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To understand... Economic growth

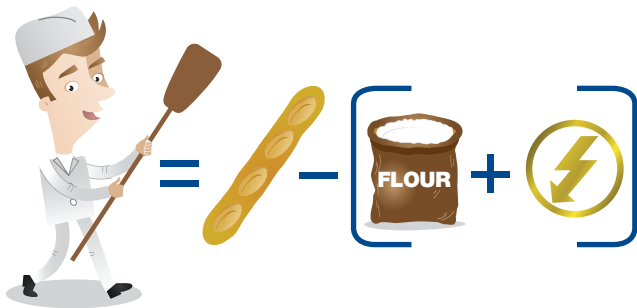
- What is growth?
- How does INSEE calculate GDP?
- What is GDP used for?
- How to complement GDP?



• What is growth?

France's economic **growth** is the variation in the wealth produced in France between two years or between two quarters. This wealth is known as gross domestic product (GDP).

What is GDP? To get a better idea, a trip to the baker's...



To make bread, a baker needs flour and electricity, among other things. These are **intermediate consumptions** (IC), used for the **production** (P) of the bread.

The baker's production is bread. To determine the wealth created, known as **value added** (VA), it is necessary to subtract from the price of the bread the intermediate consumptions, the flour and the electricity. The value added is calculated in Euros.

For a baguette costing €1 the value added is therefore equal to the production price (€1) minus the prices of the intermediate consumptions (€0.30 for flour and €0.15 for electricity in our example). Here it is €0.55.

What is GDP? For a country, the principle is the same



For any producer of goods or services (baker, truck driver, hairdresser, etc.), the **value added** is calculated in exactly the same way.

$$\text{Value added} = \text{Production} - \text{Intermediate Consumptions}$$

A country's gross domestic product is equal to the sum of the **value added** of all the producers residing in its territory.

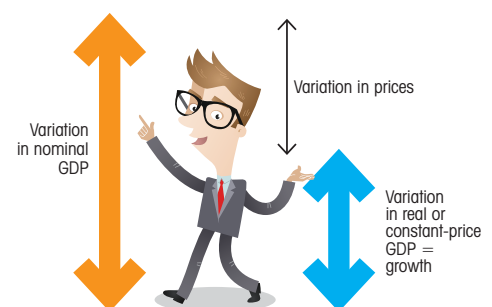
GDP is the wealth created by production activities.

From GDP to growth

Growth is the variation in gross domestic product (GDP) without taking account of the variation in prices.

If we produced 100 last year and 110 this year, it may be because we have produced 10% more or because the prices have gone up by 10%. In actual fact, it is generally a bit of both! The quantities produced have gone up, but so have prices.

Growth corresponds **only to the variation in the quantities produced**. It is expressed as a percentage (%).



What is the wealth produced used for?

Two thirds of the wealth produced serves to remunerate the work of salaried employees and self-employed people. The remaining **third** is accounted for by businesses and public bodies.

Households use their income to consume goods and services or to save (for example with a view to buying a home). **Enterprises** use their share to finance the resources they need for their production (factories, machinery, premises, etc.). **Public bodies** use it to fund public investments (schools, hospitals, roads, etc.).

GDP, which measures the **wealth produced** (VA), therefore also corresponds to **all the income distributed**, but also to consumption and investment and therefore to **expenditure**.

What was GDP and growth in France in 2015?

GDP was **2,200 billion Euros** and growth was +1.3%.

How is growth measured?

Growth is measured as the change in GDP minus the change in prices.

Because it is difficult to directly measure the changes in the quantities produced, growth is calculated by taking the difference between the variation in nominal GDP (value) and the variation in prices (between two quarters or from one year to the next). This is what economists **call the variation in real or constant-price GDP**, expressed as a percentage.

For example, if production has increased by 4%, while prices have increased by 3%, then growth is 1%: 4% production minus 3% increase in prices.

Constant-price GDP is equal to nominal GDP minus the impact of the change in prices over the period in question.

• How does INSEE calculate GDP?

An international definition

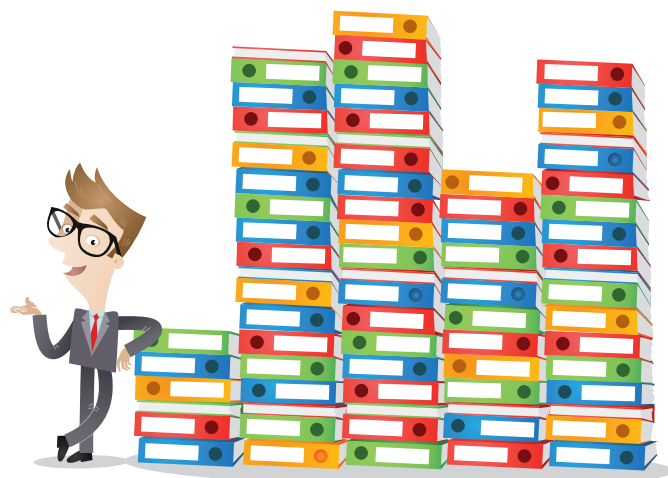


GDP and growth are measured according to international rules. The definition and methods of calculating GDP are fixed by the **United Nations Organisation (UNO)**: they are the same for all countries. Within the European Union, the definition of GDP is detailed in a regulation whose application is controlled by the Statistical Office of the European Union (Eurostat).

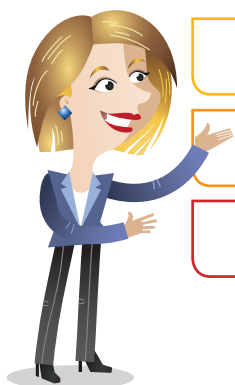
Thousands of items of information collected, one composite figure

To work out GDP, INSEE collects thousands of items of information on economic activity in France. **The Institute synthesises these data** and publishes one figure, GDP, along with hundreds of other indicators useful for describing how the economy is doing: household purchasing power, corporate margins, general government debt, etc.

At INSEE, about 80 people work on the national accounts and contribute to the calculation of GDP. Although INSEE is responsible for the overview of the accounts, **other government entities and public bodies are also involved in their preparation**: the Directorate General for Public Finances, the Treasury, the Banque de France, the statistical departments of the various ministries.



Three years to obtain the final GDP figure



**MAY 2016
PROVISIONAL GDP 2015**

**MAY 2017
SEMI-FINAL GDP 2015**

**MAY 2018
FINAL GDP 2015**

Every quarter, **the first estimates of GDP** are calculated using surveys of enterprises and administrative data (changes in production and turnover in industry, the services, the construction sector, etc.). The figure is published within 30 days after the end of the quarter concerned, and a second estimate within 60 days after.

The final annual GDP figure is known when all the data from all the economic actors (enterprises, banks, government entities, etc.) are available, in particular the value added of enterprises. It takes three years of work to collect all this information.

So for 2015, there are **three versions of the annual accounts**: in May 2016 a provisional account, in May 2017 a semi-final account and in May 2018 a final account.

What information is used to measure GDP?

INSEE has two types of sources:

- **Administrative sources:** enterprises' corporation tax returns, their declarations concerning foreign trade (customs statistics), the accounts of government entities, data on car sales, housing starts, etc.
- **Specific business tendency surveys:** on consumption, production, prices, etc.

How accurate is the calculation?

It is considered that the calculation of annual growth is accurate to within **0.2%**. For example, if growth is estimated at +0.3%, that means its actual value is very probably between +0.1% and +0.5% inclusive.

When did France begin calculating its GDP?

- The first general reflections date back to the **18th century**.
- In the major countries, national accounts began to be kept after the 1929 crisis, but developed above all after the Second World War to help States in their reconstruction policies.
- In France, the National accounting series begin in 1949.

• What is GDP used for?

An indicator of the health of the French economy



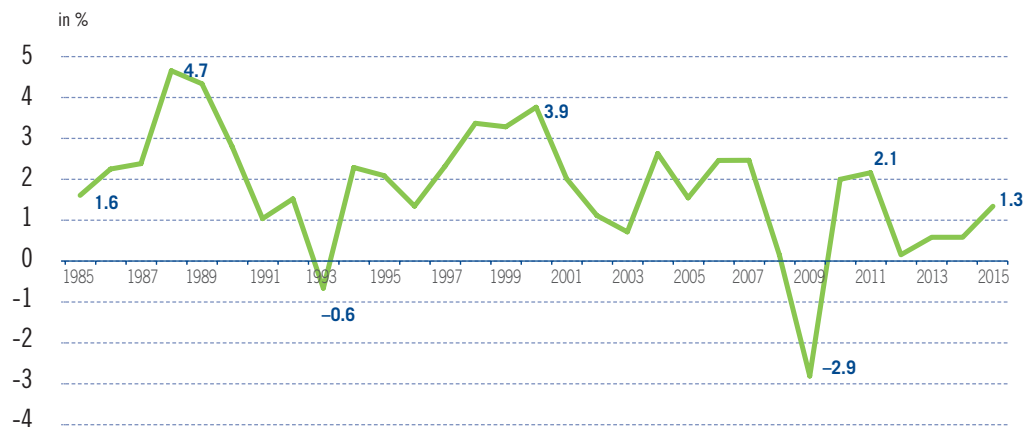
Gross domestic product (GDP) is mainly used to track the health of the economy and to measure **changes in economic activity**. It is the essential indicator, produced as part of the national accounts, used **to adapt France's economic policy** to the situation of economic activity in the country.

The national accounts are also the starting point for many **economic forecasts**. Public bodies - including INSEE which publishes its Note de conjoncture on the latest economic trends every quarter - and private bodies, national and international, regularly present economic growth forecasts for the coming months or years.

The national accounts also provide an overall economic framework that is used to draw up **public policies**. For example, the national accounts provide information not only about the state of production, but also on the dynamics of the job market and the level of resources of the social security system. They help to determine the resources the State has at its disposal to fund **public spending** on health, pensions, etc.

Will an industrial company invest in a second factory? In which country? Will a bank finance a project? The national accounts also help **enterprises to know the overall economic context** in the territory where they operate.

Thirty years of economic growth in France



Source: INSEE, national accounts

How to read it: over the last thirty years, growth has been positive, except in 1993 and 2009
For long-period series: www.insee.fr/Annual-national-accounts

GDP and the European Union

Gross domestic product plays an important role in the functioning of the European Union.

It is involved in the calculation **of the financial contributions to the European Union budget** paid by each Member State.

GDP calculated at European region level is used to adapt the aid granted to the different territories.



International comparisons

Comparing the wealth produced and the growth of all the countries in the world is possible thanks to GDP.

Countries' GDP can also be compared taking account of their population. This is known as **per capita GDP**. A GDP of 1,000 billion Euros is not equivalent if it is divided between 10 or 100 million people.

Per capita GDP therefore enables **standards of living to be compared between countries**. In France, per capita GDP is about 30,000 Euros. The richest countries (including Luxembourg and Qatar) have a per capita GDP of over 50,000 Euros. The poorest countries have a per capita GDP of less than 1,000 Euros.

Knowing the GDP of different countries is useful to international bodies so that they can decide their policies and recommendations. It is also used by enterprises to determine their international development choices (new markets research, investments, etc.).



A few examples of per capita GDPs around the world in 2015



Source: World Bank (2016 - Purchasing Power Parity)

● How to complement the GDP ?

The limits of GDP



The use of GDP as an indicator of wealth is sometimes criticised as it represents only the **value of economic exchanges**.

GDP does not take account of wealth that does not result from production activities, such as gains and losses on the stock market.

Voluntary and domestic activities are also excluded from the measurement of GDP. On the other hand, some activities generally considered as negative or harmful are counted. For example, a traffic jam generates GDP as it increases petrol consumption and therefore the activity of the petroleum industry. And yet it is harmful to the environment and wastes time!

GDP does not reflect the nature of an economic activity or its environmental impact.

What is not counted in GDP

- **Domestic work**, which is unpaid, carried out within a family and whose production is consumed within the family: a “home-made” cake is not counted in GDP, whereas a cake brought from a baker’s is.
- **Voluntary work**: according to the Associations survey, in 2013 voluntary work was estimated around 680,000 full-time equivalent jobs. Valued at the minimum wage, it corresponds to 13 billion Euros or about 0.6% of GDP.



Complementary GDP indicators to measure quality of life



An international commission chaired by Nobel Prize winner **Joseph Stiglitz** gave a reminder of the purpose of GDP: to allow short-term tracking of economic activity, and not to measure well-being. **GDP is therefore not suitable for assessing a population’s quality of life.**

To take account of this dimension, GDP must be completed by quality of life indicators. This is what INSEE does by measuring, for example, the CO2 emissions of production activities, **wealth inequalities** or access to housing by category of household, etc.

INSEE also contributes to drawing up **sustainable development indicators**. Beyond the economic aspects, the objective is to assess the social and environmental effects of economic development.

How is gardening taken into account in GDP?

If you employ a gardener, his or her activity contributes to GDP.

If you prefer to do your own gardening, then it is considered as domestic work and GDP does not take it into account.

But this activity contributes to improving your living conditions (fruit and vegetables produced, improvement in the living environment, etc.) and therefore your general well-being. **Thus certain activities can contribute to your well-being without being included in GDP.**

Can “underground production” (including undeclared working) be measured?

INSEE assesses the concealed activity of enterprises, known as “underground production” and takes it into account in GDP.

Tax audits are a way of identifying undeclared income. The fraud observed in this way can then be estimated for the entire economy based on discovered fraudulent behaviour.

For 2008, INSEE estimated all undeclared economic activity at 71 billion Euros, or 3.7% of GDP.

Are there any other indicators of human development?




Other indicators do exist and are used to make international comparisons. For example, the **Human Development Index** (HDI), proposed by the United Nations Development Programme, takes account of life expectancy at birth, educational level and per capita income.

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