

Lecture 7

Macroeconomic Aggregates & Global Inequality



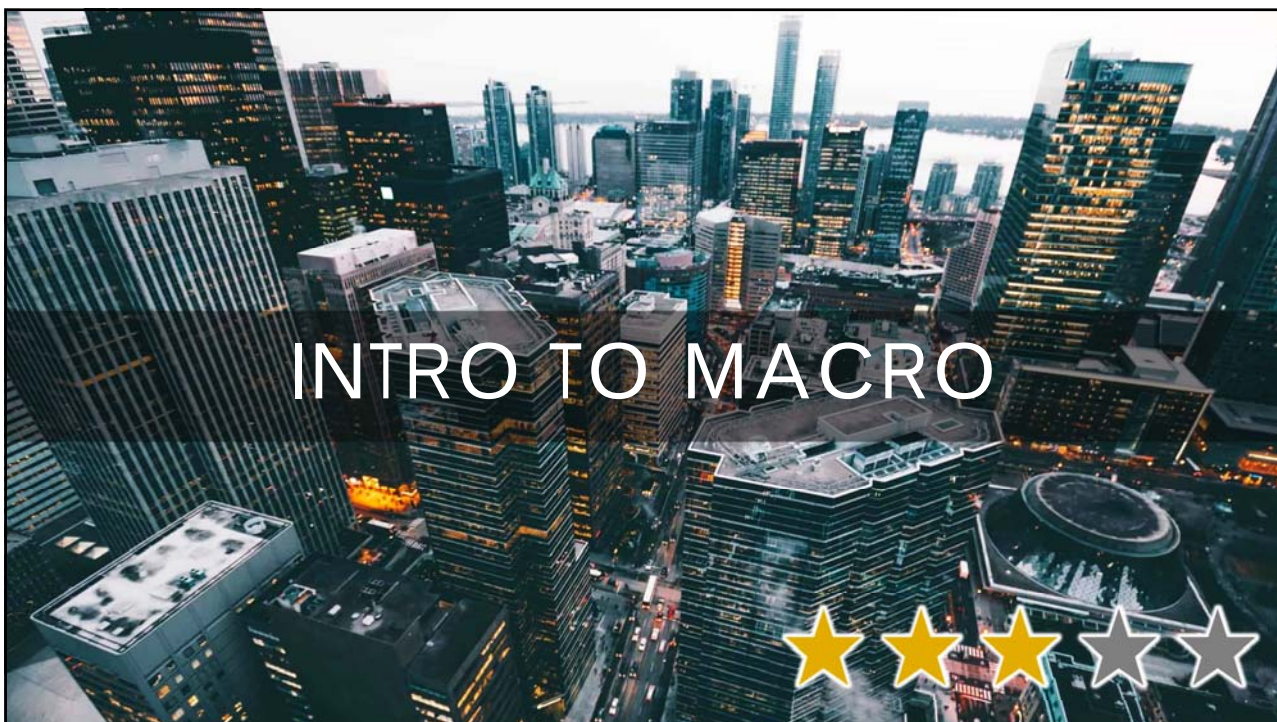
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Macroeconomic Aggregates & Global Inequality



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Macroeconomics

> Introduction

★ We will now focus on the economy *as a whole*

Macroeconomics is the study of the *aggregate* economic activity

★ Interesting *questions* to answer:

1. What causes the enormous *income disparities* between countries?
2. What makes a nation's income *grow* or *shrink*?
3. How do we *measure* those differences *cross-country* and *cross-time*?
4. Will they become *less or more* intense?
5. Can we *affect* the path of the economy with policy?

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GDP & GNP

> GDP

- ★ GDP is the **central variable** of the macro economy
because it is the **best** and the most **objective proxy for prosperity** we know of
- ★ GDP stands for “**Gross Domestic Product**”
measures the yearly **market value** of all goods and services produced within a country
- ★ GNP stands for “**Gross National Product**”
measures the yearly **market value** of all goods and services produced by a country's nationals anywhere in the world
- ★ For most countries GDP and GNP are **approximately equal**
- ★ GDP and GNP measure **value of production** in money
NOT the **value of money** .

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3 measuring approaches !

> GDP

- ★ GDP can be viewed from **several aspects**;

thus, it is referred to with **many terms**

*Y, GDP, total **production**, total **output**, total **income**, aggregate **expenditure***

- ★ We can measure GDP with **3 different methods**:

1. The value of what everyone **produces**
2. How much everyone **spends**
3. How much everyone **earns**.

- ★ All 3 methods measure the **same thing** (total production)

thus, in principle, all 3 should yield the same result .



1. Measuring total production

> GDP > 1. Total Production

- ★ The direct approach is to add **the value of everything produced**

we can use the **market price** of every good to estimate its **value**

- ★ However, total production **consists of**:

- ▶ **Final goods**: sold by firms to consumers intended for **direct consumption**
- ▶ **Intermediate goods**: sold by firms to other firms for **production** of other goods.

- ★ If company A produces **a bottle of milk** valued at \$4:

- ▶ Company B buys that milk and makes **ice-cream** valued at \$12
- ▶ The economy **did NOT produce \$16** worth of GDP
- ▶ Because the value of ice-cream **includes** the value of milk.

- ★ To avoid **double counting**, we measure **only the value of final goods** (\$12)

intermediate goods **are** also part of the GDP but are counted through final goods .

2. Measuring Aggregate Expenditure

> GDP > 2. Aggregate Expenditure

- ★ A **second way** to measure GDP is to **sum the expenditure** on the production
- ★ We can **decompose** expenditure into **5 categories**:
 1. **Consumption (C)**: what domestic households spend on new goods and services
 2. **Investment (I)**: what domestic firms spend on new goods and services
 3. **Government purchases (G)**: what government spends on new goods and services
 4. **Exports (X)**: what foreign countries spend on new domestic goods and services
 5. **Imports (M)**: domestic spending on foreign goods and services.
- ★ **Residential construction** is always counted as part of I
- ★ **None** of the above includes **transfers** (wages, pensions, or benefits) because those are **NOT expenditure on GDP** (new goods and services).

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Aggregate Expenditure and GDP

> GDP > 2. Aggregate Expenditure

- ★ Expenditure on domestic GDP should be equal to **Aggregate Expenditure (AE)**
$$Y = C + I + G + (X - M)$$
- ★ **M is subtracted** because
- ★ **(X - M) is the net exports**
shows whether a nation is
- ★ If a good is **produced** within the year but is **not sold** within the year:
 - ▶ The firm will register it as “**inventories**” and it will count in **expenditure as I**
 - ▶ It is as if the firm has **invested in building inventory**
 - ▶ That is how, the expenditure method will **capture GDP** that nobody has bought yet.

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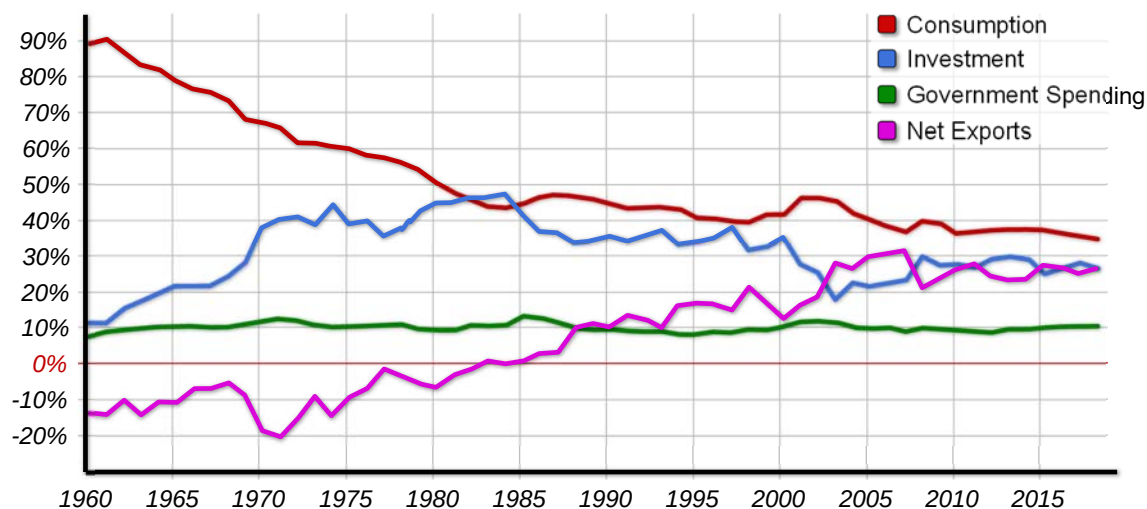
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GDP % expenditure in Singapore

> GDP > 2. Aggregate Expenditure



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3. Measuring total income

> GDP > 3. Total Income

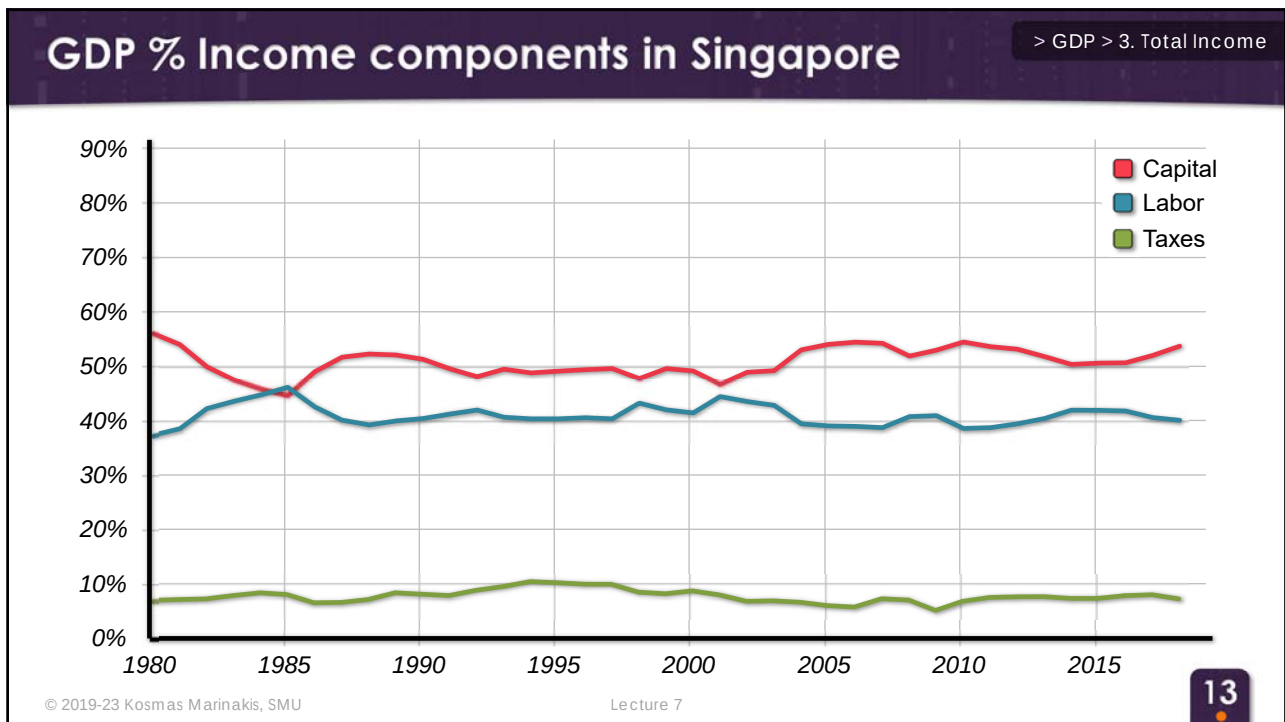
- ★ **Every** dollar spent on GDP must eventually end up inside someone's pocket as **income**
- ★ Firms:
 - ▶ Pay **wages** to workers
 - ▶ Pay **taxes** to the government
 - ▶ Distribute the **profits** to owners in dividends.
- ★ Even when a firm **retains profits** for re-investment, those funds **still buy GDP** and end up as **someone's earnings**
- ★ Hence, GDP can be **equivalently measured** by adding the incomes of workers and capitalists in the economy.

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Measuring prosperity

> GDP vs. Prosperity

- ★ GDP is the **best** and the most **objective** proxy of prosperity
- ★ Yet, it is **far** from being **perfect**:
 - ▶ GDP **includes** elements that **do not contribute** to prosperity
 - ▶ And **omits** others that **do contribute**

Home production

> GDP vs. Prosperity

- ★ Home production **contributes** to prosperity but is **not counted** in GDP
 - ▶ If I **paint the wall** at home it is not part of GDP – if a **painter** does it, it is
 - ▶ However, in **both cases**, I enjoy a painted wall.
- ★ This is surely a **flaw**, but the issue is **practical**:
 - ▶ There is no documented market **transaction**
 - ▶ There is no formal way to assess the **price** or the **quantity**.
- ★ An estimated **15% value** on top of GDP takes place at home
food preparation, household maintenance, childcare, housework etc.
- ★ When home production is **replaced** by market services, GDP increases but prosperity does not
for instance, in the 1960s **childcare** was home production, now it is a market good

The underground economy

> GDP vs. Prosperity

★ **Underground economy** refers to transactions that are intentionally **hidden**:

1. **Illegal activities** that do not take place officially
drug dealing, sex-work, corruption, trafficking, fencing etc.
2. **Legal activities** that happen under the table for tax evasion reasons,
immigration status, or personal reasons
the handyman who asks to be paid in cash etc.

★ Underground economy **contributes to prosperity** but is omitted in GDP

★ In developed countries, underground economy is **around 10%** –
in developing countries, it may exceed 50%

★ Ireland, Italy, Greece, the UK and other countries have recently **started counting some illicit activities** in GDP ▲

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Negative externalities

> GDP vs. Prosperity

★ GDP counts production but **not** its byproducts

waste, pollution, noise, health problems etc.

★ **Prosperity deterioration** due to negative externalities is **not included** in GDP
on the contrary, it may appear as a **positive contributor** to GDP

★ For example, industrial production **pollutes the water**,
forcing residents to buy **water filters**:

- ▶ Needing a filter for the water is a **loss** in terms of prosperity
- ▶ Yet, the purchase of the filter **adds** to GDP ▲

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Wars – disasters – pandemics

> GDP vs. Prosperity

- ★ Wars, disasters and pandemics **worsen prosperity** but may cause **GDP to grow**
- ★ **Wars** tend to stimulate production
 - WWII, the **wars** in Korea, Vietnam, Iraq, Afghanistan **stimulated** the GDP of the US
- ★ **Earthquakes** and **floods** increase economic activity by **boosting construction**
- ★ During the Covid-19 **pandemic**, in 2020, Singapore's GDP fell by (only) 5.4%, yet core industries (tourism, transportation, F&B) were **nearly obliterated**:

Leisure & quality of life

> GDP vs. Prosperity

- ★ **Material goods** counted in GDP are not they only contributors in prosperity
- ★ **Quality of leisure, climate, social relations, health** and **less work anxiety** may be as important for prosperity but are **not counted in GDP**:
 - ▶ A less prosperous (in terms of GDP) Italian lives where a more prosperous (according to GDP) German **dreams** to go for vacation
 - ▶ On average, a Chinese is significantly **wealthier** than a Thai; however, surveys consistently **rank Thailand above China** in human development and happiness
 - ▶ Ikaria island is one of the **poorest** in Greece but has the highest **life expectancy** in the EU ^^

External video

In this video by THE HILL, Krystal Ball and Saagar Enjeti discuss their view of how “the metrics prosper – but the people suffer”. What is happiness and how can it be measured? A masterpiece of journalism for you to watch and see how it compares to your opinion.

YouTube



Krystal Ball: How happiness became a luxury good

The Hill 122K views • 2 months ago

Krystal Ball discusses the happiness divide between classes as the gap between the wealthy and the poor continues to expand.

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Internal video

This video explains how we can use the CPI to make GDP comparable from year to year and the PPP to make the GDP comparable across countries.

YouTube



Economics
& Society

E&S Video 7 - Nominal vs. Real GDP

Kosmas Marinakis • 4 views • 1 hour ago

Video #7
Nominal vs. Real

Economics & Society Internal Tutorial Video #7 Kosmas Marinakis, Ph.D. www.kmarinakis.org/es In this video I talk about how we ...

New 4K

Kosmas Marinakis 15:40

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Thank you!

(you may stay for *consultation*)

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⚠ **WARNING!** ⚠

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