Lecture Notes:

- An economic system should produce:
    - lots of things that people need and want
    - more with each passing year
    - lots for each citizen
- **GDP** is the total value of all goods and services produced by an economic system typically in a year.
  I.e. GDP = Total Economic Activity
  Note: GDP can be calculated/estimated for any province, state, region or city.
- A country with a large GDP suggests that many workers, using many factors, produces many things of high value.
- A country with a small GDP suggests that few workers, using less capital, produces fewer things of less value.
- The total global economic activity in 2019 was $88 trillion.
- Countries with largest GDP:
    1. USA = $21.4 trillion 24.4%
    2. China = $14.3 trillion 16.3%
- Countries with Largest GDP in 2019:

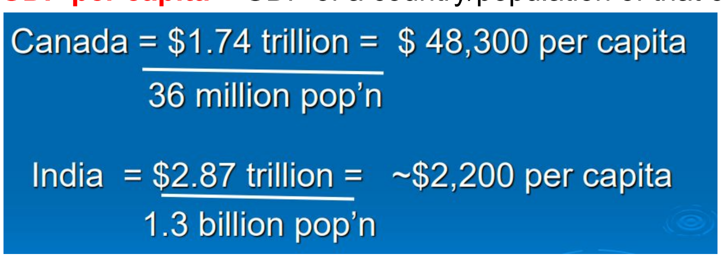
Rank	**Country**	**GDP**
1	United States	21.4 trillion
2	China	14.3 trillion
3	Japan	5.0 trillion
4	Germany	3.8 trillion
5	India	2.87 trillion
6	United Kingdom	2.82 trillion
7	France	2.71 trillion
8	Italy	2.00 trillion
9	Brazil	1.84 trillion
10	Canada	1.74 trillion

- GDP of Canadian Provinces in 2018:

Province	**GDP**	**Country of Similar Size**
Ontario	$710 billion	Switzerland
Quebec	$364 billion	Malaysia
Alberta	$286 billion	Chile

BC	$244 billion	Czech Republic

- While GDP measures an economy's size, it does not measure:
  - Growth
  - Wealth
  - Opportunity
  - Distribution
- An economic system should grow.
- A growing GDP should indicate more workers in more businesses producing more goods and providing more services, but sometimes it doesn't.
- Likewise, a shrinking/falling GDP, also called a **recession**, should indicate fewer workers in fewer businesses producing fewer goods and providing fewer services, but sometimes it doesn't.
- **Business cycle:** The regular expansion and contraction of economic activity that takes place every few years.
- Less developed countries (LDCs) have the greatest capacity for growth because they start from a lower base and have more catching up to do.
- **BRICS** - Brazil, Russia, India, China and South Africa
- A well performing economy should:
  - Make more goods (food, clothing, housing)
  - Provide more services (health, education)
  - Create more jobs (meaningful occupation)
  - Create prosperity for all
- **GDP per capita** = GDP of a country/population of that country



- It is intended to show the wealth of the average citizen of a country.
- A weakness of GDP per capita is that it's just an arithmetic mean. Not everyone in Canada is rich and not everyone in India is poor.
- Another weakness of GDP per capita is that average is misleading, when the GDP is created by people who don't live in a country.
  For example, in Macau and Monaco, much of the activity is gambling, done by tourists.
  For example, in Luxembourg and Liechtenstein, many of the workers don't live there.
- GDP per capita is a measure of **productivity**. A country should be wealthy if it has high quality factors and uses them wisely and well.
- **Productivity** is a ratio. Productivity measures how much gets achieved relative to the inputs used to achieve it. By definition, the more we are able to produce (GDP) while using fewer inputs (population), the more productive we are.

- Wealth (high GDP per capita) is produced by:
    - Good labour: Well educated workers
    - Good labour: Well trained workers
    - Good labour: Healthy workers
    - Good natural resources: Clean water
    - Good natural resources: Fertile soil
    - Lots of capital: Modern technology
    - Lots of capital: Good transportation
    - Lots of capital: Good communications
- Two countries can have the same population but very different GDP per capita.
- E.g.

  Canada vs. Algeria
  Pop'n = 35 million
  $42,158 vs $4,300
- E.g.

  Norway vs. Eritrea
  Pop'n = 5.2 million
  $78,013 vs $530
- Workers in rich countries are more productive because of more education, more training, better health, better transportation, better capital, etc.
- To make a country richer, we need to increase its productivity. We need to give everyone the tools to produce more. Some of these tools are:
    - More and better education
    - More and better training
    - More and better capital
    - More and better resources
- **Employment** is a measure of opportunity. It is the ability to get and keep a job.
- **Unemployment** occurs when a person is actively seeking work, but is unable to find it.
- The **unemployment rate** is the percentage of those in the workforce who are actively seeking work, but can't find work.
- Unemployment lowers productivity because it lowers GDP.
- Historically, Canada's unemployment rate is higher than the rate in the USA. This is one cause of our lower wealth.
- The weakness of the unemployment rate is that it doesn't count **underemployment** or **discouraged workers**.

- **Underemployment** occurs when well educated and ambitious people are working at part-time or minimum wage jobs that don't fully utilize their education and experience. In Canada, this is common among recent immigrants.
- E.g. If a biochemist is driving a cab, or working at McDonalds, his/her skills are under-used and they are underemployed.
- **Discouraged workers** are people who would have liked to have found a job who eventually give up looking. They are people who see no reasonable chance of getting a job and so they drop out of the workforce.

Textbook Notes (Chapter 6):

- **Measuring Total Production - Gross Domestic Product:**
- **Gross Domestic Product (GDP)** is the total value of all of the goods and services that are produced within a country, during any given period.
- GDP is the first key measure of economic performance.
- Although most definitions of GDP emphasize the goods and services produced within a country, GDP is also regularly calculated for provinces, states, territories, as well as for cities.
- The country with the largest GDP is the US.
- Countries with the largest GDP in 2018:

Rank	Country	Value (in $US billions)	% of world total	Rank by population
	World	79,865		
1	United States	20,413	25.5	3
2	China	14,093	17.6	1
3	Japan	5,167	6.5	10
4	Germany	4,212	5.3	18
5	UK	2,936	3.7	22
6	France	2,925	3.7	21
7	India	2,848	3.5	2
8	Italy	2,182	2.7	23
9	Brazil	2,139	2.7	5
10	Canada	1,799	2.3	38
11	Russia	1,719	2.2	9
12	South Korea	1,693	2.2	27
13	Spain	1,506	1.9	28
14	Australia	1,500	1.9	51
15	Mexico	1,213	1.5	11
16	Indonesia	1,075	1.3	4

- From the table above, 16 countries have a GDP larger than $1 trillion. Canada's GDP is $1.8 trillion and it ranks 10th in the world.
- Countries that have a large economy tend to have a large population.
- While most definitions of GDP emphasize the goods and services produced within a country, GDP can also be calculated for provinces/states/cities.

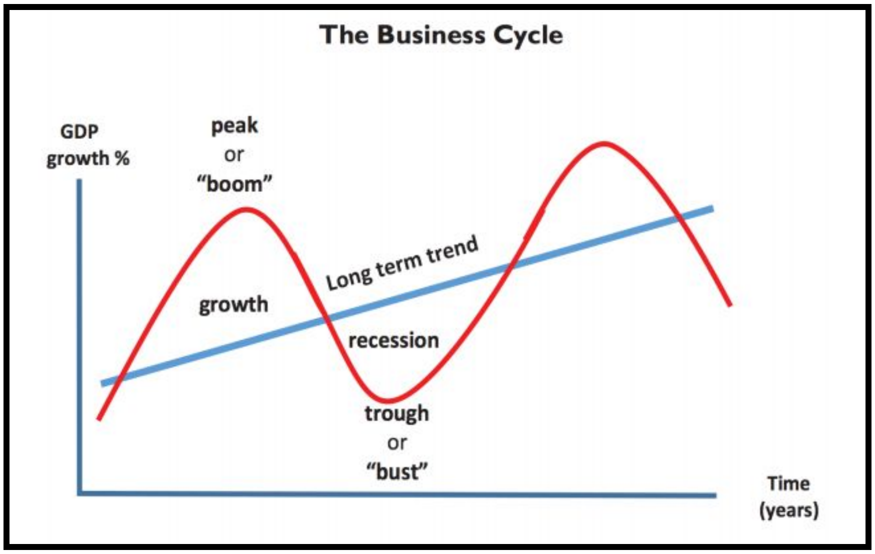
- In Canada, Ontario has the largest GDP provincially.

Canada's Largest Provinces by GDP 2016	
Province	GDP (billions of $Cdn)
Ontario	795
Quebec	395
Alberta	315
British Columbia	264

- If Ontario was a country, it would rank among the 25 largest economies. Ontario's GDP is roughly the same size as that of Sweden.
- If Quebec was a country, it would rank among the 41st largest economies. Quebec's GDP is roughly the same size as that of Pakistan.
- **Limitations of GDP - What it does not tell us:**
- GDP only tells us about the size of a nation's economy.
- GDP, by itself, doesn't not tell us anything about:
    1. Whether a country's output is growing or declining.
    2. If the citizens of a country are rich or poor.
    3. Whether all of the resources in a country are equally busy and productive.
- **GDP Growth:**
- **GDP growth** is the percentage change, from one period to the next, in the total value of all the goods and services produced within a country.
- A growing GDP suggests that more businesses are hiring more people to produce more of the goods and services that people need and want.
- **Recession - When the GDP Does Not Grow:**
- During the past decade, Canada's GDP grew in nine out of ten years. The exception was 2009, when Canada's GDP was 2.7% smaller than it was in 2008.
- When GDP falls, a number of things may happen:
    1. Fewer workers may be employed.
    2. Canadians will work shorter hours.
    3. Factories may work fewer shifts.
    4. Offices may close earlier.
- When GDP falls, it suggests that Canada's businesses aren't as busy making the goods and services that people want.
- A **recession** is two consecutive quarters (two periods of three months each) when GDP shrinks.
- During the **Great Recession** (2008 - 2009), the US's GDP dropped in five quarters. During those five quarters, fewer workers, working fewer hours, produced fewer goods and services for people to buy.
- While the causes of the Great Recession are complex, put simply, the Great Recession occurred because millions of Americans borrowed too much money to buy houses that they couldn't afford. When the value of those houses fell, they couldn't or wouldn't pay back their loans, and the banks that lent them the money collapsed. When one or two

big banks collapsed and the thousands of workers who worked in them lost their jobs, it started a vicious cycle of fear that eventually came to affect everybody.
I.e. One of the causes of the Great Recession was that too many people borrowed too much money to buy houses that they couldn't afford. In other words, the recession was caused in part by overconfidence.

- Overconfidence and loss of confidence are two important contributors to the phenomenon known as the **business cycle**. A **business cycle** is the expansion and contraction of a nation's economic activity that happens over a period of years, periodically and with great regularity.
- While researchers, economists and politicians cannot agree as to its causes, they all concede that the businesses cycle exists.
- Periods of economic growth, confidence and prosperity, called **booms**, are followed by periods of economic contraction, rising unemployment, and loss of confidence, called **busts**.



- Recessions occur because people lose confidence that the economic system, and the authorities who can help to guide and regulate that system, can deliver the goods and services, the jobs, and the material prosperity that they need and want.
- A **depression** is an usually long or deep recession.
- During the **Great Depression (1929 - 1932)**, the US's total production of manufactured goods fell by nearly one-third and the unemployment rate rose to nearly 25%.
- **High Growth Countries:**
- Poor countries have the greatest capacity for growth. They start from a lower base and thus, have more catching up to do compared to wealthy countries like Canada.
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Countries with the Largest Increase in GDP from 2012 to 2013

Country	GDP - % change from 2011 to 2012	GDP - %change from 2012 to 2013
South Sudan	-49.0	24.4
Sierra Leone	15.2	20.1
Paraguay	-1.2	13.6

- For the past two decades, intense interest has been focused on the rapid economic growth of four countries with huge populations, and large GDPs: Brazil, Russia, India, China and South Africa. These countries, known by the acronym **BRICS**, are thought to represent the globe's greatest future source of economic growth and increased prosperity.
- **GDP Per Capita:**
- Since GDP only measures the total value of a country's output, it is a poor indicator of whether the people in that country are rich or poor.
- **GDP per capita** is a measure of a country's relative wealth, calculated by dividing a country's GDP by its population.
- GDP per capita gives us a rough idea of how much the average person in a country produces.

Countries with the Highest GDP per Capita 2017 ($US)

Rank	Country	GDP / Capita ($US)
	World	10,728
1	Luxembourg	105,803
2	Switzerland	80,591
3	Norway	74,941
4	Ireland	70,638
5	Iceland	70,332
6	Qatar	60,804
7	United States	59,501
8	Singapore	57,713
9	Denmark	56,544
10	Australia	55,707
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16	Canada	45,077

- Luxembourg is a relatively small landlocked country in Western Europe, yet it has the highest GDP per capita on earth. This is because a lot of people working in Luxembourg do not live there and so they are not counted in its population. A similar thing occurs in Ireland. Because Ireland has low taxes, many corporations which legally operate elsewhere are legally domiciled in Ireland to pay lower taxes.

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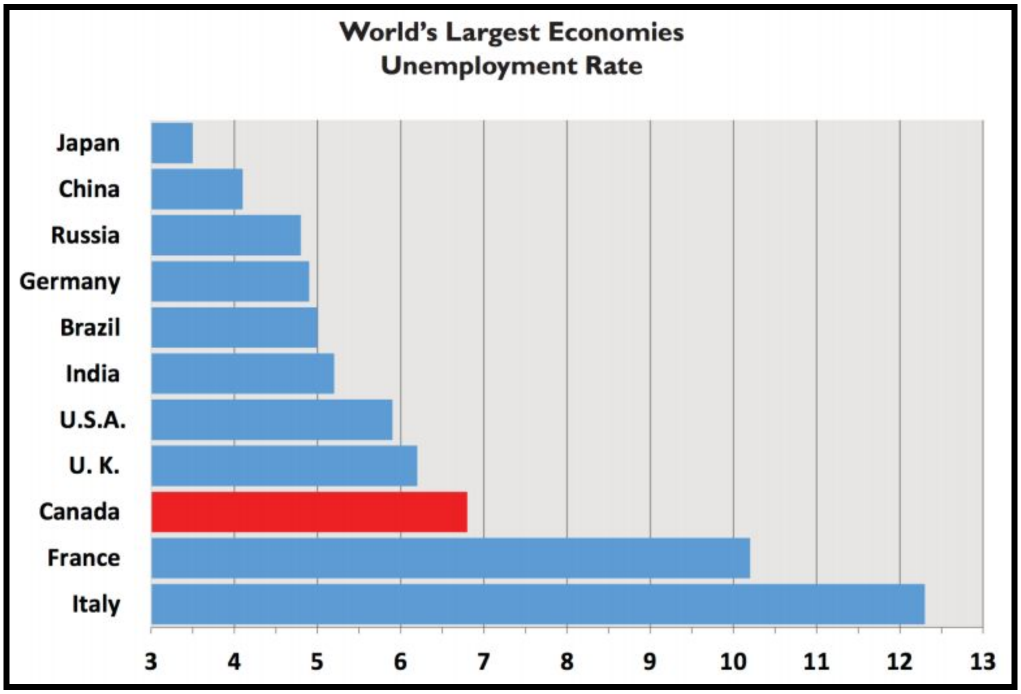
Countries with Lowest GDP per Capita 2017[6]	
Country	**GDP per Capita $**
Central African Republic.	418
Mozambique	416
Niger	378
Malawi	339
Burundi	320

- The weakness of GDP per capita as a measure of a population's wealth is that it is simply a mathematical calculation, which provides us with a statistical mean. It takes no account of whether a nation's output is produced by citizens, temporary workers, or migrants. Nevertheless, GDP per capita does provide us with a reasonable idea as to which countries are relatively wealthy and which are not.
- **Productivity - Doing More With Less:**
- GDP per capita is a measure of productivity. **Productivity** is a ratio. Productivity measures how much gets achieved relative to the inputs used to achieve it. By definition, the more we are able to produce (GDP) while using fewer inputs (population), the more productive we are.
- **Participating in the Labour Force:**
- **Employment** means having paid work.
- We call people who have paid work, or are looking for paid work, the **labour force**. Statistics Canada defines the **labour force** as people aged 15 and over, who have a job or a business, and those who are without work, but actively seeking work.
- The **participation rate** is the percentage of the population aged 15 and over who are in the labour force.

Male, Female and Total Labour Force Participation Rates Selected Countries 2013			
	Male Participation %	Female Participation %	Total Participation %
"Rich" Countries			
Canada	71	62	66
USA	69	57	63
Germany	66	54	60
"Poor" Countries			
Tanzania	90	88	89
Madagascar	91	87	89
Middle Eastern Countries			
Iran	73	13	45
Iraq	70	15	42

- It is important to note that there is no ideal or correct participation rate.
- **Employment and Unemployment:**
- The labour force includes both those who are working and those actively seeking work. If a person is actively looking for a job and can't find one, they are **unemployed**.
- **Unemployment** occurs when a person is actively seeking work, but is unable to find it.
- The **unemployment rate** is the percentage of those in the workforce who are actively seeking work, but can't find work.
- The unemployment rate is a very important measure of how well a country's economic system is working. If the economic system can't produce opportunities for work, it is failing the country in 2 ways:
    1. It is a waste of the unemployed person's talents and energy.
    2. By not utilizing a potentially creative and productive factor of production, the country will produce fewer goods and services and there will be less to go around for everyone.
- Historically, Canada's unemployment rate is higher than the rate in the USA.



- **What the Unemployment Rate Does not Reveal:**
- When measuring an economy's economic performance, the official reported rate of unemployment is usually thought to under-report an economy's ability to fully and effectively utilize its labour force. This is attributed to both **underemployment** and the **discouraged worker** effect.
- **Underemployment** is an employment situation where a person is not working at their full potential. Examples of underemployment are people who work part time jobs or people who have jobs that they are overqualified for, such as educated professionals driving taxis.
- **Discouraged workers** are people who have withdrawn themselves from the workforce because they have judged their chances of finding employment too remote to bother trying. An example of a discouraged worker is someone going to graduate school because they are not hopeful of finding a job.
- **Income Inequality and Wealth Distribution:**
- The **working poor** is people who have employment, but whose incomes are too low for them to save money or afford all of the necessities of life.
- The distribution of income within an economy can be plotted using a diagram called a **Lorenz Curve**. The **Lorenz Curve** is a diagram used to graphically represent the distribution of income or wealth within a population.
- Lorenz, the creator of the Lorenz Curve, proposed that the population be divided up into 5 groups or quintiles, each representing 20% of the population. On a bar chart, Lorenz plotted the income earned by the poorest 20% of the population. Then, beside it, he plotted a column representing the cumulative income earned by the poorest 2 quintiles or 40% of the population. Then, the cumulative income earned by the bottom 3 quintiles or 60% of the population and so on.
- In societies where the distribution of income is unequal, the bar chart will take a different shape. The low income earners, the least paid 20% of the population, will earn less than

the others and less than the average. The high income earners, the highest paid 20% of the population, will earn more than the others and more than the average.

- **GINI COEFFICIENT - A MEASURE OF INCOME DISTRIBUTION:**
- Early in the twentieth century, Italian statistician Corrado Gini developed a formula to measure distribution.
- The **Gini coefficient** measures the inequality of income or wealth distribution among a country's population. It is expressed as a decimal value between 0 and 1, and represents the size of the area between the equal distribution line and the arc formed by the Lorenz curve. The larger the value of the Gini coefficient (say 0.999), the more extreme is the gap between rich and poor. The smaller the value of the Gini coefficient is (say 0.001) the more evenly a country's wealth is shared.

Textbook Definitions:

- **Business cycle:** The expansion and contraction of a nation's economic activity that happens over a period of years, periodically and with great regularity.
- **Depression:** An unusually long or deep recession.
- **Discouraged workers:** People who have withdrawn themselves from the workforce because they have judged their chances of finding employment too remote to bother trying.
- **Employment:** Having paid work.
- **GDP growth:** The percentage change, from one period to the next, in the total value of all the goods and services produced within a country.
- **GDP per capita:** A measure of a country's relative wealth, calculated by dividing a country's GDP by its population.
- **Gini coefficient:** A measure of the inequality of income or wealth distribution among a country's population. It is expressed as a decimal value between 0 and 1, where 0 represents perfect equality and 1 represents extreme inequality.
- **Gross Domestic Product (GDP):** The total value of all of the goods and services that are produced within a country, during any given period.
- **Labour force:** People aged 15 and over, who have a job or a business, and those who are without work, but actively seeking work.
- **Lorenz curve:** A diagram used to graphically represent the distribution of income or wealth within a population.
- **Participation rate:** The percentage of the population aged 15 and over who are in the labour force.
- **Productivity:** A ratio that measures how much gets achieved relative to the inputs that are used to achieve it.
- **Recession:** Two consecutive quarters (two periods of three months each) when GDP shrinks.
- **The working poor:** People who have employment, but whose incomes are too low for them to save money or afford all of the necessities of life.
- **Underemployment:** An employment situation where a person is not working at their full potential.
- **Unemployment:** Actively seeking work, but unable to find work.
- **Unemployment rate:** The percentage of those in the workforce who are actively seeking work, but can't find work.