BAB 2: PENGUKURAN PERUBAHAN KEBAJIKAN
(Tambahan)

- Lebihan pengguna
- Lebihan pengeluar

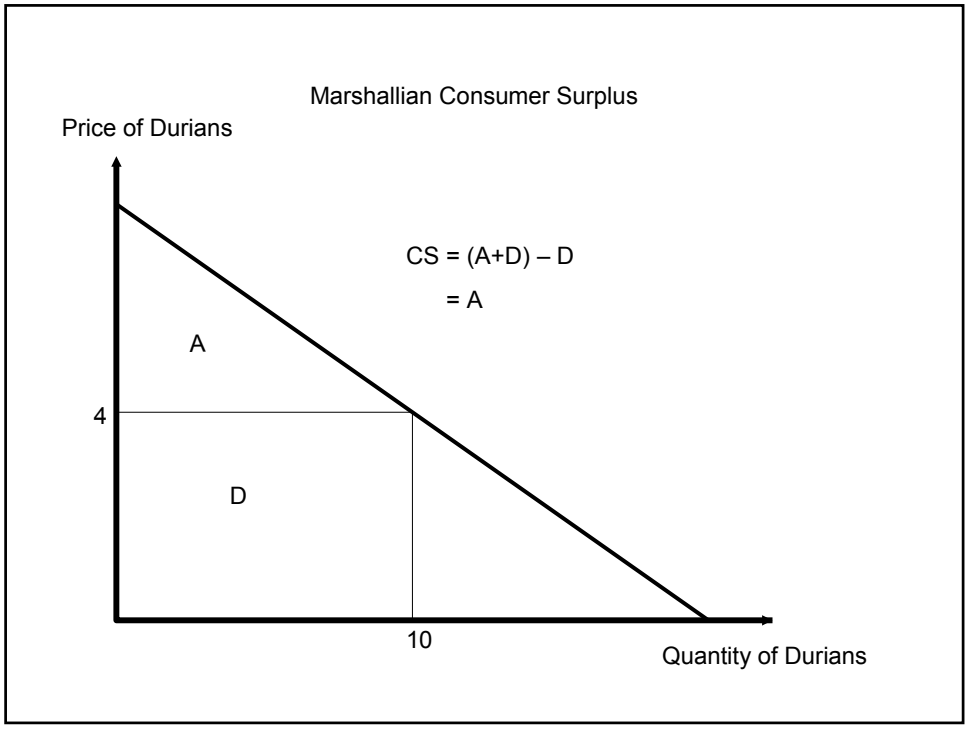
} Sbg pengukur perubahan kebajikan

-Kelebihan
-Masalah

- Contoh pengukuran: firma monopoli

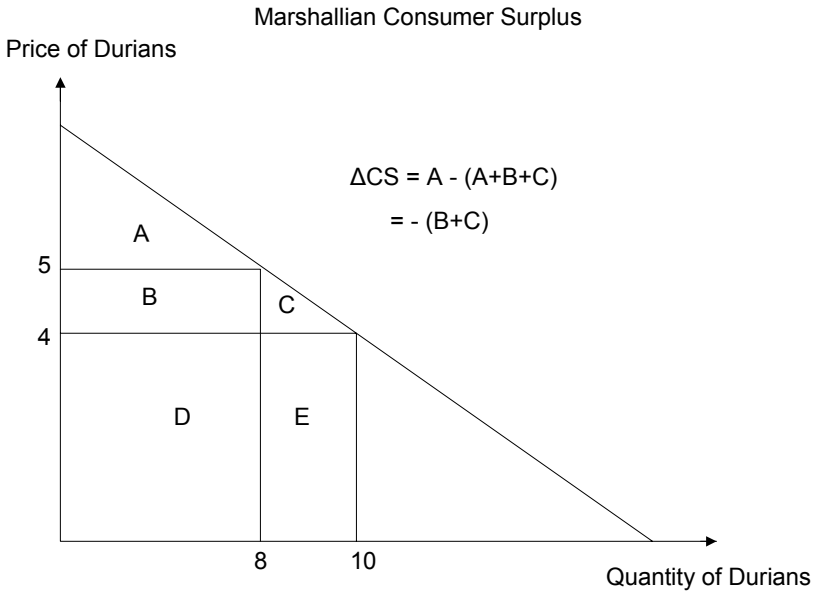
Marshallian Consumer Surplus

- Imagine you are willing to pay a lot of money for D24 durian, currently selling at the Mardi site. Upon arrival, you found out that Mardi was selling those D24 durians for RM4/kg. You were so happy, you bought 10kg. What was your Consumer Surplus?
- Consumer Surplus is the difference between the maximum amount you are willing to pay and the actual amount you pay.



Marshallian Consumer Surplus

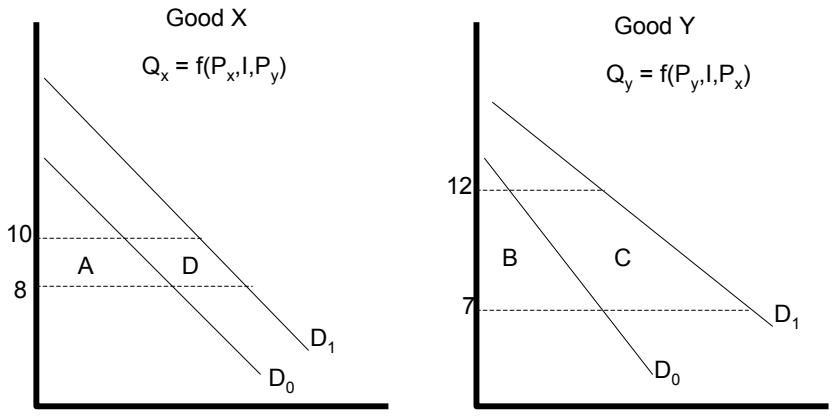
- Now, imagine that you went to the Mardi site again and found out that the price of D24 durian has increased to RM5/kg. So, what is the change in your CS from the price increase?
- CS is used to measure welfare change in consumers.
- CS is measured in $ BUT welfare is measured in utility.



Measuring CS in Multiple Price Changes

- Consider a two-market case consisting of goods X & Y consumed by a consumer.
- Assume a policy change affects both prices (prices fall) BUT affects P_x first and then P_y. What is the change in CS in this situation? What happens to CS if the situation is reversed?

Multiple Price Changes



Complement Goods

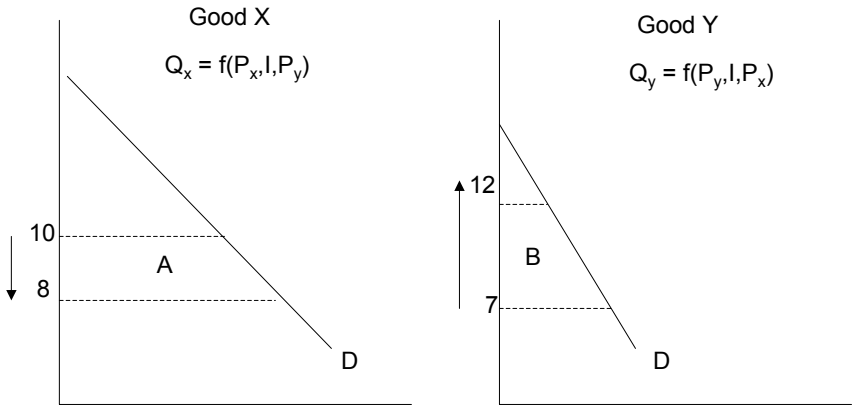
Measuring CS in Multiple Price Changes

- $P_x \rightarrow P_y$: $\Delta CS = A+B+C$
- $P_y \rightarrow P_x$: $\Delta CS = B+A+D$
- In general, there is no reason to expect that A+B+C = A+B+D (monetary values)
- The path-dependency problem (Masalah Kebergantungan Laluan).
- However, the changes in utility (U_{Pnew}-$U_{Pold)}$ in both situations are always the same.

Aggregation of CS

- Suppose there are 2 individuals and that only a single price is changed. How to determine the aggregate consumer surplus?
- Market CS = A+B
- Suppose Mamat only consumes good X & Muthu only consumes good Y. And assume that there is a reduction in the price of good X but an increase in the price of good Y. Further, assume that the size of ΔCS is the same for both but, of course, in opposite sign. Thus, ΔCS = 0. How about welfare (total utility)?

Aggregation of Consumer Surplus



Aggregation of CS

- $\Delta CS = A - B = 0$
- Since $MU_{\$}$ is not the same for everyone, then there is no reason why $\Delta CS = \Delta U$.
- Hence, the use of CS as a proxy for welfare can lead to error.

Problems of CS

- Problems:
  - A change in the price of more than one good.
  - Income & price changes occur simultaneously.
- Solutions:
  - CS is unique in the change in the price of more than one good if & only if all income elasticities of demand for the goods whose prices changed are equal (i.e. prices change proportionately; homothetic demand curve)

Problems of CS

- CS is unique in the simultaneous situation of income & price changes if & only if the income effect (or the income elasticity of demand) is zero, as in quasi-linear demand curve.

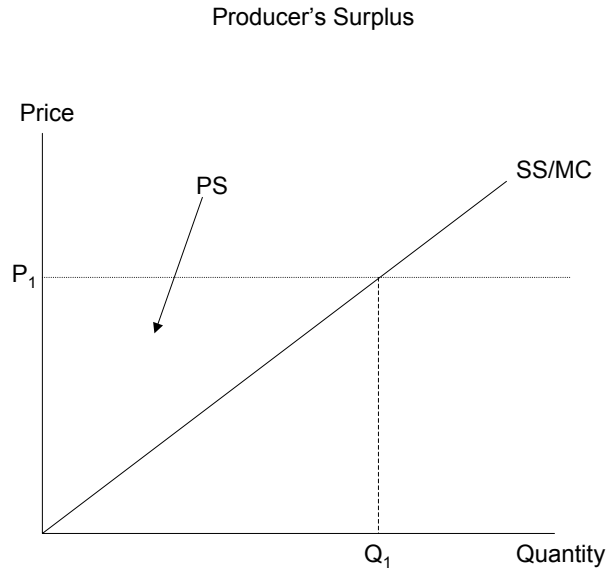
- Assumptions by Marshall:
  - $MU_{\$}$ is constant for all price changes
  - Income elasticity of DD is zero ($E_I^D = 0$)

Producer's Surplus

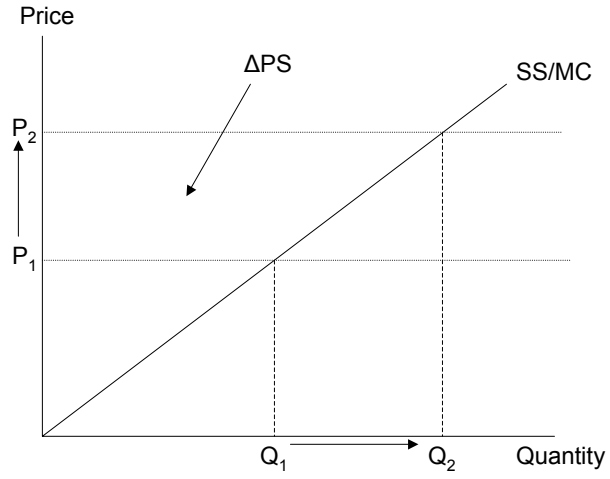
- Assumptions:
  - Perfectly competitive market
  - Short run period (some factors of production are fixed)
- Producer Surplus is the area above the supply curve & below the market price. It's the producer's Variable Profits (Revenue – Variable Costs).

Producer's Surplus

- Q = f(Labor, Capital, Land)
- Payment to fixed factor of production is called rent.
- In the short-run, part of the rent is accrued to the producers, and this portion is called quasi-rent.
- Producer's Surplus = Quasi-rent.



Producer's Surplus



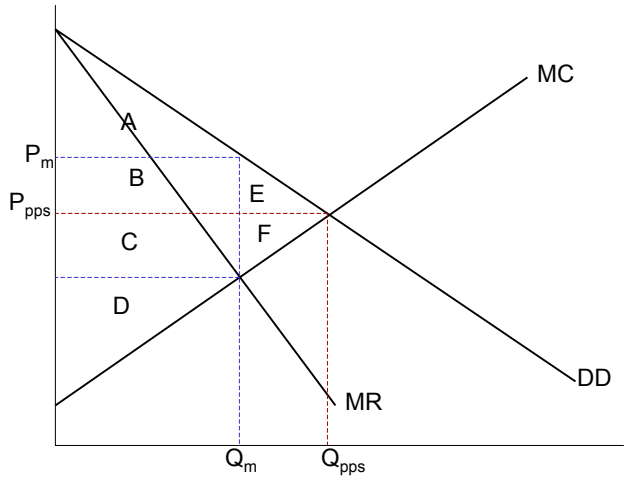
The Social Costs of Monopoly Power

- Monopoly power results in higher prices and lower quantities.
- However, does monopoly power make consumers and producers in the aggregate better or worse off?
- We can compare producer and consumer surplus when in a competitive market and in a monopolistic market

The Social Costs of Monopoly

- Perfectly competitive firm will produce where MC = D → PC and QC
- Monopoly produces where MR = MC, getting their price from the demand curve → PM and QM
- There is a loss in consumer surplus when going from perfect competition to monopoly
- A deadweight loss is also created with monopoly

Inefficiency of a Monopoly



Inefficiency of a Monopoly

- CSpps = A+B+E
- PSpps = C+D+F
- SWpps = A+B+C+D+E+F
- CSm = A
- PSm = B+C+D
- SWpps = A+B+C+D
- ΔCS = A-(A+B+E) = -(B+E)
- ΔPS = B+C+D-(C+D+F) = B-F
- ΔSW = -(E+F)

Deadweight Loss from Monopoly Power