
PRINCIPLES OF MICROECONOMICS NOTES [For Class Test 1]

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THE CAVEAT: These notes are not necessarily exhaustive – you must therefore use or rely upon them to your own peril!

LECTURE I: INTRODUCTION

What is economics? The study of the allocation of resources

The economic problem: Limited resources v. unlimited wants (i.e. 'scarcity'!)

Analysis of economic problems:

- Decisions are made at the margin => hence, 'marginal analysis'
- Positive v. normative analysis:
 - Positive: descriptive/explanatory analysis (can be checked with facts)
 - Normative: prescriptive analysis (is based on values/opinions)

Economics as the 'dismal science'

- The discipline of economics attempts to create standardised theories and models for human interactions regarding the exchange of products and money -> human interactions are to some extent unpredictable!

A spectrum of economic systems:

Central planning <--> mixed economy <--> laissez-faire capitalism

Productive efficiency

- A product is made using the least amount of resources

Allocative efficiency

- Resources are allocated according to their most productive social use

Economic rationalism

- Assumption is that people make rational decisions in pursuit of their self-interest

Opportunity cost

- The value of the next best alternative [i.e. we can value resources by the value of their next best alternative use]
 - Distinguishes economics from accounting!
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LECTURE II: FOUNDATIONAL MICROECONOMIC CONCEPTS

Production possibility curves/frontiers ('PPCs' / 'PPFs')

- Illustrate opportunity cost
 - Outwards bending - increasing opportunity cost
 - Straight line - constant opportunity cost
 - Inwards bending - decreasing opportunity cost (not possible!!)
- Assumptions:
 - Fixed resources
 - Fixed technology
 - Productive efficiency
 - Full employment
- Efficiency? Anywhere on the curve
- How to expand the curve?
 - Additional resources
 - Improved technology

Absolute advantage

- The ability to produce more of a product than other producers using the same amount of resources

Comparative advantage

- The ability to produce a product at a lower opportunity cost than other producers
- Comparative advantage determines where the greatest gains from specialisation and trade are

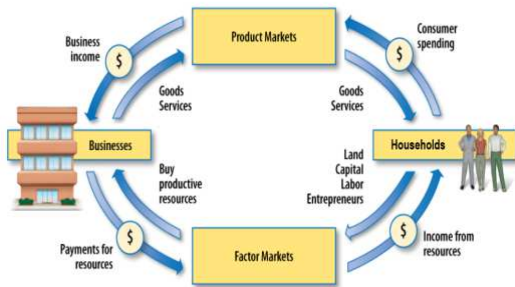
Factors of production

- Labour ('L'): Income paid on labour is a wage
- Capital ('K'): Income paid on capital is rent (or interest)
- Land ('T') (but the category is broader than 'land!'): Income paid on land is rent
- Entrepreneurship: Income paid on entrepreneurship is profit

Property rights

- The exclusive ('inalienable') use of property, including the right to buy or sell it
- Increase certainty in economic transaction and thus mitigate risk
- Are a precondition for efficient markets

The Circular Flow Model



LECTURE III: INTRODUCING SUPPLY AND DEMAND

Basics of Demand

- Law of Demand: Inverse relationship between P and Q_D
- Three reasons the Law of Demand holds true:
 - Income effect
 - When the price of a product is lower, a consumer can afford *more* of the product without giving up other products
 - The decline in prices therefore increases the purchasing power of consumers, and increases their real income
 - Substitution effect
 - When the price of a product is lower, consumers have a greater incentive to substitute other products for it
 - Diminishing marginal utility
 - The **utility** gained from each additional unit of product decreases (as more of it is purchased)
 - **Utility:** The satisfaction derived from a product
 - Prices must therefore be lower for greater quantities to be purchased
- **Movements** along the curve are due to **price**
- **Shifts** of the curve are due to:
 - A change in price of a related good
 - Substitutes
 - Complements
 - Changes in tastes and preferences
 - Income
 - The number of consumers
 - Expected future prices

Utility

- Utility = satisfaction
 - I.e., the level of utility derived from the purchase of a good is the level of satisfaction that good gives the consumer
- Utility is ordinal, not cardinal (i.e. rankable; no such thing as one product giving 'twice the utility' of another product!)
- Utility curves are parallel, and cannot intersect; inwards-bending shape indicates diminishing marginal utility
- Utility curves are also called 'indifference curves'
- Demand curves are derived by consumers seeking to maximise utility

Basics of Supply

- Law of Supply: Positive relationship between P and Q_S
- **Movements** along the curve are due to **price**
- **Shifts** of the curve are due to:
 - Prices of inputs (i.e. changes in production costs)

- Technological change / productivity
- Number of firms in the market
- Expected future prices
- Prices of substitutes
- Supply curves are derived by producers seeking to maximise profit

Supply and Demand in Equilibrium

- While we may perceive it as static when we simply look at a graph, market supply and demand are constantly adjusting over time => this is what is called a **dynamic equilibrium**

LECTURE IV: ELASTICITY

Elasticity is a concept that measure the responsiveness of one variable to another

Price elasticity of demand (P_{ED})

- Measures the responsiveness of quantity demanded to changes in price: $P_{ED} = \% \Delta Q_D / \% \Delta P$

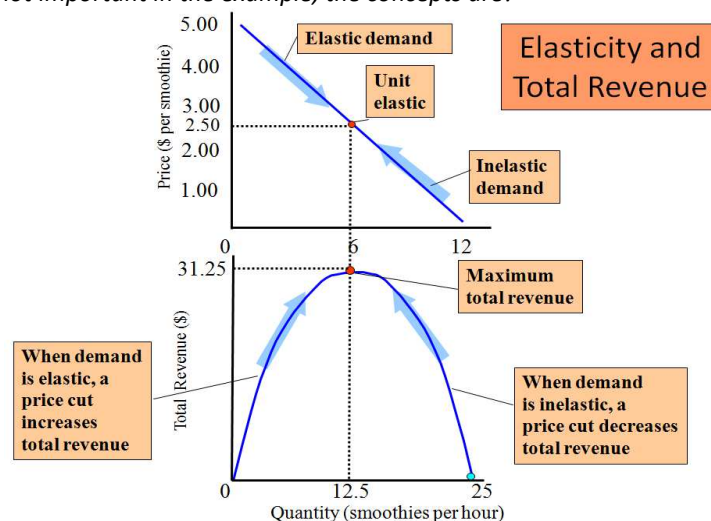
$P_{ED} > 1$	Elastic [Q_D is highly responsive to Δs in P]
$P_{ED} = 1$	Unit elastic [Q_D is <i>equally proportionally</i> responsive to Δs in P]
$P_{ED} < 1$	Inelastic [Q_D is not very responsive to Δs in P]

- But why is P_{ED} different in different markets?

More elastic	More inelastic
Many close substitutes	Few close substitutes
Luxuries	Necessities
Big budget items	Small budget items
Long run	Short run
Market is narrowly defined	Market is broadly defined
Not addictive	Addictive

Price elasticity of demand and total revenue

Nb. The numbers are not important in the example, the concepts are!



Cross-price elasticity of demand (Cross-P_{ED})

- Measures the responsiveness of the quantity demanded to changes in the price of *another* product: $Cross-P_{ED} = \% \Delta Q_D / \% \Delta P$ of another product

If the products are...	Cross-P _{ED} will be...	Example:
Substitutes	Positive	Lamb and chicken
Complements	Negative	Fish and chips
Unrelated	Zero	Economics textbooks and movie tickets

Income elasticity of demand (Income ϵ_D)

- Measures the responsiveness of the quantity demanded to changes in income:
Income $\epsilon_D = \% \Delta Q_D / \% \Delta Y$

If income ϵ_D is...	Then the good is...	Example:
$0 < 1$	Normal	Milk
> 1	Superior	Ferrari
< 0	Inferior	Meat flaps

Price elasticity of supply (PeS)

- Measures the responsiveness of quantity demanded to changes in price: $P\epsilon_D = \% \Delta Q_S / \% \Delta P$

Elasticity over time

- Both supply and demand curves become more elastic over time: in the very long-run, quantity is *perfectly* responsive to changes in price (i.e. perfectly elastic!)

LECTURE V: MARKETS IN ACTION

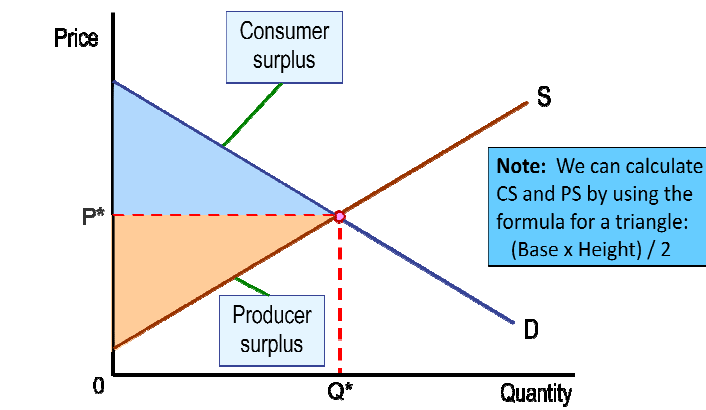
Note: You need to know how to do welfare analysis (i.e. how has CS, PS, DWL, government revenue changed) on all of the supply and demand diagrams; and be able to comment on how effective the policies are!

Consumer surplus (CS)

- Measures the additional benefit that accrues to consumers, beyond the cost of the products they purchase (the net benefit)

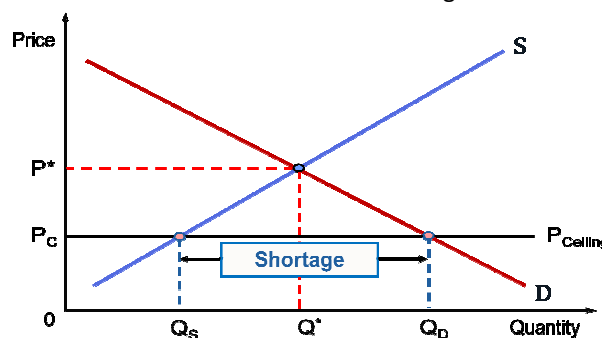
Producer surplus (PS)

- Measures the benefit that accrues to the suppliers beyond the cost of the products they produce (the net benefit)

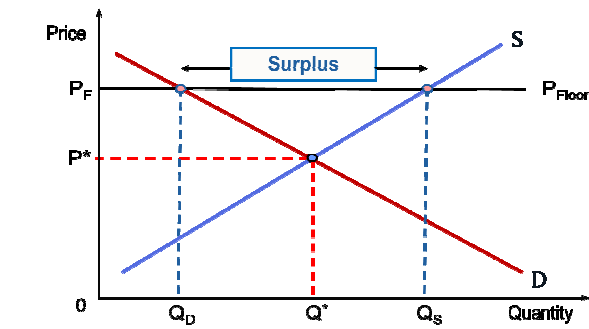


Price controls

- Price ceiling:** the government makes it illegal to sell at a price *higher* than the price they fix
 - Aim is to protect the consumer => leads to a shortage

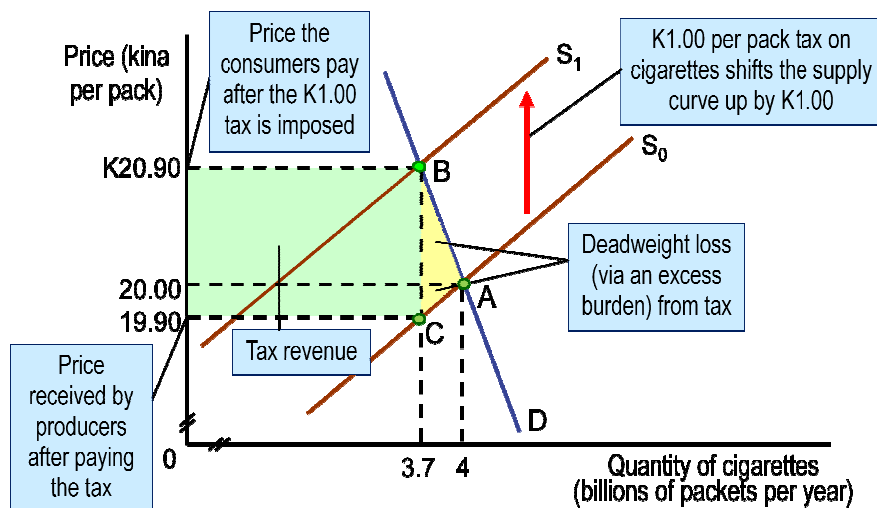


- Price floor:** the government makes it illegal to sell at a price *lower* than the price they fix
 - Aim is to protect the producer => leads to a surplus



Taxes

- The government can apply a tax to the supplier or the consumer
 - However, it makes no difference to who bears the burden of the tax! It just changes who actually writes the cheque to the government!
 - When a product is taxed, it leads to a loss of efficiency in that market (DWL)
 - Why levy a tax?
 - To discourage consumption or production of a particular product
 - To spend the revenues in a way that creates a larger social benefit than the loss in efficiency in that market
 - For political purposes
 - The more inelastic party bears the greater burden of the tax**
 - The actual division of this burden is called the *tax incidence*
- Example: A tax on suppliers (same result as a tax on consumers!)*



Subsidies

- Payments made by the government to consumers or producers in a market to encourage consumption or production
- When a product is subsidised, it leads to a loss of efficiency (DWL) [the gain in surplus in the market is less than the cost of the subsidy]
- The more elastic party gets the greater benefit of the subsidy**
 - The actual division of the benefit is called the *subsidy incidence*

Note: I do not expect you to learn the diagram, other than that subsidies are usually paid to the supplier and leads to an expansion in supply

LECTURE VI: LABOUR MARKETS

Derived demand

- Demand for a factor of production that is used in (and derived from the demand of) another product

Marginal revenue product of labour (MRP_L)

- The revenue generated by hiring an additional ('the next') worker

Note: $w = \text{wage}$

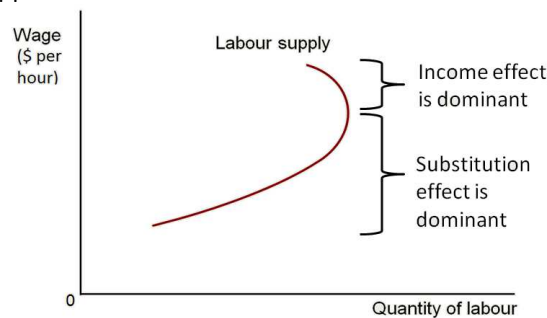
$MRP_L > w$	The firm should hire more workers to increase profits
$MRP_L < w$	The firm should hire fewer workers to increase profits
$MRP_L = w$	The is hiring the optimal number of workers and is maximising profits

Shifts in demand for labour are caused by:

- Changes in human capital
- Changes in technology
- Changes in the price of the product the labour is being used to produce
- Change in quantity of other inputs to production (usually K)
- Changes in the number of firms in the market

Backwards-bending labour supply curve

- **Income effect:** As income \uparrow , workers can now afford more leisure (which is at least a normal good for most people!)
- **Substitution effect:** As the wage \uparrow , the opportunity cost of leisure increases, thus increasing the amount of labour supplied



Shifts in supply for labour are caused by:

- Changing size of population (n)
- Changing demographics
- Changes in alternative labour markets

Why do wages differ?

- Differences in MRP_L : e.g. A movie star v. cleaner
- 'Compensating differentials': e.g. wages of Australian expats in Papua New Guinea v. Australian wages
- Discrimination: employers who discriminate bear an economic penalty
- Relative market power

Economic rent

- The payment to a factor of production (L, K, T) beyond what is required to bring that factor into the market
- The additional income received (the 'rent') is unearned, in the sense that it not earning a return due to any kind of entrepreneurship

LECTURE VII: INTERNATIONAL TRADE

Terms of trade

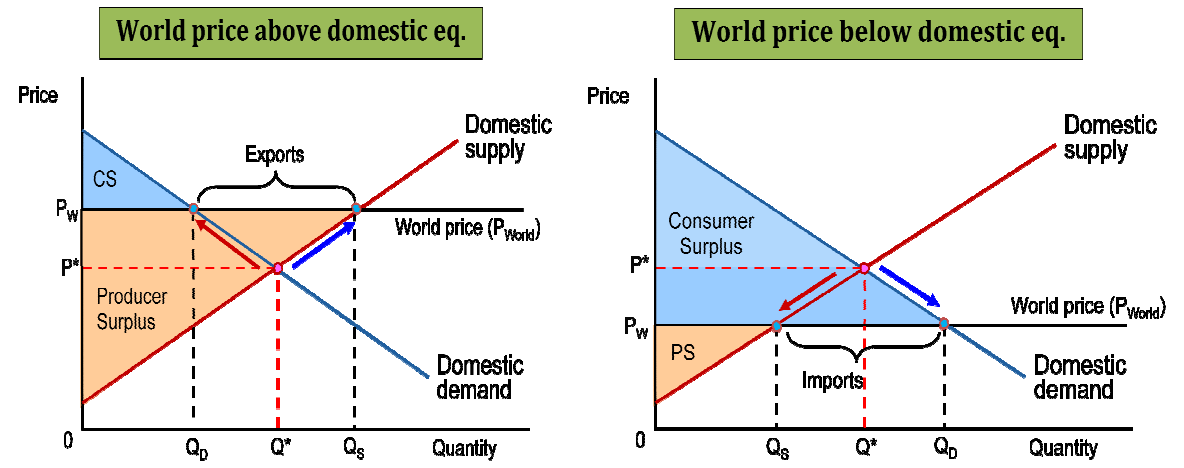
- The relative price of exports to imports; i.e. how many imports can be purchased per unit of exports?

Autarky

- Economic self-sufficiency (an economy is in autarky when it does not trade, i.e., when it is a 'closed economy')

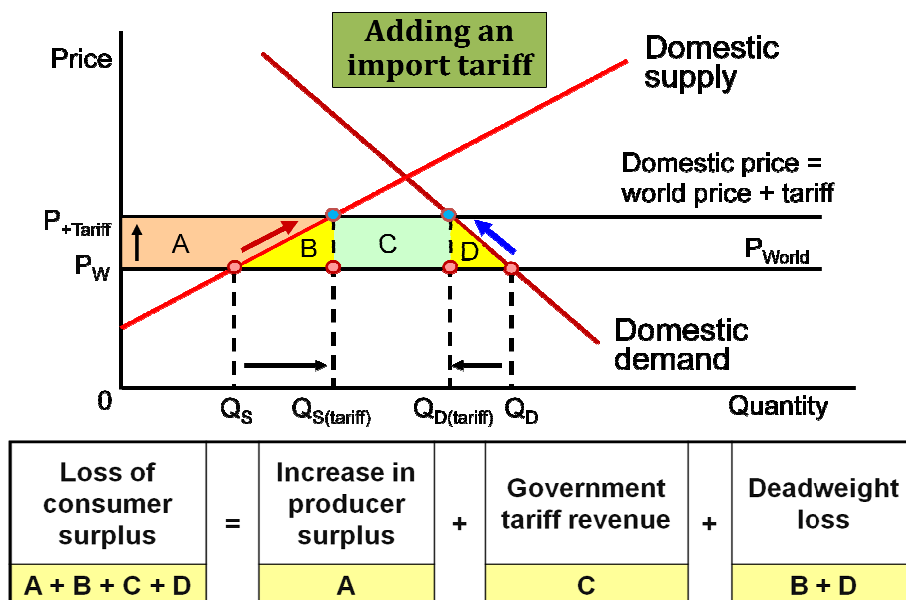
Protectionism

- Policies which seek to limit international trade with the aim of 'protecting' domestic producers and their employees [most economists are against most forms of protectionism]



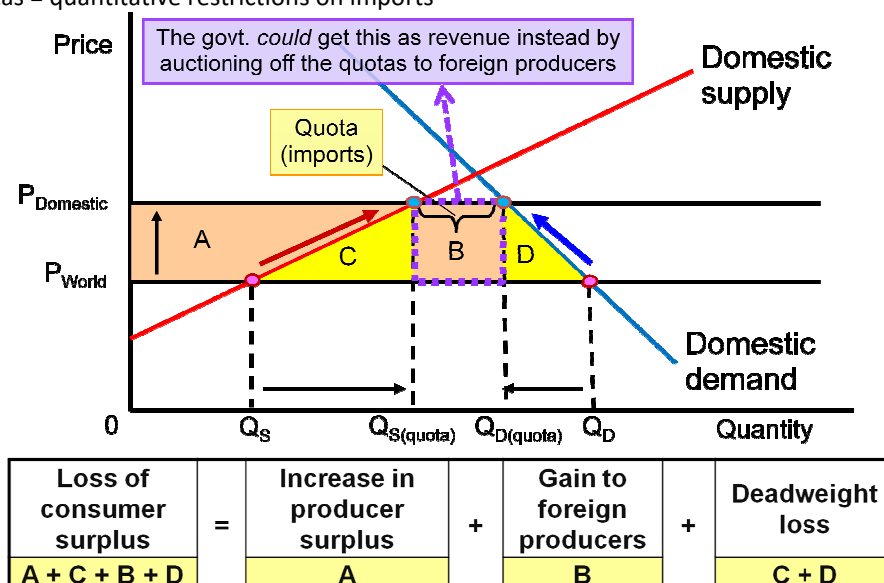
Protectionism: Tariffs

- Tariffs = import taxes



Protectionism: Quotas

- Quotas = quantitative restrictions on imports



Protectionism: Other measures

- Domestic price controls (price floors, price ceilings)
- Domestic subsidies / export subsidies
- Tied procurement laws (i.e., government departments must buy domestically)
- Exchange rate manipulation
- Intellectual property laws
- Quarantines
- Embargos
- Product standards

(Bad) arguments for protectionism

- **Infant industry argument**
 - Argument is that industries need time to establish, so that they can compete with overseas firm
 - But can governments pick winners?
 - How do we know if the industry is an area of comparative advantage?
 - And does the 'infant' ever grow up?
 - Elite capture of protectionist policies
- **The dumping argument**
 - Foreign firms may dump cheap products on a country that undercut local businesses and drive them out of business, allowing the foreign firms to capture the industry
 - But in practice, few foreign firms have enough power to dominate a market where there more foreign competition is allowed!
- **Saves jobs**
 - International trade does destroy jobs, but it creates jobs too – price signals reallocate labour to where they are more efficient!
- **Allows rich countries to compete with cheap foreign labour**
 - Wages are related to productivity when there is free competition
 - Rich countries have higher average productivity... so they don't need protection to compete!
- **Prevent rich countries exploiting developing countries**
 - Trading with developing countries increases the demand for their products, thus leading to increases in wages...
- **Penalises lax environmental standards**
 - Often, poor countries need to increase their income in order to improve their capacity to undertake environmental protection
 - Not trading with developing countries denies them this chance to increase protection!

Free trade v. protectionism

- Overall, the empirical evidence points toward free trade being the much better choice
- But whilst free trade creates more winners, it does also create losers
- Losses to the losers are highly concentrated, whilst the benefits to the winners (usually consumers) are thinly spread => consumers are usually not even aware how they are benefitting!!
- Compelling argument that economic losers should be compensated so that they can adjust to the new economic reality => e.g. provision of training

LECTURE VIII: EFFICIENCY AND EQUITY

Skipped! Will not be tested!

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Finé!