Macroeconomics-A brief overview

Asmita Verma

IIM Visakhapatnam

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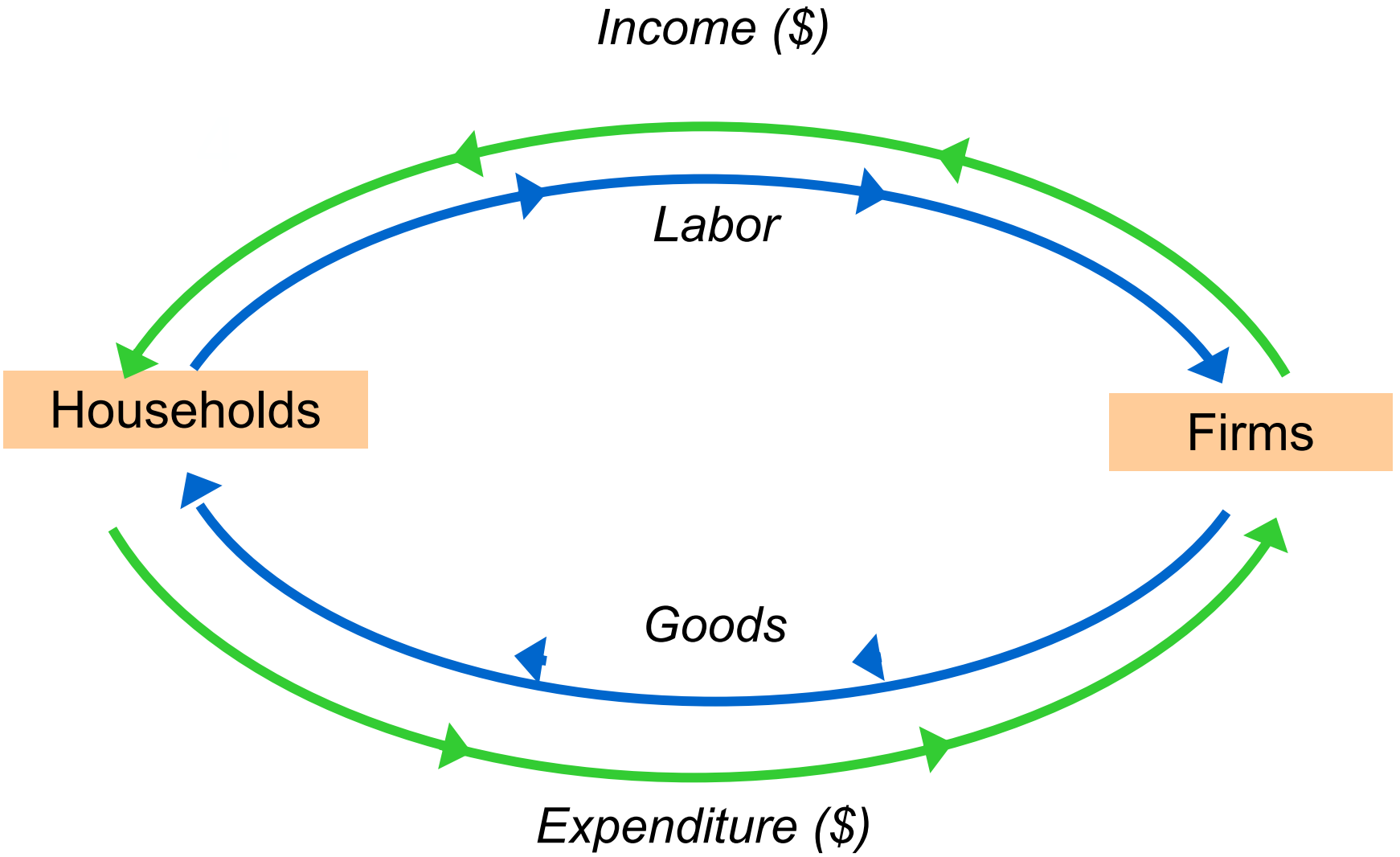
Macroeconomics – What comes to mind?

What determines GDP, unemployment, interest rates, inflation and exchange rates?

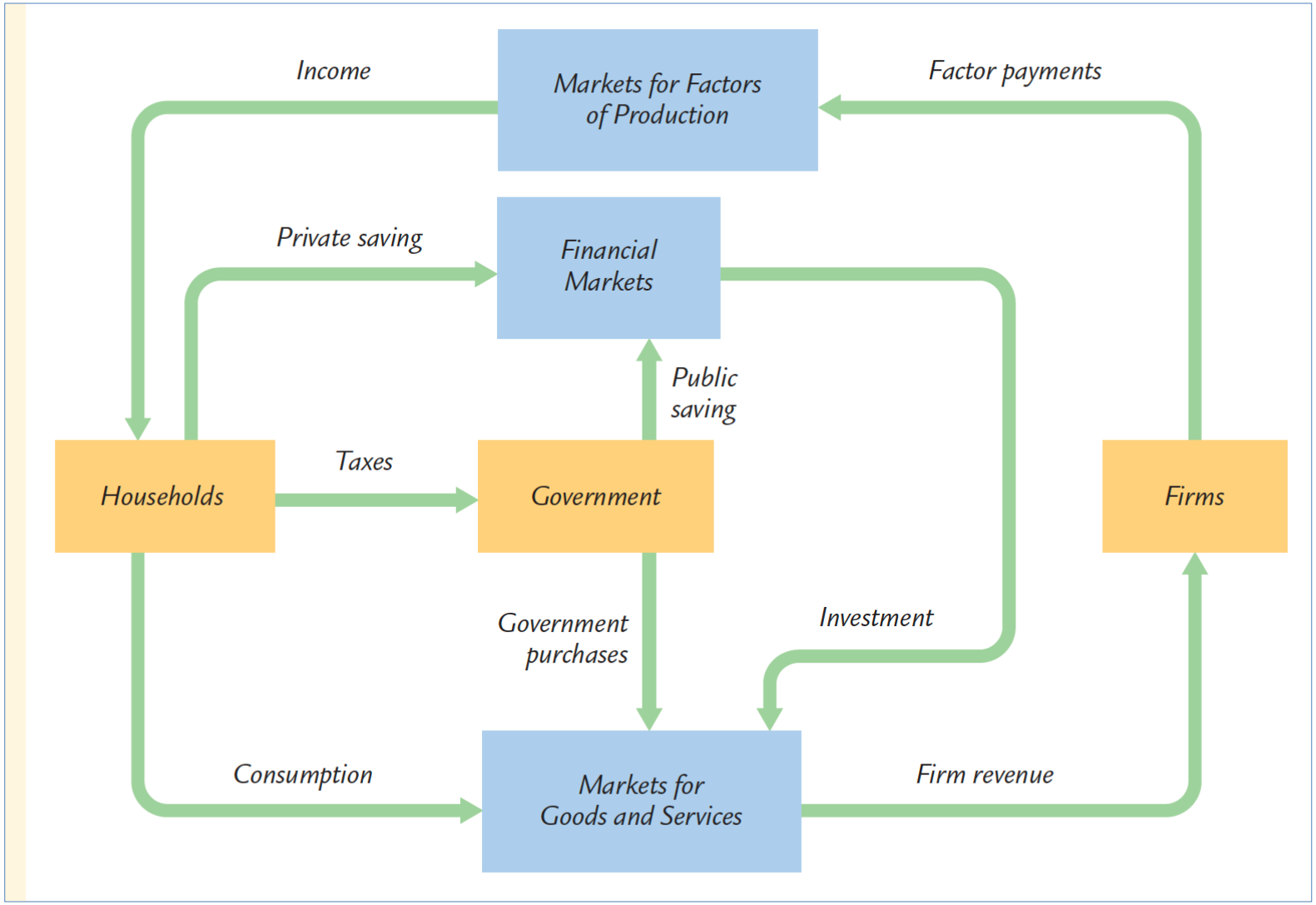
The answers to these questions are important to policymakers, firms and households.

- Policy makers: understanding recessions and booms
- Firm managers: understanding how demand for their product evolves with the macroeconomy; how macroeconomic changes affect their costs and revenues
- Households: Better planning for retirement, which sector to seek employment etc.

Explaining Economic Activity-The Circular Flow



Circular Flow extended…



National Income Accounting

- An accounting system to measure economic activity and its components.
- **GDP**: most widely used measure of economic activity.
- Three approaches to measure GDP: expenditure, income and production.
- NIA shows the relationship among the expenditure, income, and
- production methods of measuring GDP.
- The fundamental identity of national income accounting:

Total Production = Total Expenditure = Total Income

GDP measures the market value of all final goods and services produced within the borders of a country in a given time period

https://www.youtube.com/watch?v=mjJmo5mN5yA&ab_channel=MarginalRevolutionUniversity

GDP is ….

① "GDP is the market value…"

➡Output is valued at market prices.

② ". . . of all final . . ."

➡It records only the value of final goods, not intermediate goods (the value is counted only once).

③ ". . . goods and services . . . "

➡It includes both tangible goods (food, clothing, cars) and intangible services (haircuts, house cleaning).

④ ". . . produced . . ."

It includes goods and services produced in the period we're considering, not transactions involving goods produced in the past.

⑤ " . . . within a country . . ."

It measures the value of production within the geographic confines of a country.

⑥ ". . . in a given period of time."

It measures the value of production that takes place within a specific interval of time, usually a year or a quarter (three months).

Consider the Hypothetical Scenario

Imagine a value-chain containing three firms A, B, C

1. Firm A (Timber Logger): Does timber logging and sells wood worth 1000 to firm B, from its own timber yard
2. Firm B (Furniture Maker): Buys Wood and makes a chair to sell at 2500
3. Firm C (Retailer): Buys Chair and sells it to a consumer at 3000.

What is TOTAL OUTPUT?

GDP Measurement

Equivalence of Methods of measurement

What is the GDP in the below table as per three methods?

Stage of Production	Sales Receipts EXPENDITURE METHOD	Cost of inputs/ intermediates	VALUE ADDED	FACTOR INCOMES
Timber	1000	0	1000	r+i+w+p= 1000
Furniture	2500			
Retailer	3000			
SUM				

What is the GDP?

Stage of Production	Sales Receipts EXPENDITURE METHOD	Cost of inputs/ intermediates	VALUE ADDED	FACTOR INCOMES
Timber	1000	0	1000	r+i+w+p= 1000
Furniture	2500	1000	1500	1500
Retailer	3000	2500	500	500
SUM	***6500***	***3500***	***3000***	**3000**
	EXPENDITURE		***OUTPUT***	***INCOME***

National income is obtained by applying a statistical discrepancy so that expenditure and income accounts sum up to the same number.

Expenditure Method

GDP=Y= C+I+G+NX

C= Personal Consumption Expenditure

I=Gross private Domestic Investment

G= Government Consumption Expenditure and Gross Investment

NX= Net exports of Goods and Services=Exports-Imports

India GDP and its components, 2023-24

Statement 1: First Advance Estimates of National Income and Expenditure Components of GDP, 2023-24
(at 2011- 12 Prices)

(₹ Crore)

Sl.No.	Item	2021-22 (1ST RE)	2022-23 (PE)	2023-24 (FAE)	Percentage Change Over Previous Year 2022-23	2023-24
	Domestic Product					
1	GVA at Basic Prices	1,37,98,025	1,47,64,840	1,57,82,157	7.0	6.9
2	Net Taxes on Products	11,27,815	12,41,585	13,96,485	10.1	12.5
3	Gross Domestic Product (GDP) @	1,49,25,840	1,60,06,425	1,71,78,641	7.2	7.3
4	Net Domestic Product (NDP)	1,29,77,142	1,39,29,147	1,49,58,030	7.3	7.4
	Expenditure Components #					
5	Private Final Consumption Expenditure (PFCE)	87,03,541	93,58,694	97,74,122		
6	Government Final Consumption Expenditure (GFCE)	15,75,281	15,77,306	16,41,364		
7	Gross Fixed Capital Formation (GFCF)	48,78,773	54,34,691	59,94,586		
8	Changes in Stocks (CIS)	1,24,162	1,27,463	1,33,319		
9	Valuables	2,78,759	2,26,089	1,97,931		
10	Exports	33,05,833	37,54,521	38,06,953		
11	Imports	34,93,326	40,91,375	46,29,536		
12	Discrepancies	-4,47,182	-3,80,964	2,59,902		
13	GDP	1,49,25,840	1,60,06,425	1,71,78,641		
	Share in GDP(%)					
14	Private Final Consumption Expenditure (PFCE)	58.3	58.5	56.9		
15	Government Final Consumption Expenditure (GFCE)	10.6	9.9	9.6		
16	Gross Fixed Capital Formation (GFCF)	32.7	34.0	34.9		
17	Changes in Stocks (CIS)	0.8	0.8	0.8		
18	Valuables	1.9	1.4	1.2		
19	Exports	22.1	23.5	22.2		
20	Imports	23.4	25.6	26.9		
21	Discrepancies	-3.0	-2.4	1.5		
22	GDP	100.0	100.0	100.0		

Why do economists care about GDP?

One way to summarise a country's ability to produce goods and services that meet the needs of its citizens.

- C, G: People are assumed to be better off when they consume more goods and services and when the government provides more services to its citizens.

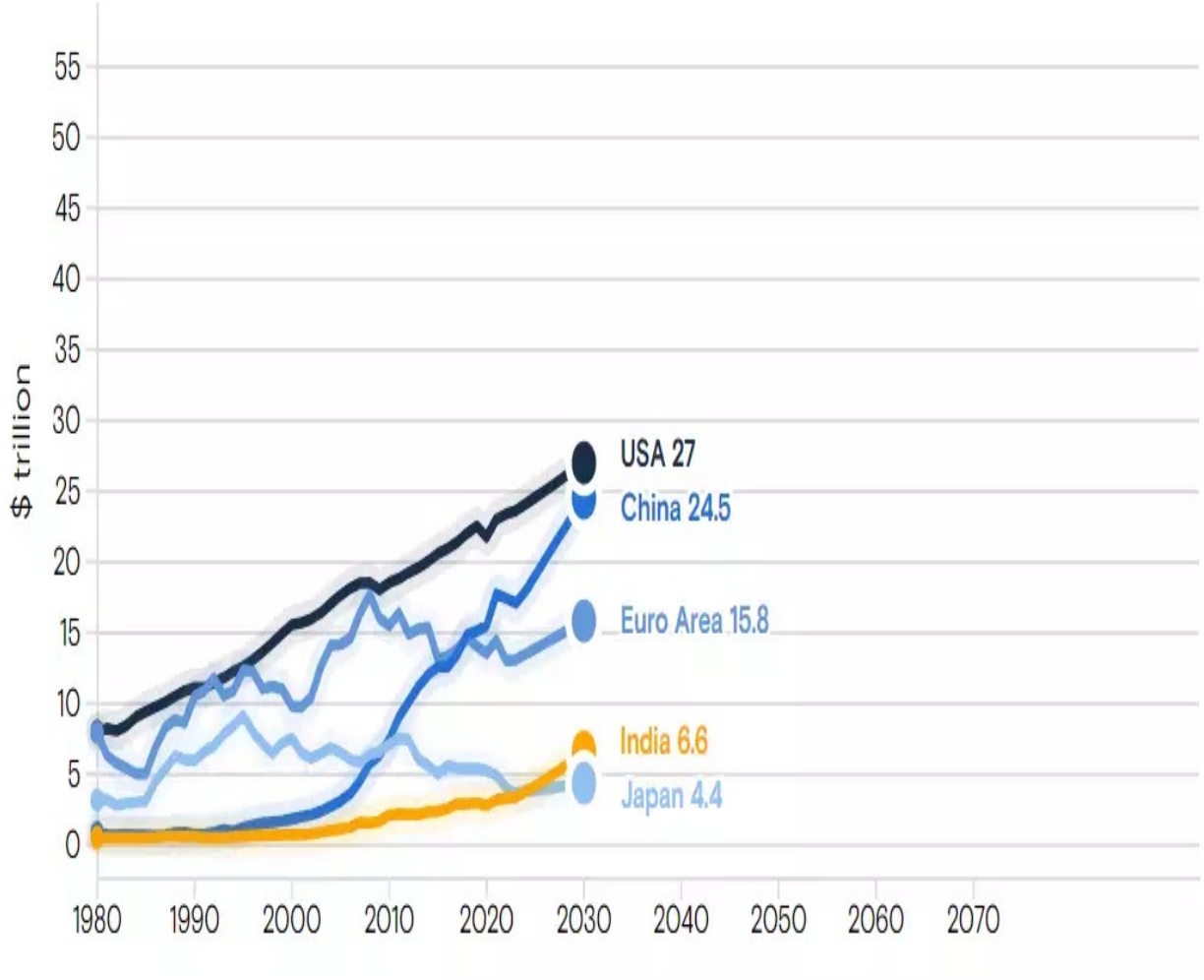
- I: The extent to which an economy is adding to its ability to produce goods and services in the future and thus to its ability to provide C and G in the future.

What determines GDP (Y)?

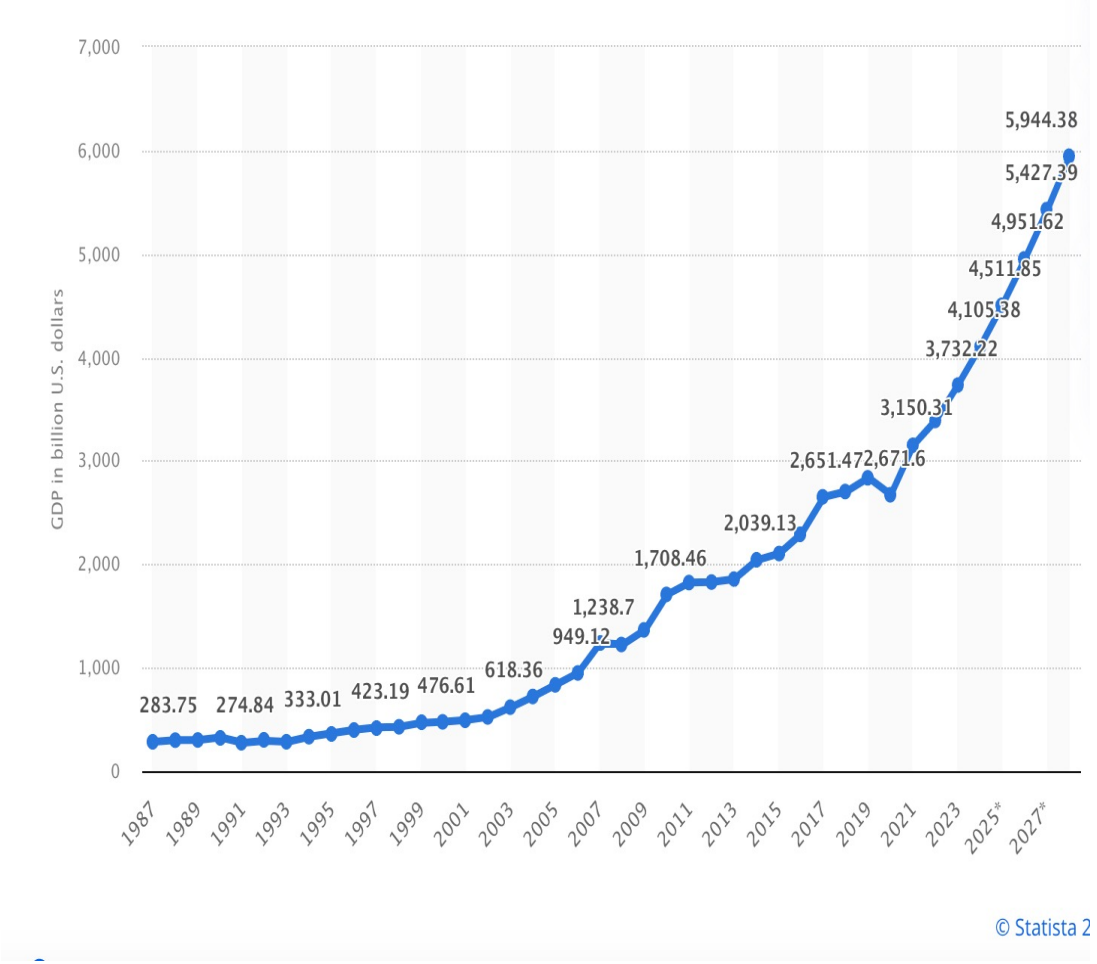
Two approaches:

1. Y is determined by the productive capacity-used to explain GDP differences across countries and over time.
2. Y is determined by desired spending-short run fluctuations in GDP.

Approach 1: Y is determined by productive capacity



GDP across countries/regions



GDP, India over time

$$Y = F(A, K, L)$$

- shows how much output (Y) the economy can produce from technology A, K units of capital and L units of labor
- Represents the level of output that the economy is capable of producing when workers and machines (and other resources) are employed at full capacity.
- Also known as full employment level of output or potential output.

Limitation: Based on the assumption that all labour and other factors of production are fully employed. But is that always the case?

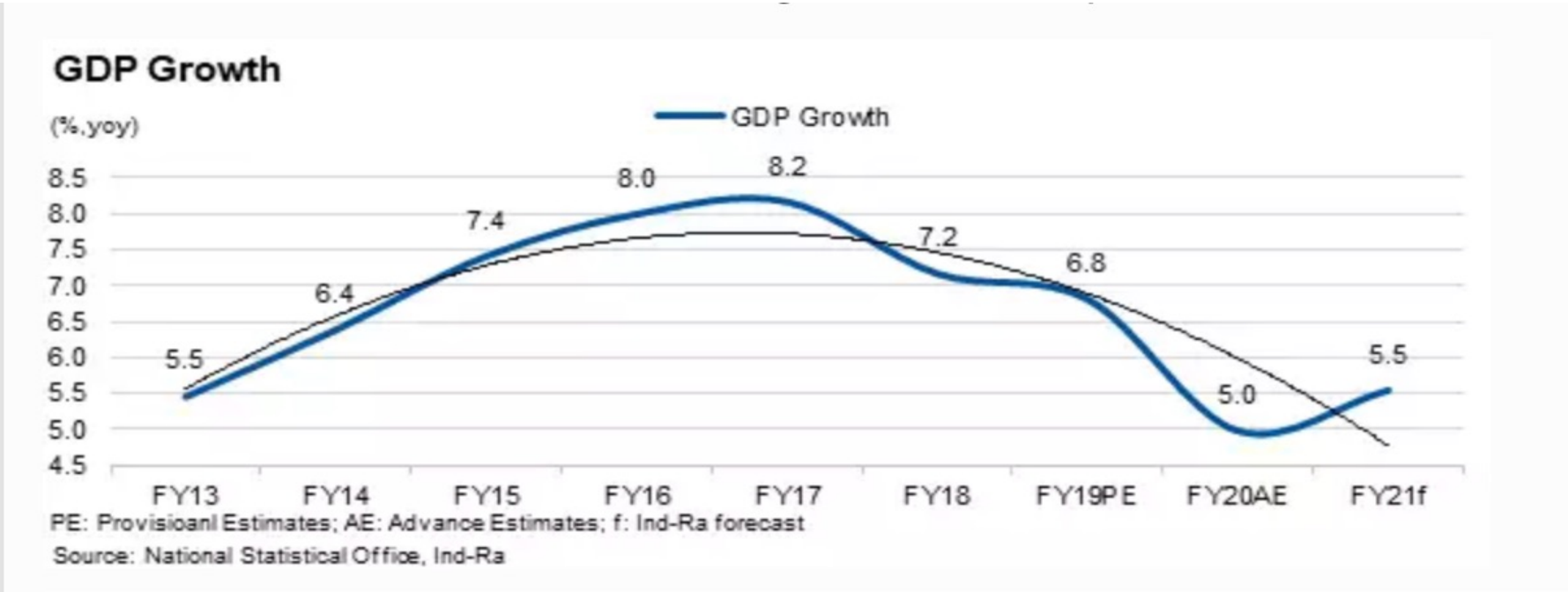
Approach 2: Y is determined by desired spending

Suppose there is a slack in the economy: there are machines that aren't being used or workers who are unemployed.

Then output is determined by desired spending. Capital and labour may be necessary to support a certain level of output, but if the desired spending is less than what the production factors can support, then the factors are left idle.

E.g. A barber may sit at his shop, but output only occurs if customers actually purchase a haircut.

GDP growth in India



Revisiting the components of GDP

Consumption, C= f(Y-T), where T is net taxes paid to the government.
Investment, I=f(r), where r is the real interest rate
Government spending=G

G, T are determined by political processes.
r is determined by the money market.

$$Y=C+I+G$$

- If r declines, I increases, causing Y to increase.