

## Chap 7: Tariff: Basic questions about tariff

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## Introduction

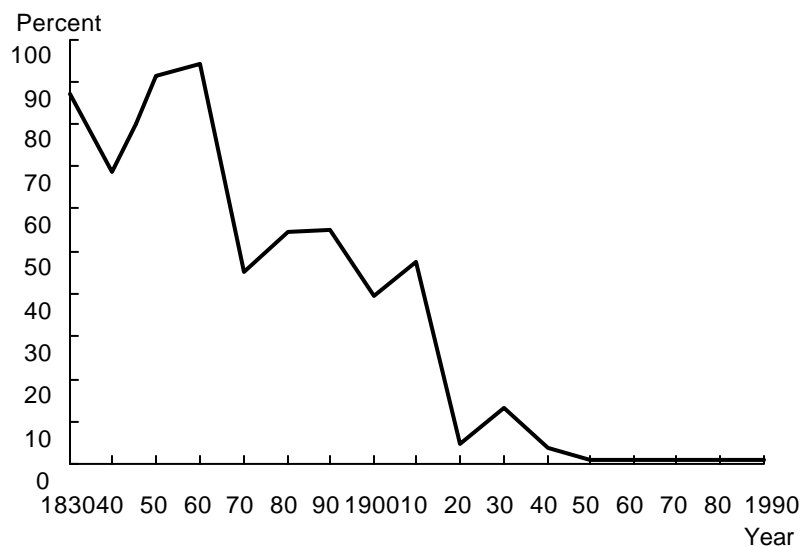
- ♦ The policies countries use to restrict trade are called *Barriers to Trade*.
  - *Tariff* is the most common.
    - Tax imposed on a good as it crosses a national boundary.
    - Use of tariffs has been declining recently due to international negotiations conducted under the WTO (successor to GATT).

## Why impose tariff?

Countries impose tariffs for any of four reasons:

1. Tariff can discourage consumption of a particular good (oil).
2. Generate revenue for government of tariff-imposing country.
3. Discourage imports in order to lower balance of trade deficit.
4. Carry out a protectionist policy – a way to insulate domestic industries from foreign competition.

Tariff Revenue as a Share of Total U.S. Federal Government Receipts, 1830–1990



# Types of tariffs

## 1. Specific Tariffs

- Charge a specified amount for each unit of the good imported.
  - Example: \$30 per unit of bicycle. If the international price is \$300, then domestic consumers pay \$330

## 2. Ad Valorem Tariffs

- Charge a specified percentage of the value of the good imported.
  - Example: 10 % of the price of an imported bike. If international price is \$300, then 10% tariff equals \$30 so the domestic price is \$330

## 3. In the above examples those two rates are equivalent. Many times, we will not be specific about which type is concerned.

## This chapter and Chapters 8 and will discuss how

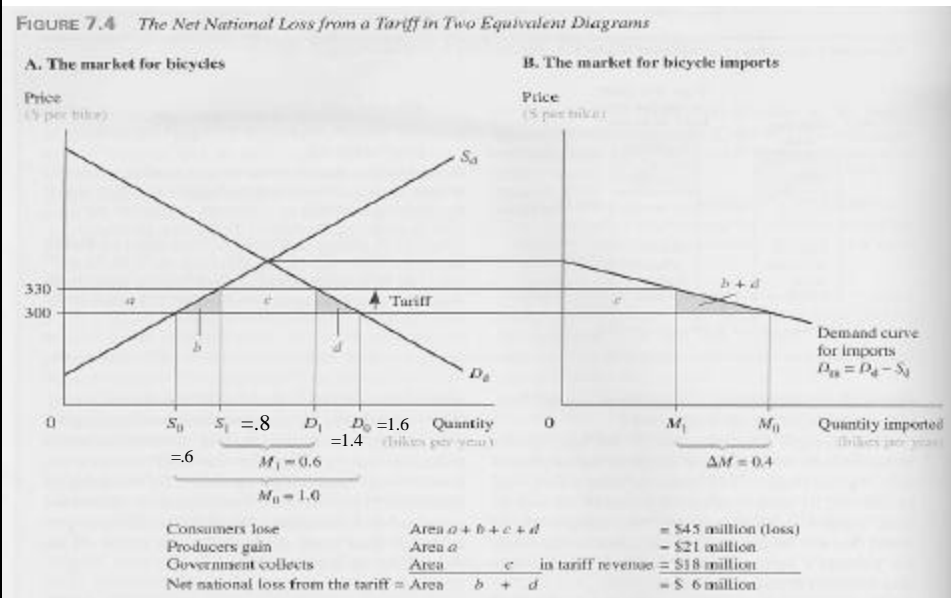
- ◆ A tariff almost always lowers world well-being.
- ◆ A tariff usually lowers the well-being of each nation, including the nation imposing the tariff.
- ◆ As a general rule, whatever a tariff can do for the nation, something else can do better.
- ◆ There are exceptions to the case for free trade, as we shall see later:
  - a. The first exception is the “nationally optimal” tariff discussed near the end of this chapter. When a nation can affect the prices at which it trades with foreigners, it can gain from its own tariff. (The world as a whole loses, however.)
  - b. Chapter 9 presents some “second-best” arguments for a tariff: In cases where other incurable distortions exist in the economy, imposing a tariff may be better than doing nothing.
  - c. In a narrow range of cases with distortions that are specific to international trade itself, a tariff can be better than any other policy, and not just better than doing nothing.

A tariff absolutely helps those groups tied closely to the production of import substitutes, even when the tariff is bad for the nation as a whole.

## What Happens when a Small Country Imposes an Import Tariff?

- ◆ In analyzing the effects of a tariff, the size of the country imposing it matters.
  - First, look at case of small country.
    - “Small” refers to economic size in world markets.
    - Small country’s terms of trade are determined exogenously and the country makes its production and consumption decisions based on those terms of trade.

Effect of tariff on producer, consumers and government revenue (small country)



## Effects of an Import Tariff?

- ◆ Effects on production, consumption, and price.
  - Figure 7.4 shows that the tariff increases the price of the good by the amount of the tariff, reduces domestic consumption, increases domestic production, and decreases imports.
- ◆ Effects on welfare
  - Rectangle c is tariff's revenue effect.
    - Transfer from consumer surplus to the government that collects the tariff revenue.
  - Area a is the tariff's redistribution effect.
    - Consumer surplus transferred to domestic producers.

## Contd...

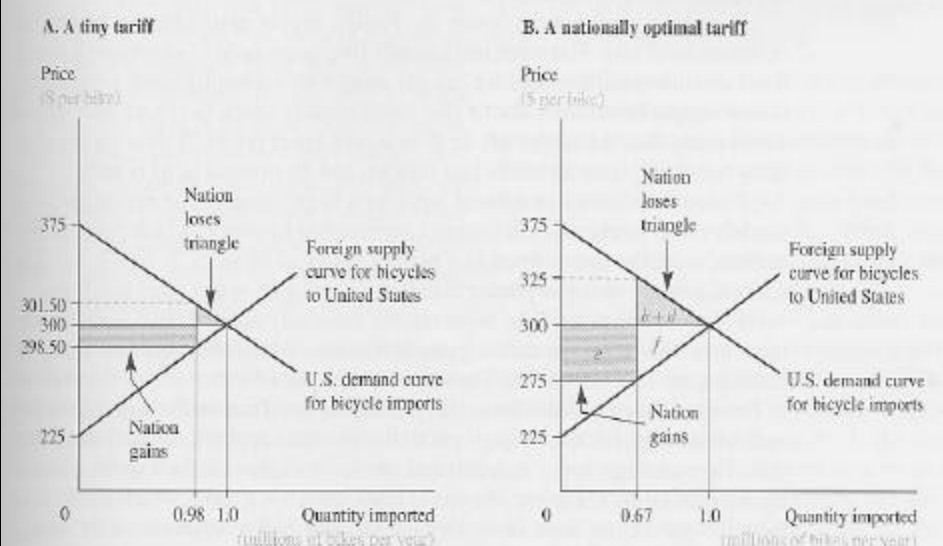
- Triangle b is the tariff's production effect.
  - Units  $S_0$  through  $S_1$  are now (with the tariff) produced domestically rather than imported.
- Area b is a deadweight loss.
  - Loss to the small country of consumer surplus not transferred to another group in the country, but lost through inefficient domestic production.
- Triangle d represents another deadweight loss.
  - This consumption effect is the loss of consumer surplus that occurs because consumers can no longer obtain  $D_1$  through  $D_0$  at the pre-tariff price.

## Effects of Tariff- Large Country

- ◆ Large country constitutes a share of the world market sufficient to enable it to affect its terms of trade.
  - Tariff may be used to improve its terms of trade.

Effect of tariff on producer, consumers and government revenue (large country)

FIGURE 7.5 National Gains from a Tariff that Affects Foreigners' Selling Price



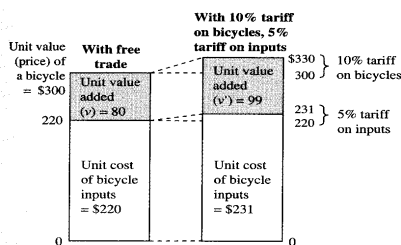
## Effective Rate of Protection

- ◆ It is defined as the percentage by which the entire set of a nation's trade barriers raises the industry's value added per unit of output.
- ◆ Lets take an example to explain the concept.

## Calculation of Effective Rate of Protection

- ◆ How tariffs affect “value added” in an industry.  
Value added is amount paid to the primary factor of productions, I.e., total value of the output minus cost of raw materials.

*Illustrative Calculation of an Effective Rate of Protection*



$$\text{Effective rate of protection for bicycle industry} = \frac{v' - v}{v} = \frac{\$99 - \$80}{\$80} = 23.8\%$$

To see who is getting protected by trade barriers, it helps (1) to distinguish an industry and its suppliers and (2) to look at the effects of the whole set of barriers, not just the one directly protecting the industry. In this case, the bicycle industry's 10 percent tariff raises its value added per bike by more than 10 percent. On the other hand, the tariffs on the inputs the bicycle industry buys hurt it. The net result in this case is an "effective rate of protection" of 23.8 percent.

