changes in 'oligopolistic' and 'competitive' sectors during the business cycle. 'Oligopolistic prices' show more rigid and stable prices than the sectors with small firms, where prices fluctuate very

much in the course of the business cycle. The smaller dispersion of the profit rates of big corporations in comparison to small firms, is only an expression of the fact that the profit rates of the big firms are much closer to the average rate of profit whereas the profit rates of the small firms fluctuate much more around the average rate of profit (see Clifton, 1977). Moreover, differentials in profit rates among firms in a particular industry and between firms within concentrated and unconcentrated industries do not contradict the Marxian theory of competition and prices of production as the center of gravity. Within industries, there are always capitals with lower or higher costs of production because of different techniques used by different firms within one industry. At the same market price, or price of production, the firms have different cost prices, and thus different profit rates. Thus, different rates of profit *among firms* is not necessarily a sign of monopoly power.

4. Many studies reveal differences in price-cost margins ( $\frac{P-C}{P}$ ), in profit margins ( $\frac{P-C}{C}$ ), or in mark-ups

$(MC + W)(1 + A)$  among industries or firms ( $MC$  = material cost,  $W$  = wages,  $(1 + A)$  = mark-up). In linear regressions, concentration and entry barriers are correlated with price-cost margins profit margins or mark-ups (see Qualls, 1972 and 1974). But, nonetheless, significant positive results are not equivalent to differentials of profit *rates* due to concentration and entry barriers. Since  $\frac{P-C}{P} = \frac{rK}{pX}$ ,  $\frac{P-C}{C} = \frac{rK}{CX}$ , and  $(MC + W)(1 + A) = MC + W + \frac{rK}{X}$  where  $\frac{K}{X}$  is the capital-

output ratio, differences in price-cost margins, profit margins and mark-ups might reflect only differences in the capital-output ratios or in the organic composition of capital among industries or firms. Since, in concentrated industries or industries with high entry barriers, the capital-output ratios are mostly higher (see Ornstein/Weston, 1973), the firms or industries might have the same profit rates, but different price-cost margins, profit margins or mark-ups. Moreover, calculated mark-ups by firms – since Kalecki a sign of monopolistic stage of capitalism and imperfect competition – do not contradict the classical theory of prices of production and the center of gravity concept. The mark-up over prime cost – in Kalecki's theory a measure of the degree of monopoly power – might only be another expression for the *uniform* profit rate. The mark-up over prime cost is  $A = \frac{r}{MC + W} \frac{K}{X}$ . Thus, the mark-up must be different in

industries where the capital-output ratio ( $\frac{K}{X}$ ) is different,

whereas the profit rate  $r$  may be the same in all industries. The mark-up is equal to profit rate only if we assume one-year turnover, and thus equate stock and flow (see also Brody 1974:89). Thus, we can conclude that empirical observations about different mark-ups in so-called oligopolized and non-oligopolized industries and different changes in mark-ups in the long run or in the course of the business cycle do not confirm increasing market power or profit rates in so-called oligopolized sectors, and do not contradict the classical and the Marxian theory.

Summing up, we can say that the numerous econometric studies conducted mostly by orthodox economists do not provide clear cut support for the monopoly capital hypothesis, wherein, oligopolized industries and/or large scale firms should show profit rates *persistently* above average profit rates. Indeed, as the studies show, differential profit rates can exist for a considerable time, but whereas differential profit rates among firms clearly can be expected from the Marxian theory of competition, differential profit rates between different industries do not contradict the Marxian theory.

Institutional changes in the structure of capital do not necessarily mean that firms have extended their power over all markets where they operate and can now control their external environment. However it can be said that large corporations – as large units of capital – have extended their power over production processes. Yet, assuming these kinds of institutional changes does not mean that we get into conflict with the Marxian theory of competition. In the following I want to put forward four tentative hypotheses that may help to initiate a further discussion of large corporations.

1. It is obvious that large corporations cannot be considered as 'powerless' single-product firms located in certain industries and regions, and limited in their economic mobility. The large corporations, as multi-product and multi-plant corporations, are large scale units of capital and have many production processes in many industries and regions at their disposal. What Marx analysed in Vol. I of *Capital* as the power of capital over the production process and the disposal of workers over the production process and the disposal of workers and means of production has been realized with the growth of large scale firms. However the power over production processes has, according to Marx, another expression: it is the disposal over

### **Monopoly Power and Corporate Power**

large financial resources (money capital). Multi-plant and multi-product corporations have such resources at their disposal and can increase their money capital almost independently from monetary policy of central banks. Moreover, this allows them to allocate capital to different industries and countries and to shift resources from one industry to another and from one region and country to another. Moreover, with their financial power, they can resist the unionization of industries or firms and resist wage and other demands of unions.

It follows that those large units of capital, which organize production across industries, regions and countries, are more powerful than single monopolies, which are located only in one industry and are a result of a certain market structure. We can therefore say that neither the 'locus nor the nature of the economic power from which these contemporary problems stems has anything to do with the market, let alone a monopoly position in the market.' (Clifton 1979, p.3) There are many ways in which these large units of capital can escape the constraints of the monetary and fiscal policy. In addition to the use of their independent financial power to escape from monetary constraints these include: the use of the method of transfer pricing to minimize tax burdens; shifts in productive capital or money capital from high to low wage countries; and variations in the rate of production in different countries or regions when threatened by a labor unrest (see Clifton 1979, p.3). These large corporations as units of large capital obviously possess economic power beyond market power. This power rarely has anything to do with market structure and the degree of concentration of industries where they operate; it has more to do with aggregate concentration, absolute size, and power over production processes.

2. Analysis of the changes in the structure and power of the large units of capital does not lead to rejection of the Marxian theory of competition, value and prices of production. According to Marx, the units of capital – represented, for example, today by multi-plant and multi-product corporations – are concerned with the reproduction and self-expansion of capital. Self-expansion of capital – the growth of the firm – is (as widely accepted) the aim of large corporations. For the Marxian theory of competition, the competitive fights of capitals are a result of the self-expansion of capital. Fewer units of capital does not imply decreased competition and decreased rivalry. Concentration and centralization of capital also does not mean less mobility of capital, as maintained in the post-Marxian theory of monopoly. On the contrary, we can see that historically, as the units of capital have become larger, the mobility of capital –

especially of money capital – has increased. The large units of capital, i.e., modern corporations, are independent centres of financial power; they can shift money capital quite easily (see Clifton 1977) from one region to another and from one industry to another when the competitive fight of capitals makes such actions necessary. The traditional notion of 'monopoly', however, only refers to a market structure which differs from 'perfect competition' in that it has fewer units of production and less mobility of physical resources leading to less competition and more monopoly power. But, in the Marxian sense, less 'perfect competition' does not mean less competition. Thus, large units of capital do not imply that the degree of competition and rivalry decrease. Competition is the result of self-expansion of capital. One of the main fields where the battle of competition is fought is 'cost competition', or, as Marx put it, competition is a battle for 'cheapening the commodity' (see Shaikh 1978).

3. According to the theory of monopoly, which is oriented to the market structure of industries, more monopoly power means monopoly prices and monopoly profit rates. From monopoly as a general phenomenon (see Baran/Sweezy 1966, Ch. I) it follows that the theory of value has to be rejected because laws of prices can no longer be analyzed. We cannot necessarily draw these conclusions if we look at monopoly from the point of view of large units of capital or large corporations. The existence of corporate power, or power of large units of capital, does not necessarily mean that there will be prices which persistently deviate from prices of production and that there will be a hierarchy of profit rates. As shown in many recently published articles, the pricing procedure of large corporations does not contradict the classical and the Marxian theory of process of production as center of gravity of market prices. The pricing method of large corporations or oligopolies in industries is oriented toward long-run normal cost, long-run normal output and long-run prices. Administered prices, mark-up pricing and target rate of return pricing can be seen as different, but only slightly varying, methods to calculate a long-run centre of gravity for prices which guarantee an average rate of return on investment for large corporations or their operating divisions, and thus guarantee a steady rate of the self-expansion of capital. The recent discussion on pricing methods of oligopolies or large corporations (see, for example, Coutts/Godley/Noodhaus, Eichner, Clifton) show that pricing methods observed for oligopolized industries or for corporations do not contradict the classical and Marxian theory of gravity centre but, on the contrary, are quite consistent with it.

4. These two different concepts – the concept of monopoly power and the concept of the power of the large units of capital – lead to different political implications. The concept of monopoly power or market power implies that the market structure has to be controlled and regulated by the state (anti-trust policy for regulating the market shares of firms). If we refer to the power of large units of capital – a power beyond market power and a competition beyond firm competition in industries – the aim of the policy should be the control and regulation not of market shares but of the financial resources, investment and production of the large corporations. This concept of regulating economic power, which is widely discussed in Europe, especially among trade unions in Italy, Germany and France, goes beyond the traditional anti-trust policy.

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