

Chapter one:

Questions I should be able to answer:

- Explain scarcity and describe why you must make smart choices among your wants.
- Define and describe opportunity cost.
- Describe how comparative advantage, specialization, and trade make us all better off.
- Explain how models like the circular flow of economic life make smart choices easier.
- Differentiate microeconomic and macroeconomic choices, and explain the Three Keys model for smart choices.

1.1 Explain scarcity and describe why you must make smart choices among your wants.

Scarcity is the inability to satisfy all our wants, it arises from our limited money, time, and energy. Because none of us – individuals, businesses, governments- can ever satisfy. All our wants, smart choices are essential to make the most of our lives.

Economics is about how individuals, businesses, and governments make the. Best possible choices to get what they want and how those choices interact in the markets.

1.2 Define and describe opportunity cost.

Scarcity means we must choose, and if we want the most out of what limited money and time have, we need to make smart choices. For example, we had to choose between studying or resting. And we chose to study, we can ask ourselves what the cost of our decision is. The cost would be the benefit of sleep. If we chose to rest instead of studying what is the cost of our decision? The cost would be lower marks. Thus, in weighing the benefits and costs of any decision, we compare what we get from each path with what we give up from the other. **Opportunity cost** is the true cost of choice: the cost of the best alternative given up.

Opportunity cost is more important than money cost (ex: The free Bermuda trip vs the 1M\$ deal choice). Thus, the cost of any choice is the value of the path taken. Scarcity means that every choice involves a tradeoff. This means in order to get something we must give up something. So, in order to make smart decisions, the. The value of what we get has to be greater than the value of what we give up. In terms of economics, we say that the benefits of a smart choice must. Outweigh the opportunity costs.

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Since smart choices compare costs and benefits, our decisions will change with changes in costs or benefits (ex: If the earlier B deal was worth 100\$). **Incentives** are rewards and penalties for choices, that's why we all respond to incentives. We will choose a path that leads us to rewards rather than a path that will lead us to penalties.

"To make the most out of life and make smart decisions, you must always ask the questions, "What is the opportunity cost of my choice?" and "Do the benefits outweigh the opportunity costs?"

1.3 Describe how comparative advantage, specialization, and trade make us all better off.

Every day, we are faced with simple choices like for example the choice to make breakfast or to buy breakfast from a business. It's a simple question of " Do we produce the products and services we want ? Or do we earn money at a job and buy/ trade money for the products and services made by others?

Hundreds of years ago, people used to be self-sufficient, but today we lean towards specializing and trading. This is because we are better off with specializing and trading, we can. See how our standards of living, in terms of M products and services is much higher than it was hundreds of years ago. As individuals, we can't live as good as our ancestors but collectively, our standards of living are better.

Voluntary exchange is when we trade money for something we want, for instance, "coffee". We think we're better off paying money for the coffee, if not, we wouldn't exchange it for money, and the person selling us coffee is better off with the money, if not they wouldn't sell. When we trade, each person feels that what they get is of greater value than what they gave up.

Q: The relation between opportunity cost and PPF ?

Q: How do we find the maximum combination of production on the ppf graph ?

The production possibilities frontier (PPF) shows the maximum combination of products or services that can be produced with inputs.

(Ex: Jill -

Figure 1.1 Jill's Production Possibilities

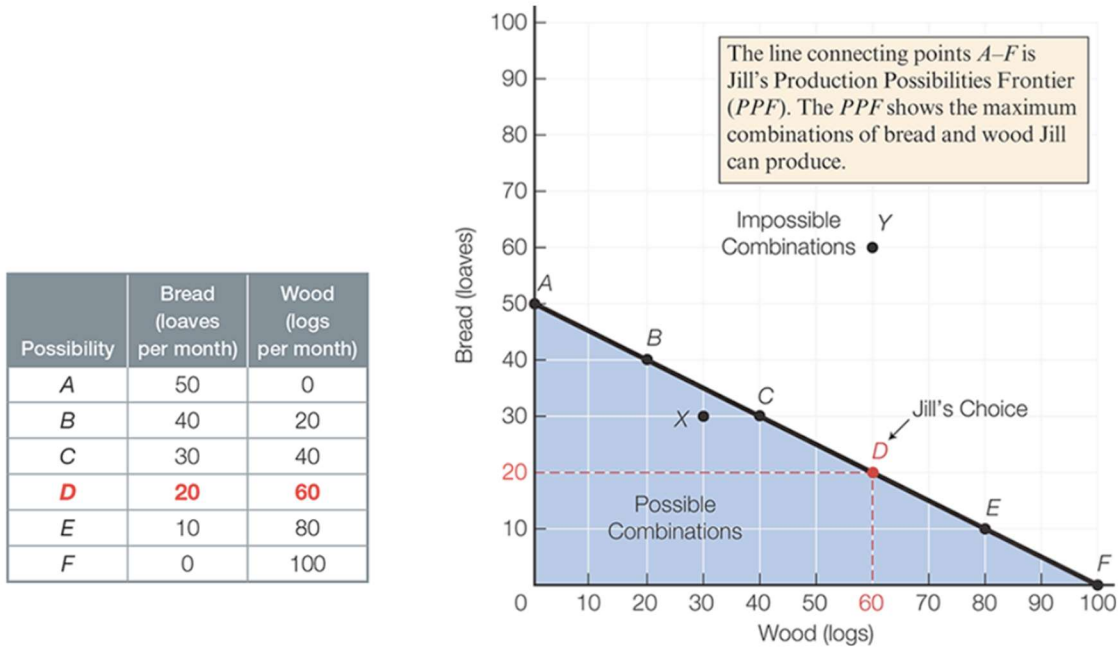
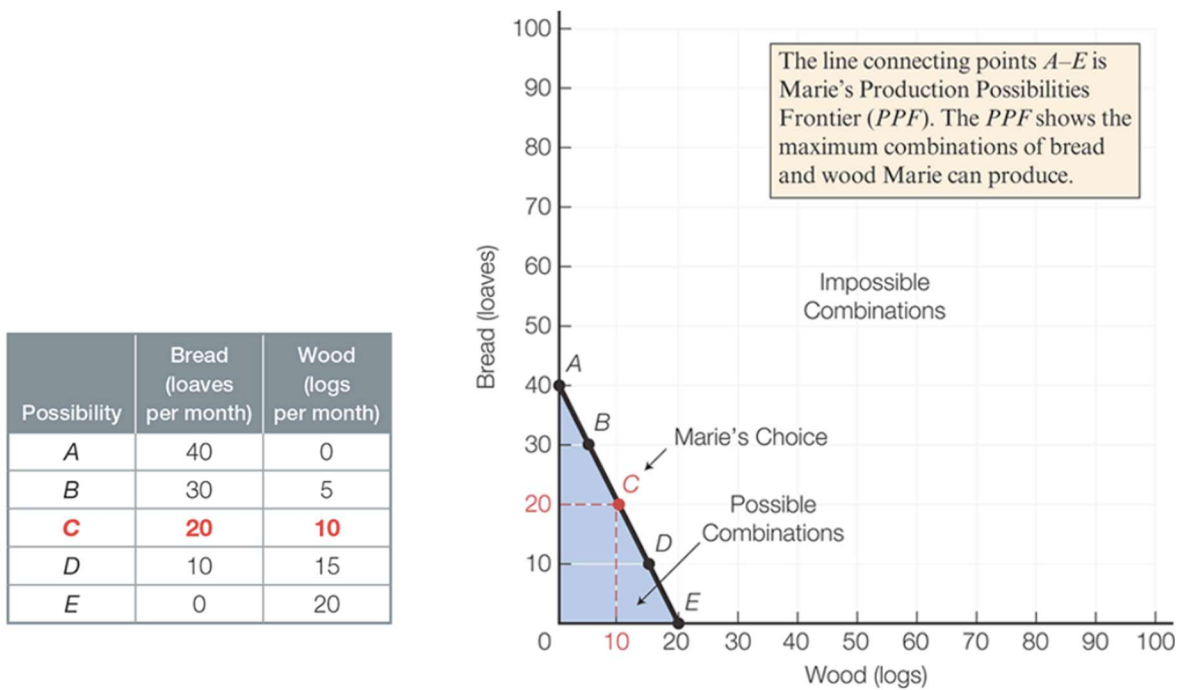


Figure 1.2 Marie's Production Possibilities



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In the shaded area inside the PPF represent all of Jill's **possible combinations**. These combinations are possible but are not maximum.

Absolute advantage is the ability to produce a product or a service at a lower absolute cost than another producer. (ex: **Jill can produce more product at a lower price than Marie**). But for instance, if China can produce everything at a lower cost than Canada, **can there be mutually beneficial gains from trade for both countries?** Or in this case for both Marie and Jill?

Mutually beneficial gains from trade do not depend on absolute advantage. They depend on what economists call **comparative advantage**. This is the ability to produce a product or service at a lower opportunity cost than another producer. When the OC is low the CA is high and vice versa. To find the comparative advantage, we must first calculate the **opportunity cost** using the following formula :

$$\text{opportunity cost} = \frac{\text{Give up}}{\text{Get}}$$

Ex: Jills Opportunity cost :

$$\text{Opportunity cost of additional bread} = \frac{100 \text{ logs of wood}}{50 \text{ loaves of bread}} = \frac{2 \text{ logs of wood}}{1 \text{ loaf of bread}}$$

Marie's opportunity cost:

$$\text{Opportunity cost of additional wood} = \frac{50 \text{ loaves of bread}}{100 \text{ logs of wood}} = \frac{\frac{1}{2} \text{ loaf of bread}}{1 \text{ logs of wood}}$$

Conclusion based on the opportunity cost :

	Opportunity Cost of 1 Additional	
	Loaf of Bread	Log of Wood
Jill	Gives up 2 logs of wood	Gives up ½ loaf of bread
Marie	Gives up ½ log of wood	Gives up 2 loaves of bread
Comparative Advantage	Marie has comparative advantage (lower opportunity cost) in bread-making	Jill has comparative advantage (lower opportunity cost) in wood-chopping

Based on the CA table above, Jill should specialize in wood-chopping, and Marie should specialize in Bread-making. If they trade 20 LOB for 20 LOW, Jill would end up with 80 LOW and 20 LOB (60 LOW and 20 LOB when she was self-sufficient) and Marie would end up with 30 LOB and 20 LOW (20 LOB and 10 LOW when she was self-sufficient).

Trade made it possible for both Marie and Jill to achieve a combination of LOB and LOW that was impossible before, and that was outside their production possibility frontier. Even though Jill has an overall **absolute advantage**, there are still differences in **OC** and **CA** .

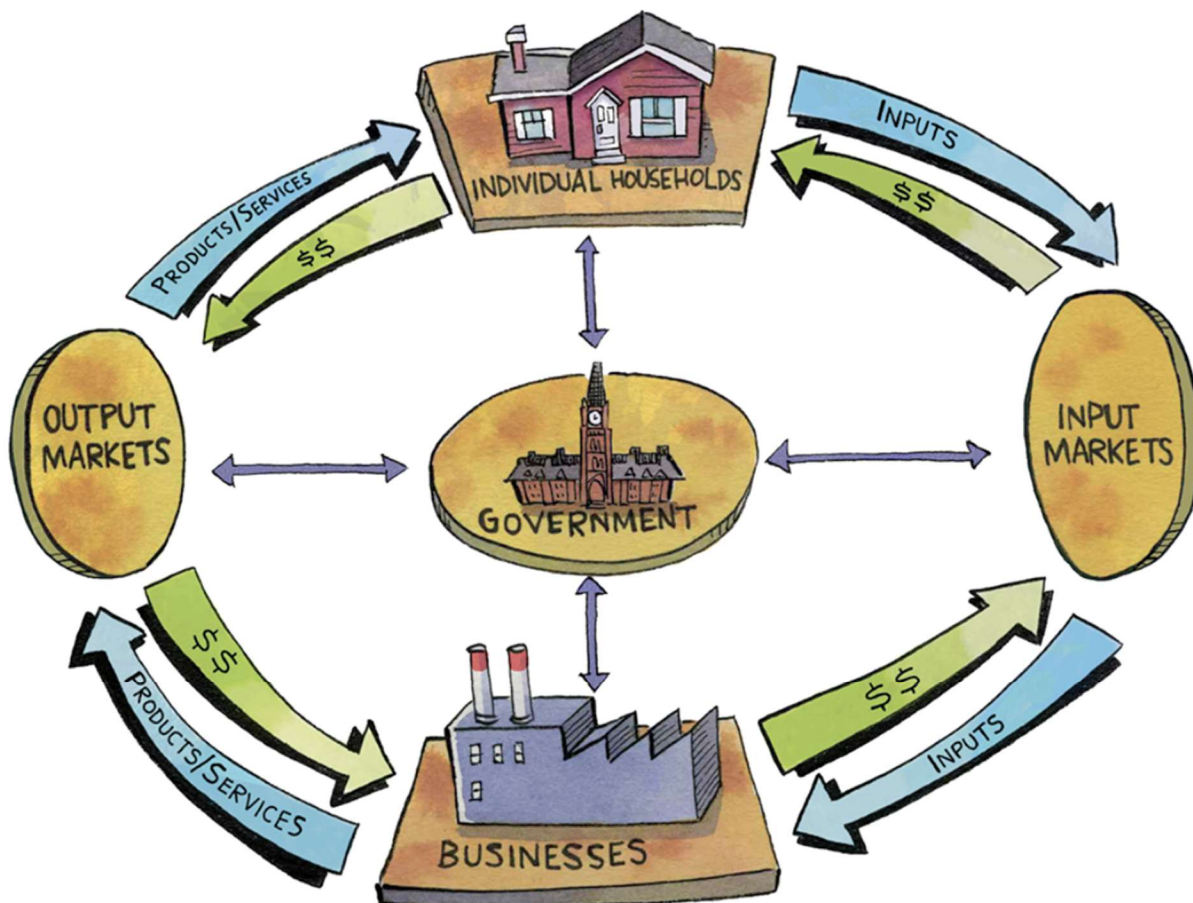
« *Comparative advantage is the key to mutually beneficial gains from trade.*»

1.4 Explain how models like the circular flow of economic life make smart choices easier.

Economics is about how individuals, businesses, and governments make the best possible choices to get what they want, and about how those choices interact in markets. Markets being the interaction of buyers and sellers (*For this chapter*).

Alfred Marshall : "Economics is the study of mankind in the ordinary business of life."
"- 1890

Figure 1.5 Circular Flow of Economic Life



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The maps that economists use are called economic models. **Models** are a simplified representation of the real world, focusing attention on what's important for understanding a specific idea or concept. **Fig 1.5** is a model called “..” , it shows in the simplest way how economists think about economic choices. The complexity of the Canadian economy is divided into 3 sets of players: the individual households that own all of the **inputs** of an economy, the four types of inputs are labor (ability to work), natural resources, capital equipment, and entrepreneurial ability.

These households and businesses interact in two sets of markets. Input markets: businesses buy the inputs they need to produce products and services. Output market: where businesses sell their products and services. Governments in the middle set the rules of the game and can choose to interact, or not, in almost any aspect of the economy.

Individuals in households sell or rent to businesses the labor, resources, capital, and entrepreneurial abilities they own (Bleu). In exchange, businesses pay wages and other monetary rewards to households (Green). These exchanges, or trades, happen **in input markets, where households are the sellers and businesses are buyers.**

Businesses then use those inputs to produce products and services which they sell to households (Bleu). In exchange, households use the money they have earned in input markets to pay businesses for these purchases. These exchanges or trades happen on the **output markets, where households are the buyer and businesses are the sellers.** In the end, households have the products and services they need to live and businesses end up with the money.

To test a good map or economic model, we have to compare the simplified picture of the model with the facts. If the model helps you understand or predict facts, it's a good model. But testing an econ model is difficult because the facts we observe are affected by many factors, including factors the model leaves out.

So, economists use models to isolate factors they think are important. So, these models focus attention on what is important by assuming that all other things not in the model are unchanged.

In economics, just like science, we need to separate facts from opinion. **Positive statements** are about things that can factually be checked and **normative statements** are judgments or opinions. So, to make smart choices we need a goal based on a normative statement and we need to use positive statements in order to get there.

1.5 Differentiate microeconomic and macroeconomic choices and explain the Three Keys model for smart choices.

Depending on the task, economists also use different kinds of models. The economic way of thinking, while concerned with making smart choices and their interactions in markets, can be applied on different scales to understand **microeconomics** and **macroeconomics**.

Microeconomics analyzes the choices made by individuals in households, individual businesses, and governments, and how those choices interact in markets. (About individual choice)

Macroeconomics analyzes the performance of the whole Canadian economy and the global economy, the combined outcomes of all the individual microeconomic choices. (About combined outcomes of all choices)

In economics, there are three keys to smart choices. To make a smart choice, when weighing benefits against costs, **additional benefits** must be greater than **additional opportunity costs**. But instead of using the word “additional” economists like to use the word “marginal”. The second key is to only count **marginal benefits**, meaning additional benefits from our next choice. And to only count our **marginal opportunity cost**, meaning additional opportunity costs from our next choice. Finally, the last key to making smart choices is to use **implicit costs**, this refers to the costs of investing your own money or time. (*not in the books prepared by the accountant*).

In economics, the costs that you create, but don't pay for directly are called **externalities**. These externalities are called “**negative externalities**” when they are costs that affect others who are external to the choice or trade. These externalities are called “**positive externalities**” when they benefit others who are external to the choice or trade.

The math of things (With Peng):

Economic modelling:

Economic theories are used in explaining things using math and these same theories are tested by confronting its predictions with empirical evidence. Also, economists use real world observations to test theories.

Graphing economic theories:

When there's only one x variable for each y variable, we say y is a function of x. To find the equation of a situation:

$$y = a + bx$$

a is the **y- intercept** meaning the **y** when **x = 0**

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b is the **slope** of the line calculated using $\frac{y_2-y_1}{x_2-x_1}$

When we have a **curved graph**, the **slope** can only be calculated for a specific point using the **tangent**.

References:

All figures and examples are from:

Cohen, Avi J., author
Microeconomics for life : smart choices for you / Avi J.
Cohen. — Second edition.