

Evaluating public interventions that impact market prices



**ASSIGN
BUSTER**

What measurement tools can we use to evaluate public interventions that affect market prices? How might these be used to explain the concept of transfer efficiency? (9 Marks)

(a)

To justify public intervention it is necessary to identify the market failure that the intervention is expected to correct. Public goods; externalities; competition failures; asymmetric information; and missing markets can all be contributing reasons why the private economy is unable to achieve efficiency. A problem that exists is that regardless that market failures are known they are rarely measured. Despite this the impact of public expenditure depends on the precise extent of the gap between social and private benefit. Public spending is necessary during market failure but not always a sufficient means. The application of a tax, for example, may be much more suited than public spending to correct a negative externality, offsetting the social and private cost difference. Another example is the enforcement of anti-trust regulation, which while breaking down monopolies and correcting competition does not alternatively limit the commodity at issue.

However, different tools can be used to measure the affect that public intervention has on market prices. The measured price gap between domestic and world prices is a crucial input into discovering what may happen under different assumptions about policy reform. Estimated per tons and tariffs have an equivalent on producer price as measuring the gap between domestic and world price. In measuring the entire global state of

affairs on world agriculture, calculating world prices without the addition of policies may be most appropriate. But the purpose of evaluating agricultural policies is to compare interventions made by governments while pursuing their political objectives. The world price does hold the most importance as it ultimately determines the effort the government makes to ensure a certain level of domestic price is maintained. In terms of agricultural policy reform, the different assumptions about the changing policy reform and trade barriers show changes in both domestic and world prices, narrowing the price gap. However the ability to change world price lies in the dependence of other countries following the same reform.

On a smaller level the measurement of farm support consists of adding two elements; the difference between domestic and world price for commodities multiplied by the amount produced and budgetary transfers. Tariffs, quotas and other restrictions on imports, also subsidies on exports together with government in intervention to boost domestic prices, can create gaps between domestic and world price. To find the producer support estimate (PSE), multiply the gap in prices by the amount of domestic production. The consumer support estimate (CSE), is negative because it is the consumer food subsidies amount minus the implicit tax on consumers from market price support. Therefore, the total support estimate (TSE) is found by adding the PSE, the taxpayer cost of consumption subsidies and the provision of general services, and subtracting import tariff receipts.

The measurement tools can used to explain the concept of transfer efficiency. " Transfers are payments from one agent in the economy to another agent for which there is no corresponding flow of goods and
<https://assignbuster.com/evaluating-public-interventions-that-impact-market-prices/>

services.”(1a.) Thus the aforementioned measures can determine how appropriately used these transfers are in relation to improving the market economy. To evaluate agricultural policy the objective of the analysis of transfer efficiency “ is to relate the combined taxpayer and consumer costs to the additional income which farmers receive.”(1b.) To put transfer efficiency in to terms, it is the net income gain to farmers that comes from one unit gross transfer cost to consumers and taxpayers. Therefore, transfer efficiency ranges from zero to one.

While there is no measurement tool that is greatly superior to compare the transfer efficiency of market price support, these measurements help emphasize the trade-offs. Broadly defined, transfer efficiency focuses on delivering assistance to targeted recipients in the most efficient manner possible. Thus, any estimation of the gains from policy reform needs to take into account the relation between economic intervention and the political response that intervention produces. Policy reform is greatly linked to transfer efficiency and support estimates are grand determinants in studying the success or failure of interventions.

(b)

Compare and contrast the welfare effects of three of the following interventions designed to raise farm incomes:

(i) Import tariff

(ii) Deficiency payment

(iii) Fertiliser subsidy and

<https://assignbuster.com/evaluating-public-interventions-that-impact-market-prices/>

(iv) Production quota.

What assumptions underlie your analysis?

(b)

The welfare effects of the following interventions designed to raise farm incomes:

(i) Import tariff: Tariffs can have an effect on many different parties including the importing country and the exporting country and the consumers, producers, and Government from both the importing and exporting countries. The importing country consumers of the product suffer due to the increase in the domestic price of both imported goods and the domestic substitutes. This reduces the amount of consumer surplus in the market. Producers in the importing country have a positive gain as the price increase on the domestic market increases producer surplus in the industry and increases output, raises employment and increases profit. Tariff revenue is given to the Government and its benefit is detrimental on how the Government spends it, such as using it to support many government-spending programs, which most likely benefit the public. The impact on the country is determined by totaling the gains and losses to consumers, producers and the government. The overall effect is a positive trade effect, a negative production distortion and a negative consumption distortion. Since there are both positive and negative elements for the importing country the national welfare effect can be positive or negative.

Exporting consumers of the product become better off as the import tariff decreases domestic price and raises the amount of consumer surplus in the market. Exporting producers suffer as the price in their own market decreases along with the producer surplus in the industry. Given that the importing country imposes the tariff there is no effect on the exporting Government revenue. The overall welfare effect for the country is determined by adding the gains and losses to consumers and producers. This effect consists of a negative trade effect, a negative consumption distortion and a negative production distortion, which produces a reduction in national welfare for the exporting country, as all the effects are negative.

Adding the national welfare effects in both the importing and exporting countries creates the effect of the import tariff on the world welfare. The overall effect is negative as both the importers and exporter's consumption and production distortion are each negative. Therefore, an import tariff results in a reduction in world production and consumption efficiency, as the total of the overall losses in the world outnumber the overall gains.

(ii) Fertilizer Subsidy: A subsidy for fertilizer is sometimes paid to offset the disincentive effects of low producer prices. Market price support has an effect on the price-ratio between a product and a production input like fertilizer. The expansion in fertilizer subsidy has created greater use due to a distortion of the real price of fertilizer in turn to lower effective pricing. This has resulted in external costs such as a difficulty in monitoring and controlling agricultural pollution.

Fertilizer subsidies can be justified, especially in developing countries, in order to maintain soil fertility and to conflict against soil erosion and deforestation. In the 1980's fertilizer subsidies for countries were estimated at an astounding \$2.8 billion, since then this number has rapidly decreased. A need to reduce fertilizer use can be attributed to a generation of health effects. In the world market effects of subsidizing agricultural inputs such as fertilizer raise market barriers and hinders competition, which enables inefficient structures to be protected and maintained. Other negative factors include an indication that rich farmers adversely gain from agricultural subsidies.

The welfare effects of an imposed fertilizer subsidy entail a benefit for consumers due to a lower price. Producers' welfare is not necessarily determinable, as although their price has reduced so have farmers' costs of production. To establish the effect this subsidy has had, one must be able to find the elasticity of the demand curve. If demand is inelastic, producers will experience a net loss. (1c.) The effect the fertilizer subsidy has had on the total welfare is accounted to the tax placed on the taxpayer. This is found by locating the reduction in the cost of the agricultural product to farmers compared to the new production of wheat produced.

(iii.) Production Quota: Production quotas limit the level to which an industry and the individual producer can adjust to changing technical and market conditions. Farm prices are being heavily affected through the rapid growth in supply in contrast to demand, which lowers farm prices and therefore reduces farm incomes. This is a major reason why farmers may seek a production quota to control the rising supply production. When a quota is <https://assignbuster.com/evaluating-public-interventions-that-impact-market-prices/>

enforced, if the price falls the supply to the right of the quota becomes inelastic as the producer is not allowed to increase supply.

The welfare effects of a production quota are negative on consumer surplus. However, for producers to benefit after a quota the demand curve must be inelastic towards the original price. Also, we must understand that the extent to which structural change is withheld varies based upon the ease of transfer of quota rights. A trade in quota rights between producers may be constrained or there may be blemishes in the quota market. Producers may also try to lease or sell their production quota rights, creating a capital value. However the problems that arise in the future income to farmers may be reduced due to an inability to reform these production quotas. (1d.)

The way that quotas are put into effect is to proportionately cutback both the most and least efficient producers but this would also increase the economic costs. To minimize economic costs trade must be encouraged within quotas. This will allow the suppliers whom prevail as the most efficient to purchase quota rights producers that lack efficiency as it will be better served if used by the more efficient of the producers. Under a free market approach, these inefficient producers will be forced from the market, creating an overall more efficient economy and then the production quota will be removed. However, due many restrictions the market is rarely a free and open environment and the welfare effect of a production is generally a negative outcome as a deadweight loss has been created.

The *assumptions* that underlie this analysis are that all of these interventions are created under fair markets. That these markets can all compete together

<https://assignbuster.com/evaluating-public-interventions-that-impact-market-prices/>

and there is no discrimination between countries. That these interventions reflect a change within each country that is comparable to its contrasting effect within the world economy. That these interventions can be subjectively held accountable upon each individual, for example, that the production quota can be accurately held accountable upon each farmer. Also, fair trade is allowed where there is no bias among trading parties. The major assumption is that when an intervention is put into place the effect will be equally felt by each producer and likewise by each consumer. Also, that the economical practices under which the markets are operated are nominally similar throughout each country.

References:

1. Lecture 15. Measuring Costs and Transfer Efficiency of Agricultural Price Policy.
2. ALSTON, J. M. and B. H. HURD (1990), " Some Neglected Social Costs of Government Spending in Farm Programs," American Journal of Agricultural Economics
3. www.internationalecon.com
4. www.farmfoundation.org