

ECC1000: Principles of Microeconomics



Lecture 1 Introduction to Economics

ECC1000 – Principles of Microeconomics

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Lectures:

- **Tuesdays 02:00PM - 04:00 PM :**
CL_43 Rainforest Walk, STH1
Theatre, Lecture Theatre
- **Wednesday 10:00AM – 12:00PM :**
CL_46 Exhibition Walk, Room R1 -
Rotunda Lecture Theatre

Office Hours:

- Wednesdays 01:00PM - 02:00 PM
- Thursdays 11:00AM - 12:00PM



Course material

● Required textbook

- J. Gans, S. King, M. Byford and N. G. Mankiw, *Principles of Microeconomics*, 6th edition, Cengage, 2015

● Moodle: One-stop shop for the course

- Lecture slides, tutorial questions/answers, etc.
- Assignment
- Other materials (e.g., APLIA instructions, sample exam questions, etc.)
- Additional readings, videos, etc





Assessment summary

Within semester assessment: 40% + Examination: 60%

Assessment task	Value	Due date
Tutorial Participation	10%	Ongoing
Online Testing through Aplia	10%	Ongoing
Mid-Semester Test	20%	The test will be held during the lecture in Week 6 (Week starting Monday, 28 August 2017)
Final Examination	60%	To be advised

A student's final mark is normally the sum of the marks obtained in all of the individual assessment items in the unit.



Assessment

- Tutorial participation 10%
 - Tutorials start from week 1
 - Participation mark (except weeks 1, 7)
 - 50% for attendance
 - 30% for submitting written answers
 - 20% for constructive contributions
- You cannot change your tutorial class – within-semester assessment will be tracked based on your tutorial class
- I do not have control over tutorial allocation.



Online Testing through Aplia

- Weekly on-line quiz based on the contents of previous week
 - Each quiz is open for one week.
 - You get immediate feedback at the end of the quiz.
 - Weeks 2 – 12 (except week 7) are graded.
 - Each Aplia quiz makes up 1% of total assessment (Total 10% for 10 Aplia Quizzes).
- Logging in to Aplia
 - It is important that you log into Aplia by following the instructions provided on Moodle.
 - Use the Aplia code provided on Moodle. [Not the one that came with the textbook].
 - Provide Monash student id (8 digit number on your student ID card) and Monash official email id when registering for Aplia.



In-class mid-semester test and Final Exam

In-class mid-semester test

20%

- 20 MCQs, 1 hour
- During the lecture in week 6
- Materials up to week 5
- No calculators

2-hour final exam

60%

- MCQs + Problems
 - Comprehensive
 - No calculators
- 



Microeconomics: Road Map

- Week 1 – Introduction (Ch. 1, 2, 3)
- Week 2 – Demand, supply and market equilibrium (Ch. 4)
- Week 3 – Elasticity and its applications (Ch. 5)
- Week 4 – Applying the market model to government policies (Ch. 7, 6, 8 – in this order)
- Week 5 – Applying the market model to international trade (Ch. 9)
- Week 6 – Mid-semester test



Microeconomics: Road map

- Week 7 – Market failure (Ch. 10, 11)
- Week 8 – Costs of production (Ch. 13)
- Week 9 – Firms in competitive markets (Ch. 14)
- Week 10 – Monopoly, monopolistic competition, and policy towards monopolies (Ch. 15, 16, 18)
- Week 11 – Oligopoly and business strategy (Ch. 17)
- Week 12 – Revision



How we teach

Lectures

- Basic theory and applications
- In-class exercises (blanks in lecture slides to be filled in during lecture)
- Examples from real-world industries (wine, beer, airline, telcos, etc.)
- Additional readings from newspapers, magazines on Moodle
- Stephen King's videos

Tutorials

- Selective revision of technical points from the lecture
- Problem solving – end-of-chapter problems
- Any additional questions



How you learn

- Before the lecture
 - Read through lecture slides to get an overview of the content.
 - Read relevant chapters of the textbook.
 - Do the Aplia quiz and check your understanding.
- During the lecture
 - Actively participate through questions in class.
 - Do the exercises included in lecture slides – always bring a pen and paper.
- After the lecture
 - Go to your ASSIGNED tutorial.
 - Actively participate in solving the tutorial questions.



How you learn – exams

- The rolling three weekly format used in this class means that you see all topics three times: pre-lecture preparation, in lectures, in tutorials.
- You should go from a shallow understanding (pre-lectures) to a deep understanding (following the tutorials).
- The exams will test your deep understanding.



What questions does economics deal with?

- Economics deals with allocation of scarce resources – market or non-market resource allocation mechanisms
- What goods and services will be produced (positive analysis) – describe the world as it is.
- What goods and services should be produced (normative analysis) – prescribes how the world should be, e.g., policy-making
- How individual households and firms make decisions of resource allocation (microeconomics)
- How a national economy allocates resources (macroeconomics)
- And all economic decisions involve choice.



Thinking like an economist:

Three key factors in decision making

- Every economic decision entails a tradeoff.
- If a resource is allocated to one activity, it cannot be allocated to another (there is no free lunch!).
- Examples of tradeoff
 - Work vs leisure
 - Equity vs efficiency (is it always true?)
- So making a choice requires careful analysis of costs and benefits.
 - Make a choice that maximizes surplus = benefits – costs.
 - But what costs?



Thinking like an economist:

Three key factors in decision making

- Opportunity cost (of an activity) is the value of the best alternative you must give up for that activity.
- On Saturday night, Mei can:
 - watch a movie on Netflix
 - sleep
 - study accounting
 - go to a party
- What is Mei's opportunity cost of going to the party?
- What is your opportunity cost of a 3-year degree at university?



Thinking like an economist:

Three key factors in decision making

Rational people think at the margin.

- Marginal analysis – An individual (or a firm or a society) should take an action if, and only if, the extra benefits from taking the action are at least as great as the extra costs.

Example

- It costs \$20,000 to hire, fuel and crew a plane with 100 seats to Bali and back.
- The extra cost of each additional passenger (fuel, food, airport fees, etc.) is \$50 per passenger.
- You set the price of a ticket at \$400 and sell 80 tickets (total revenue is \$32,000 and total cost is $\$20,000 + \$50 \times 80 = \$24,000$).
- Just before take-off a new potential passenger offers you \$100 to join the flight.
- Should you accept the offer?

- 
- Case 1 – reject the passenger (and the \$100).
 - Then you still make \$32,000 revenue. Your costs are still \$24,000. So your profit is \$8,000.
 - Case 2 – accept the passenger (and the \$100)
 - Your revenue goes up by the \$100 to \$32,100. But your costs also rise by the extra cost of \$50 for the passenger to \$8,050. So your profit is \$8,050.
 - Bottom line
 - You make an extra \$50 profit if you accept the last-minute passenger.
 - This is the decision you would make by comparing the extra revenue (\$100) and the extra cost (\$50) of the last-minute passenger.
 - Example: Singapore Airlines Is Now Letting You Bid to Upgrade Your Seat (Following 30 other airlines doing the same)
[\(http://fortune.com/2016/07/06/singapore-airlines-passengers-bid-seat-upgrade/\)](http://fortune.com/2016/07/06/singapore-airlines-passengers-bid-seat-upgrade/) – more during tutorial 2.



Thinking like an economist: How do economists proceed?

- Observation of real world phenomena
- Construction of a model (verbal, graphical, mathematical)
 - Identification of relevant relationships
 - Specification of assumptions
- Logical deductions from the model
- Conclusions and testable predictions
- Comparison with actual economic behaviour



The importance of assumptions

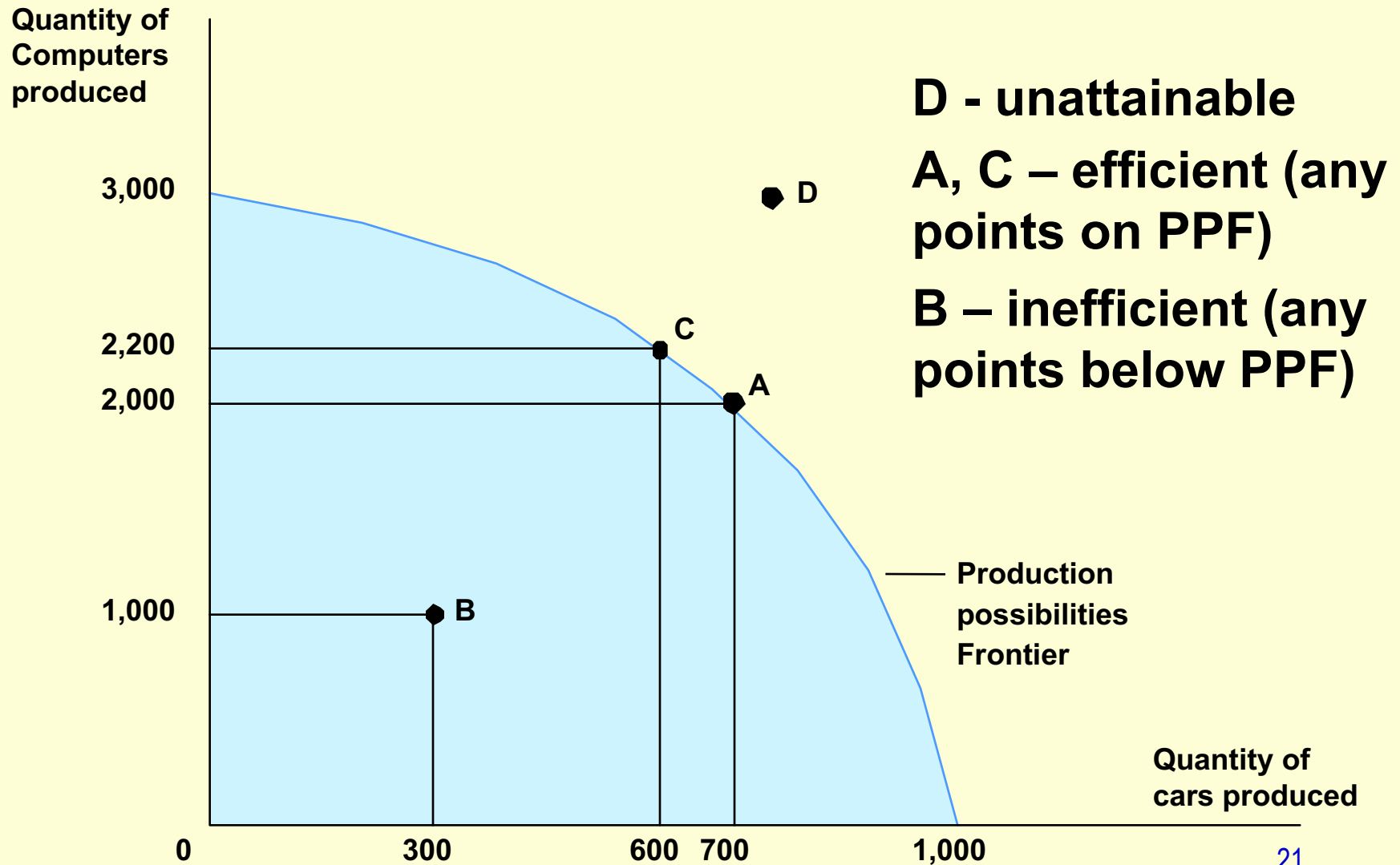
- Assumptions simplify reality to a tractable model that can be analysed scientifically.
 - Example: 2 x 2 model of international trade
- The art of assumption-making
- Q: Should China float the yuan?
- Economists' answer: It depends...



Example of economic model: production possibilities frontier

- The production possibilities frontier (PPF) is a graph showing the various combinations of output that the economy can possibly produce using all the available factors of production and technology.
- It is a useful model to understand the concepts of opportunity cost and efficiency.

Production Possibilities Frontier: example





Production Possibilities Frontier: example

- The economy is currently producing at B. What might be the reasons?
- What might allow the economy to be able to choose D?
- If the economy chooses C instead of A, what is the opportunity cost of 200 more computers?
- Why is the PPF 'bowed out' and why?



Opportunity cost and gains from trade

- The concept of opportunity cost is fundamental to many economic ideas and models.
- An example is the notion of gains from trade.
- Trade allows people to specialise in what they do best, leading to a mutually beneficial outcome.
- The concept of opportunity cost can be applied to explain
 - the pattern of specialisation and
 - the terms of trade



The principle of comparative advantage

Imagine

- Only two goods (car and rice)
- Only two countries (Australia and Japan)

Resource endowment

- Australia – 100 units of labour
- Japan – 500 units of labour

Technology

- Australia: 5 units of labour for 1 car, 1 unit of labour for 1 ton of rice
- Japan: 10 units of labour for 1 car, 5 units of labour for 1 ton of rice

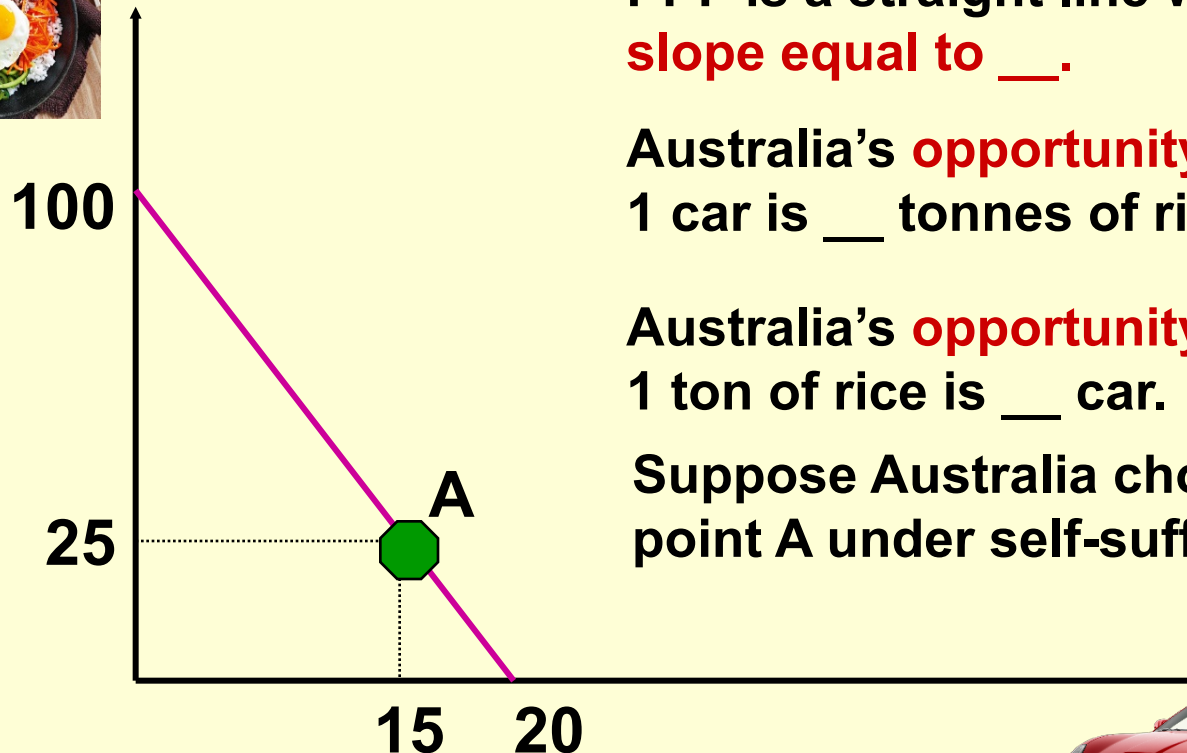


The principle of comparative advantage

- Questions
 - Should they trade?
 - If so, what should each produce?
 - And at what terms should they trade?
- Without trade (self-sufficiency or autarky), each country chooses consumption allocation on its production possibilities frontier.

Self-Sufficiency: Australia

(a) Australia's production possibilities frontier



PPF is a straight line with the **slope equal to** ____.

Australia's **opportunity cost** of 1 car is ____ tonnes of rice.

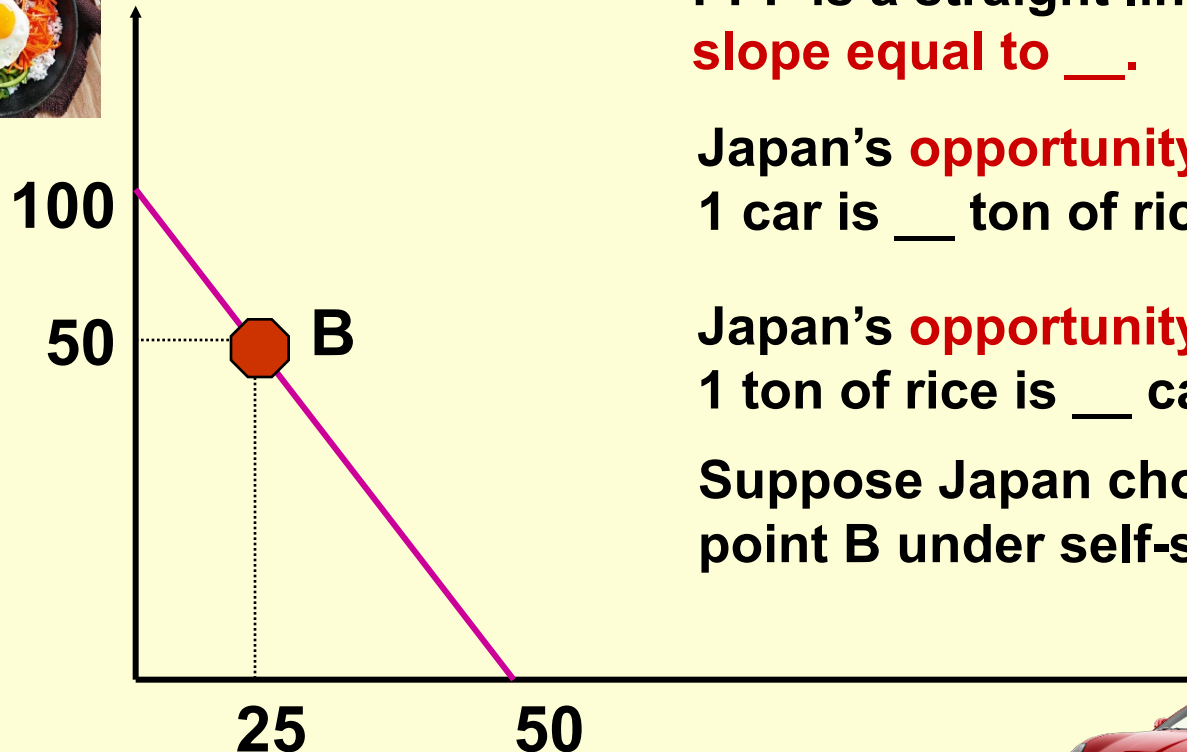
Australia's **opportunity cost** of 1 ton of rice is ____ car.

Suppose Australia chooses point A under self-sufficiency.



Self-Sufficiency: Japan

(b) Japan's production possibilities frontier



PPF is a straight line with the **slope equal to** ____.

Japan's **opportunity cost** of 1 car is ____ ton of rice.

Japan's **opportunity cost** of 1 ton of rice is ____ car.

Suppose Japan chooses point B under self-sufficiency.



Opportunity costs

	Japan	Australia
	2 tons of rice	5 tons of rice
	$\frac{1}{2}$ car	$\frac{1}{5}$ car



Specialisation and trade

- Australia is absolutely better at both, but relatively better at producing rice.
- Australia can produce both goods at a lower absolute cost (using fewer resources): Australia has an **absolute advantage** in both goods.
- But the opportunity cost of producing a car is lower in Japan (2 tons of rice) than in Australia (5 tons of rice): Japan has a **comparative advantage** in producing cars.
- If they trade, what should each country produce?



Specialisation and trade

- Suppose the two countries specialise in what they have comparative advantages in.
- Australia uses all its resources producing ____ tons of rice and Japan uses all its resources producing ____ cars.
- Under self-sufficiency, the total output the two countries consume is ____ tons of rice and ____ cars.
- So total output is larger for both goods than consumption under self-sufficiency.



Consumption before (after) trade

- How can trade make both countries better off?
- Before trade, AUS chooses **(15, 25)** and JPN chooses **(25, 50)**.
- After specialization, AUS produces (0, 100) and JPN produces (50, 0).
- Suppose AUS sells rice to JPN in exchange for car at any price between 1 car for 2 tons of rice (JPN's opportunity cost) and 1 car for 5 tons of rice (AUS's opportunity cost).
- Example:
 - AUS sells 60 tons of rice for 20 cars (called the terms of trade).
 - Then AUS can consume **(20, 40)** > (15, 25) and JPN can consume **(30, 60)** > (25, 50).

Consumption before (after) trade

	Japan	Australia	Total
	25 (30)	15 (20)	40 (50)
	50 (60)	25 (40)	75 (100)



Opportunity cost and trade

- Opportunity costs play two roles here.
- First, it determines the pattern of specialisation by determining comparative advantages.
- Second, it tells us how the terms of trade (relative price) should be determined.
- In the example, any price between 1 car for 2 tonnes of rice (Japan's opportunity cost) and 1 car for 5 tonnes of rice (Australia's opportunity cost) are acceptable.
- But where does this price come from?
- This is one of the key questions we answer in the next 10 weeks!



Comparative advantage and trade: recap

- Should they trade?
- A:
- If so, what should each produce?
- A:
- And at what terms should they trade?
- A:



Recap and what is to come

- Every economic decision involves a tradeoff.
- Facing tradeoffs, efficiency is a good guideline for decision making.
- In making an efficient decision, the relevant cost is the opportunity cost of an activity.
- The notion of opportunity cost and comparative advantage can explain the existence and gains from trade.
- The next class is on the most important resource allocation mechanism: markets, demand and supply.