Principles of Economics

Chapter 1: Introduction

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Agenda

1. Introduction
   - Scarcity and Choice
   - Specialization and Trade

Reading:

- Mankiw/Taylor (2023), Chapters 1, 17
- Varian (2014), Chapter 33

What is Economics?

A calculus of pleasure and pain (Jevons, 1871)

A study of mankind in the ordinary business of life (Marshall, 1890)

The science which studies human behaviour as a relationship between ends and scarce means which have alternative uses (Robbins, 1932)

Economic Perspectives

Microeconomics: Analysis of individual choices and their interaction on markets

- Consumption and Demand (Chapter 2)
- Production and Supply (Chapter 3)
- Perfect Competition (Chapter 4)
- Market Failure (Chapter 5)

Macroeconomics: Analysis of the economy as a whole

- Macroeconomic Indicators (Chapter 6)
- Economic Growth (Chapter 7)
- Economic Fluctuations (Chapter 8)

Fundamental Problem

There is no such thing as a free lunch. (i.A. Friedman, 1975)

Scarce Resources: Human wants usually exceed the resources available to satisfy them.

- Scarcity implies trade-offs: The opportunity cost of a choice is the best forgone alternative.

Optimization: Rational individuals

- maximize utility (satisfaction) from a given set of resources,
- minimize resource use to obtain a given utility level.

Fundamental Concepts

Equilibrium: A situation where the choices of the agents are

- optimal in the sense that no agent has an incentive to change behavior,
- compatible with each other and thus feasible.

Efficiency: An allocation of resources is called Pareto efficient if no Pareto improvement is possible.

- A Pareto improvement is a reallocation that makes at least one agent better off without making any other agent worse off.

Fundamental Concepts

Production: Transformation of inputs into outputs

- Efficient production implies a trade-off: Producing more of one good implies producing less of another good.

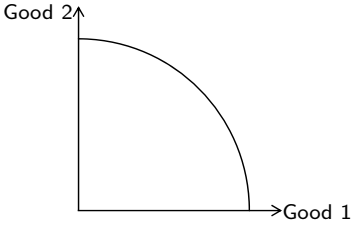
Trade: Voluntary exchange of goods between agents

- Voluntariness implies that trade brings about a Pareto improvement.
- Direct (indirect) exchange requires a double (simple) coincidence of wants.

Fundamental Concepts

Transformation Curve: Graphical representation of a production trade-off

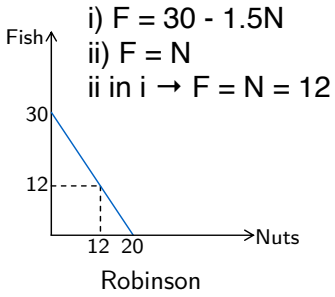
- All combinations of goods on and below the transformation curve are feasible, but only those on the curve are efficient.
- The slope of the transformation curve measures opportunity cost, i.e. the marginal cost of producing one good expressed in units of another.

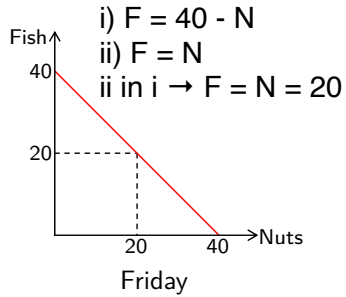


Gains from Trade

Example: Robinson and Friday

- Robinson and Friday each spend 10 hours fishing and/or collecting coconuts.
- Robinson (Friday) needs 20 (15) minutes to catch a fish and 30 (15) minutes to collect a coconut.





- Assume that both want to consume one fish for each coconut.

Gains from Trade

The end of all commerce is to increase production. (Ricardo, 1817)

Absolute Advantage: An agent's ability to produce a certain good using less resources than other agents

Comparative Advantage: An agent's ability to produce a certain good at lower opportunity costs than other agents

Gains from Trade

Example: Robinson and Friday

- Friday has an absolute advantage in the production of fish and coconuts.
- Robinson has a comparative advantage in the production of fish, while Friday has a comparative advantage in the production of coconuts.

Minutes per unit

	Fish	Nuts
Robinson	20	30
Friday	15	15

Opportunity costs per unit

	Fish	Nuts
Robinson	2/3	3/2
Friday	1	1

Gains from Trade

Example: Robinson and Friday

- Specialization according to comparative advantages and trade allow Robinson and Friday to consume more of each good.

Production & Consumption		
	Fish	Nuts
Robinson	12	12
Friday	20	20

Autarky

Production (Consumption)		
	Fish	Nuts
Robinson	30 (14)	0 (14)
Friday	5 (21)	35 (21)

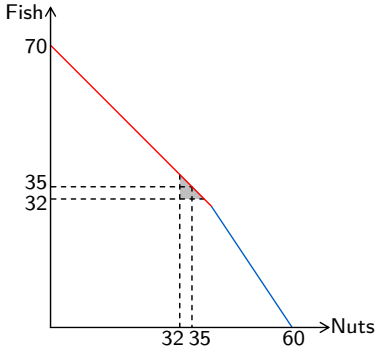
Specialization & Trade

- Terms of Trade: Here, one fish is traded for 7/8 coconuts (or equivalently, one coconut is traded for 8/7 fish).

Gains from Trade

Example: Robinson and Friday

- The allocation under autarky allows a Pareto improvement.
- The allocation after specialization and trade is Pareto efficient.



Robinson & Friday

Gains from Trade

Principle of Comparative Advantage: Specialization according to comparative advantages facilitates mutual gains from trade.

- This is true whether or not one of the trading partners has absolute advantages in the production of every good.
- The terms of trade must be set between the opportunity costs of the trading partners.