

Lecture 1

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## What is Economic Diplomacy?

- In a broad sense, economic diplomacy can be defined as any diplomatic activity that promotes a country's economic interests. It also includes diplomacy that uses economic resources to achieve a specific foreign policy objective.
- In a narrow sense, economic diplomacy is about export promotion and inward investment. This is sometimes called commercial diplomacy.
- It is important to keep in mind that a country's economic diplomacy does not necessarily benefit all groups (i.e. producers, consumers) in the country.

## Trade Disputes between Friendly Countries are not Rare: The latest dispute between the US and the EU is about subsidies for electric vehicles

- On August 2022, the US Congress passed a law restricting the \$7,500 subsidy consumers get for buying an electric vehicle to those assembled in North America.
- For the Biden administration, it is an existential danger that provides a chance to favour domestic industries and erect trade barriers against China. Climate policy as industrial policy, if you will. "Folks, when I think about climate change... I think jobs," said US president Joe Biden last month. Given the threat of a Donald Trump run for re-election in 2024, he rarely thinks of anything else. "We have to outcompete China and the world, and make these [low carbon] technologies here in the United States not have to import them. Brussels has called on Washington "to remove these discriminatory elements from the bill" as they "appear to violate WTO rules" by discriminating between foreign and domestic manufacturers. It points out that its own subsidy schemes are available to vehicles made anywhere.
- The US may have learned lessons from this approach. From the late 1990s, the German government paid feed-in tariffs to generators of renewable energy paid for by consumers. While the solar market created may have been in Germany, the panels could come from anywhere." "In time, most of them would come from China and eventually extinguish German manufacturers." Chinese national and local governments provided cheap land, low-cost loans and other subsidies to foster a photovoltaic panel industry.
- US negotiators have yet to find a way to make this WTO-compliant. Brussels also sees China as a necessary ally in fighting climate change, and is reluctant to join the US effort to frame everything as part of its rivalry with Beijing. Law experts agree that the US subsidy is a "prima facie breach" of WTO local content agreements. Few in Brussels are seeking a direct confrontation with Washington, however. Other countries could bring cases (including China, though it might not want to open its own can of subsidy worms), but they are more likely to use diplomatic lobbying as the first step.

## ARE TRADE RESTRICTIONS/WARS RATIONAL?

- In a recent poll, 87% of US economists agreed with the statement "tariffs and quantitative restrictions usually reduce aggregate economic welfare".
- Yet, throughout history countries have used tariffs, quantitative restrictions and other trade-restricting measures.

A recent example: ... "The continuing US-China trade war is already damaging both countries, and its expansion by the United States will only increase the damage and reverberate across the world economy (Peterson Institute, Nov. 2019).

A historical example: "Before 1850 governments tried to stimulate demand for domestic manufactures by requiring their colonies to sell certain goods only to the mother country (the "metropole") and buy certain other goods only from the mother country. Restrictions on trade turned the terms of trade against the colonies: prices of colonial exports were depressed, while prices of colonial imports were elevated. This, of course, benefited metropolitan producers, who could purchase their inputs (raw materials, agricultural products) at artificially low prices and sell their output (manufactures) at artificially high prices. Virginia tobacco farmers had to sell their leaf to London, although Amsterdam would have paid more; they had to buy their cigars from London, although Amsterdam would have charged less. The rents created this way went to enrich the manufacturers and "merchant princes" ... (Frieden, 2012)

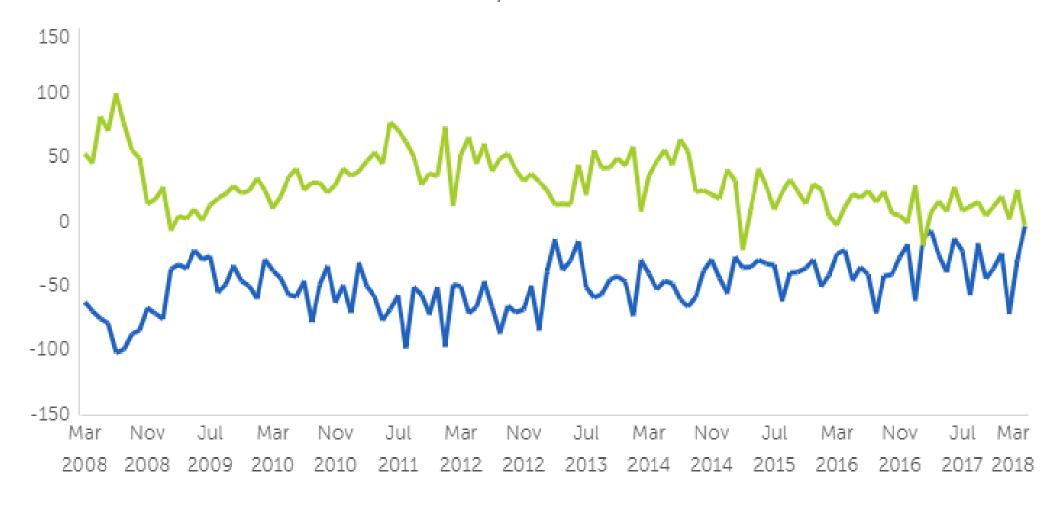
- Are there economic arguments that can make trade restrictions rational?
- How can we explain the occurrence of tariff/trade wars?

## Some Features of Trade Flows

(Advanced vs Emerging & Developing, and Top 5 Trading Economies)

• A note on the high value of Netherlands trade. This is due to the so-called "Rotterdam-Antwerp effect", and it occurs because some goods are trans-shipped. The port of Rotterdam is a major European part of this business. For example, some shipping routes, such as the OOCL Transatlantic Express Shuttle, call at no UK ports. High-value goods travelling from a small UK (or French, or Danish port) could be loaded onto the Shuttle at Rotterdam and travel to the United States. This is then recorded as exports from Netherlands.

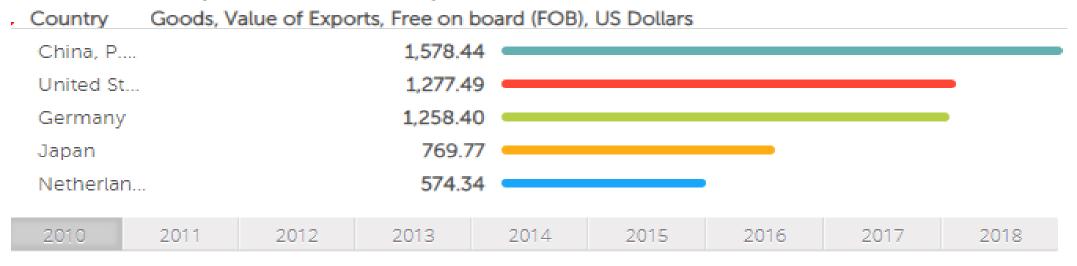
### Trade Balance, Billions US Dollars



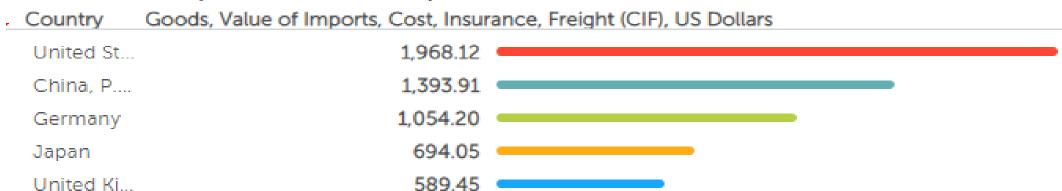
O Advanced Economies - Emerging and Developing Economies

## 2010

### Exports of Goods, Top 5 Economies, Billions US Dollars

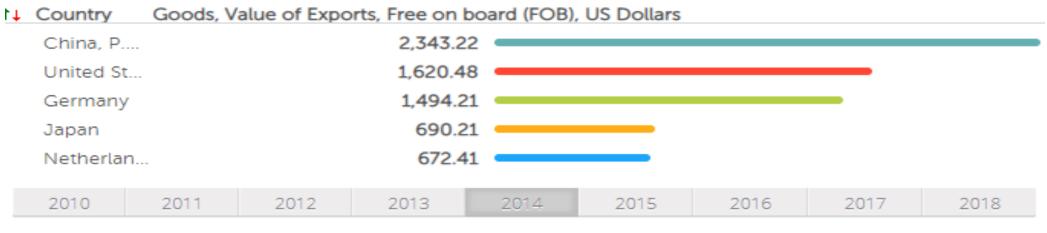


### Imports of Goods, Top 5 Economies, Billions US Dollars

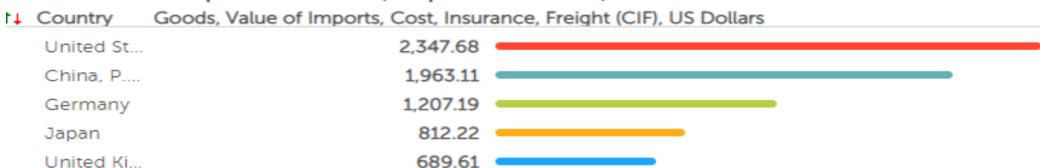


## 2014

### Exports of Goods, Top 5 Economies, Billions US Dollars

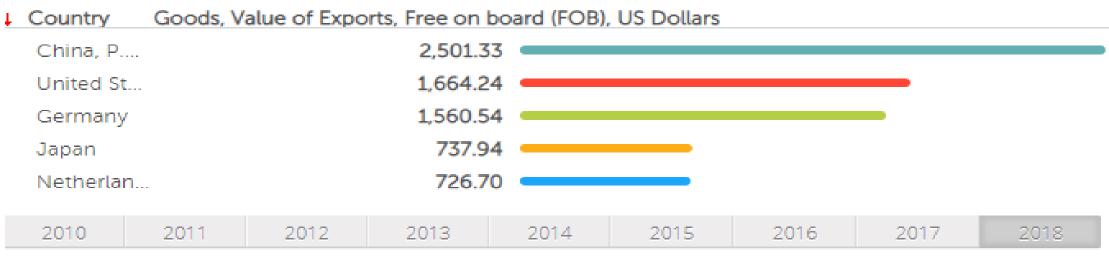


### Imports of Goods, Top 5 Economies, Billions US Dollars

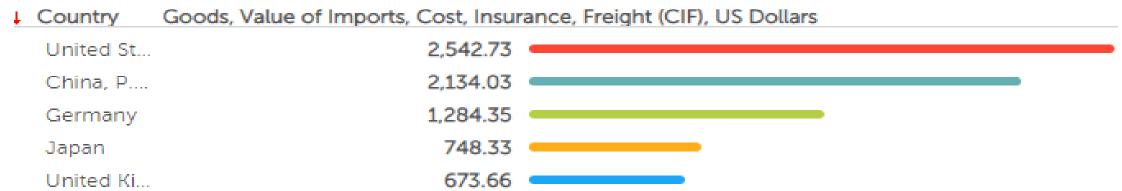


## 2018

### Exports of Goods, Top 5 Economies, Billions US Dollars



### Imports of Goods, Top 5 Economies, Billions US Dollars



# Greece 2019 (billions USD) Goods Exports to:

## Goods Imports from:

	,		
Italy	4,118.46	Germany	6,925.43
Germany	2,567.83	Italy	5,414.26
Cyprus	2,315.22	Iraq	5,101.95
Turkey	2,207.52	Russian Federation	4,569.08
Bulgaria	1,835.97	China, P.R.: Mainland	4,545.66
United States	1,461.48	Netherlands, The	3,168.07
United Kingdom	1,397.70	France	2,717.35
France	1,338.74	Spain	2,301.70
Lebanon	1,305.21	Bulgaria	2,232.95
Spain	1,252.17	Turkey	2,175.73

# Germany 2019 (billions USD) Goods Exports to: Goods Imports from:

United States	133,667.05	Netherlands, The	173,055.55
France	119,301.75	China, P.R.: Mainland	86,174.77
China, P.R.: Mainland	107,743.12	France	78,301.58
Netherlands, The	102,458.86	Belgium	73,510.70
United Kingdom	88,627.83	Poland, Rep. of	71,128.41
Italy	75,946.73	Italy	65,052.92
Austria	73,957.25	United States	60,630.79
Poland, Rep. of	73,678.97	Czech Rep.	58,985.20
Switzerland	63,615.40	Austria	54,138.74
Belgium	51,744.16	Switzerland	47,484.74

# France 2019 Goods Exports to

Germany	79,247.50
United States	47,541.32
Italy	42,602.34
Spain	42,478.48
Belgium	39,498.85
United Kingdom	38,930.90
China, P.R.: Mainland	23,469.74
Switzerland	19,974.63
Netherlands, The	19,934.87
Poland, Rep. of	11,564.80

## Goods Imports from:

Germany	115,411.97
Belgium	64,174.32
Italy	53,052.98
Netherlands, The	52,212.45
Spain	47,112.88
United States	36,851.60
China, P.R.: Mainland	35,936.94
United Kingdom	27,626.83
Switzerland	19,538.04
Poland, Rep. of	13,906.52

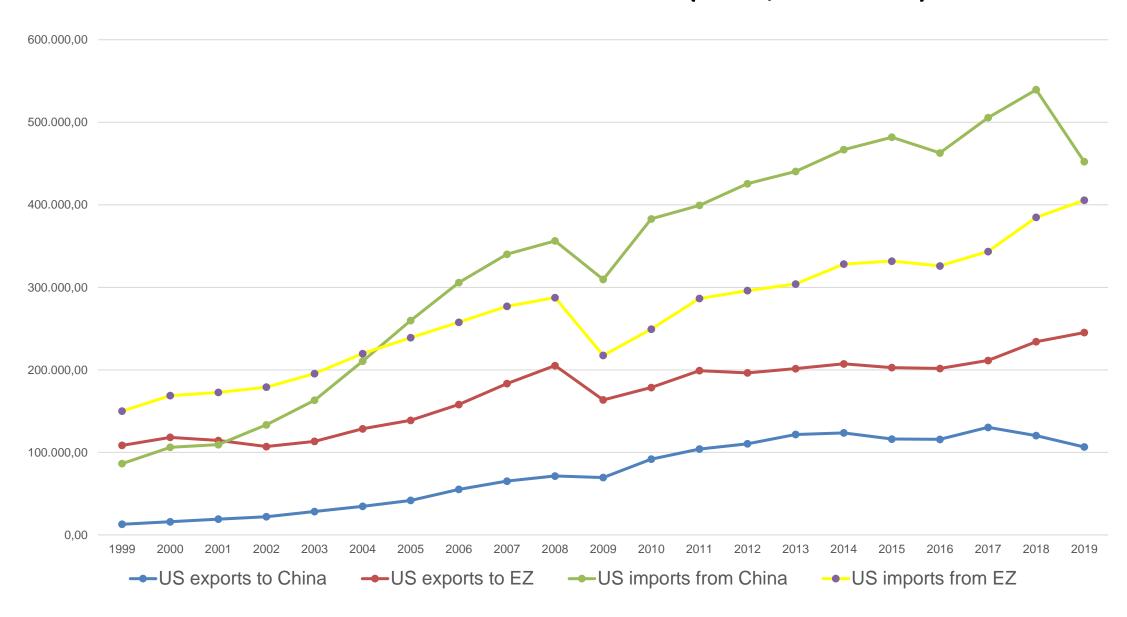
# China 2019 (billions USD) Goods Exports to: Goods Imports from:

United States	418,584.25	Korea, Rep. of	173,553.27
China, P.R.: Hong Kong	279,616.72	Taiwan Province of C	172,800.95
Japan	143,223.97	Japan	171,523.31
Korea, Rep. of	110,984.86	Countries & Areas not	130,724.27
Vietnam	98,004.33	United States	123,235.66
Germany	79,706.09	Australia	119,608.31
India	74,924.29	Germany	105,037.21
Netherlands, The	73,945.37	Brazil	79,203.57
United Kingdom	62,275.96	Malaysia	71,629.89
Taiwan Province of Ch	55,079.73	Vietnam	64,078.47

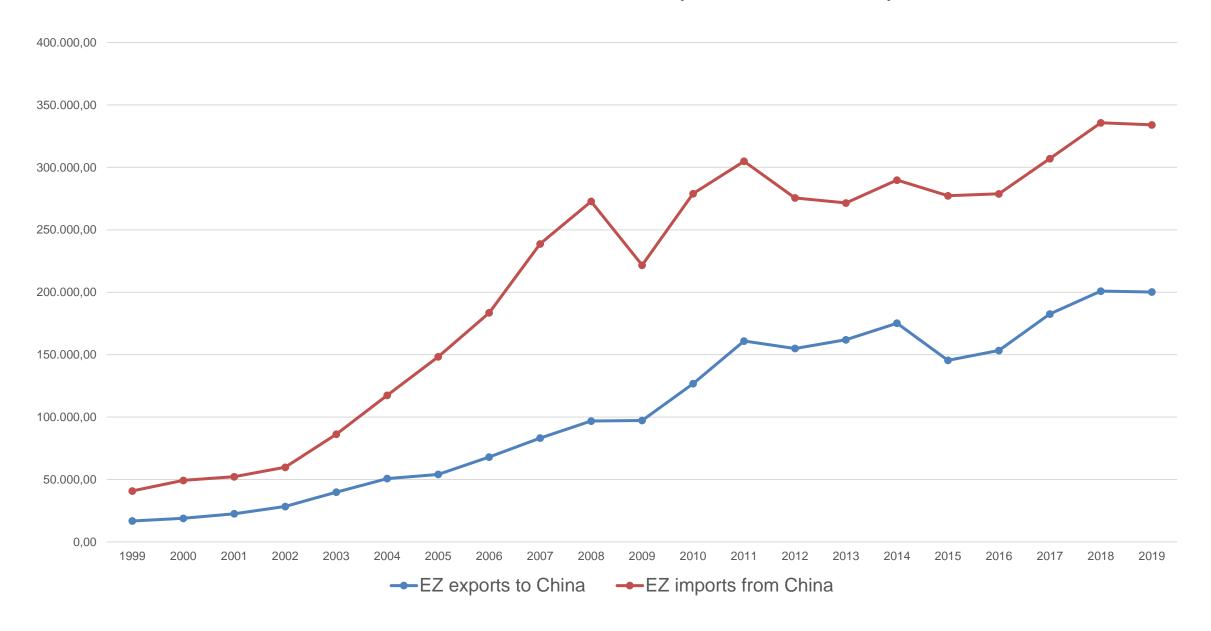
# USA 2019 (billions USD) Goods Exports to: Goods Imports from:

Canada	292,587.25	China, P.R.: Mainland	452,243.44
Mexico	256,374.09	Mexico	358,126.01
China, P.R.: Mainland	106,626.77	Canada	319,735.70
Japan	74,652.75	Japan	143,636.43
United Kingdom	69,156.51	Germany	127,462.11
Germany	60,296.24	Korea, Rep. of	77,511.13
Korea, Rep. of	56,897.33	Vietnam	66,680.32
Netherlands, The	51,232.69	United Kingdom	63,187.03
Brazil	43,083.30	Ireland	61,768.04
France	35,434.15	India	57,665.48

## US trade with China and the Euro Area (USD, millions)



## Eurozone trade with China (USD, millions)

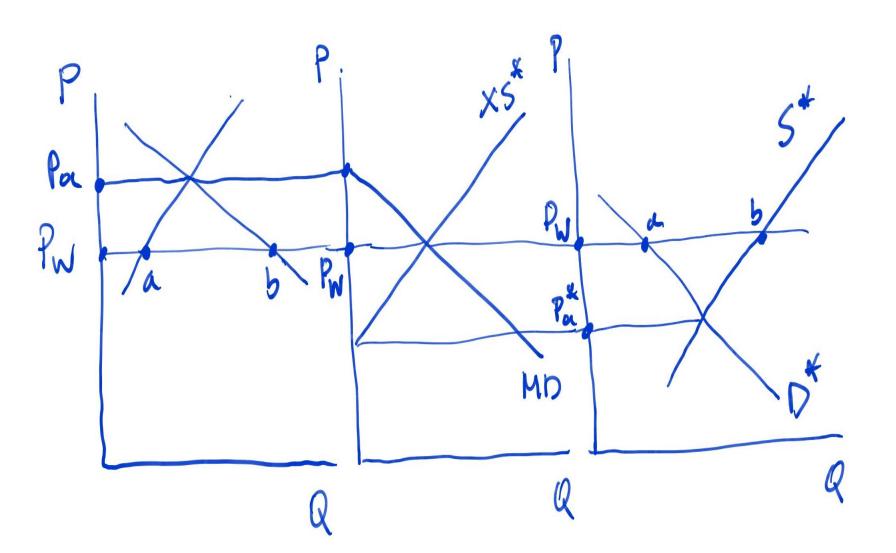


# Theory of International Trade Policy

### **TARIFFS**

a. Non-Decreasing Average Costs Case

### Import Demand and Export Supply



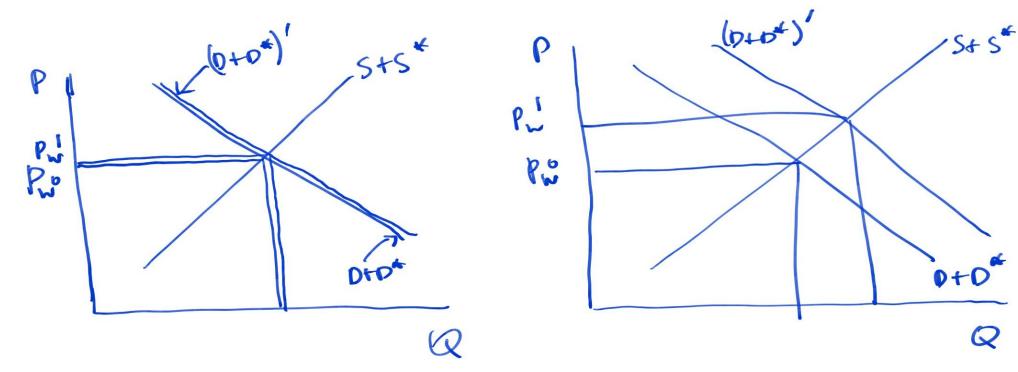
The diagrams on the left and right show the demand and supply curves in the domestic country, and the foreign country, respectively. At the autarkic prices  $P_a$ , and  $p_a^*$  in both diagrams, the demand for imports in the home country (equal to the difference between D and S) and the supply of exports in the foreign country (equal to the difference between  $S^*$  and  $D^*$ ) are equal to zero. For prices below  $P_a$  import demand (MD) in the home country is positive, whereas for prices above  $p_a^*$  export supply (XS\*) is positive in the foreign country. These schedules are depicted in the middle diagram, and the equilibrium world price  $P_W$  is where the two schedules intersect.

In the case that the domestic country is too small relative to the foreign country (i.e. the rest of the world, ROW), the foreign export supply curve is horizontal at the world price.

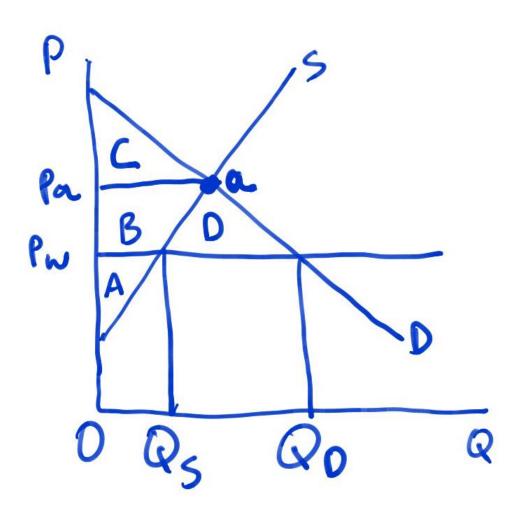
#### Understanding the Influence of Country Size

**Small Country:** Diagram on the left shows the case of a world economy consisting of two countries: the domestic economy and the rest of the world (ROW, denoted by \*). World equilibrium requires that D+D\*=S+S\*. This equilibrium obtains at point **a** in the diagram. Assume now that the domestic economy is small relative to the ROW in the consumption and/or production of a good. Then, if, for whatever reason, there is an exogenous increase in the demand for the particular good in the domestic economy (say, the demand for coffee in Greece), the influence on the position of the D+D\* would be very small, and so the influence on the world price of the good would be nearly zero. In other words, the small domestic economy can consider that the world price is not affected by its actions, i.e. it can import or export the good at this world price without affecting it.

Large Country: Diagram on the right shows the case of a large country in the consumption of a particular good (e.g. China). If, for whatever exogenous reason (e.g. an increased preference for consuming the particular good) there is an increased demand for the good in China, there will be a noticeable upward shift in D+D\*, and thus on the world price of the good. In other words, the domestic economy can **not ignore** the influence of **its** actions on the world price of the good.



### The Benefits of Free Trade (small country under perfect competition)



Under autarky the domestic price,  $P_a$ , is determined by the intersection of (domestic) supply and demand schedules at point **a**. Consumer Surplus (CS) is equal to (area) C. Producer Surplus (PS) is equal to A+B. Social Welfare (SW), which is equal to the sum of CS and PS, is equal to A+B+C.

With Free Trade (FT), the small country can buy from abroad at a fixed world price,  $P_W$ . At this price, domestic demand expands to  $Q_D$ , while domestic supply contracts to  $Q_S$ . As a result, imports are now equal to  $Q_D$   $Q_S$ . CS expands and is equal to B+C+D, whereas PS contracts and is equal to A. As a result SW is now equal to A+B+C+D. Thus, in comparison with autarky, FT increases SW by D. This is the gain from FT.

Note, however, that FT involves losses for producers (equal to B), whereas the gains to consumers (equal to B+D) are larger than the losses to producers.

It is easy to see that a drop in  $P_W$  would increase CS by more than it would reduce PS (since consumption is bigger than production), and thus increase SW.

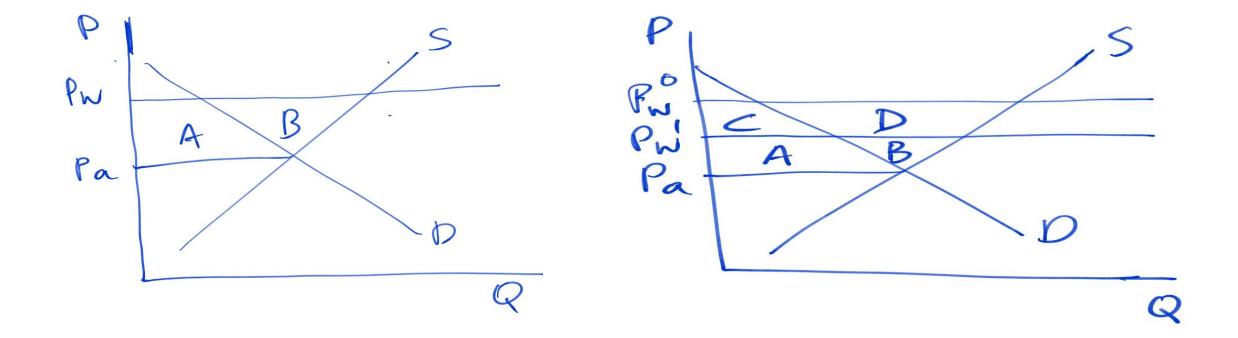
### Benefits of FT for Exporters (small country under perfect competition)

#### **LEFT** DIAGRAM

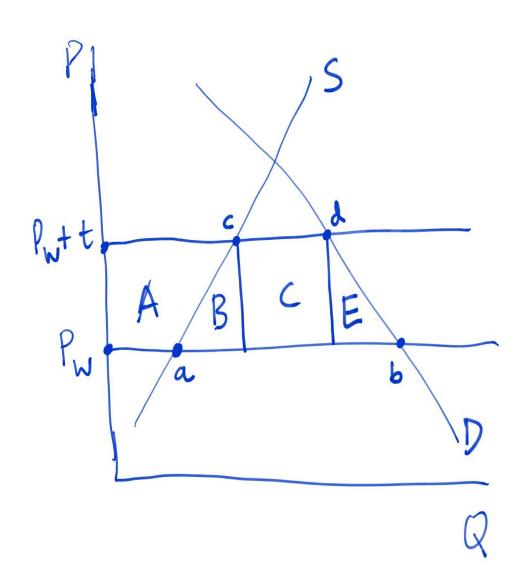
At point **a**, domestic demand is equal to domestic supply for a good. Since now the world price is above the domestic price under autarky, the country exports the good. With FT, domestic production expands and domestic consumption contracts. As a result, CS falls by A, PS rises by A+B, and SW increases by B.

## Effects of a Reduction in the World Price (small country under perfect competition) RIGHT DIAGRAM

Starting from world price  $P_w^0$ , an exogenous drop in world price to  $P_w^1$ , results in an increase in consumption, decrease in production, and a reduction in exports. Consumers gain (CS rises) C, producers lose (PS falls) C+D, and SW falls by D. Thus, a drop in the world price reduces welfare for the country exporting this good.



## The Effects of Tariffs (small country, perfect competition)

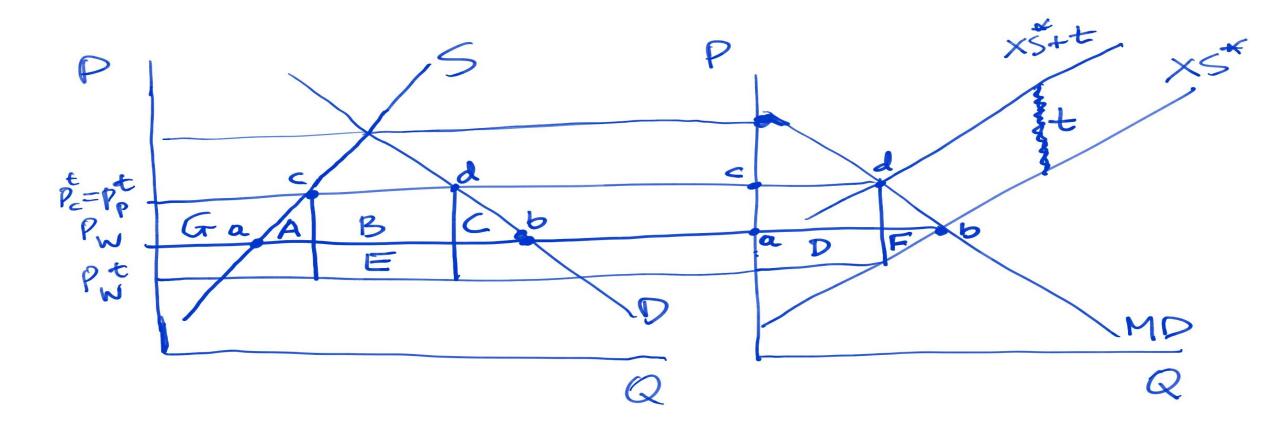


At the initial world price,  $P_W$ , imports are equal to **ab**. The imposition of a tariff, **t**, per unit, raises the domestic price for both consumers and producers to  $P_W$ +t, expands domestic production and decreases domestic consumption, thus reducing imports to **cd**. As a result CS falls by A+B+C+E, PS increases by A, while the government collects tax (tariff) revenue equal to C. Thus the change in SW is equal to  $\Delta(CS) + \Delta(PS) + \Delta(TR) = -(A+B+C+E)+A+C=-(B+E)$ , thus SW declines after the imposition of a tariff.

As is usually the case, the policy change involves winners and losers. Note that since the number of producers is smaller than the number of consumers, it may be impossible (due to the "collective action" problem) for the consumers to exercise effective political opposition to the imposition of the tariff.

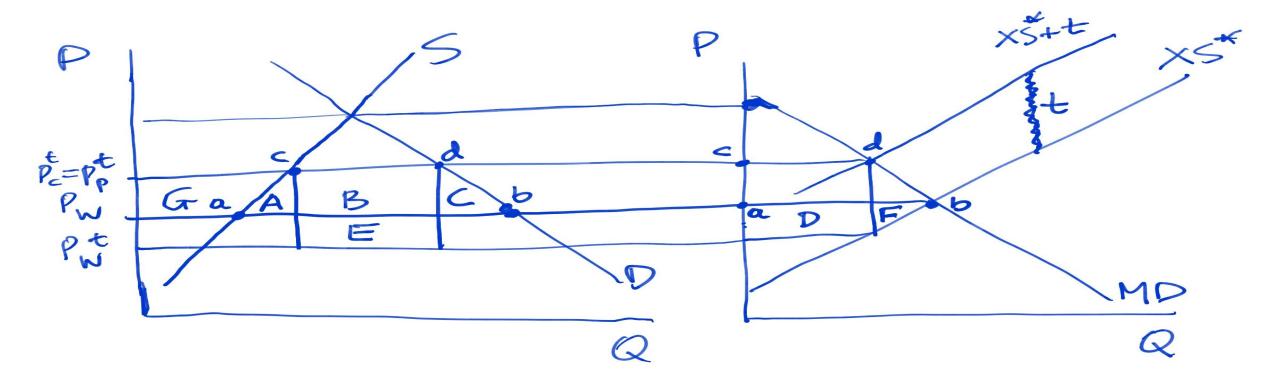
Important Note: The imposition of a tariff by a small country does not influence the price paid by the *country* and received by ROW producers.

The Effects of Tariffs in the Large Country Case. Diagrams below show the case of a large country imposing a tariff. The price on the vertical axis measures the price paid by domestic consumers (and received by domestic producers as well). The imposition of a tariff,  $\mathbf{t}$ , by the domestic country will shift the XS\* curve to the XS\*+t curve. As a result, the world price received by producers drops to  $P_W^t$ , which is also the price received by the ROW producers. The price paid by domestic consumers rises to  $P_W^t$ +t=  $P_c^t$ , which is also the price received by the **domestic** producers,  $P_P^t$ . Imports decline from ab to cd (in both diagrams). The changes in domestic country are as follows:  $\Delta(CS)$ =-(G+A+B+C),  $\Delta(PS)$ =G,  $\Delta(TR)$ =B+E, thus  $\Delta(SW)$ = E-A-C. If the tariff is chosen optimally, then E-A-C>0, thus a tariff increases social welfare for the domestic country. It also decreases SW for the other country (see next page)...

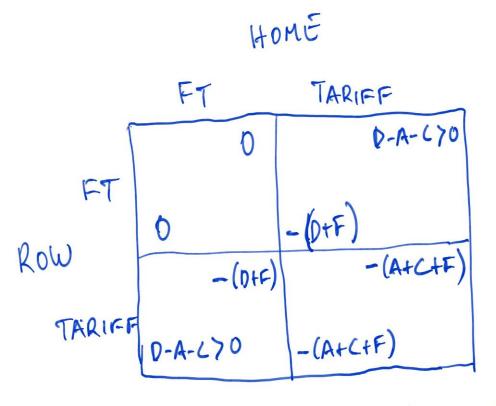


The Effects of Tariffs in the Large Country Case (continued...) Since the price received by ROW producers drops, the loss of SW in the ROW is equal to D+F. Thus, the domestic country gains E-A-C, whereas the foreign country loses D+F. Note that, by construction, distance ab in the left diagram is equal to distance ab in the right diagram. (The same holds true for distance cd.) This implies that E=D. Thus, the change in SW for the world as a whole is E-A-C-E-F=- (A+C+F), i.e. there is a reduction in world welfare (since the domestic country gains less than what the ROW loses). NOTE 1: THE LARGER IS THE DOMESTIC COUNTRY, THE LARGER WILL BE THE OPTIMAL TARIFF FOR IT, AND AS A RESULT, THE LARGER WILL BE THE LOSS FOR THE ROW, AND THE WORLD ECONOMY.

NOTE 2: IF BOTH THE DOMESTIC COUNTRY AND THE ROW IMPOSE TARIFFS ON THE OTHER'S EXPORTS, THE LOSS OF EACH COUNTRY'S WELFARE IS EQUAL TO (E-A-C) {I.E. WHAT THE COUNTRY GAINS FROM IMPOSING THE TARIFF} MINUS (D+F) {I.E. WHAT THE COUNTRY LOSES FROM THE IMPOSITION OF THE TARIFF BY THE OTHER COUNTRY}, THUS. UNDER SYMMETRY. EACH COUNTRY LOSES -(A+C+F). AND THE WHOLE WORLD LOSES -2(A+C+F).



## The Inevitability of Trade Restrictions



Note: Since D>A+C-) D+F>A+C+F, i.e.

the loss is larger if the home country practices

FT when the Row applies tariffs.

The payoff matrix depicts the effects on SW discussed on the previous slide (the top right entries are for the home country and the bottom left for the ROW). It is obvious that although the best outcome for the world is for both countries to practice FT, each country's best strategy is to impose a tariff independently of what the other country does. Consider, e.g. the home country. Its policymakers think: If the ROW doesn't impose a tariff, then the best for me is to impose one since D-A-C>0. If the ROW imposes a tariff, then again it is best for the home country to impose one, since D+F >A+C+F. The same thinking applies for the ROW as well. Thus each country has a **dominant strategy**, which is to impose a tariff. As a result, absent coordination, the outcome of the game is the bottom right quadrant (Tariff, Tariff), and each country loses A+C+F, which is worse than the (FT, FT) outcome.

The successive rounds of GATT agreements (and the establishment of the WTO) can be understood as a way to circumvent the un-coordinated sub-optimal outcome of (Tariff, Tariff).

# Theory of International Trade Policy

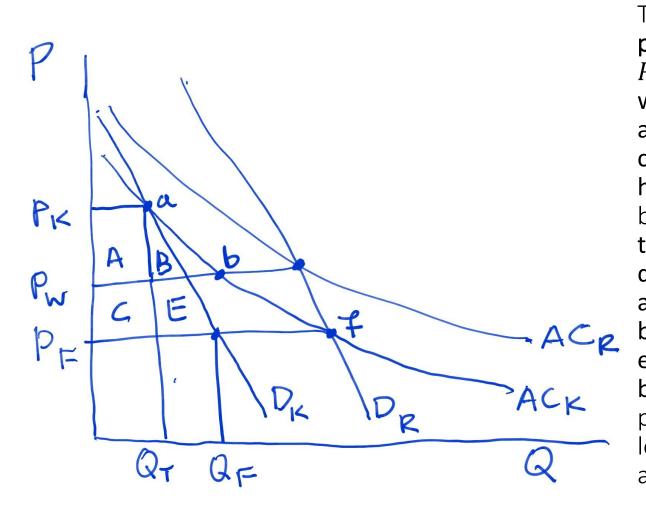
#### **TARIFFS**

b. Decreasing Average Costs Case

We examine a situation in which average costs at the industry level decline as total industry output expands due to positive externalities. Each firm's average (and marginal) cost curves are upward sloping (thus, the perfectly competitive model applies), but the expansion of total industry output shifts downward each firm's cost curves (e.g., due to the ability to source intermediate inputs at lower prices), thus making the entire industry a decreasing-cost one.

We examine the case known as the "infant-industry" argument for protection. This argument was originally proposed by US and German economists in the 19<sup>th</sup> century afraid that FT with Great Britain would not allow them to industrialize. It was also used by Japan (immediately after WWII), South Korea (in the 1960s), and China (more recently) in order to support their industrialization. BUT, it was also used by many developing countries (esp. in Latin America) - in Greece, as well - without achieving its intended results...

INFANT INDUSTRY PROTECTION: Diagram shows average cost curves of a product which are declining (due to external economies of scale) for a country (e.g. Korea, symbolized by K) and for the rest of the world (ROW, symbolized by R), as well as the demand curves for this product in K and in R. Assume that demand in K is small relative to demand in R, so that  $D_R$  is also the demand curve for the whole world. If initially only R firms are producing, then the world price is  $P_W$ . If firms in K started producing small quantities just to satisfy domestic demand at point  $\mathbf{a}$ , and there was FT, their AC would be higher than  $P_W$ , and would not be able to survive (i.e. they would make losses).



To prevent losses, the government could impose a **prohibitive** tariff equal to the difference between  $P_W$  and  $P_K$ , and domestic supply would satisfy domestic demand without any imports at point a. This policy would impose a SW loss equal to areas A+B. Note, that still the country can't compete internationally since its AC at point **a** is higher than in R. Export subsidies equal to the difference between  $P_W$  and  $P_K$  could allow it to do so. Note that these export subsidies need not be given for ever; once domestic production expands beyond point b, domestic average costs are lower than in R, and the subsidies can be withdrawn. Domestic producers can now capture the entire market, and, in the process lower the world price **below**  $P_W$ , to  $P_F$ . As a result, SW rises by C+E, which, in a present value sense, may be higher than the sum of the lost CS (i.e. A+B) and the value of export subsidies given to achieve this. (This does not happen often.)