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!

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:
    o 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
    o Substitution effect
      • When the price of a product is lower, consumers have a greater incentive to substitute other products for it
    o 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:
    o A change in price of a related good
    o Substitutes
    o Complements
    o Changes in tastes and preferences
    o Income
    o The number of consumers
    o Expected future prices

Utility
  • Utility = satisfaction
    o 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:
    o 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 (PeD)
- Measures the responsiveness of quantity demanded to changes in price: PeD = ΔQD / ΔP

| PeD > 1 | Elastic [QD is highly responsive to Δs in P] |
| PeD = 1 | Unit elastic [QD is equally proportionally responsive to Δs in P] |
| PeD < 1 | Inelastic [QD is not very responsive to Δs in P] |

Price elasticity of demand and total revenue

Elasticity of demand and total revenue

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

Cross-price elasticity of demand (Cross-PeD)
- Measures the responsiveness of the quantity demanded to changes in the price of another product: Cross-PeD = ΔQD / ΔP of another product

<table>
<thead>
<tr>
<th>If the products are...</th>
<th>Cross-PeD will be...</th>
<th>Example:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substitutes</td>
<td>Positive</td>
<td>Lamb and chicken</td>
</tr>
<tr>
<td>Complements</td>
<td>Negative</td>
<td>Fish and chips</td>
</tr>
<tr>
<td>Unrelated</td>
<td>Zero</td>
<td>Economics textbooks and movie tickets</td>
</tr>
</tbody>
</table>
**Income elasticity of demand (Income εD)**
- Measures the responsiveness of the quantity demanded to changes in income:
  \[ \text{Income } \varepsilon_D = \frac{\% \Delta Q_D}{\% \Delta Y} \]

<table>
<thead>
<tr>
<th>If income εD is...</th>
<th>Then the good is...</th>
<th>Example:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 &gt; 1</td>
<td>Normal</td>
<td>Milk</td>
</tr>
<tr>
<td>&gt; 1</td>
<td>Superior</td>
<td>Ferrari</td>
</tr>
<tr>
<td>&lt; 0</td>
<td>Inferior</td>
<td>Meat flaps</td>
</tr>
</tbody>
</table>

**Price elasticity of supply (PεS)**
- Measures the responsiveness of quantity demanded to changes in price:
  \[ P\varepsilon_D = \frac{\% \Delta Q_D}{\% \Delta P} \]

**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!)

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**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

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**Diagram:**
- **Consumer surplus**
- **Producer surplus**

**Note:** We can calculate CS and PS by using the formula for a triangle: \((\text{Base} \times \text{Height}) / 2\)

**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!)

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**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

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**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)**

- 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 firm 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 increases, workers can now afford more leisure (which is at least a normal good for most people!)
- **Substitution effect:** As the wage increases, 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: 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 is 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 firms
  - 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!