

Will Tariffs Work? Part Two: Tariffs, Domestic Production Capacity, and Internal Economic Waste

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Introduction

This is the second of a series of reports intended to examine the economic issues involved in the subject of tariffs/protectionism, a subject which is of great significance today given President Trump's following through on his campaign promise to implement tariffs for the purpose of benefiting the US economy. In the first report, we examined the question of outsourcing, and demonstrated the general deleterious effect to a national economy which must result from the practice of outsourcing. In this report, we will take up a consideration of the factors which are involved in the production response of a national economy which is implementing tariffs- including factors which are inhibitive to adequate production responses such as internal economic waste.

Initial Considerations

To the extent that an imported good is necessary, by its consumption, to the maintenance of the total productive output and/or the living conditions of the population of a national economy, any reductions in the amount of that good which is imported into the national economy must be met with compensating increases in the domestic production of that good if total output and living standards are to be maintained. For example, if a national economy imports significant amounts of steel, out of which valuable infrastructure is built, reductions in the amount of steel imported must be met with increases in the domestic production of steel within the national economy in order to compensate. Otherwise, the national economy will not have enough steel with which to continue to produce the same amount of valuable infrastructure which it had formerly produced, resulting in the decrease of total productive output as well as in the living standard of the population within the national economy. On the other hand, if a national economy imports significant amounts of narcotics, the reduction in the amount of narcotics imported will not need to be met with increased domestic production of narcotics, because the consumption of narcotics by society is not functionally/causally necessary to the maintenance of the production of valuable goods and/or the living standard of the population.

By the examples just referenced, we see illustrated one basic problem in economics: namely, the question as to how it is that the value of one thing is to be measured against the value of another thing. It is easy to see, for sane individuals, why steel is more valuable to society than heroine; however, it is not as obvious when comparing things like washing machines, oil, or clothes. This presents a certain problem for those (in the government for instance) who are tasked with encouraging domestic production to compensate for reductions of imported goods resulting from things like tariffs. But, this problem should not be seen as one which is reason enough to abandon that task.

Briefly, I would mention that not all reductions of valuable imported goods must be met with increases in the domestic production of that *specific* good. All that is needed is an increase in the production of a good which is functionally equivalent to the imported good.¹ For instance, if imports of a particular food item are reduced, it may not be necessary to increase the domestic production of that particular food item in the

¹ It may be useful to define a single kind of good by the specific function which it fulfills.

national economy. For, there may be another kind of food item which provides equivalent nutritional value for the same economic cost. But, true as this might be, we must still admit that decreases in the amount of imports of valuable goods must be met with some kind of compensating increases of production in the domestic economy.²

Productive Response to Decreases in Imports

What is involved in the increase of economic production? Alexander Hamilton pointed out that there are only two means by which production can be increased: 1.) An increase in the total labor, and 2.) An increase in the productivity of labor.

To simplify our analysis, let us assume that the productivity of labor of the national economy in question is fixed. This assumption necessitates that the national economy in question will need to compensate for any reductions of imports of valuable goods with an increase in the total labor of the society. But, increasing the total labor of a society in order to compensate for reductions of imports of valuable goods is itself dependant upon a number of factors.

Three Fields of Economic Potential

(The content after this section can be comprehended if the reader skips this section. However, some readers might find this section useful)

It may be said that a society has three nested “fields” of what might be called “economic potential”. These fields represent the potential level of productive output and the potential standard of living (as measured in values such as potential lifespan and potential population density) which a society could attain.

The first field of economic potential is that corresponding to the level of assimilated discoveries of valid physical principle, as exemplified by the physical principles found in the domains of physics, chemistry, biology etc. This is the most encompassing field of economic potential, because it represents the outer limit of what a society is capable of intentionally and willfully achieving as economic output and standard of living within the universe. The array of discoveries of valid scientific principle limits the powers of mankind over nature, and, thus, limits what mankind is able to do with nature- including economic activity.

The second field of economic potential is distinct from and contained within the first. This is the field of technological elaboration. Technological innovation is limited by the array of scientific principles which a society has come to assimilate. The technological innovations which occur under a particular scientific paradigm provide society with the more immediate means to the actualization of the economic potential represented by the first field- the actualization of the economic potential determined by the array of discoveries of scientific principle assimilated by the society. However, it is safe to say that a society will never actualize the maximum potentiality of a certain array of scientific knowledge through technological development. Therefore, the second field of economic potential, that representing the potential of a

² This is, of course, assuming that the amount of production of the national economy is already not enough to maintain the same level of output and living standard. That is, someone could assume that the amount of production domestically was already enough, but that the produced and/or imported goods were wasted, and that, therefore, reductions of imports would not require increased domestic production but decreased domestic waste. We will assume, then, for our investigation, that there is no waste of this kind.

society given that society's current state of technological innovation, will always be smaller than the first field (the potential of that society determined by the array of discoveries of scientific principle assimilated by that society).

The third field of economic potential is distinct from and contained within the second. This field of economic potential is that determined by the goods which actually exist and are available for consumption by a society at a given point in time. This includes all goods produced by society, or "synthetic goods".³ This field will never reach the extent of the second field, for the things which a society actually produces will never correspond to those things which they could have produced with given technology to effect the maximal level of output and the maximal level of the standard of living. Therefore, this field is contained within the second, just as the second is contained within the first.

Hypothetical Case

In order to appreciate what is involved in increases of production, particularly, those needed to compensate for decreases in imports of valuable goods, let us start with a simple hypothetical case, and then proceed to consider more involved hypothetical cases.

Imagine a self contained economy which produces all of the goods which are needed to sustain an equilibrium level of consumption over time. Assume that scientific and technological progress over time are fixed.

Imagine that some of the productive jobs in this economy are outsourced to a cheaper labor market. The goods produced by the foreign labor are then sold back into the economy at a lower price. Assume then, that tariffs are implemented on the import of those goods, increasing the price back to levels at which they existed previous to outsourcing. It could be said that the outsourcing society would, in this case, be able to simply put the persons who had been employed in the production of those goods before back to work in producing those goods again. The foreign workers could be laid off, the domestic workers could be rehired, while the price of the good and the profit of the business firms would remain unchanged. Everything could go back to the way it was before outsourcing.

This scenario requires the following conditions:

The workers which had lost jobs to outsourcing did not age to the point at which they could no longer work, and/or there were other person in the society which had the same skills as those workers such that the new job-positions could be effectively filled. For example, if the persons who previously had the outsourced productive jobs all died off, and there were no other available persons in the society with the skills required to perform those productive jobs, then the society would not have the ability to go back to the good old days before outsourcing immediately. However, training programs could be implemented such that available persons could fill those positions after a certain period of training.

Also required by this scenario is that the "synthetic environment", or, the totality of man made goods available for consumption by society, would be the same as before outsourcing took place. For example, if all of the factory jobs of some company are outsourced to another country, and then, after the outsourcing, the factory, with all its floor space and infrastructure were demolished, it would not be

³ It does not include natural goods because the representation of the fields of economic potential requires us to assume certain environmental conditions, and environmental conditions include those things called natural goods.

possible for the society to immediately put persons to work in the those same factory jobs, because the factory would no longer be there. The society would not have the ability to go back to the good old days before outsourcing immediately. However, a new factory might be built, which would enable the society to once again employ persons in the production of the good.

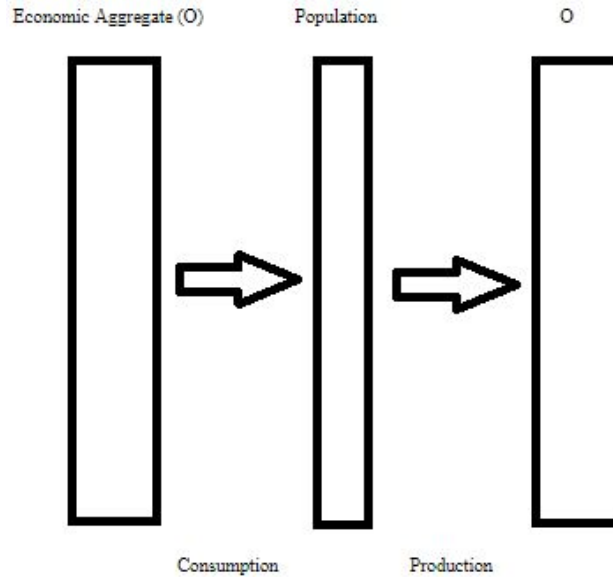
Therefore, we see can initially identify these factors which determine the capacity to increase production: the amount of available or potentially-available persons in the society for productive work⁴; the skills held by those available, or potentially available, members of the population; the availability of capital goods needed for that production.

These factors must be considered by those engaged in the implementation of tariffs, or other policies which result in the decrease of the importing of valuable goods. If tariffs are implemented in an imprudent way, negative economic effects could result, such as inflation, or decreases in the productive output and/or standard of living. Minor reductions in imports resulting from light tariffs will not demand consideration of these kinds of things, but significant reductions will. Coordination between policy makers and industry leaders, in some way, is obvious. Industry should be made aware of any pending major tariffs, so that preparations can be made for increasing production to compensate for decreases in imports. Government officials should consult with industry leaders respecting the speed at which production could be increased given import reductions, as industry leaders will have unique insights respecting the three factors determining the capacity to increase production. Tariffs can be crafted to reflect the findings of such a correspondence. For instance, a tariff on a particular good might be implemented, but gradually increased over time- calibrated by the identified capability to change the capacity to compensate for the import reduction with increased domestic production.

Internal Economic Waste

Imagine the following situation: A self-contained economy existing in a state of production/consumption equilibrium, with a fixed level of technology and a fixed level of scientific advancement. The process of consumption and production of resources by such a society can be represented like so:

⁴ An example of an “available person” would be someone able-bodied but unemployed. An example of a “potentially available person” would be someone employed in something non-productive but who could easily change occupations in favor of a more productive (and, probably, better paying) job. This would correspond to those persons laid off by outsourcing but who found service jobs, the basis of payment for which was the increased profits of the corporate executives of the outsourcing firms for instance.



We can categorize the population as follows: A.) Working age and able-bodied. B.) Non working age and/or non-able-bodied. We can further stratify A as: A1.) Those employed in activity which is functionally/causally necessary to the maintenance of the standard of living and/or the production of the goods comprising the economic aggregate O; and, A2) Those not employed in activity which is functionally/causally necessary to the maintenance of the standard of living and/or the production of the goods comprising the economic aggregate O.

Thus, population sector A1 will be the sector the labor of which produces O. But, A1 is not the only population sector which consumes O. Population sector A2 and population sector B will also consume part of O. Assuming that the amount of labor expended by A1 is fixed, there is a minimum amount of the economic aggregate O which must be allocated to A1 if another economic aggregate of equal size and quality is to be produced. Reductions in the amount of economic aggregate allocated to A1 for consumption which cause the total amount allocated to A1 to fall below this minimum amount would result in a reduction of the size of the subsequent aggregate produced.

Provisionally, consumption of O by population sector A2 can be considered as economic waste.

As we are assuming fixed output, O, we can say that any increase of consumption by any one population sector must come at the expense of another sector of the population.

Therefore, any increase in the consumption of A2 (any increase in economic waste), must come at the expense of some other sector of the population. For instance, increases of economic waste at the expense of population sector B could take the form of reductions in medical care to the elderly, reductions in budgets for school programs, a squeezing out of resources of programs for the mentally ill, and so on. Increases in economic waste at the expense of population sector A1 could take the form of reduced wages (real wages), less capital investment, less investment in R and D, disinvestment in infrastructure, reduced profit margins for production firms, and so on.

Thus, respecting the individual business firm, we can see how an increase in economic waste will necessitate a reduction in the resources allocated to the various aspects of the firm. Is it to be profits, wages, R and D or something else? As wages are generally more difficult to bring down due to pressure

from workers, profits, and/or other things must suffer. A significant increase in economic waste will thus encourage cost cutting measures by production firms in order to maintain profitability, measures exemplified by outsourcing. If the internal waste within an economy increases to a great enough degree, the ability of certain production firms to turn a profit could be completely undermined.

Economic Waste and the Two Kinds of Inflation

We might say that, as inflation is the increase in ratio of money used for the purchasing of goods to the available quantity of goods, inflation can result from two things: increases in the amount of money, or decreases in the amount of available goods. These two kinds of inflation might occur simultaneously.

To illustrate the first kind of inflation: Imagine that the amount of money in the bank accounts of everyone in the hypothetical society which we are considering were to be doubled. The total amount of O would remain the same, but the amount of money available for purchasing O would be doubled. Thus, assuming the consumption pattern of the population were the same as before, the price of all goods would double. This would not increase economic waste. However, if only the bank accounts of those persons in population sector A2 were increased, then, monetary inflation would result in addition to increased economic waste.

To illustrate second kind of inflation: Imagine that the money available to population sector A2 is increased. This could occur in any number of conceivable ways: the government might waste tax revenue by giving it to A2; A2 might perpetrate a successful heist or scam, and so on. Because the purchasing power -the ability to consume the output O- depends upon the amount of money held by an individual or group, increases in money to A2 would correspond to increases in the amount of O which A2 could consume. In this case (assuming that money supply is constant) the increase in the amount of O which A2 could consume would equal the decrease in the amount of O which A1 and/or B could consume. Prices would remain unchanged. However, the amount of O which A1 (and, thus, production firms) could consume would decrease. Once the amount of O allocated to A1 were to fall below the minimum amount needed to maintain constant levels of production, total output would decrease. But, since money supply would be the same, prices would increase.

The Question

These considerations impel us to ask the following question: Is the internal waste within the US economy so great as to preclude profitable increases in certain kinds of production? Take the hypothetical case in which increases in economic waste reduced the profitability of some production firms so much that they were required to shut down. Then, imagine that the goods which such firms had produced might then be supplied to the economy by foreign imports. In such a situation, tariffs on the importation of those goods would not result in an increase in domestic production of those goods because the internal economic waste would preclude the profitability of that production. True, the tariffs could be raised so high as to make the final price of the imported goods such that their domestic manufacture did become profitable, but this would be to create another problem (inflation of the price of the needed good) in response to the first problem of economic waste. Also, if price increases are too great, consumption of the good might be reduced, again complicating the question as to the possibility of profitable domestic production of the good.

One can imagine the difficulty which a policy maker might confront when attempting to craft protectionist tariffs under conditions of significant internal economic waste. The policy maker might

identify that a certain kind of good is imported in large quantities into the US. It might be a good which was once entirely produced domestically. The policy maker might reason that tariffs could be used to bring the production of that good back to the US. However, after meeting with industry leaders, that policy maker might find no willingness to establish facilities for the production of that good on account of the lack of profitability, even if the price of the good were to increase somewhat from tariffs. If the price of the good were to be increased too much due to tariffs, the profitability of the domestic production of that good might be established- assuming that the good would still be purchased in the same quantity. But, the “demand curve” for the good might be such that the increase in price needed to establish profitability of domestic production given a certain volume of sales would be the price which corresponded to another point on the demand curve- another amount of sale volume realizable at that price- which would reveal that domestic production of the good would still be unprofitable.

The amount of internal economic waste within the US economy is quite significant. Reductions of this waste must accompany discussions of increasing domestic production and reducing imports. The Trump administration may find that tariffs will not lead to increases in domestic production in the amounts expected due to the inhibiting factor of internal economic waste in the US. Efforts to increase domestic production with tariffs, without simultaneous efforts to reduce economic waste, will likely be met with frustration.

We will not, in this location, discuss the methods by which economic waste can be reduced, except to mention that a very significant amount of economic waste in the US is made possible by the accumulation of profits through speculation in the financial markets by large banks and financial institutions, and that, therefore, reducing economic waste can be achieved by measures which curb the income capability of such financial institutions. Some measures have been discussed here:
<https://www.findingprometheus.com/single-post/2017/06/02/Glass-Steagall-is-a-Principle>