

Chapter 10 | Measuring the Economy: GDP, GNI, and Economic Growth

Comic strip idea: the contrast between a headline announcing that the Philippines is now an “upper-middle-income economy” and an ordinary family still struggling with costly healthcare, weak schools, poor transport, and unequal access to basic services—showing that higher average national income does not automatically mean better lives for everyone.

Chapter 9 followed money, goods, and income as they moved among households, firms, government, financial institutions, and the foreign sector. This chapter asks a different question: how do statisticians combine millions of transactions into a measure of the economy’s total production?

National income accounting provides a common system for doing this. It allows us to compare one year with another, examine which activities drive growth, and discuss the economy using consistent definitions. The figures reported in the news—such as gross domestic product, economic growth, and income per person—come from this system.

These measures are powerful, but they must be interpreted carefully. GDP measures production, not the full well-being of a country. It does not reveal how income is distributed, whether unpaid work is recognized, or whether growth is depleting forests, fisheries, minerals, and other natural assets.

A. Gross Domestic Product: What Is Being Measured?

Gross Domestic Product, or GDP, is the market value of final goods and services produced within a country during a specified period.

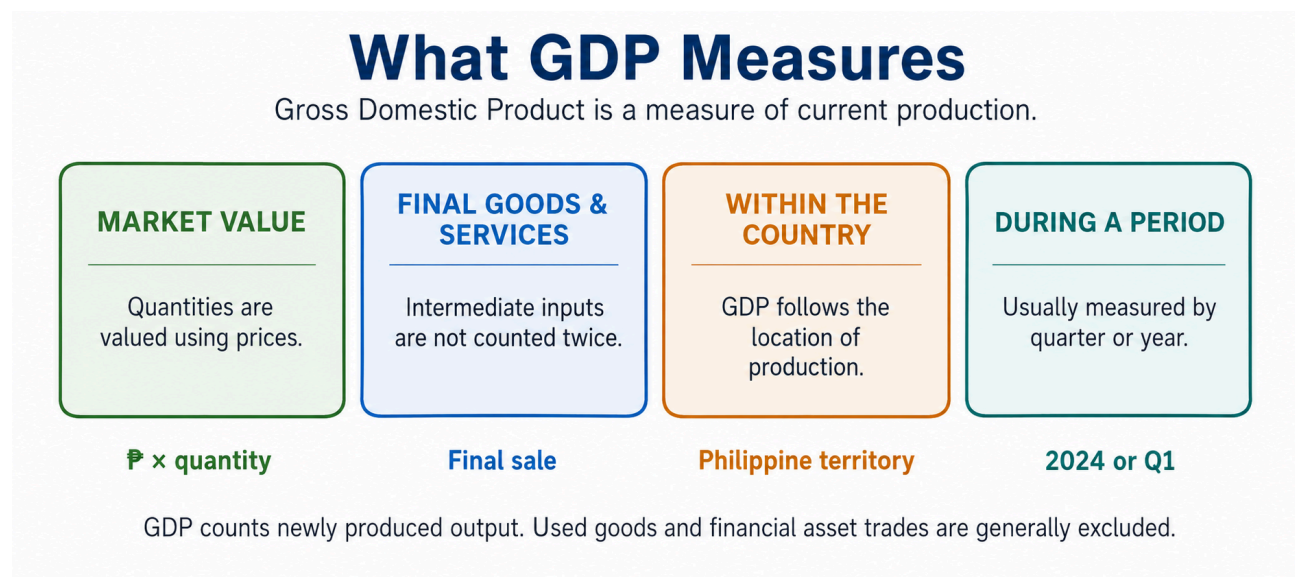


Figure 1. The four parts of the GDP definition.

Market value

GDP combines many different products by valuing them at market prices. A kilogram of rice and a medical consultation cannot be added as physical quantities, but their peso values can be combined.

Market prices are useful because they reflect what buyers pay and sellers receive. However, activities without a market price—such as unpaid care work inside the home—are usually not included even when they are socially valuable.

Final goods and services

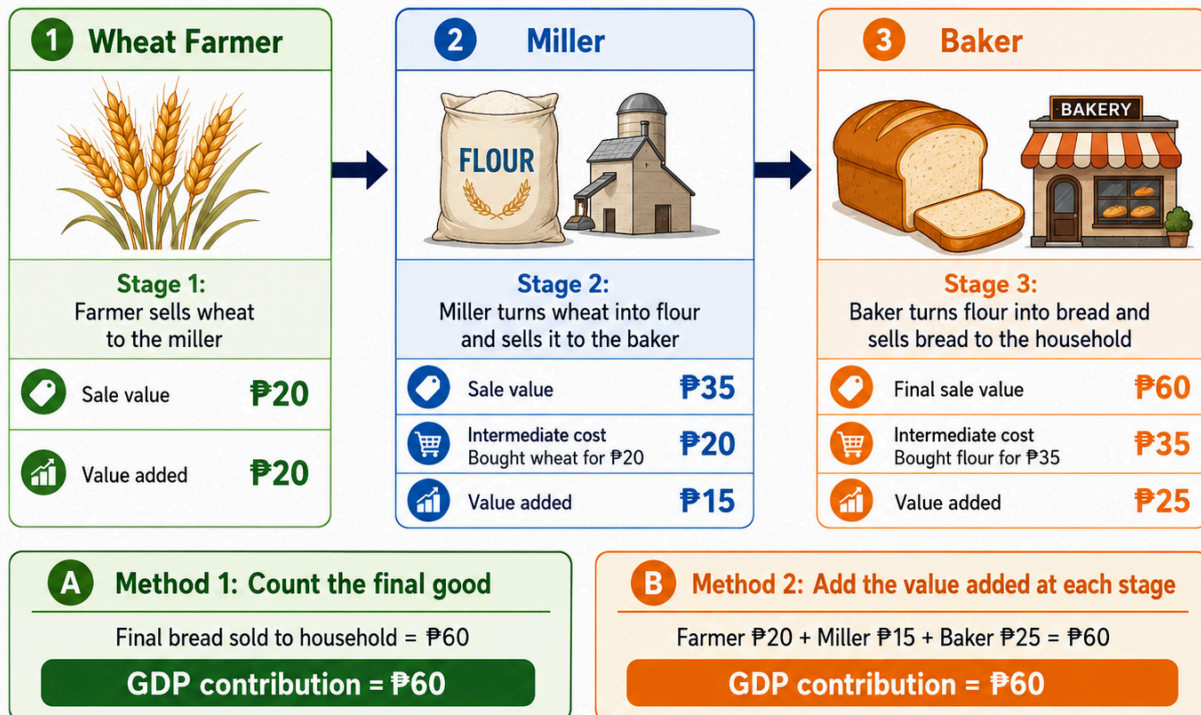
GDP counts final goods and services to avoid double counting. A final product is purchased for final use rather than for further processing.

Suppose a farmer sells wheat to a miller, the miller sells flour to a bakery, and the bakery sells bread to a household. Counting the full value at every stage would count the same underlying production several times. National accountants may count the final bread or add the value created at each stage. Both methods should lead to the same total.

Value added is the value of a producer's output minus the value of the intermediate goods and services used to produce it. Adding value added across producers avoids double counting.

Value Added in Bread Production

GDP can be measured by the value of the final good or by adding the value created at each stage.



Both methods give the same answer. Counting only the final product or summing value added avoids double counting.

Figure 2. The Value-added in Production

Produced within the country

GDP follows the location of production. Output produced inside the Philippines is part of Philippine GDP even when the company is foreign-owned. Output produced abroad is part of the GDP of the country where production takes place.

This is why the memory aid “Gawa Dito sa Pilipinas” is useful. It captures the domestic part of GDP.

During a specified period

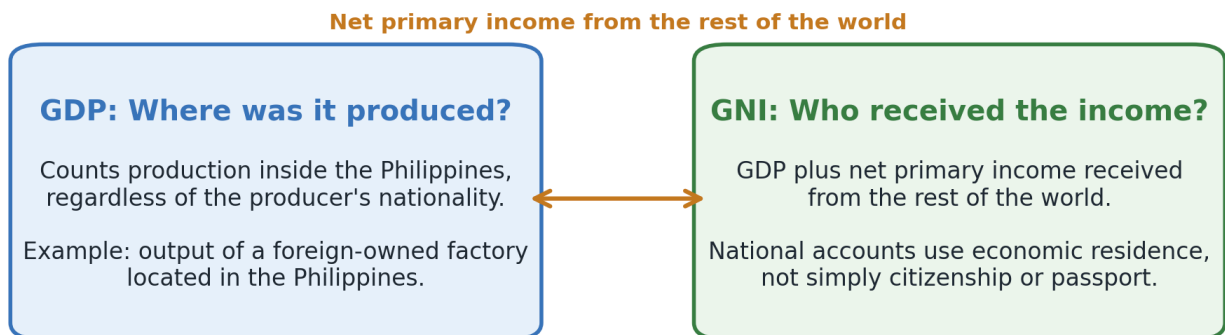
GDP is a flow measured during a quarter or year. A newly produced vehicle is counted in the period when it is produced. The resale of the same vehicle later is not new production, although services connected with the resale may be counted.

Financial transactions such as purchasing shares do not directly represent current production. Fees paid for financial services may be counted, but the value of the financial asset itself is not GDP.

B. GDP and GNI

Gross National Income, or GNI, begins with GDP and adjusts for primary income received from and paid to the rest of the world.

GDP and GNI Ask Different Questions



$$\text{GNI} = \text{GDP} + \text{primary income received from abroad} - \text{primary income paid abroad}$$

Remittances and primary income are related but are not identical statistical concepts.

Figure 3. GDP focuses on the location of production; GNI focuses on income received by residents.

Modern national accounts generally use GNI rather than the older term Gross National Product or GNP. The two are closely related, but GNI is the preferred term in current statistical practice.

The formula is:

$$\text{GNI} = \text{GDP} + \text{Net Primary Income from the Rest of the World}$$

Net primary income includes compensation of employees and property income such as interest and profits received from abroad, less similar payments made to nonresidents.

National accounts use economic residence, not simply nationality. A person's passport does not by itself determine where income is recorded. Residence is based on where a person or institution has its main center of economic interest.

Worked Example: GDP and GNI

Suppose GDP is ₱26.42 trillion and net primary income from the rest of the world is ₱1.003 trillion.

$$\text{GNI} = \text{₱26.42 trillion} + \text{₱1.003 trillion}$$

$$\text{GNI} = \text{₱27.423 trillion}$$

The calculation shows why GNI can be higher than GDP when residents receive more primary income from abroad than nonresidents receive from production inside the country.

C. Three Ways to Measure the Same Economy

National production can be measured from three perspectives. In principle, all three should produce the same total because one person's spending becomes another person's income.

The production approach adds the value created by industries. The income approach adds wages, profits, rent, and other income generated in production. The expenditure approach adds spending on final goods and services.

Chapter 9 introduced the expenditure categories through the circular-flow model. Here, the focus is on how those categories become a measure of domestic production.

The Production Approach

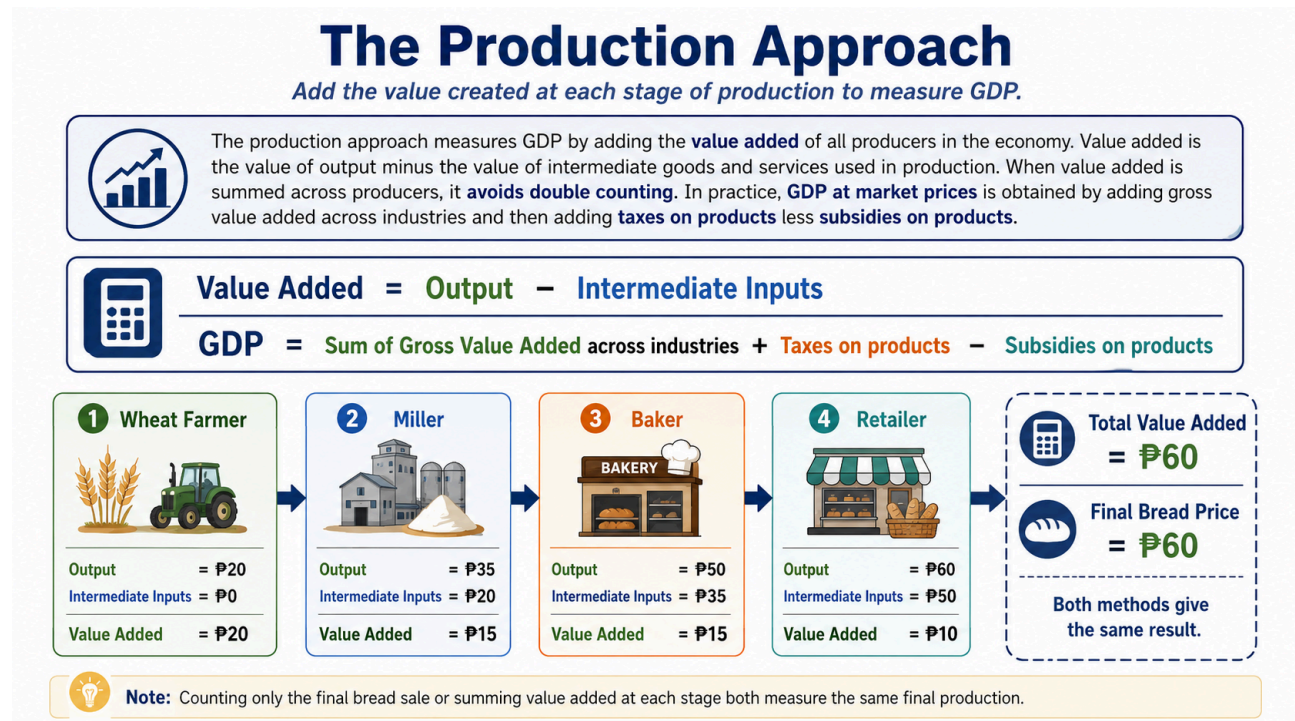


Figure 4. The production approach to measure GDP

Recall the “value-adding” discussion we just had. The **production approach**, also called the **value-added approach**, measures GDP by adding the value created by producers at each stage of production.

A producer’s **value added** is the difference between the value of its output and the value of the intermediate goods and services it purchased from other producers:

$$\text{Value added} = \text{Value of output} - \text{Value of intermediate inputs}$$

Intermediate inputs are goods and services used to produce another good or service. Examples include flour used by a bakery, fabric used by a clothing manufacturer, and electricity used by a factory.

Subtracting intermediate inputs prevents **double counting**. Their value is already included in the price of the final product.

Example: Bread Production

Suppose bread passes through four stages before it reaches the consumer.

Producer	Value of output	Intermediate inputs	Value added
Wheat farmer	₱20	₱0	₱20
Miller	₱35	₱20 worth of wheat	₱15
Baker	₱50	₱35 worth of flour	₱15
Retailer	₱60	₱50 worth of bread	₱10
Total			₱60

The farmer produces wheat worth ₱20 without purchasing an intermediate product from an earlier producer, so the farmer's value added is ₱20.

The miller buys the wheat for ₱20 and sells flour for ₱35. The miller adds ₱15 in value through milling, labor, machinery, and other productive activity.

The baker buys flour for ₱35 and produces bread worth ₱50, adding another ₱15. The retailer then buys the bread for ₱50 and sells it to the consumer for ₱60, adding ₱10 through distribution and retail services.

Adding the value created at each stage gives:

$$\text{₱20} + \text{₱15} + \text{₱15} + \text{₱10} = \text{₱60}$$

This is equal to the final selling price of the bread. GDP may therefore be measured either by counting the **₱60 final product** or by adding the **₱60 of value created across the four stages**.

Counting the total sales at every stage would give ₱165:

$$\text{₱20} + \text{₱35} + \text{₱50} + \text{₱60} = \text{₱165}$$

This would overstate production because the values of wheat, flour, and bread would be counted repeatedly.

From Industries to GDP

National accountants apply the same principle across agriculture, industry, and services. They estimate the **gross value added** produced by farms, factories, construction companies, retailers, banks, transport providers, schools, hospitals, and other economic activities.

GDP at market prices is then computed as:

$$\text{GDP} = \text{Sum of gross value added across industries} + \text{taxes on products} - \text{subsidies on products}$$

Taxes on products are added because market prices include taxes such as value-added tax and excise taxes. Subsidies on products are subtracted because they reduce the price paid by buyers without reducing the value created by producers.

Why the Production Approach Is Useful

The production approach shows **where economic value is created**. It allows policymakers to determine whether growth comes mainly from agriculture, manufacturing, construction, trade, finance, information technology, or other services.

It can also reveal structural changes. For example, an economy may become more dependent on services while manufacturing grows slowly. GDP may still rise, but the pattern of growth can affect productivity, employment, wages, imports, and regional development.

Key Idea: The production approach measures GDP by adding the new value created at each stage of production. It avoids double counting by subtracting the value of intermediate inputs.

The Income Approach

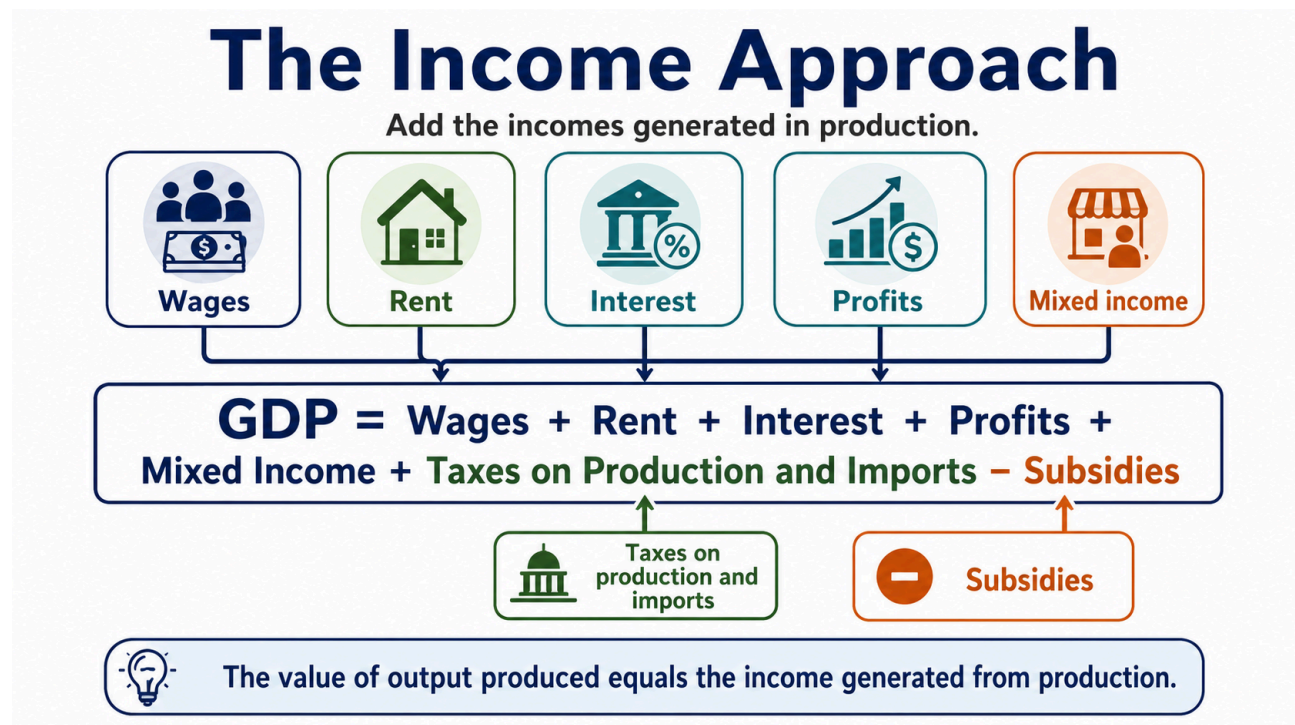


Figure 5. The income approach to measure GDP

The **income approach** measures GDP by adding the incomes generated in the production of goods and services.

Whenever firms produce output, they make payments to workers, owners of land and capital, lenders, and business owners. These payments become income for households and institutions. In

this sense, the value of production can also be measured by adding the incomes created through production.

The main forms of income include:

- **Compensation of employees**, such as wages, salaries, and employer contributions;
- **Rent**, earned from the use of land, buildings, and other property;
- **Interest**, earned by lenders and owners of financial capital;
- **Profits**, earned by businesses and entrepreneurs; and
- **Mixed income**, which applies when the income of a self-employed person combines payment for labor and profit from the business.

A small store owner, for example, may work in the store and also own the business. It may be difficult to separate the owner's wage from the profit of the enterprise. National accountants therefore classify this as mixed income.

The basic idea is:

GDP by the income approach = Compensation of employees + rent + interest + profits + mixed income + taxes on production and imports – subsidies

Taxes on production and imports are included because GDP is measured at market prices. Subsidies are subtracted because they lower the price paid by buyers without reducing the income generated by production.

Example

Suppose a bakery produces and sells bread worth **₱60**. The value created by the bakery is distributed as follows:

Type of income	Amount
Wages paid to workers	₱25
Rent paid for the shop	₱10
Interest paid on a business loan	₱5
Profit earned by the owner	₱15
Taxes on production, less subsidies	₱5
Total income generated	₱60

The total income generated is equal to the value of the bakery's production.

This reflects an important accounting relationship:

The value of output produced is equal to the income generated from producing it.

Why the Income Approach Is Useful

The income approach shows **who receives the income created by production**. It allows economists to examine how much of national income goes to workers through wages and salaries and how much goes to business owners, lenders, and property owners.

This can help analyze issues such as:

- whether wages are rising together with productivity;
- whether profits are growing faster than labor income;
- how much income is earned by self-employed workers;
- how income is distributed across sectors; and
- whether economic growth is translating into higher household income.

The income approach is therefore useful not only for measuring GDP, but also for studying the distribution of income generated by economic activity.

Key Idea: The income approach measures GDP by adding the wages, rent, interest, profits, mixed income, and net production taxes created through production.

The Expenditure Approach

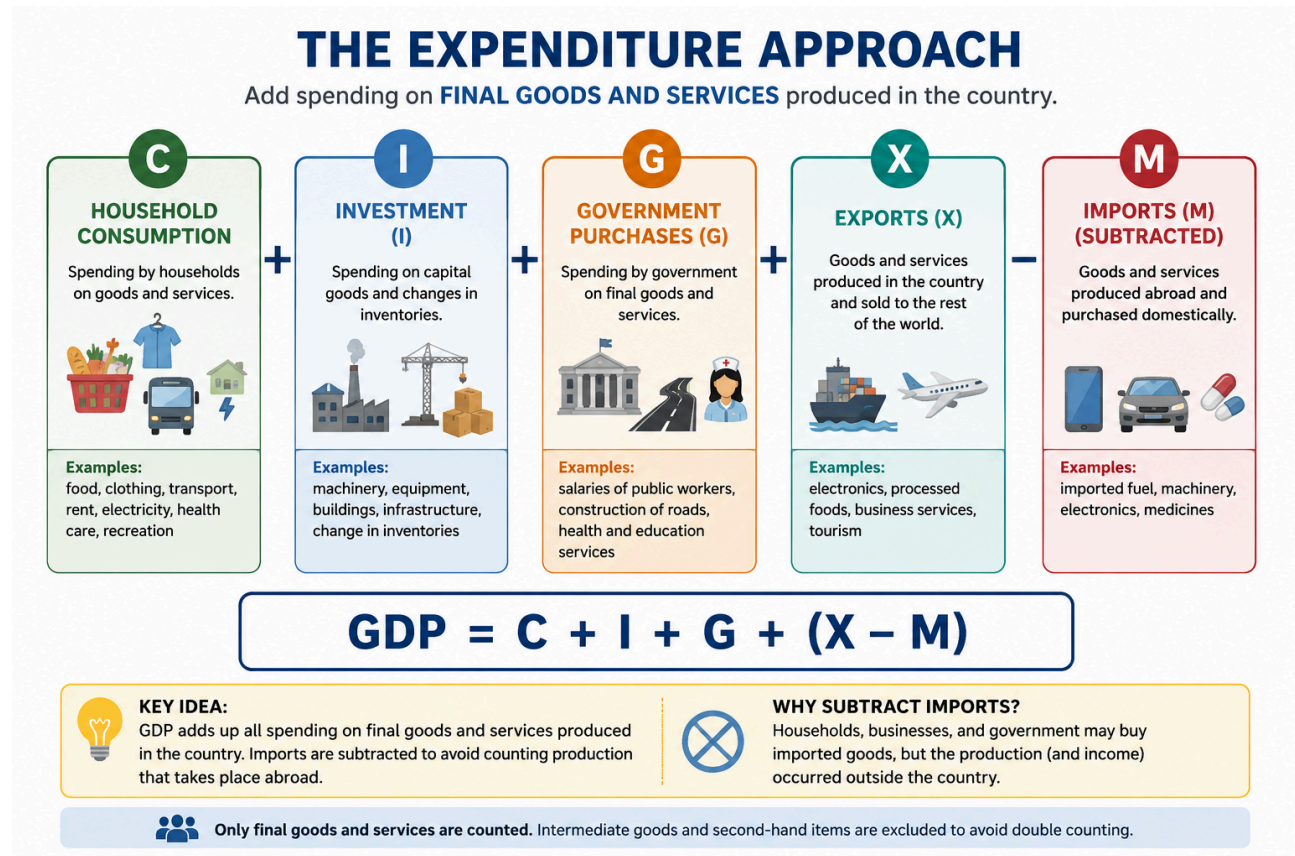


Figure 6. The expenditure components of GDP.

The expenditure identity is:

$$GDP = C + I + G + (X - M)$$

Consumption (C) is household final consumption expenditure. It includes household spending on food, housing services, transport, communication, education, healthcare, recreation, and other goods and services.

Investment (I), also called gross capital formation, refers to spending that adds to productive assets or inventories. It includes machinery, buildings, infrastructure, residential construction, and changes in inventories. Buying shares or depositing money in a bank is a financial investment, but it is not counted as capital formation in GDP.

Government spending (G) includes government final consumption and public investment. Public employee compensation and government purchases of goods and services are included. Cash transfers are not counted directly as production; they affect GDP when recipients spend them.

Exports (X) are goods and services produced domestically and purchased by the rest of the world. Imports (M) are subtracted because they were produced abroad, even when the spending initially appears under consumption, investment, or government purchases.

Worked Computation: Philippine GDP in 2024

Using the 2024 expenditure values in the original chapter:

Household final consumption expenditure (C)	₱20.13 trillion
Gross capital formation (I)	₱6.26 trillion
Government final consumption expenditure (G)	₱3.83 trillion
Exports of goods and services (X)	₱6.81 trillion
Imports of goods and services (M)	₱10.61 trillion

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

$$\text{GDP} = 20.13 + 6.26 + 3.83 + (6.81 - 10.61)$$

$$\text{GDP} = \text{₱}26.42 \text{ trillion}$$

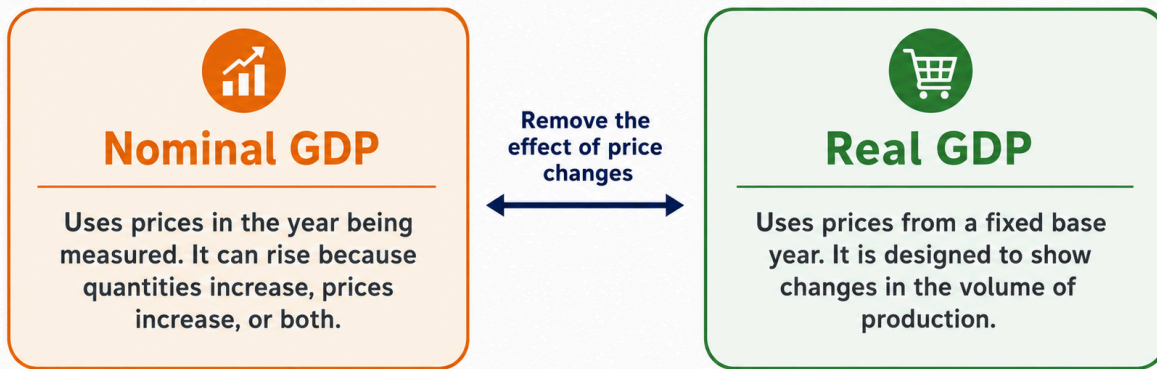
The result is approximate because the components have been rounded. National account estimates are also revised as more complete information becomes available. PSA later reported that the revised full-year real GDP growth rate for 2024 was 5.7 percent (PSA, 2026).

Why Imports Are Subtracted
Imports are not subtracted because they are considered harmful. They are subtracted because GDP measures domestic production. An imported machine may increase investment and future productivity, but the machine itself was produced abroad.

D. Nominal GDP, Real GDP, and Prices

A rise in the peso value of GDP can occur because more goods and services were produced, because prices increased, or because both changed. To measure changes in production, economists distinguish nominal GDP from real GDP.

Nominal GDP and Real GDP



Economic growth is normally measured using the percentage change in real GDP.

A rise in nominal GDP does not necessarily mean that more goods and services were produced.

Figure 7. Nominal GDP includes current prices; real GDP controls for price changes.

Nominal GDP uses the prices prevailing in the period being measured. It is useful for describing the peso size of the economy and comparing GDP with current budgets, debt, or revenue.

Real GDP values production using prices from a base year. The PSA currently presents constant-price estimates using 2018 as the reference year. Real GDP is used to calculate economic growth because it is designed to remove the effect of general price changes.

The implicit price index or GDP deflator compares nominal and real GDP and provides a broad measure of price change across domestically produced final goods and services.

Simple Example: Price Growth or Output Growth?

Year	Quantity	Price	Nominal value
Year 1	100 kg	₱40	₱4,000
Year 2	100 kg	₱50	₱5,000

Nominal GDP rises by 25 percent, but the quantity produced does not change. The increase reflects a higher price rather than more output. This is why news reports about economic growth normally use real GDP.

E. Economic Growth

Economic growth is the percentage change in real GDP between two periods. GDP answers “How large is measured production?” Growth asks “How quickly is the volume of production changing?”

Computing Economic Growth

$$\text{Growth rate} = ((\text{Real GDP in Year 2} - \text{Real GDP in Year 1}) \div \text{Real GDP in Year 1}) \times 100$$

Year	Price per kg	Quantity	Value
Year 1	₱40	100 kg	₱4,000
Year 2	₱40	150 kg	₱6,000

$$((\text{₱6,000} - \text{₱4,000}) \div \text{₱4,000}) \times 100 = 50\%$$

Because the price stayed at ₱40, the increase reflects a larger quantity of output.

In actual national accounts, statisticians use thousands of goods and services and constant-price methods.

Figure 8. A simple growth-rate calculation.

The general formula is:

$$\text{Growth rate} = ((\text{Real GDP in Year 2} - \text{Real GDP in Year 1}) \div \text{Real GDP in Year 1}) \times 100$$

In the pineapple example, the price remains ₱40 per kilogram while output rises from 100 kilograms to 150 kilograms. The value at the unchanged price rises from ₱4,000 to ₱6,000. The growth rate is 50 percent.

Growth Rates and Base Effects

A growth rate is affected by the level from which growth begins. A small economy or an economy recovering from a sharp contraction can record a high percentage increase without immediately returning to its previous path.

The Philippines contracted sharply in 2020 during the pandemic. Strong growth in the following years partly reflected reopening and recovery from that low base. Interpreting a growth rate therefore requires looking at both the percentage change and the level of real GDP.



Figure 9: Philippine Real GDP Growth, 2015–2025. The high growth recorded after 2020 should be interpreted partly as recovery from the unusually low level of production during the pandemic. This illustrates the base effect: a percentage increase can appear large when the starting value is unusually low.

GDP per Capita

GDP per capita is GDP divided by the population. It gives an average amount of domestic production per person. Real GDP per capita is useful for examining whether production is growing faster than population.

However, an average does not show distribution. GDP per capita may rise even when many households see little improvement. It should be examined together with household income, wages, poverty, inequality, employment, health, education, and access to services.

PSA estimated 2024 per capita GDP at ₱234,193 in current prices and ₱197,013 in constant 2018 prices in its January 2025 national accounts publication (PSA, 2025).

Case Study: What Drives Philippine GDP?

The expenditure composition of GDP provides a broad picture of how demand is generated.

Household consumption is the largest component of GDP, followed by government consumption and investment.

Remittances, GDP, and GNI

Remittances are money sent by people working abroad to households in the Philippines. They are important to family income, but they are not counted directly as part of GDP because receiving money is not the same as producing a good or service.

Remittances affect GDP when households use them to buy goods and services produced in the Philippines. They may also support investment when they are used to build a house, improve a farm, or finance a small business. If the money is spent on imported goods, that spending does not add directly to domestic production.

The treatment of remittances in GNI depends on the status of the person earning the income. Income earned abroad by a person who is still considered a resident of the Philippines may be included as primary income from abroad. However, money sent by someone who is considered a resident of another country is generally treated as a transfer rather than as primary income.

Key Idea: Remittances are not automatically added to GDP or GNI. Their effect on GDP comes mainly through the spending and investment they support in the domestic economy.

Case Study : OFWs, Remittances, GDP, and GNI

The Philippines receives large inflows associated with overseas work. These inflows support household consumption, education, housing, saving, and small businesses. They also help explain why GNI can differ significantly from GDP.

The statistical treatment requires care. If a person remains a Philippine resident while working temporarily abroad, compensation earned abroad can enter Philippine primary income. If the worker becomes a resident of the host economy, money sent home is generally recorded as a transfer rather than as Philippine primary income. The distinction depends on national-account residence rules, not simply citizenship.

Personal remittances reached US\$38.3 billion in 2024, according to the Bangko Sentral ng Pilipinas (2025). Remittances do not directly equal GDP because they are not payment for production occurring in the Philippines. When recipient households spend the funds on domestically produced goods and services, however, they can support consumption and domestic output.

The 2008–2009 Global Financial Crisis

During the global financial crisis, Philippine growth slowed sharply but remained positive. Remittance inflows continued to support household budgets even as many advanced economies contracted. This helped stabilize consumption, although remittances were only one factor behind the country's performance.

The case demonstrates both a strength and a vulnerability. Income earned abroad can protect households from domestic weakness, but reliance on overseas employment exposes families to recessions, policy changes, conflict, and labor conditions in host countries.

Case Questions

1. Why can remittances support Philippine GDP without being counted directly as domestic

F. What GDP Tells Us—and What It Does Not

GDP is an essential measure of production. It helps governments prepare budgets, businesses assess demand, and researchers compare economic performance over time.

It is not a complete measure of social progress. UNDP notes that GDP was not designed as a measure of well-being and that development must also consider people's health, education, and capabilities (United Nations Development Programme (UNDP, 2026).

Distribution

GDP records the total value of production but does not show who receives the resulting income. Growth can occur alongside high inequality, weak wage growth, or persistent poverty.

Useful companion measures include household income and consumption, poverty incidence, wage growth, employment quality, and measures of inequality.

Unpaid and Informal Work

Many valuable activities are not exchanged in markets. Unpaid childcare, elder care, household work, and volunteer activity are largely excluded. Informal production may also be difficult to measure completely.

The omission does not mean these activities have no value. It reflects the practical boundaries and methods of national accounting.

Environmental Depletion and Damage

GDP can increase when natural resources are extracted, but it does not automatically subtract the loss of forests, fisheries, mineral reserves, clean water, or ecosystem services. It may also count rebuilding after a disaster without recording the full loss of assets and well-being.

The World Bank emphasizes that GDP does not show whether growth is supported by accumulating assets or by depleting the productive base of the economy (World Bank, 2024).

The Philippines enacted Republic Act No. 11995, the Philippine Ecosystem and Natural Capital Accounting System Act, to integrate natural-capital and ecosystem accounts into public planning and decision-making. Its implementing rules were published in 2025 (PSA, 2025b).

GDP should remain a measure of production. The solution is not to force one number to answer every question, but to use a dashboard that includes real GDP per capita, employment, wages, poverty, inequality, health, education, and natural-capital accounts.

G. Why National Income Measures Matter

National income measures help describe the size and structure of the economy. They allow comparisons across time and provide a basis for tax ratios, debt ratios, budget planning, and economic forecasts.

They help identify whether growth comes mainly from household spending, capital formation, government purchases, or foreign demand. They also reveal which industries are expanding or contracting.

Businesses use these figures to assess markets. Government agencies use them in planning and evaluation. International institutions use GNI per capita for income classifications, while recognizing that it does not directly measure welfare or development (World Bank, undated).

The figures are estimates, not exact counts. National accounts combine surveys, administrative records, business reports, price data, and statistical methods. Estimates are revised when better information becomes available. Revision is a normal part of producing credible statistics, not necessarily evidence that the earlier figures were manipulated.

Upper-Middle Income—But Are Living Standards Keeping Up?

On **1 July 2026**, the World Bank reclassified the Philippines from a lower-middle-income to an **upper-middle-income economy**. The classification is based on the country's **GNI per capita**, calculated using the World Bank Atlas method. The World Bank attributed the move to broad-based economic expansion, with GDP growing by an average of 5.8 percent annually over the previous five years (World Bank, 2026b).

This is an important milestone, but it does not mean that most Filipinos have suddenly become upper-middle-income households. The classification describes the country's **average income per person**. It does not show how income is distributed or whether people have adequate education, healthcare, housing, transport, water, and sanitation.

Inequality remains high

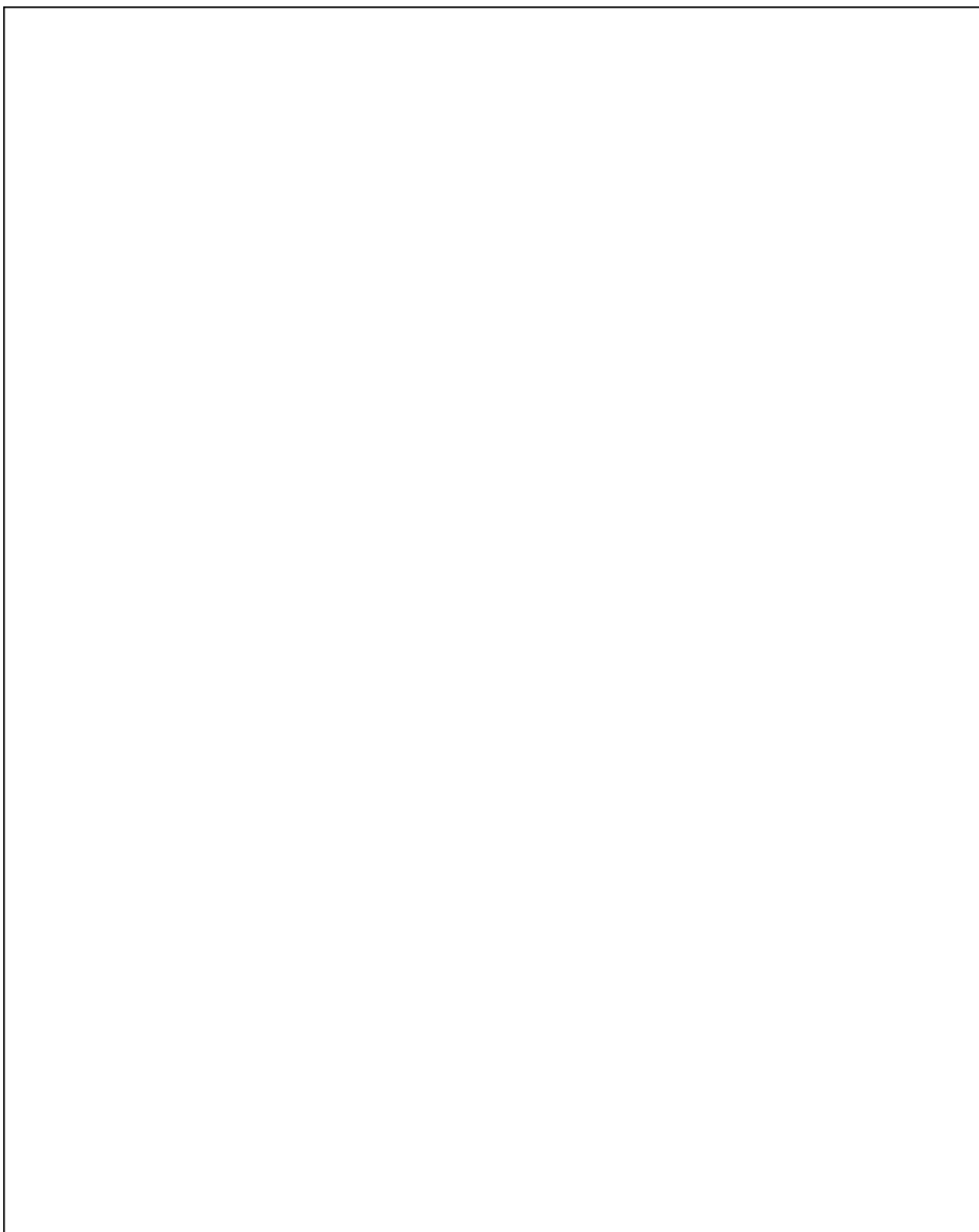
The Philippines continues to have **one of the highest levels of income inequality in East Asia**. In 2018, its income Gini coefficient was 42.3. The richest 1 percent received about 17 percent of national income, while the bottom half of the population shared only 14 percent. More recent World Bank estimates show some improvement, but inequality remains substantial (World Bank, 2026a).

This means that economic growth and rising average income do not benefit all households equally. A country can move into a higher income category while many families continue to experience low wages, insecure employment, and limited access to essential services.

Education outcomes remain weak

The World Bank's 2024 Learning Poverty Brief estimated that **91 percent of Filipino children at late primary age were unable to read and understand an age-appropriate text**, after adjusting for children who were out of school. The estimate uses the latest internationally comparable learning data available before the pandemic and was 56

percentage points worse than the East Asia and Pacific average. The country's Human Capital Index was 0.52, suggesting that a child born in the Philippines could become only about **52 percent as productive as they could be with complete education and full health (World Bank, 2022)**.





Let's Review

- GDP is the market value of final goods and services produced within a country during a specified period.
- Final goods are counted to avoid double counting. The production approach can also add value created at each stage.
- GDP follows the location of production. GNI equals GDP plus net primary income from the rest of the world.
- Modern national accounts use economic residence rather than citizenship alone.
- The expenditure identity is $GDP = C + I + G + (X - M)$.
- Imports are subtracted because GDP measures domestic production, not because imports are automatically harmful.
- Nominal GDP uses current prices. Real GDP controls for price changes and is used to measure economic growth.
- Economic growth is the percentage change in real GDP. Base effects and population growth should also be considered.
- GDP per capita is an average and does not reveal how income or production is distributed.
- GDP measures production, not complete well-being. It should be used with social, distributional, and environmental indicators.

Key Takeaway

National income accounting turns the economy's many transactions into a consistent set of measures. GDP tells us how much final production takes place inside the country, while GNI adjusts for primary income received from and paid abroad. Real GDP helps measure growth by separating changes in output from changes in prices. These measures are indispensable, but they become meaningful only when interpreted together with information on distribution, employment, public services, and environmental sustainability.

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