

ECC1000 Study Guide (Chapter 6-10, 13, 16 & 17)

You will find questions on the exam relating to the media shown in class & used for homework.

The ECC1000 final exam will be held on Monday 10 June in the evening (check my.monash >> exam timetable for specific details).

Format: 20 multiple choice questions ($20 \times 1 = 20$) + 5 short answer questions ($5 \times 8 = 40$).
Total: 60 marks.

Topics: chapters 1-10, 13, 16 & 17

Writing time: 2 hours

Reading time: 10 minutes

Materials allowed: no electronic devices of any kind may be used in the exam.

FAQs

What's the best way to prepare for the exam?

1. Watch the live stream recordings.
2. Redo your tutorial questions (the answer keys are on Moodle).
3. Redo the InQuizitive quizzes in review mode.
4. Watch the various media clips (under "additional resources").
5. Ensure your lecture notes are complete.
6. Attempt the sample exam.
7. Attempt the end of chapter questions from the *Principles of Microeconomics Ultimate Guide*.
8. Go to office hours if you need help (see the pre-exam office hours file in the final exam folder).
9. Please don't re-do old final exams from previous lecturers. I changed the textbook when I arrived in S2 2018 & write my own exams.

Can I use a calculator? No.

What is the exam worth? 60%

Is there a sample exam? Yes. You can go back & redo the mid-semester sample exam (chapters 1-5). There is also a sample exam which covers chapters 6-10, 13, 16 & 17. You will find both in the final exam folder on Moodle.

Chapter 6: Price Controls

What is the purpose of a price control?

Types: price floor v price ceiling

What are the unintended consequences of a price ceiling?

Binding v non-binding price controls. You should be able to illustrate both, and explain their effects (shortages/surpluses).

Examples of price ceilings, e.g. rent control & price floors, e.g. minimum wage.

Price gouging laws (temporary price ceiling). What impact does this have on the market?

Examples of price floors, e.g. minimum wage, agricultural subsidies.

What are the unintended consequences of a price floor?

Using algebra to calculate shortages/surpluses in the market.

Chapter 7: Externalities and Public Goods

Be able to define what is meant by “externality”.

Negative: private cost < social cost (market produces too much)

Positive: private benefit < social benefit (market produces too little)

Illustrate negative/positive externalities:

- Market outcome v socially optimal outcome (price/output).
- Deadweight loss from over production (negative production externality) or under consumption (positive consumption externality).
- How can a society correct (internalise) a negative/positive externality?

Congestion tax: Stockholm (dynamic pricing)

Coase Theorem: 2 parties to a transaction can negotiate to correct an externality.

Difference between the 4 types of goods: private, public, club, common resource. **Think of practical examples for each good.**

Which type of good leads to free riding? Why?

Which type of good leads to the tragedy of the commons? Watch the fishing game experiment.

How do we fix the problem? Think ownership, government regulation or taxes.

Chapter 8: Business Costs & Production

Production function: inputs (K, L) → production → output

Short-run: at least 1 input cannot be varied

Long-run: all inputs can be varied

Relationship between total output, average (total/Q) & marginal output (see below)

$$MPL = \frac{\Delta Q}{\Delta L} \quad MPK = \frac{\Delta Q}{\Delta K}$$

Diminishing marginal product: keep adding a variable input (e.g. workers), eventually get to a point where last worker added less to total output than the previous one.

Tennis ball game: 2, 4, 6, 8 workers. **Where do we usually see diminishing marginal product?**

Costs

- Total cost: fixed & variable costs
- Average cost: TC/Q (**typically U-shaped**)
- Marginal cost: increase in total cost from producing 1 more unit (**looks like a tick or the Nike emblem**)

Equations

$$TC = TVC + TFC$$

$$ATC = AVC + AFC$$

$$ATC = TC/Q \quad AFC = TFC/Q \quad AVC = TVC/Q$$

$$MC = \Delta TC / \Delta Q$$

You should be able to graph the various cost curves (total, fixed, variable, average & marginal) and understand the relationship between the various curves.

What impact does the TVC have on the slope of the TC curve?

MC curve reaches its minimum before AVC & ATC.

Marginal always lead the average either up or down. Why?

AFC continues to fall with increased quantity.

Minimum point of the ATC curve known as the efficient scale.

Scale

- Economies of Scale: long run ATC decline as output increases.
- Constant Economies of Scale: no change in long run ATC decline as output increases.
- Diseconomies of Scale: long run ATC rises as output increases.

Think of examples in each category. Why does this take place?

Chapter 9: Perfect Competition

4 characteristics of a competitive market

Profit maximizing rule: $MR = MC$

Graph profit maximization

- MR curve horizontal (one price)
- MC cuts ATC at minimum
- MC cuts MR at profit maximizing output

This is a short run situation: no profit in the long run.

Short Run

Decision whether to shut down: $P < AVC$

Graph when to operate or shut down

- $P > ATC$: profit
- $ATC > P > AVC$: firm operates to minimise loss
- $P < AVC$: shut down

Sunk Costs: incurred, irrelevant when making new decisions

Graph Short Run Supply Curve

- Area of MC curve where $P > AVC$

Long Run Shut Down Criteria

- $P > ATC$: profit
- $P < ATC$: shut down

Graph Long Run Supply Curve

- Area of MC curve where $P > ATC$

Graph Long Run Market Supply

Economic Profits: include opportunity costs. Equal ZERO in long run.

Graph Market Equilibrium

Short Run Adjustment to change in demand

- What happens to price & market output?
- Loss or profit?

Long Run Adjustment to change in demand

- Firms enter or exit industry
- What happens to price & market output?

Chapter 10: Monopoly

Basic definition

Creation of monopoly:

Natural barriers to entry

- Economies of scale

Government created barriers

- Copyright, patents, licenses, qualification

Graph Monopolist's Pricing & Output Decision

- Price maker
- Sets price by choosing output level
- Demand curve is downward sloping

Profit Maximising Rule

- Q where $MR = MC$
- $P > MR$

Marginal Revenue

- MR lies to the left of the Demand Curve
- Graph price effect & output effect

Graph Monopolist's Profit

Graph Problems with Monopoly

- Lower output, higher prices compared with PC
- DWL

Graph Competitive Markets v Monopoly

Problems with monopolies: regulatory solution

Chapter 13: Oligopoly

Characteristics of an oligopoly

Difference between negative-sum game (both parties lose), zero-sum game (1 party wins; 1 party loses); positive-sum game (both parties lose).

Prisoner's dilemma: one shot game, non-cooperative, both parties make decisions simultaneously but independently of one another, full information (see payoffs available).

Dominant strategy: a player will always prefer one strategy, regardless of what his opponent chooses.

Nash equilibrium: the best possible strategy after taking into account the decisions of others.

You should be able to look at a 2 x 2 matrix & identify if there is a dominant strategy, the Nash equilibrium & indicate any payoffs.

Watch the money grab experiment.

Caution about game theory: tit for tat strategy, long term cooperation, no dominant strategy (think rock paper scissors).

Policy & oligopoly behavior. Why do governments regulate oligopolies? (collusion, predatory pricing).

Chapter 16: Consumer Choice

Utility: satisfaction/wellbeing.

Assumptions:

1. Consumers always choose the highest valued alternative (transitivity)
2. One good can be substituted for another
3. Decisions are made without perfect information
4. The Law of Diminishing Marginal Utility limits consumption

Marginal Utility

- change in total utility/change in number of units

Diminishing Marginal Utility

- more we have of something, less marginal utility each unit brings
- **food eating contest**

Optimising Consumption Choices:

- consumption in terms of MU/\$
- $MU_x/P_x = MU_y/P_y = MU_z/P_z$
- Work out optimal combination based on information

Water-Diamond paradox

- Price is determined by marginal utility not total utility.
- Compare MU of a scarce good (diamond) with the MU of an abundant good (water).
- Don't confuse value in use with value in exchange.

Restaurants

- Fast food restaurants provide “value sizes” to maximise total utility
- Create low marginal value
- Restaurants pass along low marginal costs

Nicer restaurants serve small amounts: high marginal value

Chapter 17: Behavioral Economics

Define bounded rationality: concept of limited reasoning. Why does this occur? Stems from incomplete information & limitations of the brain.

1. Misperception of Probabilities: Why do people play the lottery?

Monty Hall problem: stay or switch doors? You increase your probability of selecting a car if you switch doors. <http://stayorswitch.com/explanation.php>

Seeing Patterns Where None Exist

- A. Gambler's Fallacy:** belief that outcomes that have not occurred recently are more likely to occur soon.
- B. Hot Hand Fallacy:** belief that random sequences exhibit a positive correlation.

2. Inconsistencies in Decision-Making

- A. Framing:** people's preferences often change depending on the way a question is worded.
- B. Priming:** people's preferences depend on the order of choices.
- C. Status quo bias:** people have an irrational preference for the status quo.
- D. Intertemporal Decision-Making: Requires valuing the present & future consistently.**
This principle is often violated. Google "marshmallow test". Also think about procrastination when studying.

3. Judgments about Fairness: a rational individual should act in their own self-interest according to standard economic theory. What we find when we play the "ultimatum game" is that individuals often reject an unfair proposal, even though the payoff is $> \$0$.

The Role of Risk in Decision Making

Allais Paradox

- **Preference Reversal:** People can be risk averse & risk neutral when choosing between different outcomes. It's the same principal when people buy insurance yet gamble.