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# Neoclassical political economy

The time since the publication of Adam Smith's *Inquiry into the Nature and Causes of the Wealth of Nations* in 1776 to the present day spans over two hundred years. Although there are important elements of continuity from Smith to the present world, neoclassical economics is not just a modern, updated version of classical political economy. The beginnings of the neoclassical system are placed in the 1870s with the rise of marginalist economics. Before the 1870s economics as a system of thought was dominated by the classical agenda: growth, distribution, and the labor theory of value. After the 1870s, this agenda changed in important ways, although it did not change overnight.

To simplify a complex chapter in this history of economic thought, the marginalist revolution succeeded in doing two things. First, it advanced a theory of value grounded in the intensity of subjective feelings (subjective utility theory). And second, it developed the marginal calculus as a powerful conceptual and methodological tool. The upshot of these two developments was that, over the span of the next three to four decades, the emerging neoclassical consensus succeeded in replacing the labor theory of value with one grounded in subjective utility and placed the ideas of "marginal product" and "final demand" at the center while elbowing into the wings the concepts of total product and total demand. With these new ideas gathering momentum as they spread during the last quarter of the nineteenth century, the economy came to be thought of less in terms of material production and reproduction and more as a logic of human action.

## The structure of the neoclassical theory

Central to neoclassical thinking is the notion of "constrained choice." In this perspective, the individual is understood as a choosing agent, someone who decides among alternative courses of action according to how he imagines those actions will affect him. Economists educated in the neoclassical tradition

assume that we are all motivated to seek the highest level of satisfaction of our wants, thus the highest degree of happiness we can achieve given the resources available to us.

The idea of human motivation translates into a definite theory of human action. Individuals judge what to do according to how it will affect their levels of satisfaction. How to spend one's time, what to buy in the store, whom to marry, and so on, all depend on a judgment regarding the likely impact of choices on levels of satisfaction.

In order to choose we must compare the satisfaction of various alternatives. This comparison results in a ranking of the options according to the level of satisfaction or happiness each might provide. This ranking is termed a "preference ordering." We place each option in rank order according to our preferences and attempt to attain that option highest in the ranking of our preferences or desires.

The term "rational choice" refers to decision making based on an internally consistent ordering. A preference ordering is consistent if a preference for any item A over another item B joined to preference for B over C implies preference for A over C. Rational choice seeks the highest feasible level of subjective satisfaction for the individual. By making rational choices that follow our preferences, we *ipso facto* maximize our welfare. Rational choice means maximizing behavior.

A complication arises when we look more closely at the underlying necessity of choice. What about their circumstances requires agents to choose? Choice between options may mean deciding which among a set of mutually exclusive options we want and which we do not. Such a choice faces an individual when he or she decides, for example, which school to attend or which candidate to vote for. Alternatively, choice between options may mean deciding which among a set of desired options we want more (or most) when we would like to consume the entire set but, for some reason, cannot. Such a choice faces us, for example, when we would like to have a video recorder and a microwave oven but have money enough for only one. In the latter case, our welfare would be maximized if we make the "right" choice. The difference between the two cases has to do first with the presence (in the second case) and absence (in the first case) of mutually exclusive alternatives, and second with the presence and relevance of an additional condition: scarcity.

The significance of the concept of rational choice depends on the ability of competing goods to satisfy (if to different degrees) the same desire. In order to assure that this condition holds, the neoclassical theories assume that acts of consumption of different goods all provide a common result: the satisfaction or utility of the consumer. Rational choice, interpreted in this way, requires a foundation in the utilitarian image of persons as agents seeking

a single end – subjective satisfaction, utility, or happiness – through alternative means. While the measure of this satisfaction remains unique to each individual, so that we cannot compare or sum satisfactions experienced by different people, within each person the consumption of different goods yields a single result measured by a common unit (usually termed "utility").

Given the possibility of comparing the degree of satisfaction (for a particular agent) from different goods, choice also presupposes scarcity. When the naturally available means are inadequate to satisfy desires fully, they are considered scarce. Scarcity depends both on subjective conditions (desire) and natural (or objective) conditions (availability of resources).

Although scarcity is a necessary condition for choice, it is not sufficient. It may simply mean that even in consuming his entire endowment, the individual will remain unsatisfied. Scarcity forces the individual to choose when his endowment includes items with alternative uses. If, for example, the individual's labor can be used to acquire different means of consumption but is not sufficient to acquire all that the agent desires, the agent must allocate labor among tasks according to a decision-making principle. Within this context, scarcity requires choice among competing ends.

Thus far, we have treated choice on the basis of competing goods. But the ideas of choice and maximization can apply more broadly. Whenever we act in ways that affect our level of subjective satisfaction, we are choosing on the basis of maximization in the face of scarcity. In this sense we can interpret nearly all of life as the application of economic calculation, as economizing behavior. This result works against any effort, based on the neoclassical approach, to identify a distinctively economic subset of our lives and our social relations. It erases the distinction between the economy and the other spheres of social interaction.

The neoclassical approach begins with the idea of the maximization of individual satisfaction. The next step is to use this idea to define conditions for maximization of the welfare of an interconnected system of individuals. Welfare for the group must be defined differently from (although on the basis of) the welfare of the individual alone. Maximum group welfare results from maximization of welfare on the part of each member separately only when the welfare of each is entirely independent. Group welfare takes on meaning when either of two conditions is met. First, acts of consumption affect individuals other than those who have chosen to engage in them. Second, other persons provide opportunities for mutual enhancement of welfare through exchange.

The first condition requires that the activity by which an individual experiences utility (consumption) affects other individuals either positively (that is, when my act of consumption yields an unintended benefit to someone

else) or negatively (when my well-being is enhanced by an experience that harms others). Neoclassical theory terms these effects on others "externalities." When such externalities (or social consequences of private want satisfaction) exist, the welfare of the group cannot equal the sum of the welfare achieved by each individual on the assumption that satisfaction-yielding experiences are separable.

Even where externalities do not exist, the problem of defining group welfare arises when each member can (potentially) improve his or her level of satisfaction by acquiring goods owned by others. In this case, we need a definition of group welfare that takes into account the possibility that voluntary transactions between members can enhance their well-being. What constitutes the maximum welfare of the group subject to the condition that each pursues his private ends and that interaction takes the form of voluntary transactions?

Consider the case of a group composed of two individuals. Each has his own preference ordering and endowment of goods for satisfying his desires. Consumption of his endowment will yield a given level of satisfaction. Assume, however, that if we treat the endowments as a single pool of goods, there exists a distribution of those goods different from the one represented by the initial allocation that would improve the well-being of each and can be thought to maximize the joint or group welfare of the two taken together.

The implied notion of group welfare carries the same meaning as the notion of voluntary transaction based on individual rational choice. Such transactions must be welfare-improving or they would not take place. Given appropriate information, the desire to maximize their individual satisfaction will drive the parties to exchange elements of their endowments. In this sense, and under these conditions, the institution of voluntary transaction based on respect for property right (exchange) leads to an improvement in the welfare of the contractors taken as a group.

Since the conditions specified determine an appropriate exchange of goods between property owners, they must fix the prices at which goods exchange. If a redistribution of $x$ units of good A held by the first individual for $y$ units of good B held by the second improves the welfare of both, a price of good B equal to $x/y$ of good A allows for a welfare-improving transaction.[1]

In a "perfect" market characterized by a very large number of participants there will, under appropriate conditions, be a unique price for each good

[1] This may not be the only price that improves the welfare of both parties. In general, two-party, two-good exchange does not yield a unique price in this sense. Increasing the number of parties will reduce the range of indeterminacy.

that allows all welfare-improving transactions to take place. Such a price arises out of independent and voluntary actions of the individuals pursuing maximization of private satisfaction. If prices are flexible in the sense that parties are free to pursue transactions at whatever rates they deem mutually beneficial, they will, under appropriate assumptions, tend to settle at levels that allow for all welfare-improving transactions. Under these assumptions, free market processes yield an optimum of social welfare.[2] Economists term this type of group welfare the Pareto optimum after its discoverer, Vilfredo Pareto.

Clearly, criteria other than Pareto optimality could be used in the effort to evaluate alternative allocations of the wealth held by the members of a group. The attractiveness of the Pareto criterion stems from its loyalty to the preferences of individuals *taken by themselves*. That is, it does not require us to impose any preferences on the group as a whole other than those already given in the orderings of its members, no one of which is given precedence over the others. Thus, the attractiveness of the Pareto condition depends on the attractiveness of the premise that social outcomes should derive from the subjective preferences of individuals.

Acceptance of the Pareto criterion has significant implications for the judgments we make concerning when to use markets to determine patterns of group consumption. Because of the link between free markets and optimization, acceptance of the Pareto criterion for determining the allocation of resources appropriate to a group of persons constitutes a powerful argument for the use of markets to determine production and distribution. The strength of this argument depends both on the validity of the theorem linking markets to welfare[3] and on our acceptance or rejection of its assumptions. The following assumptions are especially important: (1) that markets are, or can be, perfectly competitive, (2) that social welfare should be defined on the basis of individual preferences, and (3) that the idea of given initial endowments provides a satisfactory basis for making welfare judgments.

On a practical level, the neoclassical approach links welfare with choice. The greater the range of choice, the greater the feasible level of social welfare, all other things equal. Markets increase choice; nonmarket allocations inhibit choice. Consider a favorite example of the application of economic reasoning to economic policy:[4] gasoline rationing. The example involves resource allocation in the face of a shortfall in supply of gasoline relative to existing and

[2] The theorem linking competitive markets with optimality is a centerpiece of General Equilibrium Theory; see Koopmans (1957:ch. 10).
[3] For a more comprehensive discussion of these assumptions see Koopmans (1957:ch. 10).
[4] This example is taken from Schelling (1984).

recent levels of consumption. In such cases, we can bring demand into line with supply simply by allowing price to rise until demand falls to the point at which it equals supply (assuming, of course, that demand and price are inversely related, which they may not be, especially in the short run). Alternatively, the government can bring demand into line with supply by fixing the price level and rationing consumption. The government can, for example, distribute rationing cards equal to supply and require that purchase of gasoline at its regulated price be limited by available rationing cards. The argument against rationing follows the contours of the argument linking choice to welfare, optimality to free markets.

Assume that the government fixes the price of gasoline at a level that stimulates more demand than can be met with the available supply. It does so, for example, in order to prevent hardship for low-income consumers resulting from a substantial increase in the price of a basic consumption good. In order to limit demand, the government distributes rationing cards according to some principle deemed equitable (that is, the same number of cards to all individuals owning cars, perhaps adjusted in various ways to particular circumstances).

Application of the kind of reasoning outlined immediately suggests that under these conditions welfare gains will result if individuals can buy and sell the rationing cards allocated to them. The existence of a market in rationing cards allows those who would prefer to consume less gasoline, if by so doing they will be able to consume more of other goods, to do so. Since each person remains free to hold his rationing cards and consume gasoline, the presence of a market brings together individuals in voluntary transactions aimed at improving the welfare of each without adversely affecting the well-being of others. The market provides a choice where none existed previously, without removing preexisting opportunities. Taken by itself, the result should be a higher level of satisfaction for those who exercise this choice without any necessary adverse effects on others.

The market for rationing cards sets a price for cards that in effect constitutes a part of the price of gasoline (equal to the sum of its regulated price and the market price of the rationing card). By allowing for a market in rationing cards, we have, in effect, facilitated establishment of a market price for gasoline. The sole remaining function for rationing cards is to redistribute income from the producers of gasoline (or alternatively from those who are taxed to subsidize gasoline producers).

Gasoline rationing combined with a market for rationing cards is now an indirect method of income redistribution. We can also apply the neoclassical method of reasoning to the determination of the price of labor (wage) so that a market determination of incomes also yields maximum choice and a welfare

optimum.[5] Even if we refrain from taking this step, and deny the optimality of market outcomes for income distribution, correcting inequities through distribution of rationing cards must seem inefficient and even inappropriate given the more direct methods of redistribution available, for example, through the tax system.

The conclusion, with regard to product markets (if not labor markets also) is that the connection between markets and choice argues against government intervention. The issue of the limits of the market becomes that of the limits within which choice enhances well-being. To specify such limits, we need to consider principles (such as individual rights)[6] that take precedence over choice. We return to this issue in Chapter 9.

To sum up, neoclassical economics sees the market as the institution allowing maximum scope for free exchange and hence efficiency. The market allows one to reshuffle (use in alternative ways) resources and commodities so as to achieve their most desirable use. Viewed from the consumer's standpoint, there is a large number of bundles of consumer goods from which to choose. From the producer's position there is the possibility of combining productive factors in many different ways. Land, labor, and capital – all of which have important subcategories – can be mixed in different proportions to produce goods for sale on markets. This process of substitution will go on until societal resources have yielded maximum product for producers and maximum utility for consumers (Dasgupta, 1985:78–9).

Given the preceding description, it should be clear that, once the values of the exogenous variables (endowments, preferences, technology, and rules) are given, the results on the part of choosing agents can be known with precision. This prompts us to ask if neoclassical economics is an abstract logic of choice or a behavioral science that makes contingent (hence refutable) predictions about the activities of economic man in different situations. To the extent that rationality and maximizing behavior are axiomatic and preferences are derived *ex post* from the explained behavior, actions of economic agents are assumed to reflect just what these preferences are as well as the constraints that must have existed to prevent them from achieving more. To the extent that rationality is treated as a hypothesis about economic agents, an independent specification of preferences and a full account of constraints (the information available to agents, limits on calculating ability) is needed *ex ante*. If information on these factors is present, it is possible to treat

[5] The neoclassical theory of distribution applied to the labor market can be interpreted to imply that the price of labor (wage) set by supply and demand reflects choices and achieves a socially desirable outcome; see Friedman ([1962] 1982:ch. 10).

[6] For a discussion see Singer (1978).

outcomes as tests of refutable hypotheses about rationality, self-interest, and maximizing behavior.

## Political economy in the neoclassical approach

How is the relation between economics and politics conceived in the neoclassical framework? Economics is the process by which we seek to maximize the satisfaction of our wants given the means available (and usually their distribution among us). This process underlies the workings both of markets and of political institutions. Whether we engage in private contract or collective action, our objective is to satisfy wants to the greatest degree possible. Thus, the ends of political and market action do not differ. Economizing underlies both.

In the first instance, the market consists of a system of voluntary transactions between independent property owners pursuing their self-interest. To the neoclassical thinker, these transactions take place when they are deemed welfare-improving for both parties. When contracts are in fact voluntary, when no impediments exist to welfare-improving transactions, and when the consequences of those transactions affect only the contracting parties, market interaction should allow individuals to exploit fully opportunities to increase their level of satisfaction.

This observation regarding the neoclassical way of setting up the problem leads naturally to two sets of political agendas. The first involves securing the system of property rights so that transactions are in fact voluntary. This means establishing and enforcing a set of property rights designed to support the stated objectives of the neoclassical ideal of individual well-being. The second involves circumstances in which parties other than those contracting are affected by transactions or in which potentially welfare-improving transactions cannot be undertaken for reasons other than limitations on property rights.

Neoclassical political economy applies the basic economic logic of constrained choice to circumstances in which private transactions fail to maximize welfare. The term economic is used here in two of our senses. Most fundamentally, economic means economizing or constrained choice; it applies to politics and markets. Second, economic refers to markets as one method for achieving an improvement in individual want satisfaction. Politics is another. Thus political economy sometimes refers us to the study of the limits of the market as an institution for want satisfaction and sometimes to an economic theory of politics. In this chapter, we explore the first sense of political economy.

This idea of political economy is, for reasons suggested above, synonymous with that of market failure. It points us toward circumstances in which the

market falls short of enabling individuals to achieve the highest level of want satisfaction available given their endowments. In the remaining sections of this chapter we focus first on the idea of property rights as the framework for private want satisfaction, a framework for the market but not created by it. Politics can play an important role as the process for setting up the framework of property rights and contract. We then go on to explore three important classes for market failure: externalities, public goods, and monopolies.

## *Property rights*

A system of self-interested exchange requires some prior understanding of rights of ownership and use of property. Yet neoclassical economics has tended to omit discussion of rights from its analysis. The position generally taken is that rules specifying rights may be important but that they are outside the structure of economic models. They are not only exogenous in the sense that the distribution of endowments is exogenous, they are also outside the model in the sense that they are assumed not to vary in the short run, hence they do not affect allocative behavior in the short run. As Field points out, neoclassical economists have made "a categorical distinction . . . between the modeling of short-term self-interested behavior within rules and the rules themselves" (Field, 1979:53).

In recent years neoclassical economists have started to address property rights. They have treated these rights not only as part of the framework of economic activity, but also as part of a system of rules that itself results from economic processes, that is, rational maximizing behavior. This section offers a definition of property rights and provides some examples of the different forms taken by these rights and their significance for political economy. Property rights are rights of ownership, use, sale, and access to wealth. Property includes physical property (consumer objects, land, capital equipment) and intangible property (such as ideas, poems, chemical formulas, and investment algorithms for the stock market). Perhaps the most important forms of property for economic theory are labor and the means of production. A well-defined system of property rights would limit permissible uses of owned capital, that is, the ways in which it could be invested, joined to labor and other productive factors, and who has what claims to the output. It could also limit the range of external effects. During certain periods of history there have been prohibitions on lending capital beyond certain rates of interest, hiring labor below a certain wage, reaping profits beyond a certain level and so on. However, a private property rights system gives broad scope over disposal of property by its owner. With respect to financial capital, one can invest it, hide it, use it for consumption, transform it into physical assets,

use it to hire wage labor, or purchase unproductive holdings such as art, antiques, jewelry, and so on.

Similarly, one could specify alternative property rights for labor. Under capitalism, everyone's labor is self-owned. It cannot legally be coerced or pressed into service. One may feel the compulsion to work, but this comes from the need to have an income to purchase the essential consumption goods. Thus, under capitalism, one sells his or her labor in return for a wage. By the same token, workers do not have entitlement to a job. Unemployment may be a structural part of the economy and may not be the result of people's unwillingness to work. But productive capital is privately owned and owners are not forced to make this capital available for the employment of the labor of others. Denial of access is an important property right of capitalists.

The specification of rights and limits to property is crucial for the productive inputs – land, labor, and capital. Some of these rights are so elementary that violation of them is immediately recognized as criminal. Theft – acquiring the property of others through coercion or stealth – comes readily to mind. Other examples are more subtle; they include selling "insider information" on the stock market or establishing a consulting firm on the basis of knowledge acquired by serving in a governing administration for a brief period. But the principle is the same, the extent of rights to property (intellectual property in the case of the stock market and consulting examples). Finally, even governmental policies, though of shorter time horizon than more elementary rights, have important property rights implications. Tax policy defines how much of output goes to the state; minimum wage legislation sets a floor to the price at which labor may be hired, and unemployment insurance establishes rights to income (usually temporary) when people are out of work.

How do issues surrounding property rights bear on political economy? The political process institutes property rights and, in so doing, sets their limits. Over time, these limits change and develop as society's conception of rights and property themselves change and develop. In some ways this process of development occurs outside of politics. But eventually it expresses itself within the political arena in the form of contention over rights. In this sense, the issue of property rights has an important political dimension.

The presence of such a dimension may or may not justify us in characterizing rights as inherently political, however. Two different theories of rights express different responses to the notion that rights are political. The positivist school argues that rights are created by the political system. Our rights are whatever that system designates as such and are limited to what can be enforced in courts of law. Rights are historically and empirically determined. The natural rights school argues that we have innate rights (sometimes referred to as inalienable rights). We can claim such rights against

the state. In other words, even if law does not recognize our right to freedom of speech (for example) we still have such a right due to its close association with the universal claims of human dignity. Thus, the positivist school identifies rights with law, while the natural rights school tries to ground rights outside of existing laws.

For the positivist school, it would seem appropriate to consider rights political in that they are the output of a political process. They may be contested in the same way all outcomes are contested. But the winners can make no special claim for their position beyond that of its (perhaps temporary) political dominance. The existence of such rights is a political fact (which is not to deny, as suggested previously, that the political struggle has links to broader social conflicts). For the natural rights school, it would not be appropriate to treat rights as essentially political. The claims rights have over us stem not from their success in a political debate, but from their significance to our sense of what is demanded of a society organized to respect and protect the dignity of its members. Such rights may be politically instituted, but they are not in essence political.

Second, property rights are not static. They do not refer only to an original condition that must exist for exchange relations to emerge and deepen. The nature and extent of property rights are open to change. Legislation can create or eliminate property rights by establishing which classes of goods can or cannot be privately appropriated (for example, handguns, gold, or slaves), or it can alter the degree and limits of rights over classes of goods. Modern capitalist societies are concerned with the "best tax rate" (to encourage individual motivation and the provision of social services), the "optimal tariff," the control of externalities, and the stimulation of technical innovations. A property rights structure in which individuals do not gain from wealth-producing activities may lead to low levels of output. The current concern in the United States about our "litigious society," "paper entrepreneurialism" (Reich, 1983), and rent-seeking (Krueger, 1974; Bhagwati and Srinivasam, 1980), attests to the significance of property rights in our contemporary setting.

### *Externalities*

The voluntary transaction is the *sine qua non* of the neoclassical conception of human interaction. It is the archetype of all forms of human relatedness. This is so for reasons suggested earlier in this chapter. Indeed, the elevation of the exchange contract to this special status follows from the idea that human life is ultimately about maximizing private satisfaction in the context of resource constraints. The voluntary character of exchange, together with

the assumption that each person knows best what he or she wants, leads naturally to the theorem stating the optimality of free markets.

But free markets are not always optimal by neoclassical standards. The first reason for this is that the theorem that links free markets to welfare maximization assumes that no one is affected by a transaction who is not party to it. That is, no one has his level of want satisfaction affected by a contract he does not voluntarily enter into. The term "externalities" refers us to a set of effects of transactions on persons not party to those transactions. If transactions have such effects, they are not necessarily welfare-improving. If they are not, the market has failed to achieve its purpose, and other than market methods must be introduced to fulfill the end of maximization of private want satisfaction. These nonmarket methods include those instituted by political processes and political institutions.

What exactly are externalities? Externalities refer to "effects on third parties that are not transmitted through the price system and that arise as an incidental by-product of another person's or firm's activity" (Rhoads, 1985:113). In ideally functioning markets, all transactions are either private, or, to the extent that third parties are involved, they are compensated or charged. Under such conditions, the cost to producers equals society's costs and benefits to society equal producer benefits. If these conditions obtain, the market sends the correct signals to the producers and neither "too much" nor "too little" of the good in question will be produced. But in certain cases this equation of private and social costs and benefits does not hold. In practice, there are often uncompensated external effects of production (and consumption).

Let us emphasize a point that is important for understanding the theoretical linkages between externalities and the state. It is best illustrated by starting with several questions: Why is it undesirable for externalities to exist?

What special problems do they create in neoclassical theory? One could argue from the standpoint of social justice that, with externalities, people are required to pay for or benefit from certain states of affairs they had no part in bringing about. They are rewarded or punished on grounds irrelevant to their own performance. While this argument has some appeal, the neoclassical economist reasons on a different basis: that of efficient operation of the economy. Mansfield argues that the pattern of resource allocation is distorted when externalities exist.

> If a man takes an action that contributes to society's welfare but which results in no payment to him, he is certainly likely to take this action less frequently than would be socially optimal. The same holds true for firms. Thus, if the production of a certain good, say beryllium, is responsible for external economies, less than the socially optimal amount of beryllium is likely to be produced under perfect competition, since the producers are unlikely to increase output simply because it reduces the costs of

other companies. By the same token if a man takes an action that results in costs he is not forced to pay, he is likely to take this action more frequently than is socially desirable. The same holds true for firms. (1982:453–4)

Consider a negative externality produced by a firm, such as pollution that imposes a cost on agents outside of the firm in the form of ill health and medical expenses. The cost is imposed on agents independently of their will. In a sense these agents are victims of an imposed exchange (in which they receive ill health in exchange for no payment) and as such is not to the agent's benefit. By the Pareto criterion, the outcome cannot be optimal. We can also see this by considering the firm's calculation of the profit-maximizing level of production.

Assuming that the firm aims to maximize profit, neoclassical theory tells us that it will increase its level of production until the cost of additional output, the marginal cost, equals the price at which it sells that output. If the marginal cost exceeds the price, the sale of the additional output costs more than the revenue generated, which implies a loss to the producer. If the marginal cost falls short of the price, additional profit can be made by producing more. So long as the price (therefore the revenue) exceeds the additional cost, the firm should continue increasing its level of production. Only when the additional cost is just offset by the additional revenue (that is, marginal revenue equals price) will no incentive exist for the firm to change its level of production.

If we take the price to be given and assume diminishing returns, we can easily see how externalities will lead to inefficient levels of production. Diminishing returns means that higher levels of production impose higher unit costs (marginal cost rises as output rises). The profit-maximizing output, given price, depends on the level at which marginal cost equals price. The higher the level at which marginal cost equals price, the more output produced. But the higher the level of marginal cost at each level of output, the lower the level of output at which it equals the price. As the firm increases its level of production, its marginal cost rises, so it continues to increase that level until the marginal cost rises to the price.

Now, consider two situations. In one, part of the cost of production (that part borne by those suffering the negative externality) is *not* calculated into the firm's marginal cost; in the other, it is (for example, by a tax on the producer). When the cost to the agent suffering the externality is not calculated into the firm's costs, the profit-maximizing level of production must be higher than it would be were that cost included. This is for the following reason. When we force the firm to include in its own calculation of its cost this additional cost imposed on others, its marginal cost is higher at each level of output so that given the price, the profit-maximizing level of output is lower. Thus, the market, left to its own devices, since it is incapable of

imposing the cost of the externality on the producer, induces that producer to produce too much (that is, more than the efficient amount) of the good involving a negative externality. By a similar logic it is easy to show that a positive externality leads to lower than optimal levels of output.

For the neoclassical thinker, the idea of a set of activities in which economic agents engage others involuntarily opens the door to politics, in the sense of state action (see Baumol, [1952] 1965; Whynes and Bowles, 1981; Mansfield, 1982). First, the political process can be used to correct market deficiencies by bringing private costs and revenues into line with social costs and benefits. There are different policy instruments that could be used to equate private and social cost. One of them is fines; another is subsidies. Fines are imposed on the producer of the externality. If a firm is polluting, government can impose a fine. How large a fine should be imposed? The fine should be just large enough to cover the gap between private and social cost. By imposing a fine of this magnitude the government forces the firm to take account of (to internalize) the full costs of production. And by facing squarely the true social costs of their actions, firms will produce (and pollute) the optimal amount. Subsidies work differently. Here the government pays the firm a subsidy for pollution abatement. The reduction of pollution becomes part of the process (and cost) of production. The objective of both of these policies is the same: reduction of externalities. However, the approach is different and the costs of these reductions are distributed differently.

The second major approach to controlling externalities is government regulation. In contrast to fines and subsidies, which attempt to limit externalities through the price system, regulation seeks control through establishing rule-like standards that can be legally enforced. In other words, regulations involve authoritative prohibitions and demands. Regulations may concern permissible pricing behavior for monopolies, bidding standards for the weapons industry, safety standards for airlines, legal limits of pollution for polluting firms, and rules for the disposal of toxic waste.

The third governmental response to externalities is provided by the judicial system. Instead of a governmental regulation, fine, or subsidy, injured parties might file a suit and take the accused party to court. While this approach has some advantages, its drawbacks are notable. As Stiglitz (1988:233) points out, for this approach to work, property rights must be well defined. Judicial action would not work if the resources being used were held in common. In addition, transaction costs for those mobilizing to bring legal action (the injured parties) could be extremely high and subject to the same collective action problems as exist for public goods. Just the information costs associated with determining who was injured, and how much, might be prohibitive. And the costs of legal action for one person may be prohibitively high in

relation to the benefit, while for a group the costs may be far outweighed by the benefits.

*Public goods*

The third entry point for political economy within the neoclassical paradigm has to do with public goods, or collective consumption goods as they are sometimes called. Neoclassical economists have written about education, roads, and research and development, as well as property rights as public goods, while political scientists, influenced by this way of thinking, have contributed to the literature on leadership, regimes, and the institutional framework for economic action. The importance of public goods spans many levels of government activity: sanitation and traffic rules at the local level, defense policies at the international level.

As with externalities, neoclassical theorists treat public goods as examples of market failure. With an externality, an activity has a consequence that confers a (nonpriced) cost or benefit on a nonparticipant. Where public goods are concerned, the problem is that these goods often will not be produced by the market. The reason for this underproduction of public goods is that the market will produce only those goods for which the producers who bear the costs can also capture the benefits. Such goods are in some sense "ownable," fungible, and transferable.

Many goods do not fit these criteria. These goods, by virtue of their indivisibility and diffuseness, are difficult to own. Once produced, they enter the public realm. Indeed, one definition of a public good is a good that, once produced for any member of a group, automatically is available for any other member of that group. This definition highlights the importance of nonexcludability for public goods. The beneficial effect of a technical improvement on economic growth, the existence of a well-tended public park, the public educational system, national disease control, and an effective deterrence system are all examples of the nondiscriminating quality of public goods.

The general properties of public goods are their nonexcludability and nonrivalness. Goods exhibit nonexcludability when there is no practical way to channel their benefits exclusively to those who have paid for them – or, to put it the other way, those who have not purchased the good cannot be excluded from consuming it. They become "free riders," enjoying all the benefits without any of the costs. The property of nonrivalness means that as one person consumes the good, no less will be available to someone else. These two properties are practical categories rather than logical absolutes. They depend on the goods in question or, more importantly, on the specification of property rights. Additional cars on our highways can create ri-

valness due to congestion. Defense can be selectively used to protect certain parts of a population, and deterrence, which is often treated as the closest thing to a "pure public good," can even be invoked selectively. European critics of the United States' policy of graduated deterrence certainly believed this.

How do public goods bear on the concerns of political economy? Within the neoclassical world, public goods are of interest because they suggest limits to the self-seeking, perfectly functioning market model. If we go back to our self-seeking individual and join our knowledge of him to the knowledge that markets underproduce public goods, we immediately see the problem. Our maximizer would not be able to achieve all he would like within a market setting. Public goods like clean air, disease control, an educated citizenry, safe roads, and defense – all in his utility schedule – would be largely unsatisfied by the market.

Let us turn to some of the reasons why goods such as those mentioned in the preceding paragraph are not produced by the market; and after that, we will show how this defect of the market encourages recourse to politics. The major problem of public goods production at the microeconomic level is that there is little incentive to invest energy and resources into their production because those who invest such energies cannot capture all the benefits. Of course the producer will enjoy the benefits of the good in the same way that everyone else in a particular jurisdiction does, but no more so. He enjoys the same fraction of the benefits as everyone else. At a macroeconomic level the difficulty is that private costs and benefits cannot be linked to social costs and benefits. As with externalities, this distorts resource allocation and leads to an undersupply of public goods.

The often cited case of the lighthouse illustrates the basic principle well. A single operator of a ship, or owner of a fleet of ships, may find it advantageous to build a lighthouse and may do so if the costs are less than the benefits received. However, it is more likely that the costs for any one shipowner will be larger than the benefits received. Yet the costs for a lighthouse are constant, whereas the benefits can expand depending on the number of ships that can use it. However, since these ships cannot be excluded from the benefits once the lighthouse is in existence, they have no incentive to pay. They have an incentive to free ride, in the language of public goods theory.

It follows that even where total benefits exceed total costs, lighthouses may not be built. As Stiglitz points out, this underproduction of public goods involves an inefficiency and provides a rationale for government intervention (Stiglitz, 1988:75). Of course, the fact that markets cannot produce goods of a public nature does not mean that the government can. Neoclassical economists like to point out that governments fail too. However, some classes

of public goods seem so important that they are provided, with varying degrees of success, by nearly all countries. We can think of education, defense, a legal system, police, sanitation, and health (particularly control of contagious diseases) as goods typically provided by government. Of course, a particular good is often not exclusively provided by the market or the state. We have private education, personal bodyguards, private lawyers, and a health-care system that relies on private doctors and health-care providers as well as their public counterparts. In addition, in some countries there is an increasing tendency to introduce market principles into government policymaking.

Since the market works through voluntary exchange, many persons who are not public-spirited would not pay their share of the cost of public goods provision but would still enjoy the benefits. In addition, public goods involve teamwork. There are collective action problems involved. The state can more easily overcome these problems. It has coercive powers to force individuals to do what is in their interest (that is, to pay for the benefits enjoyed). And the fact that government is inherently more centralized than the market helps it overcome the coordination problems associated with decentralized decision making.

### *Monopoly and oligopoly*

A central theme of neoclassical economics is that there is a link between perfectly competitive markets and efficiency, defined in terms of the maximization of private want satisfaction. Yet three previous sections (property rights, externalities, public goods) suggest that even with perfectly competitive conditions, there are market failures. In this section we briefly consider the case of what happens when markets cease to be perfectly competitive. To make the contrast strong, we compare perfectly competitive markets to oligopoly and monopoly.

In a perfectly competitive market, there are a large number of buyers and sellers. Each producer and consumer is so small in relation to the rest of the market that he or she cannot affect aggregate market properties, especially prices. In fact, under perfectly competitive conditions, individual firms have very little power at all. Their choices are limited to which products to produce and how much. For firms to be restricted in this fashion is simply to say that markets are functioning as they should.

Some scholars (e.g., Lindblom, 1977) have objected that modern industrial economies do not fit the description of perfectly competitive markets. While departures from perfectly competitive markets include numerous analytic distinctions, we frame our discussion in terms of the most extreme deviations, monopolies and oligopolies.

Oligopolies occur when several firms control a large share of the market (or assets) in a particular sector. In these circumstances, firms may affect key market parameters such as prices. Indeed, firms might set prices well above the level allowed in a perfectly competitive market. The difference between the price and the costs of production may be reaped as an excess profit, called a rent. Along with raising prices, firms may limit output, satisfying themselves with selling fewer units at a higher price.

From the standpoint of efficiency, the above scenario is troubling. Firms produce "too little" and charge "too much" in comparison with the baseline of pure competition. Individuals and firms who could have purchased goods at lower prices are excluded. Utility satisfaction is lowered. Under these circumstances prices will not reflect real costs and scarcities and, as a result, will not be efficiently allocated.

In the case of externalities and public goods, markets fail even under ideal circumstances – that is, even if they are perfectly competitive. With oligopoly, there are also inefficiencies, but they result from the erosion of the competitive nature of markets themselves. Nevertheless, the rationale for government intervention remains the same. The economy is impaired in its function of efficiently allocating resources. The government can intervene to break up large firms, to prevent collusion (cooperation among firms and price fixing), and to discourage or prevent mergers that would restrict competition.[7]

## Conclusion

Neoclassical economics is a theory of voluntary exchange and efficient allocation of resources. Its analytical starting point is the self-interested individual, operating in an environment where many potential objects of satisfaction are in commodity form, and where, in Macpherson's words, the aim of action is "the competitive maximization of utilities" (1973:5). In this kind of world, individuals will freely contract to do the best they can, subject to endowments, technology, and existing rules.

Clearly, market exchange and efficient allocation are central to neoclassical economics. Once this view of the world is in place, it invites a particular way of thinking about political economy. It highlights the contractual arrangements that individuals and firms make to improve their lots. For the con-

[7] For some scholars, there is a second theoretical link between oligopoly and politics. This link is supplied by the idea of "market power," a term that under the conditions of perfect competition is an oxymoron. Under conditions of perfect competition, strategic interaction cannot exist. Each actor must behave as if the environment is given. By contrast, when oligopoly exists, the maximizing individual, far from confronting an anonymous environment, faces a set of rivals implying a quite different set of calculations. Instead of calculating how much of X to produce, a firm may devise a strategy that intends to increase market shares or one that defeats a rival firm (Diesing, 1982:40).

sumer, the relevant question is how to dispose of resources so as to maximize utility. For the producer, the question is how to utilize endowments so as to maximize output and profit. Thus economics, as Schelling puts it, has become the science of superior trades, the "something better" approach (1984:15).

The neoclassical idea of political economy is subsidiary to the central focus of efficient exchange within markets. Once individual welfare is at the center, and this welfare is equated with fulfillment of preferences, politics becomes an alternative instrument to achieve what cannot be efficiently achieved by the market. This makes market failure the master idea of neoclassical political economy. Markets may fail in the ways we have discussed. They do not define and institute property rights; they cannot put into place their own preconditions. They may involve significant externalities, problems of public good production and loss of competition through industrial concentration.

We have explored the idea of linking political economy to market failure. When we focus on market failure, we leave out of account one important feature of neoclassical thinking. The welfare improvement stemming from voluntary contracts (in the absence of public goods and externalities) is relative to the initial distribution of endowments. It is the best we can do accepting who owns what at the outset.

"Voluntary," in this context, means absence of coercion by another person. It does not require that any specific set of options actually be available to the individual. The less wealth we own at the outset, the fewer the options the market affords, the less well off we are likely to be as the result of exchange. The market does not redistribute property in the interests of equality of life chances or of removing goods from those that have a surfeit and giving them to those having little.

Thus, it is important to bear in mind that neoclassical propositions regarding the virtues of the free market are all limited in this way. Such a limitation does not in itself make those propositions uninteresting or irrelevant. It does, however, better identify their meaning and significance. In certain contexts (of poverty, acute inequalities, severe limitation of life chances), the neoclassical propositions carry less weight and capture our attention less than they might in others.

If neoclassical political economy is based on the idea of market failure, it is appropriate to evaluate this conception. Our comments center on the special competence of markets and conceptions of the political that are different from the neoclassical idea.

Some theories of political economy concern the way we draw the line between outcomes left to the market and those determined by state action. At issue is a general method or approach rather than specific outcomes (employment, pollution, military expenditures, and others). Neoclassical political

economy attacks the question of how to draw a line via the notion of market failure. The line is drawn by reference to a specific conception of the competence of markets – what the market does when it functions well – and the circumstances under which that competence breaks down. When the market fails, it is the function of the political process to carry out the mission of the market by other means.

The notion of (Pareto) optimality best expresses the neoclassical vision of the special competence of markets and their overall mission. So, the success or failure of the market can be judged by the optimality of its outcomes. These, in turn, are not evaluated first in empirical terms, but in relation to a theoretical claim: that perfectly competitive markets will be Pareto optimal and that restrictions on competition will lead to nonoptimal outcomes. Externalities and public goods imply market failure by this criterion.

However interesting and important the notion of optimal allocation, it is only one of several visions of the special competence of markets. Its limitations were vividly depicted by Schumpeter in a well-known comment:

> A system – any system, economic or other – that at *every* point of time fully utilizes its possibilities to the best advantage may yet in the long run be inferior to a system that does so at *no* given point of time, because the latter's failure to do so may be a condition for the level or speed of long run performance. (1942:83 italics in original)

Schumpeter echoes the classical idea that markets are about dynamics of accumulation, innovation, and economic development rather than about the static problem of resource allocation and optimization. From the standpoint of this distinct judgment about the social purpose of the market (see Levine, 1981:ch. 7), the question of when the market succeeds and when it fails must appear quite differently. With this difference must follow differences in judgment of the limits of the market and the line separating market outcomes from those determined by state action.

A second limitation of the neoclassical approach is that it understands the state primarily as an instrument to correct market failures. In doing so, this understanding furthers the idea of efficiency. If the market fails to respond efficiently, the state steps in. State actions can be judged by the same yardstick as market activities.

Empirically, the state may be involved in more than market failures and justifications, for state action may extend beyond efficiency. Justice and rights are in the state sphere not because they can be performed more efficiently there, but because the state rather than the market can best enforce equal protection and treatment. Justice can be a slow, cumbersome, and inefficient process.

If justice highlights the normative aspect of state activity, conceptions of power based on winners and losers highlight an empirical aspect of states not

captured by market failure. Much of politics concerns the ways in which the political process and the state are used to enforce the desires of some over others. We have seen how the focus on voluntary exchange and Pareto optimality removes this avenue for neoclassical political economy. Situations in which the improvement of some worsens the position of others are difficult for the neoclassical method to grasp. Markets imply voluntary choice and choice implies freedom to leave, to "exit." One may be dissatisfied within markets, but one should never be worse off because of the choices of others. The state as agent of some over others differs from the state as an instrument of mutual improvement. The neoclassical state empowers agents to achieve goods otherwise unobtainable. But the state is also an agent that empowers some to achieve goods at the expense of others.