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# *Property rights and non-market allocation*

Those economists who have contributed most to the study of property rights tend to appreciate the operation of unregulated markets. They contend that people and the economy thrive when left to their own devices and that government intervention tends to reduce wealth. In the market, the argument goes, prices regulate the movement of resources to their highest-value uses; when prices are not given the opportunity to perform their function, misallocation results. Government intervention is deemed acceptable in such areas as national defense, police, the courts, and perhaps the money supply; however, such intervention is said to be desirable only because it facilitates the functioning of markets.

A dramatic manifestation of the view that unhindered markets are best is found in Kessel's (1974) analysis of blood donation. Although Kessel did not contribute directly to the analysis of property rights, he had a keen understanding of the property rights approach. Through an examination of the mechanisms used to provide blood where needed and of the apparent advantage donated blood has over purchased blood in avoiding the transmission of hepatitis, he came to the conclusion that a more vigorous pursuit of profit would have secured high-quality blood in the market. Yet, in spite of his masterful command over theory and evidence, Kessel's explanation as to why the market for blood had difficulty functioning and surviving is not compelling. A fuller recognition of non-market organization, that is, of the allocation of resources by mechanisms other than price, will provide a different explanation of why the quality of donated blood is higher than that of purchased blood.

The property rights approach to the study of economics was promoted by market-oriented economists, who sometimes used it to demonstrate the superiority of the market. Contrary to the perception that property rights tools may be best used to analyze the market economy, where allocation is performed largely if not entirely by prices, these tools seem, in fact, to be uniquely well suited to analyze resource allocation in non-





market settings. The Walrasian approach, where rights are perfectly defined, is correct in quickly dispensing with the topic of property rights, for there is little to say about them within that model, prices being all-determining. Indeed, the Walrasian model may provide satisfactory answers to many problems in capitalist economies, where prices play a vital role in economic life.

For non-market economies, where market prices are eschewed or suppressed, the Walrasian model is inadequate: It is incapable of explaining how resources are allocated. Here, the property rights approach attains the utmost importance in the analysis of decisions about allocation. The irony is great, for champions of the free market have developed tools that are most powerful when they are used to analyze non-market, including socialist, economies.[1] Although I believe that the property rights approach applies to all human behavior and to all human institutions, I will not make a serious attempt to demonstrate this. In support of the assertion I shall, however, first offer a brief discussion of the applicability of the property rights approach to two specific areas of non-market allocation: (1) allocation by voting in market settings where it is shown that individuals sometimes choose to bypass market for non-market allocation and (2) allocation by voluntary, charitable behavior where a clear advantage of charitable over market behavior is demonstrated. I will then briefly examine the function of private property rights and the method of inducing people to perform in a non-market economy.

## ALLOCATION BY VOTING

On occasion, profit-seeking individuals in market economies allocate resources by voting – an explicit mechanism that bypasses the use of prices in favor of non-price allocation. Individuals who use markets retain discretion as to how to use their wealth, maintaining full choice as to what and what not to purchase. Within voting organizations, on the other hand, individuals are subject to constraints imposed upon them by their fellow voters. Despite the reduction of their freedom of action, people must value such constraints; otherwise, such voting would not exist.

Voting is used in numerous profit-seeking settings, including shareholder corporations – mostly to elect officers; and in a whole array of operating decisions in condominiums. The origins of certain organizations in which voting is used lie in the operations of entrepreneurs. In the case of condominiums, for example, developers typically erect the housing units and related structures and complete other preparatory work

[1] As pointed out to me by Wing Suen, the irony is compounded by the championing of the use of prices in socialist systems by such eminent economists as Lerner and Lange.

before selling the units to individual buyers. Of course, developers do not have to sell housing units as condominiums; another option they have that maintains the owner-occupier tax advantage is to sell the units to individual buyers who operate independently of each other. In general, developers presumably do whatever they think will bring the largest difference between the aggregate selling price of their units and the costs they incur.

Developers of condominiums are, in fact, offering buyers packages that consist of both the physical structures and the rules that will govern some aspects of the prospective owners' future behavior – rules that include decisions by voting. Clearly, such developers expect to obtain higher net prices from their buyers, prices not only higher than they would be if developers sold the units independently, but also higher than they would be if developers offered different packages. Condominium buyers, then, value packages that constrain them to allocate resources by voting (on, for example, whether or not to build a swimming pool) more than they value deals that do not constrain them in that way but that allow decisions regarding the supply of such services to be made in the market.

Although no attempt is made here to explain the rationale for such behavior, it is clear that individuals sometimes prefer non-price allocation to allocation by price.[2] The use of prices, then, is not always the most efficient method of allocation. The next section, on donated blood, points to one advantage of non-market allocation.

## DONATED BLOOD VERSUS PURCHASED BLOOD

Blood, like other commodities, is a collection of attributes whose individual levels vary from one specimen to another. In particular, some blood specimens are unlikely to be infected by hepatitis, and some are more likely to be infected. The lower the probability that a batch of blood is infected with hepatitis, the more valuable it is and the higher the price demanders would pay for it. By simply posting the two prices at which they would be willing to buy the two types of blood, however, buyers would be unlikely to secure the desired qualities. Since sellers prefer selling their products at higher prices, blood buyers need to be able to determine which grade of blood they are getting if they wish to avoid paying the higher price for the inferior commodity. In the time period

[2]Developers who construct housing units in unincorporated areas, to be sold as condominiums and to be managed by a homeowners' association, are basically developing whole political units. Since incorporation is an option for residents, developers presumably take into account the potential for such a development. Emerging in this case is the purely profit-motivated evolution of a political unit. Buyers implicitly choose the associated political restrictions.





investigated by Kessel, separation of the two kinds of blood was difficult, because at that time the test for hepatitis in blood was virtually worthless.

Despite the inaccuracy of tests, the knowledge of whether any blood specimen was or was not tainted with hepatitis was not always difficult to come by, because people often know (or at least suspect) when they are carriers of the disease. The problem is that impersonal markets are incapable of easily determining the quality of such a commodity as blood. Because information about blood is not costless to *all* concerned, the value of market exchanges of blood is greatly lowered. The information is free to a subset of individuals – the sellers – but the market is unlikely to extract the information costlessly, because the sellers can gain by concealing it.

Using a monetary reward to obtain the commodity "blood" happens to be particularly disadvantageous for securing hepatitis-free blood. The incidence of hepatitis among drug addicts is high because they tend to infect one another by sharing needles; these are the same individuals for whom cash for blood is a particularly attractive trade.[3] The attempt to purchase blood in the market, then, is likely to attract a relatively large proportion of carriers.[4] Obtaining blood from donors alters the selection criteria of suppliers because it tends to screen out cheaply people who know they are carriers. Would-be donors must be persuaded to donate and are appealed to on the basis of helping other human beings or, in the case of some oft-solicited churchgoers, of salvation. People who know or suspect that they are carriers and that their donation will do harm are simply expected not to donate.

Cash markets are not, of course, used by accident: They tend to economize on some of the costs of effecting exchange; the use of donors in lieu of cash markets incurs costs that tend to be absent from cash markets.[5] The costs and the gains of using markets as compared with other allocation methods, such as charity, differ across commodities. Given the difficulty of testing for the presence of hepatitis and of the HIV virus that causes AIDS, blood is one commodity for which the advantages of non-market over market allocation are evident.

Cash-market sellers' ability to gain by knowingly passing off low-quality specimens as high-quality ones is common to many commodities

[3]The fact that transacting is costly and needs facilitating suggests that cash is not as neutral as it is often thought to be. If, for example, blood sellers were paid in non-transferable tuition vouchers, it seems highly likely that the fraction of addicts among blood sellers would be less than it is when cash is the means of payment.

[4]Kessel named various methods of screening out individuals who are likely to be carriers. These methods, however, are costly. Sellers of blood, by and large, were not so screened, which implies that the costs of screening must have been too high.

[5]For instance, volunteers are not, in general, the lowest-cost suppliers of the commodity or service they donate.

besides blood. Charity, however, is not expected to be used in all such cases. The precise nature of the quality problem is likely to differ from one commodity to another, and each should generate its own charitable response.[6] Mechanisms other than charity may be more effective in securing the desired quality for some of these commodities.

Although a person's motive for choosing a charity to contribute to seems to be a matter of taste, one simple prediction can be derived: It seems reasonable to assume that, like other actions, charitable giving will expand when the gains it generates become larger. Returning to blood, it is probable that in the span of time after it was discovered that blood could be infected with the HIV virus but before effective tests for it were devised, the amount of blood donated relative to that sold for cash increased substantially.

## ALLOCATION BY GOVERNMENT

The government of every country plays an important role in economic activity, and some governments' roles are enormous. All governments engage in non-business activities such as conducting foreign affairs and operating the courts, and virtually all also engage, though to varying degrees, in more businesslike activities, often conducting operations that in some other countries are run privately, usually for profit. It is occasionally argued that governments should seek profits when they manage their enterprises, and some government enterprises may seem actually to operate in that way. It is unclear, however, even when profit maximization is the stated objective of the government enterprise, who the residual claimants are.

The difficulty of identifying such individuals and the common claim that by and large government is wasteful and inefficient together suggest to many that private property rights are absent from government operations. Indeed, communist countries claim that they have abolished private property rights, at least with regard to the means of production. I shall argue that private property rights must exist in a functioning economy and even that the notion that government is inefficient cannot be correct. After some general comments on individual maximization, I will proceed to determine what can be inferred from the sheer existence of a government-run enterprise, using a city bus system as the example. I shall then consider the meaning of an arbitrary detail of its operations – the activities of bus drivers – and move on to more general aspects of the operation of such a system. I shall not inquire directly into what the proper areas for govern-

[6]This account does not explain what makes charitable giving operational, although it does shed light on the social value of inducing such a mode of behavior.





ment activity are; I am, rather, using a property rights approach to offer a glimpse into the way a government functions.

The assumption of individual maximization is heavily exploited in the economics literature featuring analysis of profit-seeking enterprises and private consumption. I wish to examine the implications of individual maximization for government operations. Because governments are run by people, government activity ultimately results from the interactions of maximizing individuals. Maximization immediately implies that government actions are never deliberately wasteful or capricious. If "waste" means that some individuals lose from an action from which nobody else gains, such occurrence is inconsistent with maximizing. Whoever takes some action must expect to gain from it; indeed, the perceived net gain must always be the largest available.

An action that appears to others to have been wasteful must, nevertheless, have been expected to generate a gain by the person who undertook it. Moreover, such a person must not have been able to gain more by acting differently. The resources under consideration are ultimately allocated to a particular use by whoever is in control of them. The logic behind the allocation is straightforward. Such resources have alternative uses, each with its own valuation. The ability of potential users to bid for the resources is subject to constraints: that bids be made only by citizens or by party members, or that bids take the form of lecture fees or promises of future high-paying jobs but not cash. Whatever the rationale for the constraints,[7] a maximizing controller of resources will allocate such resources to the highest bidder. The winning bid is not, in general, the same as the one with the highest value in the absence of the constraints. In this regard, resources may appear to be wasted, particularly in the eyes of those who do not know what the constraints are. Given the constraints, however, other potential users of the resources that appear to have been wasted must not have bid high enough for them. Applying this reasoning somewhat more generally, it can be concluded that the lower the perceived net gain to the individuals who have the right to undertake an action (no matter how beneficial the action is supposed to be or how large are its expected gains), the lower the chance that such an action will be taken.

In order to be able to analyze individual behavior in a government organization, it is necessary to address the relationship between private ownership and government activity. Because maximizing people will act only when they expect to gain from their actions, one must be able to determine who gains and who loses from government actions in order to connect the actions with ownership. Regarding a city bus system, one

[7]The constraints are, of course, also imposed by individuals who are maximizing.

must ask who owns it, that is, who has (at least some of) the power to consume it, to obtain income from it, or to alienate its assets or services. "The city" is not a satisfactory answer, because it does not identify the individuals who gain when the buses are running on time and lose when they are not. An answer like "the city" implies the denial that such individuals exist, and therefore implies the claim that there is no residual claimant to the operation of the bus system. Yet if nobody gains from improving the operations of the bus system and nobody loses by letting the system deteriorate, it must lie in the public domain. Because allowing the bus system to deteriorate requires less effort than maintaining it, it would cease to function if it lay in the public domain. Similarly, it cannot be true that the bus system lies in the public domain when access to its assets is constrained. For instance, in a functioning system, attempts to commandeer buses are likely to be punished. So long as the city bus system is not totally paralyzed, property rights over it must be in existence.[8] Various observed bus-system activities, which I outline in the following paragraphs, imply the existence of particular private property rights.

Simply observing that city buses take on and discharge passengers is evidence of the existence of a whole system of private rights. Employed bus drivers, for instance, will be fired unless they perform some minimal level of driving services. The drivers engage in an exchange with their supervisors, and exchanges constitute a *reassignment* of property rights. Here, the drivers acquire the right to a wage and relinquish some rights over their own selves in performing driving services.

Drivers may be asked to do more than the specified minimum. If they are to perform beyond the minimum, they must be given an incentive. Such an incentive need not be higher pecuniary pay; it may take form as a better chance of promotion, a more convenient work schedule, or an easier route. Whatever its form, however, no extra effort will be forthcoming without it. Drivers have at least some rights over themselves; they control – that is, they own the rights to – the level of effort, and they exchange rights over particular effort levels for some other rights.

Employed drivers cannot be operating in isolation. Somebody in the bus system must gain from the contract with the drivers, from inducing the drivers to perform busing services. Similarly, the mere fact that drivers are given routes to drive and schedules to maintain implies that somebody has been induced to perform these functions. It can be similarly inferred that certain individuals are induced to maintain buses; otherwise

[8]The claim that private property has been abolished in communist states and that all property there belongs to the state seems to me to be an attempt to divert attention from who the true owners of the property are. It seems that these owners also own the rights to the terminology.





the buses would not be in operating condition. As long as bus lines operate, then, each one of a whole array of people must be rewarded to perform his or her individual function. The bus system may be managed most bureaucratically and may function sluggishly. Still, some property rights must be granted to the individuals associated with it; otherwise no service whatsoever would be forthcoming.

Governments often seem to set output targets at levels such that at the margin valuations differ from costs. In communist countries such goals are often stated explicitly. One of the characteristics of the economies of communist countries is the constant shortages that arise from prices that have been set lower than is required to clear the market and from allocations that seem simply arbitrary. Government enterprises are affected by such policies in various ways. How would operations of the bus-system repair shop be run under such conditions? Presumably, from time to time the repair shop is hampered by a shortage of parts. As long as buses are running, we must conclude that individuals in the repair shop are being rewarded for getting the buses to work and that the rewards are larger when the repair-shop services are better. Repair-shop personnel, then, gain by having parts on hand and should, consequently, be willing to spend resources in order to secure them. They might, for instance, attempt to trade with the repair shop of another city's bus system or with a truck repair shop. Alternatively, they might offer a special reward to the parts producers for furnishing extra parts. Such producers, as is generally the case under price controls, are not likely to produce at full steam for the controlled-price segment of the market. They might readily be induced to expand output, however, if the reward were to exceed the control price.[9]

The details of such operations cannot be guessed from one's armchair; but whatever they may be, the discrepancies between marginal valuations and marginal costs must generate forces toward their elimination. Indeed, as shown in the Chapter 2 discussion of price controls, once the added adjustment of transaction costs is accounted for, the discrepancies must be eliminated entirely. This attainment of equilibrium simply follows from maximization. The equilibrium itself, however, is likely to differ from those reached under different sets of constraints. Given the government-imposed restrictions, the adjustment costs may be so high that the final output may lag drastically behind the corresponding market outcome.

[9]Some non-market economies are called "command" economies; a command economy is one in which the planner imposes an output target besides the control price. Because inputs are never uniform and because of random fluctuations, the target will as a rule fall short of maximum output, and some shirking with regard to the target output may also occur. The quantity supplied, then, is expected to increase if the reward is larger; an increase will not be forthcoming if it is simply commanded.

The advantages of allowing residual claimants to operate in an economy are clear. In the context of new opportunities for the bus system, suppose it is recognized that the residents of a new suburb are willing to pay more for bus services than these services would cost. If an individual were in charge of the decision whether or not to start service and if she or he were also the sole claimant to the residual, the service would be provided because the individual would reap the difference between the gains and the cost. Moreover, such a service would be expanded until, on the margin, the cost equaled the gain.

In a political system, given the way such systems usually operate, the effect of demand forces is less direct, but it is definitely not absent. The system of rewards in government seldom compensates individuals for the full private gains they generate. An operator unable to claim the full 100 percent of the residual would stop short of the level of service a private operator would reach. Although the same forces that bridge gaps created by price controls tend to prevent gaps between marginal valuations and marginal costs from growing indefinitely large, a full-fledged residual claimant is less handicapped than is one who has only a partial claim, and the full-fledged claimant will produce what appears to be a more efficient outcome.

Why would an operator not be allowed to claim the full 100 percent of the residual? More generally, why are individuals not always allowed free rein to become residual claimants? Prohibitions must perform real functions. The superior who has constrained the operator presumably had the power to impose constraint.[10] The superior may have had no interest in increasing the operator's wealth but could still have been able to increase her or his own wealth by selling the right to serve the suburb. Answering the question regarding the absence of a full-fledged residual claimant requires asking what prevented the superior from selling the right to the operator or, even better, to the highest bidder. The answer lies in the fact that the seller's wealth depends not only on the pecuniary price but also on features of the buyer and of the exchanged property.

Maximizers may choose not to sell an asset or a franchise to the highest bidder for a variety of reasons, several of which are implicit in the discussions of earlier chapters, and all of which may be viewed as resulting from the presence of side effects. Manufacturers, for instance, sometimes pay their salespeople a commission or a salary instead of selling them the merchandise outright. By not granting salespeople full residual-claimant status, manufacturers ensure that their incentive for capturing wealth from other salespeople is tempered. In another case, persons who cannot fully

[10]For simplicity, the superior here is assumed to possess the ultimate authority; people intermediate in the hierarchy are ignored.





guarantee their actions may be inclined to take unduly large risks. The incentive to undertake excessively risky projects is reduced if the decision makers are not allowed to become full-fledged residual claimants.

One reason residual-claimant rights are not granted may apply primarily to despotic regimes; it has to do with the concentration of wealth that free enterprise entails. The holders of residual claims may encounter bad luck and be impoverished, or luck may smile on them and they may become rich. When many opportunities to assume residual claims are made available, at least a few individuals are likely to become rich. Rich people, particularly when their wealth is not easy for others to keep track of, are in a position to finance coups; such people pose a threat to the despot. This, I suspect, is one reason why dictators are often averse to free enterprise. Communist regimes' harsh treatment of "profiteers" may be a case in point. The suppression of opportunities that may enrich some individuals is costly to dictators, who could instead allow their exploitation while collecting a commensurate franchise fee. It is not that dictators are not assumed to be maximizers. It is their longevity that is seen to be valuable to them. They are willing to sacrifice pecuniary gains that they could obtain by auctioning off various residual rights but that pose a risk to their security for the option of operating bureaucratically – an option that is less lucrative but that promises greater longevity.

The distinction between the private and the public sectors is not a distinction between the presence and absence of private property rights. Such rights are necessarily present in both systems. The distinction lies instead in organization, and particularly in the incentives and rewards under which producers tend to operate. In the private sector, producers are more readily given the opportunity to assume the entire direct effects of their actions. In the government sector, people assume a smaller portion of the direct effect of their actions. Both systems reflect the outcome of the actions of maximizers. Each must be efficient.