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Gross domestic product and agriculture value added 2011–2020

Global and regional trends

>> FAO Statistics Division

HIGHLIGHTS

→ **Global GDP grew from USD 66.5 trillion* in 2011 to USD 83.7 trillion in 2019, at an average annual rate of 2.3 percent. However, the COVID-19 pandemic broke this upward trend, as GDP fell by 3.4 percent to USD 80.9 trillion in 2020.**

→ **Global agricultural value added** rose from USD 2.8 trillion to USD 3.6 trillion between 2011 and 2020, at an average annual rate of 2.9 percent.**

→ **Investment in capital, measured by the share of the gross fixed capital formation (GFCF) in GDP, remained relatively stable, ranging from 24.2 percent to 26.2 percent between 2011 and 2020.**

→ **The share of agriculture value added in GDP significantly increased in 2020 due to the COVID-19 pandemic, as the value added of the industry and services sector fell while that of agriculture kept increasing.**

* All values are measured in 2015 constant USD.

** Agriculture includes agriculture, forestry and fishing (ISIC Rev. 4, A 01-03).

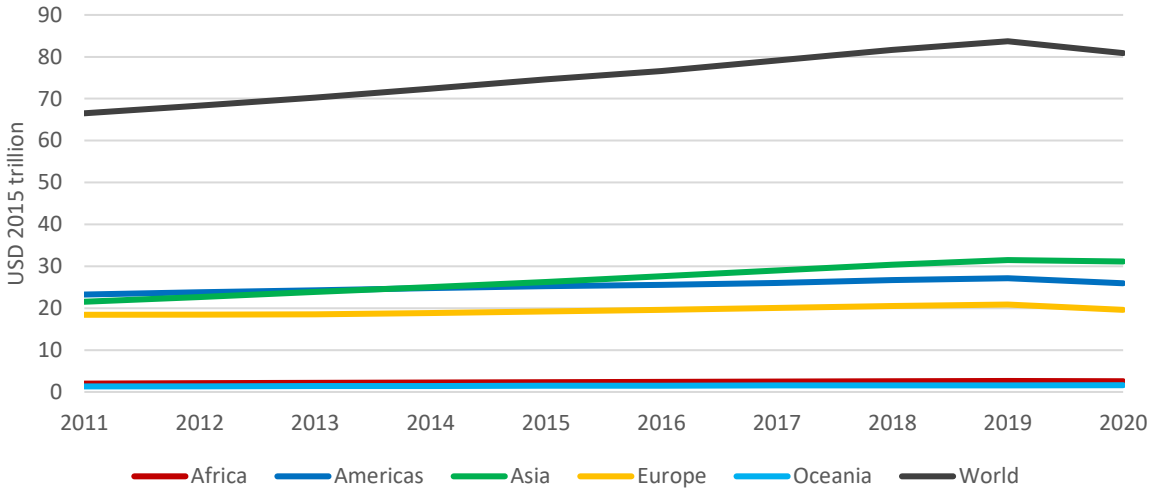
FAOSTAT MACRO INDICATORS

GLOBAL

Global GDP increased by 3.1 percent annually on average from USD 18.1 trillion in 1970 to USD 80.9 trillion in 2020. However, during the last decade, its increase slowed to 2.3 percent annually on average, from USD 66.5 trillion to USD 80.9 trillion with a peak at USD 83.7 trillion in 2019. Global GDP dropped by 3.4 percent in 2020 due to the COVID-19 pandemic. This was the third decrease since 1970, after a marginal one (-0.03 percent) in 1991 and a 1.3 percent reduction in 2009 as a consequence of the global financial crisis.

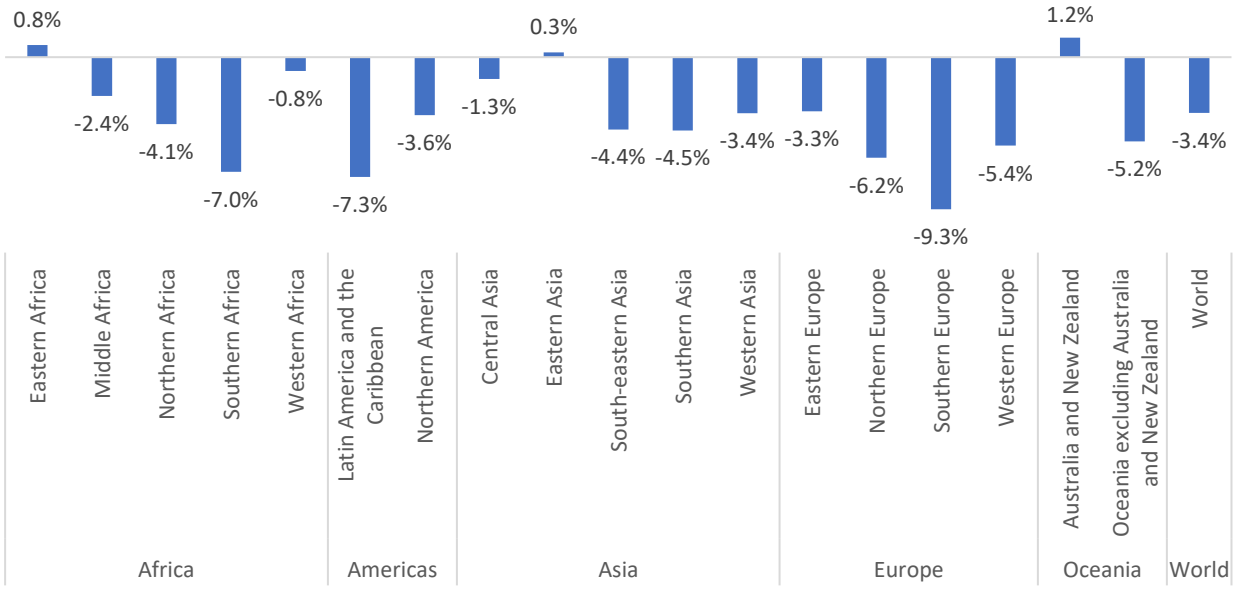
Europe's GDP growth rate of 0.9 percent on average between 2011 and 2020 was the smallest among regions, and Europe's lowest since the 1990s: this significant decrease is mainly due to the 6.1 percent drop from USD 20.9 trillion in 2019 to USD 19.6 trillion in 2020. The drop in Africa's GDP growth rate from 5.4 percent between 2001 and 2010 to 2.7 percent between 2011 and 2020 is largely due to the dramatic contraction of Libya's between 2013 and 2016, and to the COVID-19 pandemic, which caused a 2.7 percent decrease of GDP between 2019 and 2020. By contrast, Asia showed the highest GDP growth rate among regions, of 4.4 percent on average between 2011 and 2020, despite of the 1.2 percent drop in GDP in 2020. While America's GDP dropped by 4.3 percent in 2020 from USD 27.1 trillion in 2019 to USD 26.0 trillion in 2020, the average GDP growth rate was 1.4 percent between 2011 and 2020. Oceania is the only region with a positive GDP growth rate in 2020 (1 percent from USD 1.59 trillion in 2019 to USD 1.61 trillion in 2020), and the average growth rate between 2011 and 2020 was 2.3 percent (Figure 1, Figure 2 and Table 1).

Figure 1: Global and regional GDP



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Figure 2: Regional growth rate of GDP in 2020



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

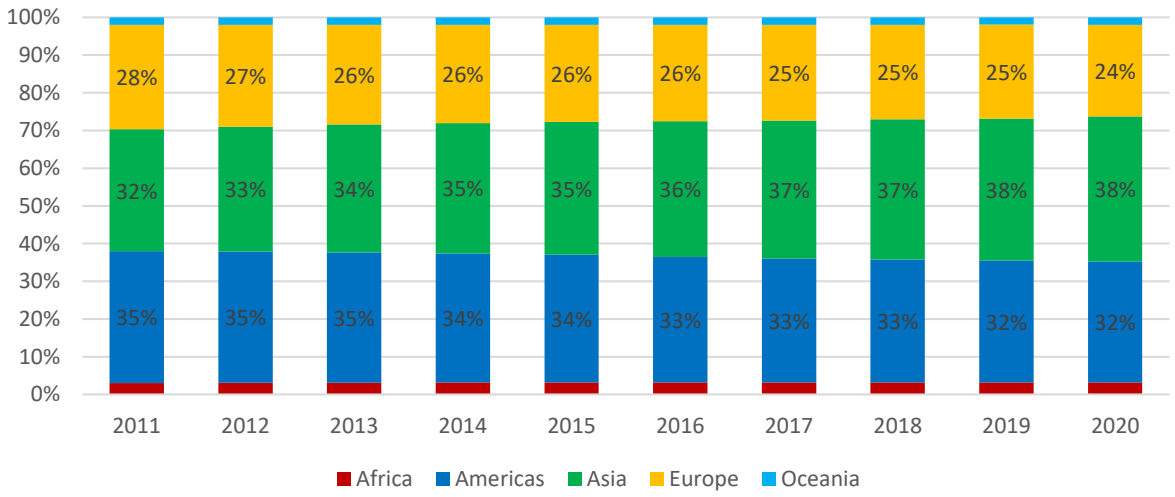
Table 1: Average annual growth rate of GDP (percent)

	1971–1980	1981–1990	1991–2000	2001–2010	2011–2020	1971–2020
Africa	4.2	2.1	2.4	5.4	2.7	3.4
Americas	3.8	2.9	3.3	2.1	1.4	2.7
Asia	5.2	5.1	4.3	5.5	4.4	4.9
Europe	3.4	2.8	1.3	1.7	0.9	2.0
Oceania	2.8	2.8	3.5	3.1	2.3	2.9
World	3.9	3.3	2.8	3.0	2.3	3.1

Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Asia's contribution to global GDP increased, from 32.4 percent in 2011 to 38.5 percent in 2020, with Eastern Asia (which includes China, Japan and the Republic of Korea) accounting for 26.0 percent of global GDP in 2020. From 2011 to 2020, Europe's share in world GDP shrank from 27.7 percent to 24.2 percent, and America's share decreased from 35.0 percent to 32.1 percent. The contributions of Africa and Oceania to global GDP remained stable at 3.2 percent and 2 percent respectively (Figure 3).

Figure 3: Global GDP by region



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

World GDP per capita increased by 9.8 percent over the last decade, from USD 9 481 in 2011 to USD 10 408 in 2020. Asia experienced the highest increase, of 32.5 percent, followed by Oceania (6.7 percent), Europe (5.0 percent), the Americas (3.1 percent) and Africa (2.1 percent) (Table 2).

Table 2: GDP per capita (USD)

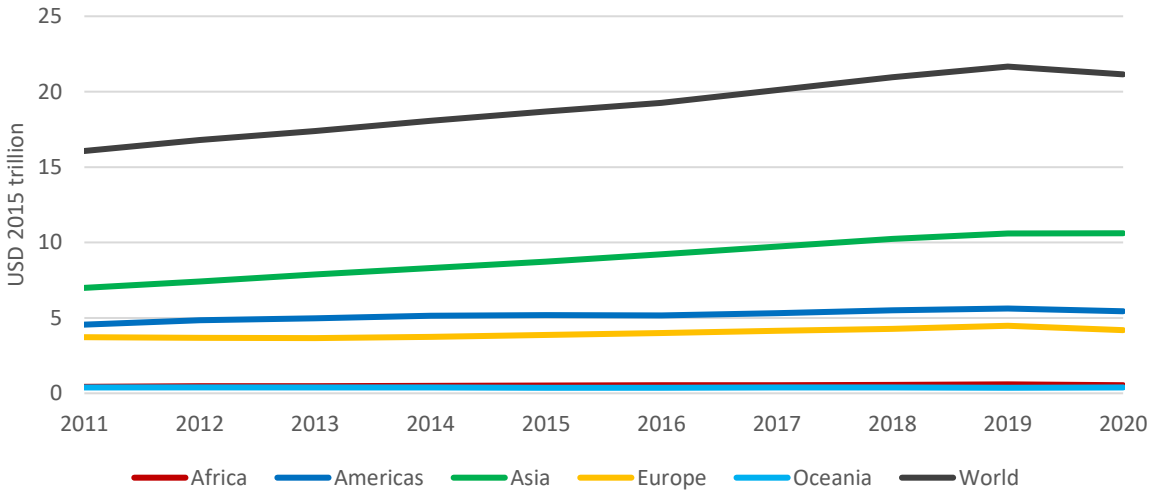
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Africa	1 868	1 928	1 953	1 981	1 997	1 981	2 001	2 015	2 008	1 907
Americas	24 656	24 983	25 257	25 529	25 804	25 832	26 132	26 539	26 784	25 423
Asia	5 089	5 293	5 521	5 734	5 959	6 196	6 448	6 689	6 879	6 740
Europe	24 902	24 881	24 962	25 348	25 793	26 239	26 875	27 398	27 857	26 155
Oceania	35 596	35 930	36 259	36 616	37 170	37 560	38 198	38 570	38 105	37 990
World	9 481	9 624	9 778	9 955	10 143	10 299	10 523	10 740	10 889	10 408

Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

INVESTMENT DRIVES GDP GROWTH

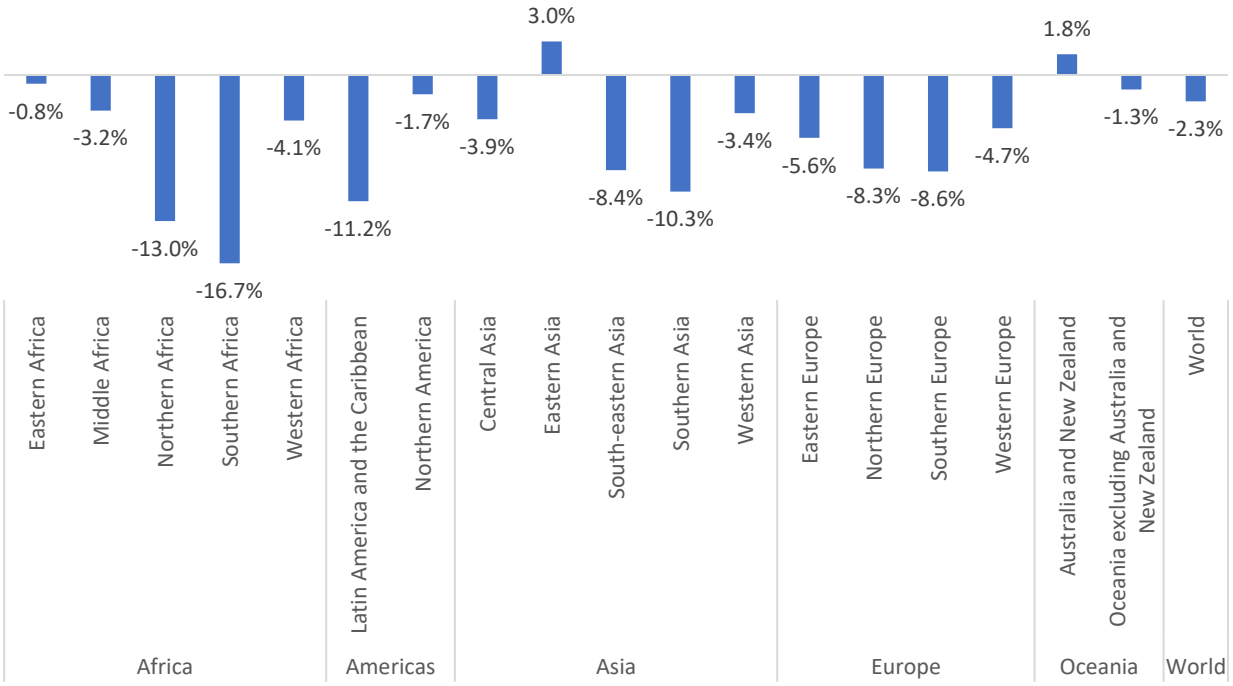
Investment in capital, measured by the gross fixed capital formation (GFCF), was a key driver of GDP growth globally. Over the last decade, GFCF went up 31.7 percent, from USD 16.1 trillion in 2011 to USD 21.1 trillion in 2020. As a consequence of the COVID-19 pandemic, the GFCF dropped by 2.3 percent, from USD 21.7 trillion in 2019 to USD 21.2 trillion in 2020 (Figure 4 and Figure 5).

Figure 4: Global and regional gross fixed capital formation



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

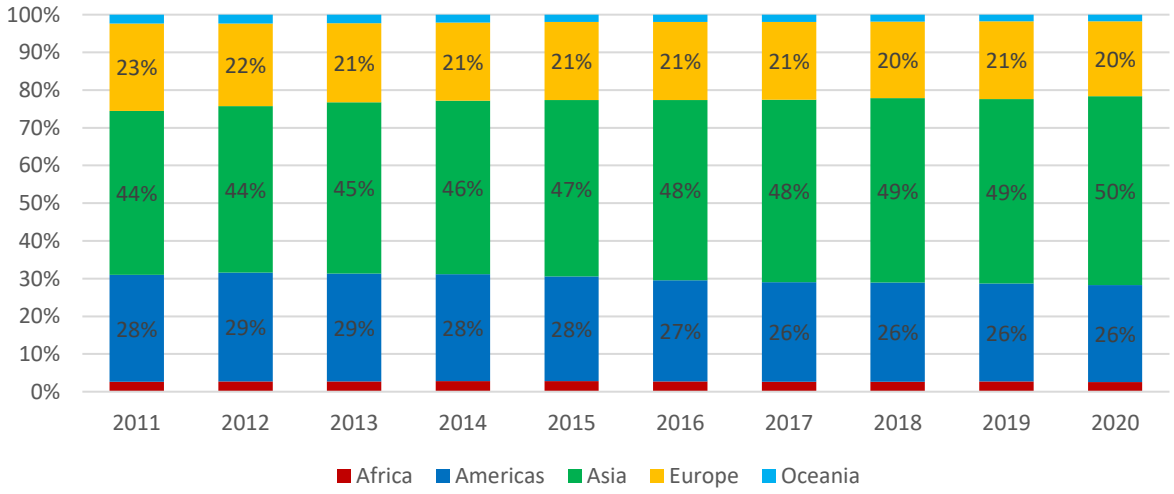
Figure 5: Regional growth rates of gross fixed capital formation in 2020



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Over the last decade, Asia presented the highest increase in investment, of 51.8 percent from USD 7.0 trillion in 2011 to USD 10.6 trillion in 2020, thus increasing the region's share in global investment from 43.5 percent to 50.2 percent, with Eastern Asia alone accounting for 37.5 percent of global GFCF in 2020. The share of all the other regions in the world total decreased during the same period (Figure 6).

Figure 6: Gross fixed capital formation by region



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

The investment ratio, defined as GFCF divided by GDP, grew steadily during the last decade, from 24.2 percent in 2011 to 26.2 percent in 2020.

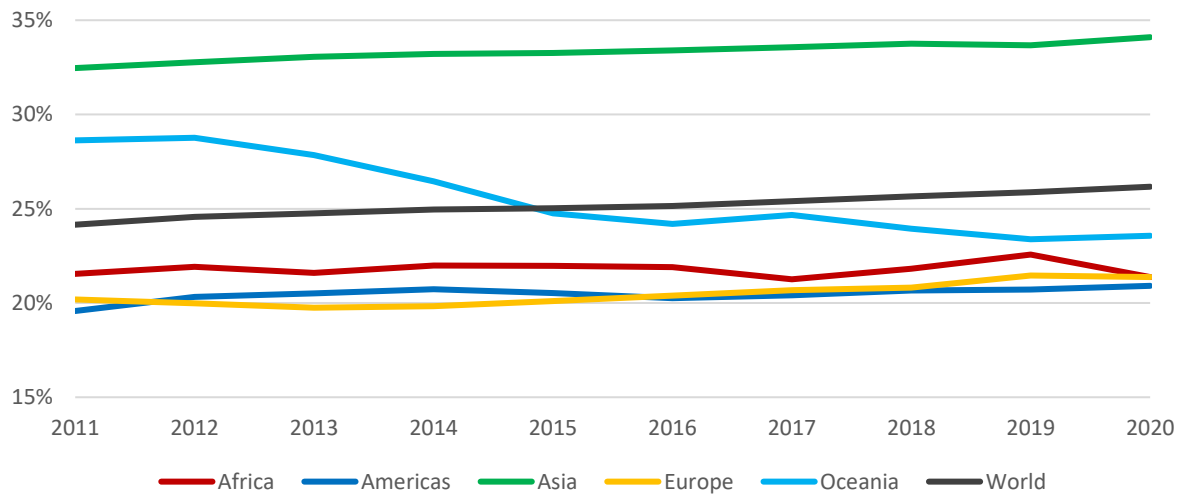
Overall, the investment ratio was the lowest in the Americas and Europe, with an average of 20.5 percent in both regions during the last decade, followed by Africa (21.8 percent) and Oceania (25.6 percent). Asia showed the highest investment ratio, of 33.3 percent on average between 2011 and 2020 (Table 3 and Figure 7).

Table 3: Average annual investment ratio (GFCF share of GDP) (percent)

	1971–1980	1981–1990	1991–2000	2001–2010	2011–2020	1971–2020
Africa	30.2	24.2	20.8	21.1	21.8	23.6
Americas	18.3	18.0	18.8	20.2	20.5	19.2
Asia	26.6	26.9	28.5	29.2	33.3	28.9
Europe	25.6	23.3	20.6	20.9	20.5	22.2
Oceania	17.1	19.5	19.7	24.9	25.6	21.4
World	22.9	22.0	21.8	23.1	25.2	23.0

Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Figure 7: Investment ratio (GFCF share of GDP)

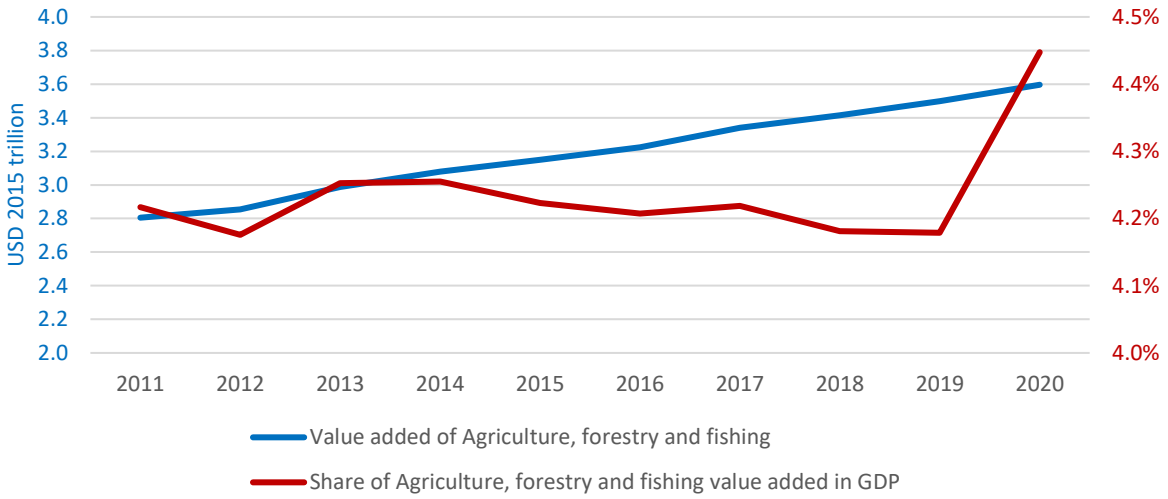


Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

SHARE OF AGRICULTURE VALUE ADDED IN GDP

The global agriculture value added rose from USD 2.8 trillion in 2011 to USD 3.6 trillion in 2020, while the sector's contribution to GDP fell from 4.22 percent in 2011 to 4.18 percent in 2019 before going up to 4.45 percent in 2020 (Figure 8). This relative decline until 2019 was due to a faster growth of non-agricultural activities than to the agriculture sector. The share of agriculture significantly increased in 2020 due to the COVID-19 pandemic, as the value added of the industry and services sector fell while that of agriculture kept increasing.

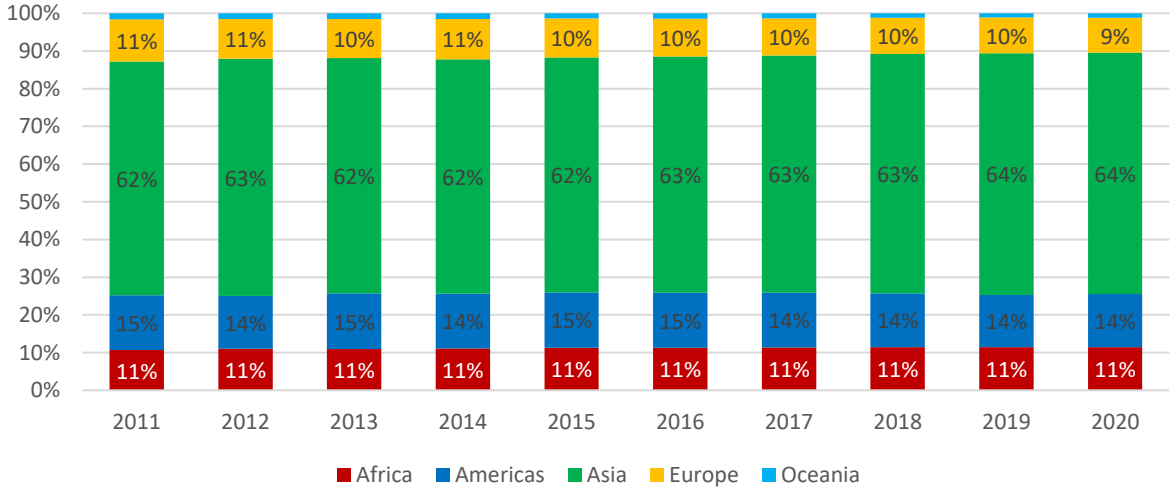
Figure 8: Global agriculture value added and share of GDP



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

During the last decade, Asia was the main contributor to the global value added of agriculture, largely as a consequence of its geographical size. It accounted for 62.0 percent of the world total in 2011 and 64.0 percent in 2020, driven by the contribution of Eastern Asia (33.8 percent in 2020) and Southern Asia (17.1 percent in 2020). In contrast, the share of Europe significantly declined from 11.2 percent in 2011 to 9.2 percent in 2020. Changes in the contributions of other regions during the same period were more limited: from 10.7 percent to 11.5 percent for Africa, from 14.5 percent to 14.1 percent for the Americas, and from 1.6 percent to 1.2 percent for Oceania (Figure 9).

Figure 9: Global agriculture value added by region



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Global agriculture value added grew on average by 2.9 percent between 2011 and 2020. In particular, the growth rate of Africa's value added of agriculture decreased from 3.9 percent in 2011 to 2.9 percent in 2020, with an average of 3.7 percent for the same period. The growth rate of the Americas' agriculture value added accelerated significantly, from 0.2 percent in 2011 to 10.2 percent in 2013 before falling

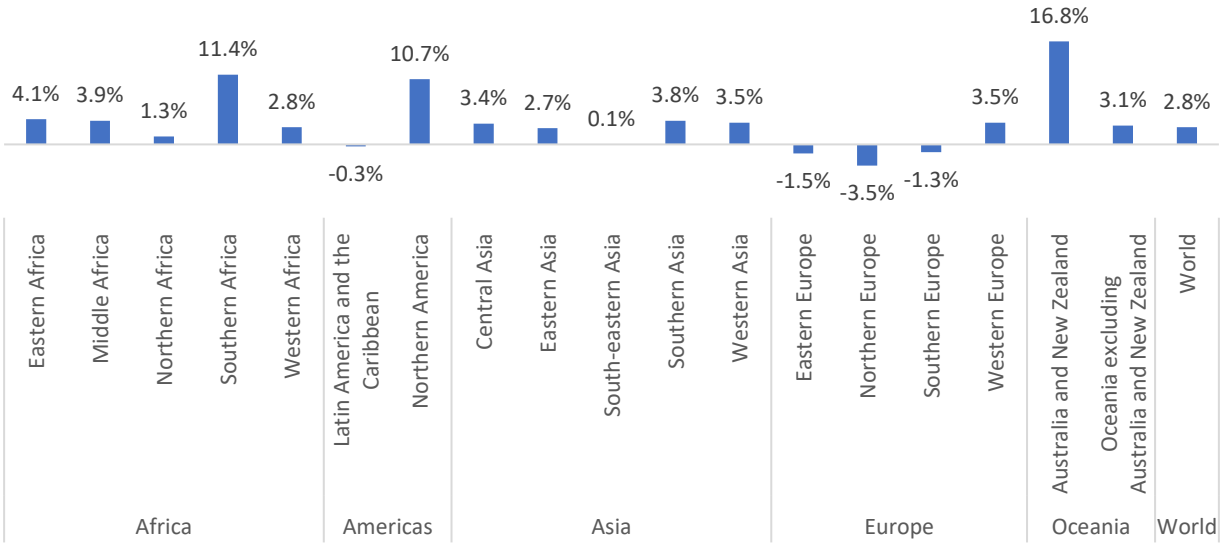
again to 4.6 percent in 2020, with an average of 2.2 percent during the last decade. The growth rate of Oceania's agriculture value added was the smallest during the period, at 0.4 percent on average, which is mainly due to the negative growth rates in 2015, 2017, 2018 and 2019, even though it presented a 14.6 percent increase in 2020. In the case of Europe, the growth rate of the agriculture value added significantly decreased during the last decade, from 5.0 percent in 2011 to -0.5 percent in 2020 (with an average of 1.1 percent): this is mainly driven by drops in all subregions except Western Europe. The growth of Asia's agriculture value added was stable during the last decade, with an average of 3.3 percent, ranging between 4.5 percent in 2011 and 2.7 percent in 2020 (Table 4 and Figure 10).

Table 4: Average annual growth rate of agriculture value added

	1971–1980	1981–1990	1991–2000	2001–2010	2011–2020	1971–2020
Africa	1.7	2.7	2.8	5.6	3.7	3.3
Americas	1.8	3.0	2.7	2.4	2.2	2.4
Asia	2.0	4.4	2.6	3.3	3.3	3.1
Europe	3.4	2.9	-2.2	0.8	1.1	1.2
Oceania	1.7	3.9	3.5	1.9	0.4	2.3
World	2.2	3.7	1.8	3.0	2.9	2.7

Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Figure 10: Regional growth rate of agriculture value added in 2020

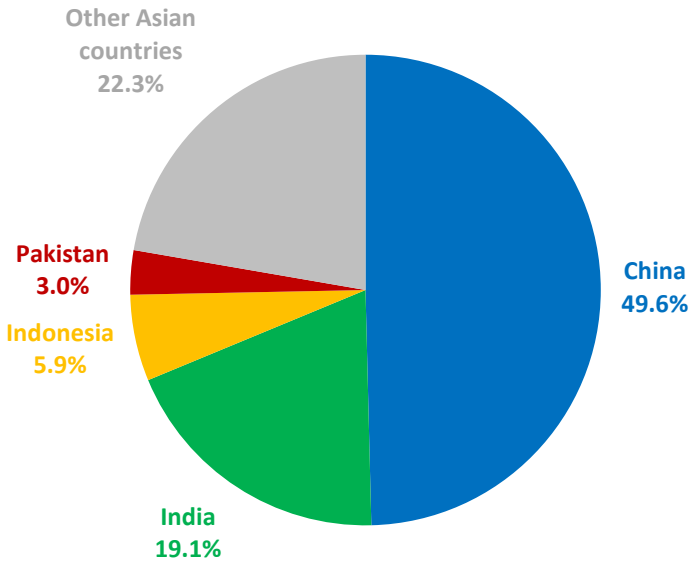


Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

A CLOSER LOOK AT AGRICULTURAL VALUE ADDED IN ASIA

China was by far the largest agricultural economy of Asia in 2020, accounting for almost half of the region's agriculture value added, followed by India (19.1 percent), Indonesia (5.9 percent) and Pakistan (3.0 percent). The rest of Asian countries account for the remaining 22.3 percent (Figure 11).

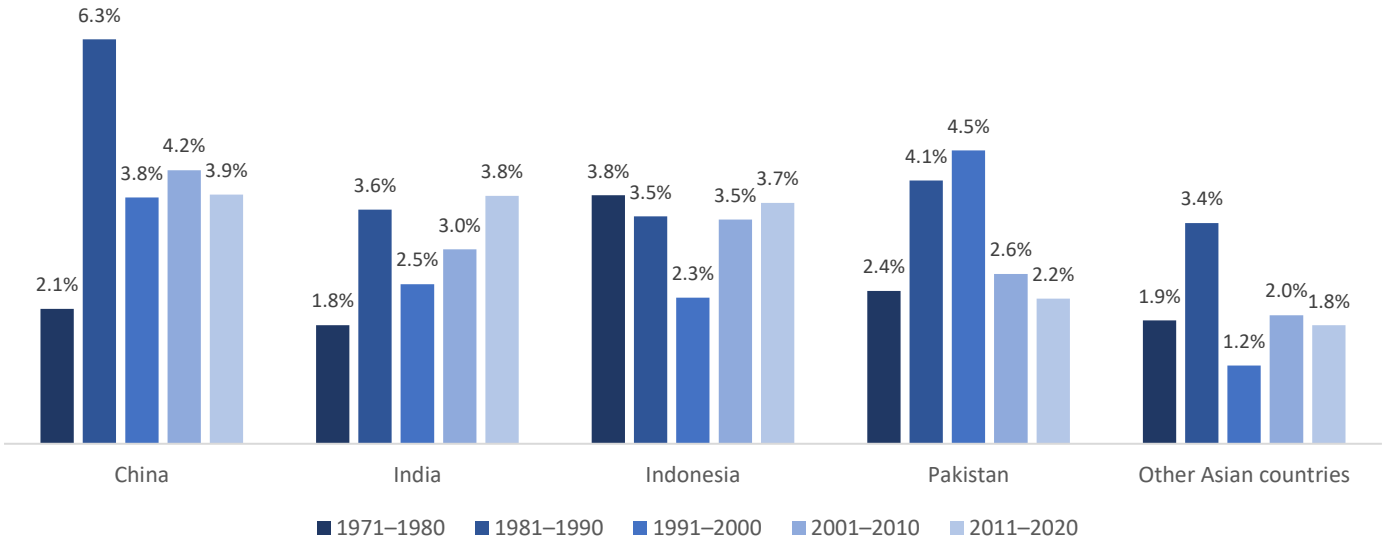
Figure 11: Share of agriculture value added in Asia by country, 2020



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Figure 12 shows the growth rates of agriculture value added for the Asian countries mentioned above, broken down by decade. China drives the growth of agriculture value added throughout the period, with a notable acceleration during the 1981–1990 decade, posting an average of 6.3 percent. During the last decade, China had the highest annual average growth rate of agriculture value added (3.9 percent), followed by India (3.8 percent), Indonesia (3.7 percent) and Pakistan (2.2 percent); the other Asian countries had the lowest average growth rate (1.8 percent).

Figure 12: Agriculture value added growth rate in Asia (annual average)



Source: FAO. 2022. FAOSTAT: Macro Indicators. In: *FAO*. Rome. Cited May 2022. http://www.fao.org/faostat/en/#data/MK

Download data at: http://www.fao.org/faostat/en/#data/MK

EXPLANATORY NOTES

- Gross domestic product (GDP) is 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 is calculated as output less intermediate consumption. In this brief, the agriculture sector includes agriculture, forestry and fishing.
- To adjust for inflation, this brief analyses macro indicators at constant prices of 2015 in US dollars. Deflation is based on the GDP deflator, the GFCF deflator, the value added deflator of Agriculture, forestry and fishing and the value-added deflator of Manufacturing derived from the United Nations Statistics Division (UNSD) National Accounts Analysis of Main Aggregates database (UNSD AMA). Deflators are obtained by dividing the time series in current prices by the series in constant 2015 prices (base year) and multiplying by 100. These deflators are reported in FAOSTAT.
- Gross domestic product per capita 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, 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 macroeconomic indicators at the country and regional levels relating to total economy; agriculture, forestry and fishing; manufacturing; agriculture sub-industry (agriculture) and manufacturing sub-industry (food and beverages products; tobacco products; food, beverages and tobacco products). It releases time series for a selection of national accounts variables, including gross domestic product, gross fixed capital formation, value added of agriculture forestry and fishing and of manufacturing, gross national income, value added and gross output of agriculture sub-industry. the database also proposes additional indicators such as gross domestic product per capita, gross national income per capita, and year-on-year growth rates and shares of industries' contribution to gross domestic product.
- Data are available in both national currency and in US dollars, in current prices and in constant 2015 prices. The breakdown of economic activities follows the International Standard Industrial Classification of All Economic Activities (ISIC).
- The territorial coverage consists of 218 countries and territories, including former countries. The Food and Agriculture Organization of the United Nations (FAO) compiles aggregate values at the regional and global levels. The time coverage is annual from 1970 to 2020.

- All data relating to total economy, agriculture, forestry and fishing, and total manufacturing originates from the UNSD-AMA database, which consists of a complete and consistent set of time series of the main national accounts 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 the National Accounts Official Country Data in UNdata, while series on the manufacturing sub-industry (food and beverages; tobacco products; food, beverages and tobacco products) originates from the United Nations Industrial Development Organization (UNIDO) INDSTAT2 databases.
- The regional aggregates are calculated by the Social and Economic Statistics Team in the Statistics Division in FAO.

Data are released at the end of first quarter of each year.

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