

# The Principles of Fairness & Efficiency in Designing of Tax Systems

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## Abstract

The aim of this study was to examine the ability of governments to come up with a tax system which is both fair and efficient simultaneously. The study successfully explored the concepts of fairness and efficiency during the design process of a tax system, in order to ensure successful implementation. The paper begins with covering the features of a good taxation system; it continues with explaining, in detail, the principles of fairness and efficiency, including the economic efficiency approach. According to the study, fairness can be well illustrated using the horizontal and vertical equity models. Under the horizontal equity approach, fairness of taxation systems assumes that people enjoying equivalent conditions should all be treated in an equal manner. In relation to the vertical approach, it is required that a similar level of fairness should be reached to include people that exhibit different and unique circumstances. The study also covered a broad definition of efficiency which is when the resultant state facilitates the very minimum level of costs of meeting a given set of goals and objectives. This means the ability of a government to accomplish a given set of goals and objectives at minimal costs or even minimal gains, on a similar level of resources invested at any given moment in time. The paper concludes that it is not possible for any taxation system to be fair and efficient simultaneously and that there would always be a degree of conflict in trying to attain both fairness and efficiency for any given tax system.

**Keywords:** Tax Systems, Design, Fairness, Efficiency

## Introduction

Taxes are compulsory transfer of resources from the private to the public sector (Besley & Case, 1992). There are a good number of taxes formulated to ensure that governments collect enough resources from private individuals and entities, and thereafter, allocate them equally through development projects like roads and public amenities, at large (Hall et al 1996). Following this line of reasoning, the entire objective of any given taxation system lies in its ability to maximise on these related costs and thereafter, promote specific activities like savings or even investment. In this regard, the focus of this paper is on examining the ability of governments coming up with a tax system that portrays fairness and efficiency at the same.

Adam Smith notes that desirable features of a given tax system should portray the aspects of fairness and transparency. This is considered necessary since it informs each and every citizen of their tax obligations and also, ascertains how taxes should be easily administered (Vlassenko, 2001). Indeed, taxes are resources collected by governments to finance their overall expenditure as well as for purposes of ensuring that there is imminent stabilisation, efficient distribution and allocation processes (Andrews, 1974). Governments are also in the business of influencing the process of distributing income and wealth by developing a varying level of tax structure (Vlassenko, 2001). Additionally, taxes are also developed for their allocation functionalities

(Atkinson & Stiglitz, 1976). Various taxes have given impetus to resource allocation and basically, this results in imposition of specific forms of costs on the society (Brennan, 1970).

In the modern world, a good system of taxation should be able to portray a number of features. Firstly, it should be economically efficient, meaning it should not be able to distort the underlying level of prices and thereby, impact negatively on the allocation of resources (Roberts, 1977). Secondly, it should be able to be administered efficiently, which means that the entire tax system should be easy to formulate and oversee (Alesina & Ardagna, 2010). For this to successfully happen, both administrative and compliance costs should be reduced to the minimum possible. Thirdly, the system is expected to portray a high degree of flexibility. This would normally arise whenever the entire system is considered to be sensitive to possible changes within the social and economic environments (Fukuyama, 2013). Consequently, the entire tax system should be politically responsive, which simply postulates that the connection existing amongst political decision makers and the tax system can easily accommodate sufficient taxpayers (Andreoni, Erard, & Feinstein, 1998). These important stakeholders to an economy should be able to understand the manner in which the tax system directly influences their day-to-day living. It specifically means that politicians should portray the ability to alter the underlying tax system to a level that would exhibit the preferences of the majority people within a nation (Andreoni, Erard, & Feinstein, 1998). A fair tax system should be able to depict the ideas of justice and fairness in totality.

### **The Principle of Fairness in Taxation**

In designing tax systems, it is crucial that they are developed in a fair manner. Fairness can be well expounded using horizontal and vertical equity models. Under the horizontal equity approach, fairness of taxation systems simply means that people enjoying equivalent conditions should all be treated in an equal manner (University of Leicester, 2011). In essence, in relation to the vertical approach, it is required that a similar level of fairness should be reached to include people that exhibit different and unique circumstances (Bibbee, 2008). These circumstances can extend to such aspects as income flow and also, overall individual wealth. A good point to note is that the horizontal equity approach does not necessarily mean that fairness would be met by having people with equal income and wealth part with similar amounts of taxes; rather, it is focused more on adopting a wide array of aspects to charge them differently (Slemrod, 1990). For instance, people sharing similar levels of income and wealth can pay more taxes, whenever it is ascertained that one of them is charged more on their cigarettes.

Interestingly, the vertical equity approach to fairness normally takes into consideration a number of differences that emanate between two people before they can be subjected to taxation (University of Leicester, 2011). To be specific, it focuses on recognising the assumption that some individuals possess a significantly greater capacity to pay more as compared to others. There have been a good number of proponents of this approach who have argued that there is a lack of fundamental rationale adopted in utilising income and wealth as the focal basis of defining vertical equity. This is especially true since income levels indicate that which an individual taxpayer is able to put into the economy as a whole (McMahon Jr, 1993). This fundamental concern can be fairly illustrated using the consumption or expenditure tax. A consumption tax compels existing citizens of a given country, like the United Kingdom, to determine the level of their savings. In fact, they are allowed an opportunity to reduce their tax liability to the government whenever they embark on a journey of saving even more so; these

savings are later channelled towards notable investment areas of an economy (University of Leicester, 2011).

Of great importance to note is the fact that the principle of fairness in taxation matters can be distinctively ascertained through considering the gains that people are able to receive - a fact that is well expounded using 'the benefit principle' (Vatn, 2000). It basically dictates that the amount of taxes paid by a given individual should be able to easily portray the gain that the person is able to receive from underlying public services (University of Leicester, 2011). The major concern of this principle lies in its overall application given that it remains to be a challenge formulating gains that a person can receive, let alone be able to efficiently measure (Slemrod, 2007). This is due to the fact that people would normally cheat on the tax system by under-recording underlying levels of benefits gained within a given timeframe (University of Leicester, 2011).

### **Principle of Tax Efficiency**

Formal economic theory emphasises more on the principle of efficiency in taxation systems (University of Leicester, 2011). A tax system is considered efficient when it is unable to result in more than one thing without having less of something else in it (University of Leicester, 2011). All along, Productive and Pareto efficiency frameworks have been adopted to expound on this fundamental principle (University of Leicester, 2011). In the case where production is allowed to commence over a given period, the definition directly relates to the overall net outputs posted within all specified periods. For instance, in order to successfully term a product as being efficient, it should be impossible to consume more of a specific number of commodities in a given period without having to consume minimally in the same period or even other periods. It also applies to other factors, like in the case where leisure is deemed to be a good, then the overall productive efficiency would require that it would be impossible to generate a similar level of quantity of goods with less labour (University of Leicester, 2011). On the other hand, Pareto efficiency refers to a situation where it is impossible to formulate a single individual better-off, without having to result in another being worse-off (Shoven, 1976). A much broader perspective of efficiency is when the resultant state facilitates the very minimum level of costs of meeting a given set of goals and objectives (University of Leicester, 2011). This certainly means the ability of a government to accomplish a given set of goals and objectives, at slightly minimal costs or even gain a little more, on a similar level of resources invested at any given moment in time.

These definitions certainly provide a way of measuring the degree of efficiency of tax systems in general. A good example would be to measure the level of improvements made in relation to productive efficiency for the distance covered within a given production frontier (Niemann & Shapiro, 2008). A pertinent aspect of efficiency relates to its flexibility and responsiveness to an underlying set of changes. In fact, these concepts are far more applicable in the process related to designing of tax systems and their immediate administration process (Ballard & Medema, 1993). For instance, in trying to attain an efficient tax system, a government agency like the US IRS would be compelled to adopt an information system that is easier to operate for both the tax authority and the end user who is the tax payer (Huang & Marr, 2012). For this to be successfully achieved, there is a need for allowing changes to be conducted within the entire system, thereby making sure that the tax bases are set to a straightforward platform.

The notion of flexibility sets out to highlight the sensitivity of a tax system to underlying changes within a macroeconomic platform (Ballard & Medema, 1993). In a case where the economy of a given country shifts into recession, there is a higher likelihood that the tax earnings will significantly drop, given that the incomes of individuals will decrease greatly (Huang & Marr, 2012). Tax systems that are able to efficiently shift to a healthy position of a given economy are popularly referred to as the automatic stabilisers, given that they would normally lead to a pertinent reduction of the speed with which a given economy enters recession (University of Leicester, 2011).

Consequently, under the economic efficiency approach, it is crucial to note that a good deal of taxes influence overall decision-making and behaviour in a greater degree (University of Leicester, 2011). These impacts arise out of the mere fact that taxes certainly play a bigger role in influencing relative prices, which are set out to ascertain the price of a given product or service in relation to how much of another is given up altogether (Feldstein, 2006). For instance, it can be successfully argued that UK income tax presently impacts on the level of work a UK citizen is able to supply to the economy at any given moment in time. In turn, this has the effect of influencing aspects of leisure consumption and overall savings as a whole. Additionally, it is also likely to influence on the amount of time a citizen can stay on a given place of work or readjust all decisions that would certainly impact overall career choices.

Under the economic efficiency perspective, taxation can distinctively affect aspects related to investments, the type of savings and investment, as well as risk taking (University of Leicester, 2011). The capacity of these influences on taxation process depends on whether or not people's decisions are impacted by relative price changes- an element that is well explained using the price elasticity aspect (Feldstein, 2006). Considering the fact that dividend earnings, capital gains and interest payments are mostly treated in a unique manner under a tax code, the underlying financial framework of most UK companies is impacted by the precise provisions of a tax system (University of Leicester, 2011). Non-distortionary taxes are defined as being lump sum taxes like head tax and do not allow a potential taxpayer to do anything in order to alter the overall tax liability at hand (University of Leicester, 2011). For most cases, a head tax needs to be paid despite the fact that it does not entirely focus on the attributes put forth by an individual.

It is crucial to understand that taxes are not solely formulated for the purpose of raising earnings to finance public spending. In fact, there is a higher chance that the distortionary impacts of a given tax could be adopted for purposes of correcting a given degree of market failure (University of Leicester, 2011). In this regard, it can be clearly argued that the overall side effects of taxation can be positive or negative, as expounded using the Figure 1.

This can be fairly illustrated using the example as follows: let's assume that a corrective tax has been imposed on some type of commodity that results to significant pollution during the manufacturing phase and termed as an unintended external outcome. In the event that the government sets out to levy a tax on this commodity, the demand curve will certainly shift from  $D_0$  to  $D_1$ . In essence, the underlying price level variance will drop significantly as the quantity of the product output also reduces exponentially from  $Q_0$  to  $Q_1$  as shown in Figure 1 (University of Leicester, 2011). It is important to mention that the very lower panel of Figure 1 indicates that the overall output of a product is directly related to its overall pollution. This basically means that as the level of output increases, there would be a significant decrease in the degree of pollution. Following this line of analysis, it becomes notably clear that the objective of the government to impose taxes rest with decreasing the underlying output levels from  $Q_0$  to  $Q_1$  while also reducing

the pollution from  $E_0$  to  $E_1$  (University of Leicester, 2011). Markedly, there can also be negative effects that could arise out of the pollution tax. There is a high possibility that the number of people working within the manufacturing plant will reduce just in the same way the existing level of output also falls (University of Leicester, 2011). If they set to seek employment elsewhere, it depends on the underlying state of the economy as a whole. In this example, it can be established that pollution would normally compel an individual involved to pay; however, the end users would be the ones to meet these costs, including the company's employees and customers as the tax is efficiently moved forward and backward within the taxation system at hand (University of Leicester, 2011).

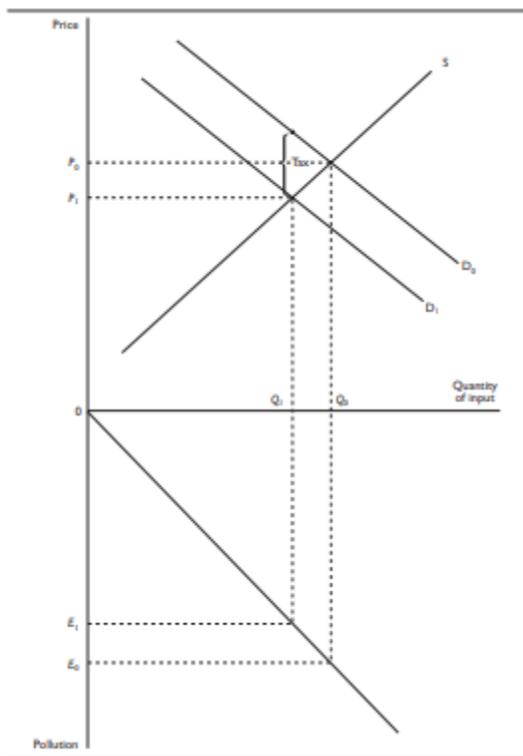


Figure 1: The demand and supply curve as well as the effect of a corrective tax

Interestingly, it is clearly ascertained that in order to comprehend the notion of the effects of tax, it becomes pertinent to assume an economy-wide perspective, as opposed to a narrow-based view, especially in case it is administered within a given viable market (University of Leicester, 2011). Taking an indirect perspective, economy-wide influences are considered far more crucial and can certainly have a higher degree of influence on the overall distribution of income (Cherry, Kallbekken, & Kroll, 2012). Distinctively, the long-term indirect impacts of such taxes would normally assume a longer period before they can be compared to their shorter counterpart costs (University of Leicester, 2011). Another important concern that should be taken into consideration in establishing the efficiency level of a tax system lies in the immediate announcement of a new tax into an economy (Cherry, Kallbekken, & Kroll, 2012). In the case where potential taxpayers are completely informed on the coming changes in a given tax system; they are more likely to re-alter their behaviour in a manner that would make them completely prepared for its implementation (University of Leicester, 2011).

Under the administrative levels of tax efficiency, the immediate level of administrative costs associated with a given tax system relate to the expenses met in ensuring that it certainly is up and running (University of Leicester, 2011). It is an important aspect to note that indirect expenses refer to the costs that would, at the very end, met by the taxpayer as they make efforts to comply with the entire tax system frameworks (University of Leicester, 2011).

## **Fairness & Efficiency in Tax Systems: US Case Analysis**

In the United States of America, the debate on the application of federal taxes has continued to pick momentum, partly because of potential taxpayers and the citizens making efforts to comprehend the distinctive aspects of that which is considered fair and efficient in overall taxation process (Kilborn, 1988). The conservatives have, time and again, indicated that the richest 1% basically receive at least 20% of the overall personal income but only pay slightly above 38% of overall federal income taxes (Sachs, 2011). Following this line of reasoning, it can be clearly noted that federal income tax is certainly progressive in nature, which technically means that the rich pay a higher percentage share of taxes, in comparison to the poorer households (Kilborn, 1988). Even with this perception, the conservatives argue that the rich should focus on paying even more in taxes, considering that they already carry a significant and disproportionate share of the entire income taxes paid to the federal government within each of the operational period.

However, these aspects cannot be just simply evaluated, especially since the rich have notably continued to enjoy unprecedented levels of growth in their overall earnings in recent periods. In fact, with the globalisation having taken shape, the rich have continued to earn even more with the gap between them and the poor widening enormously (Kilborn, 1988). Consequently, the rich have also witnessed massive growth in their wealth as a result of the stock market boom.

On the contrary though, the average wages or rather incomes of American workers have remained redundant over this period, especially with the intense degree of labour-related competition being supplied from the Asiatic region (Kilborn, 1988). These lower wages amongst the workers have resulted in a significant diminishing of overall corporate profits, while at the same time leading to enormous jobs cuts (Sachs, 2011). The end result of this development is imminent level of income inequality with a pre-tax average household income of the rich 1% improving tremendously from \$386,000 to \$1,203,600 in the years between 1980 and 2008 (Sachs, 2011). On the other hand, the pre-taxed average income of the bottom 50% US households has declined from \$16,100 to \$15,400 within the same period (Sachs, 2011). Even though they had seemed to be contributing a heavy portion of the overall federal income taxes, the rich have all along enjoyed a declining average tax rate. For instance, in 1980, the 1% rich taxpayers paid 34.5% of the personal incomes in form of taxes but then this has dropped significantly to 23.3% at the end of 2010 (Sachs, 2011).

Thus, it goes without stating that the 1% rich US taxpayers are not subject of the heavy tax burden being impacted on the majority of the population (Kilborn, 1988). Considering the fact that they have certainly enjoyed a significant surge in pre-tax income and a subsequent decline in overall average tax rates, they are more likely to part with more in tax obligations with minimal effect on their average monthly or annual income and wealth (Kilborn, 1988).

To achieve fairness and efficiency in the way the tax system is implemented, it would certainly be important to ensure that adjusting their tax rates upwards to reflect the reality on the ground.

In fact, it can be noted that the 50% bottom of US households continue to suffer higher unemployment rates and falling income but still required to survive with a rather higher average tax rate in relation to their income levels (Kilborn, 1988).

In simple terms, to attain a tax system that clearly operates on fairness and efficient terms, the US federal government should focus on increasing the added revenue by way of filling existing loopholes that could extend to low tax rates that are paid on capital gains in comparison to ordinary level of income as well as readjust the current lower levels of rates being paid by millionaires investment fund managers (University of Leicester, 2011). The capacity to close these distinct loopholes only means that these governments will raise substantial amounts of revenues without having to readjust the very top marginal tax rates (University of Leicester, 2011). The situation as it stands now only means that the concept of fairness and efficiency is not visible at all.

In this regard, I do think that taxes cannot be fair and efficient at the same time. Time and again, there has been a continued debate that tax systems can only capture the needs of a specific set of people while downplaying others completely (Mirrlees et al. 2011). To have a fair tax system, it means that those with higher income levels should be able to part with more while the lowly-paid households should pay minimal amounts. This is, however, not the case as most tax systems opt to attain efficiency by way of spreading tax brackets equally while overlooking this important aspect of attaining fairness (Mirrlees et al. 2011). It, therefore, means that there would always be a certain degree of conflict in trying to attain fairness and efficiency for any given tax system.

## Conclusion

To sum up the discussion above, the paper has successfully noted that in the designing of tax systems, it is important to ensure that the elements of fairness and efficiency are integrated and defined to guarantee a successful implementation process. Fairness can be well expounded using the horizontal and vertical equity models. Under the horizontal equity approach, fairness of taxation systems simply postulates that people enjoying equivalent conditions should all be treated in an equal manner. In essence, in relation to the vertical approach, it is required that a similar level of fairness should be reached to include people that exhibit different and unique circumstances. A broader definition of efficiency is when the resultant state facilitates the very minimum level of costs of meeting a given set of goals and objectives. This means the ability of a government to accomplish a given set of goals and objectives at slightly minimal costs or even gain a little more on a similar level of resources invested at any given moment in time.

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