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REGULATORY PUBLIC POLICIES : AN INTRODUCTORY SURVEY

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Abstract

Regulation is one the significant economic role and function of the government. There are many types of economic regulations that might be demanded due to various reasons. Economists have different view and theories on economic regulations. Public interest theory of regulation explains the rationale of regulation from the point of view of aiming public interest. Private interest theories of regulation developed by Chicago and Virginia school of economists suggests that regulation does not protect the public at large but only the interests of special groups. This paper aims to provide an overview of the literature concerning regulation and also review the literature on various rationales for economic regulations.

Keywords: Regulation, Market Failure, Public Interest Theory of Regulation, Chicago Theory of Regulation, Public Choice Theory of Regulation

JEL Classification: H4, K2, L5

I. INTRODUCTION

In any market economy, there is a role and function for the government. The first role for the government is protection of individual rights. A minimal “protective government” is essential for law and order in the society. Besides pure public goods for the purpose of establishing the law and order in the society, government action and activities might be demanded for several reasons. In general market failure forces government to intervene to the functioning of free market economy. Government might use “market incentives” or “command orders” to control and influence economic activities. A low tax or an expenditure program by government may play an incentive role on firms. However, governments may issue command-and-control orders, such as price determination and control in the market economy. All government interventions to the free functioning of the market economy can be called as “regulation” in general. However, the types and effects of regulation varies.

This paper is an introductory survey on regulation and is organized as follows. In Section II, the concept and the terminology on regulation are clarified. Section III deals with the typology issue. The types of regulations are explained in this section. In Section IV, the rational of regulation is discussed. Following section gives a summary on the theories of regulation and also main contributions of economists to the literature are explained. The last section includes concluding remarks.

II. THE CONCEPT AND THE TYPES OF REGULATION

Dictionaries define regulation as a law, rule or order prescribed by an authority to regulate conduct. Any kind of organization (public, private or not-for-profit etc.) may use its authority to regulate conduct or activities.

Regulation, in its broadest definition is often equated with government. Government regulation or public regulation refers to the implementation of rules by government agencies that is backed up by law. (Brown & Jackson, 1994: 48.) In other words, regulation means the employment of legal instruments for the implementation of social-economic policy objectives. (Hertog, 1999:223.) For example, government may implement economic and social regulations in order to realize such goals as allocative efficiency, stabilization, a fair and just income distribution etc.

The opposite of government regulation is self-regulation. It means rules are imposed voluntarily and backed up by an informal code of practice (e.g. rules of membership) rather than law. (Brown & Jackson, 1994: 48.)

It would be necessary to define here the concept of deregulation as well. Deregulation, means state’s withdrawal of its legal powers to direct the economic conduct (pricing, entry and exit) of nongovernmental bodies. (Winston, 1993.) The number and/or content of government regulations may be increased or decreased due to many reasons. As a matter of fact, an interventionist government finally becomes a regulatory government. A liberal government, however does not like regulations and it favours deregulation.

We have defined the main concepts above. Now, let's summarize the types of government regulation.

In general, there are two kinds of regulations, economic and social. Economic regulation refers to the control of prices, the variety of standards for products, entry and exit conditions and standards of service in a particular industry. (Samuelson and Nordhaus, 1992:339.)

Economic regulation consists of two types of regulations: *structural regulation* and *conduct regulation.* The first refers to rules on market structure and aims to realize functional competition at the market. Entry-exit regulation (restrictions on entry and exit to the market) and also provision of professional licence are some kinds of structural regulation. The second refers to rules determining behaviour of economic agents at the market. Price control, rules for advertising etc. are examples for conduct regulation. (Kay and Vickers, 1990.)

Social regulation consists of rules aiming to correct external economies, particularly those that impinge on health and safety. This kind of regulation is common in the area of environment, labor conditions, consumer protection etc. Instruments applied here include regulation dealing with the discharge of environmentally harmful substances, safety regulations in factories and workplaces, the obligation to include information on the packaging of goods or on labels, the prohibition of the supply of certain goods or services unless in the possession of a permit and banning discrimination on race, skin color, religion, sex, or nationality in the recruitment of personnel. (Hertog, 1999:224.)

It would be useful to note here that some types of regulation involve providing information to consumers and workers. Other types involve setting guidelines and standards for industries.

In general, government regulations are countless. There are many government regulations in various areas or in various sectors. Controlling prices (electric power and telecommunications), specifying qualifications (occupational licensure), providing for solvency (financial institutions and insurance), controlling the number of market participants (broadcast and taxi licenses), requiring pre-marketing approval (toxic chemicals, pharmaceuticals), ensuring product safety (pharmaceuticals), mandating product characteristics and technology (automobile safety standards), controlling toxic emissions and other pollutants (sulfur dioxide control), establishing standards for health and safety (in the workplace), ensuring equal opportunity (banning discrimination in employment), controlling unfair international trade practices (antidumping) are some examples for government regulations. (see. Netz, 1999.)

The types of regulations can also be categorized as follows:

- Cost of Service Regulation (Price capping)
- Entry Regulation (to the market, professional licenses)
- Service Regulation (response time for clients, number of electricity-failure per time unit)
- Standards Regulation (Quality of water, food etc.)
- Content Regulation (Pornography, violence)
- Environmental regulation (protecting nature.)
- Traffic regulation (compulsory seat belt)

III. THE RATIONALE FOR GOVERNMENT REGULATION

Economic arguments for government regulation derive from the perception that there are "failures" in the working of the market, so that the level and/or composition of output determined on the private decisions does not maximize welfare (Pera, 1989; 166). Arguments for government regulation are based on the views of orthodox welfare economists. (Aktan, 1993/a)

Government regulations (controls and restrictions) are designed to increase the welfare of certain groups within society by protecting their interests. Government therefore, intervenes and regulates the allocative process of the market by legislating against monopolies, introducing legislation to protect the consumer from fraud, to prevent the consumer’s health being damaged, to control the design of goods for the purpose of the safety, to regulate working conditions, and to control commercial broadcasting, abortion, pornography etc. (Brown & Jackson, 1994: 48-49.)

According to the orthodox economists, It would be appropriate for government to regulate the market economy due to the following reasons:[1]

- External economies,
- Economies of scale,
- Public goods,
- Protection of consumers due to imperfect competiton,
- Protection of “infant industries” from harmful competition,
- Asymmetric information,
- Moral hazard,
- Transaction cost,

Now, let’s explain the major reasons of market failure that we listed above.

External Economies

Theoretical welfare economists see external economies as one of the sources of *"market failure"*. External economies are defined as the consumption and/or production activities of an economic unit which affects, the benefit/and or cost functions of other economic units either positively or negatively.

Private market activities create positive and negative externalities. A *positive externality* exists when a producer cannot appropriate all the benefits of the activities it has undertaken. An example would be research and development that yields benefits to society (e.g., employment in industry) that the producer cannot capture. Thus, the producer's incentive is to under-invest in the activity unless government subsidized or protect it. With positive externalities, too little of the good in question is produced. With negative ones too much is made. Negative externalities such as air pollution occur when the producer cannot be charged all

[1]There is a wide litarature on market failure. One of the first studies that anayzed market failure systematically see: Bator, 1958; for a critical approach to the orthodox theory of market failure see:Cowen, 1988.

the costs. Since the external costs do not enter the calculations the producer makes, the producer manufactures more of the good than is socially beneficial. With both positive and negative externalities, market outcomes need some kind of regulation to be more efficient.[2]

A government intervention is expected to punish the economic agents in the case of negative externalities and correct them. On the other side, government is expected to extend subsidies to those economic agents, whose production or consumption activities generate positive externalities. Pigovian taxes - to correct the external diseconomies- and subsidies - to encourage the activities, which generate positive external economies- are accepted as the two most important tools of "regulatory government”. (Aktan, 1993/a)

Economies of Scale and Natural Monopoly

Economies of scale exists when the long-run average costs continue to decline as firm size increases. Thus, a larger firm, is believed has always lower costs. In other words, cost of production would be the lowest when a single firm produced the entire output of the industries, where economies of scale reign. Such industries as postal and telecommunications services, electricity, gas, water supply, transportation (especially, railways) etc. are the typical examples, in which economies of scale occur.[3]

Theoretical welfare economists argue that since a single firm (monopoly) makes optimal use of the resources in the national economy, it would be desireable. They go on to say that consumer interests can be exploited if the natural monopolist is a private firm. Because, private monopoly tends to maximize its profits by cutting down the production and therefore raising the prices. In such cases, government would be desirable to supply the goods and services as a natural monopolist. In sum, the rationale behind the direct intervention of government to the market is due to economies of scale. (Aktan, 1993/a)

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[2] See: Barry, 1980. (http://poli.haifa.ac.il/~levi/cycle.htm)

[3] We should note that economists long believed that there are economies of scale in such industries as power supply, railways, postal and telecommunications services. However, newly emerged technologies such as communication via satellite instead of by cable is believed that undermined economies of scale and natural monopoly. (Hertog, 1999:245.)

However, in recent years, it has been argued that goods and services, which have economies of scale characteristics can be privatized under a franchising agreement. It is possible to obtain maximum benefit via a competitive bidding process. Some economists argue that franchising is an effective solution for the privatization of natural monopolies (See Demsetz, 1968; Hanke, 1985; Domberger, 1985).

Public Goods

Market failure may result due to public goods as well. Paul Samuelson is known the first economist, who explained the special characteristics of public goods. Samuelson in his paper published in 1954 explained the two polar case of goods and services. He wrote:

"I explicitly assume two categories of goods: ordinary private consumption goods ... Which can be parceled out among different individuals enjoy in common in the sense that good leads to subtraction from any other individual's consumption of that good." (Samuelson, 1954)

A year later, Samuelson published another paper and reexposed his theory in a geometrical model and noted that *"[A] public consumption good differs from a private consumption good in that each man's consumption of it... is related to the total by a condition equality rather than of summation."* (Samuelson, 1955)

Samuelson's definition gives two characteristics of public goods: *Indivisibility* ("...can not be parcelled out among different individuals") and *Joint Consumption* ("all enjoy in common."). The result of those two characteristics is that once a public good, in Samuelson's terminology "collective consumption good" is produced, any given unit of the good can be made equally available to all. According to the definition of Samuelson, extention of the supply to one individual facilitates its extention to all. In other words, supply of a given unit to one individual, and supply of the same unit to other individuals are clearly joint products.

In line with the original Samuelson definition and classification as well as some other economist's contributions, the theory of public goods has been developed a great deal. In the public goods literature today, the goods can be classified mainly into two groups: Pure goods and impure goods. Pure goods are two kinds: pure private goods and pure public goods. The first has two characteristics: divisibility and exclusion. A pure public good, what Samuelson calls "collective consumption good" has mainly two characteristics: indivisibility and non-exclusion. Indivisibility refers to the utility of a good which can not be parcelled out among different individuals.

Since a pure public good is consumed collectively, it is impossible to exclude some individuals to benefit them. For example, exclusion is infeasible for such goods as air pollution control, street lighting, national defense, broadcasting TV, law and order etc.

Besides the polar cases of pure goods -that is pure public and pure private -there are also some other type of public goods, which are analyzed in the literature under the rubric of *"impure goods"*. *"Club goods"*, *"common-pool goods"* and *"merit/demerit goods"* are the main types of impure public goods.

A *club good* is an impure public good whose benefits are excludable, but partially nonrival (Cornes and Sandler, 1968; 7). Another definition is that a club is a voluntary group deriving mutual benefit from sharing one or more of the following: Production costs, the members characteristics or a good characterized by excludable benefits. "(Sandler and Tscirhart, 1980; 1980)

Quasi-public goods are one kind of club goods. Education and health services are typical examples for quasi-public goods. These public goods, have divisibility and exclusion characteristics together with externality.

Another type of impure public good is *"toll goods"* or it can be called *"exclusive club goods"*. Toll goods are partially indivisible (non-rival) goods whose benefit are shared by club members. Exclusion mechanism could be installed in return for a fee or a user charge, that is "toll". These type of goods are mostly said to be natural monopolies, which is to say that as the number of users increases, the cost per user decreases. The result is that it is most economical to have a single supplier. This is true of cable television, communication networks, and utilities such as electric power, gas distribution, water supply and sewer service. Collective action is often taken to create an award these monopolies in the first place, and then to regulate them so that the owners do not exploit their monopoly privileges unfairly.(Savas, 1987; 47)

Common-pool goods, on the other hand are divisible, however exclusion is difficult or sometimes expensive to implement. There is no need of payment to obtain or to use this type of goods. Fishing in the sea or ocean, extracting minerals from nature, hunting in wild mountains or jungles etc, are some examples for common pool goods. These goods can be consumed to the point of exhaustion, as long as the cost of collecting, harvesting, extracting, appropriating, or otherwise taking direct possession of the free goods does not exceed the value of the goods to the consumer. No rational supplier produce such goods, and they would exist only through the beneficience of nature. (Savas, 1987; 45) These type of goods cannot be supplied in the marketplace.

Finally, merit goods and demerit goods are another type of public goods. *"...Merit goods may be defined as those of which, due to imperfect knowledge, individuals would choose to consume too little. In such cases, the government should intervene to encourage consumption. as possible examples of corrective interference to satisfy merit wants, Musgrave mentions publicly provided school luncheons, subsidized low-cost housing and free education. Symmetrically, "demerit" goods may be defined as those of which, due to imperfect knowledge, individuals would choose to consume too much. Here the government should intervene to discourage consumption. Musgrave suggests liquor taxation as a possible example of such intervention."* (Head, 1974; 216)

We have summarized the special charecteristics of public goods. Now, let us discuss why market fails to supply certain goods and services.(Aktan, 1993/b.)

Markets are unable to supply a pure public good -say, national defense or judiciary- due to their characteristics of indivisibility and non-exclusion. For example, national defense can not be provided only for those who benefits. It is a good that must be supplied for all. National unity and territorial integrity can be preserved by providing defense services nationwide. A judiciary is also a pure public good in the sense that its benefits can hardly be parcelled out among individuals and all individuals benefit jointly. It is almost impossible or undesirable to charge a fee for these kind of public goods. Here, we reach a point that pure public goods must be provided free of charge and financed by general fund revenues.

Market also fails to supply common pool goods now that their consumption is free as long as individuals can spend effort to obtain them. Fishing in the ocean, is an example of common-pool goods. The reason why this type of goods can not be provided by marketplace is that exclusion mechanism can be hardly implemented or sometimes it is too expensive to implement. As a result of this, free rider usually occurs for this type of goods and therefore market is not interested in production.

Orthodox economic theory argues that quasi-public goods should be provided by government because of external economies and diseconomies. Education and health are usually given examples for this type of goods.

Theoretical welfare economists also defend that toll goods ought to be supplied by government because of economies of scale and natural monopoly.

On the other hand, merit goods can be provided by both government and private sectors. Now that private firms do not spend much money for this kind of goods because no profit emerges, government intervention is usually expected. Not-for-profit institutions, that is voluntary organizations are usually successful for providing merit goods. However, it is alleged that government should provide some incentives for voluntary organizations such as tax incentives.

In brief, government regulation is necessary for establishing the optimum quantity of the goods concerned, and for enforcing the payment of these goods. Many goods, such as national defense, judiciary, education, health care, parks and roads have a public good dimension. In such cases also, government regulation can contribute to an efficient use of resources in an economy. (Hertog, 1999:230.)

As understood, public goods is accepted as one of reason for market failure and therefore requires government intervention and regulation.[4]

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[4]For classical studies on public goods theory see: Samuelson, 1954; Samuelson, 1955; Samuelson, 1958; Buchanan, 1968.; Musgrave, 1958. The public goods literature is summarized very well in these studies: Head, 1974; Blumel et all. 1986; Savas, 1987.

Imperfect Competiton

Imperfect competition is another reason of market failure. Imperfect competition results in inefficiencies in the market economy. It also severely limits the options available to consumers. In brief, imperfect competition is bad because it results in higher product price (and smaller output) and also limits options for consumers.

It would be necessary for government to intervene to the free functioning of the market economy, when there is destructive (excessive) or limited competition at the market.

Asymmetric Information and/or Incomplete Information

If individulas have different information at the time they act, markets may not perform efficiently, even when there are advantageous trades that could be made. Economist George Akerlof presents an example of a sued car market in which each seller knows the value of the car she/he wants to sell but the buyers know only the probability distribution of the values of the cars that might be offered for sale. There is a potential buyer who is willing to buy each used car, but the buyer cannot through causal inspection determine the value of any particular used car offered for sale. All he knows is that the car might be a lemon or might be of high quality.(Akerlof, 1970)

Because of this asymmetry of information, the maximum amount the buyer is willing to pay is the average of the values of the cars believed to be offered for sale. Because buyers will only pay the average value, those potential sellers who have high-quality car then find that the amount buyers are willing to pay is less than the values of their cars. They thus will not offer their cars for sale. This is clearly inefficient, because for every used car there is a buyer who wishes to buy it if he only knew the true value.

This phenomenon also occurs when sellers have incomplete information about customers. Insurance is, in principle, to provide coverage for individuals with similar risk characteristics. When those characteristics cannot be readily assessed, however, people with quite different risks are placed in the same pool. The higher risk individuals then have an incentive to buy insurance, which can drive up the price of insurance a cause some low-risk individuals not to buy insurance. Insurance companies respond to this adverse reaction by requiring a physical examination for life insurance and basing auto insurance rates on accident and traffic citation records and on the number of years of driving experience.

These examples given above means that there is *missing market* or *shrinking markets* due to asymmetry of information. Obviously, missing or shrinking market can be accepted as a reason for market failure.

As understood, when market participation have incomplete information and acquiring information is costly, markets may not function efficiently.[5]

Moral Hazard

Moral hazard refers to the presence of incentives for individuals to act in ways that incur costs that they do not have to bear. For example, in medical care, a fully insured individual has an effectively unlimited demand for medical care, since she/he doesn't bear the cost of the care they receive. In addition, the individual may not have the proper incentive to take socially efficient preventive measures, since she/he knows that the cost of any illness or accident will be covered by insurance.

As understood, moral hazard is also a reason of market failure and therefore requires some kind of regulation.

The principal means of dealing with moral hazards is to structure incentives so that the induced behavior is taken into account. In the case of medical insurance, co-payments can be required and reimbursement limits imposed. Moral hazard can also be addressed by monitoring the behavior of individuals to increase the likelihood that they take proper care. Fine for not wearing a seat belt is an example of monitoring.[6]

Problems of adverse selection and moral hazard arise particulary in insurance markets. Insured parties have superior information available with respect to the

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[5] See: Barry, 1980. http://poli.haifa.ac.il/~levi/cycle.htm
[6] See: Barry, 1980. http://poli.haifa.ac.il/~levi/cycle.htm

incidence of risks but they lack information regarding the quality and independence of intermediaries. In many countries, social legislation is introduced as a reaction to these problems, and rules are established for intermediaries. (Hertog, 1999:229.)

Transactions Costs

Market failures might result due to transaction costs occured at the market.[7] To the extent, consumers and producers incur costs in becoming informed about market opportunities and completing market transactions, markets will not perform efficiently. Regulation to reduce those transactions costs then can improve efficiency. For example, in the auto industry, global auto emissions standards can enhance efficiency, as auto producers would not have to produce different models for different states.

Other Reasons of Government Regulation

Besides the arguments proposed by traditional welfare economists, there are some other reasons for government regulation. Government sometimes puts some legal barriers to entry to the market. Occupational licensure, patent and public franchise are the examples of these types of barriers. Licensing is a process, through which one obtains permission from the government to enter a specific occupation or business. In some countries, a person must obtain a license before he/she can operate in some specific kind of businesses such as, barbershop, taxicap, drugstore, liquor store etc. Occupational licensure often limits entry to the market. Patent is also a legal barrier to entry. Government gives an exclusive right to the owner of a newly invented product or process for a limited period of time. Patent is an intellectual property right given to the holder of an innovation or novelty. Government sometimes grants a franchise to a private firm for the provision of a good or service. Public franchise excludes competitors from providing that goods and service.

Artificial trade barriers (including taxes imposed on goods called "tariffs" and limitations or prohibitions on imported items called "quotas") are also government regulations in the field of international trade. The main reason for these types of

[7] See: Barry, 1980. http://poli.haifa.ac.il/~levi/cycle.htm

regulation is protectionism, which refers to protecting domestic infant industries from outside competition. (Aktan, 1993/a.)

Finally some types of economic controls, such as price, rent, wage controls exist. Government may want to administer the prices in the market. Normally, the prices of the means of the production can be determined via supply and demand. Some economists claim that government intervenes in the market for such controls in an aim to protect consumers, tenants, savers, wage earners etc.(Aktan, 1993/a.)

IV. THEORIES OF REGULATION

There are two main alternative theories that explains the logic and the rationale of regulation.

-public interest theory of regulation,

-private interest theory of regulation

Public interest theory of regulation is a part of welfare economics. According to this theory, when markets fail due to several reasons (external economies, economies of scale and natural monopoly, public goods, imperfect competition, imperfect information etc.) economic regulation should be imposed in order to maximise social welfare. This theory tends to see regulation as an outcome of sustained political effort to overcome market failures. (Hantke-Domas, 2003:166.)

According to the public interest theory of regulation, at first regulation seeks the protection and benefit of the public at large. Secondly, it proposes that when market fails, economic regulation should be imposed in order to maximise social welfare.

The second alternative view or theory on economic regulations is called as *"private interest theory of regulation."* This theory suggests that regulation does not protect the public at large but only the interests of groups. According to this theory, well organized groups will tend to benefit more from regulation than broad, diffuse groups. In other words, the most important prediction of this theory is that well-organized interest groups will be winners in the regulatory process. In brief, theory reaches a conclusion that regulation will benefit producers at the expense of consumers.

The theory also suggests that regulators will allocate rents across both consumer and producer groups in order to maximize their total political support., and rents will likely fall into the hands of some consumers as well. (Geddes, 1999.)

The private interest theory of economic regulation is developed by economists who are generally placed into two well-known schools of economics, notably Chicago school of economics and Virginia school of political economy.

As noted above, public interest theory of regulation looks at regulation from the point of view of aiming for public interest. According to this theory, market failure is the main reason of government regulation. Since public interest theory of regulation and its rationale has been explained in the previous section, we will not investigate this theory here again. Now, let us analyze the private interest theory of regulation from both Chicago and Virginia perspectives.

The Chicago Theory of Economic Regulation (The Capture Theory of Regulation)

The Chicago theory of economic regulation –which is also called as ‘capture theory of regulation’- was develeoped by such economists as George Stigler, Sam Peltzman, Richard Posner, Gary Becker, all of whom had thought at the University of Chicago.

Chicago theory of regulation suggests that it is in the interests of producers or the beneficiaries of regulations to gain the control of the regulatory agencies. Moreover, it is the larger firms that have the most to gain, so it is that who have the greater incentive to obtain such control. The smaller, disparate and less organized firms are neglected. (Brown & Jackson, 1994: 49.)

Nobel laureate, George Stigler is known the first economist that explained this theory. In a well-known paper, *'The Economic Theory of Regulation'*, George Stigler shifted attention away from 'public interest approach'. He looked at how the struggle over economic rents by interest groups would affect regulatory policy. The principal actors in his analyis, businesses and politicians are assumed to be self-interested income-maximisers and not at all concerned with the 'public interest'. Businesses use their resources to bargain with politicians to bring about policies that benefit them. They will favour regulation that reduces competition, and maximises economic rents.

Stigler's main proposition was noted in his paper as follows:

"...as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit." (Stigler, 1971:3.)

The kind of benefits that Stigler argues that the state can provide to industry include money, tariff and non-tariff barriers to entry, price-fixing, subsidies etc.

Individual consumers have relatively little to lose from anti-competitive measures because the costs are distributed throughout society so that the impact on a single individual is negligible. The benefits, on the other hand accrue to a relatively concentrated business group. Because of this, businesses have more incentive to meet the costs of making policies, and are therefore likely to get their preffered regulatory policies enacted. It is no accident that regulatory policies protect industry rather than consumers.

According to Stigler *"...every industry or occupation that has enough power to utilize the state will seek to control entry."* (Stigler, 1971, 5).

Acoording to the Stigler's view and in general, according to the capture theory, a firm is able to use state power to its advantage for two reasons. First, the firms in any given industry are fewer in number than the persons outside the industry that must bear the cost of any restrictions on entry. Therefore, the firms seeking political protection find it easier to organize to handle political influence: since the per capita gains to them are likely to be high, they have an incentive to combine their efforts to achieve their collective ends. In all likelihood, the more numerous (and more diverse) individuals or firms who will bear the burdens of reduced competition will pay only a small per capita cost the price to the typical consumer of reduced competition will among taxicabs, dry cleaners, airlines, television stations, or lawyers will be either trivial or unnoticed. This fact, together with the large and diverse nature of the group to be organized, will inhibit or prevent altogether collective political action. Hence, the beneficiaries of regulation have a lopsided advantage in the exercise of influence.[8]

But even if a group has a strong incentive to organize, it must still acquire and use influence. Stigler's second assumption is that government officials, like business executives or consumers, are rationally self-interested. They will seek to maximize their votes (if they are elected officials) or their wealth (if they are appointed officials) or both. Regulated firms can supply these resources by providing campaign contributions and political advertising to elected officials and by supplying lucrative opportunities for post-government employment to appointed ones; they may also offer cash bribes. But it is not necessary to suppose that firms provide cash payoffs to get their way. If they can influence - by propaganda or campaign contributions - the electoral prospects of politicians, then these politicians, once in office, can see to it that their bureaucratic subordinates, the regulatory officials, are selected and instructed so that they serve the interests of the regulated firms.[9]

A further contribution to the Chicago theory of regulation was made by Nobel laureate Gary Becker. He concentrated on the consequences of the competition between pressure groups. His main proposition was:

"Competition among these pressure groups for political influence determines the equilibrium structure of taxes, subsidies, and other political favors." (Becker, 1983:372.)

According to Becker, as the political pressure increases, political influence also increases and the financial yield from the pressure exerted rises. Some groups are more efficient in the exertion of political pressure than others. Thus, transfers of income occur from less efficient to more efficient groups, in the form of subsidies, but also through such things as price regulation. The transfers are associated with loss of economic welfare, which are known as the deadweight costs. (Hertog, 1999:239.)

The Virginia Theory of Economic Regulation

[8]see: Barry, 1980. http://poli.haifa.ac.il/~levi/cycle.htm
[9]see: Barry, 1980. http://poli.haifa.ac.il/~levi/cycle.htm

Another important contribution to the regulatory economics was made by public choice scholars.

Public Choice Economics, which has also been called *"the Economic of Politics"* or *"Collective Choice Theory"* deals with the issues of how economic resources are allocated by the political decision making process. In other words, public choice may be defined as the application of economic concepts, assumptions and tools to politics. (Aktan, 1992.)

The most important contribution of the public choice theory to the economics is that it developed a *"theory of governmental failure"* as opposed to a *"theory of market failure"* developed by theoretical welfare economists. For many years, some economists have advocated government intervention in order to correct market failures.

However, it is only in recent years that public choice economists have argued that the concept of "government failure" also exist. They advocate that government enacted policies and government regulation produce inefficient and/or inequitable consequences as a result of the traditional behavior of participants in the political process. Public choice economists argued that the fact that the market is inefficient does not imply that government will do any better. (Aktan, 1992.)

According to the public choice scholars, rent seeking activities are the result of government regulation. When government intervenes to the economy and makes regulation, then individuals start seeking to influence government in order to transfer welfare to themselves. Hence lobby groups will invest resources to influence the form, structure and incidence of regulations, licensing laws, tariffs and quotas. (Brown & Jackson: 1994: 58.)

The public choice insight, employing rent-seeking, into regulation provides an explanation of regulation far superior not only to the capture theory of regulation, but also to the public interest theory of regulation. Public choice theory offers a much more convincing explanation and criticism. (Crew &Rowley, 1988:63.)
In brief, rent seeking is a cost of regulatory government. This contribution made by public choice scholars is going to be explored in detail in the following section.

IX. CONCLUSION

Government regulation might be demanded for a number of legitimate reasons. Market failure explains us some convincing reason for the implementation of government regulation. Although government regulation might be necessary due to several reasons, this does not mean that it is always possible to find and implement rational and efficient regulation policies. Both theoretical and empirical literature on government regulation shows us that government regulation has both the potential to result in benefits for the people, but it also has the potential to result in benefits for special interests groups at the expense of the public at large.

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