

# ECON 203 2014/4

## Chapter 4 : economic activity & performance

---

3 Main sections of Chapter 4;

1. GDP
2. INF
3. Unemployment

### 1. GDP (Gross Domestic Product)

*The value of all final goods and services produced in a region over a given time.*

GDP Must have a dollar amount attached to it. *ex. doing you own laundry vs. paying someone to do it for you.*

- Final goods count in the GDP / intermediate goods do not.
  - ex. buying a car vs. buying a windshield for the car.
- Shares, bonds etc. do NOT count for GDP
- GDP is usually measured Annually or quarterly
- Illegal goods or services do NOT count in GDP
- GNP (Gross national product) : *the value of all final goods and services produced by a regions citizens (globally).*

**How to calculate GDP: (3 methods of Approach)**

1. Expenditure Approach

$$C + I + G + X - M$$

C - Consumption

I - Gross capital Investment (Spending on final G+S by firms, Housing)

G - All levels of government

X - Exports

M - Imports

$$C + I + G + X - M \text{ can also be known as } NX \text{ (Net exports)}$$

- If  $NX = 0$  zero then imports and exports are the same.

Ref. Mat. ;

- "C" is the biggest component of the CDN economy
- Net Exports (NX) are generally between -5% & +5%

## 2. Income Approach

*how much did you earn from final goods and sales?*

Categories:

1. Wages and salaries
2. Non farm/ incorporated business income (SELF EMPLOYED)
3. Farm Income
4. Corporate profits
5. indirect taxes (Gov revenue through sales tax (INCLUDED IN GDP))
6. Investment income. (eg. income from a rental property)
7. Depreciation (CCA or Capital Consumption Allowance)  
- Money spent maintaining an asset (Cars, road work, etc.)

## 3. Value added Approach.

*What value do you create?*

The difference between what it cost to produce a product and what it sells for.

2 categories: Materials & Value added

**In theory all approaches should give the same data, in reality they do not.**

**For this reason they have: Statistical Discrepancy**

**EX.**

E	I	V	
100	90	95	
-5	+5		
95	95		GDP adjusted

## Calculating GDP

\*1st year is not always base year,

\*Gov. often change base year to improve their economies image.

### Nominal GDP

YEAR	HOT DOG	HAMBURGER	NOMINAL GDP
2011 (base)	10 @ \$2.00	20 @ \$5.00	\$120.00
2012	12 @ \$1.50	15 @ \$6.00	\$108.00

### Real GDP

YEAR	HOTDOG	HAMBURGER	REAL GDP
2011 (base)	10 @ \$2.00	20 @ \$5.00	\$120.00
2012	12 @ \$2.00	15 @ \$5.00	\$99.00

\* Real GDP - eliminate inflation effects by using prices from base year for every subsequent year.

### GDP DEFLATOR

$GDP\ DEFLATOR = NGDP / RGDP \times 100$

eg. Deflator for 2012:  $108 / 99 \times 100 = 109.1$

\* Base year deflator always equals 100.

\* If deflator is less than 100 then economy in deflating

**Calculating Growth Rate of GDP**

$$\frac{\text{GDP2} - \text{GDP1}}{\text{GDP1}} \times 100$$

\* RECESSION : GDP Shrinking

\* EXPANSION : GDP Growth

GDP Divided by the number of people = GDP per capita.

**Calculating INFLATION**

1. Establish a base year.
2. Create a basket of GOODS & SERVICES (*will be done for us on exams and labs*)
3. Establish what will the basket cost for each year

\*Use base year QTY's for all calculation (Opposite of calculating real GDP)

YEAR	HOTDOG	HAMBURGER	GDP
2011 (base)	10 @ \$2.00	20 @ \$5.00	\$120.00
2012	(10)12 @ \$1.50	(20)15 @ \$6.00	(135)\$108.00

4. Divide each year year by base year # then X 100

Inflation Calculation	CPI ( <i>Consumer Price Index</i> )
\$120.00 / \$120.00 X 100 =	100
\$135.00 / \$120.00 X 100 =	112.5

INFLATION RATE:

$$\frac{\text{CPI2} - \text{CPI1}}{\text{CPI1}} \times 100$$

eg.

$$112.5 - 100 / 100 \times 100 = 12.5\%$$

---

\* Note when considering basket of G+S products change over time; ex. iPhones today didn't exist 20 years ago.

\* Borrowers like **inflation** ; money become worth less over time.

\* Lenders like **deflation** ; Money becomes worth more over time.

## UNEMPLOYMENT

To be considered unemployed, you must meet all criteria:

- Over the age of 15
- Out of work
- Looking for a job
- Able to work
- Willing to work

## EMPLOYMENT

To be considered employed, you must meet all criteria:

- You have a job
- Over the age of 15

Unemployed (U) + Employed (E) = Labour Force (LF)

Labour Force (LF) + Not in Labour Force (NLF) = Population

u = Unemployment rate

wap = working age population

## Unemployment Rate ( u ) =

\* Does not calculate the ( e ) in reverse

$$\frac{U}{LF} \times 100$$

## Employment Rate ( e ) =

\* Calculates the employment rate, but is unrelated to the calculation of the unemployment rate.

$$\frac{E}{wap} \times 100$$

## Labour Force Populaton rate ( LFPR ) =

$$\frac{E}{\text{wap}} \times 100$$

### TYPES OF UNEMPLOYMENT

- **Frictional:** Unemployed because your between jobs.
- **Structural:** You posses skills that the employer does not want / need.
- **Seasonal:** Unemployed due to the time of year.
- **Cyclical:** At certain parts of the business cycle, you are not required.

Natural rate of unemployment

—— is a subset of unemployment rate.

$$= U_f + U_{st} \div LF \times 100$$