Gross domestic product and agriculture value added

1970–2018

Global and regional trends
HIGHLIGHTS

→ Between 1970 and 2018, the annual average growth rate of the global real gross domestic product (GDP) and agriculture value added reached 3.2 percent and 2.7 percent respectively.

→ Investment in capital, measured by the real Gross Fixed Capital Formation (GFCF) as a share of GDP (the investment ratio) remained relatively stable, between 22 percent and 25 percent throughout the period.

→ Between 2011 and 2018, some regions witnessed a large decrease in the real GDP growth rates, especially in Africa. The annual average growth rate of the real GDP of Africa dropped to 2.25 percent from 5.9 percent from 2001 to 2010.

→ Latin America and Caribbean also saw a significant drop in real GDP growth rate from 3.15 percent in 2001–2010 to 1.38 percent in 2011–2018 due to the great economic recession.

FAOSTAT MACRO INDICATORS

GLOBAL AND REGIONAL

Adjusting for inflation, global real GDP increased from USD 18 trillion in 1970 to USD 81.3 trillion in 2018.¹ The average annual growth rate was 3.2 percent, led by Asia and Pacific (6.2 percent), Africa (3.4 percent), and Latin America and Caribbean (3.0 percent). Real GDP grew at a slower pace in the other regions: North America (2.8 percent), Europe (2.2 percent), and High Income countries (2.6 percent) including Australia, Japan and New Zealand (Figure 1 and Table 1).

¹ All data relating to total economy, agriculture, forestry and fishing, and manufacturing comes from the United Nations Statistics Division (UNSD) National Accounts Estimates of Main Aggregates (UNSD NAE) database, which consists of a complete and consistent set of time series of the main national accounts (NA) aggregates of all United Nations Member States and other territories in the world for which national accounts information is available. Series relating to the agriculture sub-industry are obtained from UNSD National Accounts Official Country Data databases, while series on the manufacturing sub-industry (food and beverages; tobacco; food, beverages and tobacco) comes from United Nations Industrial Development Organization (UNIDO) INDSTAT2 databases.
Between 1970 and 2018, the global real GDP growth rate had a downward trend from 3.86 percent to 3.20 percent. Europe and High Income Countries especially have had a tardy recovery after experiencing significant decrease in the period 1990–2000. Europe dropped significantly to 0.35 percent between 1991–2010, having dropped to -12.81 percent in 1991 due to the impact of the collapse of the Soviet Union. In High Income Countries, growth slowed in this period, largely due to Japan, whose annual average growth rate decreased from 4.54 percent between 1981 and 1990 to 1.31 percent between 1991–2000.

Between 2001 and 2010, the Asia and Pacific region experienced the largest growth rate of 7.29 percent. However, it dropped to 5.99 percent in the period 2011–2018 as the growth rate of Eastern Asia decreased from 9.23 percent to 6.7 percent.

On the other hand, in Africa, the growth rate of real GDP decreased significantly from 5.90 percent between 2001 and 2010 to 2.25 percent between 2011–2018 as North Africa dropped significantly to -19.3 percent in 2011, although it recovered to “zero” on average in 2018.
Latin America and Caribbean also saw a significant drop in real GDP growth rate from 3.15 percent in 2001–2010 to 1.38 percent in 2011–2018 due to the great economic recession. (Table 2).

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From 1970 to 2018, Asia and Pacific’s contribution to global GDP increased greatly from 8 percent to 31.5 percent. Eastern Asia alone contributed 19 percent in 2018, while Europe shrank from 40 percent to 25.1 percent between 1970 and 2018. Northern America’s contribution to global real GDP decreased from 31.3 percent in 1970 to 26 percent in 2018. The contribution of High Income Countries also decreased from 10 percent in 1970 to 7.5 percent in 2018. Finally, the percentage of Latin America, Caribbean and Africa’s global real GDP remained stable at 7 percent and 3 percent respectively (Figure 2).

Figure 2. Regional contribution to global GDP, 1970–2018


Real GDP per capita increased by 37.5 percent in the last two decades from USD 7 769 in 2000 to USD 10 689 in 2018. This was largely due to the Asia and Pacific region, where it grew from USD 2 223 in 2000 to USD 5 820 in 2018 (161.7 percent), followed by Africa, where it increased
from USD 1 399 in 2000 to USD 1 950 in 2018 (39 percent). Europe witnessed an increase of 31 percent in the real GDP per capita during this period. The other regions witnessed the same increase of 22 percent in real GDP per capita from 2000 to 2018 (Table 3).

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<th>Table 3. Regional real GDP per capita (USD)</th>
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INVESTMENT DRIVES PER CAPITA GDP GROWTH

High investment growth in Asia and Pacific led to its increased contribution to global GDP.

Investment in capital, measured by the real Gross Fixed Capital Formation (GFCF), was a key driver of GDP growth, increasing by 400 percent from USD 4.1 trillion to USD 20.7 trillion between 1970 and 2018, and by 28.5 percent during the last decade from USD 16.1 trillion in 2011. Investment as a share of GDP (the investment ratio) remained relatively stable, between 22 percent and 25 percent, throughout the period from 1970 to 2018.

Figure 3. Regional real GFCF, 1970–2018


The Asia and Pacific region witnessed the highest increase in investment, which grew from USD 0.27 trillion to USD 9.07 trillion between 1970 and 2018, thus increasing the region’s share
in global real investment from 6.6 percent to 43.7 percent. The highest share was reached by Western Asia, with 30 percent in 2018. Investment in Northern America increased from 16.9 percent in 1970 to 21.1 percent in 2018. In contrast, the investment ratio fell in all other regions (Table 4).

Table 4: Investment ratio (GFCF share of GDP), annual average (percent)

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THE DECLINING CONTRIBUTION OF AGRICULTURE VALUE ADDED TO GDP

Globally and across regions, agriculture value added grew more slowly, leading to a reduced share of GDP.

Global real agriculture value added rose from USD 0.95 trillion to USD 3.4 trillion between 1970 and 2018, while the sector’s contribution to real GDP fell from 5.3 percent to 4.2 percent in the same period. This relative decline was due to a faster growth of non-agricultural activities compared to agriculture. The sector, however, plays a crucial role in the agro-industry value-chain and in the use of natural resources. In turn, it affects the quality of the environment and food security beyond what is captured by its contribution to the overall GDP.

Figure 4. Global agriculture value added, and contribution to GDP, 1970–2018

In 1970, the Asia and Pacific region, together with Europe, were the main contributors to global agriculture value added, accounting for 45.5 percent and 20.4 percent, respectively. By 2018, the contribution of the Asia and Pacific reached 62.2 percent of the sector’s global value added, driven by the contribution of Eastern Asia (32.5 percent) and Southern Asia (16.5 percent), while the share for Europe fell notably, to 9.7 percent. The contribution of other regions to global agriculture value added experienced a limited change from 1970 to 2018: from 8.7 percent to 11.6 percent for Africa, from 8.8 percent to 7.8 percent for Latin America and the Caribbean, from 7.8 percent to 6.3 percent for Northern America, from 8.8 percent to 2.4 percent for High Income Countries (Figure 5).

Figure 5. Regional contribution to global agriculture value added, 1970–2018

The global growth rate of the real agriculture value added remained stable between 2000 and 2018 at 2.9 percent. However, Africa witnessed a sharp increase in growth rate in the agriculture sector between 2000 and 2010. To some extent, this increase follows from the commitments undertaken with the Maputo Declaration. However, a notable decrease was experienced in 2011, reaching -3.84 percent following a decline in Northern Africa (-17.53 percent).

The growth rate in Europe recovered after a long period of negative growth between 1991 and 2000. High Income Countries experienced decreasing growth rates except for 1981–1990 (Figure 6).


2 The Maputo Declaration is an initiative on Agriculture and Food Security and the 10 percent national budget allocation to agriculture development at the Second Ordinary Assembly of the African Union in 2003.

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**Figure 6. Regional growth rate of real agriculture value added, 1970–2018**

![Region growth rate chart](chart.png)

**Source:** UNSD and FAO, 2020.

**A CLOSER LOOK AT AGRICULTURAL VALUE ADDED IN THE LEADING REGION OF ASIA AND THE PACIFIC**

China was by far the largest agricultural economy of Asia and the Pacific in 2018, followed by India, Indonesia and Pakistan (Figure 7). Its agriculture, however, was not always the fastest growing.

**Figure 7. Real agriculture value added share of total agriculture value added in Asia and Pacific in 2018**

![Agriculture value added share chart](chart2.png)

**Source:** UNSD and FAO, 2020.
It is also interesting to observe how growth varied between countries in Asia and the Pacific through the decades (Figure 8). Four countries have shown accelerated growth, especially in the 1980–1989 period. These countries also experienced substantive growth in recent decades, while others remained around 2 percent for the entire period.

**Figure 8. Real agriculture value added annual average growth rate in Asian countries, 1970–2018**

![Chart showing growth rates of different Asian countries from 1970 to 2018.](chart)

**Source:** UNSD and FAO, 2020.


**EXPLANATORY NOTES**

- Gross domestic product (GDP), the most frequently quoted indicator of economic performance, is a comprehensive measure of economic growth, as it measures the total value added generated within an economy over a specific time period. Value added (VA) is calculated as Output less Intermediate Consumption. In this article, agriculture includes forestry and fishing; agriculture GDP refers to value added in this combined sector.
- To adjust for inflation, this brief analyses phenomena in constant prices of 2015 US dollars.
- Developed regions include Europe, North America and Other Developed Countries.
- Real per capita GDP in US dollars is an important economic indicator that enables cross-country comparisons, particularly in the context of economic development, as it takes into
account differences in population size and growth, and can signal the extent to which economic growth reflects productivity increases.

> Investment in physical capital is measured by the Gross Fixed Capital Formation (GFCF), which captures the net additions (acquisitions less disposals) to the stock of fixed capital assets such as machinery, transport equipment, infrastructure and buildings within an economy. It is a useful indicator to identify and monitor developments in investment trends over time, particularly as capital accumulation increases the overall productive capacity of an economy, making large-scale production possible and promoting a greater degree of specialization.

> The FAOSTAT Macro Indicators database provides a selection of country-level macroeconomic indicators relating to total economy; agriculture, forestry and fishing (AFF); manufacturing (MAN); agriculture sub-industry (agriculture) and manufacturing sub-industry (food and beverages; tobacco; food, beverages and tobacco). It releases time series for a selection of National Accounts variables, including GDP, GFCF, VA, GNI, agriculture sub-industry VA and gross output. The database also proposes additional indicators such as per capita GDP, year-on-year growth rates and measures of industry contribution to GDP.

> Data are available in both local currency and in US dollars, as well as in current prices and in constant 2015 prices. The database follows the International Standard Industrial Classification of All Economic Activities (ISIC).

> The territorial coverage consists of 219 countries and territories, including former countries. FAO compiles aggregate values at regional and global levels. The time coverage is annual from 1970 to 2018.

> All data relating to total economy, agriculture, forestry and fishing, and manufacturing comes from the United Nations Statistics Division (UNSD) National Accounts Estimates of Main Aggregates (UNSD NAE) database, which consists of a complete and consistent set of time series of the main national accounts (NA) aggregates of all United Nations Member States and other territories in the world for which national accounts information is available. Series relating to the agriculture sub-industry are obtained from UNSD National Accounts Official Country Data databases, while series on the manufacturing sub-industry (food and beverages; tobacco; food, beverages and tobacco) comes from United Nations Industrial Development Organization (UNIDO) INDSSTAT2 databases.

> The release calendar is the end of first quarter.
REFERENCES


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