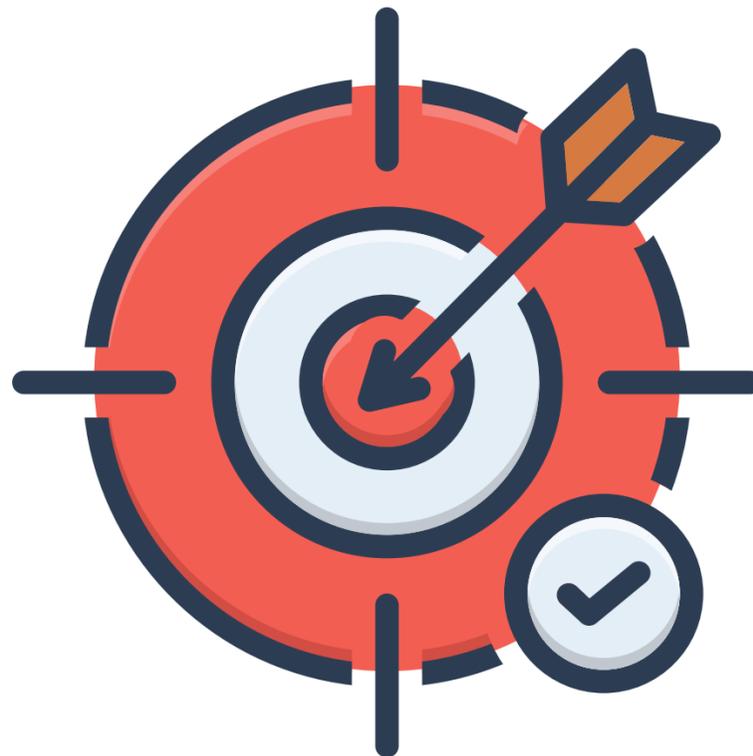


Macroeconomics

3.1



Macroeconomic Objectives



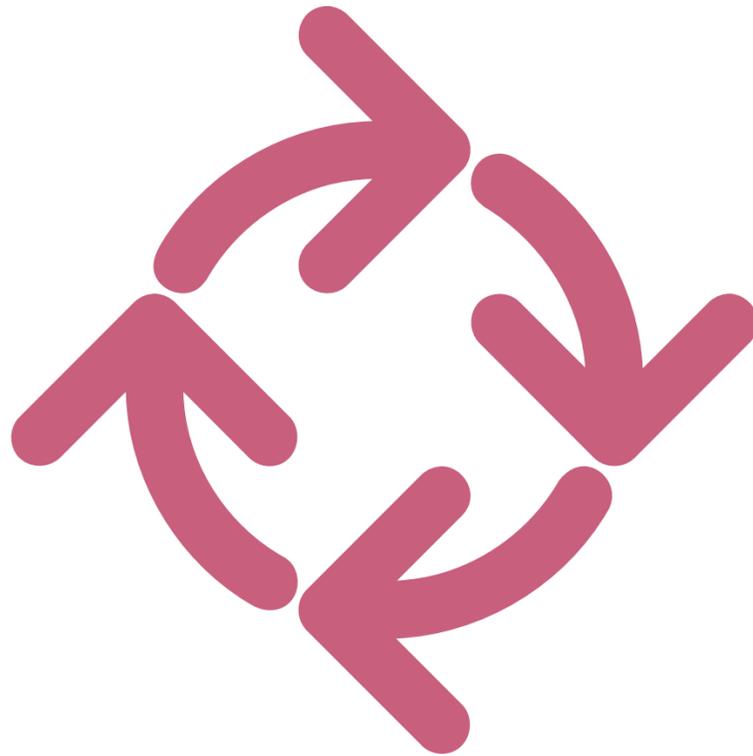
3 Macro Objectives

1. Economic Growth
2. Low Unemployment Rate
3. Low and Stable Inflation

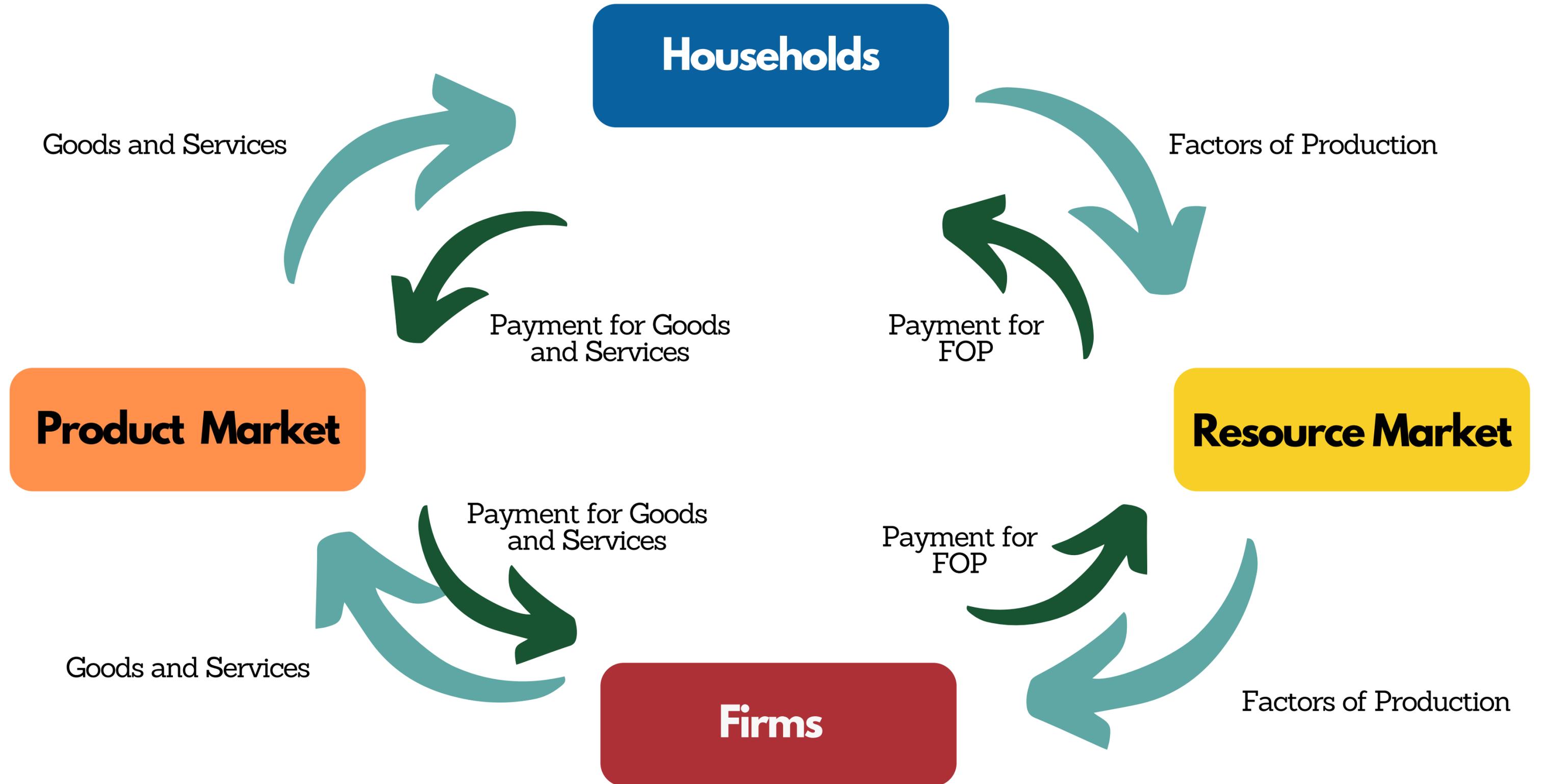


Possible additional goals: Sustainable Debt, Equity, and Income Distribution

Circular Flow



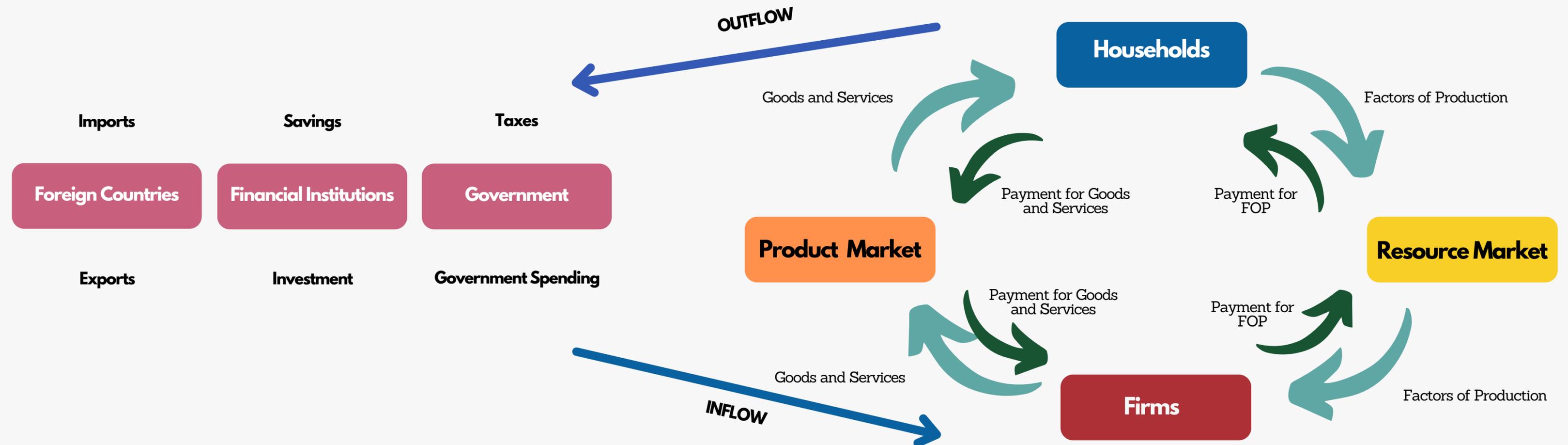
Closed Circular Flow



Open Circular Flow

Leakages – Money that flows out of an economy (Savings, Taxes, Imports)

Injections – Money that flows into an economy (Investments, Government Spending, Exports)



Intro Activity

Select a country and research the following for the last 5 years:

- **Levels of GDP, Real GDP, and GDP Per Capita**
- **Rate of Inflation**
- **Rate of Unemployment**
- **Income Distribution**
- **Trade Balance (Level of Exports vs Level of Imports)**

Then ...

Create a visual using that information and Kognity to:

- **Define each Indicator**
- **Explain each figure and what they demonstrate**
- **Explain the impact on stakeholders**
- **Your comment on the current state of the economy.**

Measuring Economic Activity



Gross Domestic Product



The total MONETARY value of all FINAL goods and services produced DOMESTICALLY within a YEAR.

The most common tool, with it's various alterations, to measure economic growth.

Problems arise due to MNC(Multinational Corporations).

GDP Formula



$$\text{GDP} = C + I + G + (X - M)$$

C – Consumption – Purchases on final goods and services by individuals.

I – Investment – Business spending on tools and equipment.

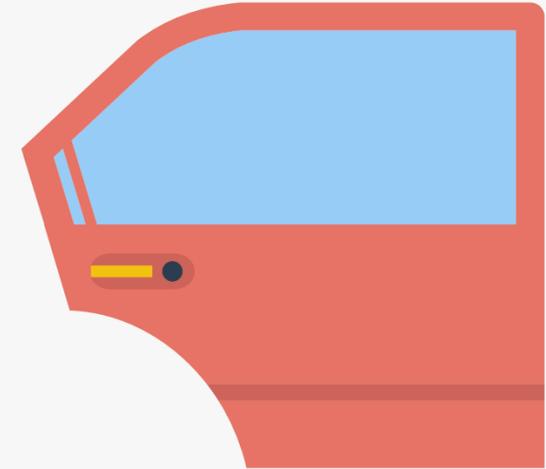
G – Government Spending – Schools, Roads, Military

(X–M) – Net Exports

Things Not Included in GDP

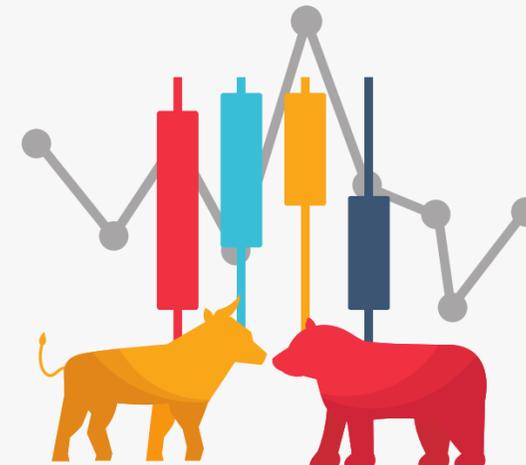
Intermediate Goods

- Goods used in the production of final goods and services



Non-Production Transactions

- Used Goods
- Financial Transactions



Illegal Activities



Included or Not?

Determine whether each component is included or not in GDP for Germany. Upon completion, calculate the GDP.

- 1. 7 Euros for a meal**
- 2. 1 Million Euro for military expenditures**
- 3. 6,000 Euros for a used car**
- 4. BMW invests 5 Million Euros for a new factory**
- 5. 20,000 Euros for an Audi made and sold in the US**
- 6. 45,000 Euro profit from selling stocks**
- 7. 15,000 Euro Volkswagen made in Germany and sold in China**
- 8. 10,000 Euro for a house remodel**
- 9. 200 Euro welfare payment to low-income families**
- 10. 100,000 Euro for a new office building for a start-up company.**

Included or Not?

GDP = 6, 125, 007

1. **7 Euros for a meal**
2. **1 Million Euro for military expenditures**
3. **6,000 Euros for a used car**
4. **BMW invests 5 Million Euros for a new factory**
5. **20,000 Euros for an Audi made and sold in the US**
6. **45,000 Euro profit from selling stocks**
7. **15,000 Euro Volkswagen made in Germany and sold in China**
8. **10,000 Euro for a house remodel**
9. **200 Euro welfare payment to low-income families**
10. **100,000 Euro for a new office building for a start-up company.**

To account for MNCs ... we use

Gross National Product (GNP)

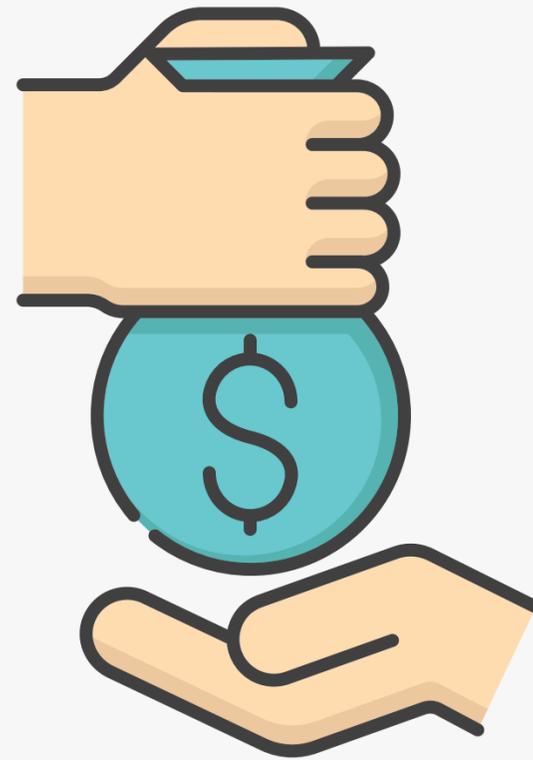
The total monetary value of all final goods and services produced by factors owned by the country's citizens in a given period of time.

Gross National Income (GNI)

The total income of a nation's people and businesses.

National Income

Measure of total economic activity that takes place within an economy.



How to measure National Income?

Output Method

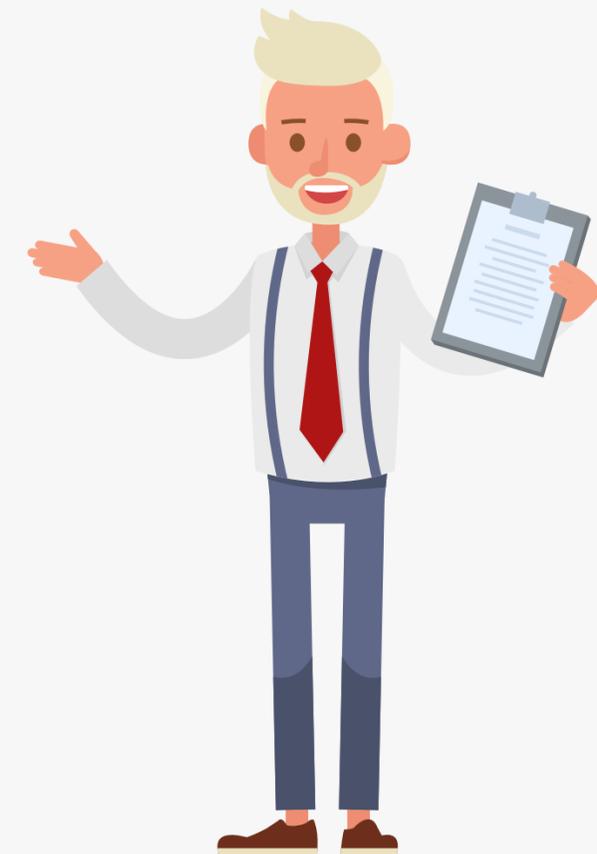
Firms provide figures for their output during the year.

Benefits

- Allows for good statistical data based on sectors.

Problems

- Does not include informal economic activities



How to measure National Income?

Income Method

Done by adding up all the income earned by groups when the factors of production are sold in resource markets.

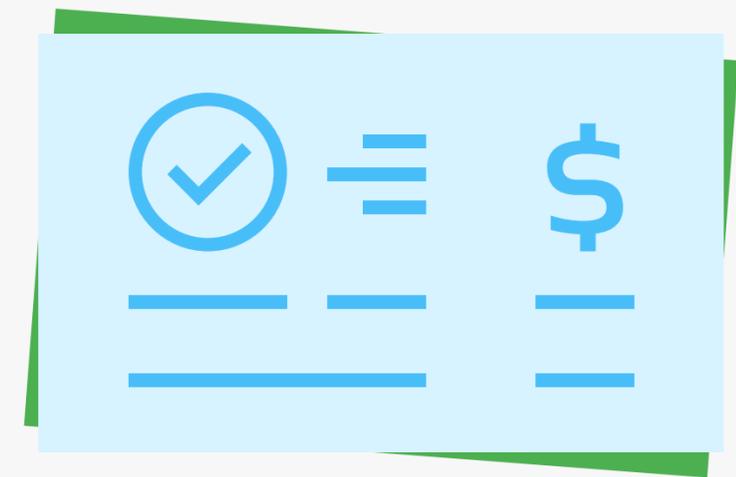
Benefits

- Relatively simple if all jobs are registered.

Problems

As before, does not include unregistered payments or "under the table" money.

- Corruption and criminal activities could distort statistics
- Informal jobs such as babysitting would also not be counted.



How to measure National Income?

Expenditure Method

Done by adding up total sales receipts for goods and services sold in the economy.

Benefits

- In a closed economy, this is simple Consumption. However, in an open economy many other variables are at play such as government spending, investment, and Net Export

Most Commonly Used



GNI Formula

Expenditure Method

$$\text{GNI} = \text{GDP} + (\text{Incomes flowing into the country} - \text{Incomes flowing out of the country})$$



Practice



Practice

Calculate GDP for France using the expenditure method.

| Category | Value in Euros in Millions |
|---------------------|----------------------------|
| Consumption | 900 |
| Investment | 500 |
| Government Spending | 750 |
| Imports | 600 |
| Exports | 500 |

Solution

GDP =

$$900 + 500 + 750 + (500 - 600)$$

2050 Euros (Millions)

Practice

Calculate GNI for France using the expenditure method.

| Category | Value in Euros in Millions |
|----------------------|----------------------------|
| Consumption | 900 |
| Investment | 500 |
| Government Spending | 750 |
| Imports | 600 |
| Exports | 500 |
| Outward Income Flows | 400 |
| Inward Income Flows | 600 |

Solution

GNI =

2050 + (600-400)

2250 Euros (Millions)

What do you think is the most popular movie of all time?



Nominal Box Office Receipts

What is the problem here?



| Rank ↕ | Peak ↕ | Title ↕ | Worldwide gross ↕ | Year ↕ | Reference(s) |
|--------|--------|--|-------------------------------|--------|--------------|
| 1 | 1 | <i>Avatar</i> | \$2,847,246,203 | 2009 | [# 1][# 2] |
| 2 | 1 | <i>Avengers: Endgame</i> | \$2,797,501,328 | 2019 | [# 3][# 4] |
| 3 | 1 | <i>Titanic</i> | \$2,187,425,379 | 1997 | [# 5][# 6] |
| 4 | 3 | <i>Star Wars: The Force Awakens</i> | \$2,068,223,624 | 2015 | [# 7][# 8] |
| 5 | 4 | <i>Avengers: Infinity War</i> | \$2,048,359,754 | 2018 | [# 9][# 10] |
| 6 | 6 | <i>Spider-Man: No Way Home</i> † | \$1,740,845,239 | 2021 | [# 11] |
| 7 | 3 | <i>Jurassic World</i> | \$1,671,713,208 | 2015 | [# 12][# 13] |
| 8 | 7 | <i>The Lion King</i> | \$1,656,943,394 | 2019 | [# 14][# 4] |
| 9 | 3 | <i>The Avengers</i> | \$1,518,812,988 | 2012 | [# 15][# 16] |
| 10 | 4 | <i>Furious 7</i> | \$1,516,045,911 | 2015 | [# 17][# 18] |
| 11 | 10 | <i>Frozen II</i> | \$1,450,026,933 | 2019 | [# 19][# 20] |
| 12 | 5 | <i>Avengers: Age of Ultron</i> | \$1,402,809,540 | 2015 | [# 21][# 18] |
| 13 | 9 | <i>Black Panther</i> | \$1,347,280,838 | 2018 | [# 22][# 23] |
| 14 | 3 | <i>Harry Potter and the Deathly Hallows – Part 2</i> | \$1,342,025,430 | 2011 | [# 24][# 25] |
| 15 | 9 | <i>Star Wars: The Last Jedi</i> | \$1,332,539,889 | 2017 | [# 26][# 27] |
| 16 | 12 | <i>Jurassic World: Fallen Kingdom</i> | \$1,309,484,461 | 2018 | [# 28][# 10] |
| 17 | 5 | <i>Frozen</i> | ^F \$1,290,000,000 | 2013 | [# 29][# 30] |
| 18 | 10 | <i>Beauty and the Beast</i> | \$1,263,521,126 | 2017 | [# 31][# 32] |
| 19 | 15 | <i>Incredibles 2</i> | \$1,242,805,359 | 2018 | [# 33][# 10] |
| 20 | 11 | <i>The Fate of the Furious</i> | ^{F8} \$1,238,764,765 | 2017 | [# 34][# 32] |

Real Box Office Receipts

Highest-grossing films as of 2020 adjusted for inflation^{[31][Inf]}

| Rank | Title | Worldwide gross (2020 \$) | Year |
|------|-------------------------------------|-------------------------------|------|
| 1 | <i>Gone with the Wind</i> | \$3,739,000,000 | 1939 |
| 2 | <i>Avatar</i> | ^A \$3,286,000,000 | 2009 |
| 3 | <i>Titanic</i> | ^T \$3,108,000,000 | 1997 |
| 4 | <i>Star Wars</i> | \$3,071,000,000 | 1977 |
| 5 | <i>Avengers: Endgame</i> | ^{AE} \$2,823,000,000 | 2019 |
| 6 | <i>The Sound of Music</i> | \$2,572,000,000 | 1965 |
| 7 | <i>E.T. the Extra-Terrestrial</i> | \$2,511,000,000 | 1982 |
| 8 | <i>The Ten Commandments</i> | \$2,377,000,000 | 1956 |
| 9 | <i>Doctor Zhivago</i> | \$2,253,000,000 | 1965 |
| 10 | <i>Star Wars: The Force Awakens</i> | \$2,221,000,000 | 2015 |

Adjusted for Inflation



Real Vs Nominal GDP

Nominal GDP/GNI

GDP/GNI measured in current prices that does not account for inflation.

Real GDP/GNI

GDP/GNI that is adjusted for inflation.

Which is better to measure growth?

Real GDP/GNI

Calculated by using a "Deflator". These deflators essentially deflate the nominal values allowing for an accurate Real GDP.

$$\text{Real GDP/GNI} = \frac{\text{Nominal GDP/GNI}}{\text{Price Deflator}} \times 100$$



Real GDP/GNI

Calculate the Real GDP for Mexico from 2016–2020.

Make a statement regarding the trend of the Real GDP data for Mexico

GDP Data for Mexico.

| Year | Nominal GDP | Price Deflator |
|------|-------------|----------------|
| 2016 | 7000 | 100 |
| 2017 | 8100 | 106 |
| 2018 | 8200 | 109 |
| 2019 | 8900 | 106 |
| 2020 | 9500 | 104 |

Real GDP/GNI

GDP Data for Mexico.

| Year | Nominal GDP | Price Deflator | Real GDP |
|------|-------------|----------------|----------|
| 2016 | 7000 | 100 | 7000 |
| 2017 | 8100 | 106 | 7642 |
| 2018 | 8200 | 109 | 7523 |
| 2019 | 8900 | 106 | 8396 |
| 2020 | 9500 | 104 | 9135 |

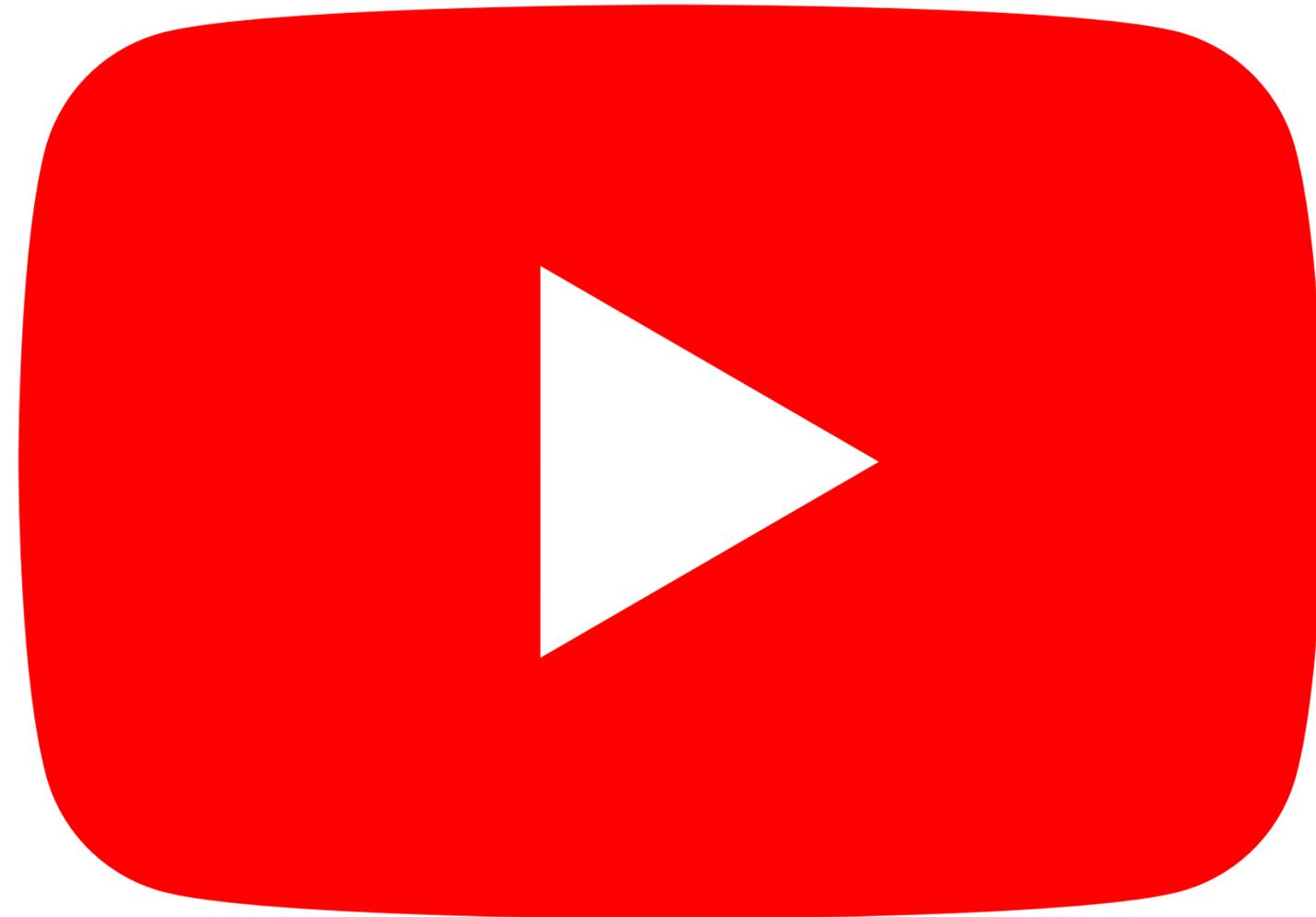
Purchasing Power Parity (PPP)

Gives an accurate depiction of the size of an economy by its power to purchase goods and services within that country.

Used to compare productivity and standards of living between countries by looking at relative costs of goods and services.



You may experience this when you travel. Basic goods and services can be cheaper or more expensive in other countries.



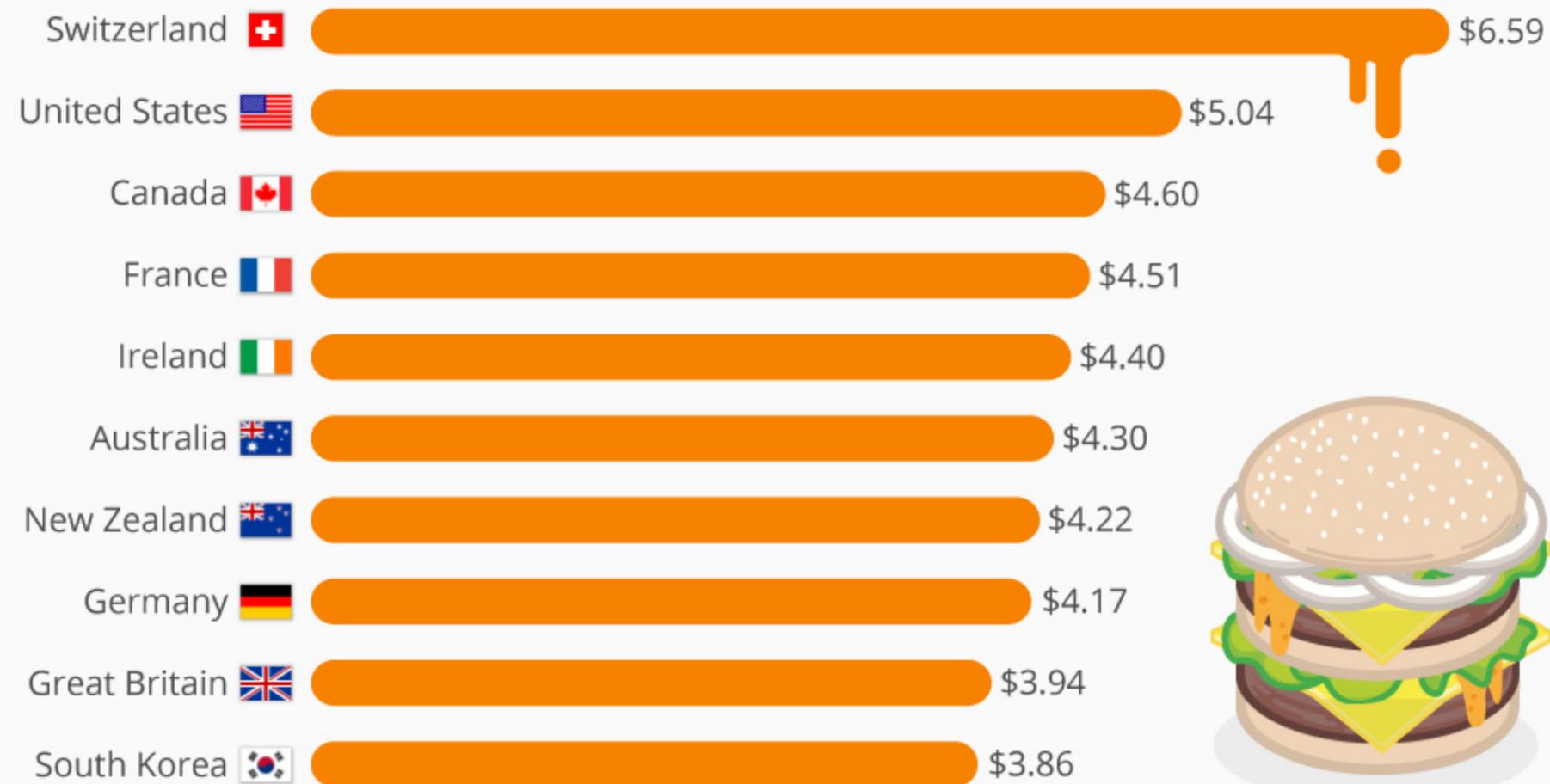
VISUAL CAPITALIST - THE WORLDS 10 LARGEST ECONOMIES IN 2030

Purchasing Power Parity (PPP)

Big Mac Index

30 Years Big Mac Index

Global prices for a Big Mac in selected countries in 2016



@StatistaCharts

Sources: IMF, McDonald's, Thomson Reuters, The Economist

statista

GDP Per Capita

GDP divided by population. Gives an accurate depiction of the average income per citizen.



Pros and Cons of GDP

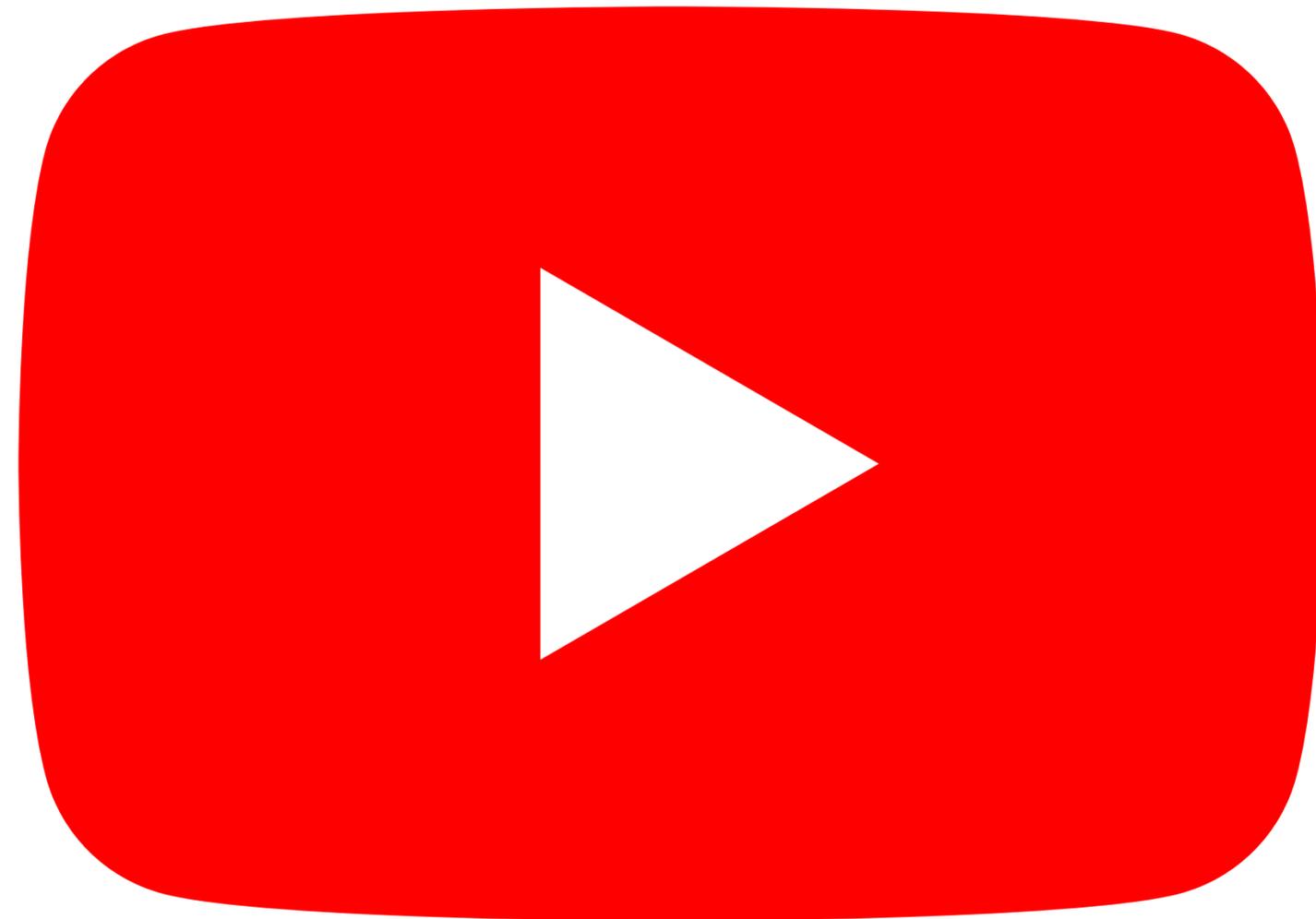


Advantages

- Easy to compare countries
- Informs Policymakers and agendas
- Gives an indication of average income (GDP Per Capita)

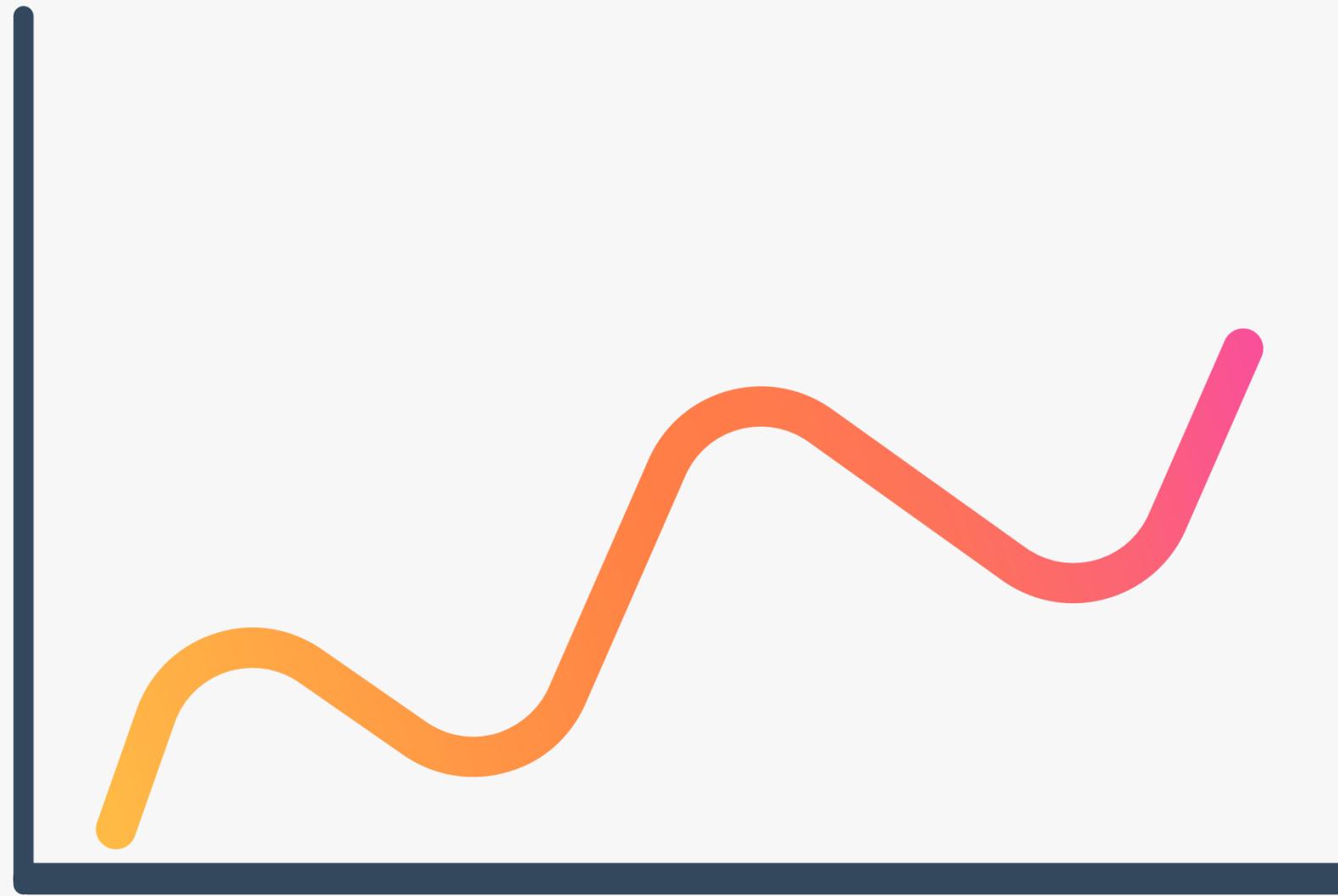
Limitations

- Overestimates quality of life
- Does not account for inequality or income disparity
- Difficult to measure and contains inaccuracies
- Does not account for improvement of quality

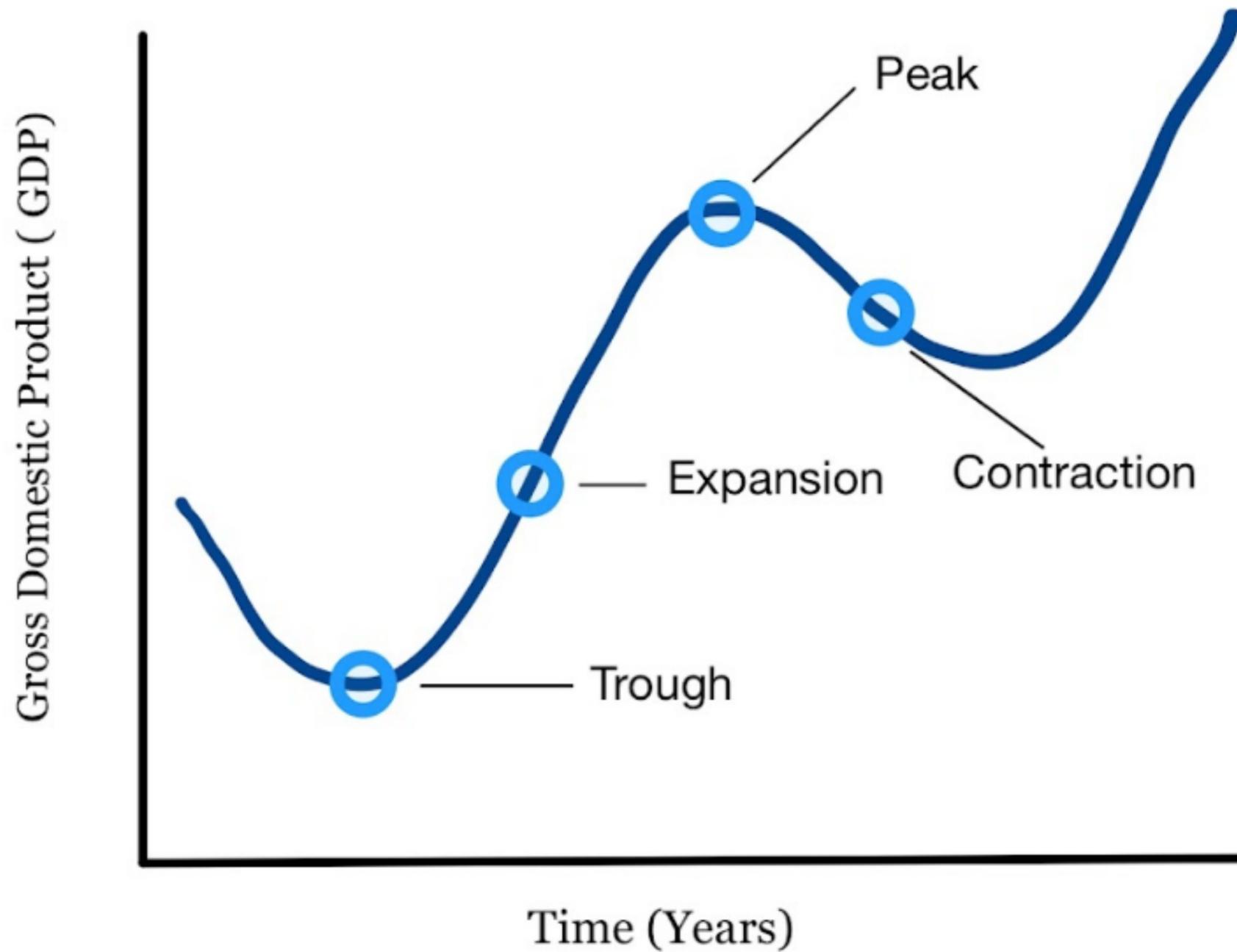


TIME TO FIX GDP?

The Business Cycle

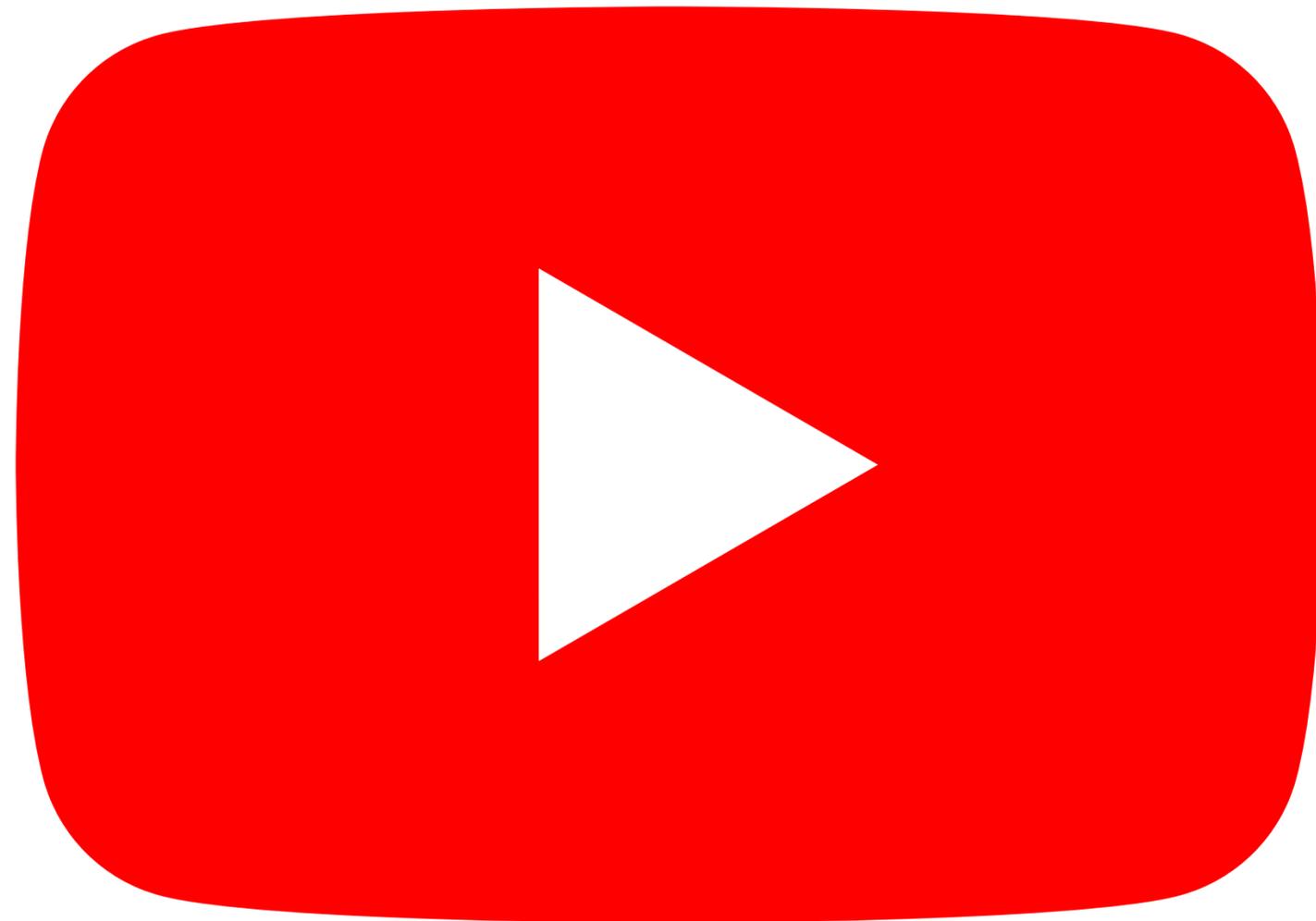


Business Cycle



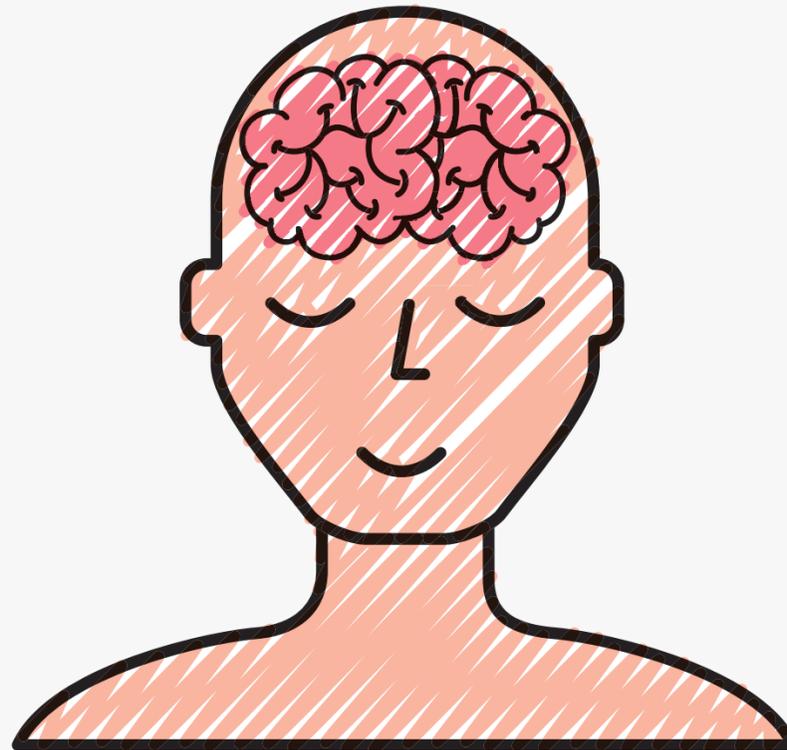
Business Cycle Activity

1. Draw the business cycle
2. Label Each of the main stages
3. Draw arrows on the business cycle to indicate what you believe happens to the following at EACH stage:
 1. GDP Growth
 2. Unemployment
 3. Inflation
 4. The relationship between exports and imports
 5. The relationship between actual and potential output



ACDC ECON - BUSINESS CYCLE

Alternative Measures of an Economic Well-Being

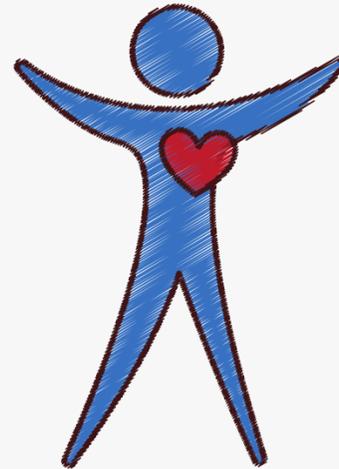


Alternative Measures

GDP and GNI don't take other factors into account such as well-being, happiness, environmental sustainability, etc.



Alternative Measures



OECD Better Life Index

Focuses on a specific subset of data such as health, education, income, life satisfaction, work-life balance, etc.

Happy Planet Index

life expectancy × well-being × inequality

ecological footprint

Happiness Index

Survey participants are asked to assess their happiness on a "Cantril Ladder"

Practice Question



Paper 1 Part A

N18/3/ECONO/SP1/ENG/TZ0/XX

(a) Explain how an increase in leakages can affect the size of the circular flow of income. [10]



Check Answers

- (a) Explain how an increase in leakages can affect the size of the circular flow of income.

[10]

Answers may include:

- definitions of leakages, circular flow of income
- diagram of the circular flow of income
- explanation that when leakages increase money flows in the circular flow of income will fall and reduce the size of the circular flow of income
- examples of where an increase in leakages have reduced national income.

Enjoying The Content?

Visit bananaomics.com to purchase package deals with discount prices!



BANANA
OMICS