TRADE BARRIER

Tariff

Course: International Trade

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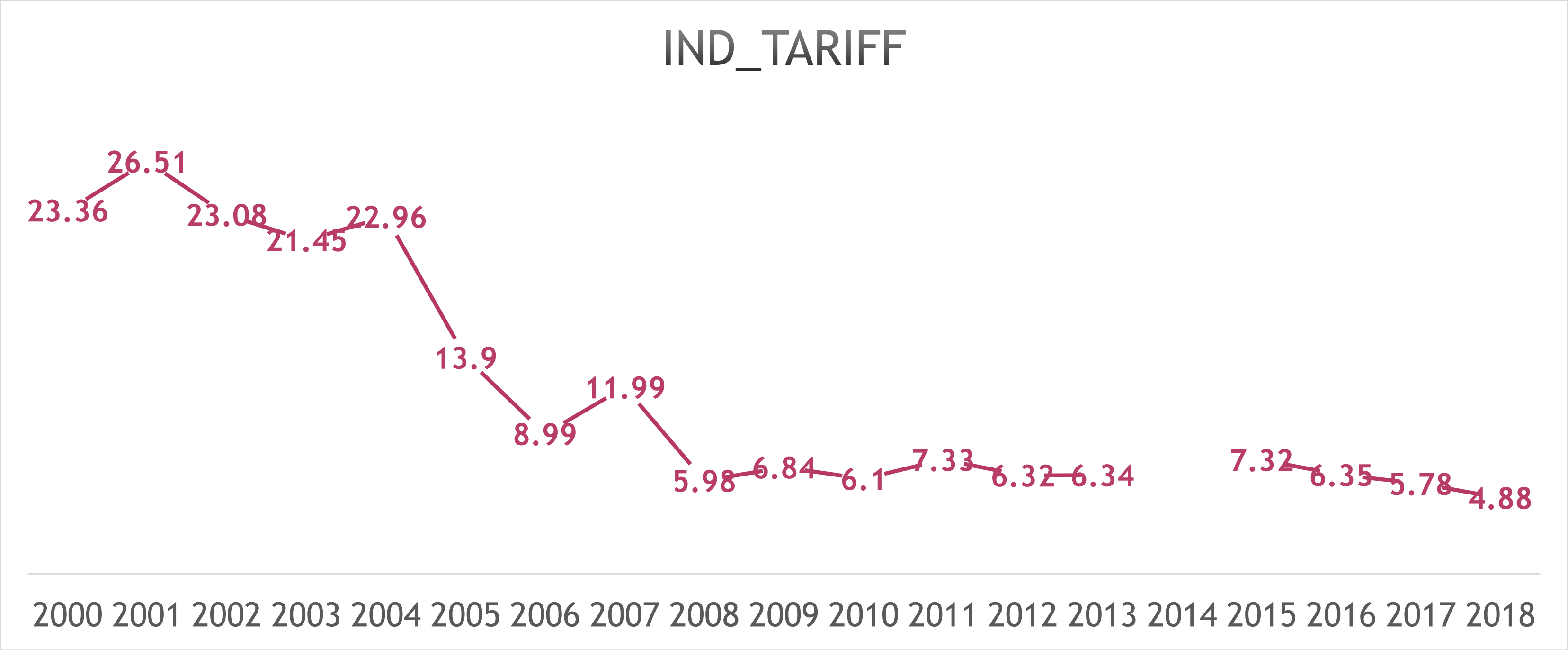
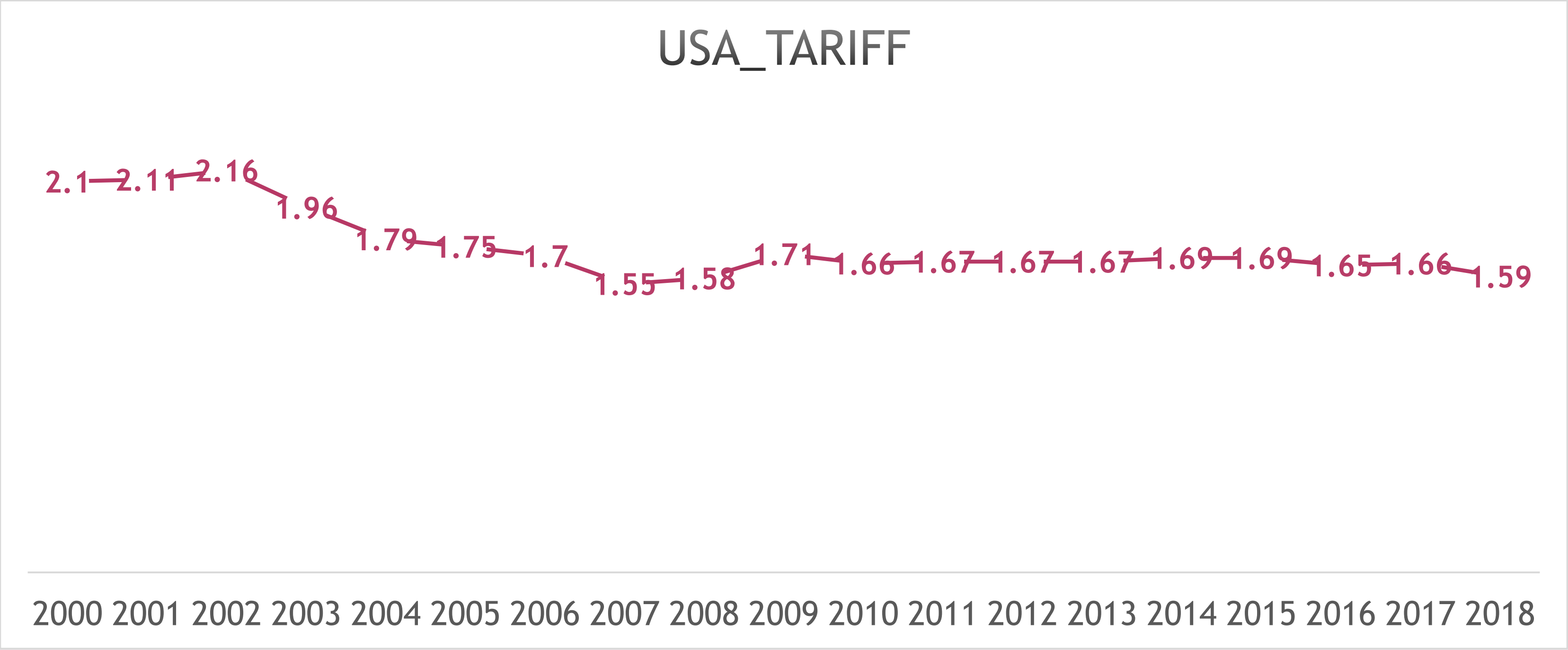
WHY IS TRADE POLICY REQUIRED?

- Existence of many states is the beginning of trade policy.
- If we had a global government we do not have separate trade policy.
- Because of dispersion of production in different countries its becoming extremely difficult to impose policies like restriction or ban on a particular product or discriminating policies.
- Consumption – Production = Import.
- Production – Consumption = Export.
- Trade policy aims at export/import; not on production/consumption.
- But trade policies can be decomposed into production/ consumption policies, because they influence production/consumption.

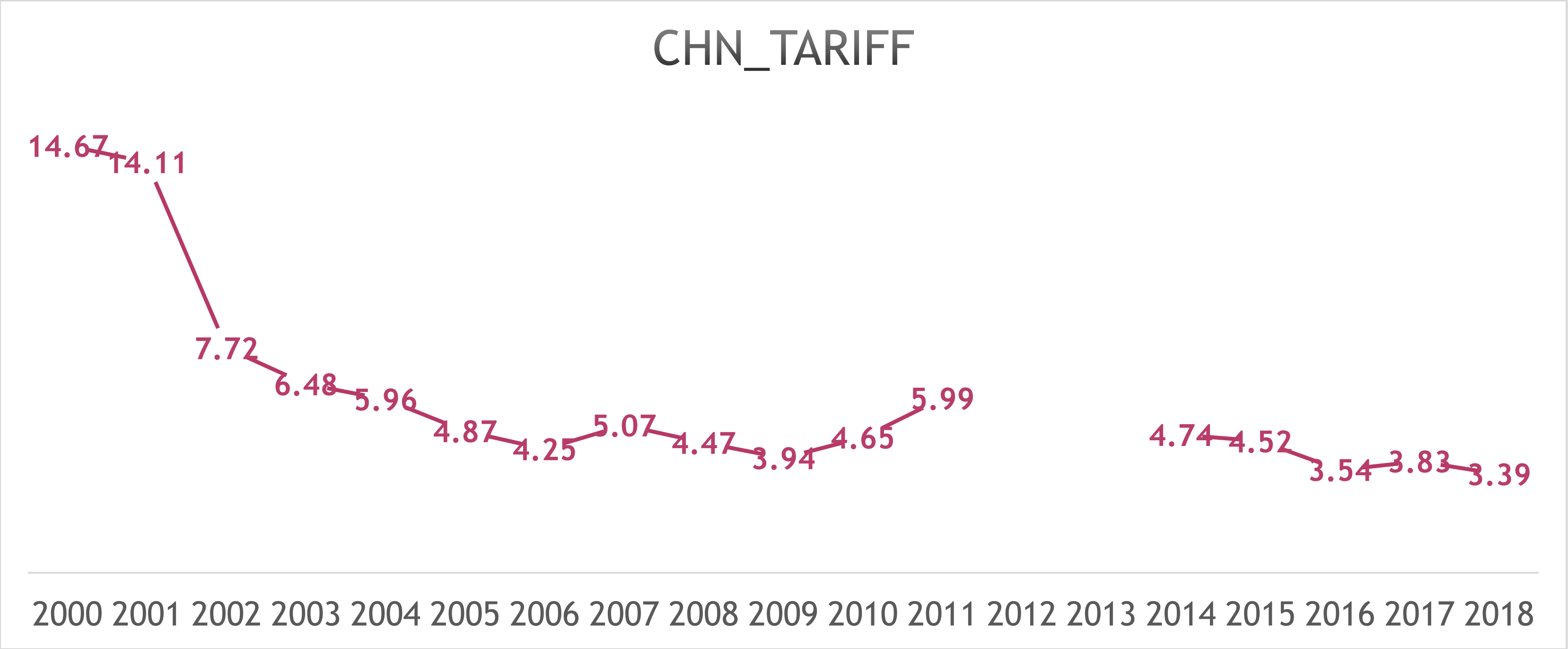
TARIFF RATE OF INDIA



TARIFF RATE OF USA



TARIFF RATE OF CHINA

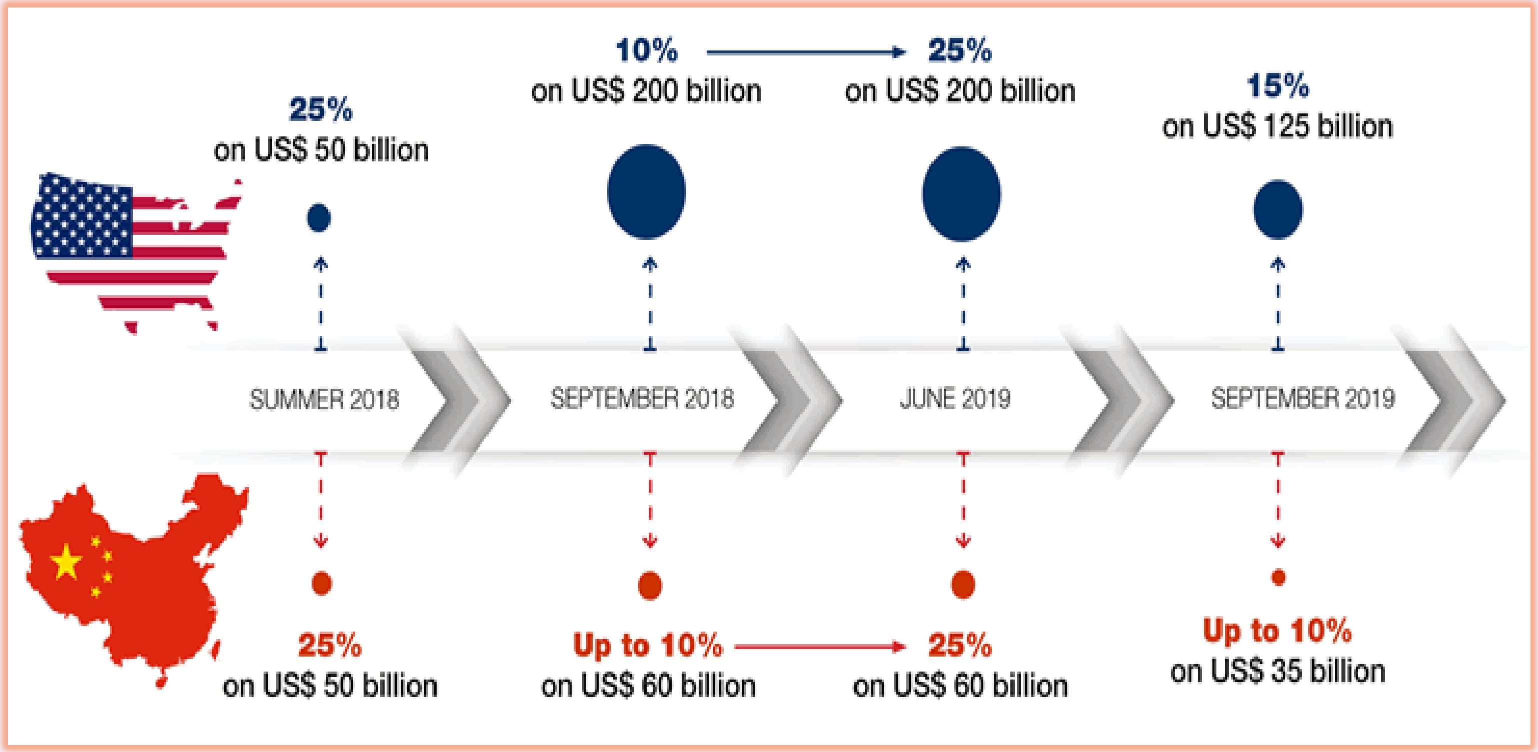


COMPARISON OF TARIFF RATES

US - CHINA TRADE WAR

- In summer 2018, US and China imposed tariffs on about US$50 billion worth on each other's goods.
- It escalated in September 2018 when US raised an additional 10%.
- Again China retaliated by imposing tariffs on imports from US worth an additional $60 billion.
- In June 2019, the US increased the tariffs further to 25%.
- China retaliated by raising the tariffs on some products which were already tariff protected.
- In September 2019, the US imposed 15% tariffs on Chinese imports.
- According to UNCTAD report (November 2019) trade of tariff protected items in sectors like chemicals, furniture, and electrical machinery also dropped substantially according to the analysis.

US and China Tariff Retaliation



Source: UNCTAD

- The tariff was initially imposed on from Chinese imports on steel, aluminum, solar panels and washing machines.

- Under the category of Office machinery, the imports of products subject to additional tariffs dropped by 65 percent. It has been the worst hit sector due to the trade war.

- Trade in other sectors, such as agri-food, communication equipment, and precision instruments reduced more than 30 percent .

Source : https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2226
https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2569

- Report link : https://unctad.org/en/PublicationsLibrary/ser-rp-2019d9_en.pdf

GoI Budget proposal FY 2020-21

- India proposed to increase import duties on more than 50 items like electronics, electrical goods, chemicals and handicrafts in order to curb imports of non-essential items.

- Higher customs duties are likely to hit goods such as mobile phone chargers, industrial chemicals, lamps, wooden furniture, candles, jewelry and handicraft items.

Link : https://www.businesstoday.in/union-budget-2020/decoding-the-budget/budget-2020-import-duty-hiked-on-a-host-of-products-to-bolster-make-in-india/story/395286.html
https://www.businesstoday.in/union-budget-2020/news/budget-2020-govt-may-raise-import-duties-on-more-than-50-items-including-electronics-handicrafts/story/394599.html

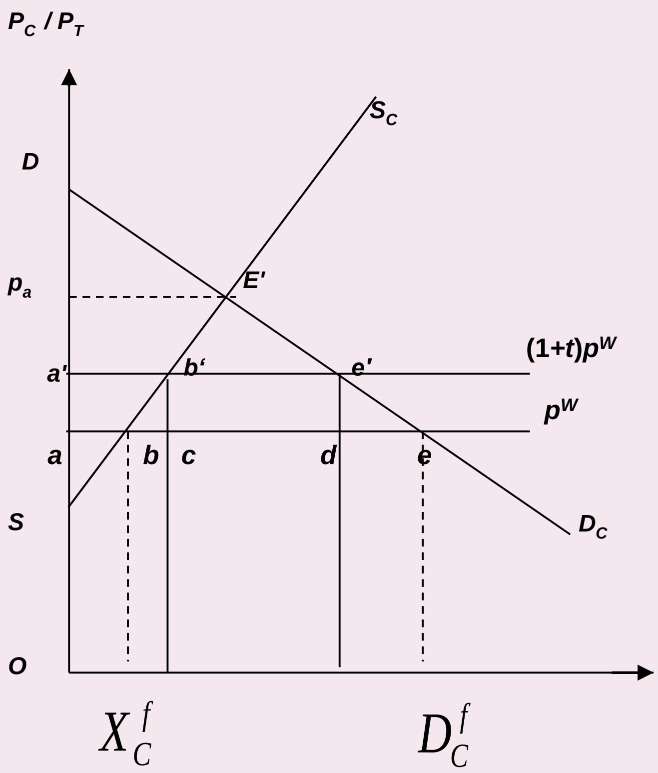
DIIFERENT TYPES OF TRADE POLICY

I. Trade promoting (e.g., export subsidy) vs trade restricting (e.g., tariff, quota)

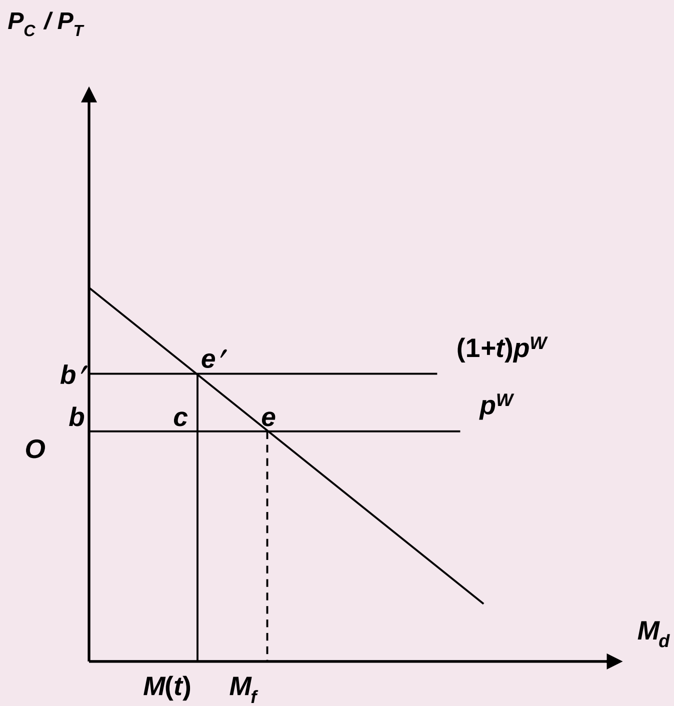
II. Quantitative policy (e.g., quota, voluntary export restraint) vs price policy (e.g., tariff, subsidy)

III. Inward looking (e.g., tariff, quota, export tax) policies vs outward oriented policies (export subsidy)

Economic Effects of Import Tariff: A Partial Equilibrium Analysis



(a) Domestic Market for Computers



(b) Import Demand for Computers

WELFARE IMPLICATIONS

I. **Production effect/protection effect:** price of foreign good increases, expanding domestic production. Increase in the producers' surplus by area $aa'b'b$;

II. **Consumption effect:** Loss of consumers' surplus by area $aa'e'e$;

III. **Revenue effect**: Domestic government earns tariff revenue by the area $b'cde'$.

IV. **Welfare effect**: Deadweight loss due to distortion

a) Production loss: area $bb'c$;

b) Consumption loss: area $de'e$

FACTORS ON WHICH MAGNITUDES OF DWL DEPENDS

i. Rate of tariff

ii. Price elasticity of demand

iii. Price elasticity of supply

REMARKS

A. Economy gains overall from import liberalization through tariff reduction as it benefits consumers more than it hurts local producers and the national exchequer as long as TOT does not change.

B. Conflict of interest among economic agents; so the political support for such a policy change is divided.

C. Conflict between the objectives of the local government as well: revenue motive vs welfare cost.

JUSTICATOION FOR TARIFF

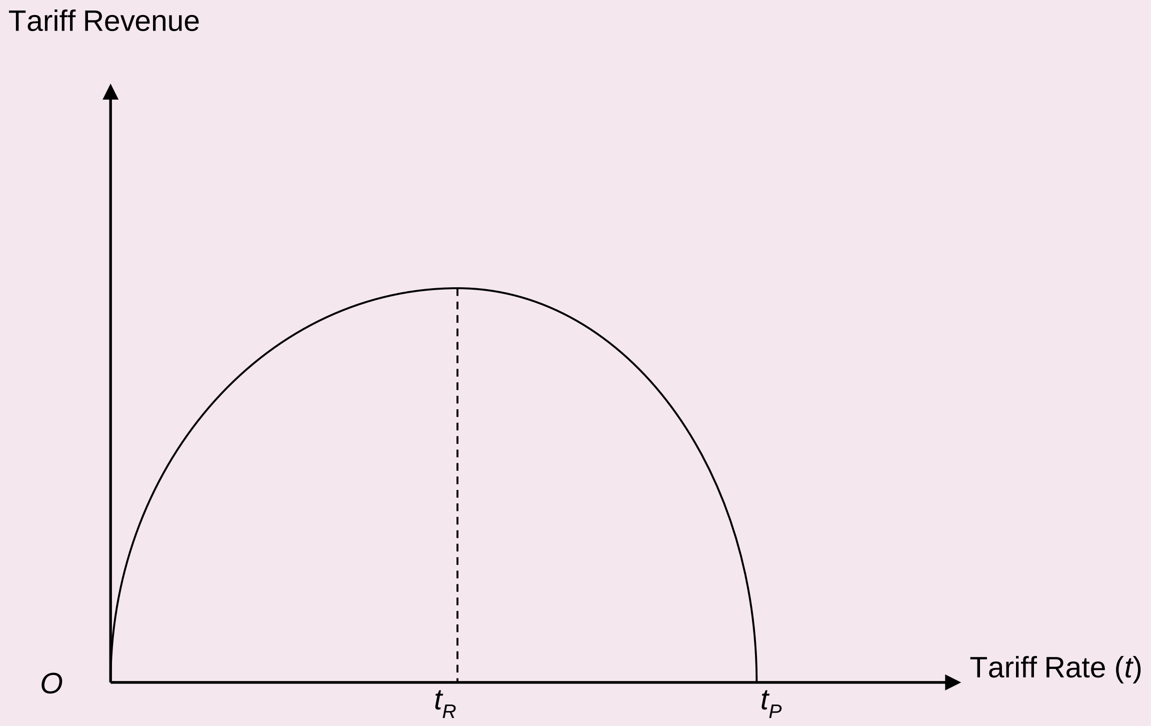
- *Infant Industry argument for protection:*

Idea of protecting domestic industries in the initial formative years and should gradually be removed. Dynamic argument.

If there is idle resources then increase in production adds to national output.

- Revenue motive: Tariff is a major source of revenue for domestic governments

Revenue Motive and Revenue Maximizing Tariff



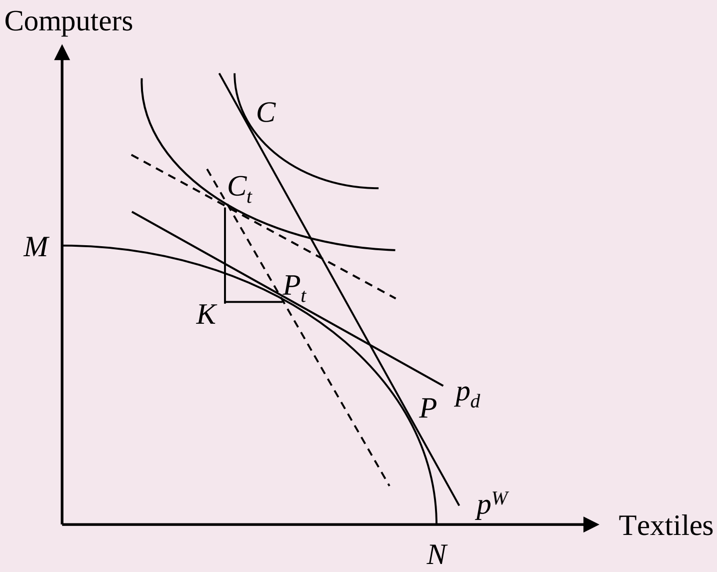
GENERAL EQUILIBRIUM ANALYSIS: TOT AND VOLUME OF TRADE (VOT) EFFECTS

- General equilibrium: takes into account interdependence among markets.

i. Volume of trade (VOT) effect: tariff changes production and consumption of other goods and consequently changes composition of production and allocation of resources across different sectors.

ii. Terms of trade (TOT) effect: only for *large* country.

TOT EFFECT, WELFARE CHANGE AND THE OPTIMUM TARIFF



Effect of Tariff on Production and Consumption

CASE 1. *SMALL OPEN ECONOMY*

- Tariff *lowers volume of trade:* tariff expands domestic import-competing sector and contracts export sector. Consequently, both the volume of imports and exports shrink.

  ⟶ welfare loss for the economy

i. **Specialization loss** due to *reallocation* of resources towards production of import-competing good in which country has a comparative *dis*advantage.

ii. **Consumption loss** as domestic consumers are forced to pay higher price.

WELFARE IMPLICATIONS OF TARIFF ON A SMALL OPEN ECONOMY

- Therefore, tariff is unambiguously welfare reducing for a small open economy.
- The higher is tariff rate, smaller is volume of trade and hence lower is welfare.

↓

Welfare *monotonically decreases* as tariff rate is raised successively.

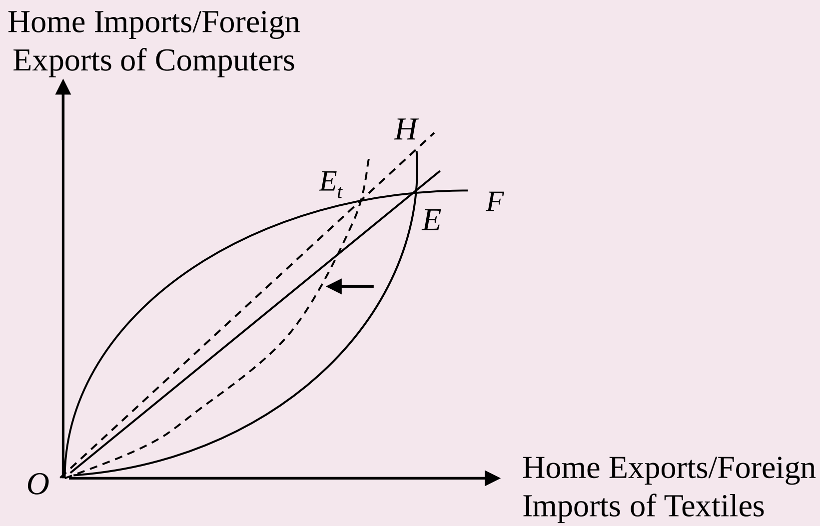
↓

Free trade is best policy

CASE 2. LARGE COUNTRY

- In addition to *VOT effect*, now we have *TOT effect* which depends on how tariff revenue is used by the government.
- Standard assumption: tariff revenue is redistributed to domestic consumers.
- Tariff raises domestic price and lowers import demand which creates excess supply of computers in the world market lowering its world price.

- So welfare improvement due to TOT improvement counters welfare loss due to VOT decline.
- For small tariff rates, fall in VOT < TOT improvement.
- As tariff rate increases, VOT declines by greater magnitudes
- Critical rate of tariff: TOT effect = VOT effect



Import Tariff and TOT improvement for a Large Country

OPTIMUM TARIFF

- The rate of tariff at which TOT and VOT effects are equal and country's welfare is maximum, is the *optimum tariff*.

  varies inversely with foreign country's import demand elasticity(absolute value).

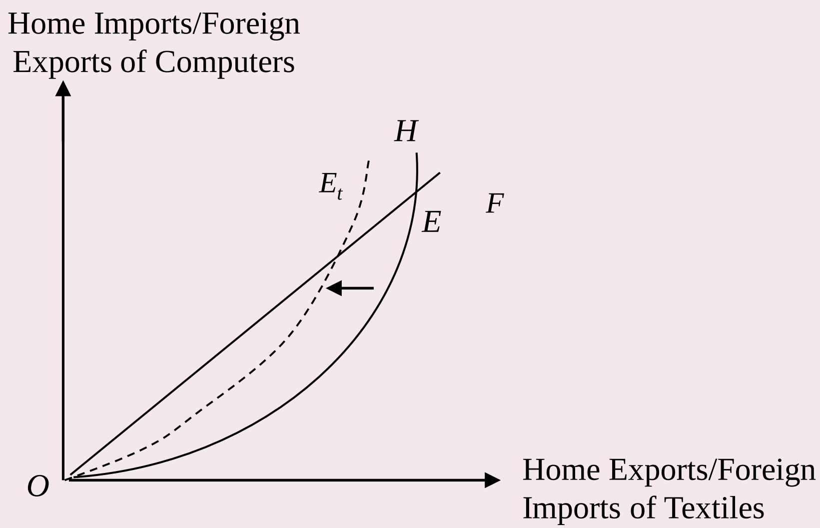
$$t_{opt} = \frac{1}{\varepsilon^* - 1}$$ (derivation sent separately)

- t_{opt} >0 as long as ε^* >1

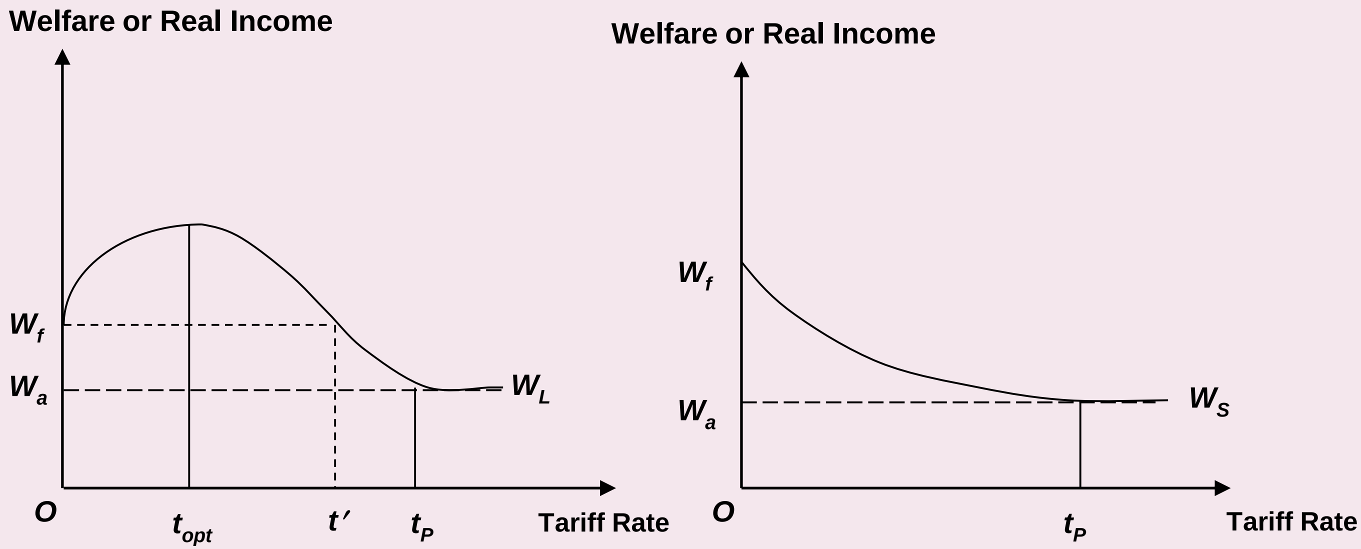
- For a small country which is a price taker in the world market

$$\varepsilon^* = \infty$$

$$t_{opt} = 0$$



Import Tariff and no TOT improvement for a Small country



(a) Large Country

(b) Small Country

Welfare Impact of tariff

Then why Free Trade is not a universally accepted policy?

Why Does Protectionism Rule?

The answer rests on the following two well-known results:

1. There exists unilateral incentive for a “large” country to impose a tariff on imports,

meaning that multilateral free trade, though is welfare improving for the region as a whole, is not a self-enforcing proposition in the absence of any international regulatory authority whose rules are obligatory for all trading nations

- Prisoner’s dilemma problem:
- NE (tariff imposition by both) is not Pareto Optimum.
- Multilateral free trade is not NE unless there is some regulatory body like WTO.
- For each country imposition of trade barrier is the best response.

2. **Unilateral free trade may not be welfare improving when trading partners practice protectionist policies.**

		Country B	
		Free Trade	Tariff
Country A	Free Trade	10, 10	4, 12
	Tariff	12, 4	5, 5

Country A: Impose tariff if B practises free trade
Impose tariff if B imposes tariff

Country B: Similar policy choices

Thus, both adopt protectionist trade policy
⇒multilateral free trade is NOT a Nash equilibrium