

Trade Policy

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Introduction

So far, we compared two extreme scenarios, autarky and free trade, and concluded that countries are usually better off under free trade.

But is free trade also a country's optimal trade policy? And why do governments engage in trade policy in practice?

What should be the trade policy from an unilateral point of view? And from a multilateral?

Trade policy instruments

Governments use a wide range of trade policy instruments in practice. The most important ones are:

- import tariffs
- export subsidies
- import quotas
- voluntary export restraints
- local content requirements

Trade policy instruments – import tariffs

Import tariffs are simply taxes on imported goods. Governments usually impose one of two types of import tariffs:

A specific tariff, i.e. a tariff charged per unit of imports, say \$1,000 per imported automobile.

An ad valorem tariff, i.e. a tariff charged per value of imports, say \$.1 per \$1 worth of imported automobiles (or simply 10 percent).

Examples: U.S. high tariffs in sectors such as clothing and apparel, leather and footwear, and agriculture; antidumping laws

Trade policy instruments – export subsidies

Export subsidies are simply subsidies on exported goods. Governments again usually impose one of two types of export subsidies:

A specific export subsidy, i.e. a subsidy paid per unit of exports, say \$1,000 per exported automobile.

An ad valorem export subsidy, i.e. a subsidy paid per value of exports, say \$.1 per \$1 worth of exported automobiles (or simply 10 percent).

Examples: export subsidies mainly applied in agriculture in the US (Department of Agriculture's Dairy Export Incentive Program) or European Union (Common Agricultural Policy)

Trade policy instruments – import quotas

An import quota is a restriction on the quantity of a good that may be imported.

This restriction is usually enforced through import licenses. While these are usually issued to importers in the importing country, they are also sometimes issued to governments of exporting countries.

In the U.S., the quota on sugar imports is an example: it restricts yearly sugar imports to approximately 1.4 million tons.

Trade policy instruments – voluntary export restraint

A **voluntary export restraint (VER)** is essentially an export quota. Despite its name it is typically not fully voluntary but instead requested by an importing country.

The Japanese VER on auto exports to the U.S. between 1981 and 1985 is perhaps the best known example. It restricted Japanese auto exports to the U.S. to 1.68 million units initially and 1.85 million units eventually.

Trade policy instruments – local content requirement

A **local content requirement** is a regulation that requires a specific fraction of the final good to be produced domestically. It may be specified in terms of value or of physical units.

In the U.S., the Buy American Act is a good example. It was originally passed in 1933 and requires government agencies to give preference to U.S. firms in their procurement. In particular, a bid by a foreign company can only be accepted if it is a specified percentage below the lowest bid by a U.S. firm.

Import tariffs and export subsidies

We only analyze import tariffs and export subsidies in a **simple perfectly competitive environment**:

- 1 What is a country's optimal import tariff? Why do governments impose import tariffs in practice?
- 2 What is a country's optimal export subsidy? Why do governments impose export subsidies in practice?

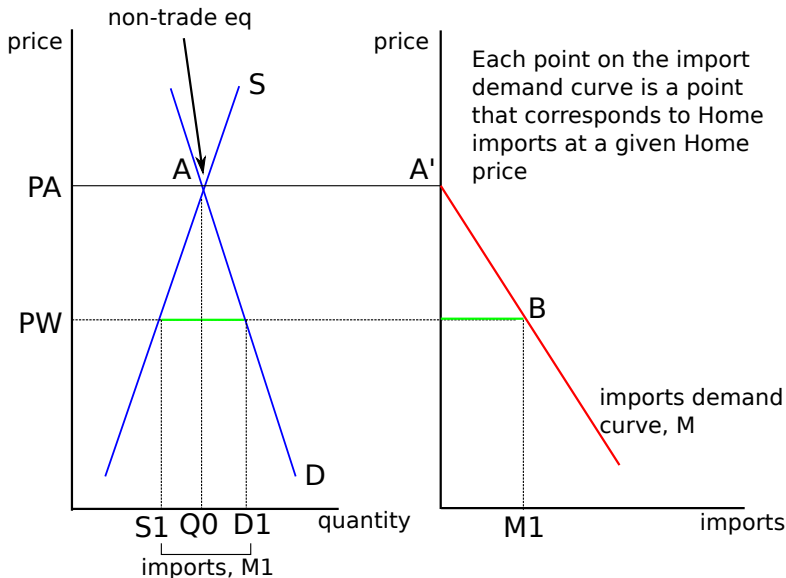
Optimal import tariff – basic framework

Consider an industry in which Home is an importer and Foreign is an exporter.

It is useful to illustrate the (partial) equilibrium using import demand and export supply curves.

Home's **import demand curve** measures the quantity Home's consumers demand minus the quantity Home's producers supply for any given Home price.

Optimal import tariff – basic framework



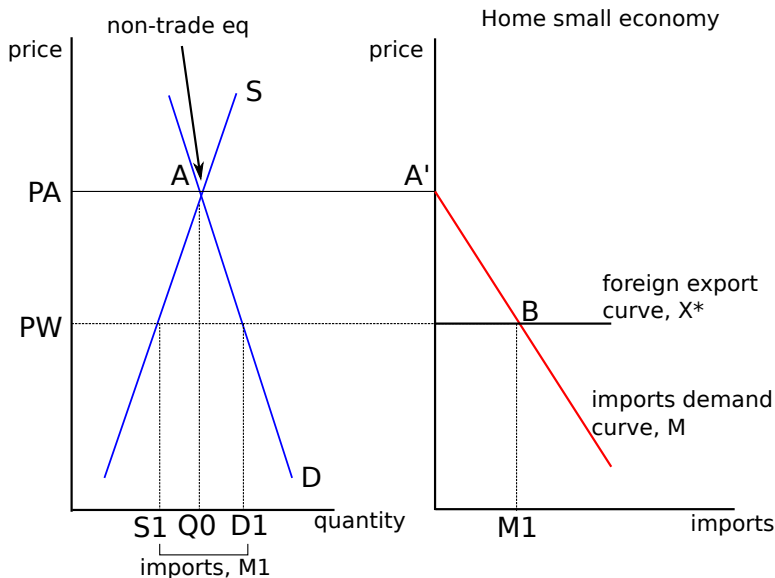
Optimal import tariff – basic framework

Foreign's **export supply curve** measures the quantity Foreign's producers supply minus the quantity Foreign's consumers demand for any given Foreign price.

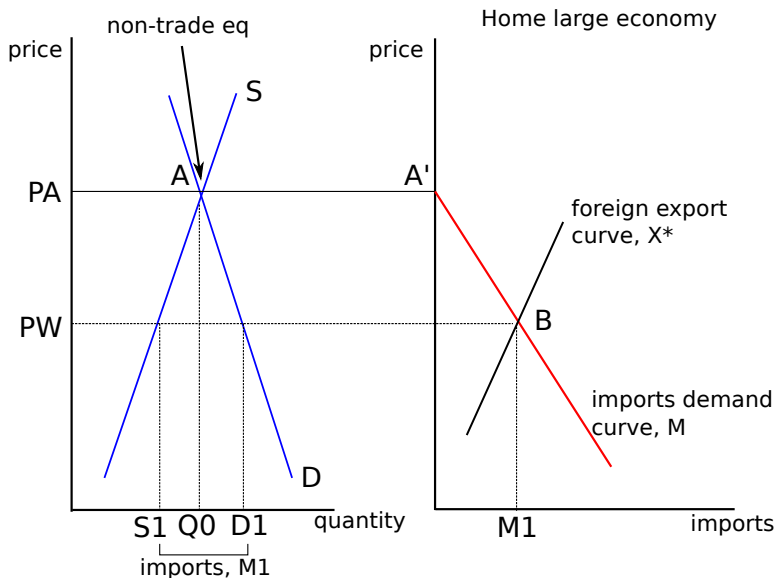
Home is typically referred to as small, if changes in Home's import demand have only a negligible effect on Foreign's price so that Foreign's export supply curve facing Home is flat.

Home is typically referred to as large, if changes in Home's import demand have a non-negligible effect on Foreign's price so that Foreign's export supply curve facing Home is upward sloping.

Optimal import tariff – basic framework



Optimal import tariff – basic framework



Optimal import tariff – basic framework

Consumer welfare can be measured by **consumer surplus**, in this supply and demand framework.

Consumer surplus is given by the difference between what consumers would be maximally willing to pay and what they actually pay.

Graphically, it can be represented by the area below the demand curve and above the price.

Optimal import tariff – basic framework

Producer welfare can be measured by **producer surplus** in this supply and demand framework.

Producer surplus is given by the difference between what producers would be minimally willing to charge and what they actually charge. We can loosely refer to this difference as profits.

Graphically, it can be represented by the area above the supply curve and below the price.

Optimal import tariff – basic framework

Suppose now that Home's government imposes a specific import tariff.

Notice that the tariff drives a **wedge between the price in Home and the price in Foreign**.

For example, if the tariff is \$1000 per unit, $PT = PT^* + 1000$. In general, $PT = PT^* + t$.

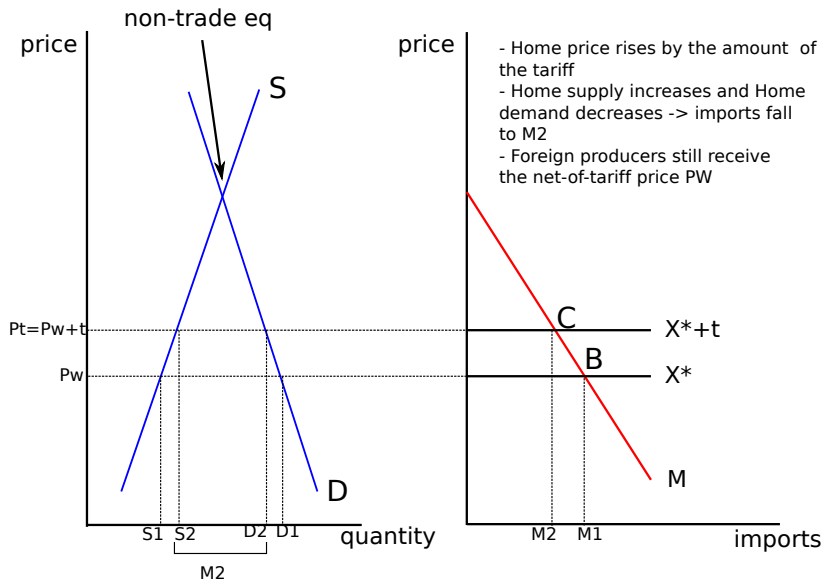
Optimal import tariff – basic framework

The **effects of Home's tariff differ in important ways between the small country and the large country** case and we discuss both cases in turn.

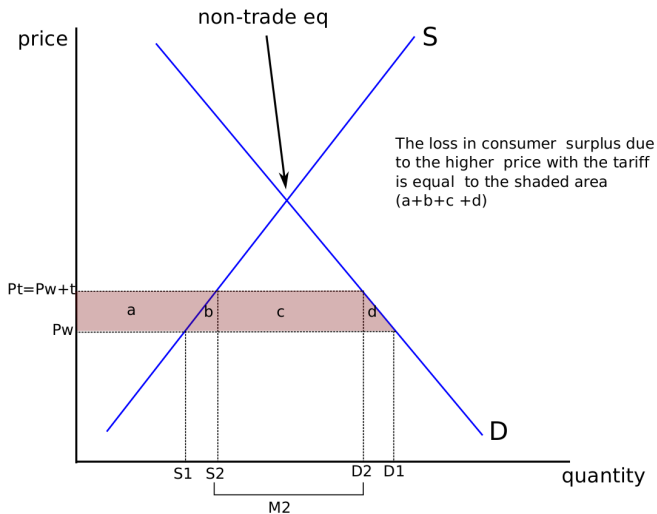
First, we demonstrate that the optimal tariff of a small country is zero.

Second, we show that the optimal tariff of a large country is positive.

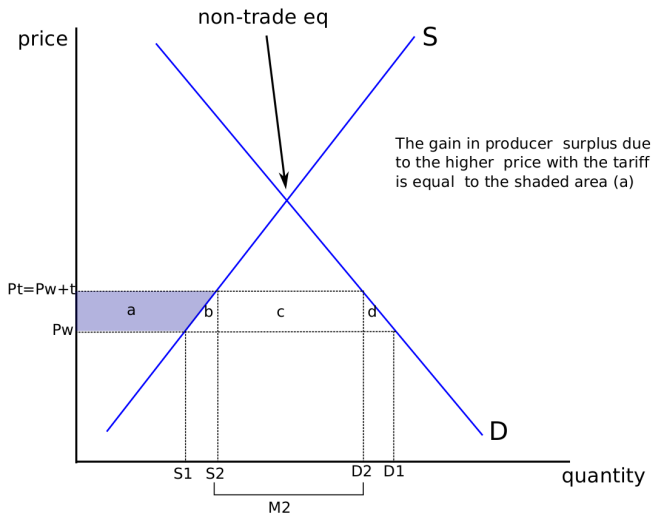
Optimal import tariff – small country



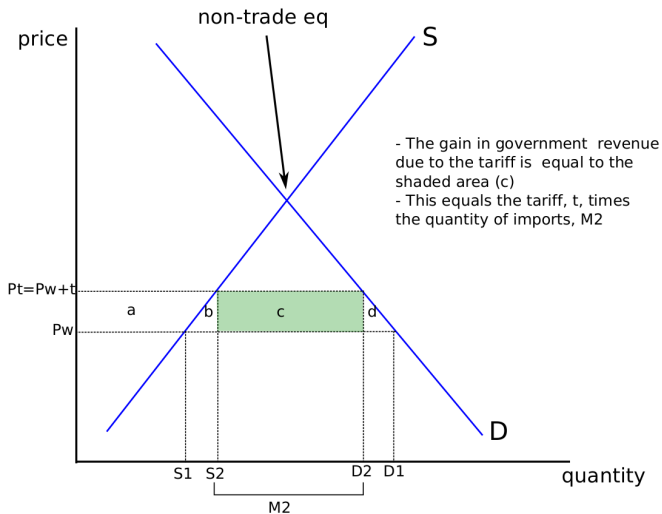
Optimal import tariff – small country



Optimal import tariff – small country



Optimal import tariff – small country



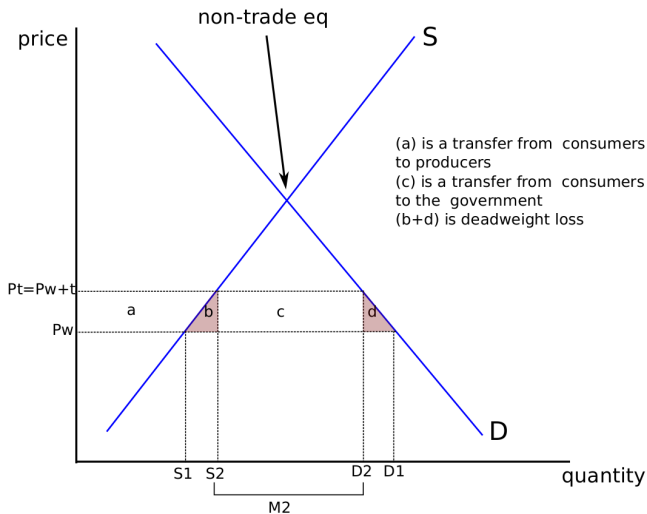
Optimal import tariff – small country

The optimal tariff of a small country is therefore zero:

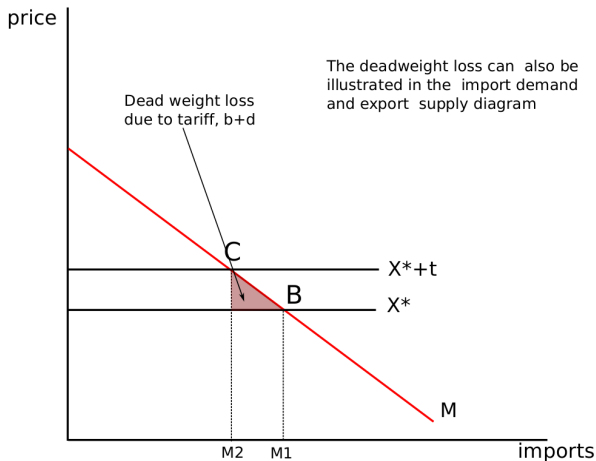
Fall in consumer surplus	$-(a+b+c+d)$
Rise in producer surplus	$+(a)$
Rise in government revenue	$+(c) + (a)$
<hr/> Net effect on Home welfare	<hr/> $-(b+d)$

The area $(b+d)$ is referred to as **deadweight loss or efficiency loss**. It arises because the tariff distorts consumption and production decisions.

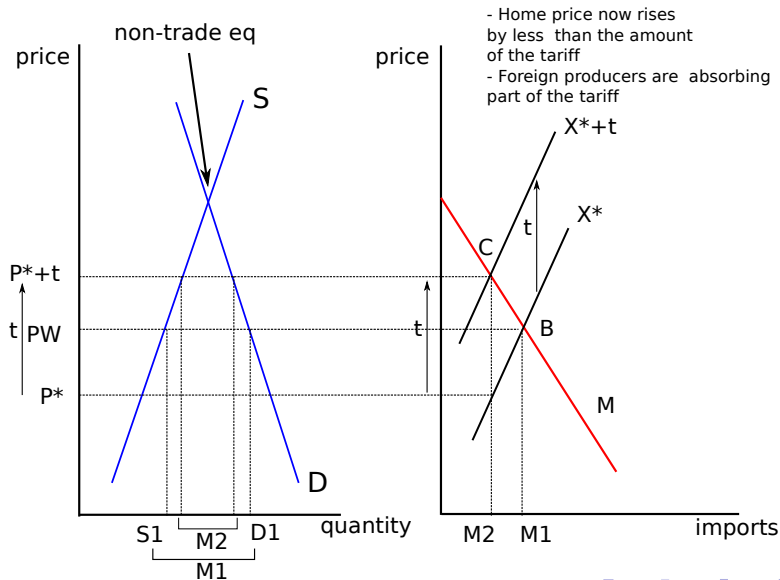
Optimal import tariff – small country



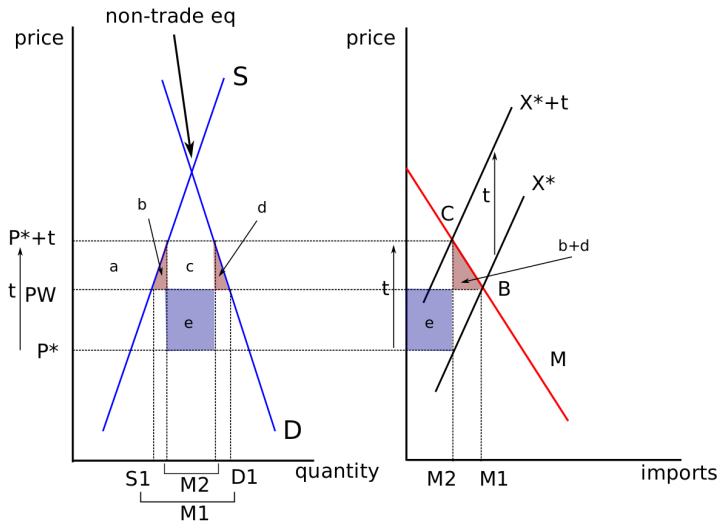
Optimal import tariff – small country



Optimal import tariff – large country case



Optimal import tariff – large country case



Optimal import tariff – large country case

The optimal tariff of a large country is not necessarily zero:

Fall in consumer surplus	$-(a+b+c+d)$
Rise in producer surplus	$+(a)$
Rise in government revenue	$+(c) + (e)$
Net effect on Home welfare	$-(b+d) + (e)$

The net effect on Home welfare ambiguous: positive if $e > b + d$ and negative if $e < b + d$

Deadweight loss ($b + d$) as before; but now we have a positive **terms-of-trade gain** (e)

Optimal import tariff – large country case

As is easy to verify, Home's gain from a tariff comes directly at Foreign's expense.

This is because Home's terms-of-trade gain is Foreign's terms-of-trade loss.

The optimal tariff is therefore a **beggar-thy-neighbor policy**.

This observation plays a crucial role in the discussion of trade negotiations

Import tariffs in practice

The above analysis suggests three motives for governments to impose import tariffs:

- 1 raising government revenue**
- 2 increasing producer welfare**
- 3 increasing overall welfare.**

All these motives appear to be relevant in practice.

Optimal export subsidy – basic framework

Consider now an industry in which Home is an exporter and Foreign is an importer.

We can again illustrate the equilibrium in this industry using import demand and export supply curves.

Analogous to our above discussion, Foreign's import demand curve facing Home is flat if Home is a small country and downward sloping if Home is a large country.

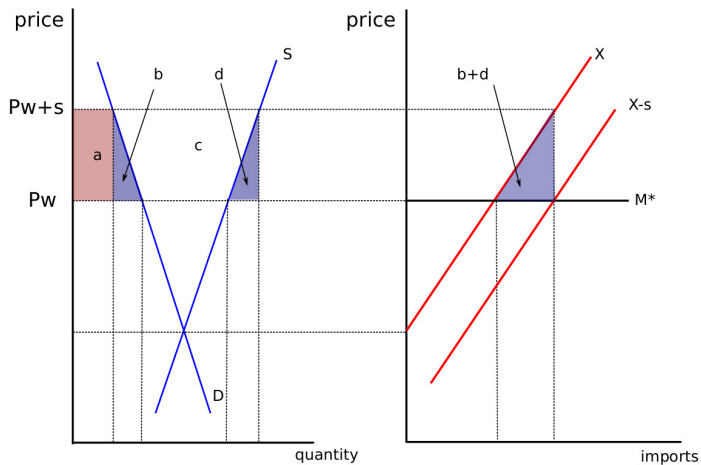
Optimal export subsidy – basic framework

Suppose now that Home's government imposes a specific export subsidy.

Notice that the subsidy again drives a wedge between the price in Home and the price in Foreign.

For example, if the subsidy is \$1000 per unit, $P_s^* = P_s - 1000$. In general, $P_s = P_s^* - s$.

Optimal export subsidy – small country



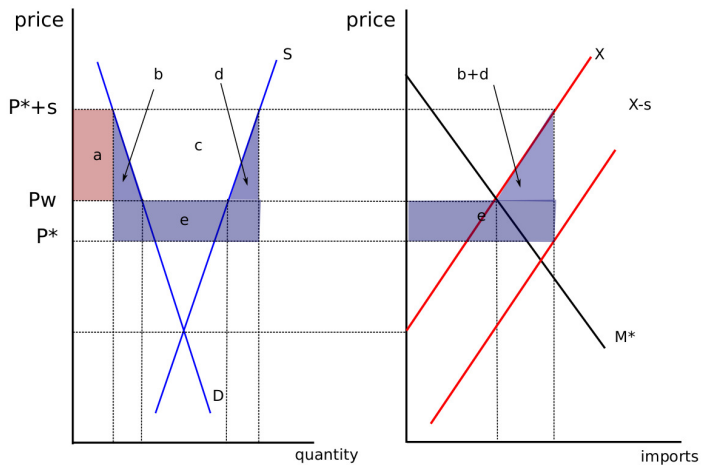
Optimal export subsidy – small country

The export optimal subsidy of a small country is therefore zero:

Fall in consumer surplus	$-(a+b)$
Rise in producer surplus	$+(a+b+c)$
Rise in government revenue	$-(b+c+d)$
<hr/> Net effect on Home welfare	<hr/> $-(b+d)$

The area $(b+d)$ is referred to as **deadweight loss or efficiency loss**. It arises because the tariff distorts consumption and production decisions.

Optimal export subsidy – large country



Optimal export subsidy – large country

The export optimal subsidy of a large country is therefore zero:

Fall in consumer surplus	$-(a+b)$
Rise in producer surplus	$+(a+b+c)$
Rise in government revenue	$-(b+c+d+e)$
Net effect on Home welfare	$-(b+d+e)$

The area $(b+d)$ is referred to as **deadweight loss or efficiency loss**; the area (e) is **terms-of-trade loss**

Export subsidies in practice

The above analysis suggests only one motive for governments to impose export subsidies: raising producer surplus as discussed in the case of import tariffs.

While this is likely to be a critical driving force of government's trade policy decisions, other motives for export subsidies can arise in imperfectly competitive environments.