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| **EP1110 - Microeconomics**  **Unit 1: The Economic Problem** | |
|  | **Learning Objectives:** | |
|  | *By the end of this unit, you should be able to:*   1. Define key economic terms. 2. Identify and understand that scarcity, choice, and opportunity cost are at the heart of economics. 3. Explain the three fundamental economic questions that all societies must address. 4. Compare how different types of economies answer these key economic questions. 5. Describe the concept of circular flow of income in the economy. 6. Describe and use the production possibilities model to illustrate opportunity costs, efficiency, unemployment and the effects of technological innovations. |  |
|  | **Learning Materials:** | |
|  | * Read: Chapter 1 - Principles of Microeconomics. | |
|  | **Overview of this Unit** | |
|  | A study of economics is essentially a study of choice. We make choices in order to maximize our individual and/or collective benefit.  In this unit, we will expand on this basic concept. First, we will discuss ***scarcity.***Scarce resources mean that we are forced to make choices and select one thing or state over another.Scarcity, in fact, is often said to be the starting point of economics.  The forced choice brought about by scarce resources, means that we have to give up or forego other available options when we choose one option over another.   The fact that we miss out on these other options could be considered as a “cost” – specifically in economics this is called the ***opportunity costs***.  Finally, we will explore the basic resources that are available to us in our economy. These are the basic contents of the economic recipe whose proportions we vary to make our desired outcomes. How we select these proportions makes up a good bit of the discussion in the remainder of this unit. | |

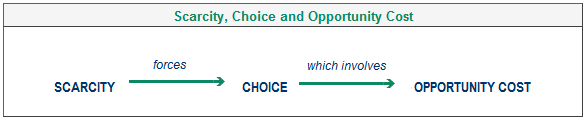
**Unit 1 - Topic 1:  Scarcity, Choice and Opportunity Cost**

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| **You can’t always get what you want.**  ***~ Mick Jagger and the Rolling Stones*** |

Take a minute to look in your pocket, wallet and/or purse.  Count how much money you have.  What could you buy with this amount of money?  Whether you found a little or a lot of money, there are limits to what you can buy – even if you have a credit card!  You will likely be forced to decide to buy one or two things, and this will mean that you won’t be able to buy something else. If you think about it, you make such a decision every time you buy something. This illustrates the concept of ***scarcity***.

Scarcity simply means that despite our unlimited wants we can only afford so much. Therefore, we need to make choices between options A, B, C and so on. These choices are often difficult to make especially when you have similarly appealing options.

Further to this concept, is the idea of ***opportunity cost***.  Opportunity cost is simply what you missed as a result of making a choice. If you chose to stay in and study when your friends decided to go out and party, your opportunity cost is the fun you missed at the party. You will, however, benefit from the study time you had and that's the benefit you received. Opportunity cost is an important concept in economics and one that must be considered in all economic decision making.



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| **Unit 1 - Topic 2:  Fundamental Economic Questions** |
| ***What should we make?  How should we make it?  Who should we sell it to?***  Now that we have an understanding that choices need to be made in an economy and that each choice means that we forego other opportunities, we must expand the scope of our discussion to determine the basic nature of the choices we make. First, let’s go back to our example of the money in your pocket, wallet or purse.  Let’s say you are deciding what to do with it. You must think about:   * what you want to buy, * how you are going to get it, and * who you will buy it for.   A company like Exxon Mobile has to answer similar questions when it decides where to invest its money:   * What should we buy/make/produce? (Oil from offshore? / Oil Sands? / Land wells?) * How should we go about making/producing it? (Floating Production Platforms / Gravity Based Platforms) * And who will we sell it to? (Come-by-Chance Oil Refinery in NL?, or a refinery in Philadelphia?)   The same basic questions need to be asked by government. Newfoundland and Labrador Premier Danny Williams needs to decide how to spend the province’s limited funds by asking:   * What should we spend our money on (Health, Education etc.?) * How should we allocate it? (more to Health less to Education) and * Who should benefit most? (sick people or students)   When asking and answering these questions it is important to consider what option(s) will provide the maximum possible benefit. All economic theory is based on the concept that we will always attempt to maximize our benefit no matter what option we choose. In summary then, there are ***three*** basic economic questions that individuals, business and government need to ask before deciding amongst a series of options:   |  |  | | --- | --- | | One | **What to Buy/Produce?** | | Two | **How to Buy/Produce it?** | | Three | **For Whom to Buy/Produce it?** | |

**Unit 1 - Topic 3:  Economic Systems**

From a national perspective, different national governments around the world answer the three fundamental questions, “What to Produce?”; “How to Produce?” and “For Whom do we produce it?” differently.

Communist governments such as those that exist in Cuba and China tend to be very much involved in answering these basic economic questions. Western countries such as Canada and the United States tend to allow the market to answer these questions. The market is simply the hordes of buyers and sellers that exist out there exercising their own free will to buy and sell what they want. In a market economy, if demand for an item goes up, producers will be encouraged to produce more or increase prices. The opposite is true as demand falls.

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| **Modern Economies Answer the Basic Economic Questions Differently:** |
| |  |  | | --- | --- | | **Communist Countries (Cuba, China)** | **Western Countries (Canada, United States)** | | Command Type Economies | Competition Type Market Economies | | Basic economic questions answered by government. | Basic economic questions answered by the market. | | ***Source:****McGraw-Hill Ryerson. 2004.* | | |

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| **Unit 1 - Topic 4:  Factors of Production** |
| **Land, Labour, Capital and Enterprise**  In order for an economy to produce products and services, it requires economic resources. These resources are known as the ***Factors of Production***and are classified as being:   * Land, * Labour, * Capital and * Enterprise.   Land is considered to be any natural resource that can be used to produce goods and services.  Land would include such things as oil fields, ore deposits, fish in the ocean etc. The important criterion is that it is *naturally occurring*. Golf courses, for example, are **not** considered land because, although they are on land, they are not naturally occurring.  Labour is the second factor of production. Labour is defined as human physical and mental effort that can be used to produce goods and services. A firm’s employees are typical examples of Labour.  The third factor, Capital, is a key factor of production. Capital consists of all human-made resources that can be used to produce goods and services. The golf course mentioned above is man-made and would be considered capital. Other examples of capital would be money, factory equipment, airplanes, fish plants and offshore platforms.  The final factor of production is Enterprise or Entrepreneurship. Enterprise is the human resource that innovates and takes risk. It is important to try to distinguish between labour and enterprise. ***Enterprise*** is focused ***on ideas and mental effort***whereas ***labour*** tends to focus more on ***physical human effort***.  Please note that sometimes the difference between these two factors of production is indistinguishable. ***Microsoft’s Bill Gates or Canadian Helicopter’s Craig Dobbin***would be excellent examples of the Enterprise/Entrepreneurship factor of production.  Firms are not free to use any of the factors of production. For their use, there is an incurred cost known as ***Factor Payments***.  For Land, there is rent or royalties that need to be paid to its owners. For Labour, firms need to pay wages or salaries in return for the effort of these employees.  For Capital, firms incur interest costs on the borrowed funds needed to purchase and use the capital.  Finally, for Enterprise, firms that find a better, more innovative way to do things are rewarded with profits.   |  | | --- | | **Incomes of Factors of Production** | | |  |  |  | | --- | --- | --- | | **Factor** |  | **Factor Payment** | | Land | Arrow | Rent | | Labour | Arrow | Wages | | Capital | Arrow | Interest | | Enterprise | Arrow | Profits | | ***Source:****McGraw-Hill Ryerson, 2004* | | | | |

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| **Unit 1 - Topic 5:  The Economy - Circular Flow** |
| We often hear on the news about the “state of the economy”. The economy consists of many individuals, firms and governments that influence the health of the economy. You may ask “How do I contribute to the health of the economy?”  Although you as an individual play a very small part, you do, none-the-less, play a part. The ***Circular Flow Model*** of the economy helps explain your, and everyone else's role.  To best explain this, let’s go back to the beginning. Think about spending the money that is in your pocket, wallet or purse. For simplicity, let’s say you buy a coffee at Tim Horton’s. You pay Tim Horton’s (consumption spending) and they give you a coffee (Consumer good). But where did you get the money to buy the coffee in the fist place? You work for an organization (you are Labour) and they, in turn, pay you (wages). Graphically, we can illustrate these flows in the ***Circular Flow model:***  This simple model helps explain how our economy works.  https://d2l.cna.nl.ca/content/F13/EC1110_F13/images/circular_flow.gif?_&d2lSessionVal=2BaJfatXOVWqkRrEIV1o4JWeh |

**Unit 1 - Topic 6: Production Possibilities & the Power of Technology**

Scarcity means that we cannot have it all. We have limits and, as a result, there are choices that we need to make in order to maximize our benefits. While the ***Circular Flow Model***helps explain how our economy works, the ***Production Possibilities model***helps demonstrate and explain how our economy is constrained by limited resources.

In order to demonstrate this model, we need to make some basic assumptions:

* The economy can only produce combinations of two products
* The economy is working at full employment
* The economy uses the best possible technology
* The economy can produce efficiently
* Seeing that we are at maximum production, if we produce more of one product we will need to produce less of the other.

The table below shows our economy producing combinations of fish or oil. Choices A - F represent combinations of fish production and oil production. Choice A, for example, has the total economy’s production (100%) focused on oil. This yields an output of 20 thousand barrels of oil. Choice B has 20% of the economy’s production on fish and 80% focused on oil. This combination yields an output of 10 tonnes of fish and 19 barrels of oil. You should now be able to read the other combinations from the table below:

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| **The Production Possibilities Table** |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Fish** | | **Oil** | | | **Choices:** | Percent of Residential Use | Output  (Tonnes per Day) | Percent of Residential Use | Output  (Barrels per Day) | | A | 0 | 0 | 100 | 20 | | B | 20 | 10 | 80 | 19 | | C | 40 | 18 | 60 | 17 | | D | 60 | 24 | 40 | 13 | | E | 80 | 28 | 20 | 8 | | F | 100 | 30 | 0 | 0 | | ***Source:****McGraw-Hill Ryerson, 2004* | | | | | |

These combinations can be plotted on a graph as illustrated below. By linking up the choice points A - E, you can create the curve.

Once you draw the curve, consider a combination that falls between the origin of the graph and the curve. You will note that such combinations are all attainable. The economy can produce these combinations although it may not be at maximum productivity as a result.

Now consider a combination that falls outside the curve. You will note that such combinations are not possible. The economy can not produce these combinations because of limited resources.

The points along the Production Possibilities curve represent the optimum possible combinations of output in the economy.

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| **The Production Possibilities Curve** |
| https://d2l.cna.nl.ca/content/F13/EC1110_F13/images/production_curve.jpg?_&d2lSessionVal=2BaJfatXOVWqkRrEIV1o4JWeh ***Source:****McGraw-Hill Ryerson. 2004.* |

**Opportunity Costs and the Production Possibility Curve**

You will note from the production possibilities table that, as you move from one possible level to the next, production of one item goes up at the expense of the other. Going from level B to C, for example, causes output of fish to increase by 10 to 18 tonnes per day. However, this is done at the expense of oil production, which falls from 19 to 17 barrels per day. This drop in oil production of two barrels per day is the Opportunity cost of increased fish production.

**Technology’s Impact on the Production Possibilities Curve**

Once you understand how the Production Possibility’s curve works you may ask “How can we continue to grow the economy if we have to give something up in order to get more of another thing?”

Well we can improve our overall lot by doing more with less. If, for example, you could produce 30% more oil for a given amount of effort (remember we have limited resources) then we could potentially push the Production Possibility’s curve out from the origin and produce more oil without sacrificing fish production. Improvements in technology do allow us to produce more with less.

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| **The Production Possibilities Curve with Improved Technology** |
| The Production Possibilities Curve - Improved Technology **New technology allows greater oil production. *Source:****McGraw-Hill Ryerson. 2004.* |

The Production Possibilities curve is a simple but key economic model to understand because it clearly demonstrates the concepts of scarcity, choice, opportunity cost and the impact of technology on our economy.

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| **Unit 1 - Summary** |
| In this unit, we introduced key economic concepts such as scarcity, choice, and opportunity cost.  These concepts are foundation concepts in economics and you need to be familiar with them before proceeding further.  We also discussed the three fundamental economic questions asked by all societies – what to produce?; how to produce and for whom?.  No matter if government strictly controls a country’s economy or the free market is the economic decision maker, these questions are always addressed in an economy.  We also discussed the circular flow concept in this unit. It illustrates how consumers spend money for goods and services provided by business, and how business, in-turn, hires employees and/or attracts investors who, in turn, compensate them for their efforts which, in turn, is used to buy goods and services.  Finally, we introduced and used the production possibilities model to illustrate opportunity costs, efficiency, unemployment and the effects of technological innovations. |