

Name

Instructor

Course

Date

Productive Efficiency and In Efficiency of a Production Possibility Frontier (PPF)

Introduction

The production possibility frontier is also known as the (PPF) in the economics world. It is simply a graph or diagram that does clearly show the production rate of two goods and/or services that an economy does produce efficiently or inefficiently over a given period. It accurately shows the production levels of the maximum to the minimum amounts produced in a uniformly drawn curve. Usually, it is compared to another curve that shows shifts either above or below the original one. This second curve clearly shows the production efficiency or inefficiency under given factors which either favor for or against the production levels of a given economy (Thompson 1985). Identifiable major points are drawn on the graph using two major factors while holding others constant, and then a curve is drawn using several points on the graph (major points). Minor points that are usually within this curve are typically considered to be reachable but not efficient (Christensen, Jorgenson & Lau 1973).

Statement

Although most curves are drawn being concave like, that is bulging outwards from the starting point. The PPFs can be at times represented as straight lines or convex like shaped, which are bulging inwards from the origin of the graph or diagram. It depends on the number of factors under consideration. PPFs which are also known as the production possibility curve or product transformation curve are used to represent several aspects, like resource scarcity,

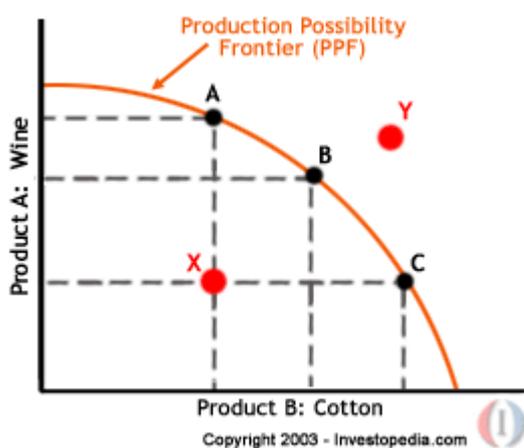
real costs of foregone alternatives (opportunity costs), economies of scale and even the efficiency of a given product in an economy. Basically, an outward shift of the PPFs curve is as a result of the growth of the availability of input factors (Thompson 1985).

These input factors could either be the growth of the labor quantity that is physical capita or technological advancement of the present laborers that does transform the inputs to positive output. The outward shifts are well known to accommodate the growth of an economy that is maximally operating in the PPF. It means more outputs can be greatly achieved without entirely reducing the output of either of the goods under consideration within a given time for an economy (Diewert 1973).

On the other side of the coin, an inward curve shift in a PPF can be caused by the following: the reduction in the size of labor force in a given economy, the utilization raw materials supplied poor technologies and even outcome of natural disasters that indirectly affects the size of the labor hence reduction in the productivity output. Most contractions in the PPFs do represent the economies operation below the required frontier while clearly showing its main priorities (Diamond & Merles 1971). A good example is a choice by an economy to produce relatively more capital goods or services and relatively fewer consumer goods or services, or the other way round.

There are several assumptions made by any economies during the usage of the two good models of a production possibility frontier. The government barely assumes that in that particular situation, ecological calamities, natural disasters, and military intrusion will not happen. The assumption is that even if these calamities do happen, they cannot negatively affect the production possibility frontier (PPF) in any way. Other assumptions include land level being held constant among others (Thompson 1985).

For example, let's take an economy that does the production of two goods: wine and cotton only. It means we are holding other factors constant. According to this PPF, we have several points A, B, C, X, and Y. We have cotton as production B and at the base and wine at the height as production A. We have two other points which are X and Y. The position inside the curve noted as X represents an inefficient use of the resources. The spot outside the curve noted as Y represents goals that that particular country cannot attain with its current resources available.



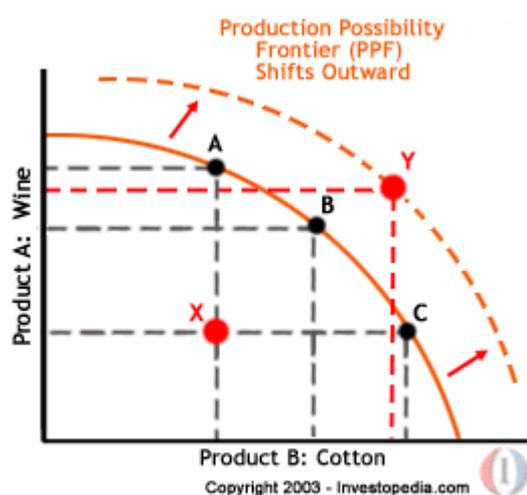
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The diagram above was made for the economy to produce more wine. Then it has to give up some of the resources it has invested in cotton for wine. This step will give a general increase in the production of wine, as noted in point B to point A. On the other hand, when this economy does want to produce more cotton, then it has to divert some resources from making wine to cotton production. It will consequently experience a reduction in the amount of wine produced and an increase in the amount of cotton produced. This is shown as a drop to point B as from previous point A, which means the economy has substituted wine resources for cotton. However, if the economy does move from point B to a current point C, wine production is highly reduced while there is a significant increase in cotton output. It

should be noted that both points A, B, and C represent the most efficient allocation of the economies' resources (Diamond & Merles 1971). For more wine to be produced, the cost of increasing this particular production is proportional to the cost of decreasing the production of cotton. The economy to utilize PPF, it has to decide which combination to be effectively utilized.

On the hand, a point noted as X does show the underutilization of resources by an economy. It does not produce as much wine and cotton as it should be produced having the resources it has. It is an inward shift of the curve. Any outward shift of the original curve can be noted. For example, the shift to point Y. This is the point that is usually unreachable having the existing resources. However, if there was an introduction of a technology favoring wine and cotton productions, then the time taken to pick cotton and grapes will be reduced holding the level of the land, capital and labor held constant. There will be an increase in the overall production of both cotton and wine. The PPF will be shifted outwards, as shown below. A new curve at point Y will appear representing the new current resource allocation.



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An outward shift of PPF shows the positive growth of an economy. On the other hand, if it shifts inwards, it shows a shrinking economy. As a result of the decline, there is the most efficient allocation of resources and best production ability. It could be the result of a decrease in supplies or a deficiency in technology. An economy may have the production of the PPF curve in theory. In reality, economies struggle to reach a maximum production capacity. Scarcity forces of an economy can forgo alternatives for others. Thus, the graph will show a negative graph. That means the production increase of one commodity will increase the production of another.

Conclusion

The PPF is an essential basic tool that helps determine the production of goods and services and the effects of several other factors during its production. It should be highly encouraged by the governments, and its effectiveness keenly noted to control the good growth rate of a given economy easily. Also, the PPF should be continuously updated and managed by experts. They should help to determine the growth of an economy through predicting the effects got after altering resource allocation of different goods and services being produced. It will ensure it adversely gives priority to the sensitive services that will provide general growth rate of the given economy. It also shows the different opinions held by an individual or organization in a two-good model. By definition, all the curves have an efficient production, but depending on the nature of the market, some will be more productive than others. The given equilibrium of an economy given PPF will be the combination of the given outputs that is most profitable. It shows the production possibilities in that economy over a given time. Factors such as market failure can, at times, arise. It may be due to imperfect competition or other externalities' not taken into account. These can lead to the wrong grouping of goods being produced hence incorrect mixing and allocation of needed resources. These can be different from what the consumer is given and what is consumable on the given production possibility frontier (PPF).

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