6304641829 Wasawat sombutsaengarai Dom

Exercise 1

1. You are considering the number of hamburgers that you plan to order. Based on the following table, complete the table and answer the following questions.
    a. How many units of hamburgers should you order? Why?
    b. Suppose you decide to order 2 hamburgers. Is this underallocation or overallocation? Explain. How much is your deadweight loss?
    c. Suppose you decide to order 5 hamburgers. Is this underallocation or overallocation? Explain. How much is your deadweight loss?

Quantity	Total Benefit	Marginal Benefit	Total Cost	Marginal Cost	Total Net Benefit
1st		80		20	
2nd		60		20	
3rd		40		20	
4th		20		20	
5th		0		20	

2. With diagrams, explain the differences between tariff and quota. Also, explain the impact on domestic stakeholders (consumers, producers, and government), i.e., who is better off and who is worse off? Why?
3. Consider an exporting country. Analyze welfare effect on all stakeholders when its government impose "Export Tax", i.e., per-unit tax imposed on the exported good. Draw a diagram(s) and provide complete analysis on who gain(s) and who lose(s).
4. A "small", open economy is engaging in international trade. Its domestic demand curve is given by $P = 100 - Q$ and its domestic supply curve is given by $P = Q$. The world price of the good is 20$. Answer the following questions.
    a. What does it mean for a country to be "small"? What implication of being "small" has on the world supply curve?
    b. Is this economy either an exporting or important country? Why? How many units of the goods is the country is currently importing or exporting?
    c. Now suppose the government decides to intervene. If the country is importing, the government will impose import tariff of 10$ per unit. If the country is exporting, the government will impose export subsidy of 10$ per unit. Calculate
        i. Domestic consumer and producer surplus after the intervention
        ii. Either subsidy cost or tariff revenue
        iii. Deadweight loss from the intervention.

1

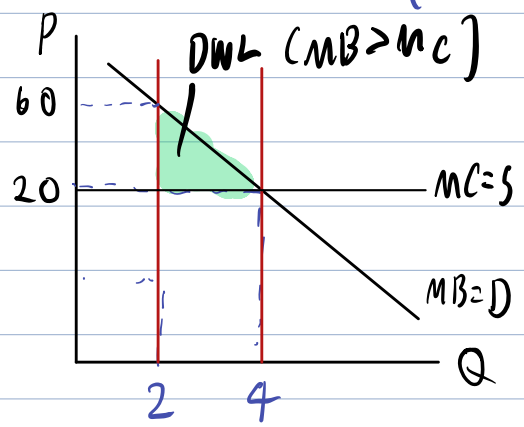
Quantity	Total Benefit	Marginal Benefit	Total Cost	Marginal Cost	Total Net Benefit
1st	80	80	20	20	60
2nd	140	60	40	20	40
3rd	180	40	60	20	20
4th	200	20	80	20	0
5th	200	0	100	20	-20

(a) a. How many units of hamburgers should you order? Why?

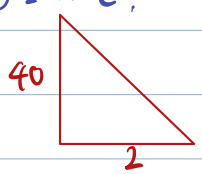
∴ we should order 4 hamburgers because at this quantity total net benefit is equal to 0 which is maximum combination (MB=MC), while at 5 th unit MB<MC so we shouldn't consume

(b) b. Suppose you decide to order 2 hamburgers. Is this underallocation or overallocation? Explain.
How much is your deadweight loss?

Order 2 hamburgers is underallocation since there is marginal benefit from consume more (MB≥0) and MB>MC.



DWL = Area of

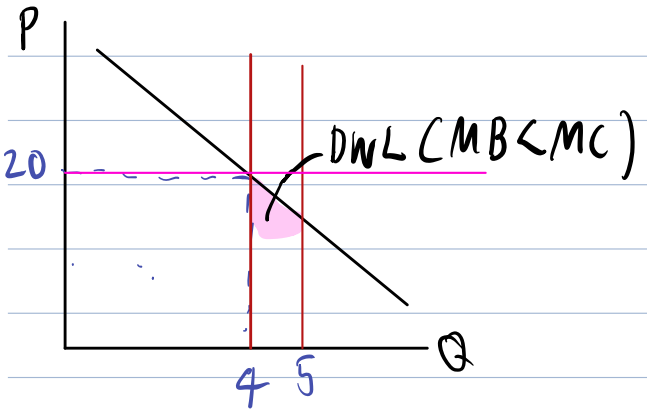


$= \frac{1}{2} \times 2 \times 40$

$= 40$

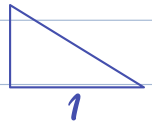
c. Suppose you decide to order 5 hamburgers. Is this underallocation or overallocation? Explain.
How much is your deadweight loss?

(c)



Ordering 5 hamburgers will results in overallocation since marginal benefit from consume more 1 unit is less than the marginal cost (MB<MC)

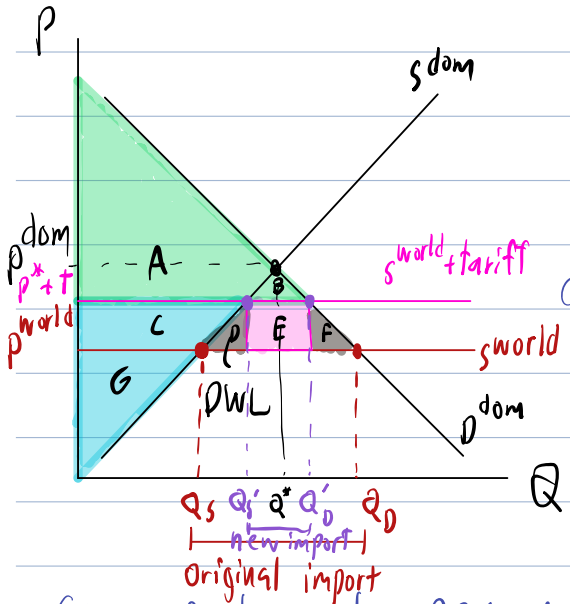
DWL = Area of



$= \frac{1}{2} \times 20 \times 1 = 10$

2. With diagrams, explain the differences between tariff and quota. Also, explain the impact on domestic stakeholders (consumers, producers, and government), i.e., who is better off and who is worse off? Why?

Tariff p^{dom} = Domestic price p^{world} = world price



Tariff is the tax on an imported goods. It increase the import price or shifting the S^{world} upward.
It allows domestic producer to compete with foreign producers who can sell at the lower price.
Q_s increase to Q_s', Q_d decrease to Q_d'
price of imported good increase from p^{world} to p^{world} +tax

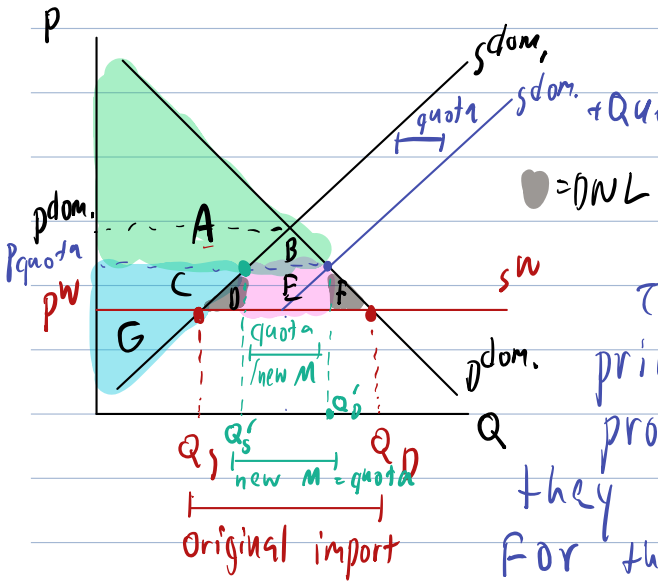
- Consumer have to pay more for product so they buy less. (CS↓)
- producers sell at the higher price, so they produce more (PS↑)
- Government gain tax revenue from C but also have DWL
- Consumer worse off producer is better off, gov. better off

	w/o tariff	w/ tariff	Δ
CS	A, B, C, D, E, F	A, B	-C, -D, -E, -F
PS	G	C, G	+C
Gov	–	E	+E
TS	A, B, C, D, E, F, G	A, B, C, G, E	-D, -F

Domestic producers and government are better-off because producers can sell at a higher price and gov. can collect tariff from imported goods, consumers are worse-off because they have to pay for more expensive goods & services.

Quota

CS↓ PS↑



= DWL

Quota is the limit amount of goods to be brought at lower price into domestic economy. But since domestic price is higher so after adjust price it will at P_{quota} between P^{dom} and P^{world}

This make consumer worst off from higher price, so they buy less (CS decrease)

producer is better off from higher price so they produce more ($Q_S \to Q_S'$) (PS increase)

For the quota rerenue it will go to license holder

∴ Quota have equilibrium after adjust different price between P^W and $P^{dom.}$ but tariff don't have equilibrium.

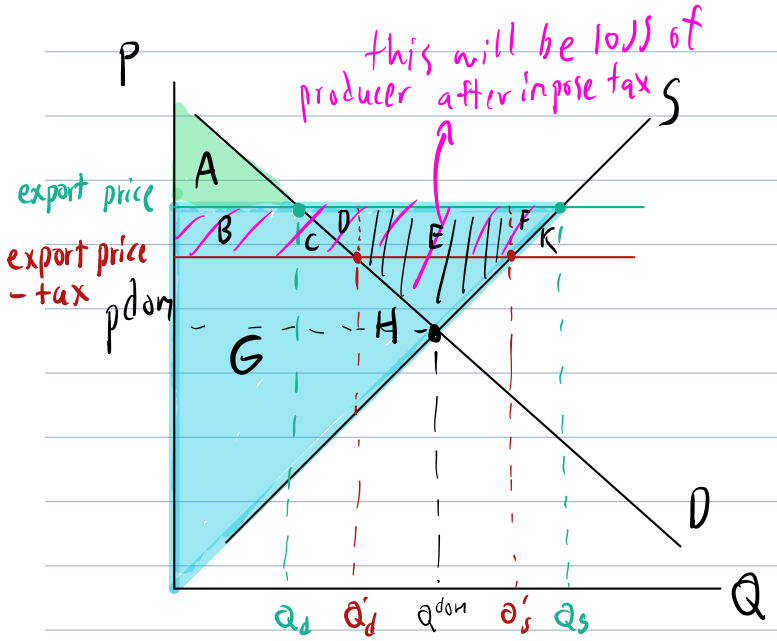
	w/o tariff	w/ tariff	Δ
CS	A, B, C, D, E, F	A, B	−C, −D, −E, −F
PS	G	C, G	+C
Gov	−	E	+E
TS	A, B, C, D, E, F, G	A, B, C, G, E	−D, −F

Domestic producers are better-off because producers can buy at P_{world} and sell at P_{quota}.

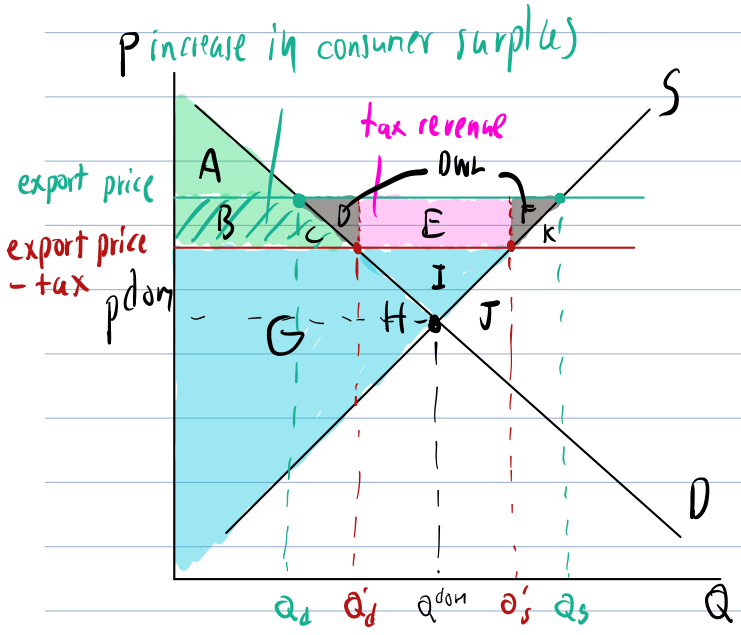
consumers are worse-off because they have to pay for more expensive goods & services.

For the ▭ it will go to license holder.

3. Consider an exporting country. Analyze welfare effect on all stakeholders when its government impose "Export Tax", i.e., per-unit tax imposed on the exported good. Draw a diagram(s) and provide complete analysis on who gain(s) and who lose(s).



before tax



After tax producer surplus falls but consumer surplus increase and government gain tax revenue. Even though, there are a DWL in the economy due to the tax.

Compare to before tax, the domestic price is decrease producer are better off. Consumer are worse off.

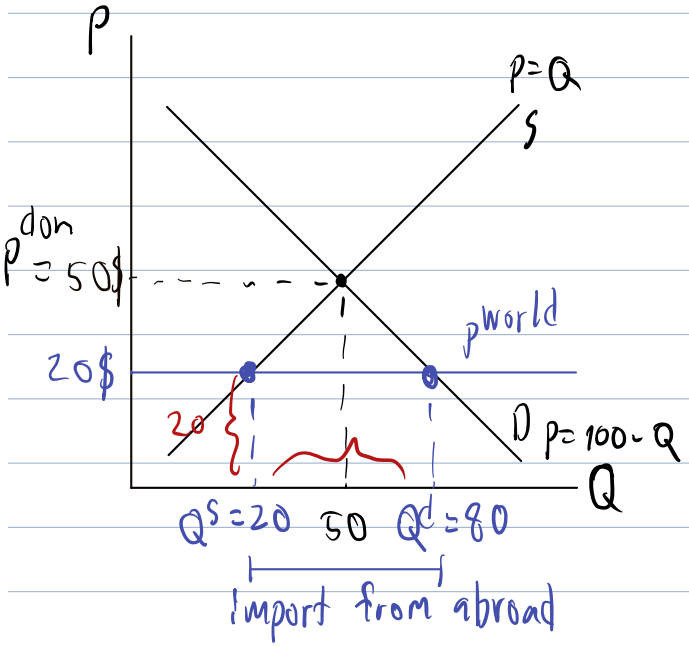
∴ Because government tax on export its mean that domestic price will decrease due to P^w-t

	Before	After	Impact
PS	+A	A+B+C	+B+C
CS	+B,C,D,E,F,G,H,I,J	+G,H,I,J	-B,-C,-D,-E,-F
Gov. Rev.	0	+E	+E
Total	A,B,C,D,E,F,G,H,I,J	A,B,C,G,H,I,J,E	-D,-F

4. A "small", open economy is engaging in international trade. Its domestic demand curve is given by P = 100 – Q and its domestic supply curve is given by P = Q. The world price of the good is 20$. Answer the following questions.

   a. What does it mean for a country to be "small"? What implication of being "small" has on the world supply curve?

(a) Being small country mean that what it does, it does not affect the world price or world supply since the world can supply the good at p^{world} as much as the small country want.



Equilibrium is where D=S

$P = 100 - Q$

$Q = 100 - P$

$P = Q$; $Q = 100 - P$

$2Q = 100$

$Q^* = 50$

$Q = 50$; $P = 100 - Q$

$P^* = 50$

$P^w = 20$; $Q = 100 - P = 80$

   b. Is this economy either an exporting or important country? Why? How many units of the goods is the country is currently importing or exporting?

since the world price(p^{world}) is lower than domestic price (p^{dom}), it means that quantity demand will higher than quantity supply because people like low price so they buy more while producers produce less. then, the different between Q^s and Q^d will be import from abroad. Therefore this economy is an importing country.

At $p^{world} = 20\$$; Supply curve → $Q = P$ so $Q^s = 20$

Demand Curve → $Q = 100 - P$ so $Q^d = 80$

so the units of the goods that imported is $Q^d - Q^s \rightarrow 80 - 20 = 60$ units.

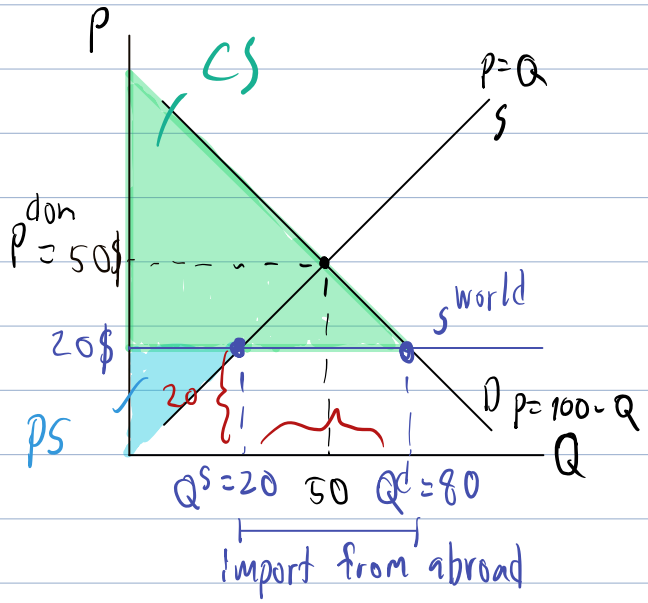
c. Now suppose the government decides to intervene. If the country is importing, the government will impose import tariff of 10$ per unit. If the country is exporting, the government will impose export subsidy of 10$ per unit. Calculate

i. Domestic consumer and producer surplus after the intervention

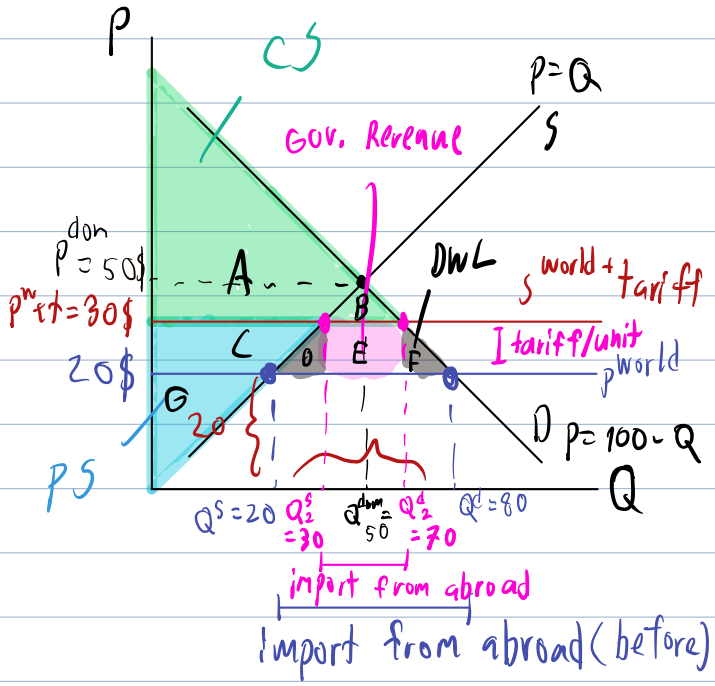
ii. Either subsidy cost or tariff revenue

iii. Deadweight loss from the intervention.

Importing country (without tariff)



with tariff



At new price, P^{w+t} which is world price + tariff per unit at 30$ plug in Demand & supply equation to find Q^S_2 & Q^d_2

$Q^S_2 = P = 30$ $\quad Q^d_2 = 100 - P = 70$

∴ After impose tariff per unit, Consumer surplus decrease while producer surplus is increase.

There is government revenue from tariff but DWL also occur as well. Thus, for the economy as a whole it has loss.

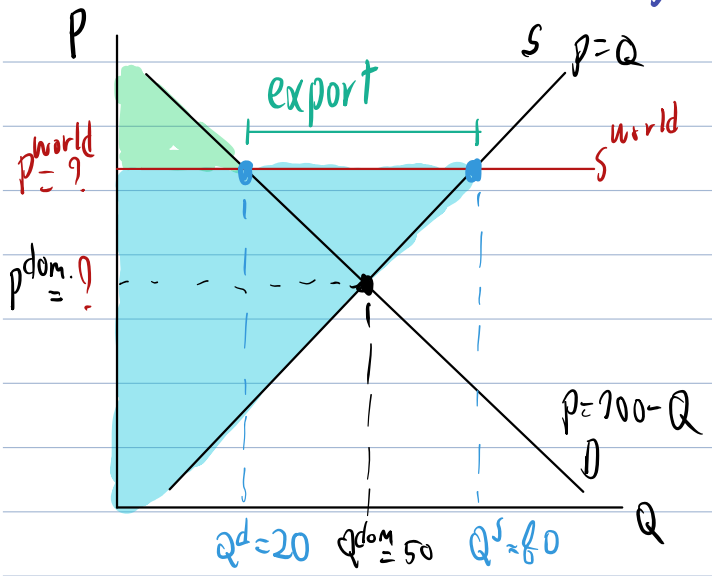
$CS = A+B = \frac{1}{2} \times 70 \times (100-30) = 2,450$ $\quad P^{dom} \rightarrow P = 100 - Q$; $P = Q$

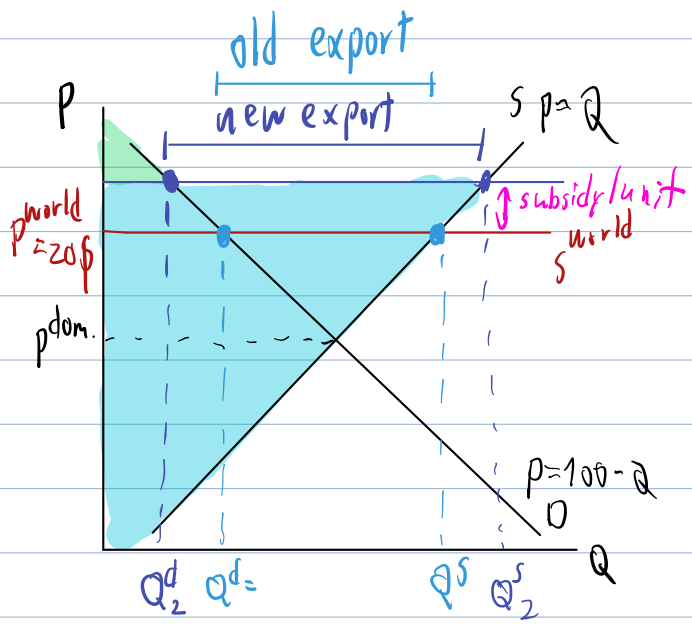
$PS = C+G = \frac{1}{2} \times 30 \times 30 = 450$ $\quad P = 50$

Tariff revenue = $E = (70-30)(30-20) = 400$ $\quad DWL = D+F = \frac{1}{2}(10)(10) \times 2 = 100$

Exporting country → impossible to draw

without subsidy (free trade)





It is impossible to be exporting country since P^{dom} =50$ which is higher than P^{world} =20$.

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