

## **CONSIDERATIONS ON MEASURING PERFORMANCE AND MARKET STRUCTURE**

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**Abstract:** According to neoclassical theory, the relationship between the price, respectively of marginal cost and market structures, the methods for determining the performance of a firm or of an industry, deviate from the model of perfect competition. Assessing performance involves performing comparisons, reporting that their reference level can be a standard value, or a statistical value which can be a national-regional average, a homogeneous group, or an average value at a market level. Modern theories of the firm view that they may have other objectives than profit, which need to be taken into account when analyzing performance. Therefore between indicators for assessing the economic performance of an entity or a certain level of aggregation can not lack the profit or the gross operating surplus (gross profit), gross or net added value, turnover, as well as effort indicators like gross investment, tangible, intermediate consumption, cost of production, labor productivity, energy consumption, total productivity of production factors, etc.. It will be presented the main economic and financial indicators of enterprises, by class size and ownership in Romania.

**JEL classification: M20, M21, M29**

**Key words: critical; performance; market structure; added value at factor cost; turnover; profit; gross investment; gross result of the exercise**

### **1. INTRODUCTION**

According to neoclassical theory, the relationship between the price respectively of marginal cost and market structures, the methods for determining the performance of a firm or if an industry, deviate from the model of perfect competition.

In a perfectly competitive market where firms are size, approximately equal and small, that they can not influence price formation. It is formed on the market short-term marginal cost. In this case the price in the short term may be positive or negative in the long term, the price tends to be equal to marginal cost which means that long-term profit tends to be zero.

Competitive behavior<sup>1</sup> expresses that companies are actively competing with each other. Being in small numbers, they have some real power on the market. Each firm has the ability to raise prices for products offered for sale and to continue to attract buyers. Such companies have the power to decide, within the limits imposed by customer preferences and competitive prices, the price buyers will pay it.

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<sup>1</sup> I. Băbăiță, I. Imbrescu, "Microeconomic. Bazele microeconomice ale activității agenților economici", Ed. Mirton, Timișoara, 2008, p. 176-177.

## 2. OBJECTIVES

The main real market structures, without markets with perfect competition are: oligopoly, monopoly and monopolistic competition. In the oligopolistic market price is set above the marginal cost and short-term profit can be positive or negative size. In the long run, profit may be, also, positive or negative, since existing firms may establish barriers to entry for new firms.

In a monopoly industry, firms set price at a level that exceeds marginal cost. This possibility is therefore that profits exceed those specific competitive circumstances. Short-term profits can be positive or negative, long term profits are positive or zero.

In monopolistic competition, on the market exist a large number of economic agents of different sizes, indicating that the necessary investments are not a barrier to entry and exit of the branch. If the entry of new firms in the industry does not mean an increase in market demand, then there is a significant reduction in demand for existing companies. Increasing the offered quantity will affect the price, a large produced quantity will find a buyer only at lower prices. On short term the prices and profits are as in the situation of monopolies, on long-term price tends to settle a portion of the curve decreasing average cost, which means that profit is zero.

Costs, prices and profits<sup>2</sup> are, in fact, the "primary" performance of firms and industries used for determining other aspects of performance indicators capable of reflecting the ability of markets and companies to provide benefits for consumers.

The performance expression forms should allow determination of more elements, including the following:

- nature results as output, investment, exports, profits, which official statistics are usually present in indicators: turnover, gross investment, direct exports, added value at factor cost, gross result of the exercise;

- system that generated productive performance: firm or industry. These are shown in official statistics as economic and financial indicators of enterprises with main activity of industry, construction, trade and market services, on class size and ownership.

## 3. METHODOLOGY

Assessing performance involves performing comparisons, reporting that their reference level can be a standard value, or a statistical value which can be a national-regional average, a homogeneous group, or an average value at a market. A prerequisite for accurate comparability of the performance of different companies, industries and economies, is the rigorous definition of the measure unit and the methodology for determining it. For example, the "turnover" is conditioned by many factors - production capacity, market share, product quality, production structure, innovation, employment, marketing and management, etc. To these difficulties are added those of complexity, difficulty of different activities of these entities. In these circumstances there are several possibilities for making comparisons, including the following:

- making comparisons between industries or between enterprises by confronting the current status of a previous reference to assess progress or regress made in a period of time. In this way avoids comparisons between companies and industries that do not have the same position, fully comparable;

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<sup>2</sup> C. Russu, *Economie industrială*, Editura Economică, București, 2003, p. 308.

- making comparisons between companies and industries, respectively by size classes of firms, using a limited number of relevant indicators such as turnover, exports, gross result of the exercise, etc., which gives the possibility to perform;
- using criteria that have the ability to cover both aspects of qualitative and quantitative, of the work performed by an entity or group of productive entities.

Performance should reflect the specific activity from a particular perspective. The level of analysis to which comparisons can be different made: companies, groups of companies with some similar characteristics acting in an industry or class size, etc..

Range of criteria against which performance can appreciate a business is extremely broad. Among the criteria discussed in the literature, the profit is considered the neoclassical theory, the most relevant criterion for several reasons:<sup>3</sup>

- is an indicator that reflects the efficiency of production and market sales of goods and services;
- reflects the allocative efficiency of resources and the combination of production factors in relation to their prices;
- reflects the extent to which company has the ability to innovate, to adapt the production structure and demand structure by adopting an market behavior appropriate to the market dynamics.

#### 4. ANALYSES

Neoclassical model of the enterprise which has as main objective, maximizing profit is criticized several aspects:<sup>4</sup>

- demand curves and cost curves that on which the offer can not be estimated or are estimated with considerable difficulties, since their determinants change frequently;
- real enterprise issue is more wide, is not limited to production, costs, prices and profits, includes a wide range of not missing the competitive environment, relationships with suppliers and customers, relations with employees, etc.;
- company has not a single objective - maximizing profit - it seeks a diversity of objectives and not only as rule sets the marginal price (marginal revenue = marginal cost);
- profit is the expression of the remuneration of a single factor – capital and labor factor remuneration neglect - whose level is different from one company to another, from one industry to another. In addition, pay equity is strongly influenced by productivity, profitability monetary expression is determined by the price system;
- it is difficult to assess whether the profit is the expression of high efficiency concentrated market structures that provide greater market share, or a monopoly position enjoyed by a company for a certain period of time.

Modern theories of the firm view that they may have other objectives than profit, that need to be taken into account when analyzing performance. Most companies today are organized as joint stock companies, making a separation between owners and those who implement management, which has consequences for an entity's objectives. Thus, the neoclassical theory of profit maximizing is opposing the firm behavior theory.<sup>5</sup> It addresses to the business objectives and to the indicators for

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<sup>3</sup> C. Russu, *Op. cit.*, p. 408-411.

<sup>4</sup> I. Băbăiță, I. Imbrescu, *Op.cit.*, p. 104-106.

<sup>5</sup> I. Ignat, I. Pohoățã, N. Clipa, Gh. Luțac, *Economie politicã, Ed. Economicã*, p. 122-124.

assessing performance in terms of strategy of the entity, in which rationality plays an essential role. In the theory of firm behavior is circumscribed also the Baumol model, of maximize the sale, according to it the ones which are managing effectively the companies are concerned to sales more than profit maximization. This hypothesis is based on the following:

- a) the income of managers, represented by wages, bonuses, depend mostly by sales and market share than the amount of profits;
- b) the appreciation of the firm by the financial institutions is based on several economic and financial indicators including on the first line stands the turnover;
- c) the strategy adopted by leaders is rather "conservative" than "risky" which could predict a sharp increase in profit.

Maximizing the turnover does not mean ignoring the profits. In the Baumol model, maximizing the incomes implies complying with a restriction: obtain a minimum acceptable level of profit. In this case, turnover is higher than that which provides maximum profit but lower than where not consider the restriction regarding minimum profit obtained.<sup>6</sup>

Point of view that businesses are not concerned solely of profit maximization is supported by not maximization theories. According to these modern companies can not be considered just "computers to maximize profit," though they are profit driven, meaning that if other variables are assumed constant, individuals and companies prefer to obtain higher profits compared to the situation that obtained small or no profits.

Firms operating in uncertain environments, turbulent and long term, their success or failure is dominated largely by the ability to manage innovation in terms of risk. Firms in general aversion to risk and develop patterns of behavior that is as long as successful. When profits fall, and threatening the survival, they follow a different strategy. This action forms the content of the satisfaction theory formulated by Herbert Simon. According to its business purpose is not profit maximization but also achieve a certain level of it, maintaining a market share or turnover. Under these conditions, the company does not change its behavior if it is reached a satisfactory level - not optimal - of performance.

#### **4.1 Critical**

At the end of 2009 in industry, construction, trade and market services, there were 519 441 active operators, of which 509,558 (98.1%) were micro and small enterprises, 8312 (1.6%) and 1571 medium-sized enterprises (0, 03%) large companies, the total number of 518,593 were owned by private and state owned 848 and 29 945 (5.8%) were foreign owned. Although there has been a strong expansion of micro and small enterprises after 1990, and medium enterprises, especially large ones, continue to have a substantial share in the relevant economic indicators. Therefore, in 2009, medium sized and large companies held 50.9% share of the total number of staff in local units active, 60.8% of total turnover and 43.2% of the gross result of exercising, 69.2% in gross investment volume of over 91% of direct exports and 67.4% of gross added value at factor cost.

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<sup>6</sup> I. Băbăiță, I. Imbrescu, Op. cit., p. 227-228.

Table no. 1

**The main economic and financial indicators of enterprises<sup>1)</sup> by size class and ownership**

Class size average number of employees	Turnover		Gross Investments		Direct Exports		Goss value added at factor costs		Gross result of the year		Staff <sup>2)</sup> in local active units
	Total entr.	From which private majority	Total entr.	From which private majority	Total entr.	From which private majority	Total entr.	From which private majority	Total entr.	From which private majority	
-2000-											
Total enterprises	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	no data
From which: -micro enterprises and small enterprises	38,3	49,7	15,5	35,5	7,5	9,8	21,4	32,3	2,1	69,2	no data
-medium- sized enterprises	17,7	22,2	11,8	25,3	13,0	17,3	18,0	25,9	2,6	25,0	no data
- large enterprises	44,0	28,1	72,7	41,2	79,5	72,9	60,6	41,8	- 104,7	5,8	no data
- 2005 -											
Total enterprises	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	no data
From which: -micro enterprises and small enterprises	36,4	40,3	28,2	34,1	12,2	12,5	28,2	33,2	45,4	46,3	no data
-medium- sized enterprises	21,1	22,9	14,6	16,9	18,9	19,1	19,2	21,9	18,4	19,8	no data
- large enterprises	42,5	36,8	57,2	49,0	68,9	68,4	52,6	44,9	36,2	33,9	no data
-2008-											
Total enterprises	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
From which: -micro enterprises and small enterprises	38,1	40,4	40,3	46,8	9,7	10,1	32,1	36,2	44,5	43,7	47,2
-medium- sized enterprises	22,9	23,8	17,3	19,1	19,8	20,6	20,6	22,6	21,2	16,8	24,2
- large	39,0	35,8	42,4	34,1	70,5	69,3	47,3	41,2	34,3	39,5	28,6

enterprises											
-2009-											
Total enterprises	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
From which:											
-micro enterprises and small enterprises	39,2	41,6	30,8	40,8	8,7	9,0	32,6	37,5	56,8	50,3	49,1
-medium-sized enterprises	21,4	22,3	17,7	22,7	20,5	21,2	20,8	23,0	19,0	13,5	23,6
- large enterprises	39,4	36,1	51,5	36,5	70,8	69,8	46,6	39,5	24,2	36,2	27,3

1) Enterprises whose main activity is industry, construction, trade and market services.

2) The average number of people employed = total number of staff (employee and non-salaried) who worked in the enterprise during the reference period, including seconded staff, paid by the company.

Source: own calculations based on data from the Romanian Statistical Yearbook, 2009 and 2010.

Weight analysis by size class and business ownership in the main economic and financial indicators (Table no. 1.), reveals special aspects of activity performance. The share of large enterprises in expressing effort indicator - gross investment - has a higher level in the new indicators that express the effect - Turnover and gross result for the year, plus, in most years and indicator gross value added at factor cost. Therefore investments by large firms in 2000, represented 72.7% of total investments, while only 44.0% turnover and gross result of the year has a negative value, indicating significant overall loss. In 2009, gross investment by large enterprises accounted for 51.5% of the total, and the turnover was 39.4% and gross result of the year of these enterprises was 36.2%. The only indicator of results that have higher rates of investment relative to gross investment, is the "direct exports", which in 2000 had a total share of 79.5% and in 2009, the share was 70.8 %.

This calls attention to the existence of an asymmetry between the volumes of resources used by different categories of business and economic efficiency effects expressed by indicators. The conclusion is that the activity of microenterprises, small and medium-sized is largely superior to that achieved in the activity of large companies. Note, however, that the latter have superior ability to penetrate foreign markets. Direct exports are made at a rate of about 70% of the total by large enterprises, a high proportion of turnover of these large entities is the value of exports.

Micro and small and medium enterprises, have a low share capital of companies, well below the share of labor used, which in recent years exceeds 70% of staff employed in local active units. This proves their ability to create jobs and even to absorb some of the labor force in the restructuring of enterprises.

Micro and small enterprises despite their modest economic strength and have insufficient investment in turnover, in gross value added and gross result for the year, most times, weights higher than those held by indicators of effect, reflecting a higher level of efficiency of activity.

If you are considering 2008 and 2009 shows that micro, small and medium sized enterprises record some results that reflect the less favorable aspects in relation

to large enterprises. Therefore large companies hold 28.6% (in 2008) and 27.3% (in 2009) of total turnover, which shows that they are better positioned in terms of labor productivity. The same situation is found (better position) and if we play the share in turnover and gross result of the year conducted by large companies with private capital.

## 5. CONCLUSIONS

In conclusion, the objective of a firm can be formulated in several ways. Profit is not the only objective, but acceptance of other goals is possible only if the company is profitable. In the long run, without profit, the company disappears from the economic circuit. Entities that pay attention to the search of profit, long term, are viable. Therefore between indicators for assessing the economic performance of an entity or a certain level of aggregation can not miss the profit or surplus of the year (gross profit), gross or net value added, turnover, as well as effort indicators is gross investment, tangible, intermediate consumption, cost of production, labor productivity, energy consumption, total factor productivity of production, etc..

The performance of firms with success in the market, expressed in the profits made by them and their growing market share is due to the higher efficiency of their activities and a high innovative percentage as a result of good management and not necessarily a more pronounced concentration of industry. Rather, it is assumed that firms continually develop their business performance and market gradually come to focus. The largest firms in an industry tend to become more efficient, and its structure is characterized by a high concentration increased.

Returning to the relevant aspects of the data table no. 1 can conclude the following:

- the share of micro, small and medium enterprises with private capital were registered in 2000, 2005, 2008, 2009 shares higher than the total enterprises in all these categories analyzed indicators, which show that the force has private capital in the Romanian economy.

- share of large enterprises with private capital, showed lower values compared to that of all enterprises in all indicators analyzed, except the gross of the year, which probably reflects the partial privatization by acquiring a majority shareholding, was not sufficient to significantly increase production and technical potential and efficiency of their work.

- the economic efficiency can be assessed based on the indicators in Table. no. 1., for all categories of businesses, registered oscillations and can not draw conclusions about trends in the fall, carefully you can see a trend of convergence of different levels of efficiency to an average level in the economy, especially in enterprises with private capital.

The small number of large companies (about 0.30% of total), and these with economic and financial potential is not developed enough (especially those with a majority public capital or public), and lack mechanisms for subcontracting of goods, parts and services to small and medium enterprises led to their vulnerability to any changes in market conditions. Numerous studies have shown that viable businesses and performance are of different sizes and are characterized through a close complementarity between firms of different sizes.

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