

Market Efficiency and Government Intervention Revisited: What Do recent Evidence Tell Us?

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Abstract

This essay discusses market efficiency in term of what is required for the market to be efficient and the situations in which the market may fail. It discusses externalities and public goods, imperfect competition and asymmetric information. It looks at efficiency and equity which the market typically ignore but are very important to the society; since efficient demand is backed by ability to pay, unfair income distribution affects demand and therefore the need for government intervention. It also points out the fact that the government provides the foundation on which the market rest.

Keywords: Market efficiency, government intervention, market failure, equity

JEL Class: P12, P26

1. Introduction

Mansfield and Yohe (2004) define a market as an institution where the prices of goods and services are determined; here buyers and sellers exchange goods and services. Prices can be determined by the forces of demand and supply or the government. Economic resources are scarce and therefore there must be a system that rations both products and resources, the basic test for a rationing system is that it should be fair and efficient. Le Grand, Propper et al. (2008) added that government provides some incentives and fundamental requirements on which the market economies rest, like property rights and contract enforcement. For instance; unless contracts are enforced, people would not go into contracts and unless there is protection for private properties, people would not have enough incentive to invest; since it might be taken away. Without these, the market itself cannot function. According to Datta-Chaudhuri (1990), in cases where market indicators alone are not potent guides to required actions, suitable non-market institutions are necessary. He went further to say that the market-versus-government dichotomy is a fake one as both play a very important role in achieving efficiency. Mansfield and Yohe(2004) assert that in a free market system, the forces of demand and supply determine the prices of goods and services and at the equilibrium price the market clears. An efficient allocation of resources is one in which it's impossible to make one or more members of society better off by changing the allocation, without making any other members worse off. An imperfect market is always seen to produce too much of some goods and too little of others. A perfect market would always achieve the most efficient allocation of resources and if the market clearance price is not charged, welfare falls. Le Grand, Propper et al. (2008) added that when government intervenes in a perfect market, efficiency is lost and it results in dead weight loss.

2. Market Efficiency and Government Intervention Linkage

Mansfield and Yohe (2004) pointed out that the first fundamental theorem of welfare economics requires that the following assumptions must hold for a market to be classified as a perfect market;

1. Many sellers who cannot individually influence the prevailing market price.
2. Many buyers who individually have no control over the market price

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3. Free entry and exit from the industry, meaning that all firms in the market make normal profits in the long run.
4. Products are Homogeneous; each firm is a price taker with a perfectly elastic demand curve for their product.
5. Perfect knowledge accessible at zero cost; buyers and sellers have readily available information about market price and sellers have perfect knowledge about other competitors.
6. Perfectly mobile factors of production which can be interchanged in response to varying market conditions and prices.

According to Stiglitz and Brown (2000) where these assumptions do not hold, the market is imperfect and would not achieve the most efficient allocation of resources on its own; this gives a rationale for government intervention. Tisdell and Hartley (2008) also added that the government may need to regulate a perfect market where externalities resulting from production and/or consumption is not captured by the market price and where a necessity is not affordable as a result of inequality. For an example, when house rent became unaffordable in Abuja and Lagos of Nigeria, the government had to introduce the "Housing for all" policy targeted at low income earners. Ogu and Ogbuozobe (2001) point to the fact that affordable houses were not available and available houses were not affordable; the market failed. Le Grand, Propper et al. (2008) explained that when certain assumptions such as perfect information and complete market for all goods and services are met, the free market system would produce efficient allocation of resources, a reason is self-interest behaviour; consumers are rational and would not pay more than the marginal benefit they derive from consuming a good and producers seek to maximise profit and would not sell a good for less than the marginal cost price. Therefore the forces of demand and supply in a free market system tend to automatically equate marginal cost with marginal benefit, which is a necessary condition for efficient resource allocation. When the assumption of perfect market is not met then the market may fail and it becomes impossible to increase total welfare in a way that makes both parties better off.

Mansfield and Yohe (2004) explain total welfare as the sum of producer surplus and consumer surplus. This is only true if the demand curve is a true indicator of value to the consumers and the supply curve is a true indicator of cost to the suppliers. Consumers only buy things for which the value is greater or equal to their opportunity cost. Therefore, consumers buying a product at the ruling price are getting a bonus called consumer surplus. The value they get is greater than the price they pay; it increases their welfare (satisfaction). Producers supply when the price is equal or greater than the cost of production. The bonus they get greater than the cost of production is called producer surplus. A private producer not taking into account the negative production externalities might choose to maximise their own profits where private marginal cost equals private marginal benefit. This divergence between private and social costs of production may lead to market failure. Thus, Datta-Chaudhuri (1990) pointed out that since the performance of the market is a function of the intuition of economic agents, the government can influence the behaviour of buyers and sellers in a positive direction. Le Grand, Propper et al. (2008) added that Social economic welfare is maximised where price equals the social marginal benefit and the social marginal cost. The presence of externalities causes the private optimum level of consumption or production to often differ from the social optimum level and may result in market failure; price does not reflect true value and cost. Market is distorted and therefore welfare is reduced (there is dead weight loss). According to Stiglitz and Brown (2000), the market mechanism may not result in a pareto efficient resource allocation and in that case we say the market has failed and the following reasons could lead to market failure;

1. Incomplete markets: for a market to be efficient it has to be complete, a complete market would provide all goods and services for which the cost of production is less than the price individuals are willing to pay. Market is sometimes incomplete and therefore would not provide some commodities for which their prices are less than the price consumers are willing to pay, this may result in market failure and government has to intervene by make these goods available, for example of health insurance for a sickle cell person (see Dolan and Olsen, 2001).
2. Information failures: uncertainty in the Market for some goods such as technology, are difficult to manage, here information is the main commodity to be traded, the seller cannot allow the buyer have full knowledge of the good because if he does, he would have given the commodity to the buyer without being paid, the buyer is uncertain about the quality of the good and cannot know fully what is bought until the contract is sealed. Therefore the market is prone to failure and this provides a rationale for government intervention.

3. **Public goods:** Public goods are non-excludable and non-rival and therefore are prone to free rider problem; examples are national defence, street light and fire service. Individuals may understate their demand for these goods because they cannot be excluded once it is provided. Public goods will either not be supplied by the market or it would be supplied at an insufficient quantity without government intervention.
The government resolves free rider problem by her ability to require each member of the society to contribute towards the provision of public good through the payment of tax, this potentially increases the efficiency of private markets.
4. **Externalities:** market fails when price does not capture externalities. There are cases where actions of an individual or firm affect other individuals or firms, these are known as externalities. Negative externalities occur when an individual or firm's action imposes a cost on another individual or firm and does not compensate them for it while a positive externality is when an individual or firm's action confers a benefit on another individual or firm and does not get the reward for providing it. Externalities are not being captured by the market price and thus whenever there are externalities the allocation of resource provided may not be efficient. Since individuals don't bear the full cost of the negative externalities they generate, they would produce too much and since they also don't reap the full reward of producing positive externalities, they would produce too little. Government legitimacy in a market economy arises from market failures

The view that government should intervene because it knows what is best for individuals than they do is called paternalism. Individual may take an action that confers cost on the society, for which the market price does not capture. For example smoking causes cancer and cancer patients are treated in public hospitals; financed by public funds thus smoking imposes cost on non-smokers. This can be dealt with by making smokers pay full cost by imposing tax on cigarettes. Dolan and Olsen (2001) argue that government is compelled to act passionately even if the victim's situation is partly their own making therefore the government may compel individuals to take precautions. Le Grand, Propper et al. (2008) added that the market cannot efficiently capture all the objectives of the society, like welfare, therefore the government has to play paternalistic role especially for commodities like drugs (marijuana) and liquor. The government is compelled to intervene because the actions of these individuals impose a cost on society for which the market is not able to control. Le Grand, Propper et al. (2008) mentioned that an efficient system is said to be one that produces maximum net benefit for the society. This does not imply that it fair or equitable one or that it produces maximum benefit for all its members; especially where there is gross income inequality and therefore the government needs to intervene. Market does not concern itself with the way in which benefits are distributed between the individual members of the society. It refers only to the overall net benefit for a given distribution of income. Efficient allocation is made possible given some initial resource allocation between individuals, therefore willingness to pay is constrained by budget. A person's relative valuation of a good is expressed in their willingness to pay. Effective demand is backed by the ability to pay for it, if income distribution is not equal (is unfair) the demand pattern would be unfair. Winston (2006) said there is often a trade-off between economic efficiency and equity. Efficiency means that all goods or services are allocated to someone (there's none left over). When market equilibrium is efficient, there is no way to reallocate the good or service without hurting someone while equity looks at the distribution of resources and is inevitably linked with concepts of fairness and social justice. A market may have achieved maximum efficiency but we may be concerned that the "benefits" from market activity are unfairly shared out. Blank (2002) supported this point by adding that increasing equity must come with an inevitable cost of a loss of efficiency. Adam Smith pointed out clearly that a society cannot ignore equity in trying to achieve efficiency when he said "No society can surely be flourishing and happy, of which the greater part of the members are poor and miserable. It is but equity, besides, that they who feed, clothe and lodge the whole body of the people, should have such a share of the produce of their own labour as to be themselves tolerably well fed, clothed, and lodged" (Smith 1776)(Smith, 1976 reprint, Book I, chapter 8, page 88). Therefore if the market ignores equity, the government would need to intervene.

3. Conclusion

This essay discusses market efficiency in term of what is required for the market to be efficient and the situations in which the market may fail. It discusses externalities and public goods, imperfect competition and asymmetric information. It looks at efficiency and equity which the market typically ignore but are very important to the society; since efficient demand is backed by ability to pay, unfair income distribution affects demand and therefore the need for government intervention.

It also points out the fact that the government provides the foundation on which the market rests. It is necessary to recognise that the prediction that the market will achieve efficiency rests on certain assumptions about the way in which the market operates. Market imperfections prevent the market from achieving efficiency. Under certain conditions, the competitive market results in an efficient allocation.

When the conditions required for this are not satisfied, a rationale for government intervention in the market is provided. The interplay between market forces without government intervention is unlikely to achieve completely either efficiency/equity and may fail to meet certain other objectives as well. There may be a trade-off between equity and efficiency; the single-minded pursuit of one may lead to the other not being achieved. Government can intervene in the economy through government regulation, tax/subsidy or direct provision of goods and services. Though the presence of market failure implies that there may be a scope for government intervention, it does not imply that a particular government program aimed at correcting the market failure is necessarily desirable, to evaluate government program one must not only take into account their objectives but how they implement it.

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