Economics

1 September 2023

Traditionally divided into 2 parts.

Microeconomics

Individual units are studied.
Monopoly.
↓
or consumers / factories / or markets.

Macroeconomics.

Aggregates are studied.
Eg. GDP.
↳ we are concerned about increasing it because — we become self-reliant, can export, can manage finances, greater the no. of commodities more is the development

Higher the GDP, higher is the welfare of the citizens.

not a perfect measure of welfare Eg. Bhutan.

GDP has been taken as a proxy for development

Monopoly — market situation where only one seller sells a single kind of goods.

Syllabus: How to calculate GDP.

National Income Accounting.

GDP - sum total of all the goods produced in an economy

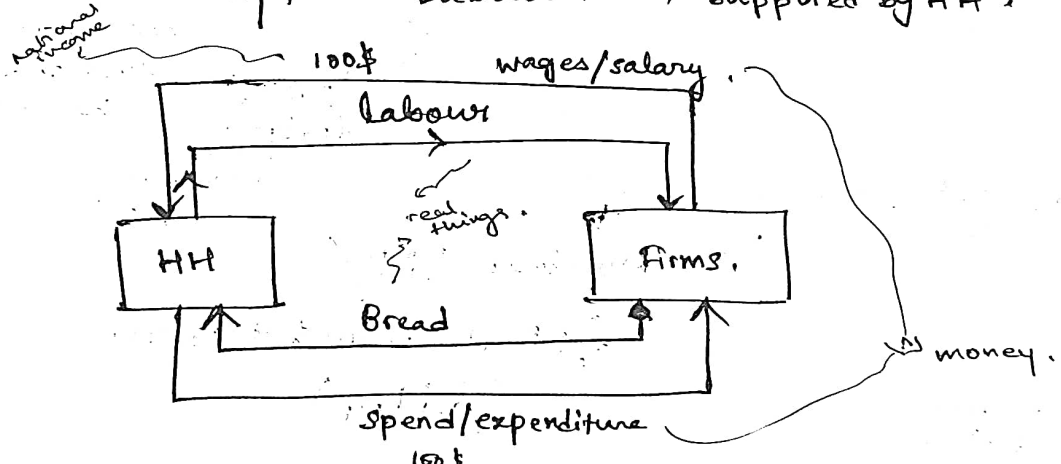
Name of the diagram: Circular flow of Income.

One good being produced

2 economic agents.
Household (HH)
Firms. (F)

Bread. ← produced and supplied by F.

Labour → Supplied by HH.



Assumption:
No savings.
Any form of saving is considered as leakage.

No leakage
No injection.
Amt. of money flowing in the economy remains const.

If we stop the flow of expenditure, the amt. of money = 100$.

Total expenditure = Total income.

equivalent not equal

National Income ≡ National expenditure. → National income identity.

≡ National production.

X → chairs, clothes, electronics, services, transport. GDP = 500

Y → pens, laptops, spectacles, 1000.

For comparison.

2020

Apples	Oranges
10	20
$P_a \times q_a$	$P_o \times q_o$
$= 10 \times 10$	$= 5 \times 20$
$= 100$	$= 100$

$P_a = 10/-$

$P_o = 20/-$.

Total = 200 is the GDP where only 2 goods apples and oranges are being produced.

2021

$q_a = 20$	$q_o = 30$
$P_a = 20$	$P_o = 10$
400	300

Total = 700.

Instead:

2021

$q_a = 10$	$q_o = 20$
$P_a = 20$	$P_o = 10$
200	200

Total = 400.

GDP has risen but production has not increased. We cannot claim that productivity has increased.

Raised inflation in the economy.

Deviant measure.

Nominal GDP / GDP at market prices. (GDP_{MP})

Another measure called the Real GDP.

$GDP = P_a q_a + P_o q_o$

$$GDP = \sum_{i=1}^{N} P_i q_i$$

Economists decide a base

India - Base Year 2011-12.

$q^c_{2023} = 100$ ~> computers

$P^c_{2023} = 50$

$GDP_{MP} = 50 \times 100 = 5000$

$P^c_{2019} = 10$

Base.

$P^c_{2019} \times q^c_{2023} = 10 \times 1000 = 1000$ ~> Real GDP.

$$GDP = \sum_{i=1}^{N} \overline{P_i}\, q_i$$ ~> price is fixed.

what if new goods are produced in 2023.

Every 5-10 yrs., Base years are revised. to include all goods that are new to the economy.

Used goods ↳ Transfer of assets

GDP is not reflecting the exact value

↳ Aim is to minimize this imperfection.

GDP — Gross Domestic Product is the market value of all final goods and services produced within an economy or a geographical area in a specified period of time.

~> value of intermediate goods are not considered

Books — Gregory Mankiw - Macroeconomics ✓ ch. 2.

Dornbusch - Macroeconomics

8 September 2023

National Income Accounting.

~> or

GDP / National Expenditure = Consumption Expenditure (C)
+ Investment Expenditure (I)
+ Government Expenditure (G)
+ Net exports (NX)

We will use the term Economy and Country interchangeably for now though they are not same.

$GDP\ (Y) = C + I + G + NX$

Capital - product through which we produce more.

No unrequited payments are considered 'investment' (Aims, Transfer payments, etc.) loan.

Investment = Δ Capital stock.

Basically done by households.

- Durable Goods
- Non-durable Goods
- Services.

- Business fixed investment → plants, machineries, bought by factories to manufacture their goods.
- Residential investment → Houses (for your own use), Property.
- Inventory Investment → Buffer stock.

Buying house for renting or producing goods is not Residential but Business fixed investment.

Government Expenditure - defence, etc.

Berozgari Bhata etc. where Government doesn't gain anything are not considered.

unrequited payment

Net exports = Exports − Imports.

Exports > Imports
Trade surplus

Exports < Imports
Trade defi

Eg. C = $500
I = $200
G = $100
Trade surplus (Net exports) = $50

GDP = 850.

GDP.

within the boundary doesn't matter who produces it.

income of individuals working outside.

income of foreigners here.

GNP = GDP + Factor Income from abroad − Factor payments to abroad

= GDP + Net factor income from abroad.

= GDP + NFIA.

↳ Gross National Product.

If GNP > GDP means Income from abroad is more. Productive capability of the country is less. But the workers are efficient.

$GNP_{FC} = GNP_{MP}$ − Net indirect taxes

↳ GNP at market prices.

↳ GNP at Factor cost.

money ∃ liquid ~ can be converted to anything

$NNP_{FC} = GNP_{FC}$ − depreciation

↳ decrease of value in the economy.

↳ Net national Product at factor cost.

↳ True measure of National Income.

Personal Income

Money has 3 functions:

① Medium of Exchange

② Unit of account

③ Store of wealth / value

an asset used to make some transaction

Money / Income / Wealth — diff.

Wealth / Unit of time — sum total

Barter system. no money problem;

① Valuation.

② There should be double coincidence of wants

③ Store of value items (cannot be stored forever)

imperfect but more efficient than other forms.

15 September 2023

Money

↳ any asset which is used for transaction.

ATM card is not universally acceptable medium of Exchange. Cannot be called money.

Bitcoin → Not universally acceptable.
Am I. ✗ 2. ✓ It is a legal medium in country El Salvador.
3. Very volatile. No.

Money
{ Currency
Demand Deposits

Saving account – ✗ money. Writing checks, drawing demands on your saving account.

Bonds
↳ store of value in weak.

Money supply.

Total amount money supply in the economy = Total amount of currency

Gold
↳ not perfectly divisible.
↳ was used as money, ↑ purity is a question.

Currency crisis when you lose faith in your own currency

First measure of money supply.

Narrow measure M_1 = Currency with the public.
+ Demand deposits.

Gold bank currency, certificates.

→ free flowing, very liquid Eg. saving account readily used.

M_2 = M_1 + Deposits of Post Office savings accounts.

Term deposit ↴ cannot readily withdraw → fixed deposit, recurring deposit.

Broad measure M_3 = M_1 + Term deposits.

M_4 = M_3 + All deposits with the Post Office.

not liquid.

less liquid

Mostly this is used.

Money supply.

Central Bank. Prints note.

Commercial Banks can create money as well. but in another way.

Take a loan from Bank.

Increase in.

Banks loan out money that they didn't have.

Fractional Reserve Bank. keep a fraction of the money reserved ← Central Bank decides. for contingency, etc.

reg. 20%.

Bank 1	Bank-2	Bank-3
1000	800	640
Reserve 200.	160	128
Excess Rs 800.	640	512
Loan →	created	created

Money supply 1000 + 800 + 640 + 5

1000 ₹ first row
$1000 - r \cdot 1000$
$= 1000(1-r)$

2nd row:
$(1-r)\{1000(1-r)\}$

$1000 + (1-r)1000 + (1-r)^2 1000 + (1-r)^3 1000$

$1000\left[1 + (1-r) + (1-r)^2 + (1-r)^3 + \dots\right]$

$1000 \times \frac{1}{1-(1-r)} = 1000 \times \frac{1}{r}$.

$r = 0.2 \quad = \quad 1000 \times \frac{1}{0.2} = 5000$.

Midsem - National Income Accounting Or Money.

choice.

Demand for money

1. Transactions demand for money. (y) → depends on income.
2. Precautionary demands for money (y)
3. Speculative demand for money (r) rate of interest

$$M^d = f(y, r)$$

income.

rate of income.

as an individual or an economy.

Liquidity preference function.

$\frac{\delta M^d}{\delta y} > 0$ ⟶ Higher the income higher the money demand

$\frac{\delta M^d}{\delta r} < 0$. ⟶ Higher the interest rate lower is the money demand.

directly proportional

Difference between Central bank and commercial bank.

Central bank:
- regulatory → Creates rules for the commercial banks
- → Prints money.
- → Bankers to bankers. when the commercial banks fall short
- → Bankers to the government

Commercial bank:
- 1. Accept deposit.
- 2. Make loans
- 3. Create money.

Definitions - personal income, GDP, GNP, depreciation,

Functions of money, measures of money supply:

How do comm. banks create money supply -

GDP deflator Real GDP Example.
Real income Nominal GDP
Nominal income.

Summing over all expenditure.
Circular flow.

HSS Dept, Room No. 6

GDP deflator = $\frac{\text{Nominal GDP}}{\text{Real GDP}}$.

deflate nominal GDP and brings out the Real GDP.

$$= \frac{P_n Y_n}{P_0 Y_n}$$

$$= \frac{P_n}{P_0}.$$

$$\frac{\text{Nom. GDP}}{\text{GDP deflator}} = \frac{P_n Y_n}{P_n/P_0} = P_0 Y_n$$ ← Real GDP.