

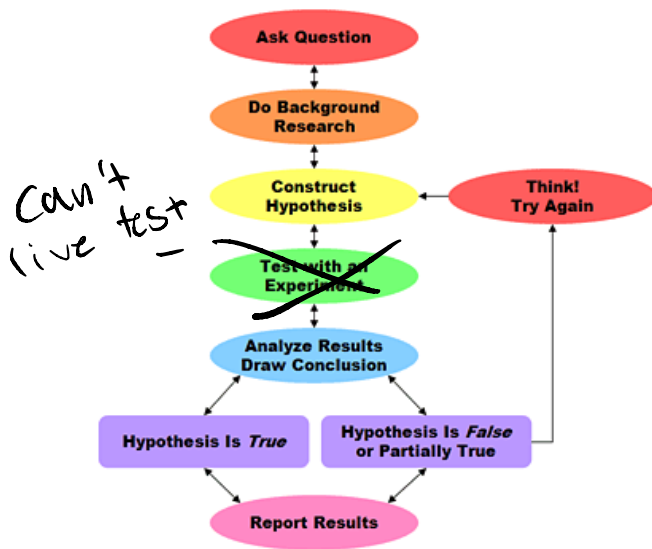


# The Production Possibilities Curve (PPC) Model

## Notes

### ECONOMISTS AS SOCIAL SCIENTISTS

- Follow (social) scientific method
- 



### MODEL BUILDING

- Economists build theoretical models to test hypotheses and illustrate theories.
- All built on assumptions

### TWO COMMON ASSUMPTIONS

1. Ceteris Paribus
- All else constant

- Used to test the effect of one variable on another without the interference of other factors.
- Allows us to “isolate the variables” and find cause and effect.

2. Humans are rational economic decision makers

- This means that we assume...  
individuals will act in their best interest to increase utility

### PRODUCTION POSSIBILITIES CURVE

The **production possibilities curve (PPC)** is a model that helps us illustrate scarcity, choice and opportunity cost.

### ASSUMPTIONS OF THE PPC

- The PPC model can only show the **production of goods and services**.

**Goods** are tangible products.

**Durable goods** are... consumed over a long period of time, i.e. cars

**Non-durable goods** are... consumed over a short period of time  
i.e. ice cream

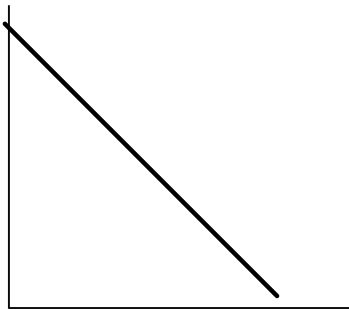
**Services** are...

**Intangible products**  
↳ durable or non-durable

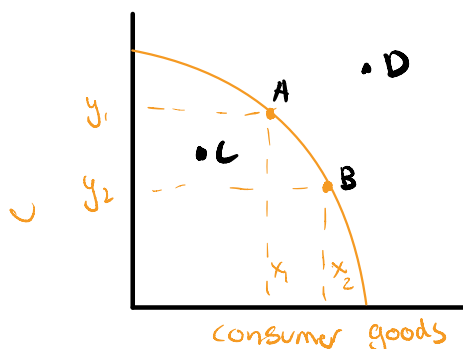
- Only shows production
- Shows production of whole economy
- The curve created will represent the maximum possible combination of goods and services that... may be produced by society, ceteris paribus

#### WHY IS THE PPC CONCAVE?

- The PPC is concave because not all the factors of production are equally suitable for producing different types of goods.
- Opportunity cost increases further along
- If opportunity cost was constant (e.g., everyone was equally suitable at producing all goods), the PPC would be a straight line.



#### PPC'S IN THIS CLASS

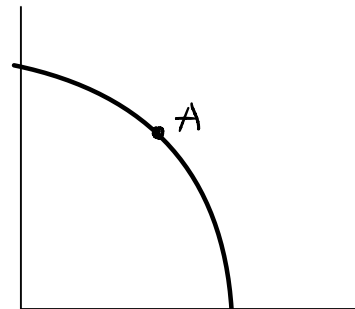


In this case:

- Society shifted its production from point A ( $x_1, y_1$ ) to point B ( $x_2, y_2$ ).
- This shows an increase in the production of consumer goods ( $x_2 - x_1$ ).
- decrease of capital goods (opportunity cost)
- Point C is inefficient
- Point D is unattainable

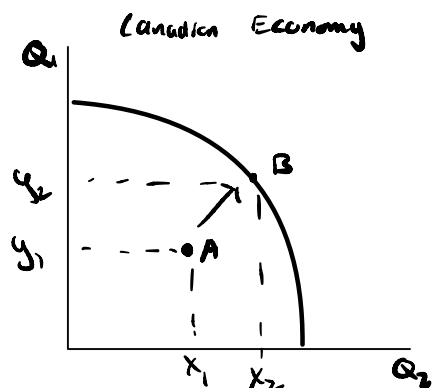
#### ACTUAL OUTPUT

- **Actual output** = the real goods and services being produced by an economy at a given time.
- When the point of actual output is located on the PPC, the economy is... productively efficient
- 



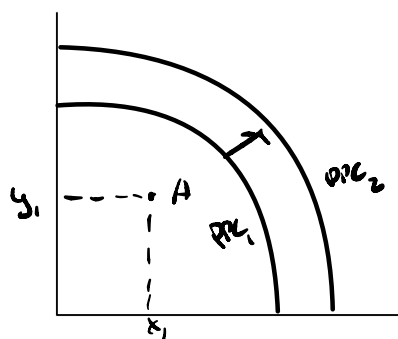
#### ECONOMIC GROWTH

- **Economic growth** (actual growth) happens when the real goods and services produced in an economy increase.



- In this diagram, when point A moves to point B, there is an increase of  $(x_2 - x_1)$  consumer goods and  $(y_2 - y_1)$  capital goods.
- Using the FOP leads to economic growth

#### POTENTIAL GROWTH



- The PPC itself represents the potential of an economy to produce.
- When the PPC expands, it means there is more potential to grow (potential growth).
- Potential growth happens when:
  1. Quality of FOP changed
  2. Quantity of FOP changed

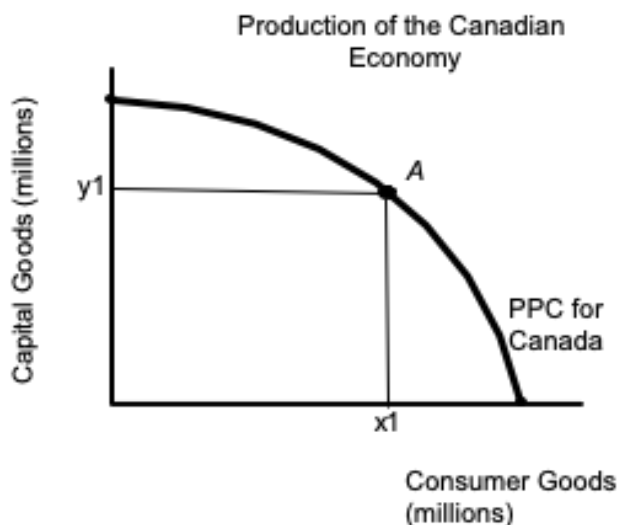
ie: investing in education

# Tips for Good Model Building

## WHEN DRAWING THE DIAGRAM



- Be neat! Always use a ruler.
- Use **only printing** for the labels.
- The title must clearly identify the market, economy or phenomenon being represented.
- Label both the x and y axes and the curves on the diagram.
- Label units of measure (e.g., \$ for dollars) being used on each axis.
- Graphs should be framed within the sheet of graph paper rather than originating from the corner of the page.



## THE "FOUR-POINT" EXPLANATION



Diagrams must always be explained for your reader. One way to do this is to use the **"four-point" explanation** method to ensure you include enough detail. This includes:

1. Explaining your **starting point** or initial equilibrium point. For example, "the economy is producing at point 'A,' where  $x_1$  capital goods and  $y_1$  consumer goods are being produced."
2. Then, note **what changed** in the diagram. For instance, "PPC1 shifts to PPC2."
3. Next, explain **why something changed** in the diagram. For example, "the PPC shifted to the right because there was an increase in the quantity of labour due to open immigration policies."
4. Finally, note the **final result**. For example, "the final result is greater production possibilities and more potential growth."

# Production Possibilities Curve (PPC)

## Activity Set

### Part I: The Theory of the PPC

1. What does ceteris paribus mean? Why is it important for economic models?

All other things held constant.

Economic models are based on assumptions

2. Why can't "money" be shown on the x and y axes of the PPC?

Can only show production of g & s.

3. Can factors of production such as labour and capital be shown on a PPC? Why or why not?

Yes

4. What two general factors shift the PPC outward?

Quantity / Quality ↑ in Fop

5. Give two specific examples that would shift the PPC outward.

- higher quality education

- Increased oil supply

6. Give one specific example of something that would shift the PPC inward.

- Natural disaster destroying physical capital

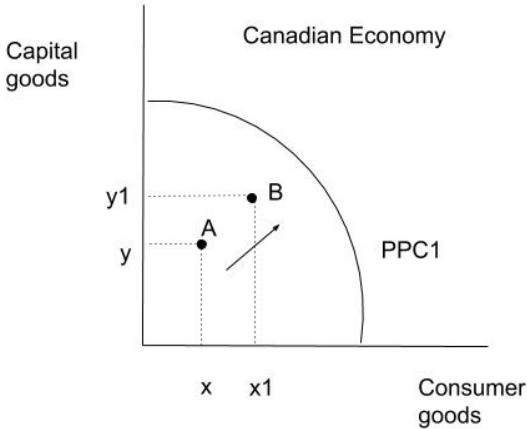
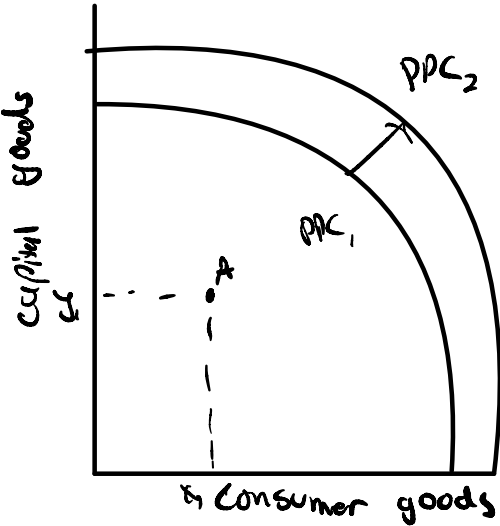
7. What's the difference between actual growth and potential growth?

Actual growth is when increased real g&s produced

Potential growth is the tools required to ↑ become existent.

## Part II: Practice using the PPC Model

**Instructions:** Read the event, and **ILLUSTRATE** the change in the PPC model the action would cause (if applicable), and give a brief reason for the change. The first one is done for you.

Event	PPC Change	Reason
1. More Canadian workers find jobs in October.	 <p>Capital goods</p> <p>Canadian Economy</p> <p>PPC1</p> <p>Consumer goods</p>	More Canadians employed → more production of both consumer and capital goods → actual growth.
2. Canadian oil companies find more oil deposits in the arctic.	 <p>Canadian Economy</p> <p>Capital goods</p> <p>PPC<sub>2</sub></p> <p>PPC<sub>1</sub></p> <p>Consumer goods</p>	<p>- more capital goods</p> <p>↓</p> <p>- more prod. of consumer goods</p> <p>↓</p> <p>Potential growth</p> <p>↗ actual output unchanged</p>

<p>3.Canadian firms invest (buy more) capital goods, allowing them to produce more goods in the future.</p>		
<p>4. Assume Canada is productively efficient. Businesses start to produce more cars at the expense of car-making machinery and equipment.</p>		



5. Assume Canada is productively efficient. However, the eastern provinces are hit by a hurricane, which destroys massive amounts of capital.		
6. Canadian Universities increase the number of graduates in 2019.		

<p>7.Ontario spends less on healthcare, leading to fewer patients seeing their doctors regularly.</p>		
<p>8.Canadian investors buy more stocks in Apple Corporation.</p>		

***Great Job, you completed the worksheet!***

Please answer the following reflection questions based on what you learned throughout the activity.

1. List 1-3 things that you learned about the PPC model.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

2. List 1-3 things that you want to know more about the PPC Model.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_