

# PRODUCTIVITY STATISTICS

NOVEMBER 2023





# Productivity Statistics

## November 2023



Any comments and queries regarding this document should be addressed to:

**Productivity SA**

Private bag 235, Midrand, 1685

Email: [Info@productivitysa.co.za](mailto:Info@productivitysa.co.za)

Tel: 011 848 5300, Fax: 011 848 5555

**Prepared by:**

Juliet Mashabela

Leroi Raputsoane

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# 1. FOREWORD

I am pleased to present the 2023 Productivity Statistics Report, a significant snapshot of our nation's economic landscape. In a year marked by challenges, including persistent rolling blackouts, elevated interest rates, and an unemployment rate that has reached 32%, our economic resilience is put to the test. The Statistics report, compiled by Productivity SA, delves into the efficiency of production inputs across various sectors, providing invaluable insights into our economy's health. As a measure of our ability to generate output using labour and capital inputs, productivity stands as a key indicator of our progress towards the National Development Plan (NDP) goals set for 2030.

In understanding productivity's broader context, an increase signifies more output with similar inputs, reflecting advancements in technology and innovation. Productivity SA, an entity of the Department of Employment and Labour, plays a crucial role in fostering employment growth and productivity. Productivity SA is a strategic labour market institution which aims to improve the long-term competitiveness and sustainability of SMMEs to create value.

This vision is attainable through an Integrated Enterprise Development and Support Eco-system, deploying resources for maximum value creation, and building economic linkages between the productive sector and other value-added sectors. Productivity SA stands ready to contribute to productivity growth and transformative innovation.

As we present, the 2023 Productivity Statistics Report, I am filled with deep gratitude for the collective journey we've navigated together at Productivity SA. This report, my final as the CEO of Productivity SA, encapsulates the dedication and collaborative spirit that define our organisation. As I pass the baton, I am confident in the enduring impact of our work.

To our stakeholders and the incredible team at Productivity SA, thank you for your unwavering commitment. The strides we've made together lay the groundwork for a more productive and prosperous South Africa. Here's to the next chapter of growth and success.



**Mr Mothunye Mothiba**  
CEO, Productivity SA

## 2. EXECUTIVE SUMMARY

**Real output**, including General government services as well as Community, social and personal services, decelerated to 2.1 percent in 2022 from 4.7 percent in 2021. Real output, excluding General government services as well as Community, social and personal services, also decelerated to 2.2 percent in 2022 from 5.1 percent in 2021. The contributions of the Primary Sector and the Secondary sector to Real output decreased while the contribution as well as growth of the Tertiary sector increased. The Tertiary sector currently accounts for about half of the Real output in the economy.

Productivity Statistics were underpinned by a stabilising **economy** post the onset of COVID-19 pandemic in 2020 as well as the recovery in 2021. The COVID-19 pandemic weakened an already underperforming economy especially when compared to Real output growth rates of the recent decades. The global Geopolitical risks remain elevated, the Unemployment rate and economic inequality continue to worsen, the Electricity supply problems persist while the Fiscal spending pressures are increasing, undermining the efforts to provide basic goods and services in health, infrastructure and education as well as a conducive environment for business and citizens.

**Labour productivity** recorded positive growth in 2022. The positive growth in Labour productivity was mainly supported by the increase of Labour productivity in the Secondary and Tertiary sectors while the Labour productivity in the Primary sector declined in the same period. The positive growth of Labour productivity was a result of the stagnation in Labour input amid a positive growth in Real output. In particular, the **Labour input** decelerated in the Primary sector and maintained the same growth in the Tertiary sector while it declined in the Secondary sector. Labour productivity accelerated sharply in Transport, storage and communication while the opposite is true for Mining and quarrying.

**Capital productivity** declined in 2022. This was mainly because of the significant negative growth of Capital productivity in the Primary and Tertiary sectors while that of the Secondary sector declined somewhat in the same period. The decline in Capital productivity was a result of the acceleration in **Capital input** in the Primary and Secondary sectors while that in the Tertiary sector accelerated somewhat in the same period. Capital productivity of Agriculture, forestry and fishing accelerated most while the opposite is true for Mining and quarrying as well as Construction.

**Multifactor productivity** accelerated somewhat in 2022. The indicator was mainly buoyed by the increase in the Multifactor productivity in the Secondary and Tertiary sectors while that in the Primary sector recorded negative growth in the same period. Multifactor productivity increased significantly in Transport, storage and communication while the opposite is the case with Agriculture, forestry and fishing as well as Electricity, gas and water.

**Capital labour ratio** accelerated sharply in 2022 mainly driven by the significant increase in Capital input while Labour input stagnated. In particular, Capital labour ratio of the Secondary and Tertiary sectors recorded significant positive growth while that of the Primary sector also increased somewhat in the same period.

**Compensation per employee** declined in 2022. The negative growth in the indicator was mainly realised in the Primary and Tertiary sectors while Compensation per employee of the Secondary sector increased. **Unit labour cost** declined further in 2022 mainly driven by the negative growth in Unit labour cost of the Secondary and Tertiary sectors while that of the Primary sector increased in the same period. Unit labour cost declined most in Wholesale, retail and accommodation as well as Transport, storage and communication while it accelerated significantly in Electricity, gas and water.

### 3. TECHNICAL NOTES

Productivity SA collects data from two official sources, namely Statistics South Africa and the South African Reserve Bank. The productivity indices are then calculated using the data collected from these sources. The collected data comprise Real output, Capital input, Labour input as well as Compensation of employees. The data are used to calculate indices such as Capital labour ratio, Capital productivity, Labour productivity, Multifactor productivity, Compensation per employee as well as Unit labour cost. These indices are calculated for the total economy, the three main sectors of the economy, the ten main industries as well as the eight selected manufacturing sub sectors. The main sectors, industries and manufacturing sub sectors are organised according to Statistics South Africa's Standard Industrial Classification (SIC) of all Economic Activities (2012). The SIC covers productive activities, that is, economic activities within the production boundary of the System of National Accounts (SNA). The base year of the current statistics is 2015 whereas that of the previous Productivity Statistics releases of between 2015 and 2020 is 2010. This is due to the rebasing exercise by the data sources.

The three main sectors are the Primary sector, Secondary sector and Tertiary sector. The ten main industries are Agriculture, forestry and fishing, Mining and quarrying, Manufacturing, Electricity, gas and water, Construction, Wholesale, retail trade, catering and accommodation, Transport, storage and communication, Finance, real estate and business services. The additional industries are General government services as well as Community, social and personal services. Agriculture, forestry and fishing and Mining and quarrying constitute the Primary sector. Manufacturing, Electricity, gas and water as well as Construction constitute the Secondary sector. Wholesale, retail trade, catering and accommodation, Transport, storage and communication as well as Finance, real estate and business services represent the Tertiary sector. The manufacturing sub sectors that include Food, beverages and tobacco, Textiles, clothing and leather, Wood, paper, publishing and printing, Basic chemicals, rubber and plastic, Glass and non metallic products, Basic metals, iron and steel and non ferrous metals, Electrical machinery as well as Motor vehicles and other transport equipment are no longer part of the Productivity Statistics since 2021 on data issues. These manufacturing subsectors excluded Radio, television communication equipment and apparatus as well as Furniture, manufacturing and recycling.

Total value added at Statistics SA includes General government services as well as Community, social and personal services, while that at Productivity SA excludes General government services as well as Community, social and personal services. General government services and Personal services industries measure the expenditure, and not the value of inputs and outputs, as it is the case with the other industries hence the exclusion of these industries from Total Value added at Productivity SA. Furthermore, the outputs of general government, non profit institutions, and paid employees of private households are assumed to be based on the incomes of input factors. This approach leads to a negligible change in productivity because the growth in output will be identical, or similar to, the growth in input.

The methodology used in the calculation of the productivity indices is consistent with that which is recommended by the internationally recognised institutions, such as the Organisation for Economic Cooperation and Development's (OECD) Manual: Measuring Productivity (2017). Productivity SA uses value added measures of output provided by Statistics South Africa and the South African Reserve Bank instead of volume measures in relation to output. As discussed above, the base year of Real output and capital input measures is 2015. A base year is changed every 5 years, and the last rebasing was done in 2020. The rebasing exercise is effected by the sources from which the data is collected. A change in the base year can cause significant changes in the growth rates of Real output and the Capital input and hence changes in most productivity indicators that use these variables in calculation. The following is the description of the indices that are calculated in this report.



## Productivity

Productivity measures the ability of the economy to produce output, i.e. goods and services, using inputs, i.e. Labour input and Capital input. An increase in productivity means that, among others, more output is produced using similar amounts of inputs. The increase in Productivity that is not due to Labour and Capital inputs arise from technological progress and innovation, or multifactor productivity. The following are the Productivity measures of interest in this publication; Labour productivity, Capital productivity, Multifactor productivity, Capital Labour ratio as well as Unit labour cost.

## Real output

Real output ( $Y_t$ ) is real value added and measures the value of goods or services produced in a specific time period, for instance, a year. Real value added is the Value of output less the value of intermediate consumption and measures of the contribution to GDP made by an individual producer, industry or sector. It is GDP plus all subsidies on products less all taxes on products and hence it is the balancing item of the national accounts' production account. Value added based productivity measures reflect an industry's capacity to contribute to the economy wide income and final demand.

## Capital input

Capital input ( $K_t$ ) is the net stock of investment in fixed assets such as investments in residential and non residential building, excluding land, infrastructure, machinery and equipment. It is the sum of net capital stock in the previous year and gross fixed investment less provision for depreciation.

## Labour input

Labour input ( $L_t$ ) is the total number of persons engaged, that is employers and employees, in any type of economic activity, also known as employment. The total number of persons engaged, or workers, is used to measure labour input in the absence of the total number of hours worked or hours paid.

## Capital labour ratio

Capital labour ratio, or capital deepening, measures the amount of capital available to each worker or per person engaged. It is the ratio of capital input to labour input where a positive capital labour ratio indicates that a production process uses more capital input relative to labour input. More formally, Capital labour ratio is

$$\text{Capital labour ratio}_t = \frac{C_t}{L_t} = \frac{\text{Capital input}_t}{\text{Labour input}_t}$$

## Compensation per employee

Compensation per employee is the total Compensation of employees ( $C_t$ ), measured as the remuneration of employees where total compensation includes employer contributions for wages and salaries, as well as bonuses, overtime payments, social security as well as private and welfare funds, per employee. Compensation per employee is

$$\text{Compensation per employee}_t = \frac{C_t}{L_t} = \frac{\text{Compensation of employees}_t}{\text{Labour input}_t}$$

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$$\text{Compensation per employee}_t = \frac{C_t}{L_t} = \frac{\text{Compensation of employees}_t}{\text{Labour input}_t}$$

## Unit labour cost

Unit labour cost is measured as the total Compensation of employees per unit of output and reflects the cost of labour or how much workers are paid to produce a unit of output. It indicates how much output an economy receives relative to the wages it pays hence it is regarded as an important indicator of international price competitiveness. Unit labour cost is

$$\text{Unit labour cost}_t = \frac{C_t}{Y_t} = \frac{\text{Compensation of employees}_t}{\text{Labour input}_t}$$

## Capital productivity

Capital productivity is the amount of output produced per unit of capital input. It measures how productively capital is used to generate output and hence it reflects the capital intensity of the production process. An increase in capital productivity means that a unit of capital produced more output than in the previous year or that the same amount of output is produced by less capital input. More formally, Capital productivity is

$$\text{Capital productivity}_t = \frac{Y_t}{K_t} = \frac{\text{Real output}_t}{\text{Capital input}_t}$$

## Labour productivity

Labour productivity is the amount of output produced per person engaged. It measures how productively labour is used to generate output hence an increase in labour productivity means that a worker produced more output than in the previous year or that the same amount of output is produced by fewer workers. More formally, Labour productivity is

$$\text{Labour productivity}_t = \frac{Y_t}{L_t} = \frac{\text{Real output}_t}{\text{Labour input}_t}$$

## Multifactor productivity

Multifactor productivity, also known as total factor productivity, is the amount of output produced by combining labour input and capital input. It measures productive efficiency due to the contribution of factors such as advances in knowledge, improvements in management and production techniques hence the increase in multifactor productivity means that an improvement in productive efficiency produced more output than in the previous year while still using the same amount of inputs. More formally, Multifactor productivity is

$$\text{Multifactor productivity}_t = \frac{Y_t}{W_{Kt} \cdot C_t + W_{Lt} \cdot L_t} = \frac{\text{Real output}_t}{W_{Kt} \cdot \text{Capital input}_t + W_{Lt} \cdot \text{Labour input}_t}$$

where  $W_{Kt}$  is Capital input share to Real output and  $W_{Lt}$  is Labour input share to Real output.



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# ANALYSIS **SECTION**

## 4. REAL OUTPUT AND PRODUCTIVITY

### 4.1. Contributions of main economic sectors to Real output

Table 1 Real output contribution 2018-2022

Annual percentage contribution

INDICATOR	2018	2019	2020	2021	2022
Agriculture, forestry and fishing	2.7	2.5	3.1	3.2	3.2
Mining and quarrying	5.4	5.4	5.0	5.4	4.9
<b>Primary sector</b>	<b>8.1</b>	<b>7.9</b>	<b>8.1</b>	<b>8.6</b>	<b>8.1</b>
Manufacturing	13.7	13.5	12.6	12.8	12.5
Electricity, gas and water	2.7	2.6	2.6	2.5	2.4
Construction	3.5	3.4	2.9	2.7	2.6
<b>Secondary sector</b>	<b>19.9</b>	<b>19.5</b>	<b>18.1</b>	<b>18.1</b>	<b>17.5</b>
Wholesale, retail and accommodation	13.6	13.5	12.6	12.8	12.9
Transport, storage and communication	9.2	9.1	8.2	8.2	8.7
Finance, real estate and business services	24.1	24.6	26.3	26.0	26.5
<b>Tertiary sector</b>	<b>46.9</b>	<b>47.2</b>	<b>47.1</b>	<b>46.9</b>	<b>48.1</b>
<b>Real output (Productivity SA)</b>	<b>74.9</b>	<b>74.6</b>	<b>73.3</b>	<b>73.6</b>	<b>73.7</b>
General government services	8.8	8.9	9.5	9.1	8.9
Community, social and personal services	16.3	16.5	17.1	17.3	17.4
<b>Other Sector</b>	<b>25.1</b>	<b>25.4</b>	<b>26.7</b>	<b>26.4</b>	<b>26.3</b>
<b>Real output (Stats SA)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The contribution of the Primary and Secondary sectors to Real output decreased in 2022, while the contribution of the Tertiary sector increased significantly in the same period. In particular, the contribution of the Primary sector to Real output decreased in 2022. This was on account of Mining and quarrying which moderated slightly while the contribution of Agriculture, forestry and fishing remained unchanged in the same period. The contribution of the Secondary sector to Real output decreased significantly in 2022. This was as a result of the widespread moderation in the shares of Manufacturing, Electricity, gas and water as well as Construction. Manufacturing remains the most important industry in the Secondary sector accounting for most of the Real output of the sector. The contribution of the Tertiary sector to Real output increased significantly in 2022. This sector accounts for almost half the Real output in the economy. The contribution of the Tertiary sector to Real output was buoyed by all the subsectors that include Wholesale, retail and accommodation, Transport, storage and communication as well as Finance, real estate and business services whose contributions to Real output increased in the same period. The contribution of the Other sector to Real output decreased insignificantly in 2022. The Other sector comprises General government services as well as Community, social and personal services. The shares of the subsectors to Real output were mixed where the contribution General government services to Real output decreased while that of Community, social and personal services increased slightly in the same period. Consequently, the contribution of the Real output, excluding General government services as well as Community, social and personal services, decreased insignificantly in 2022.

## 4.2. Growth rates of main economic sectors and Real output

Table 2 Real output growth 2018-2022

Annual percentage change

INDICATOR	2018	2019	2020	2021	2022
Agriculture, forestry and fishing	0.5	-6.4	14.9	8.8	0.3
Mining and quarrying	-0.8	-0.6	-11.8	12.0	-7.0
<b>Primary sector</b>	<b>-0.4</b>	<b>-2.6</b>	<b>-3.2</b>	<b>10.8</b>	<b>-4.3</b>
Manufacturing	1.6	-1.0	-12.5	6.5	-0.1
Electricity, gas and water	0.9	-3.3	-5.9	2.2	-2.6
Construction	-1.4	-3.4	-18.5	-2.2	-3.5
<b>Secondary sector</b>	<b>1.0</b>	<b>-1.8</b>	<b>-12.6</b>	<b>4.5</b>	<b>-0.9</b>
Wholesale, retail and accommodation	1.0	-0.7	-12.4	6.4	3.5
Transport, storage and communication	2.8	-0.7	-15.4	4.7	8.6
Finance, real estate and business services	3.3	2.5	0.7	3.3	3.9
<b>Tertiary sector</b>	<b>2.5</b>	<b>0.9</b>	<b>-6.2</b>	<b>4.4</b>	<b>4.6</b>
<b>Real output (Productivity SA)</b>	<b>1.8</b>	<b>-0.2</b>	<b>-7.6</b>	<b>5.1</b>	<b>2.2</b>
General government services	1.9	1.4	0.7	0.1	-0.3
Community, social and personal services	0.5	1.4	-2.0	5.5	2.7
<b>Other Sector</b>	<b>1.0</b>	<b>1.4</b>	<b>-1.1</b>	<b>3.6</b>	<b>1.7</b>
<b>Real output (Stats SA)</b>	<b>1.6</b>	<b>0.2</b>	<b>-5.9</b>	<b>4.7</b>	<b>2.1</b>

Real output growth of the Primary and Secondary sectors declined in 2022 while that of the Tertiary sector recorded a relatively significant positive growth in the same period. In particular, Real output growth of the Primary sector declined significantly in 2022. This was on account of the significant decline of Real output growth of Mining and quarrying as well as the significant deceleration of Agriculture, forestry and fishing. Real output growth of the Secondary sector registered a relatively insignificant decline in 2022. This was as a result of the widespread negative growth in all the subsectors of the Secondary sector that include Manufacturing, Electricity, gas and water as well as Construction. The negative Real output growth in Manufacturing was somewhat insignificant compared to that in Electricity, gas and water as well as Construction subsectors. The Tertiary sector recorded significant positive growth in 2022. All the subsectors of the Tertiary sector that include Wholesale, retail and accommodation, Transport, storage and communication as well as Finance, real estate and business services realised notable acceleration in Real output growth. Transport, storage and communication registered significant growth compared to the rest of the subsectors. The Other sector, which comprises General government services as well as Community, social and personal services, realised a decrease in growth in 2022. Real output growth of General government services declined slightly while that of Community, social and personal services decelerated in the same period. Consequently, Real output, excluding General government services as well as Community, social and personal services, as well as Real output, including General government services as well as Community, social and personal services, recorded a relatively significant deceleration in growth in 2022.



### 4.3. Productivity indicators of the South African economy

**Table 3 Productivity indicators 2018-2022**

Annual percentage change

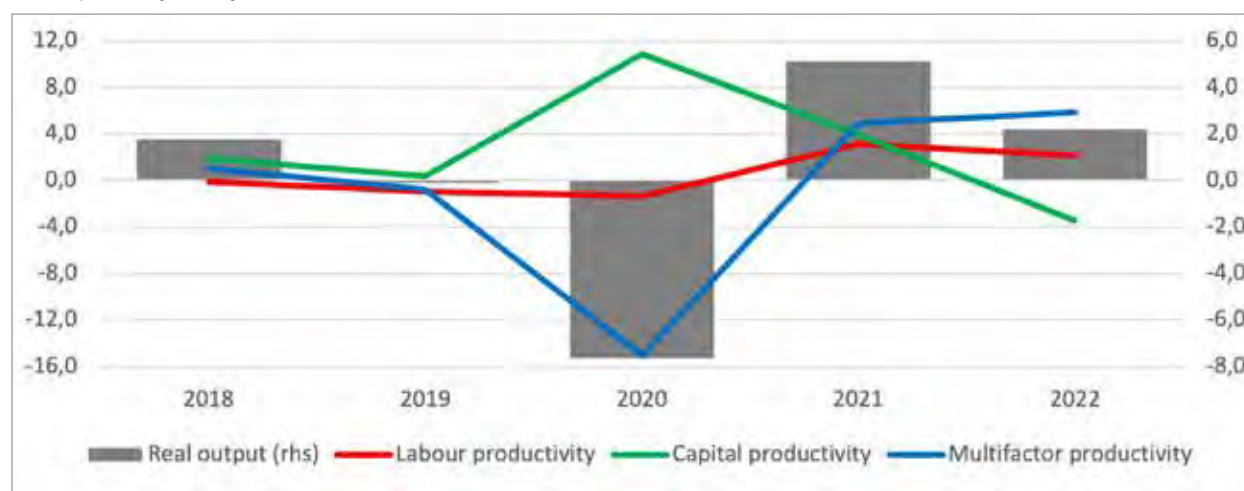
INDICATOR	2018	2019	2020	2021	2022
Real output	1.8	-0.1	-7.6	5.1	2.2
Labour input	1.9	0.8	-6.4	1.9	0.1
Capital input	-0.1	-0.5	-16.6	1.0	5.9
Capital labour ratio	-1.9	-1.2	-11.0	-0.9	5.8
Compensation per employee	-2.4	-0.8	-1.6	1.5	-1.5
Unit labour cost	-2.3	0.1	-0.4	-1.4	-3.6
Labour productivity	-0.1	-0.9	-1.3	3.1	2.1
Capital productivity	1.9	0.4	10.9	3.9	-3.5
Multifactor productivity	1.0	-0.8	-15.1	4.9	5.8

Real output decelerated to 2.2 percent in 2022 from 5.1 percent in 2021. The indicator previously recorded two consecutive years of negative growth in 2019 and 2020 while it registered positive growth in 2018. Labour input declined slightly to 0.1 percent in 2022 from 1.9 percent in 2021. The indicator previously recorded negative growth in 2020 while it registered positive growth in 2018 and 2019. As a result, Labour productivity decelerated to 2.1 percent in 2022 from 3.1 percent in 2021. The indicator previously recorded a relatively insignificant negative growth for three successive years between 2018 and 2020. Capital input accelerated significantly to 5.9 percent in 2022 from 1.0 percent in 2021. The indicator previously recorded negative growth for three consecutive years between 2018 and 2020 where it realised significant decline in 2020. Consequently, Capital productivity declined to -3.5 percent in 2022 from 3.9 percent in 2021. The indicator registered positive growth for three successive years between 2018 and 2020. Multifactor productivity accelerated significantly to 5.8 percent in 2022 from 4.9 percent in 2021. The indicator previously recorded negative growth in 2019 and 2020 while it realised positive growth in 2018. Capital labour ratio accelerated to 5.8 percent in 2022 from -0.9 percent in 2021. The indicator previously recorded negative growth for three successive years between 2018 and 2020. Compensation per employee declined to -1.5 percent in 2022 from 1.5 percent in 2021. The indicator realised negative growth for three successive years between 2018 and 2020. Unit labour cost declined to -3.6 percent in 2022 from -1.4 percent in 2021. The indicator registered negative growth in 2018 and 2020 while it realised insignificant positive growth in 2019.



**Figure 1 Trends of productivity indicators 2018-2022**

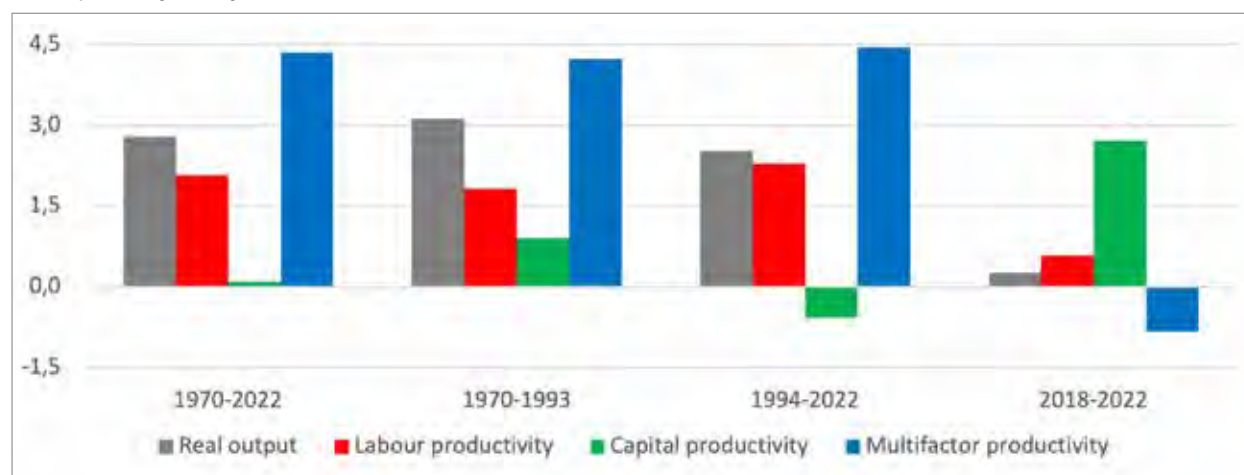
Annual percentage change



Real output decelerated slightly in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it declined significantly in 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour productivity decelerated slightly in 2022. The indicator previously recorded positive growth in 2021 following three years of negative growth between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021. Capital productivity declined in 2022. The indicator previously realised positive growth for four consecutive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2020 while the opposite is the case in 2022. Multifactor productivity accelerated insignificantly in 2022. The indicator recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was registered in 2022 while the opposite is true in 2020.

**Figure 2 Average productivity indicators 1970-2022**

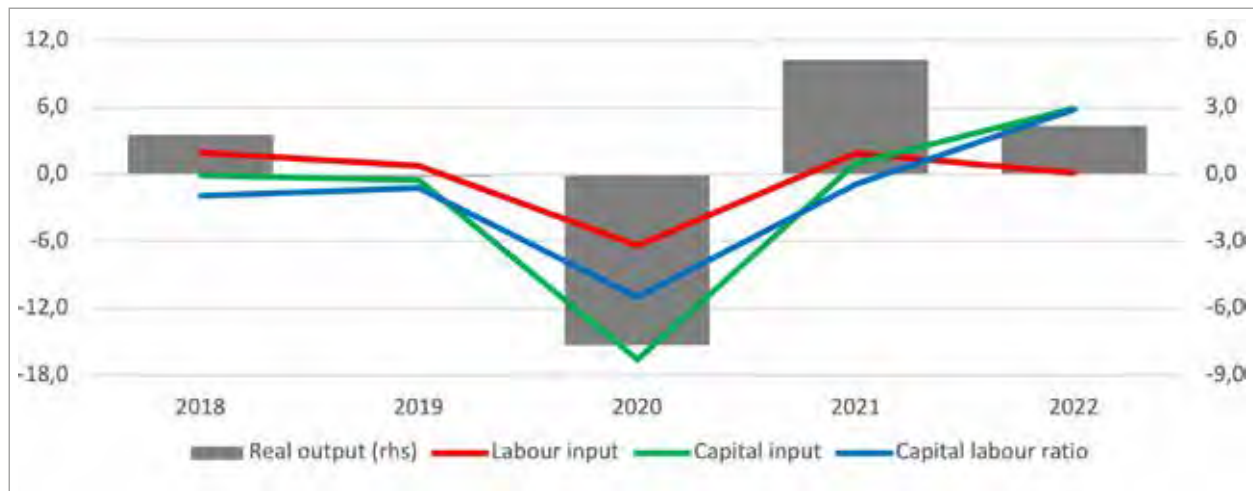
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Capital productivity realised a negligible positive growth during the same period. In particular, Real output recorded significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negligible positive growth between 2018 and 2022. Labour productivity realised relatively insignificant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negligible positive growth between 2018 and 2022. Capital productivity registered positive growth between 1970 and 1993 compared to the negative growth between 1994 and 2022 while recorded significant positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised negative growth between 2018 and 2022.

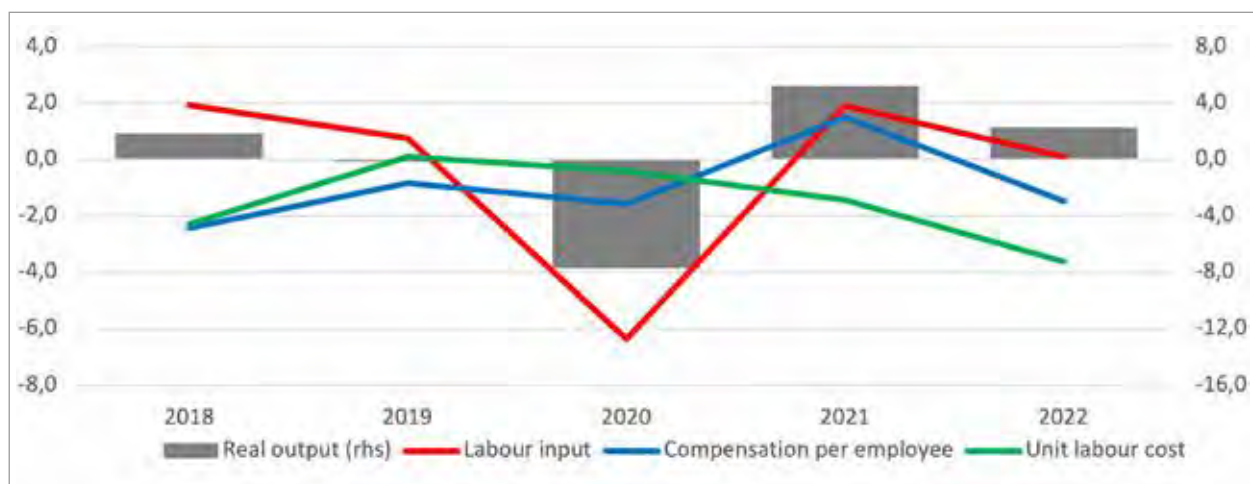


**Figure 3 Production Input indicators 2018-2022**  
Annual percentage change



Real output decelerated slightly in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it declined significantly in 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input realised no growth in 2022. The indicator recorded positive growth in 2021 and in 2018 and 2019 as well as negative growth in 2020. Significant negative growth in the indicator was recorded in 2020. Capital input accelerated in 2022. The indicator registered positive growth in 2021 while the opposite is true between 2018 and 2020. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020. Consequently, Capital labour ratio accelerated in 2022. The indicator also recorded negative growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was registered in 2022 while the opposite is true in 2020.

**Figure 4 Labour market indicators 2018-2022**  
Annual percentage change



Real output decelerated slightly in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it declined significantly in 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input realised insignificant growth in 2022. The indicator recorded positive growth in 2021 as well as in 2018 and 2019 while it realised negative in 2020. Significant positive growth in the indicator was recorded in 2018 and 2021 while the opposite is true in 2020. Compensation per employee declined in 2022. The indicator registered positive growth in 2021 and three successive years of negative growth between 2018 and 2020. Significant negative growth in the indicator was recorded in 2018 while the opposite is true in 2021. Consequently, Unit labour cost declined significantly in 2022. The indicator recorded negative growth in 2020 and 2021 as well as in 2018 while it realised positive growth in 2019. Significant negative growth in the indicator was recorded in 2022.

## 5. PRODUCTIVITY INDICATORS OF THE MAIN ECONOMIC SECTORS

### 5.1. Primary sector

**Table 4 Productivity indicators 2018-2022**

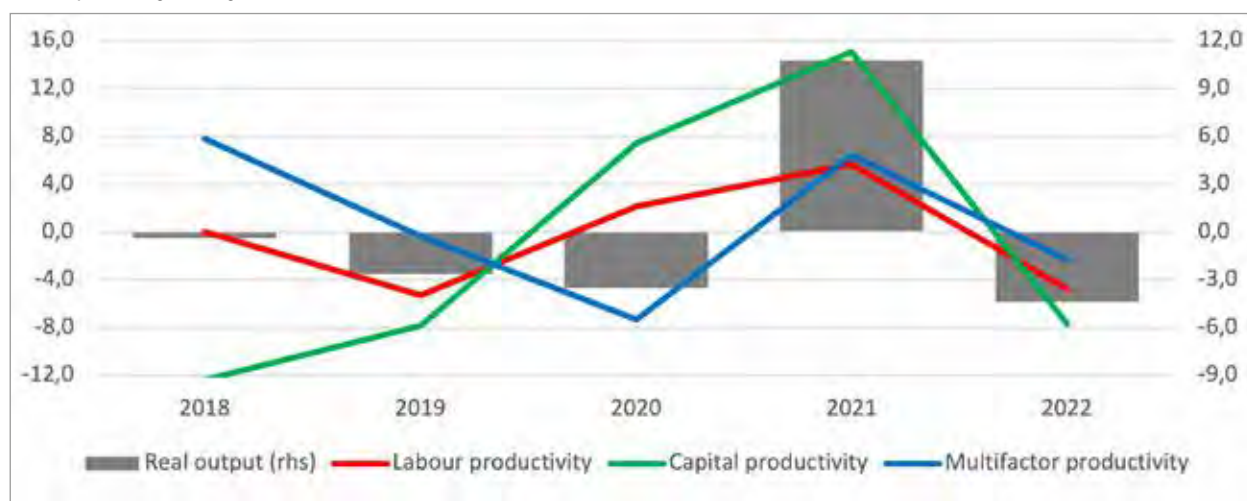
Annual percentage change

INDICATOR	2018	2019	2020	2021	2022
Real output	-0.4	-2.6	-3.5	10.8	-4.4
Labour input	-0.3	2.7	-5.5	4.8	0.5
Capital input	13.6	5.7	-10.1	-3.9	3.6
Capital labour ratio	14.0	2.9	-4.9	-8.2	3.1
Compensation per employee	0.6	-3.3	0.1	3.1	-1.3
Unit labour cost	0.7	2.0	-2.0	-2.4	3.7
Labour productivity	0.0	-5.3	2.1	5.7	-4.8
Capital productivity	-12.4	-7.9	7.4	15.1	-7.7
Multifactor productivity	7.8	-0.4	-7.3	6.4	-2.3

Real output declined to -4.4 percent in 2022 from 10.8 percent in 2021. The indicator previously recorded negative growth for three consecutive years between 2018 and 2020. Labour input decelerated to 0.5 percent in 2022 from 4.8 percent in 2021. The indicator previously realised volatile growth between 2018 and 2020 where it recorded negative growth in 2018 and 2020 and a positive growth in 2019. As a result, Labour productivity declined to -4.8 percent in 2022 from 5.7 percent in 2021. The indicator recorded positive growth in 2020 and negative growth in 2019 as well as no growth in 2018. Capital input accelerated to 3.6 percent in 2022 from -3.9 percent in 2021. The indicator previously registered negative growth in 2020 and positive growth in 2018 and 2019. Consequently, Capital productivity declined significantly to -7.7 percent in 2022 from 15.1 percent in 2021. The indicator previously recorded positive growth in 2020 and a negative growth in 2018 and 2019. Multifactor productivity declined to -2.3 percent in 2022 from 6.4 percent in 2021. The indicator registered negative growth in 2019 and 2020 as well as positive growth in 2018. Capital labour ratio accelerated to 3.1 percent in 2022 from -8.2 percent in 2021. The indicator previously recorded negative growth in 2020 and a positive growth in 2018 and 2019. Compensation per employee declined to -1.3 percent in 2022 from 3.1 percent in 2021. The indicator realised positive growth in 2018 and 2020 as well as negative growth in 2019. Unit labour cost accelerated to 3.7 percent in 2022 from -2.4 percent in 2021. The indicator previously registered negative growth in 2020 and a positive growth in 2018 and 2019.

**Figure 5 Trends of productivity indicators 2018-2022**

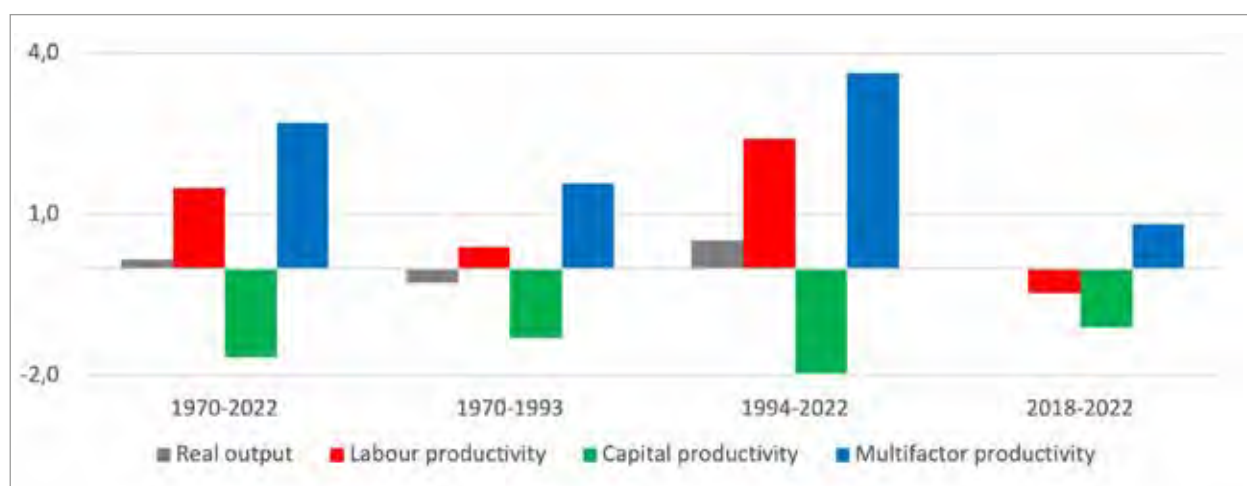
Annual percentage change



Real output declined in 2022. The indicator previously accelerated significantly in 2021 following three years of negative growth between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour productivity declined in 2022. The indicator recorded positive growth in 2020 and 2021 and negative growth in 2019 as well as no growth in 2018. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2019. Capital productivity declined significantly in 2022. The indicator recorded significant positive growth in 2020 and 2021 and negative growth in 2018 and 2019. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2018. Multifactor productivity declined in 2022. The indicator recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2018 while the opposite is the case in 2020.

**Figure 6 Average productivity indicators 1970-2022**

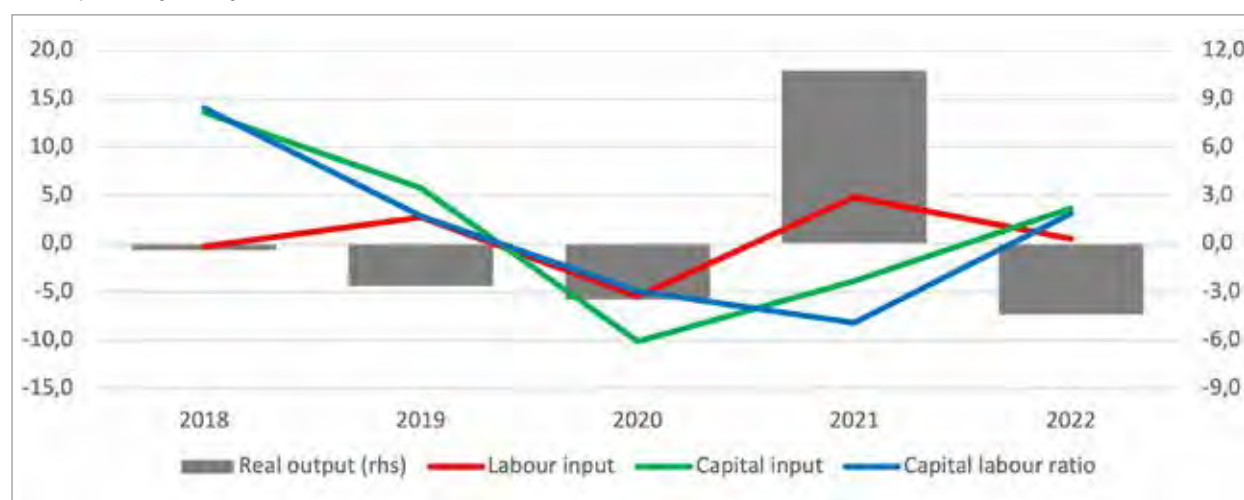
Annual percentage change



Real output, Labour productivity and Multifactor productivity recorded positive growth between 1970 and 2022 while Capital productivity realised negative growth during the same period. In particular, Real output recorded slightly insignificant negative growth between 1970 and 1993 compared to the positive growth between 1994 and 2022 while it realised no growth between 2018 and 2022. Labour productivity realised relatively insignificant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised insignificant negative growth between 2018 and 2022. Capital productivity registered negative growth between 1970 and 1993 as well as between 1994 and 2022 while also recorded somewhat insignificant negative growth between 2018 and 2022. Multifactor productivity recorded insignificant positive growth between 1970 and 1993 compared to the significant positive growth between 1994 and 2022 while it also realised insignificant positive growth between 2018 and 2022.

**Figure 7 Production Input indicators 2018-2022**

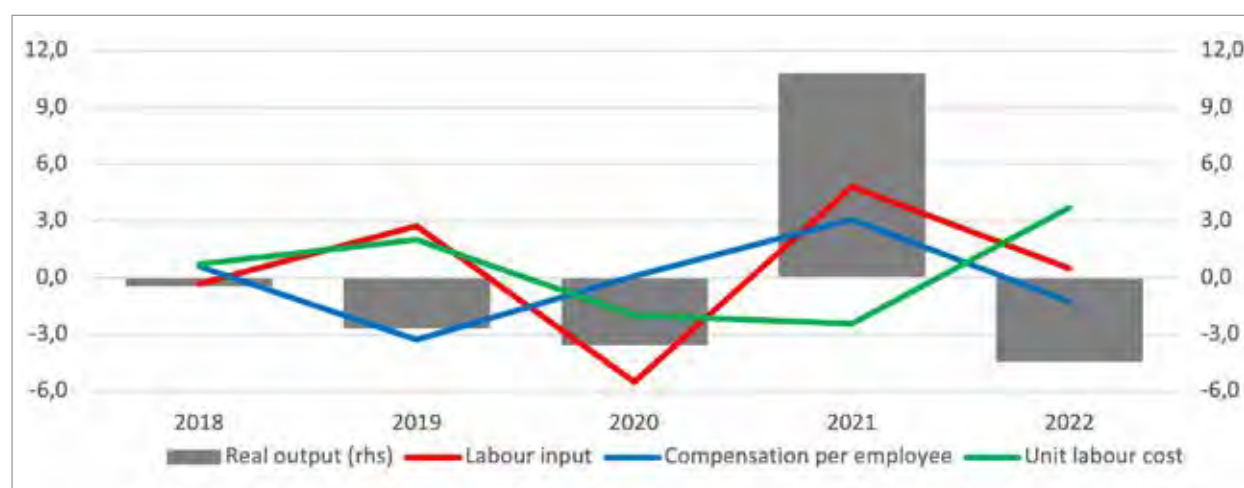
Annual percentage change



Real output declined in 2022. The indicator previously accelerated significantly in 2021 following three years of negative growth between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input decelerated in 2022. The indicator recorded positive growth in 2019 and 2021 as well as negative growth in 2018 and no growth in 2020. Significant positive growth in the indicator was recorded negative in 2021 while the opposite is true in 2020. Capital input accelerated in 2022. The indicator registered negative growth in 2020 and 2021 while the opposite is true in 2018 and 2019. Significant positive growth in the indicator was recorded in 2018 while the opposite is the case in 2020. Consequently, Capital labour ratio increased in 2022. The indicator also recorded negative growth in 2020 and 2021 while the opposite is the case in 2018 and 2019. Significant positive growth in the indicator was registered in 2018 while the opposite is the case in 2021.

**Figure 8 Labour market indicators 2018-2022**

Annual percentage change



Real output declined in 2022. The indicator previously accelerated significantly in 2021 following three years of negative growth between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2022. Labour input decelerated in 2022. The indicator recorded positive growth in 2019 and 2021 while it realised negative in 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Compensation per employee declined in 2022. The indicator registered positive growth in 2018 as well as in 2020 and 2021 while it recorded negative growth in 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Consequently, Unit labour cost accelerated in 2022. The indicator recorded negative growth in 2020 and 2021 as well as positive growth in 2018 and 2019. Significant positive growth in the indicator was recorded in 2022.



## 5.2. Secondary sector

**Table 5 Productivity indicators 2018-2022**

Annual percentage change

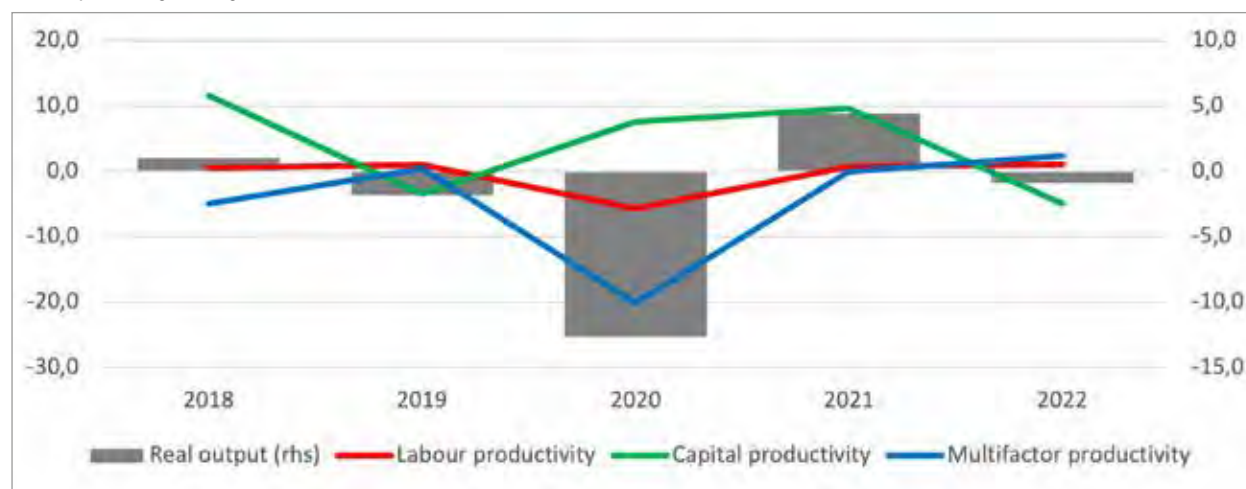
INDICATOR	2018	2019	2020	2021	2022
Real output	1.0	-1.8	-12.6	4.4	-0.9
Labour input	0.5	-2.8	-7.3	3.7	-2.1
Capital input	-9.5	1.8	-18.8	-4.7	4.2
Capital labour ratio	-9.9	4.7	-12.5	-8.1	6.3
Compensation per employee	-1.7	2.4	-2.4	0.2	0.7
Unit labour cost	-2.1	1.2	3.5	-0.5	-0.5
Labour productivity	0.5	1.0	-5.7	0.8	1.1
Capital productivity	11.6	-3.5	7.6	9.7	-4.9
Multifactor productivity	-4.9	0.4	-20.1	0.0	2.4

Real output declined to -0.9 percent in 2022 from 4.4 percent in 2021. The indicator previously recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Labour input declined to -2.1 percent in 2022 from 3.7 percent in 2021. The indicator registered negative growth in 2019 and 2020 while it recorded positive growth in 2018. As a result, Labour productivity accelerated slightly to 1.1 percent in 2022 from 0.8 percent in 2021. The indicator recorded negative growth in 2020 and positive growth in 2018 and 2019. Capital input accelerated to 4.2 percent in 2022 from -4.7 percent in 2021. The indicator realised volatile growth between 2018 and 2020 where it registered negative growth in 2018 and 2020 while it recorded positive growth in 2019. Consequently, Capital productivity declined to -4.9 percent in 2022 from 9.7 percent in 2021. The indicator previously recorded positive growth in 2018 and 2020 while it registered negative growth in 2019. Multifactor productivity accelerated to 2.4 percent in 2022 from 0.0 percent in 2021. The indicator previously realised volatile growth between 2018 and 2020 where it registered negative growth in 2018 and 2020 and a positive growth in 2019. Capital labour ratio increased sharply to -6.3 percent in 2022 from -8.1 percent in 2021. The indicator registered negative growth in 2018 and 2020 and positive growth in 2019. Compensation per employee increased slightly to 0.7 percent in 2022 from 0.2 percent in 2021. The indicator previously realised volatile growth between 2018 and 2020 where it registered negative growth in 2018 and 2020 while it recorded positive growth in 2019. Unit labour cost decline insignificantly to -0.5 percent in 2022 from -0.5 percent in 2021. The indicator recorded positive growth in 2019 and 2020 while it registered negative growth in 2018. where it recorded positive growth in 2017 and 2019 and a negative growth in 2018.



**Figure 9 Trends of productivity indicators 2018-2022**

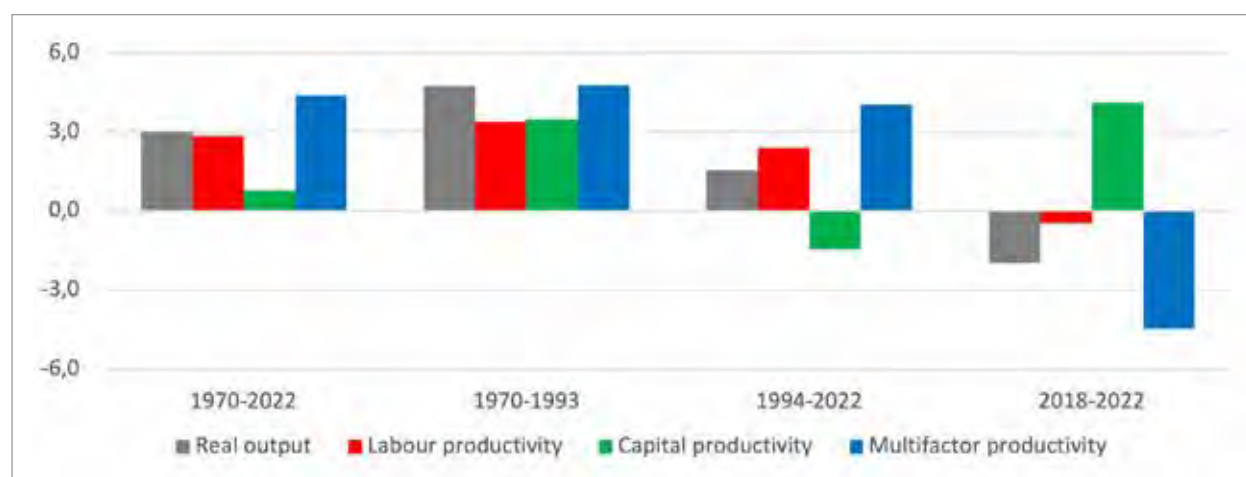
Annual percentage change



Real output declined insignificantly in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Labour productivity accelerated slightly in 2022. The indicator generally recorded positive growth between 2018 and 2021 saving the negative growth in 2020. A relatively significant negative growth in the indicator was realised in 2020. Capital productivity declined in 2022. The indicator recorded positive growth in 2018 and in 2020 and 2021 as well as negative growth in 2019. Significant positive growth in the indicator was realised in 2018 and 2021. Multifactor productivity increased in 2022. The indicator generally recorded negative growth between 2018 and 2021. Significant negative growth in the indicator was realised in 2020.

**Figure 10 Average productivity indicators 1970-2022**

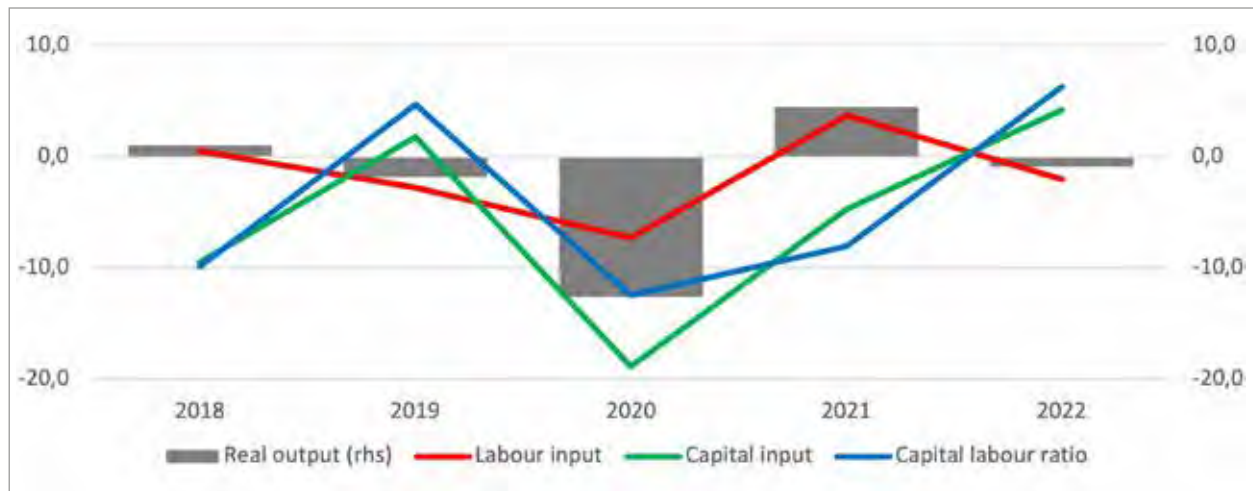
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Capital productivity realised a negligible positive growth during the same period. In particular, Real output recorded slightly significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negative growth between 2018 and 2022. Labour productivity realised relatively significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negligible negative growth between 2018 and 2022. Capital productivity registered somewhat strong positive growth between 1970 and 1993 compared to the negative growth between 1994 and 2022 while it recorded significant positive growth between 2018 and 2022. Multifactor productivity recorded a relatively significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negative growth between 2018 and 2022.

**Figure 11 Production Input indicators 2018-2022**

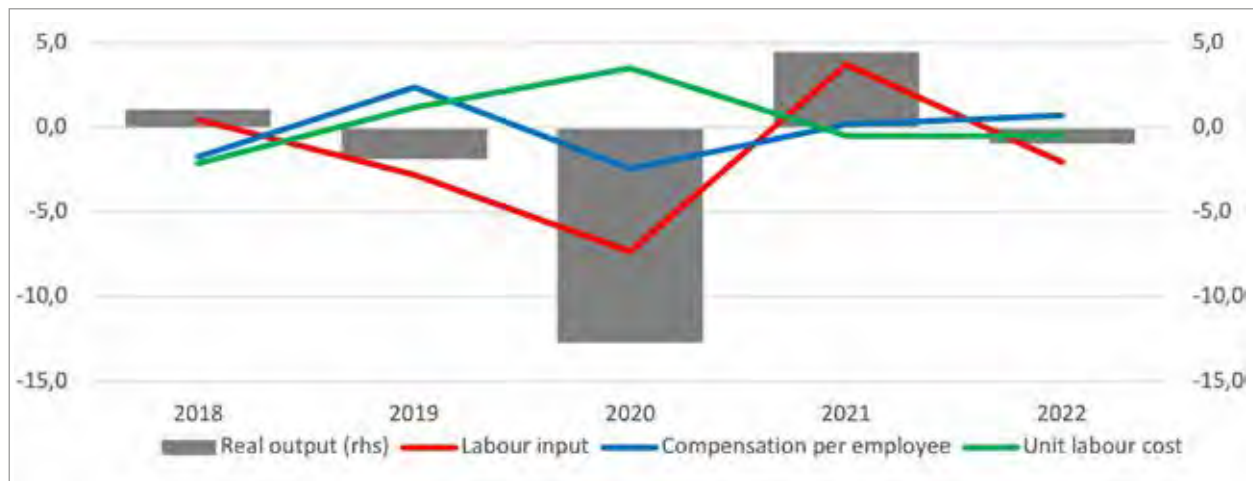
Annual percentage change



Real output declined insignificantly in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Labour input declined in 2022. The indicator recorded positive growth in 2021 as well as negative growth in 2019 and 2020 and no growth in 2018. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Capital input accelerated significantly in 2022. The indicator registered negative growth in 2020 and 2021 as well as in 2018 while the opposite is true in 2019. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020. Consequently, Capital labour ratio accelerated significantly in 2022. The indicator recorded negative growth in 2018 as well as in 2020 and 2021 while the opposite is the case in 2019. Significant negative growth in the indicator was registered in 2022 while the opposite is true in 2020.

**Figure 12 Labour market indicators 2018-2022**

Annual percentage change



Real output declined insignificantly in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Labour input declined in 2022. The indicator recorded positive growth in 2018 and 2021 while it realised negative in 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Compensation per employee accelerated slightly in 2022. The indicator registered positive growth in 2019 and 2021 as well as negative growth in 2018 and 2020. Significant positive growth in the indicator was recorded in 2019. Consequently, Unit labour cost declined insignificantly in 2022. The indicator recorded negative growth in 2018 and 2021 as well as positive growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2020 while the opposite is true in 2018.



### 5.3. Tertiary sector

**Table 6 Productivity indicators 2018-2022**

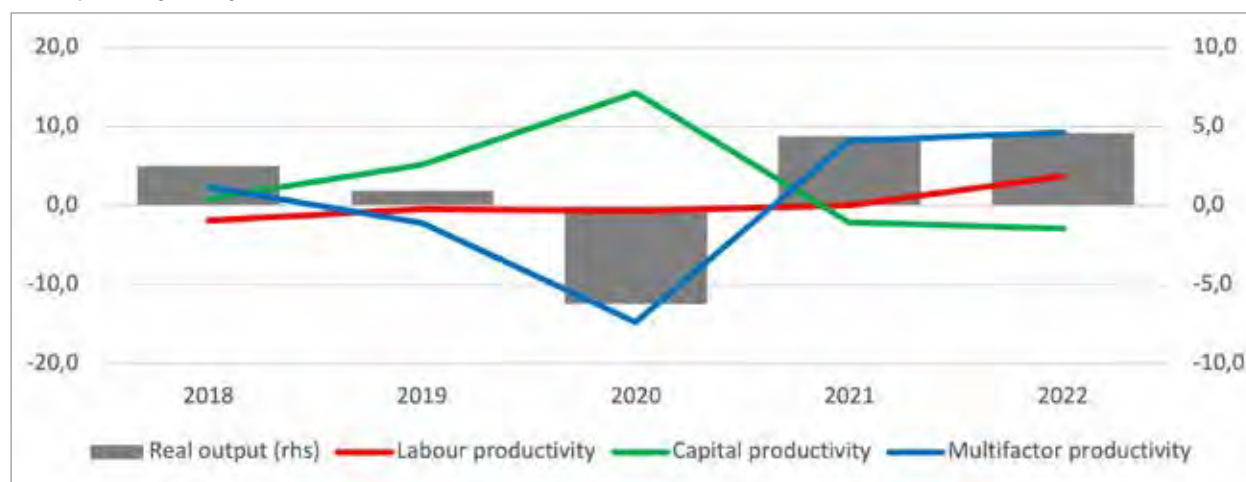
Annual percentage change

INDICATOR	2018	2019	2020	2021	2022
Real output	2.5	0.9	-6.2	4.4	4.6
Labour input	3.0	1.6	-6.2	0.6	0.6
Capital input	1.6	-4.1	-17.9	6.6	7.6
Capital labour ratio	-1.3	-5.5	-12.5	6.0	7.0
Compensation per employee	-3.4	-1.2	-1.5	2.0	-2.4
Unit labour cost	-2.9	-0.6	-1.5	-1.7	-6.1
Labour productivity	-0.4	-0.6	0.0	3.7	4.0
Capital productivity	0.8	5.2	14.3	-2.1	-2.9
Multifactor productivity	2.3	-2.2	-14.7	8.2	9.2

Real output accelerated to 4.6 percent in 2022 from 4.4 percent in 2021. The indicator previously registered negative growth in 2020 and positive growth in 2018 and 2019. Labour input remained unchanged at 0.6 percent in 2022 from 0.6 percent in 2021. The indicator recorded negative growth in 2020 and positive growth in 2018 and 2019. As a result, Labour productivity accelerated to 4.0 percent in 2022 from 3.7 percent in 2021. The indicator realised no growth in 2020 and insignificant negative growth in 2018 and 2019. Capital input accelerated significantly to 7.6 percent in 2022 from 6.6 percent in 2021. The indicator recorded negative growth in 2019 and 2020 and positive growth in 2019. Consequently, Capital productivity declined sharply to -2.9 percent in 2022 from -2.1 percent in 2021. The indicator previously realised three successive years of positive growth between 2018 and 2020. Multifactor productivity increased sharply to 9.2 percent in 2022 from 8.2 percent in 2021. The indicator previously recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Capital labour ratio accelerated significantly to 7.0 percent in 2022 from 6.0 percent in 2021. The indicator previously realised three successive years of negative growth between 2018 and 2020. Compensation per employee declined to -2.4 percent in 2022 from 2.0 percent in 2021. The indicator previously realised three successive years of negative growth between 2018 and 2020. Unit labour cost declined significantly to -6.1 percent in 2022 from -1.7 percent in 2021. The indicator previously realised three successive years of negative growth between 2018 and 2020.

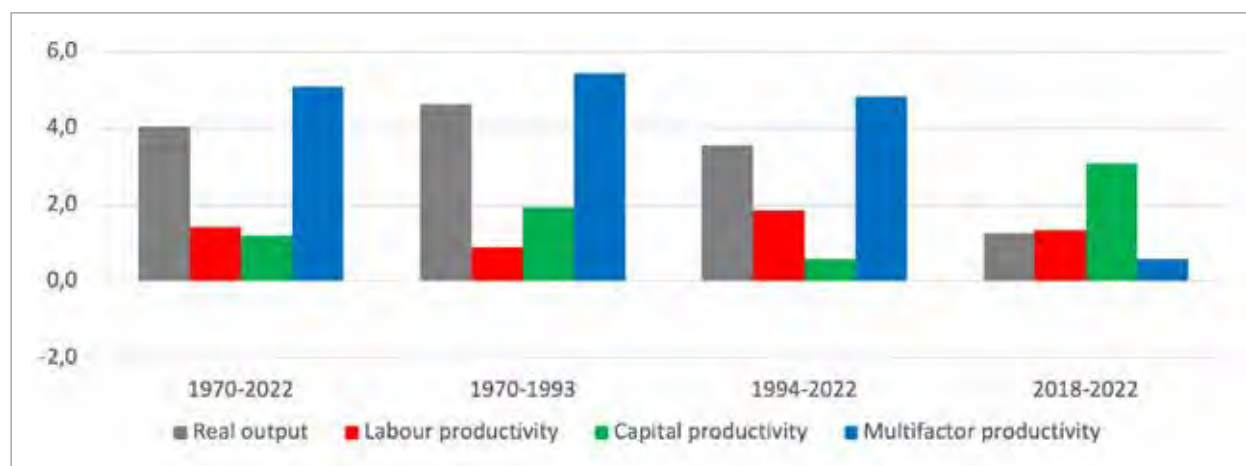


**Figure 13 Trends of productivity indicators 2018-2022**  
Annual percentage change



Real output accelerated slightly in 2022. The indicator generally recorded positive growth between 2018 and 2021 saving the negative growth in 2020. Significant positive growth in the indicator was realised in 2021 and 2022 while the opposite is true in 2020. Labour productivity accelerated slightly in 2022. The indicator previously recorded insignificant growth between 2018 and 2021. A relatively significant positive growth in the indicator was realised in 2022 while the opposite is true in 2018. Capital productivity declined in 2022. The indicator recorded negative growth in 2021 following three years of positive growth between 2018 and 2020. Significant positive growth in the indicator was realised in 2020. Multifactor productivity increased sharply in 2022. The indicator recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2022 while the opposite is true in 2020.

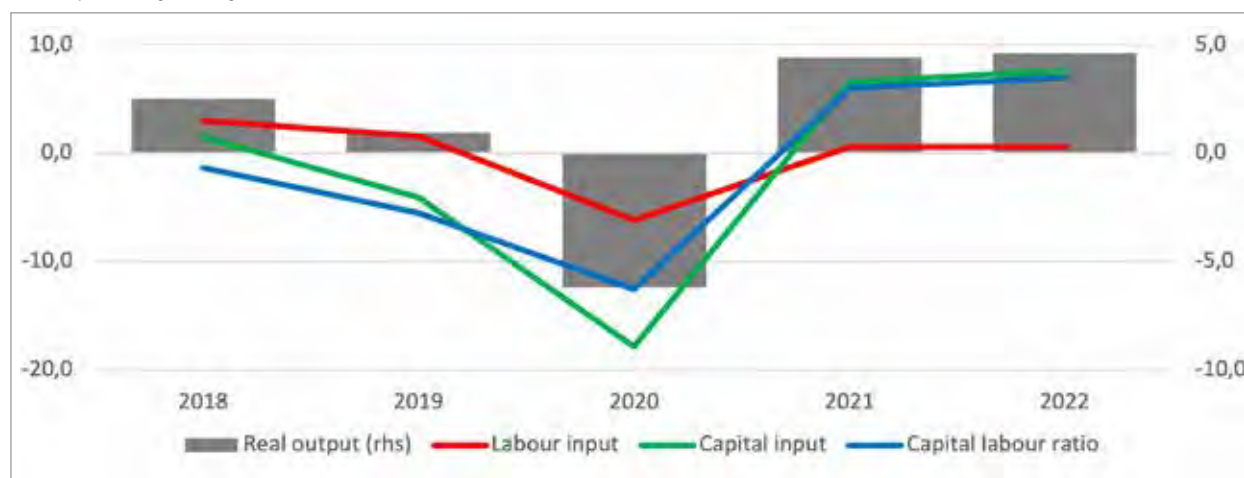
**Figure 14 Average productivity indicators 1970-2022**  
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Labour productivity and Capital productivity realised a negligible positive growth during the same period. In particular, Real output recorded slightly significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised insignificant positive growth between 2018 and 2022. Labour productivity realised relatively insignificant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negligible positive growth between 2018 and 2022. Capital productivity registered somewhat significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while recorded significant positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised insignificant positive growth between 2018 and 2022.

**Figure 15 Production Input indicators 2018-2022**

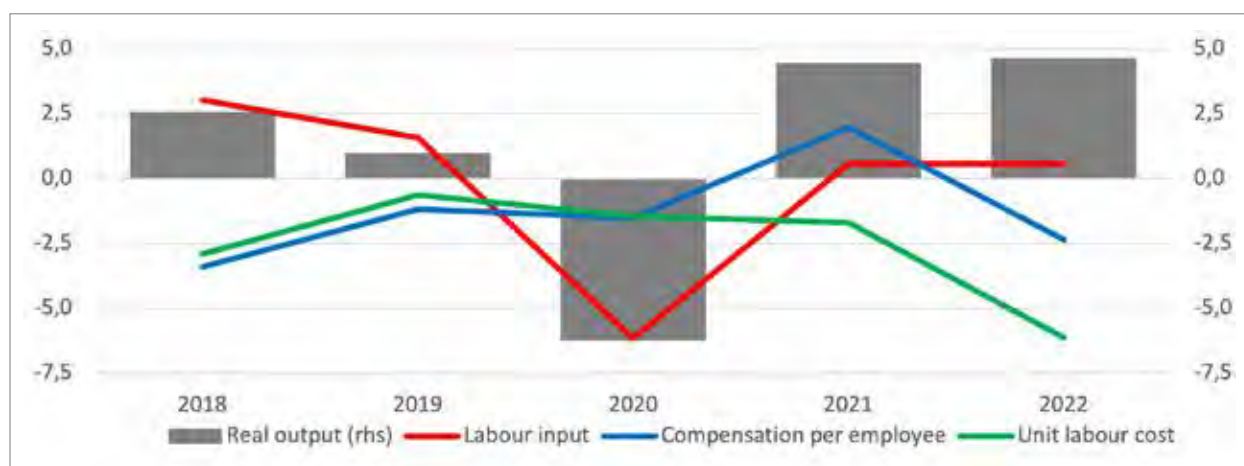
Annual percentage change



Real output accelerated slightly in 2022. The indicator generally recorded positive growth between 2018 and 2021 saving the negative growth in 2020. Significant positive growth in the indicator was realised in 2021 and 2022 while the opposite is true in 2020. Labour input recorded insignificant positive growth in 2022. The indicator recorded positive growth in 2021 as well as in 2018 and 2019 as well as negative growth in 2020. A relatively significant negative growth in the indicator was recorded in 2020. Capital input accelerated significantly in 2022. The indicator registered positive growth in 2018 and 2021 while the opposite is true in 2019 and 2020. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020. Consequently, Capital labour ratio increased significantly in 2022. The indicator registered positive growth 2021 while the opposite is true between 2018 and 2020. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020.

**Figure 16 Labour market indicators 2018-2022**

Annual percentage change



Real output accelerated slightly in 2022. The indicator generally recorded positive growth between 2018 and 2021 saving the negative growth in 2020. Significant positive growth in the indicator was realised in 2021 and 2022 while the opposite is true in 2020. Labour input increased slightly in 2022. The indicator recorded positive growth in 2018 and 2019 as well as in 2021 while it realised negative in 2020. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2020. Compensation per employee declined in 2022. The indicator registered positive growth in 2021 and three years of negative growth between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2018. Consequently, Unit labour cost declined significantly in 2022. The indicator recorded negative growth for four consecutive years between 2018 and 2021. Significant negative growth in the indicator was recorded in 2022.



## 6. PRODUCTIVITY INDICATORS OF THE MAIN INDUSTRIES

### 6.1. Agriculture, forestry and fishing

Table 7 Productivity indicators 2018-2022

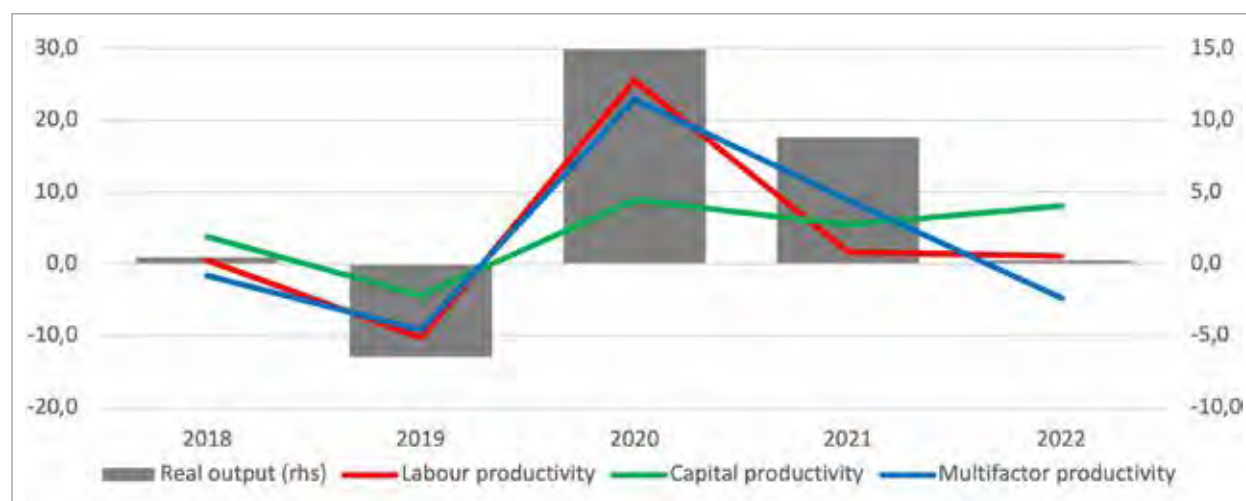
Annual percentage change

INDICATOR	2018	2019	2020	2021	2022
Real output	0.5	-6.5	14.9	8.8	0.3
Labour input	0.0	4.2	-8.5	7.1	-0.8
Capital input	-3.2	-2.1	5.5	3.2	-7.3
Capital labour ratio	-3.2	-6.1	15.3	-3.7	-6.5
Compensation per employee	4.3	3.3	4.9	4.3	6.7
Unit labour cost	-0.8	6.2	-11.6	-8.3	-0.4
Labour productivity	0.5	-10.2	25.6	1.6	1.1
Capital productivity	3.8	-4.4	8.9	5.5	8.1
Multifactor productivity	-1.6	-9.2	22.9	9.0	-4.8

Real output decelerated further to 0.3 percent in 2022 from 8.8 percent in 2021. The indicator previously realised volatile growth where it recorded positive growth in 2018 and 2020 while it registered negative growth in 2019. Labour input declined insignificantly to -0.8 percent in 2022 from 7.1 percent in 2021. The indicator recorded negative growth in 2020 and positive growth in 2019 while it registered no growth 2018. As a result, Labour productivity decelerated slightly to 1.1 percent in 2022 from 1.6 percent in 2021. The indicator previously recorded positive growth in 2018 and 2020 and registered negative growth in 2019. Capital input declined significantly to -7.3 percent in 2022 from 3.2 percent in 2021. The indicator registered it recorded positive growth 2020 while negative growth in 2018 and 2019. Consequently, Capital productivity accelerated to 8.1 percent in 2022 from 5.5 percent in 2021. The indicator previously realised positive growth in 2018 and 2020 and registered negative growth in 2019. Multifactor productivity declined to -4.8 percent in 2022 from 9.0 percent in 2021. The indicator registered positive growth in 2020 while it recorded negative growth in 2018 and 2019. Capital labour ratio declined to -6.5 percent in 2022 from -3.7 percent in 2021. The indicator recorded positive growth in 2020 while it registered negative growth in 2018 and 2019. Compensation per employee accelerated to 6.7 percent in 2022 from 4.3 percent in 2021. The indicator previously realised three successive years of positive growth between 2018 and 2020. Unit labour cost declined slightly to -0.4 percent in 2022 from -8.3 percent in 2021. The indicator recorded negative growth in 2018 and 2020 while it registered positive growth in 2019.

**Figure 17 Trends of productivity indicators 2018-2022**

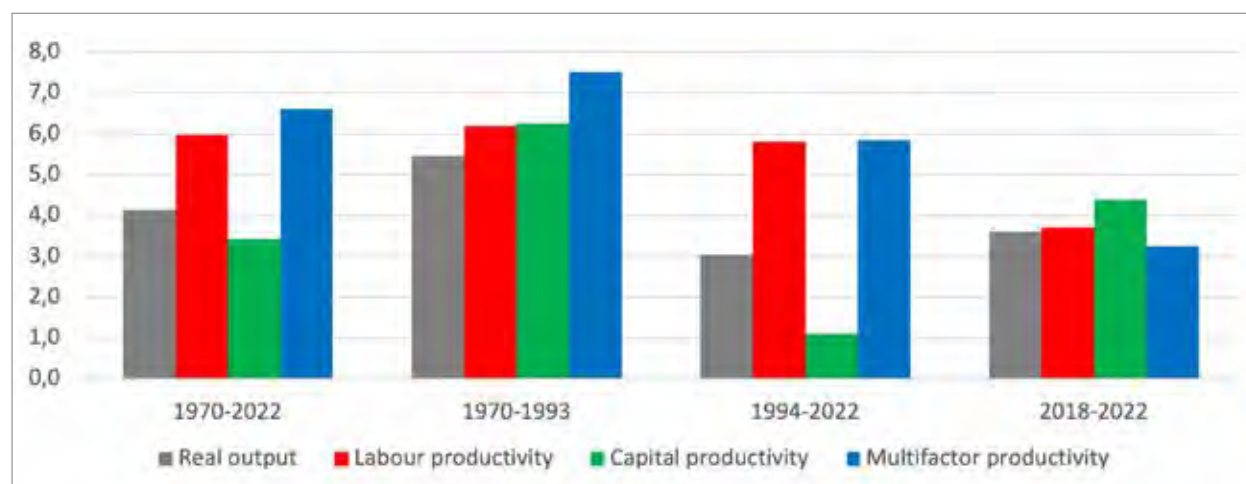
Annual percentage change



Real output decelerated further in 2022. The indicator previously registered positive growth in 2018 as well as in 2020 and 2021. Significant positive growth in the indicator was recorded in 2020 while the opposite is true in 2019. Labour productivity decelerated insignificantly in 2022. The indicator recoded positive growth in 2020 and 2021 as well as a negative growth in 2019 while it realised no growth in 2018. Significant positive growth in the indicator was registered in 2020 and 2021 while the opposite is true in 2019. Capital productivity accelerated slightly in 2022. The indicator recoded positive growth in 2018 as well as in 2020 and 2021 while it registered negative growth in 2019. Significant positive growth in the indicator was registered in 2020 and 2022 while the opposite is true in 2019. Multifactor productivity declined in 2022. The indicator recorded positive growth in 2020 and 2021 while it registered negative growth in 2018 and 2019. Significant positive growth in the indicator was realised in 2020 while the opposite is true in 2019.

**Figure 18 Average productivity indicators 1970-2022**

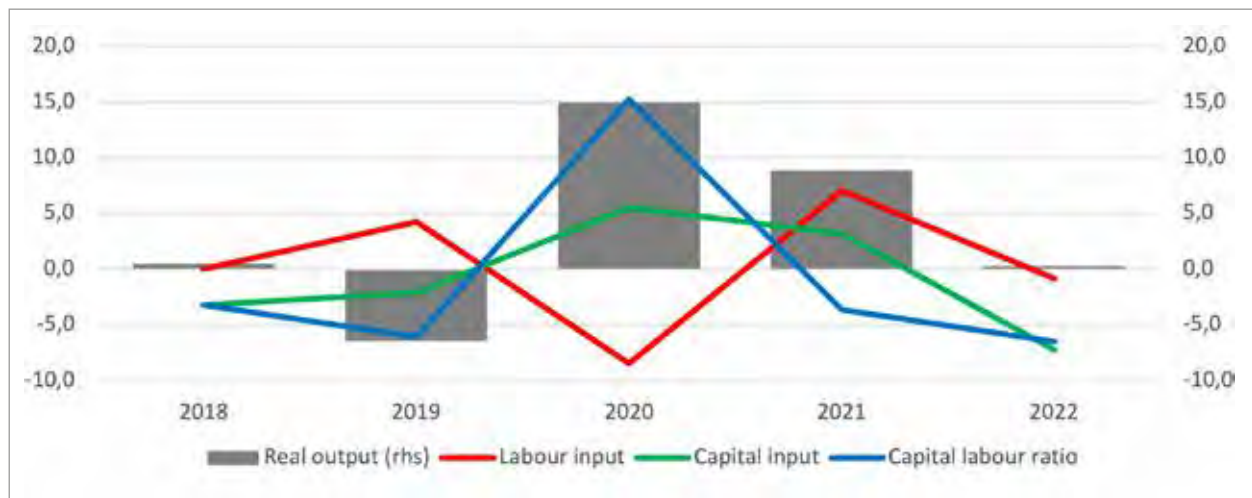
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Labour productivity and Multifactor productivity realised significant positive growth during the same period. In particular, Real output recorded significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it also registered positive growth between 2018 and 2022. Labour productivity realised slightly significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised positive growth between 2018 and 2022. Capital productivity registered significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it also recorded significant positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised positive growth between 2018 and 2022.

**Figure 19 Production Input indicators 2018-2022**

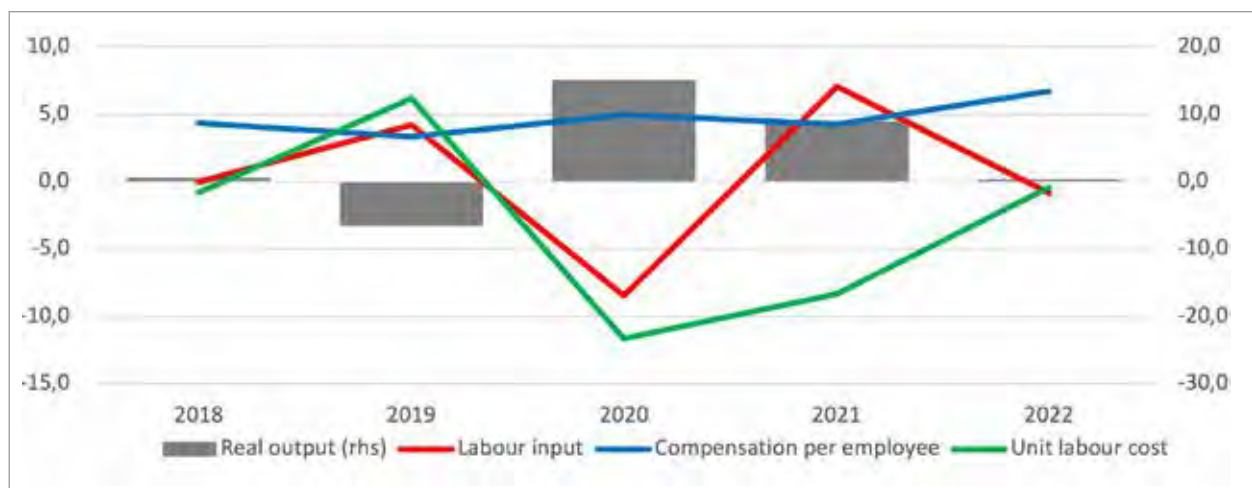
Annual percentage change



Real output decelerated further in 2022. The indicator previously registered positive growth in 2018 as well as in 2020 and 2021. Significant positive growth in the indicator was recorded in 2020 while the opposite is true in 2019. Labour input declined slightly in 2022. The indicator recorded positive growth in 2019 and 2021 as well as negative growth in 2020 while it realised no growth in 2018. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Capital input declined significantly in 2022. The indicator registered positive growth in 2020 and 2021 while the opposite is true between 2018 and 2019. Significant positive growth in the indicator was recorded in 2020 while the opposite is the case in 2022. Consequently, Capital labour ratio declined in 2022. The indicator recorded negative growth in 2021 as well as in 2018 and 2019 while it registered positive growth in 2020. Significant positive growth in the indicator was registered in 2020 while the opposite is the case in 2019 and 2022.

**Figure 20 Labour market indicators 2018-2022**

Annual percentage change



Real output decelerated further in 2022. The indicator previously registered positive growth in 2018 as well as in 2020 and 2021. Significant positive growth in the indicator was recorded in 2020 while the opposite is true in 2019. Labour input declined slightly in 2022. The indicator recorded positive growth in 2019 and 2021 while it realised negative in 2020 and no growth in 2018. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Compensation per employee accelerated further in 2022. The indicator registered positive growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2022. Consequently, Unit labour cost declined slightly in 2022. The indicator recorded negative growth in 2018 as well as in 2020 and 2021 while it realised positive growth in 2019. Significant positive growth in the indicator was recorded in 2019 while the opposite is true in 2020.



## 6.2. Mining and quarrying

**Table 8 Productivity indicators 2018-2022**

Annual percentage change

INDICATOR	2018	2019	2020	2021	2022
Real output	-0.8	-0.7	-12.3	12.0	-7.1
Labour input	-0.9	0.0	0.3	0.8	3.0
Capital input	20.6	8.3	-14.8	-6.4	8.1
Capital labour ratio	21.7	8.3	-15.1	-7.1	5.0
Compensation per employee	1.4	-0.6	-8.1	10.4	-3.9
Unit labour cost	1.3	0.1	5.1	-0.7	6.6
Labour productivity	0.1	-0.7	-12.5	11.1	-9.8
Capital productivity	-17.8	-8.3	3.0	19.6	-14.1
Multifactor productivity	11.0	4.4	-20.1	7.2	-3.5

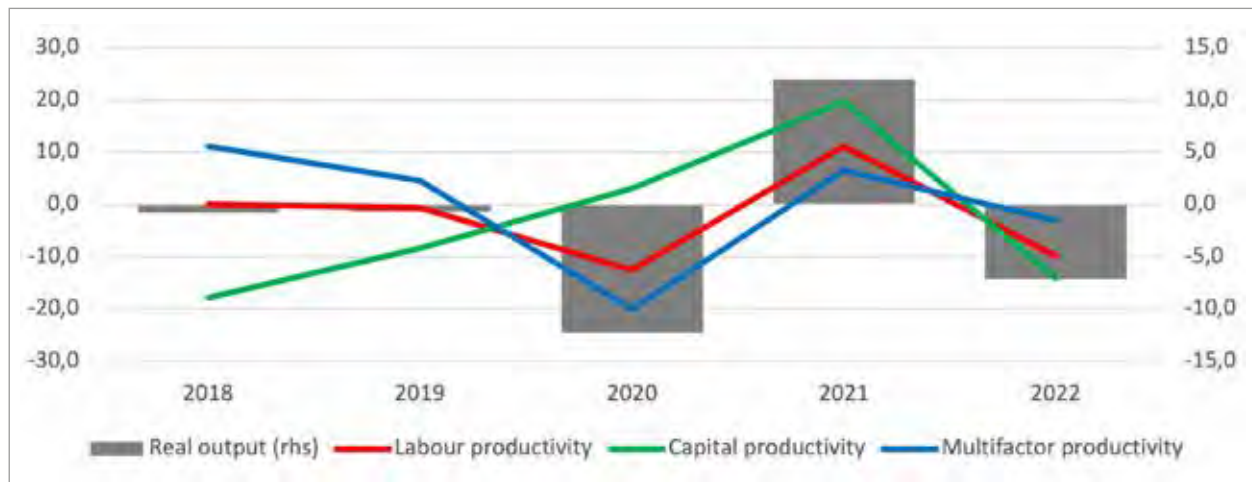
Real output declined significantly to -7.1 percent in 2022 from 12.0 percent in 2021. The indicator previously recorded negative growth for three successive years between 2018 and 2020. Labour input increased further to 3.0 percent in 2022 from 0.8 percent in 2021. The indicator recorded insignificant positive growth in 2020 and no growth in 2019 while it recorded negative growth in 2018. As a result, Labour productivity declined significantly to -9.8 percent in 2022 from 11.1 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Capital input accelerated to 8.1 percent in 2022 from -6.4 percent in 2021. The indicator previously registered negative growth in 2020 while it registered positive growth in 2018 and 2019. Consequently, Capital productivity declined significantly to -14.1 percent in 2022 from 19.6 percent in 2021. The indicator previously recorded positive growth in 2020 and negative growth in 2018 and 2019. Multifactor productivity declined to -3.5 percent in 2022 from 7.2 percent in 2021. The indicator previously registered negative growth 2020 while it recorded positive growth 2018 and 2019. Capital labour ratio increased significantly to 5.0 percent in 2022 from -7.1 percent in 2021. The indicator recorded significant negative growth in 2020 and positive growth in 2018 and 2019. Compensation per employee declined to -3.9 percent in 2022 from 10.4 percent in 2021. The indicator previously recorded negative growth in 2019 and 2020 and positive growth in 2018. Unit labour cost increased to 6.6 percent in 2022 from -0.7 percent in 2021. The indicator previously realised three consecutive years of positive growth between 2018 and 2020.





**Figure 21 Trends of productivity indicators 2018-2022**

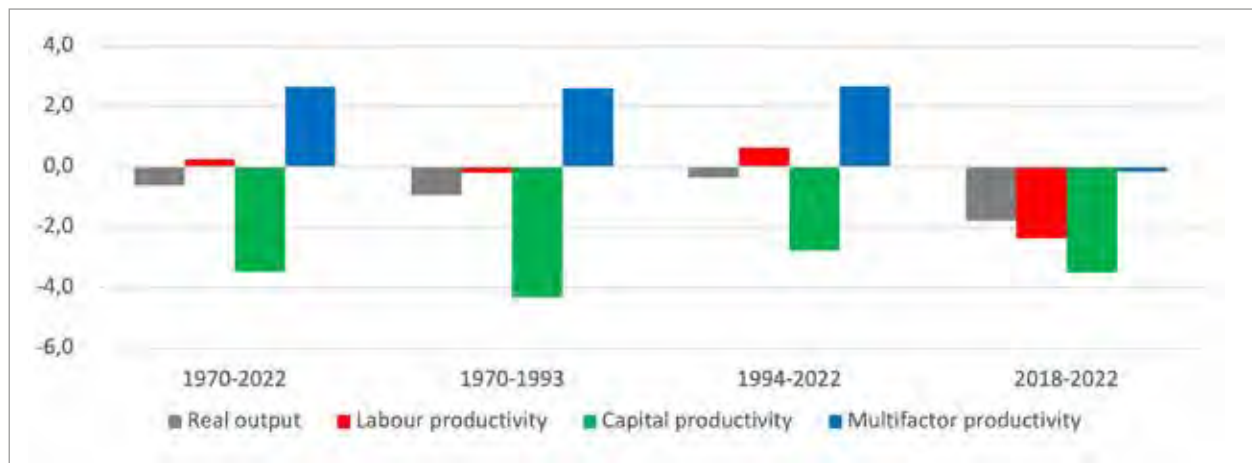
Annual percentage change



Real output declined significantly in 2022. The indicator previously recorded positive growth in 2021 and negative growth for three consecutive years between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour productivity recorded negative growth in 2022. The indicator recorded positive growth in 2021 as well as in 2018 and 2019 while it registered negative growth in 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Capital productivity declined in 2022. The indicator recorded positive growth in 2020 and 2021 and negative growth in 2018 and 2019. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2018. Multifactor productivity declined in 2022. The indicator registered positive growth in 2021 as well as in 2018 and 2019 while it recorded negative growth in 2020. Significant positive growth in the indicator was realised in 2018 while the opposite is true in 2020.

**Figure 22 Average productivity indicators 1970-2022**

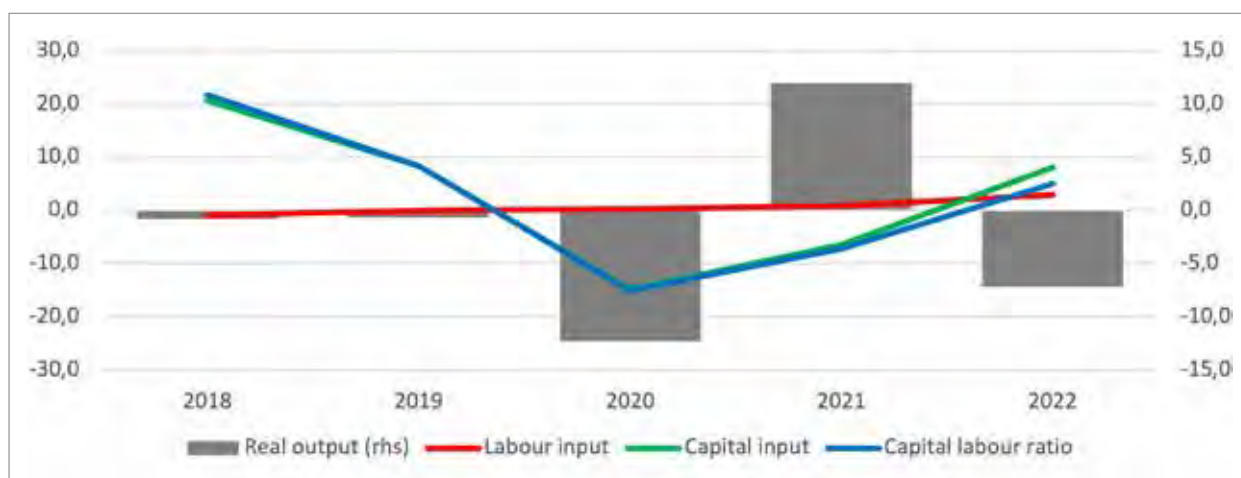
Annual percentage change



Real output and Capital productivity recorded negative growth while Labour productivity and Multifactor productivity recorded positive growth between 1970 and 2022. In particular, Real output recorded slightly significant negative growth between 1970 and 1993 compared to between 1994 and 2022 while it also realised negative growth between 2018 and 2022. Labour productivity realised negligible positive growth between 1970 and 1993 compared to the positive growth between 1994 and 2022 while it realised negative growth between 2018 and 2022. Capital productivity registered significant negative growth between 1970 and 1993 compared to between 1994 and 2022 while it also recorded significant negative growth between 2018 and 2022. Multifactor productivity recorded positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised insignificant negative growth between 2018 and 2022.

**Figure 23 Production Input indicators 2018-2022**

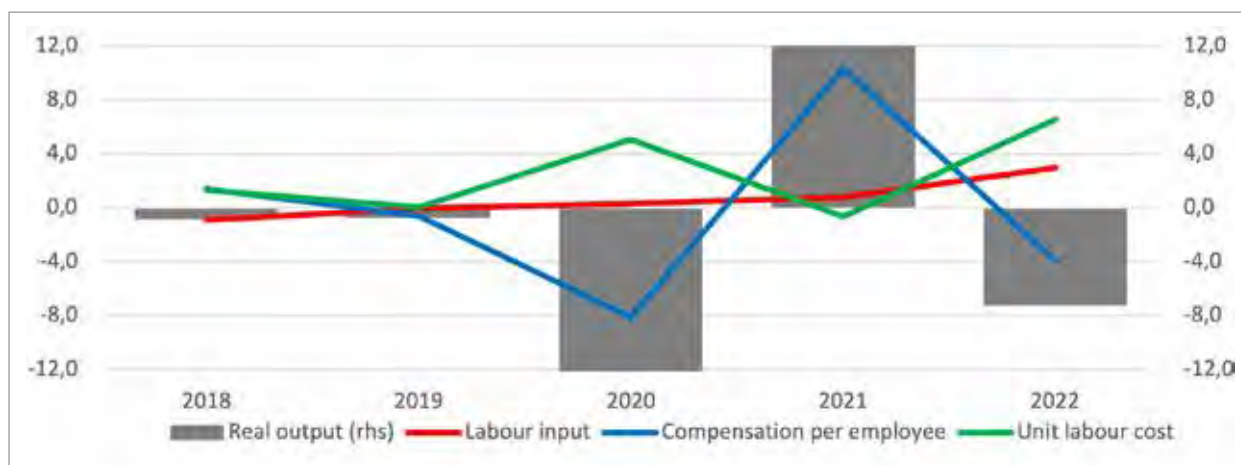
Annual percentage change



Real output declined significantly in 2022. The indicator previously recorded positive growth in 2021 and negative growth for three consecutive years between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input accelerated slightly in 2022. The indicator recorded positive growth in 2020 and 2021 as well as no growth in 2019 and negative growth in 2018. Significant positive growth in the indicator was recorded in 2022. Capital input accelerated in 2022. The indicator registered negative growth in 2020 and 2021 while the opposite is true in 2018 and 2019. Significant positive growth in the indicator was recorded in 2018 while the opposite is the case in 2020. Consequently, Capital labour ratio accelerated in 2022. The indicator registered negative growth in 2020 and 2021 while the opposite is true in 2018 and 2019. Significant positive growth in the indicator was recorded in 2018 while the opposite is the case in 2020.

**Figure 24 Labour market indicators 2018-2022**

Annual percentage change



Real output declined significantly in 2022. The indicator previously recorded positive growth in 2021 and negative growth for three consecutive years between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input accelerated in 2022. The indicator recorded positive growth for three successive years between 2019 and 2021 while it realised negative growth in 2018. Significant positive growth in the indicator was recorded in 2022 while the opposite is true in 2018. Compensation per employee declined in 2022. The indicator registered positive growth in 2018 and 2019 as well as in 2021 while it realised negative growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Consequently, Unit labour cost accelerated sharply in 2022. The indicator recorded negative growth in 2021 as well as positive growth for three successive years between 2018 and 2020. Significant positive growth in the indicator was recorded in 2022.

### 6.3. Manufacturing

**Table 9 Productivity indicators 2018-2022**

Annual percentage change

INDICATOR	2018	2019	2020	2021	2022
Real output	1.6	-1.1	-12.4	6.5	0.0
Labour input	2.1	-4.6	-6.3	6.9	-0.1
Capital input	4.2	5.4	-17.7	-7.4	8.5
Capital labour ratio	2.1	10.5	-12.1	-13.5	8.6
Compensation per employee	-2.5	5.3	-2.4	-1.1	-0.3
Unit labour cost	-2.0	1.5	4.4	-0.8	-0.4
Labour productivity	-0.5	3.8	-6.5	-0.3	0.1
Capital productivity	-2.5	-6.0	6.4	15.1	-7.9
Multifactor productivity	4.0	3.8	-20.2	0.0	4.6

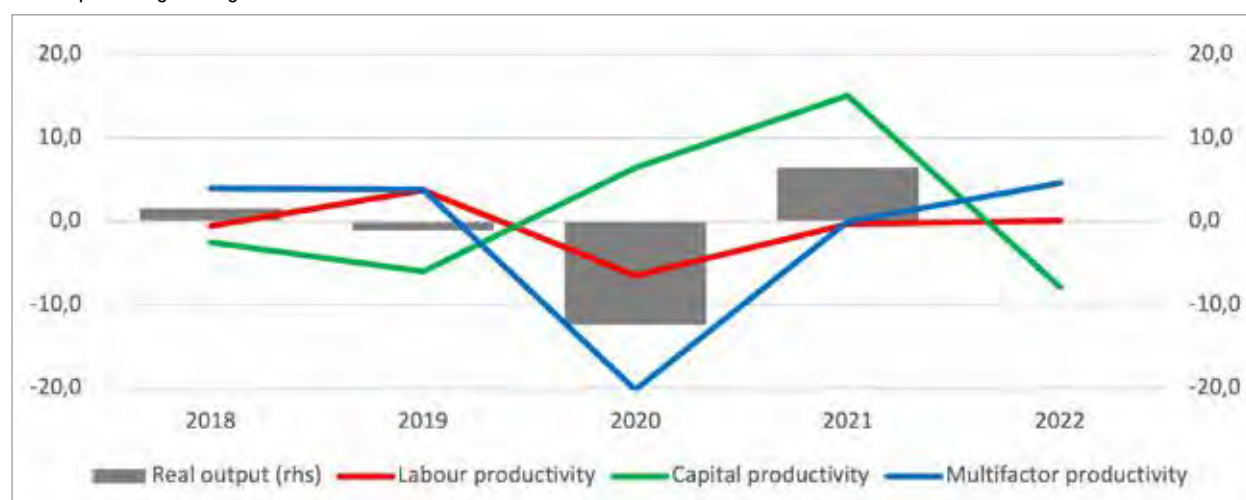
Real output realised no growth at 0.0 percent in 2022 from 6.5 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Labour input declined slightly to -0.1 percent in 2022 from 6.9 percent in 2021. The indicator registered negative growth in 2019 and 2020 while it recorded positive growth in 2018. As a result, Labour productivity accelerated slightly to 0.1 percent in 2022 from -0.3 percent in 2021. The indicator realised volatile growth where it recorded negative growth in 2018 and 2020 while it registered positive growth 2019. Capital input increased sharply to 8.5 percent in 2022 from -7.4 percent in 2021. The indicator registered negative growth in 2020 and positive growth 2018 and 2019. Consequently, Capital productivity declined significantly to -7.9 percent in 2022 from 15.1 percent in 2021. The indicator recorded positive growth in 2020 and negative growth in 2018 and 2019. Multifactor productivity accelerated to 4.6 percent in 2022 from 0.0 percent in 2021. The indicator previously registered significant negative growth in 2020 and positive growth in 2018 and 2019. Capital labour ratio accelerated significantly to 8.6 percent in 2022 from -13.5 percent in 2021. The indicator registered negative growth in 2020 and positive growth in 2018 and 2019. Compensation per employee declined insignificantly -0.3 percent in 2022 from -1.1 percent in 2021. The indicator previously realised volatile growth where it recorded negative growth in 2018 and 2020 while it registered positive growth 2019. Unit labour cost declined slightly to -0.4 percent in 2022 from -0.8 percent in 2021. The indicator recorded positive growth in 2019 and 2020 while it registered negative growth in 2018.





**Figure 25 Trends of productivity indicators 2018-2022**

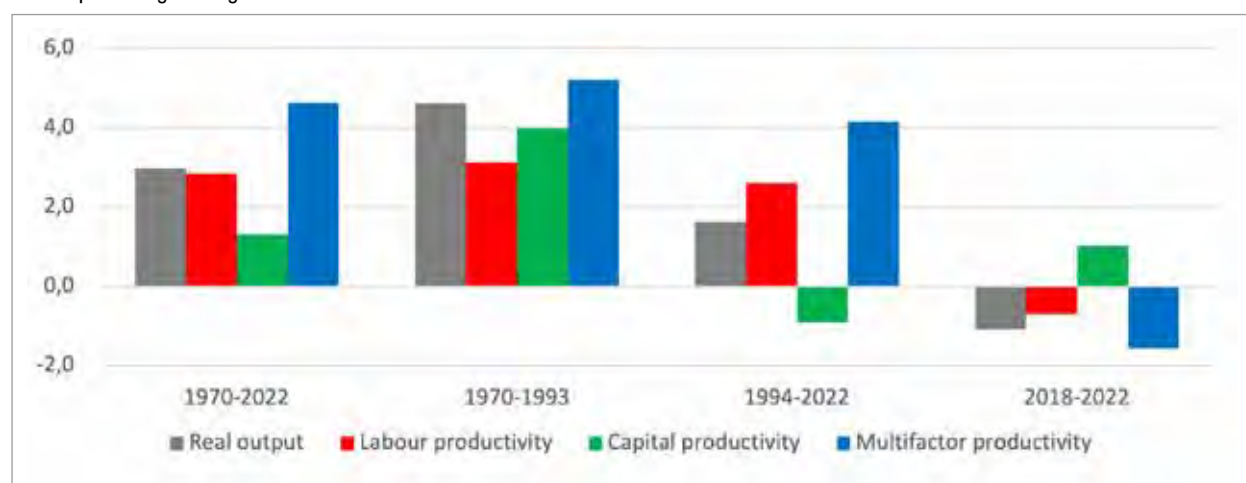
Annual percentage change



Real output registered no growth in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Labour productivity accelerated slightly in 2022. The indicator recorded negative growth in 2018 as well as in 2020 and 2021 while it registered positive growth in 2019. Significant positive growth in the indicator was recorded in 2019 while the opposite is true in 2020. Capital productivity declined in 2022. The indicator recorded positive growth in 2020 and 2021 while it realised negative growth in 2018 and 2019. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2019. Multifactor productivity increased in 2022. The indicator recorded no growth in 2021 and negative growth in 2020 while it registered positive growth 2018 and 2019. Significant negative growth in the indicator was realised in 2020.

**Figure 26 Average productivity indicators 1970-2022**

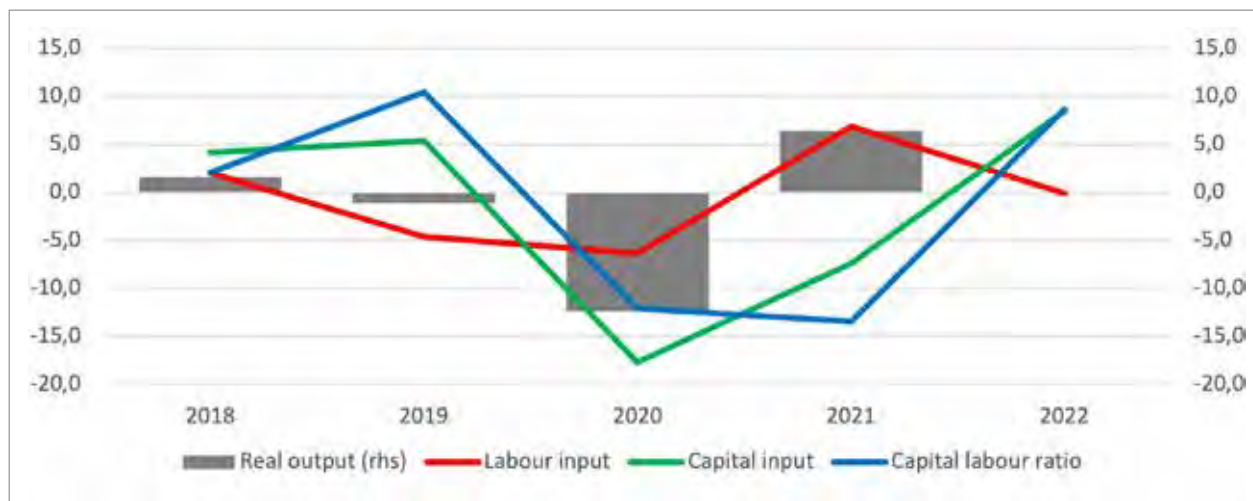
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Capital productivity realised a negligible positive growth during the same period. In particular, Real output recorded significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negligible negative growth between 2018 and 2022. Labour productivity realised positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised insignificant negative growth between 2018 and 2022. Capital productivity registered somewhat significant positive growth between 1970 and 1993 compared to the negative growth between 1994 and 2022 while it also recorded positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negative growth between 2018 and 2022.

**Figure 27 Production Input indicators 2018-2022**

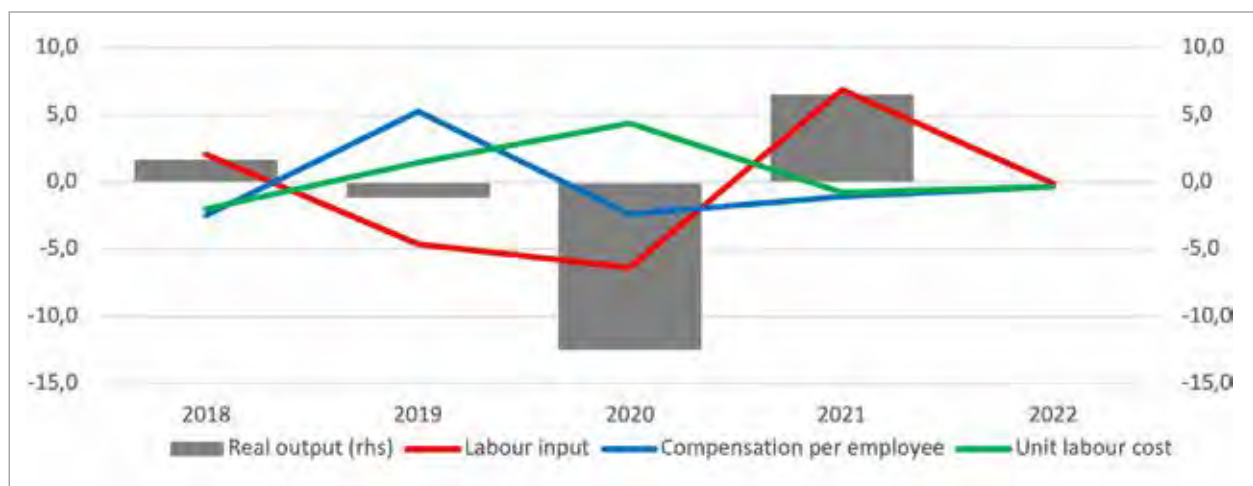
Annual percentage change



Real output registered no growth in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Labour input declined insignificantly in 2022. The indicator recorded positive growth in 2018 and 2021 as well as negative growth in 2020. Significant negative growth in the indicator was recorded in 2021 while the opposite is true in 2020. Capital input accelerated significantly in 2022. The indicator registered negative growth in 2020 and 2021 while the opposite is true between 2018 and 2019. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020. Consequently, Capital labour ratio accelerated significantly in 2022. The indicator recorded negative growth in 2020 and 2021 while the opposite is true between 2018 and 2019. Significant positive growth in the indicator was recorded in 2019 while the opposite is the case in 2021.

**Figure 28 Labour market indicators 2018-2022**

Annual percentage change



Real output registered no growth in 2022. The indicator previously recorded positive growth in 2018 and 2021 while it registered negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Labour input declined insignificantly in 2022. The indicator recorded positive growth in 2018 and 2021 while it realised negative growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Compensation per employee declined slightly in 2022. The indicator registered negative growth in 2018 as well as in 2020 and 2021 while it realised positive growth in 2019. Significant positive growth in the indicator was recorded in 2019 while the opposite is true in 2018 and 2020. Consequently, Unit labour cost declined in 2022. The indicator recorded negative growth in 2018 and 2021 as well as positive growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2020 while the opposite is true in 2018.

## 6.4. Electricity, gas and water

**Table 10 Productivity indicators 2018-2022**

Annual percentage change

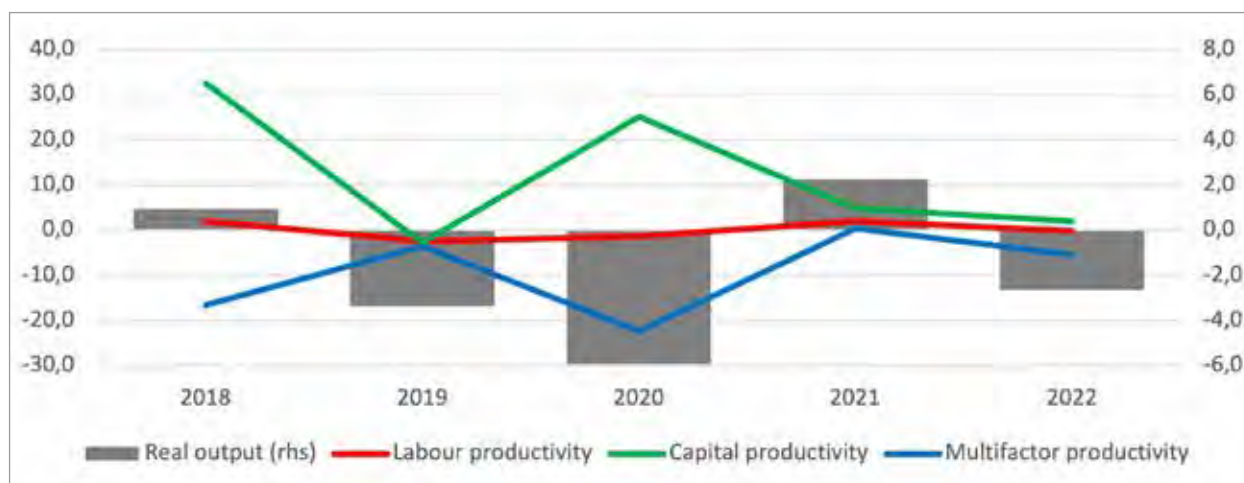
INDICATOR	2018	2019	2020	2021	2022
Real output	0.9	-3.4	-5.9	2.3	-2.6
Labour input	-1.0	-0.8	-4.6	0.2	-2.4
Capital input	-23.9	-0.5	-24.8	-2.4	-4.6
Capital labour ratio	-23.2	0.3	-21.2	-2.7	-2.2
Compensation per employee	-1.3	-0.6	0.6	3.2	0.9
Unit labour cost	1.4	6.0	5.4	5.8	8.1
Labour productivity	1.9	-2.5	-1.4	2.0	-0.2
Capital productivity	32.5	-2.7	25.0	4.8	2.0
Multifactor productivity	-16.6	-3.6	-22.4	0.4	-5.4

Real output declined to -2.6 percent in 2022 from 2.3 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Labour input declined to -2.4 percent in 2022 from 0.2 percent in 2021. The indicator realised significant negative growth for three consecutive years between 2018 and 2020. As a result, Labour productivity declined slightly to -0.2 percent in 2022 from 2.0 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Capital input declined to -4.6 percent in 2022 from -2.4 percent in 2021. The indicator previously registered significant negative growth for three consecutive years between 2018 and 2020. Consequently, Capital productivity decelerated to 2.0 percent in 2022 from 4.8 percent in 2021. The indicator realised significant positive growth in 2018 and 2020 while it recorded negative growth in 2019. Multifactor productivity declined sharply to -5.4 percent in 2022 from 0.4 percent in 2021. The indicator realised significant negative growth in 2018 and 2020 while it recorded negative growth in 2019. Capital labour ratio declined to -2.2 percent in 2022 from -2.7 percent in 2021. The indicator realised sizeable negative growth in 2018 and 2020 as well as insignificant positive growth in 2019. Compensation per employee decelerated to 0.9 percent in 2022 from 3.2 percent in 2021. The indicator recorded positive growth in 2020 while it registered negative growth in 2018 and 2019. Unit labour cost accelerated significantly to 8.1 percent in 2022 from 5.8 percent in 2021. The indicator realised significant positive growth for three consecutive years between 2018 and 2020.



**Figure 29 Trends of productivity indicators 2018-2022**

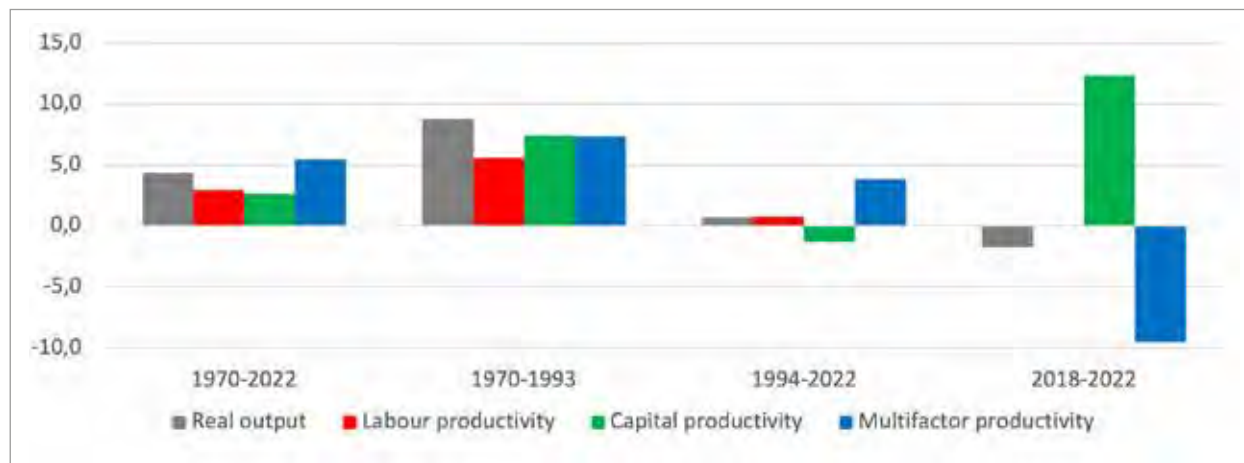
Annual percentage change



Real output declined in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite true in 2020. Labour productivity declined somewhat in 2022. The indicator registered insignificant growth between 2018 and 2021 where it recorded insignificant positive growth in 2018 and 2021 while the opposite is true in 2019 and 2020. Capital productivity decelerated in 2022. The indicator recorded positive growth in 2018 as well as in 2020 and 2021 while it registered negative growth in 2019. Significant positive growth in the indicator was registered in 2018. Multifactor productivity declined in 2022. The indicator recorded negative growth for four successive years between 2018 and 2021. A relatively significant negative growth was registered in 2020.

**Figure 30 Average productivity indicators 1970-2022**

Annual percentage change

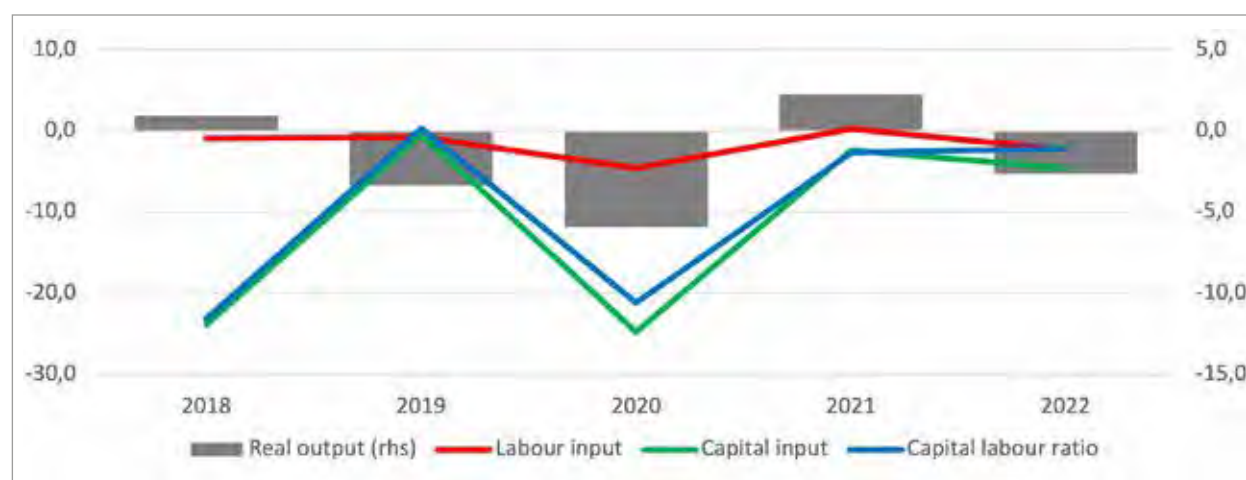


Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Labour productivity and Capital productivity realised a slightly insignificant positive growth during the same period. In particular, Real output recorded a relatively significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negative growth between 2018 and 2022. Labour productivity realised significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it recorded no growth between 2018 and 2022. Capital productivity registered somewhat positive growth between 1970 and 1993 compared to the negligible negative growth between 1994 and 2022 while recorded significant positive growth between 2018 and 2022. Multifactor productivity recorded slightly significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised significant negative growth between 2018 and 2022.



**Figure 31 Production Input indicators 2018-2022**

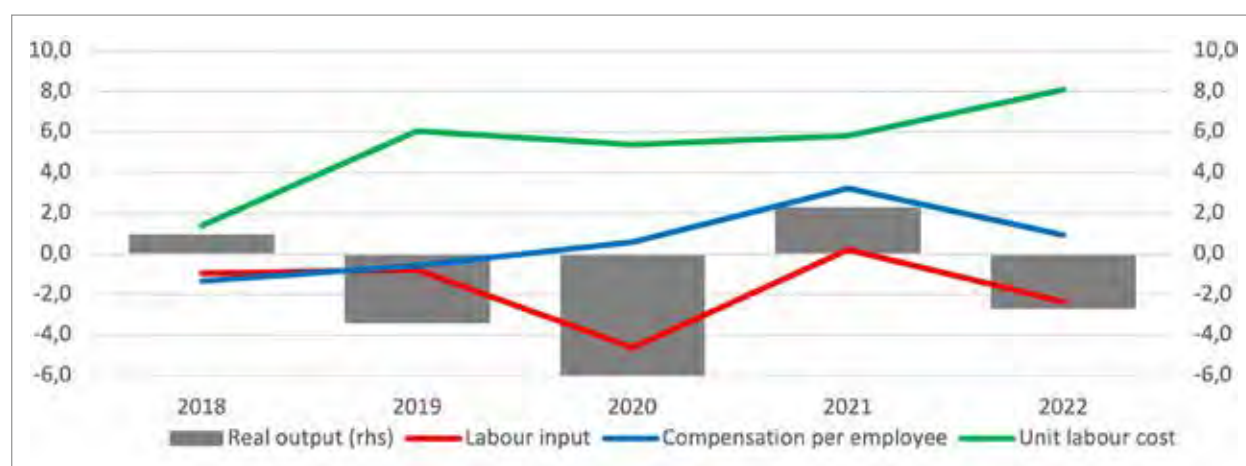
Annual percentage change



Real output declined in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Labour input declined slightly in 2022. The indicator recorded positive growth in 2021 as well as negative growth for three successive years between 2018 and 2020. Significant negative growth in the indicator was recorded in 2020. Capital input declined in 2022. The indicator registered negative growth for four consecutive years between 2018 and 2021. Significant negative growth in the indicator was recorded in 2018 and 2020 while the opposite is the case in 2019. Consequently, Capital labour ratio declined in 2022. The indicator registered negative growth in 2018 as well as in 2020 and 2021 while it recorded positive growth in 2019. Significant negative growth in the indicator was recorded in 2018 and 2020 while the opposite is the case in 2019.

**Figure 32 Labour market indicators 2018-2022**

Annual percentage change



Real output declined in 2022. The indicator previously registered positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite true in 2020. Labour input declined in 2022. The indicator recorded insignificant positive growth in 2021 and four consecutive years of negative growth between 2018 and 2020. Significant negative growth in the indicator was recorded in 2020. Compensation per employee decreased in 2022. The indicator registered positive growth in 2020 and 2021 as well as negative growth in 2018 and 2019. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2018. Consequently, Unit labour cost accelerated significantly in 2022. The indicator recorded positive growth for four consecutive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2022 while the opposite is true in 2018.

## 6.5. Construction

**Table 11 Productivity indicators 2018-2022**

Annual percentage change

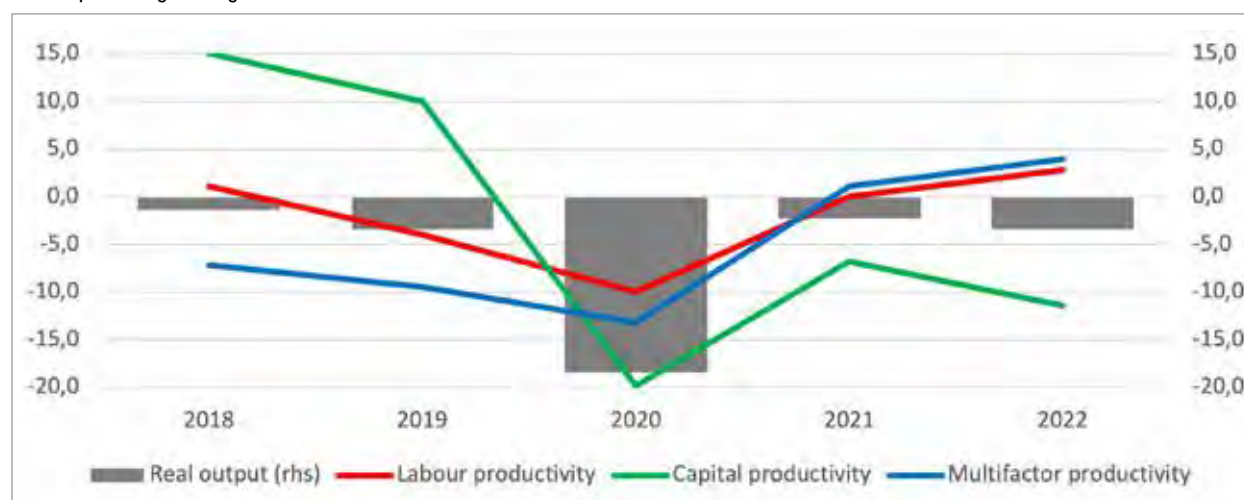
INDICATOR	2018	2019	2020	2021	2022
Real output	-1.4	-3.4	-18.4	-2.3	-3.4
Labour input	-2.5	0.7	-9.5	-2.1	-6.3
Capital input	-14.2	-12.2	1.6	5.0	9.0
Capital labour ratio	-12.0	-12.7	12.3	7.3	16.2
Compensation per employee	-0.8	-3.7	-6.7	-0.1	1.3
Unit labour cost	2.8	4.3	7.1	4.5	5.2
Labour productivity	1.1	-4.0	-9.9	0.0	2.8
Capital productivity	15.0	10.0	-19.8	-6.8	-11.4
Multifactor productivity	-7.2	-9.5	-13.2	1.1	4.0

Real output declined to -3.4 percent in 2022 from -2.3 percent in 2021. The indicator previously realised negative growth for three successive years between 2018 and 2020. Labour input declined to -6.3 percent in 2022 from -2.1 percent in 2021. The indicator previously realised volatile growth where it registered negative growth in 2018 and 2020 while it recorded positive growth in 2019. As a result, Labour productivity increased to 2.8 percent in 2022 from 0.0 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Capital input accelerated significantly to 9.0 percent in 2022 from 5.0 percent in 2021. The indicator also previously recorded positive growth in 2020 and negative growth in 2018 and 2019. Consequently, Capital productivity declined significantly to -11.4 percent in 2022 from -6.8 percent in 2021. The indicator recorded negative growth in 2020 and positive growth in 2018 and 2019. Multifactor productivity accelerated to 4.0 percent in 2022 from 1.1 percent in 2021. The indicator previously realised negative growth for three successive years between 2018 and 2020. Capital labour ratio accelerated significantly to 16.2 percent in 2022 from 7.3 percent in 2021. The indicator recorded positive growth in 2020 and negative growth in 2018 and 2019. Compensation per employee increased slightly to 1.3 percent in 2022 from -0.1 percent in 2021. The indicator previously registered negative growth for three consecutive years between 2018 and 2020. Unit labour cost accelerated further to 5.2 percent in 2022 from 4.5 percent in 2021. The indicator previously recorded positive growth for three successive years between 2018 and 2020.



**Figure 33 Trends of productivity indicators 2018-2022**

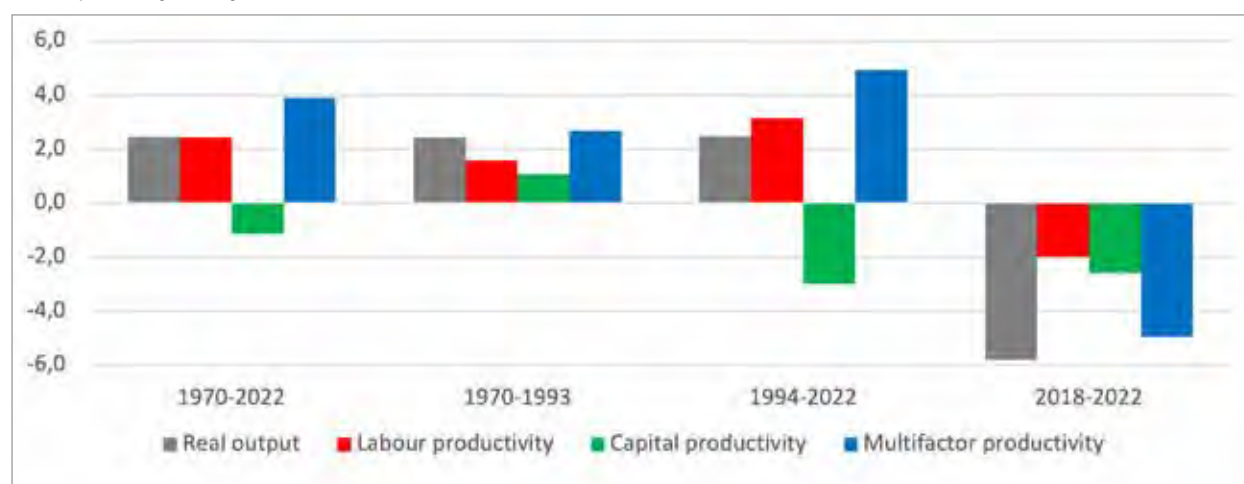
Annual percentage change



Real output declined further in 2022. The indicator previously registered negative growth for four successive years between 2018 and 2021. Significant negative growth in the indicator was recorded in 2020. Labour productivity accelerated further in 2022. The indicator recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2022 while the opposite is true in 2020. Capital productivity declined significantly in 2022. The indicator previously recorded negative growth in 2020 and 2021 as well as positive growth in 2018 and 2019. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2020. Multifactor productivity accelerated further in 2022. The indicator registered positive growth in 2021 following three consecutive years of negative growth between 2018 and 2020. Significant positive growth in the indicator was realised in 2022 while the opposite is true in 2020.

**Figure 34 Average productivity indicators 1970-2022**

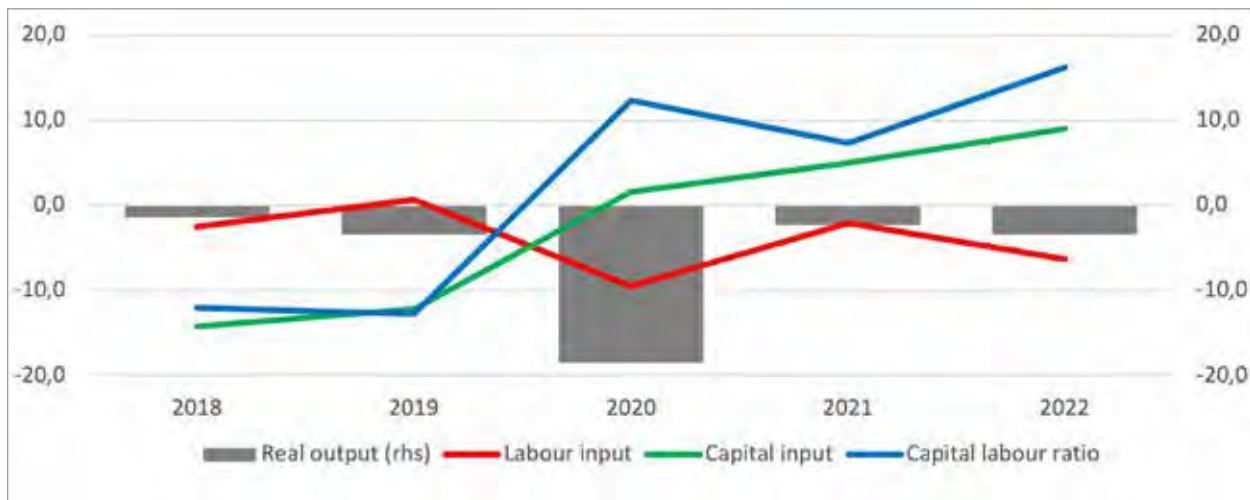
Annual percentage change



Real output, Labour productivity and Multifactor productivity recorded positive growth between 1970 and 2022 while Capital productivity realised insignificant negative growth during the same period. In particular, Real output recorded positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised significant negative growth between 2018 and 2022. Labour productivity realised a relatively insignificant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negative growth between 2018 and 2022. Capital productivity registered positive growth between 1970 and 1993 as well as negative between 1994 and 2022 while recorded positive growth between 2018 and 2022. Multifactor productivity recorded a slightly insignificant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised significant negative growth between 2018 and 2022.

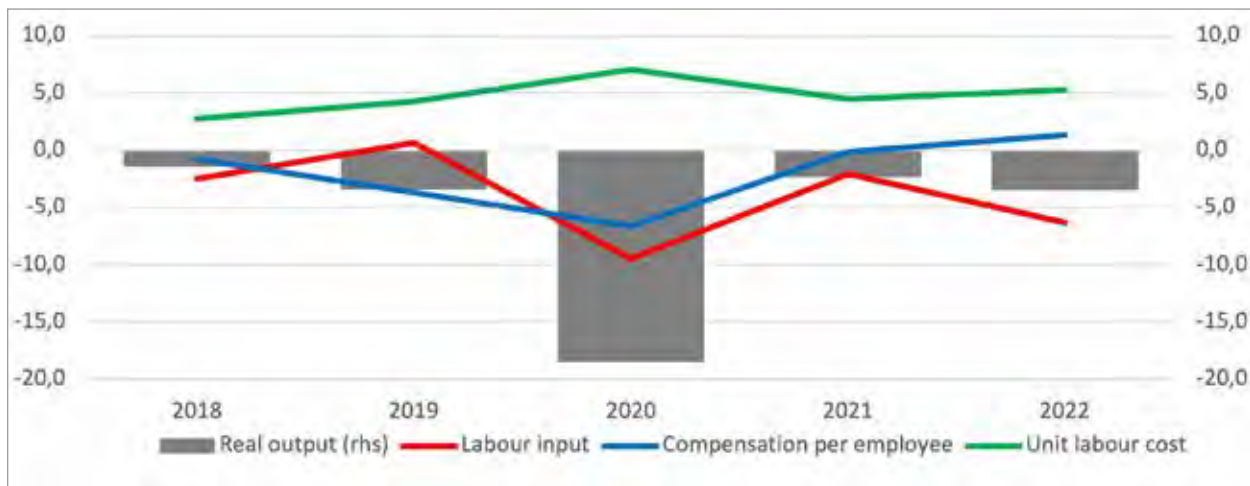


**Figure 35 Production Input indicators 2018-2022**  
Annual percentage change



Real output declined further in 2022. The indicator previously registered negative growth for four successive years between 2018 and 2021. Significant negative growth in the indicator was recorded in 2020. Labour input declined in 2022. The indicator recorded negative growth in 2020 and 2021 as well as positive growth in 2018. Significant negative growth in the indicator was recorded in 2020 while the opposite is true in 2019. Capital input accelerated significantly in 2022. The indicator registered positive growth in 2020 and 2021 while the opposite between 2018 and 2019. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2018. Consequently, Capital labour ratio increased significantly in 2022. The indicator registered positive growth in 2020 and 2021 while the opposite is true in 2018 and 2019. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2019.

**Figure 36 Labour market indicators 2018-2022**  
Annual percentage change



Real output declined further in 2022. The indicator previously registered negative growth for four successive years between 2018 and 2021. Significant negative growth in the indicator was recorded in 2020. Labour input declined in 2022. The indicator recorded negative growth in 2018 as well as in 2020 and 2021 while it realised positive growth in 2019. Significant negative growth in the indicator was recorded in 2020 while the opposite is true in 2021. Compensation per employee accelerated in 2022. The indicator registered negative growth for four consecutive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2022 while the opposite is true in 2020. Consequently, Unit labour cost increased further in 2022. The indicator recorded positive growth for four successive years between in 2018 and 2021. Significant positive growth in the indicator was recorded in 2020 while the opposite is true in 2018.

## 6.6. Wholesale, Retail trade, catering and accommodation

**Table 12 Productivity indicators 2018-2022**

Annual percentage change

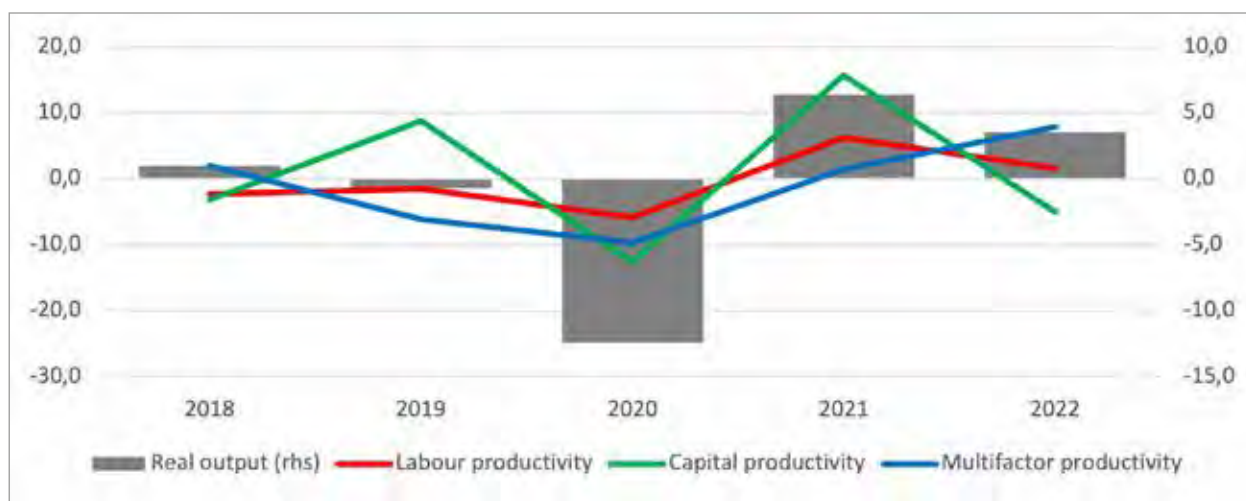
INDICATOR	2018	2019	2020	2021	2022
Real output	1.0	-0.7	-12.4	6.4	3.5
Labour input	3.4	0.9	-7.0	0.1	1.9
Capital input	4.1	-8.7	0.2	-8.0	9.0
Capital labour ratio	0.7	-9.6	7.7	-8.0	6.9
Compensation per employee	-4.9	-1.8	-0.4	9.8	-1.5
Unit labour cost	-2.6	-0.2	5.8	3.4	-3.0
Labour productivity	-2.3	-1.5	-5.9	6.3	1.6
Capital productivity	-3.1	8.8	-12.6	15.6	-5.0
Multifactor productivity	1.9	-6.1	-9.7	1.4	7.9

Real output decelerated to 3.5 percent in 2022 from 6.4 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Labour input accelerated slightly to 1.9 percent in 2022 from 0.1 percent in 2021. The indicator recorded negative growth in 2020 and positive growth in 2018 and 2019. As a result, Labour productivity decelerated to 1.6 percent in 2022 from 6.3 percent in 2021. The indicator previously realised negative growth for three consecutive years between 2018 and 2020. Capital input increased significantly to 9.0 percent in 2022 from -8.0 percent in 2021. The indicator recorded positive growth in 2018 and 2020 while it registered negative growth in 2019. Consequently, Capital productivity declined to -5.0 percent in 2022 from 15.6 percent in 2021. The indicator previously realised volatile growth where it recorded negative growth in 2018 and 2020 while it registered positive growth in 2019. Multifactor productivity accelerated to 7.9 percent in 2022 from 1.4 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it recorded positive growth in 2018. Capital labour ratio rose significantly to 6.9 percent in 2022 from -8.0 percent in 2021. The indicator registered positive growth in 2018 and 2020 while it recorded negative growth in 2019. Compensation per employee declined slightly to -1.5 percent in 2022 from 9.8 percent in 2021. The indicator registered negative growth for three successive years between 2018 and 2020. Unit labour cost declined to -3.0 percent in 2022 from 3.4 percent in 2021. The indicator registered positive growth in 2020 and negative growth in 2018 and 2019.



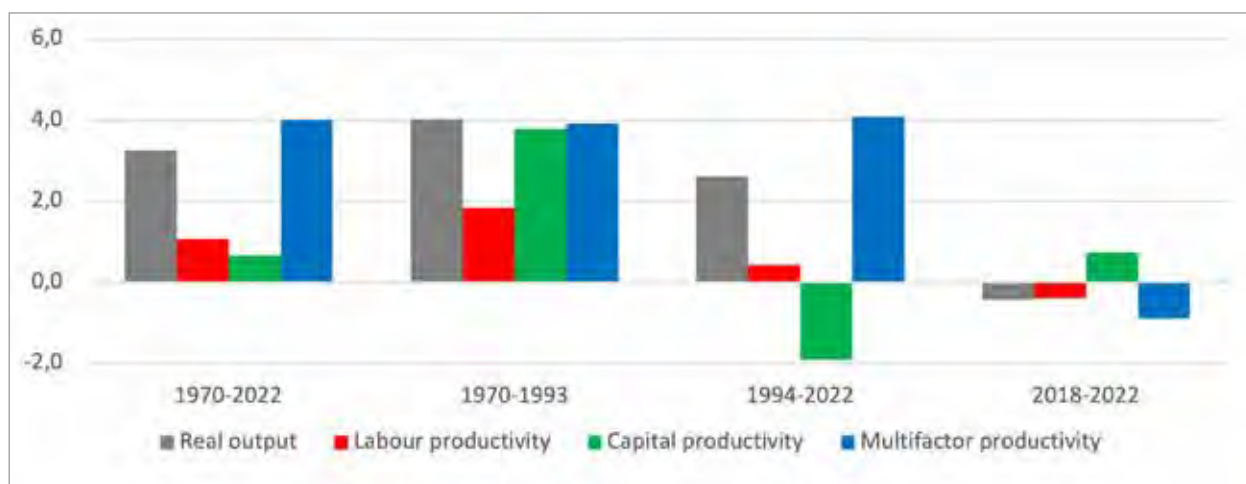


**Figure 37 Trends of productivity indicators 2018-2022**  
Annual percentage change



Real output decelerated in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour productivity decelerated somewhat in 2022. The indicator recorded positive growth in 2021 as well as negative growth for three successive years between 2018 and 2020. A relatively significant positive growth in the indicator was realised in 2021. Capital productivity declined significantly in 2022. The indicator recorded positive growth in 2019 and 2021 as well as negative growth in 2018 and 2020. Significant positive growth in the indicator was realised in 2021 while the opposite is true in 2020. Multifactor productivity accelerated in 2022. The indicator recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2022.

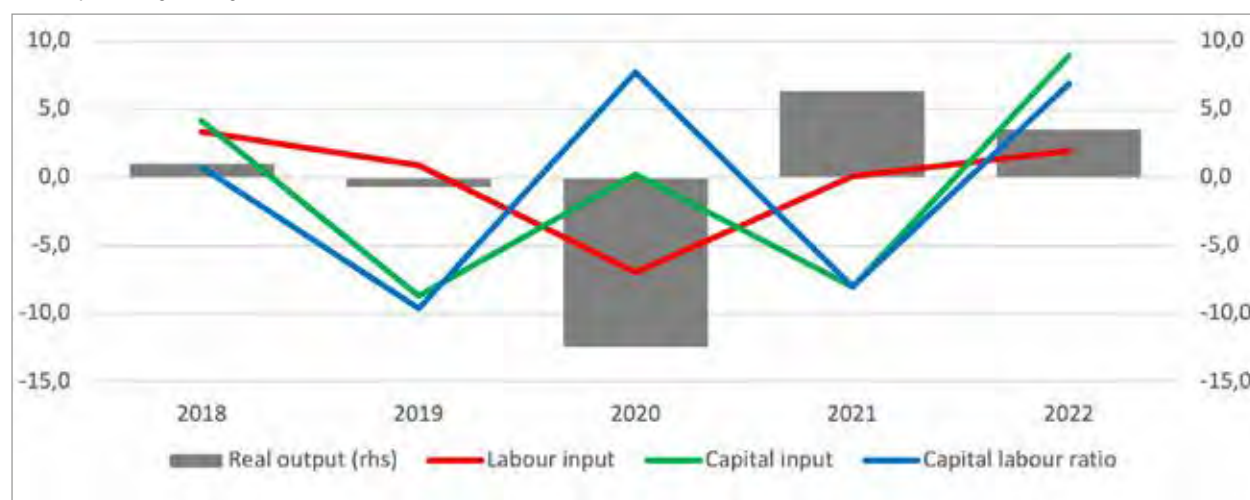
**Figure 38 Average productivity indicators 1970-2022**  
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Labour productivity and Capital productivity realised a negligible positive growth during the same period. In particular, Real output recorded slightly significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised negligible negative growth between 2018 and 2022. Labour productivity realised relatively significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised insignificant negative growth between 2018 and 2022. Capital productivity registered positive growth between 1970 and 1993 compared to the negative growth between 1994 and 2022 while it recorded positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it realised negative growth between 2018 and 2022.

**Figure 39 Production Input indicators 2018-2022**

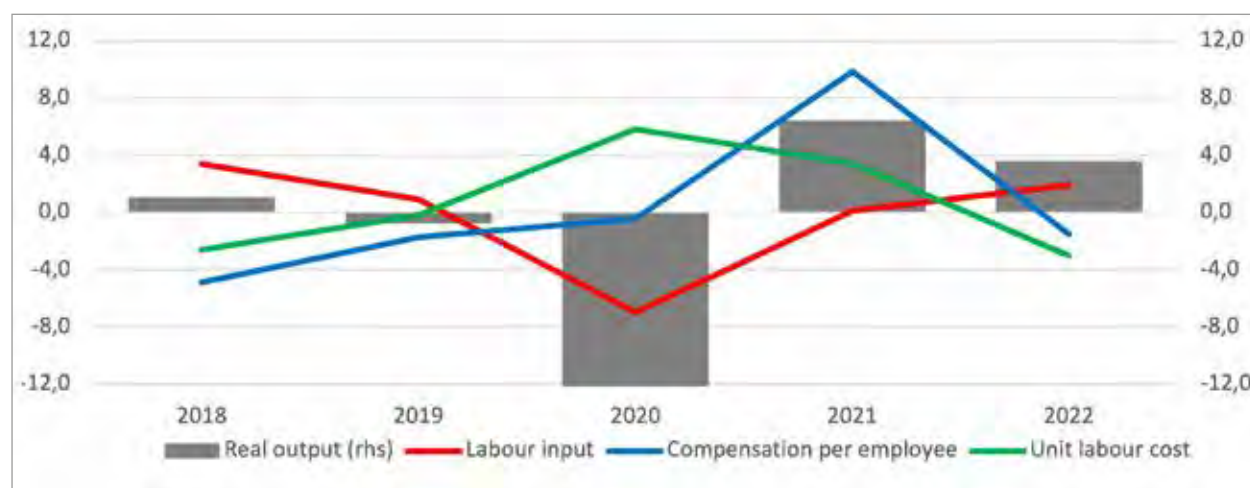
Annual percentage change



Real output decelerated in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input accelerated somewhat in 2022. The indicator recorded positive growth in 2021 as well as in 2018 and 2019 while it realised negative growth in 2020. Significant negative growth in the indicator was recorded in 2020 while the opposite is true in 2018. Capital input accelerated significantly in 2022. The indicator registered negative growth in 2019 and 2021 while the opposite in 2018 and 2020. Significant positive growth in the indicator was recorded in 2022. Consequently, Capital labour ratio accelerated significantly in 2022. The indicator registered negative growth in 2019 and 2021 while the opposite the case in 2018 and 2020. Significant positive growth in the indicator was recorded in 2020 and 2022 while the opposite is true in 2019 and 2021.

**Figure 40 Labour market indicators 2018-2022**

Annual percentage change



Real output decelerated in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input accelerated in 2022. The indicator recorded positive growth in 2018 and 2019 as well as in 2021 while it realised negative growth in 2020. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2020. Compensation per employee declined in 2022. The indicator registered positive growth in 2021 and as well as negative growth for three consecutive years between 2018 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2018. Consequently, Unit labour cost declined in 2022. The indicator recorded positive growth in 2020 and 2021 as well as negative growth in 2018 and 2019. Significant positive growth in the indicator was recorded in 2020 while the opposite is the case in 2018 and 2022.

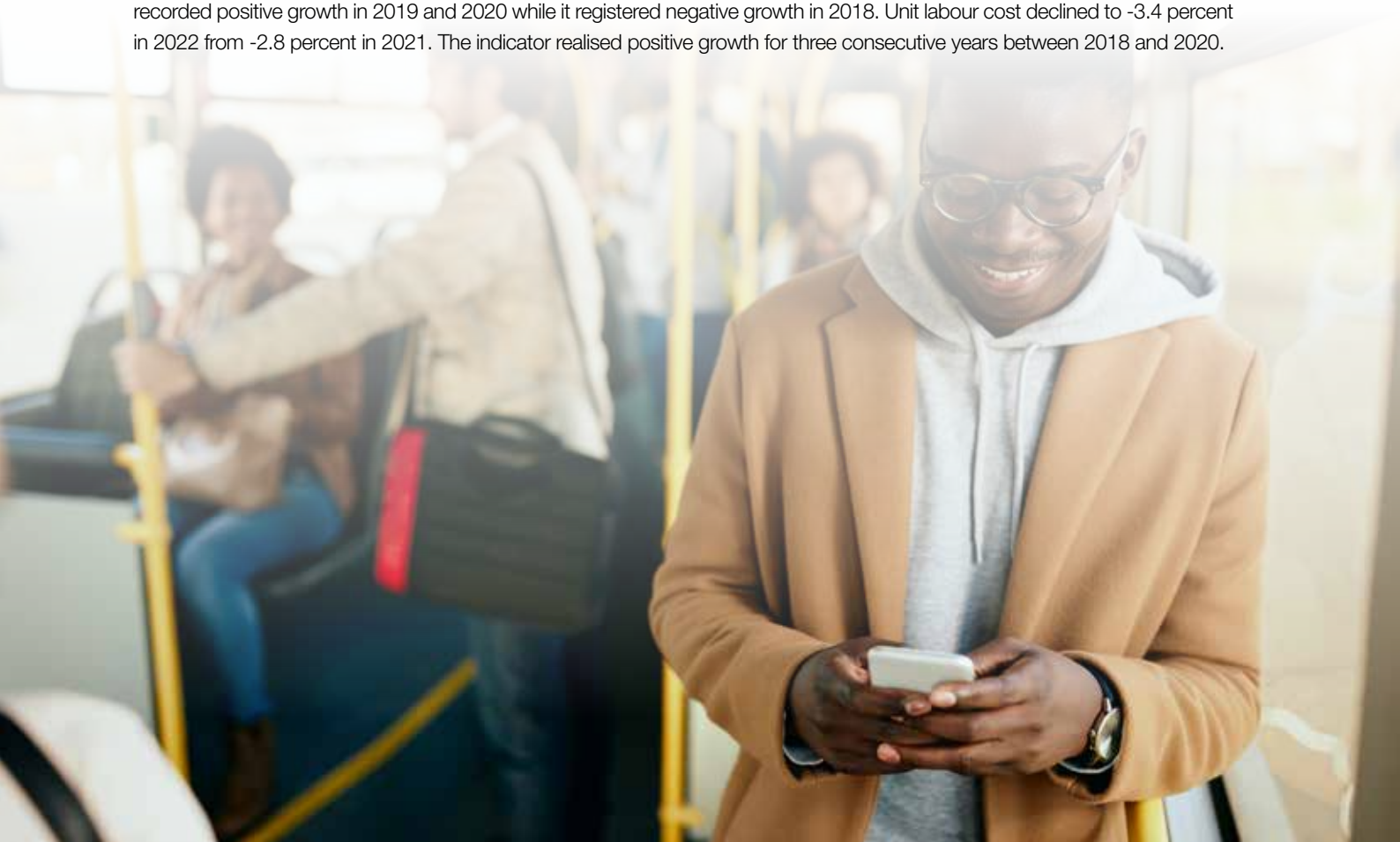
## 6.7. Transport, storage and communication

**Table 13 Productivity indicators 2018-2022**

Annual percentage change

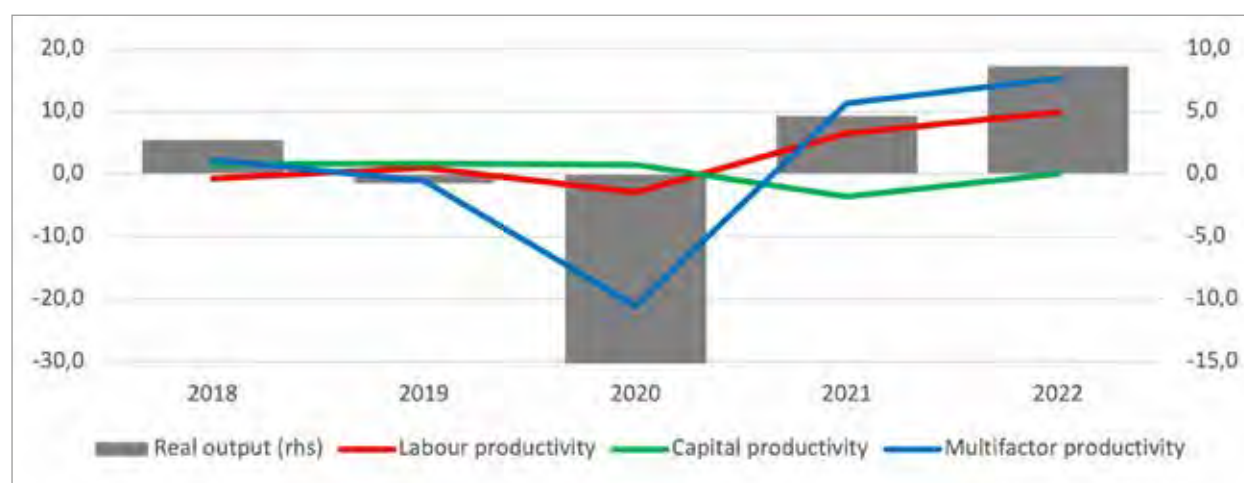
INDICATOR	2018	2019	2020	2021	2022
Real output	2.7	-0.8	-15.4	4.6	8.6
Labour input	3.5	-1.7	-12.9	-1.8	-1.1
Capital input	1.1	-2.4	-16.5	8.5	8.6
Capital labour ratio	2.0	-3.5	-14.1	2.0	-1.1
Compensation per employee	-1.8	2.5	0.7	-0.9	-0.7
Unit labour cost	3.6	5.5	7.2	-2.8	-3.4
Labour productivity	-0.7	1.0	-3.0	6.5	9.9
Capital productivity	1.6	1.7	1.5	-3.6	0.0
Multifactor productivity	2.2	-1.1	-21.1	11.3	15.2

Real output accelerated to 8.6 percent in 2022 from 4.6 percent in 2021. The indicator registered negative growth 2019 and 2020 while it recorded positive growth in 2018. Labour input declined slightly to -1.1 percent in 2022 from -1.8 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. As a result, Labour productivity accelerated to 9.9 percent in 2022 from 6.5 percent in 2021. The indicator registered negative growth in 2018 and 2020 while it recorded positive growth in 2019. Capital input accelerated to 8.6 percent in 2022 from 8.5 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it recorded positive growth in 2018. Consequently, Capital productivity realised no growth at 0.0 percent in 2022 from -3.6 percent in 2021. The indicator registered positive growth for three successive years between 2018 and 2020. Multifactor productivity accelerated significantly to 15.2 percent in 2022 from 11.3 percent in 2021. The indicator recorded negative growth in 2019 and 2020 and positive growth in 2018. Capital labour ratio declined slightly to -1.1 percent in 2022 from 2.0 percent in 2021. The indicator registered negative growth in 2019 and 2020 while it recorded positive growth in 2018. Compensation per employee declined slightly to -0.7 percent in 2022 from -0.9 percent in 2021. The indicator recorded positive growth in 2019 and 2020 while it registered negative growth in 2018. Unit labour cost declined to -3.4 percent in 2022 from -2.8 percent in 2021. The indicator realised positive growth for three consecutive years between 2018 and 2020.



**Figure 41 Trends of productivity indicators 2018-2022**

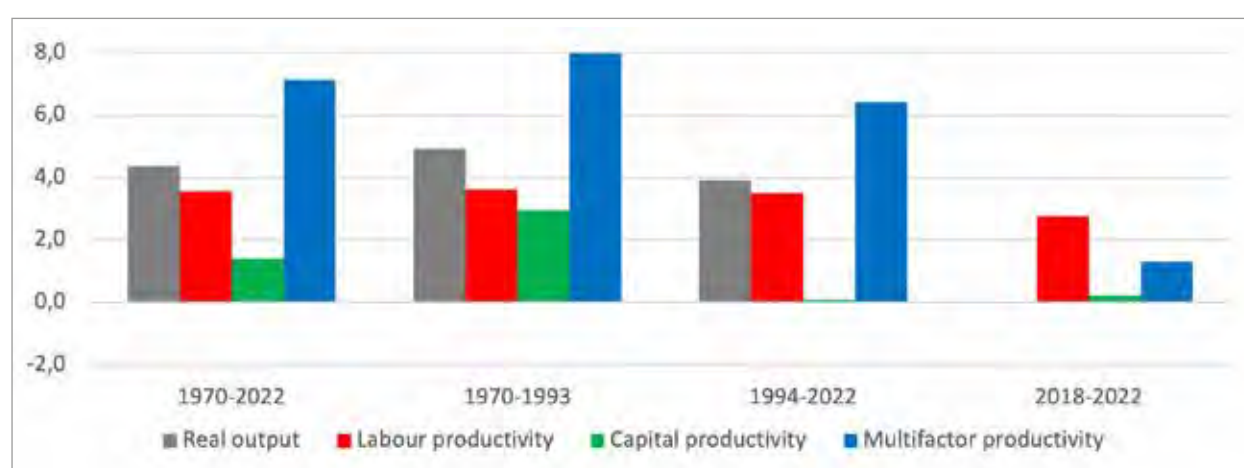
Annual percentage change



Real output accelerated significantly in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2022 while the opposite is the case in 2020. Labour productivity accelerated further in 2022. The indicator recorded insignificant albeit volatile growth between 2018 and 2021 where it registered positive growth in 2019 and 2021 as well as negative growth in 2018 and 2020. Significant positive growth in the indicator was realised in 2022. Capital productivity recorded no growth in 2022. The indicator registered negative growth in 2021 as well as positive growth for three successive years between 2018 and 2020. Significant positive growth in the indicator was realised in 2020 while the opposite true in 2021. Multifactor productivity accelerated significantly in 2022. The indicator recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2022 while the opposite is true in 2020.

**Figure 42 Average productivity indicators 1970-2022**

Annual percentage change

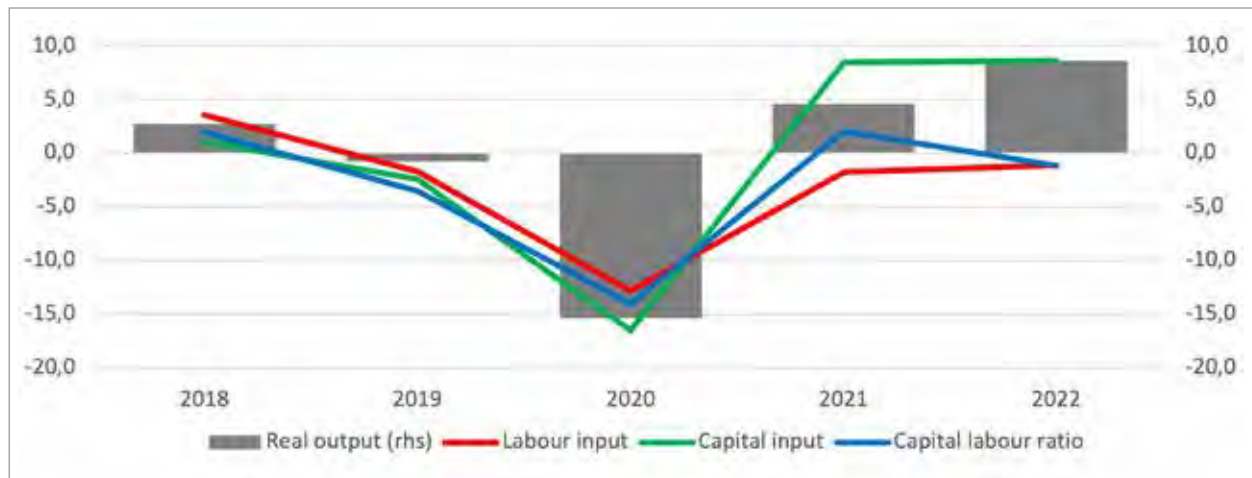


Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Multifactor productivity realised a significant positive growth during the same period. In particular, Real output recorded slightly significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised no growth between 2018 and 2022. Labour productivity realised relatively significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it also realised positive growth between 2018 and 2022. Capital productivity registered positive growth between 1970 and 1993 compared to negligible positive between 1994 and 2022 while it recorded insignificant positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it also realised positive growth between 2018 and 2022.



**Figure 43 Production Input indicators 2018-2022**

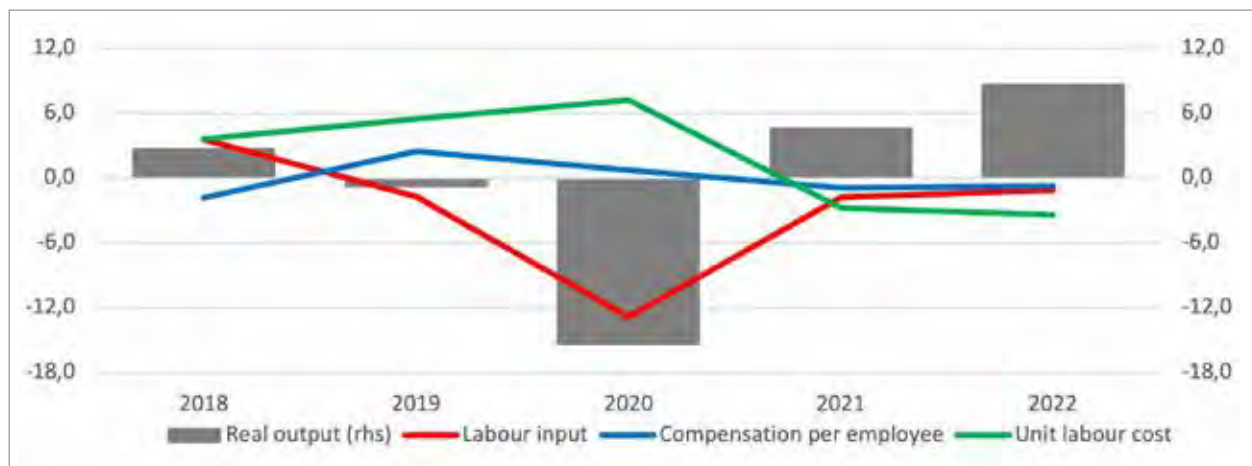
Annual percentage change



Real output accelerated significantly in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2022 while the opposite is the case in 2020. Labour input declined slightly in 2022. The indicator recorded negative growth between 2019 and 2021 as well as positive growth in 2018. Significant negative growth in the indicator was recorded in 2020 while the opposite is true in 2018. Capital input accelerated further in 2022. The indicator registered positive growth in 2018 and 2021 while the opposite is the case between 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 and 2022 while the opposite is the case in 2020. Consequently, Capital labour ratio declined insignificantly in 2022. The indicator registered positive growth in 2018 and 2021 while the opposite is true between 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is the case in 2020.

**Figure 44 Labour market indicators 2018-2022**

Annual percentage change



Real output accelerated significantly in 2022. The indicator previously recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was realised in 2022 while the opposite is the case in 2020. Labour input declined slightly in 2022. The indicator recorded negative growth for three consecutive years between 2019 and 2021 while it realised positive growth in 2018. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2020. Compensation per employee declined in 2022. The indicator registered negative growth in 2018 and 2021 as well as positive growth in 2019 and 2020. Significant positive growth in the indicator was recorded in 2019 while the opposite is true in 2018. Consequently, Unit labour cost declined further in 2022. The indicator recorded negative growth in 2021 as well as positive growth for three consecutive years between 2018 and 2020. Significant positive growth in the indicator was recorded in 2020.

## 6.8. Finance, insurance, real estate and business services

**Table 14 Productivity indicators 2018-2022**

Annual percentage change

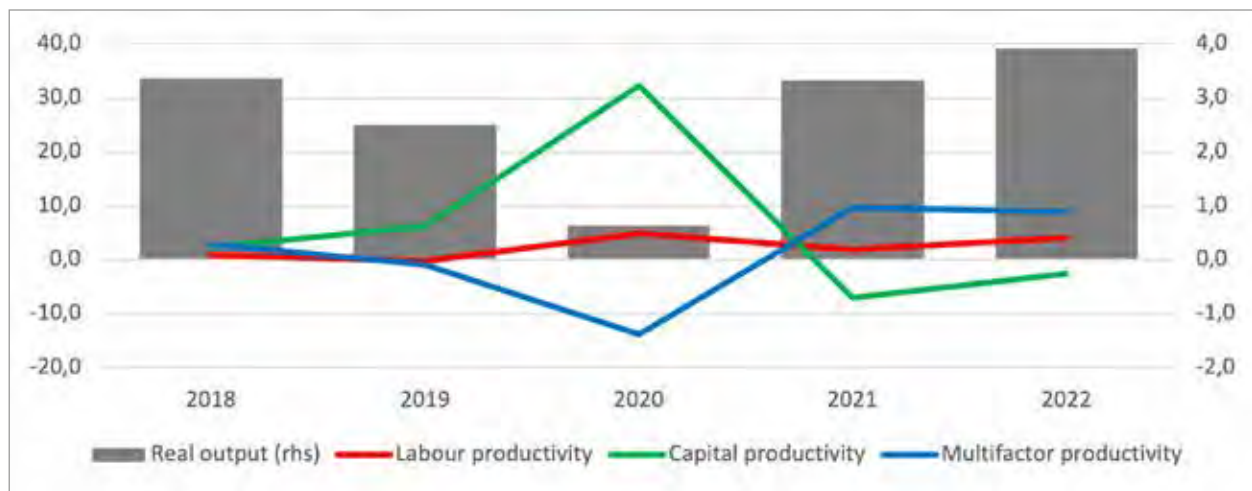
INDICATOR	2018	2019	2020	2021	2022
Real output	3.4	2.5	0.6	3.3	3.9
Labour input	2.5	2.9	-4.1	1.5	-0.3
Capital input	1.0	-3.5	-23.9	11.1	6.7
Capital labour ratio	-1.3	-6.2	-20.7	9.5	7.0
Compensation per employee	-2.7	-2.0	-2.1	-1.7	-3.0
Unit labour cost	1.0	2.3	-3.6	0.8	-0.5
Labour productivity	0.8	-0.3	4.9	1.8	4.1
Capital productivity	2.3	6.2	32.3	-7.0	-2.6
Multifactor productivity	2.8	-0.9	-13.9	9.7	8.8

Real output increased slightly to 3.9 percent in 2022 from 3.3 percent in 2021. The indicator previously realised three successive years of positive growth between 2018 and 2020. Labour input declined insignificantly to -0.3 percent in 2022 from 1.5 percent in 2021. The indicator registered negative growth in 2020 while it recorded positive growth in 2018 and 2019. As a result, Labour productivity accelerated to 4.1 percent in 2022 from 1.8 percent in 2021. The indicator previously released volatile growth where it recorded positive growth in 2018 and 2020 while it registered negative growth in 2019. Capital input decelerated significantly to 6.7 percent in 2022 from 11.1 percent in 2021. The indicator previously realised negative growth in 2019 and 2020 as well as positive growth in 2018. Consequently, Capital productivity declined to -2.6 percent in 2022 from -7.0 percent in 2021. The indicator previously realised three successive years of positive growth between 2018 and 2020. Multifactor productivity decelerated to 8.8 percent in 2022 from 9.7 percent in 2021. The indicator registered negative growth in 2019 and 2020 while it recorded positive growth in 2018. Capital labour ratio decelerated to 7.0 percent in 2022 from 9.5 percent in 2021. The indicator previously realised three successive years of negative growth between 2018 and 2020. Compensation per employee declined to -3.0 percent in 2022 from -1.7 percent in 2021. The indicator previously realised three consecutive years of negative growth between 2018 and 2020. Unit labour cost declined insignificantly to -0.5 percent in 2022 from 0.8 percent in 2021. The indicator recorded negative growth in 2020 while it registered positive growth in 2018 and 2019.



**Figure 45 Trends of productivity indicators 2018-2022**

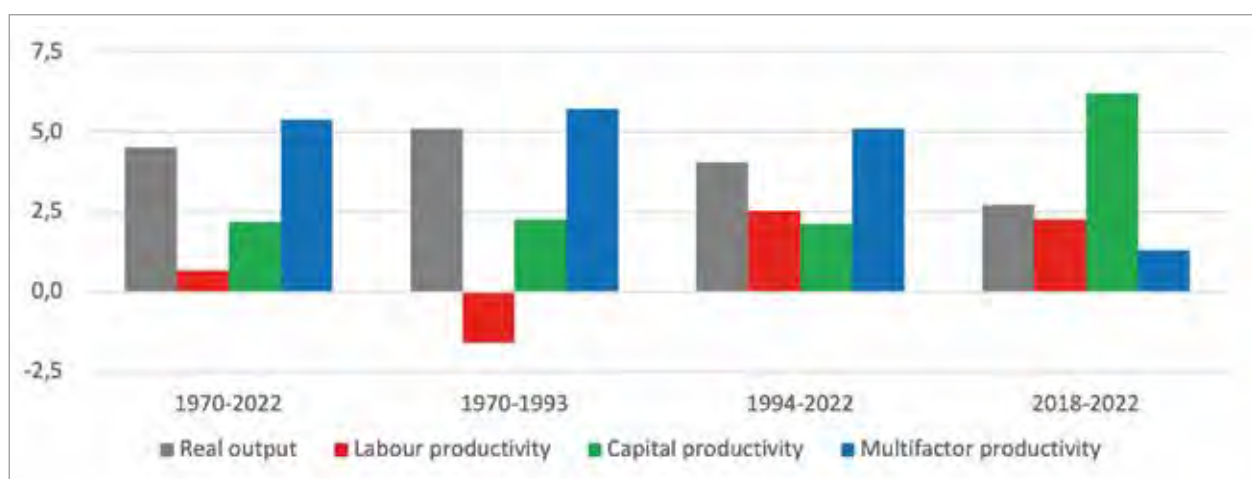
Annual percentage change



Real output accelerated further in 2022. The indicator previously recorded positive growth for four successive years between 2018 and 2021. A relatively significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020. Labour productivity increased somewhat in 2022. The indicator recorded positive growth in 2020 and 2021 as well as in 2018 while it realised decline in growth in 2019. A somewhat significant positive growth in the indicator was realised in 2020 and 2022. Capital productivity declined insignificantly in 2022. The indicator recorded negative growth in 2021 as well as positive growth for three consecutive years in 2018 and 2020. Significant positive growth in the indicator was realised in 2020 while the opposite is true in 2021. Multifactor productivity decelerated somewhat in 2022. The indicator recorded positive growth in 2018 and 2021 as well as negative growth in 2019 and 2020. Significant positive growth in the indicator was registered in 2021 while the opposite is true in 2020.

**Figure 46 Average productivity indicators 1970-2022**

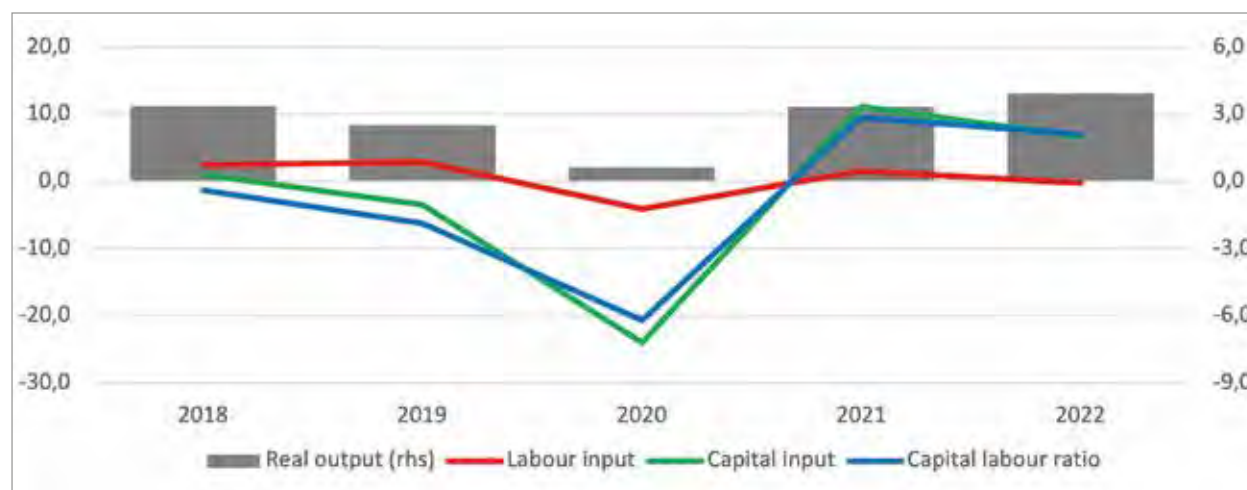
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Labour productivity realised insignificant positive growth during the same period. In particular, Real output recorded slightly significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it also realised positive growth between 2018 and 2022. Labour productivity realised negative growth between 1970 and 1993 compared to the positive growth between 1994 and 2022 while it realised positive growth between 2018 and 2022. Capital productivity registered positive growth between 1970 and 1993 as well as between 1994 and 2022 while it recorded significant positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 as well as between 1994 and 2022 while it also realised insignificant positive growth between 2018 and 2022.

**Figure 47 Production Input indicators 2018-2022**

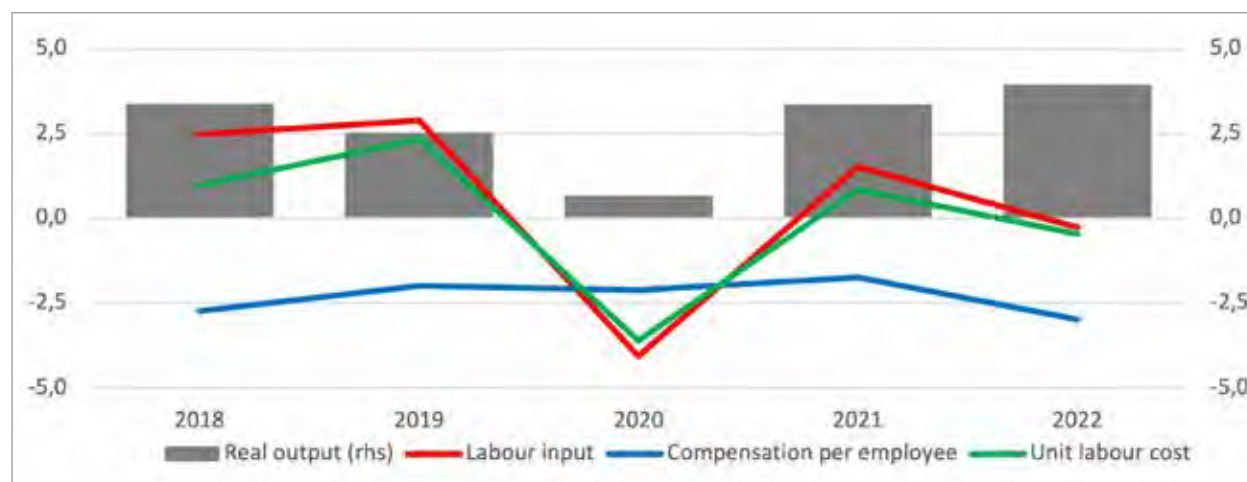
Annual percentage change



Real output accelerated further in 2022. The indicator previously recorded positive growth for four successive years between 2018 and 2021. A relatively significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020. Labour input declined insignificantly in 2022. The indicator recorded positive growth in 2021 as well as 2018 and 2019 while it registered negative growth in 2020. Significant positive growth in the indicator was recorded in 2019 while the opposite is true in 2020. Capital input decelerated somewhat in 2022. The indicator registered positive growth in 2018 and 2021 while the opposite between 2019 and 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is the case in 2020. Consequently, Capital labour ratio decelerated insignificantly in 2022. The indicator recorded positive growth in 2021 while it registered negative growth for three consecutive years between 2018 and 2020. Significant positive growth in the indicator was registered in 2021 while the opposite is the case in 2020.

**Figure 48 Labour market indicators 2018-2022**

Annual percentage change



Real output accelerated further in 2022. The indicator previously recorded positive growth for four successive years between 2018 and 2021. A relatively significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2020. Labour input declined slightly in 2022. The indicator recorded positive growth in 2018 and 2019 as well as in 2021 while it realised negative growth in 2020. Significant positive growth in the indicator was recorded in 2018 and 2019 while the opposite is true in 2020. Compensation per employee declined in 2022. The indicator registered negative growth for four consecutive years between 2018 and 2021. Significant negative growth in the indicator was recorded in 2018 and 2022 while the opposite is true in 2021. Consequently, Unit labour cost declined in 2022. The indicator recorded positive growth in 2018 and 2019 as well as in 2021 while it realised negative growth in 2020. Significant positive growth in the indicator was recorded in 2019 while the opposite is true in 2020.



## 6.9. General government services

**Table 15 Productivity indicators 2018-2022**

Annual percentage change

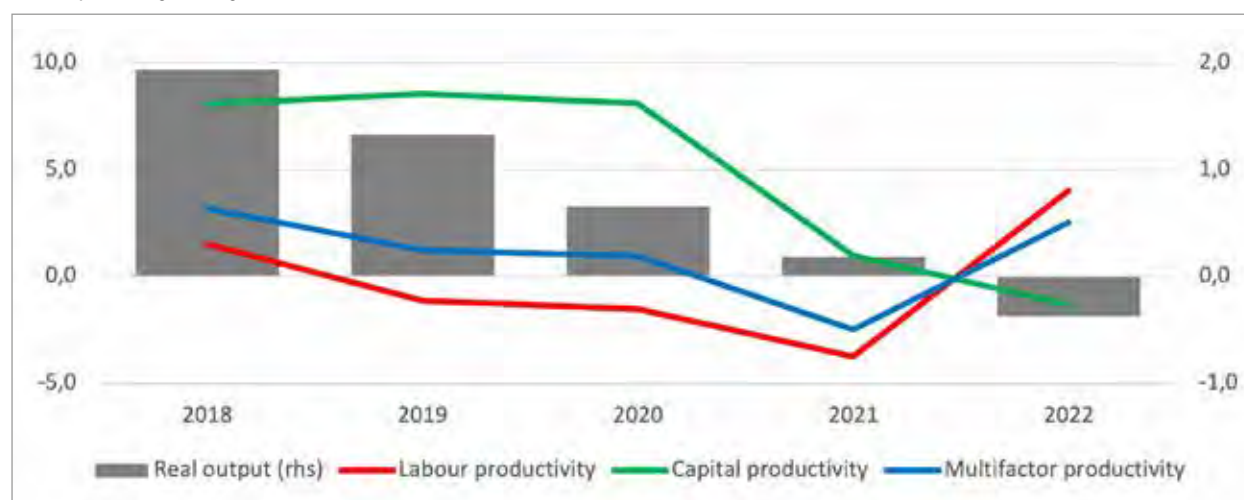
INDICATOR	2018	2019	2020	2021	2022
Real output	1.9	1.3	0.7	0.2	-0.4
Labour input	0.4	2.5	2.3	4.1	-4.2
Capital input	-5.7	-6.6	-6.9	-0.8	0.9
Capital labour ratio	-6.1	-8.9	-8.9	-4.7	5.3
Compensation per employee	1.2	-0.2	-1.6	-5.6	1.1
Unit labour cost	4.4	5.0	3.3	2.5	3.9
Labour productivity	1.5	-1.1	-1.5	-3.8	4.0
Capital productivity	8.1	8.5	8.1	1.0	-1.3
Multifactor productivity	3.2	1.2	0.9	-2.5	2.5

Real output declined slightly to -0.4 percent in 2022 from 0.2 percent in 2021. The indicator previously realised three consecutive years of insignificant positive growth between 2018 and 2020. Labour input declined to -4.2 percent in 2022 from 4.1 percent in 2021. The indicator previously realised three successive years of positive growth between 2018 and 2020. As a result, Labour productivity increased to 4.0 percent in 2022 from -3.8 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Capital input increased slightly to 0.9 percent in 2022 from -0.8 percent in 2021. The indicator previously realised three successive years of negative growth between 2018 and 2020. Consequently, Capital productivity declined insignificantly to -1.3 percent in 2022 from 1.0 percent in 2021. The indicator realised three consecutive years of significant positive growth between 2018 and 2020. Multifactor productivity increased to 2.5 percent in 2022 from -2.5 percent in 2021. The indicator registered positive growth for three successive years between 2018 and 2020. Capital labour ratio accelerated to 5.3 percent in 2022 from -4.7 percent in 2021. The indicator previously realised three consecutive years of significant negative growth between 2018 and 2020. Compensation per employee increased to 1.1 percent in 2022 from -5.6 percent in 2021. The indicator recorded negative growth in 2019 and 2020 while it registered positive growth in 2018. Unit labour cost accelerated further to 3.9 percent in 2022 from 2.5 percent in 2021. The indicator previously realised three successive years of positive growth between 2018 and 2020.



**Figure 49 Trends of productivity indicators 2018-2022**

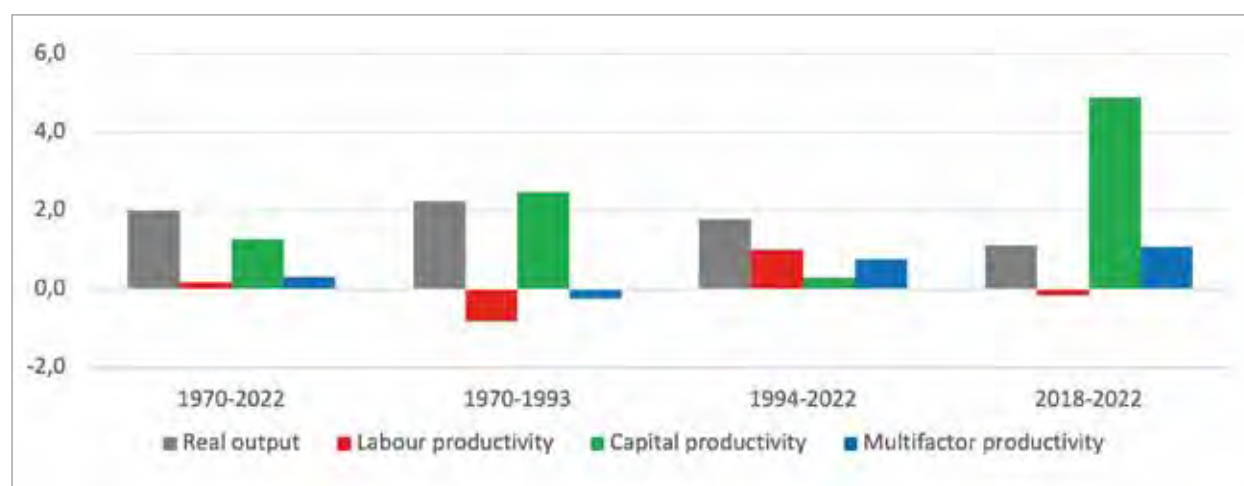
Annual percentage change



Real output declined slightly in 2022. The indicator previously recorded positive growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2022. Labour productivity accelerated in 2022. The indicator recorded negative growth for three consecutive years between 2019 and 2021 as well as positive growth in 2018. Significant positive growth in the indicator was realised in 2022 while the opposite is true in 2021. Capital productivity declined insignificantly in 2022. The indicator registered positive growth for four consecutive years between 2018 and 2021. Significant positive growth in the indicator was recorded between 2018 and 2020. Multifactor productivity increased in 2022. The indicator recorded negative growth in 2021 following three consecutive years of positive growth between 2018 and 2020. Significant positive growth in the indicator was realised in 2018 and 2022 while the opposite is true in 2021.

**Figure 50 Average productivity indicators 1970-2022**

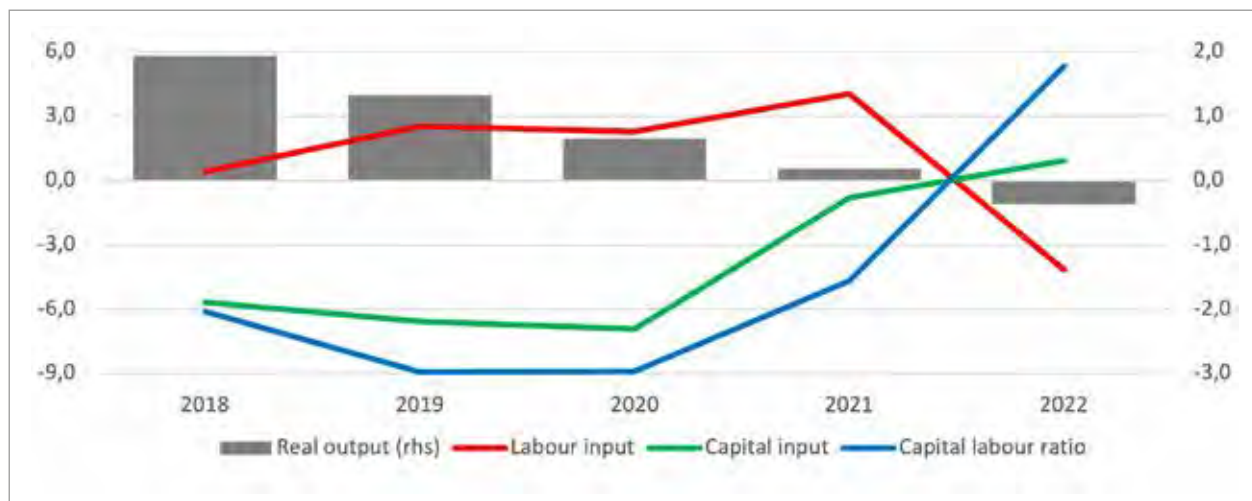
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Labour productivity and Multifactor productivity realised a negligible positive growth during the same period. In particular, Real output recorded significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised positive growth between 2018 and 2022. Labour productivity realised negative growth between 1970 and 1993 compared to positive between 1994 and 2022 while it realised insignificant negative growth between 2018 and 2022. Capital productivity registered a relatively significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it recorded significant positive growth between 2018 and 2022. Multifactor productivity recorded negative growth between 1970 and 1993 compared to positive growth between 1994 and 2022 while it realised insignificant positive growth between 2018 and 2022.

**Figure 51 Production Input indicators 2018-2022**

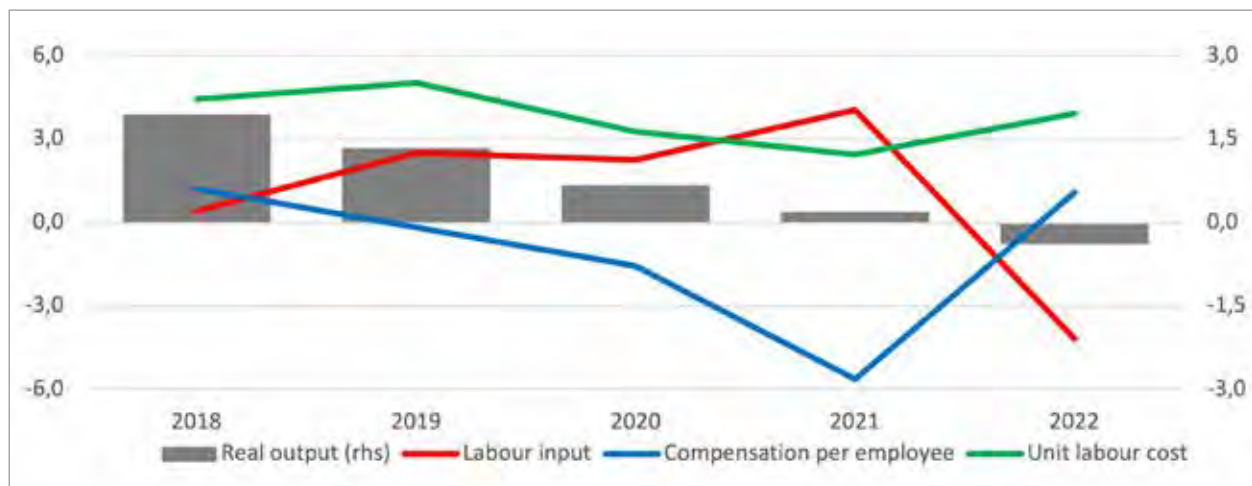
Annual percentage change



Real output declined slightly in 2022. The indicator previously recorded positive growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2022. Labour input declined significantly in 2022. The indicator recorded positive growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2022. Capital input increased insignificantly in 2022. The indicator registered negative growth for four consecutive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2022 while the opposite is true in 2020. Consequently, Capital labour ratio accelerated significantly in 2022. The indicator registered negative growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2022 while the opposite is true in 2019 and 2020.

**Figure 52 Labour market indicators 2018-2022**

Annual percentage change



Real output declined slightly in 2022. The indicator previously recorded positive growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2022. Labour input declined significantly in 2022. The indicator recorded positive growth for four consecutive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2022. Compensation per employee accelerated in 2022. The indicator registered negative growth for three successive years between 2019 and 2021 as well as positive growth in 2018. Significant positive growth in the indicator was recorded in 2022 while the opposite is true in 2021. Consequently, Unit labour cost accelerated significantly in 2022. The indicator recorded positive growth for four consecutive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2019 while the opposite is true in 2021.



## 6.10. Community, social and personal services

**Table 16 Productivity indicators 2018-2022**

Annual percentage change

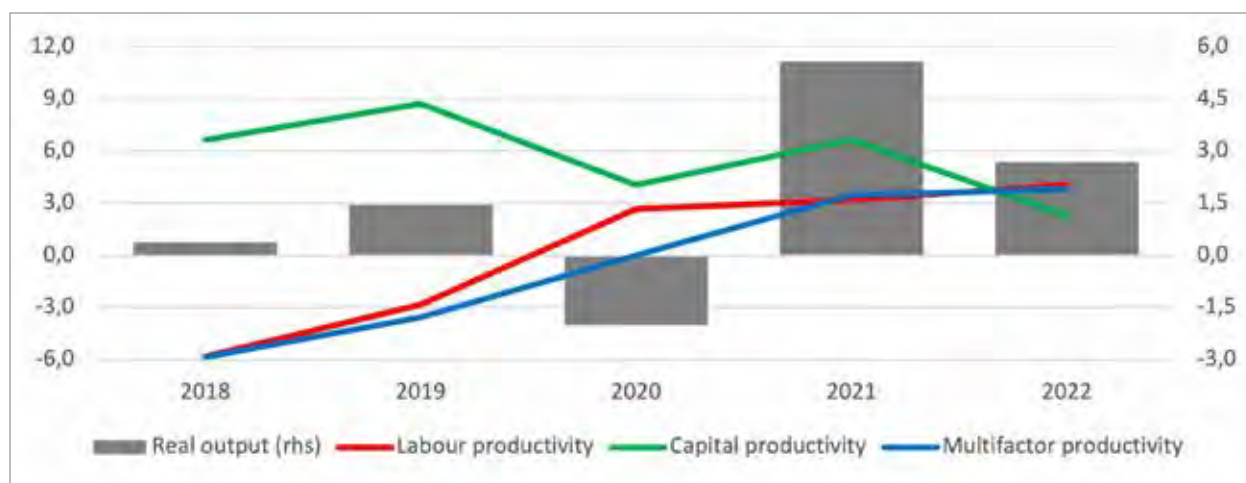
INDICATOR	2018	2019	2020	2021	2022
Real output	0.4	1.5	-2.0	5.6	2.7
Labour input	6.6	4.4	-4.6	2.3	-1.2
Capital input	-5.7	-6.7	-5.8	-1.1	0.5
Capital labour ratio	-11.7	-10.7	-1.3	-3.2	1.7
Compensation per employee	-4.5	-3.1	2.5	-1.1	-2.0
Unit labour cost	6.2	3.8	3.1	0.2	0.7
Labour productivity	-5.8	-2.8	2.7	3.2	4.1
Capital productivity	6.6	8.7	4.1	6.6	2.3
Multifactor productivity	-5.8	-3.6	0.0	3.5	3.8

Real output decelerated to 2.7 percent in 2022 from 5.6 percent in 2021. The indicator previously recorded negative growth in 2020 while it registered positive growth in 2018 and 2019. Labour input declined insignificantly to -1.2 percent in 2022 from 2.3 percent in 2021. The indicator recorded negative growth in 2020 while it registered positive growth in 2018 and 2019. As a result, Labour productivity increased further to 4.1 percent in 2022 from 3.2 percent in 2021. The indicator recorded positive growth in 2020 and negative growth in 2018 and 2019. Capital input accelerated somewhat to 0.5 percent in 2022 from -1.1 percent in 2021. The indicator previously realised three consecutive years of negative growth between 2018 and 2020. Consequently, Capital productivity decelerated significantly to 2.3 percent in 2022 from 6.6 percent in 2021. The indicator previously realised three consecutive years of positive growth between 2018 and 2020. Multifactor productivity accelerated further to 3.8 percent in 2022 from 3.5 percent in 2021. The indicator registered no growth in 2020 while it recorded negative growth in 2018 and 2019. Capital labour ratio increased to 1.7 percent in 2022 from -3.2 percent in 2021. The indicator previously realised three consecutive years of negative growth between 2018 and 2020. Compensation per employee declined insignificantly to -2.0 percent in 2022 from -1.1 percent in 2021. The indicator registered positive growth in 2020 and recorded negative growth in 2018 and 2019. Unit labour cost accelerated somewhat to 0.7 percent in 2022 from 0.2 percent in 2021. The indicator recorded positive growth for three consecutive years between 2018 and 2020.



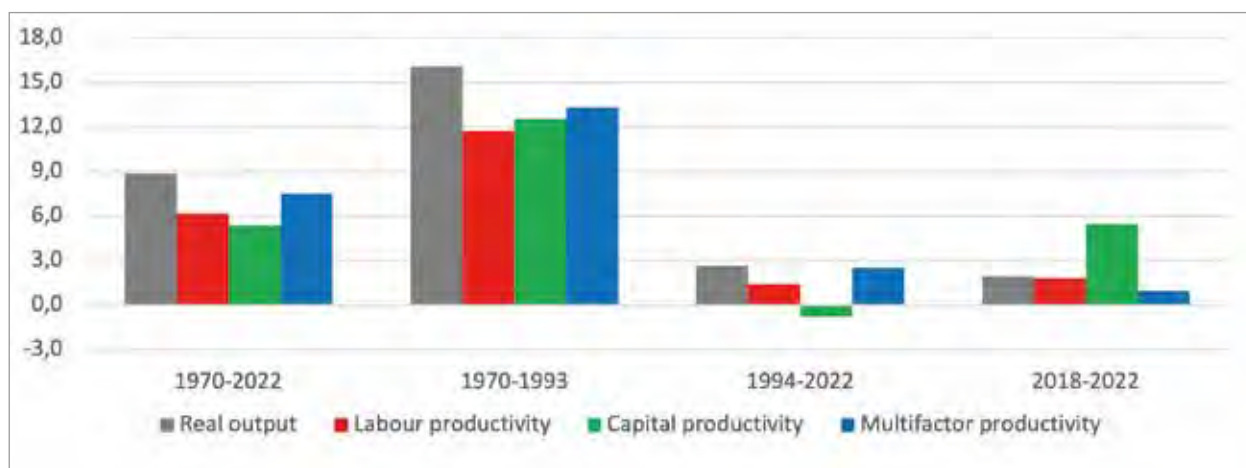


**Figure 53 Trends of productivity indicators 2018-2022**  
Annual percentage change



Real output decelerated in 2022. The indicator previously recorded positive growth in 2021 as well as in 2018 and 2019 while it registered negative growth in 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour productivity accelerated further in 2022. The indicator recorded positive growth in 2020 and 2021 as well as negative growth in 2018 and 2019. Significant positive growth in the indicator was realised in 2022 while the opposite is true in 2018. Capital productivity decelerated in 2022. The indicator recorded positive growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was realised in 2019. Multifactor productivity accelerated further in 2022. The indicator recorded positive growth in 2020 and 2021 as well as negative growth in 2018 and 2019. Significant positive growth in the indicator was realised in 2022 while the opposite is true in 2018.

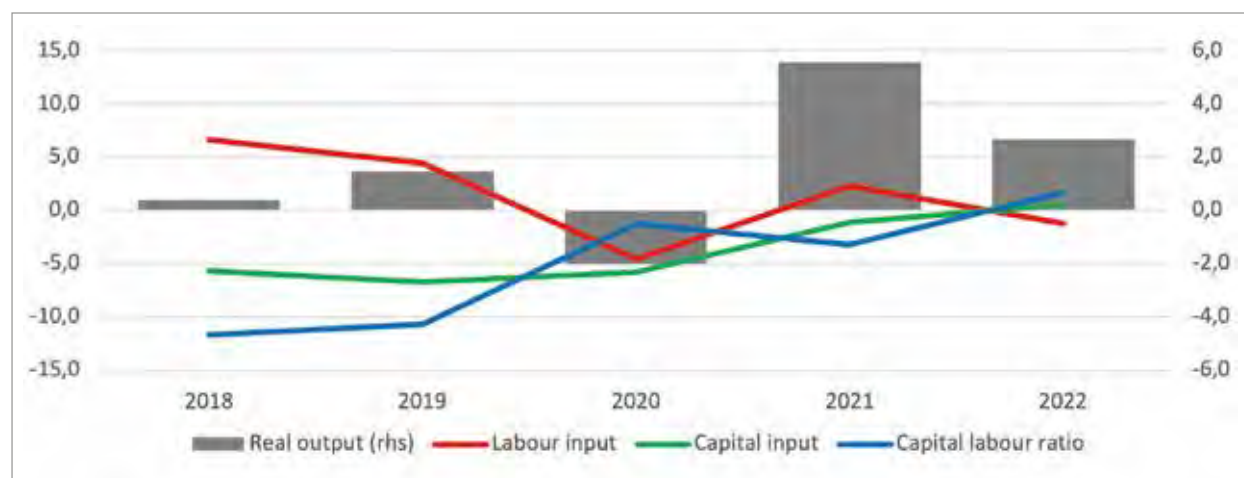
**Figure 54 Average productivity indicators 1970-2022**  
Annual percentage change



Real output, Labour productivity, Capital productivity and Multifactor productivity recorded positive growth between 1970 and 2022 where Labour productivity and Capital productivity realised a relatively insignificant positive growth during the same period. In particular, Real output recorded significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it also realised positive growth between 2018 and 2022. Labour productivity realised significant positive growth between 1970 and 1993 compared to between 1994 and 2022 while it realised positive growth between 2018 and 2022. Capital productivity registered significant positive growth between 1970 and 1993 compared to negative growth between 1994 and 2022 while recorded a relatively significant positive growth between 2018 and 2022. Multifactor productivity recorded significant positive growth between 1970 and 1993 compared to somewhat insignificant positive growth between 1994 and 2022 while it realised insignificant negative growth between 2018 and 2022.

**Figure 55 Production Input indicators 2018-2022**

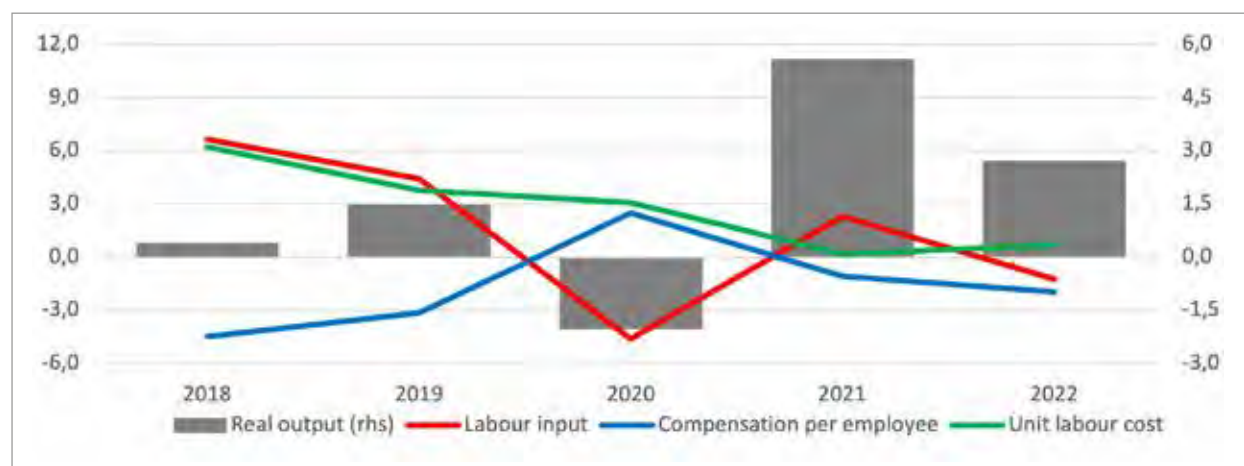
Annual percentage change



Real output decelerated in 2022. The indicator previously recorded positive growth in 2021 as well as in 2018 and 2019 while it registered negative growth in 2020. Significant positive growth in the indicator was recorded in 2021 while the opposite is true in 2020. Labour input declined slightly in 2022. The indicator recorded positive growth in 2021 as well as in 2018 and 2019 while it registered negative growth in 2020. Significant positive growth in the indicator was recorded in 2018 while the opposite is true in 2020. Capital input accelerated somewhat in 2022. The indicator registered negative growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2018 and 2019. Consequently, Capital labour ratio accelerated in 2022. The indicator registered negative growth for four successive years between 2018 and 2021. Significant positive growth in the indicator was recorded in 2022 while the opposite is the case in 2018.

**Figure 56 Labour market indicators 2018-2022**

Annual percentage change



Labour input accelerated slightly in 2021. The indicator previously realised three consecutive years of positive growth between 2017 and 2019 followed by a significant negative growth in 2020. A relatively significant positive in the indicator was recorded in 2017 while the opposite is true in 2020. Compensation per employee recorded a weak negative growth in 2021. The indicator previously registered three successive years of negative growth between 2017 and 2019 and a negligible acceleration in growth during 2020. A relatively significant negative growth in the indicator was recorded in 2017 while the opposite is true in 2020. As a result, Unit labour cost realised a negligible decline in growth during 2021. The indicator previously registered four consecutive years of negative growth between 2017 and 2020 where growth in the indicator remained in relatively stable deceleration in the same period. A relatively significant positive growth in the indicator was recorded in 2017 and 2018 while the opposite is true in 2021.



# STATISTICAL **TABLES**

# 1. PRODUCTIVITY INDICATORS OF THE SOUTH AFRICAN ECONOMY

## 1.1. Total economy

	Real Output Index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit Labour Cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	33,5	86,9	36,3	41,8	53,8	139,7	38,5	92,2	21,1
1981	35,4	90,1	40,2	44,6	44,7	113,7	39,3	88,0	23
1982	34,9	89,8	39,1	43,5	46,4	119,3	38,9	89,4	22,8
1983	34,7	90,5	37,6	41,6	46,2	120,5	38,3	92,1	21,9
1984	36,7	91,7	37,1	40,4	46,7	116,6	40,1	99,1	22,8
1985	36,6	92,5	34,0	36,8	43,5	109,9	39,6	107,6	21,3
1986	36,1	93,0	27,1	29,2	42,2	108,5	38,9	133,2	18,5
1987	36,4	94,6	25,8	27,3	41,3	107,6	38,4	140,7	18
1988	37,7	97,2	29,8	30,6	42,0	108,1	38,8	126,7	19,8
1989	38,5	98,2	31,5	32,1	42,6	108,8	39,2	122,1	20,7
1990	38,2	98,1	30,5	31,1	43,8	112,5	38,9	125,2	20,3
1991	37,6	97,5	28,3	29,1	43,2	112,0	38,6	132,8	19,1
1992	36,8	96,0	26,3	27,4	43,1	112,3	38,4	140,1	17,9
1993	50,3	95,2	34,1	35,8	47,7	90,4	52,8	147,5	27,7
1994	51,8	96,5	37,7	39,1	47,2	88,0	53,7	137,5	29,9
1995	53,5	98,6	41,4	42,0	48,2	88,9	54,2	129,0	32,3
1996	55,9	98,8	45,3	45,9	49,0	86,6	56,5	123,2	35,4
1997	57,6	98,8	47,7	48,3	49,8	85,4	58,3	120,7	37,9
1998	57,8	96,7	49,2	50,8	52,9	88,5	59,8	117,6	39,2
1999	59,7	95,7	44,6	46,5	55,3	88,7	62,4	134,0	38,4
2000	62,8	95,5	46,1	48,3	57,4	87,3	65,8	136,3	40,9
2001	65,0	93,4	48,2	51,6	59,6	85,5	69,6	135,0	43,5
2002	67,9	92,6	50,4	54,4	60,7	82,8	73,3	134,6	46,3
2003	69,8	89,7	54,8	61,1	64,8	83,3	77,9	127,4	50,9
2004	73,5	90,1	61,9	68,7	70,7	86,6	81,6	118,7	57,6
2005	77,7	91,0	69,9	76,8	74,8	87,7	85,3	111,1	65,1
2006	82,3	93,0	78,0	83,9	78,9	89,2	88,5	105,5	73,1
2007	87,1	93,4	87,3	93,6	83,7	89,6	93,3	99,8	82,6
2008	89,9	91,0	99,4	109,2	87,2	88,3	98,7	90,4	93
2009	87,8	84,9	93,5	110,2	92,7	89,6	103,5	93,9	89,9
2010	90,5	86,9	89,0	102,3	95,8	92,0	104,1	101,8	89,1
2011	93,3	89,9	94,1	104,7	97,0	93,4	103,8	99,1	93,9
2012	95,4	92,6	97,1	104,9	97,9	95,0	103,1	98,2	96,6
2013	97,6	93,8	103,1	109,9	100,9	96,9	104,1	94,7	102
2014	99,0	95,2	100,3	105,4	101,6	97,7	104,0	98,6	101,1
2015	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100
2016	100,6	102,7	96,8	94,2	98,7	100,7	98,0	104,0	97,6
2017	101,7	104,0	96,5	92,8	98,3	100,5	97,8	105,4	98
2018	103,5	106,0	96,4	91,0	95,9	98,2	97,7	107,4	99
2019	103,4	106,8	95,9	89,9	95,1	98,3	96,8	107,8	98,2
2020	95,5	100,0	80,0	80,0	93,6	97,9	95,5	119,5	83,4
2021	100,4	101,9	80,8	79,3	95,0	96,5	98,5	124,2	87,5
2022	102,6	102,0	85,6	83,9	93,6	93,0	100,6	119,9	92,6

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.



## 2. PRODUCTIVITY INDICATORS OF THE MAIN ECONOMIC SECTORS

### 2.1. Primary sector

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	88.6	189.7	55.4	29.2	33.6	72.0	46.7	160.0	48.2
1981	88.9	187.7	63.4	33.8	27.7	58.5	47.4	140.4	53.0
1982	87.9	182.8	52.0	28.4	28.6	59.6	48.1	169.0	46.6
1983	85.3	182.4	44.7	24.5	28.8	61.7	46.8	190.6	41.2
1984	89.3	183.9	42.2	22.9	29.4	60.6	48.6	211.6	41.5
1985	91.8	187.3	42.1	22.5	28.5	58.2	49.0	218.0	42.1
1986	89.9	187.8	42.5	22.6	28.4	59.3	47.9	211.6	41.4
1987	86.7	185.8	42.0	22.6	29.1	62.4	46.7	206.6	40.0
1988	88.4	182.7	47.7	26.1	29.7	61.4	48.4	185.2	44.4
1989	89.7	181.7	49.2	27.1	29.2	59.1	49.4	182.2	46.1
1990	88.0	178.9	45.8	25.6	29.8	60.5	49.2	192.0	43.7
1991	87.0	176.0	41.2	23.4	29.3	59.3	49.5	211.1	40.9
1992	83.9	171.0	34.0	19.9	29.2	59.4	49.1	247.0	35.7
1993	89.3	168.3	43.4	25.8	24.7	46.5	53.1	205.9	43.8
1994	91.2	168.0	51.8	30.8	24.2	44.6	54.3	176.0	49.8
1995	84.9	166.4	54.0	32.5	25.4	49.8	51.0	157.2	47.9
1996	88.3	164.3	58.9	35.8	26.0	48.3	53.7	149.9	52.7
1997	89.6	160.4	60.4	37.7	26.9	48.1	55.9	148.3	54.8
1998	88.5	153.0	60.6	39.6	29.8	51.6	57.8	145.9	55.3
1999	88.7	149.6	56.7	37.9	32.7	55.1	59.3	156.4	53.9
2000	88.9	147.9	61.3	41.4	33.8	56.2	60.1	145.0	56.7
2001	88.1	136.6	65.6	48.0	37.7	58.4	64.5	134.4	60.3
2002	90.1	132.9	75.6	56.9	40.1	59.1	67.8	119.2	68.0
2003	92.6	128.3	76.8	59.8	42.5	58.9	72.2	120.6	71.5
2004	93.9	123.3	66.5	53.9	45.6	59.9	76.1	141.2	67.5
2005	95.2	117.8	59.7	50.7	48.1	59.6	80.8	159.4	65.1
2006	93.5	118.9	82.3	69.2	53.2	67.6	78.7	113.7	77.6
2007	93.7	113.7	99.3	87.4	60.2	73.0	82.5	94.4	89.0
2008	94.3	100.4	121.9	121.4	72.9	77.6	93.9	77.3	106.9
2009	90.3	86.0	124.7	145.0	87.4	83.2	105.0	72.4	109.7
2010	93.6	87.4	118.7	135.9	93.1	86.9	107.1	78.8	109.6
2011	93.6	90.1	120.2	133.5	95.6	92.0	103.9	77.9	109.2
2012	92.1	93.5	120.6	129.0	97.5	99.0	98.6	76.4	106.2
2013	95.9	91.9	134.6	146.6	102.8	98.4	104.4	71.2	119.3
2014	98.0	93.4	127.7	136.7	101.4	96.7	104.8	76.7	117.0
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	96.1	104.2	83.5	80.1	96.0	104.2	92.2	115.1	84.6
2017	103.2	99.0	103.0	104.0	102.9	98.7	104.2	100.2	105.5
2018	102.8	98.7	117.0	118.6	103.5	99.4	104.2	87.8	113.7
2019	100.1	101.4	123.7	122.0	100.1	101.4	98.7	80.9	113.3
2020	96.6	95.8	111.2	116.0	100.2	99.4	100.8	86.9	105.0
2021	107.0	100.4	106.9	106.5	103.3	97.0	106.5	100.0	111.7
2022	102.3	100.9	110.8	109.8	102.0	100.6	101.4	92.3	109.1

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

## 2.2. Secondary sector

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	36.5	121.4	44.5	36.6	60.5	201.4	30.0	82.0	22.8
1981	39.7	129.8	44.2	34.1	49.8	162.9	30.5	89.7	23.5
1982	38.1	128.2	43.2	33.7	52.8	177.6	29.7	88.2	22.7
1983	37.2	127.5	43.6	34.2	52.8	180.8	29.2	85.5	22.2
1984	39.5	126.6	42.2	33.3	52.9	169.6	31.2	93.6	23.1
1985	38.5	125.6	34.9	27.8	49.3	160.7	30.7	110.2	20.6
1986	38.1	127.2	24.2	19.0	47.1	157.2	30.0	157.7	16.8
1987	38.5	130.2	21.6	16.6	45.6	154.2	29.6	178.5	15.8
1988	40.8	133.2	24.8	18.6	47.4	154.7	30.6	164.9	17.6
1989	42.0	133.0	30.6	23.0	48.8	154.6	31.6	137.4	20.1
1990	41.5	132.0	33.1	25.1	49.9	158.8	31.4	125.3	20.6
1991	39.9	127.5	28.6	22.5	50.0	159.8	31.3	139.4	18.7
1992	38.7	123.5	27.2	22.1	49.7	158.6	31.3	141.9	17.8
1993	58.0	121.7	27.5	22.6	47.0	98.4	47.7	211.3	25.5
1994	59.9	123.3	30.3	24.6	46.3	95.2	48.6	197.9	27.5
1995	63.1	121.3	36.3	29.9	47.9	92.1	52.0	174.2	32.2
1996	65.1	116.5	39.3	33.8	49.4	88.3	55.9	165.5	35.4
1997	67.1	111.1	39.8	35.8	51.6	85.5	60.4	168.6	37.6
1998	65.7	104.4	36.6	35.0	55.9	88.9	62.9	179.8	36.3
1999	65.8	101.3	35.1	34.6	56.9	87.6	65.0	187.8	36.0
2000	70.4	99.0	34.5	34.9	58.9	82.8	71.1	203.9	37.9
2001	71.9	97.0	36.3	37.4	59.8	80.7	74.2	198.3	39.8
2002	74.3	98.6	36.5	37.0	60.3	80.0	75.3	203.7	40.7
2003	74.5	95.2	40.0	42.0	62.7	80.1	78.3	186.3	43.8
2004	78.7	95.1	47.3	49.7	66.7	80.6	82.8	166.5	51.1
2005	84.1	100.6	51.6	51.3	66.6	79.6	83.6	162.8	56.3
2006	89.5	100.8	58.1	57.6	71.5	80.5	88.8	154.1	65.0
2007	95.3	100.4	66.1	65.9	78.3	82.5	94.9	144.1	74.8
2008	97.7	98.8	79.4	80.3	82.5	83.5	98.8	123.1	85.6
2009	91.6	91.2	76.0	83.4	89.1	88.8	100.4	120.4	80.9
2010	95.6	91.1	77.7	85.3	94.0	89.6	104.9	123.0	85.8
2011	97.8	94.0	88.7	94.3	93.7	90.0	104.1	110.3	93.7
2012	99.6	95.2	90.9	95.5	95.9	91.7	104.7	109.6	96.1
2013	101.0	96.5	106.6	110.5	99.1	94.7	104.7	94.7	106.4
2014	100.6	97.1	97.1	100.1	100.6	97.0	103.6	103.6	100.2
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	100.1	102.3	97.7	95.5	99.3	101.5	97.8	102.4	97.8
2017	98.9	103.7	93.4	90.0	98.5	103.3	95.3	105.9	93.6
2018	99.9	104.2	84.5	81.1	96.8	101.1	95.8	118.2	89.0
2019	98.1	101.3	86.0	84.9	99.1	102.3	96.8	114.1	89.4
2020	85.7	93.9	69.8	74.3	96.7	105.9	91.3	122.8	71.4
2021	89.5	97.4	66.5	68.3	96.9	105.4	92.0	134.7	71.4
2022	88.7	95.4	69.3	72.6	97.6	104.9	93.0	128.1	73.1

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

## 2.3. Tertiary sector

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	22.4	44.8	25.3	56.4	69.8	139.6	50.0	88.5	17.2
1981	24.0	47.3	30.6	64.7	56.4	111.3	50.6	78.2	18.9
1982	24.1	48.8	32.5	66.6	56.4	114.1	49.4	74.2	19.6
1983	24.5	50.5	31.6	62.6	55.1	113.5	48.5	77.5	18.9
1984	26.2	52.3	32.2	61.5	56.3	112.5	50.0	81.4	20.1
1985	25.9	53.1	30.9	58.2	52.0	106.6	48.8	83.8	19.1
1986	25.7	53.2	24.5	46.0	50.7	104.9	48.3	105.0	16.7
1987	26.5	55.3	23.8	43.1	48.6	101.7	47.8	111.1	16.1
1988	27.3	59.3	27.7	46.7	47.0	101.8	46.1	98.8	17.3
1989	27.8	61.3	26.8	43.8	47.3	104.4	45.3	103.6	17.0
1990	27.9	62.3	24.3	38.9	48.8	109.0	44.8	115.1	16.0
1991	27.8	63.8	24.3	38.0	47.4	108.9	43.6	114.6	15.4
1992	27.7	64.4	23.4	36.3	47.3	110.1	43.0	118.3	14.5
1993	39.9	64.5	35.7	55.3	63.0	102.0	61.8	111.8	27.0
1994	41.2	66.1	38.4	58.0	62.2	99.7	62.4	107.5	28.6
1995	43.5	70.9	41.1	57.9	61.3	99.9	61.4	106.0	30.4
1996	45.9	73.6	45.2	61.4	61.3	98.2	62.4	101.7	33.3
1997	47.7	76.8	49.1	64.0	60.5	97.4	62.1	97.1	35.8
1998	48.9	78.0	54.0	69.3	62.5	99.8	62.7	90.5	38.6
1999	51.8	78.5	47.2	60.1	65.5	99.3	66.0	109.8	37.7
2000	54.8	79.4	49.1	61.9	68.1	98.7	69.0	111.5	40.4
2001	57.9	79.9	50.8	63.5	69.1	95.5	72.4	113.9	43.0
2002	61.0	79.0	52.0	65.8	69.9	90.5	77.3	117.3	45.5
2003	63.7	76.8	58.0	75.6	75.7	91.2	83.0	109.9	51.2
2004	67.6	78.9	70.2	88.9	82.5	96.3	85.6	96.3	60.3
2005	71.7	79.8	84.9	106.4	88.5	98.6	89.8	84.4	71.3
2006	77.1	82.7	89.8	108.5	91.6	98.3	93.2	85.9	78.0
2007	82.3	84.9	97.7	115.0	93.7	96.7	97.0	84.3	86.7
2008	85.6	85.4	105.8	123.9	93.1	92.9	100.3	80.9	94.4
2009	85.8	82.1	95.7	116.5	95.1	91.1	104.4	89.6	90.1
2010	87.7	85.2	87.4	102.6	96.8	94.1	102.9	100.3	85.9
2011	91.3	88.3	89.9	101.8	98.5	95.3	103.4	101.5	89.8
2012	94.1	91.3	94.2	103.2	98.9	95.9	103.1	99.9	93.9
2013	96.5	93.3	91.3	97.9	100.9	97.6	103.4	105.7	93.7
2014	98.4	94.9	94.2	99.3	101.8	98.2	103.7	104.4	96.8
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	101.7	102.4	100.1	97.7	99.0	99.8	99.2	101.5	100.8
2017	102.7	105.5	96.6	91.5	97.0	99.6	97.3	106.4	98.5
2018	105.3	108.7	98.1	90.3	93.7	96.7	96.9	107.3	100.8
2019	106.3	110.4	94.1	85.3	92.6	96.1	96.3	112.9	98.6
2020	99.7	103.6	77.3	74.6	91.2	94.7	96.3	129.0	84.1
2021	104.1	104.2	82.4	79.1	93.0	93.1	99.9	126.3	91.0
2022	108.9	104.8	88.7	84.6	90.8	87.4	103.9	122.7	99.4

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

## 3. PRODUCTIVITY INDICATORS OF THE MAIN INDUSTRIES

### 3.1. Agriculture, forestry and fishing

	Real Output Index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	42.2	203.1	99.4	49.0	2.0	130.1	20.8	42.4	34.0
1981	44.6	198.4	122.9	61.9	2.3	96.3	22.5	36.3	43.0
1982	40.9	195.2	87.8	45.0	2.6	103.9	20.9	46.5	31.0
1983	31.6	193.3	70.8	36.6	2.9	133.4	16.3	44.6	20.0
1984	35.2	191.8	58.1	30.3	3.2	118.3	18.3	60.5	20.0
1985	42.3	191.6	50.5	26.4	3.6	94.4	22.1	83.8	22.0
1986	45.1	192.4	43.8	22.8	3.9	81.4	23.5	103.0	21.0
1987	46.3	191.0	43.3	22.7	4.6	79.7	24.2	106.9	21.0
1988	47.6	188.2	54.1	28.7	5.3	79.2	25.3	88.0	26.0
1989	54.6	188.1	55.9	29.7	6.0	68.7	29.0	97.7	30.0
1990	50.7	188.4	51.0	27.1	6.9	73.9	26.9	99.4	26.0
1991	52.9	188.6	42.1	22.4	8.6	76.5	28.1	125.6	24.0
1992	38.5	188.5	35.9	19.0	10.9	117.2	20.4	107.4	16.0
1993	62.0	188.2	57.3	30.4	16.7	101.9	32.9	108.2	35.0
1994	66.9	187.9	69.6	37.0	18.6	96.7	35.6	96.0	43.0
1995	53.6	187.5	72.8	38.8	20.8	124.2	28.6	73.6	35.0
1996	66.4	186.7	88.6	47.5	22.4	100.6	35.6	75.0	50.0
1997	67.0	185.2	78.0	42.2	24.2	99.3	36.2	85.9	46.0
1998	63.5	183.2	68.1	37.2	27.2	109.7	34.6	93.2	40.0
1999	67.4	180.9	60.5	33.4	28.8	104.0	37.3	111.4	39.0
2000	70.6	178.2	60.2	46.4	30.5	100.3	39.6	117.2	41.0
2001	68.2	162.2	62.7	38.7	32.4	104.0	42.1	108.8	43.0
2002	72.7	155.3	75.4	48.5	38.1	105.4	46.8	96.4	52.0
2003	73.2	146.1	69.7	47.7	44.7	115.5	50.1	104.9	51.0
2004	73.8	136.1	72.6	53.4	42.9	108.9	54.2	101.6	54.0
2005	75.9	129.7	67.8	52.3	40.0	95.2	58.5	111.9	54.0
2006	71.7	127.1	76.9	60.5	42.3	101.9	56.4	93.3	56.0
2007	73.9	115.6	76.6	66.2	48.4	105.8	63.9	96.5	59.0
2008	88.2	93.8	85.7	91.5	54.9	90.0	94.1	102.8	81.0
2009	86.5	75.2	74.8	99.5	60.6	95.1	115.0	115.6	78.0
2010	86.3	75.4	67.1	88.9	64.2	96.9	114.3	128.6	73.0
2011	88.0	77.9	83.8	107.5	65.9	92.9	112.9	105.0	85.0
2012	89.5	83.5	91.5	109.6	69.8	91.5	107.3	97.9	89.0
2013	93.5	82.9	102.0	122.9	75.2	89.2	112.8	91.7	101.0
2014	103.8	86.2	96.3	111.7	87.9	88.7	120.3	107.7	106.0
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	94.9	106.9	97.9	91.6	108.3	107.3	88.8	96.9	92.0
2017	113.0	98.7	111.0	112.4	115.2	91.2	114.4	101.8	122.0
2018	113.5	98.7	107.4	108.8	120.2	90.4	115.0	105.7	120.0
2019	106.2	102.9	105.2	102.2	124.2	96.0	103.2	101.0	109.0
2020	122.0	94.2	110.9	117.8	130.3	84.8	129.6	110.0	134.0
2021	132.8	100.8	114.4	113.5	135.9	77.8	131.7	116.0	146.0
2022	133.2	100.0	106.1	106.1	145.0	77.5	133.2	125.5	139.0

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.



### 3.2. Mining and quarrying

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	108.7	164.8	38.8	23.6	40.5	61.4	66.0	280.0	49.7
1981	108.1	167.7	41.0	24.4	32.8	50.9	64.5	263.9	51.4
1982	108.3	159.6	38.5	24.1	34.9	51.4	67.8	280.8	51.3
1983	108.6	162.0	34.9	21.6	34.7	51.7	67.0	310.7	47.9
1984	112.8	169.2	36.2	21.4	34.5	51.7	66.6	311.4	50.1
1985	113.2	179.4	38.9	21.7	32.3	51.2	63.1	290.6	50.9
1986	109.3	179.1	42.0	23.4	32.9	53.9	61.0	260.4	51.4
1987	104.2	176.2	41.5	23.5	34.0	57.5	59.2	251.4	49.7
1988	106.1	172.4	45.3	26.3	34.7	56.4	61.5	234.0	53.6
1989	104.9	169.9	46.7	27.5	34.3	55.5	61.8	224.5	54.5
1990	104.1	161.2	43.9	27.2	36.3	56.3	64.6	237.3	53.8
1991	101.8	152.3	40.9	26.8	36.3	54.3	66.8	249.1	52.2
1992	103.5	138.2	33.2	24.0	37.2	49.7	74.9	311.5	49.7
1993	101.2	131.1	38.2	29.1	26.2	33.9	77.2	265.2	51.4
1994	101.7	130.8	45.1	34.5	25.0	32.1	77.8	225.5	56.8
1995	98.5	126.9	47.0	37.0	26.9	34.7	77.7	209.7	57.7
1996	97.8	122.5	47.7	39.0	28.2	35.3	79.8	204.8	58.4
1997	99.4	114.1	53.8	47.1	30.9	35.5	87.1	184.8	66.2
1998	99.3	96.5	57.9	59.9	38.9	37.8	102.9	171.7	74.0
1999	97.9	91.0	55.3	60.8	45.8	42.6	107.7	177.1	73.2
2000	96.8	91.3	61.7	67.6	47.0	44.4	106.0	156.9	75.6
2001	96.8	88.6	66.6	75.2	50.7	46.5	109.2	145.2	79.3
2002	97.7	91.0	75.7	83.2	50.0	46.5	107.4	129.1	85.2
2003	101.0	95.0	79.4	83.6	46.8	44.0	106.3	127.2	89.8
2004	102.6	99.3	64.2	64.6	48.4	46.9	103.2	159.9	79.0
2005	103.6	95.6	56.7	59.3	53.9	49.7	108.4	182.8	74.8
2006	103.0	103.5	84.3	81.5	58.0	58.2	99.5	122.2	91.6
2007	102.3	110.1	107.9	98.0	59.2	63.7	93.0	94.8	103.3
2008	96.9	112.8	135.5	120.1	63.0	73.4	85.9	71.5	111.9
2009	91.9	106.2	143.4	135.0	68.5	79.1	86.5	64.1	112.1
2010	96.8	109.8	138.2	125.9	73.4	83.3	88.2	70.0	113.9
2011	96.0	112.8	133.9	118.7	77.6	91.2	85.1	71.7	109.6
2012	93.2	112.2	131.5	117.2	84.0	101.1	83.1	70.9	105.3
2013	96.9	108.6	146.9	135.4	90.4	101.2	89.3	66.0	118.5
2014	95.5	106.9	139.5	130.5	89.5	100.3	89.3	68.4	113.4
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	96.6	99.3	78.0	78.6	100.2	103.0	97.3	123.8	84.0
2017	98.9	99.4	100.0	100.6	102.0	102.5	99.5	99.0	99.1
2018	98.1	98.5	120.6	122.4	103.5	103.9	99.6	81.4	110.1
2019	97.5	98.5	130.6	132.6	102.9	104.0	98.9	74.6	114.9
2020	85.5	98.8	111.3	112.6	94.5	109.2	86.5	76.9	91.8
2021	95.8	99.6	104.1	104.5	104.3	108.5	96.1	92.0	98.4
2022	88.9	102.6	112.6	109.7	100.2	115.7	86.7	79.0	94.9

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

### 3.3. Manufacturing

	Real Output Index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	39.7	128.4	68.9	53.7	61.7	199.4	31.0	57.6	29.0
1981	43.4	135.3	66.9	49.4	50.3	156.7	32.1	64.9	31.0
1982	41.1	132.1	60.3	45.7	52.8	169.5	31.1	68.2	28.0
1983	40.4	131.5	58.6	44.6	52.2	169.8	30.7	69.0	27.0
1984	43.1	130.4	50.8	39.0	52.7	159.5	33.0	84.8	27.0
1985	41.7	129.8	37.3	28.8	48.8	152.0	32.1	111.7	23.0
1986	41.6	133.1	28.1	21.1	46.8	149.8	31.3	148.1	19.0
1987	42.5	137.9	24.8	17.9	45.6	147.9	30.8	171.8	18.0
1988	45.3	141.7	35.3	24.9	47.1	147.4	32.0	128.1	23.0
1989	46.1	142.1	47.9	33.7	48.7	150.2	32.5	96.3	27.0
1990	45.1	142.0	54.5	38.4	49.2	155.1	31.7	82.7	28.0
1991	43.0	138.9	48.1	34.7	48.6	156.7	31.0	89.4	25.0
1992	41.6	135.9	45.3	33.3	47.2	154.3	30.6	91.9	24.0
1993	60.7	132.3	41.8	31.6	45.9	100.0	45.9	145.2	32.0
1994	62.4	136.4	45.7	33.5	45.4	99.4	45.7	136.5	35.0
1995	66.4	135.9	55.1	40.5	46.1	94.4	48.9	120.6	41.0
1996	67.3	131.8	58.7	44.5	46.8	91.7	51.1	114.7	44.0
1997	69.2	125.1	60.5	48.4	48.1	87.0	55.3	114.3	47.0
1998	69.0	121.2	58.9	48.6	52.4	92.0	57.0	117.2	47.0
1999	69.4	120.4	58.8	48.9	52.1	90.4	57.7	118.0	47.0
2000	75.1	117.4	59.6	50.7	55.1	86.2	63.9	126.0	52.0
2001	77.5	115.7	63.2	54.6	56.5	84.4	67.0	122.6	55.0
2002	79.6	116.9	61.3	52.4	57.7	84.7	68.1	129.9	55.0
2003	78.4	114.0	63.5	55.7	58.5	85.0	68.8	123.5	56.0
2004	82.3	110.7	74.6	67.3	63.8	85.8	74.3	110.3	66.0
2005	87.4	112.3	81.8	72.8	65.3	83.9	77.8	106.8	74.0
2006	93.0	112.5	92.3	82.0	68.6	83.0	82.7	100.8	85.0
2007	98.0	111.0	98.2	88.5	74.2	84.1	88.3	99.8	93.0
2008	100.3	107.7	105.7	98.2	78.8	84.6	93.1	94.9	101.0
2009	89.6	100.1	73.6	73.5	82.7	92.5	89.5	121.7	75.0
2010	94.9	99.1	78.5	79.1	89.4	93.4	95.7	120.9	83.0
2011	97.8	99.0	100.4	101.4	90.6	91.7	98.7	97.4	98.0
2012	99.8	98.4	95.1	96.7	93.9	92.6	101.4	104.9	98.0
2013	100.8	99.3	104.1	104.9	97.1	95.6	101.6	96.8	104.0
2014	100.2	97.9	98.7	100.8	100.3	98.0	102.3	101.5	100.0
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	100.4	101.1	101.8	100.7	99.7	100.3	99.4	98.6	101.0
2017	100.3	102.0	103.2	101.2	100.2	101.9	98.3	97.1	101.0
2018	101.9	104.1	107.5	103.3	97.7	99.9	97.8	94.7	105.0
2019	100.8	99.3	113.3	114.1	102.9	101.4	101.5	89.0	109.0
2020	88.3	93.0	93.2	100.3	100.4	105.8	94.9	94.7	87.0
2021	94.0	99.4	86.3	86.8	99.3	105.0	94.6	109.0	87.0
2022	94.0	99.3	93.6	94.3	99.0	104.6	94.7	100.4	91.0

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

### 3.4. Electricity, gas and water

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	24.7	99.6	25.7	25.8	96.9	14.2	24.8	95.9	11.9
1981	27.5	109.5	26.9	24.5	82.7	17.8	25.1	102.3	12.8
1982	29.1	124.5	30.8	24.7	80.2	21.3	23.4	94.6	13.8
1983	29.1	133.8	33.2	24.8	76.3	24.2	21.7	87.5	13.9
1984	30.9	139.8	37.2	26.6	71.3	24.8	22.1	83.2	15.2
1985	33.0	143.5	34.9	24.3	64.6	25.4	23.0	94.8	15.3
1986	33.9	135.5	21.9	16.1	63.8	27.2	25.1	155.2	12.0
1987	35.1	124.2	19.8	15.9	66.2	29.1	28.3	177.5	12.0
1988	37.0	124.3	17.0	13.7	70.5	33.2	29.8	218.2	11.6
1989	38.4	113.3	17.4	15.4	77.8	36.9	33.9	220.7	12.7
1990	39.1	109.9	16.5	15.0	82.2	42.4	35.5	236.6	12.6
1991	39.8	103.3	13.1	12.6	85.6	47.0	38.6	304.9	11.3
1992	40.0	97.3	13.1	13.5	89.5	52.5	41.2	305.9	11.7
1993	73.8	93.6	16.0	17.1	40.7	13.7	78.8	461.3	21.7
1994	78.0	88.9	18.2	20.4	43.6	14.3	87.8	429.6	25.1
1995	79.6	89.6	21.9	24.4	45.5	16.0	88.8	364.0	29.6
1996	88.2	89.7	24.8	27.6	52.2	17.9	98.4	355.9	37.2
1997	91.6	88.5	23.9	27.0	53.5	18.8	103.6	383.3	38.8
1998	85.9	99.3	18.2	18.3	44.8	20.2	86.5	472.7	29.1
1999	85.4	91.5	14.8	16.2	53.5	23.5	93.4	576.9	27.5
2000	88.1	89.2	12.2	13.7	55.1	24.1	98.8	720.3	25.3
2001	84.8	88.7	12.0	13.5	52.8	25.2	95.6	709.1	24.0
2002	87.8	86.1	13.7	15.9	59.9	29.3	101.9	641.5	27.8
2003	90.4	81.0	18.2	22.5	65.7	31.2	111.6	495.8	37.1
2004	96.5	79.4	21.2	26.7	69.2	30.4	121.5	455.6	42.8
2005	101.7	85.6	23.5	27.4	68.4	31.8	118.8	433.1	47.6
2006	105.1	87.6	26.8	30.7	70.9	34.2	120.1	391.7	53.1
2007	108.7	92.3	36.9	40.0	70.2	36.9	117.8	294.6	64.9
2008	104.9	97.2	54.8	56.4	68.3	43.7	107.9	191.4	75.8
2009	103.0	91.7	75.5	82.3	76.9	50.4	112.4	136.6	89.3
2010	105.5	94.7	74.3	78.4	78.9	54.4	111.4	142.1	88.4
2011	107.1	95.1	77.1	81.1	88.8	63.6	112.7	139.0	91.5
2012	106.8	97.8	85.5	87.4	92.7	72.3	109.1	124.9	96.3
2013	106.1	98.0	107.1	109.3	97.5	81.2	108.2	99.0	111.9
2014	104.8	98.4	93.5	95.0	97.9	87.9	106.5	112.0	100.5
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	96.4	103.5	93.5	90.3	101.3	115.7	93.1	103.1	91.0
2017	96.7	103.8	81.5	78.5	103.9	124.9	93.1	118.6	82.9
2018	97.6	102.8	62.0	60.3	102.5	126.6	94.9	157.2	69.1
2019	94.3	102.0	61.7	60.5	101.9	134.2	92.5	152.9	66.6
2020	88.7	97.3	46.4	47.7	102.5	141.5	91.2	191.2	51.7
2021	90.7	97.5	45.3	46.4	105.8	149.7	93.0	200.3	51.9
2022	88.3	95.2	43.2	45.4	106.8	161.8	92.8	204.3	49.1

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

### 3.5. Construction

	Real Output Index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	33.4	109.4	24.0	21.9	40.9	4.9	30.5	139.0	19.5
1981	35.2	120.8	25.3	20.9	34.8	6.4	29.1	139.2	19.3
1982	33.8	120.8	23.6	19.5	38.4	8.5	28.0	143.5	18.6
1983	32.0	118.8	23.3	19.6	39.9	10.2	26.9	137.3	17.6
1984	32.8	117.7	23.4	19.9	39.3	10.9	27.9	140.2	18.2
1985	31.1	115.2	20.7	18.0	37.4	12.5	27.0	150.5	16.8
1986	28.6	114.4	15.8	13.8	35.1	15.0	25.0	180.8	14.1
1987	26.7	115.1	14.6	12.7	33.2	17.7	23.2	183.4	12.6
1988	27.6	117.1	13.7	11.7	34.8	20.7	23.6	201.4	12.7
1989	29.9	116.6	15.6	13.4	35.1	22.0	25.7	192.1	14.2
1990	30.2	114.1	16.8	14.7	36.8	25.5	26.5	180.2	14.7
1991	28.8	107.0	17.0	15.9	38.4	30.2	26.9	169.4	14.6
1992	27.0	100.9	14.6	14.5	40.1	36.2	26.8	184.4	13.4
1993	36.8	103.0	19.1	18.6	53.4	39.5	35.7	192.1	21.0
1994	37.8	100.3	19.9	19.8	50.3	38.4	37.7	190.1	20.5
1995	39.2	95.2	20.5	21.6	54.9	41.8	41.2	191.0	22.1
1996	40.0	88.2	21.4	24.3	56.1	41.6	45.3	186.4	22.7
1997	41.3	85.1	22.6	26.5	62.4	46.8	48.6	183.2	25.3
1998	38.9	71.1	27.3	38.4	69.3	49.4	54.7	142.5	28.4
1999	38.4	63.5	29.9	47.1	72.6	49.3	60.4	128.2	30.6
2000	40.5	62.8	36.2	57.6	68.3	45.7	64.5	112.1	34.1
2001	42.5	60.1	40.3	67.1	67.8	43.7	70.8	105.5	37.5
2002	45.0	62.9	42.6	67.7	61.3	42.6	71.6	105.7	39.3
2003	48.5	58.5	47.0	80.3	70.2	44.8	82.8	103.1	46.3
2004	52.9	65.2	62.0	95.1	70.0	46.1	81.1	85.3	53.1
2005	59.2	78.4	62.6	79.8	65.5	48.0	75.5	94.6	53.8
2006	65.4	78.4	65.8	84.0	77.9	54.1	83.4	99.3	61.7
2007	75.5	79.8	72.5	90.9	92.0	60.2	94.7	104.1	73.4
2008	83.0	81.1	88.9	109.6	97.0	65.5	102.3	93.4	86.3
2009	90.1	73.0	95.1	130.3	111.6	66.6	123.3	94.7	102.6
2010	90.7	74.4	97.2	130.6	109.8	69.2	121.9	93.3	103.9
2011	91.1	83.7	97.3	116.3	101.3	75.2	108.8	93.6	98.4
2012	93.5	88.3	102.7	116.3	100.0	80.5	105.8	91.0	100.7
2013	97.7	90.7	118.3	130.5	103.0	86.1	107.8	82.6	111.7
2014	99.1	95.3	112.9	118.5	101.3	93.1	104.0	87.8	107.8
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	101.4	104.7	102.2	97.6	98.0	107.6	96.9	99.2	100.1
2017	95.6	107.3	115.9	108.0	92.6	116.3	89.1	82.5	98.9
2018	94.3	104.6	99.4	95.0	91.9	119.5	90.1	94.9	91.8
2019	91.1	105.3	87.3	82.9	88.5	124.6	86.5	104.4	83.1
2020	74.3	95.3	88.7	93.1	82.6	133.4	77.9	83.7	72.1
2021	72.6	93.3	93.1	99.9	82.5	139.4	77.9	78.0	72.9
2022	70.1	87.4	101.5	116.1	83.6	146.7	80.1	69.1	75.8

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.



### 3.6. Wholesale, retail trade, catering and accommodation

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	29.5	48.8	19.9	40.7	89.8	148.4	60.5	148.6	22.2
1981	32.3	50.5	25.5	50.4	74.2	116.1	63.9	126.7	25.2
1982	32.3	50.5	28.8	57.2	77.4	120.8	64.1	112.1	27.7
1983	33.5	50.9	27.3	53.7	78.6	119.5	65.8	122.5	27.6
1984	36.6	51.9	30.9	59.4	79.2	112.4	70.4	118.5	32.8
1985	35.0	51.9	33.2	64.0	73.6	109.1	67.5	105.4	32.2
1986	33.7	51.8	21.9	42.3	73.0	112.2	65.1	154.1	25.9
1987	34.7	54.2	19.6	36.3	68.5	106.9	64.1	176.7	22.7
1988	36.2	57.3	22.8	39.8	67.3	106.6	63.1	158.8	24.3
1989	36.3	59.0	21.3	36.1	69.8	113.3	61.6	170.4	22.9
1990	36.6	57.6	22.3	38.7	76.5	120.3	63.5	164.3	23.6
1991	35.9	58.7	23.0	39.2	71.7	117.2	61.2	156.2	22.8
1992	35.1	58.2	23.5	40.4	70.8	117.3	60.4	149.3	21.7
1993	46.9	57.1	24.7	43.2	86.6	105.4	82.2	190.1	30.7
1994	48.1	57.1	26.7	46.7	85.7	101.7	84.3	180.4	32.2
1995	50.9	60.3	27.6	45.7	84.2	99.8	84.4	184.8	33.6
1996	52.8	61.4	31.7	51.7	83.8	97.4	86.0	166.4	36.8
1997	53.0	62.9	29.8	47.4	82.7	98.2	84.2	177.7	36.2
1998	53.7	67.6	30.5	45.2	78.5	98.8	79.4	175.9	36.2
1999	57.8	73.8	35.4	48.0	80.2	102.4	78.3	163.2	40.8
2000	62.5	74.4	36.8	49.5	85.0	101.2	84.0	169.7	43.9
2001	63.6	74.9	39.3	52.4	80.7	95.0	85.0	162.1	45.3
2002	65.1	75.5	37.0	49.1	79.4	92.0	86.3	175.8	44.0
2003	66.8	73.9	39.3	53.1	84.6	93.5	90.5	170.3	47.0
2004	70.5	79.8	50.5	63.2	87.0	98.5	88.3	139.6	54.6
2005	75.4	82.2	57.5	69.9	89.5	97.5	91.7	131.2	61.9
2006	79.9	84.3	65.9	78.1	94.2	99.4	94.8	121.3	69.7
2007	84.4	86.0	74.7	86.9	94.1	96.0	98.1	112.9	77.6
2008	85.9	84.7	77.5	91.5	95.4	94.1	101.4	110.8	80.5
2009	84.9	81.7	71.8	87.9	98.4	94.7	103.9	118.2	77.4
2010	88.7	84.8	69.0	81.4	100.3	95.9	104.6	128.5	77.1
2011	92.3	87.5	73.9	84.5	101.7	96.5	105.5	124.9	82.4
2012	95.9	90.0	73.6	81.8	103.2	96.7	106.6	130.3	83.9
2013	97.9	92.0	79.2	86.0	105.2	98.9	106.4	123.6	88.6
2014	98.9	93.7	85.6	91.3	104.5	99.1	105.5	115.5	92.9
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	101.6	103.3	98.4	95.3	98.4	100.1	98.3	103.2	99.2
2017	100.2	107.0	101.7	95.1	96.1	102.6	93.7	98.6	98.3
2018	101.2	110.6	105.9	95.8	91.4	99.9	91.5	95.5	100.2
2019	100.5	111.6	96.7	86.6	89.8	99.7	90.1	103.9	94.1
2020	88.0	103.8	96.9	93.3	89.4	105.5	84.8	90.8	85.0
2021	93.6	103.9	89.1	85.8	98.2	109.1	90.1	105.0	86.2
2022	96.9	105.9	97.1	91.7	96.7	105.8	91.5	99.7	93.0

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

### 3.7. Transport, storage and communication

	Real Output Index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	21.3	94.1	21.6	95.6	56.9	9.1	22.6	98.4	10.0
1981	22.7	97.8	26.6	114.7	46.0	10.7	23.2	85.3	12.0
1982	22.0	97.7	31.0	138.0	47.1	13.0	22.5	70.8	13.0
1983	20.7	98.2	25.7	121.9	44.5	14.6	21.0	80.5	10.0
1984	22.3	98.1	21.2	93.5	48.9	16.6	22.7	104.9	10.0
1985	22.6	96.7	22.0	94.3	46.4	18.0	23.3	102.6	11.0
1986	22.2	94.9	15.9	68.0	44.2	20.2	23.4	139.4	8.0
1987	22.3	90.7	14.3	58.0	45.8	23.1	24.6	156.5	8.0
1988	23.4	92.7	13.5	53.6	45.4	25.2	25.3	172.7	8.0
1989	24.4	89.2	12.9	47.2	47.6	27.9	27.4	189.0	8.0
1990	24.4	89.0	11.9	43.3	49.2	32.9	27.5	205.2	8.0
1991	23.9	87.0	14.2	51.9	51.6	39.8	27.5	167.7	9.0
1992	24.3	84.7	12.9	44.8	54.1	45.5	28.7	189.2	8.0
1993	34.2	77.8	21.4	48.8	81.3	49.0	43.9	159.5	18.0
1994	35.7	78.1	21.1	46.0	80.7	50.7	45.8	169.6	18.0
1995	39.5	78.9	22.5	45.0	84.9	53.1	50.1	175.5	20.0
1996	41.9	80.1	24.6	46.9	88.2	56.6	52.4	170.7	22.0
1997	45.1	78.9	29.9	52.2	89.7	57.1	57.2	151.0	26.0
1998	47.6	70.1	47.9	70.6	100.7	57.8	67.9	99.3	37.0
1999	50.1	68.5	35.9	49.0	100.6	56.4	73.2	139.6	33.0
2000	54.2	66.4	34.5	42.2	104.3	55.1	81.7	157.4	34.0
2001	57.4	66.6	36.2	42.0	102.2	54.0	86.3	158.7	36.0
2002	62.6	68.3	36.8	40.1	91.0	49.4	91.7	170.1	38.0
2003	66.6	70.6	43.6	46.2	91.0	51.1	94.3	152.8	44.0
2004	69.8	75.1	49.7	53.5	94.2	54.1	93.0	140.5	49.0
2005	73.5	75.1	63.3	64.6	99.8	56.4	98.0	116.3	61.0
2006	77.3	77.0	61.4	61.1	102.6	59.2	100.4	126.0	61.0
2007	83.1	76.1	69.5	63.7	106.9	60.7	109.1	119.6	72.0
2008	86.0	77.4	88.3	79.4	100.6	62.6	111.1	97.5	87.0
2009	85.9	78.0	81.7	74.3	98.1	65.7	110.1	105.0	82.0
2010	87.3	82.6	77.5	73.4	96.4	70.1	105.6	112.6	79.0
2011	90.3	88.9	79.9	78.6	94.4	75.0	101.6	113.0	82.0
2012	92.5	96.8	95.3	99.7	89.3	79.5	95.6	97.1	91.0
2013	95.1	97.2	88.5	90.4	95.5	88.0	97.9	107.5	89.0
2014	97.7	98.2	88.7	89.1	98.0	94.2	99.5	110.2	91.0
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	101.5	99.3	91.8	89.8	100.9	104.9	102.3	110.6	96.0
2017	102.6	101.7	81.6	80.9	97.9	108.6	100.8	125.7	89.0
2018	105.4	105.3	82.5	82.5	96.1	112.5	100.1	127.7	91.0
2019	104.6	103.5	80.5	79.6	98.5	118.7	101.1	129.9	90.0
2020	88.5	90.2	67.2	68.4	99.2	127.2	98.1	131.8	71.0
2021	92.6	88.6	72.9	69.8	98.3	123.7	104.5	127.0	79.0
2022	100.6	87.6	79.2	69.0	97.5	119.5	114.8	127.0	91.0

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

### 3.8. Finance, insurance, real estate and business services

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	18.5	30.3	29.5	97.4	50.2	3.0	61.0	62.7	16.0
1981	19.5	33.4	35.1	105.0	39.5	3.7	58.2	55.4	17.0
1982	19.9	36.6	34.6	94.6	36.7	4.2	54.5	57.6	16.0
1983	20.6	39.8	37.1	93.3	35.9	4.8	51.8	55.5	17.0
1984	21.4	42.8	40.2	94.0	35.9	5.5	50.1	53.3	17.0
1985	21.8	44.9	36.5	81.2	32.8	6.1	48.5	59.7	16.0
1986	22.3	45.6	31.3	68.7	32.1	7.0	48.9	71.2	15.0
1987	23.1	48.7	31.8	65.2	30.9	8.1	47.4	72.7	15.0
1988	23.5	53.9	39.0	72.5	29.4	9.4	43.7	60.3	17.0
1989	24.0	57.5	38.2	66.5	28.5	11.0	41.7	62.8	17.0
1990	24.0	61.1	33.5	54.8	27.6	12.9	39.4	71.8	15.0
1991	24.4	63.6	31.6	49.7	27.4	15.1	38.4	77.2	14.0
1992	24.5	66.0	30.7	46.6	27.4	17.9	37.1	79.8	14.0
1993	37.9	68.7	49.0	71.3	39.3	18.8	55.1	77.3	28.0
1994	39.3	72.1	54.0	75.0	39.2	20.7	54.5	72.6	30.0
1995	40.6	79.1	58.2	73.5	38.4	23.4	51.4	69.8	32.0
1996	43.4	83.7	63.7	76.1	38.2	24.8	51.8	68.1	35.0
1997	45.4	89.4	68.5	76.6	38.2	27.4	50.8	66.3	38.0
1998	46.5	89.5	65.6	73.3	42.8	32.1	51.9	70.9	38.0
1999	48.8	85.2	58.7	68.9	47.2	33.8	57.4	83.2	38.0
2000	50.4	87.0	63.2	72.7	49.2	36.6	58.0	79.7	40.0
2001	54.5	87.6	64.5	73.7	54.1	39.6	62.2	84.5	44.0
2002	57.9	84.7	67.3	79.5	58.7	42.7	68.4	86.1	48.0
2003	60.7	80.9	73.9	91.4	65.7	46.3	75.1	82.1	55.0
2004	65.0	78.9	90.6	114.8	76.5	49.6	82.4	71.7	67.0
2005	68.7	78.6	108.6	138.2	85.7	54.2	87.4	63.3	79.0
2006	75.3	82.5	117.1	142.0	87.7	55.6	91.4	64.4	89.0
2007	80.8	85.8	124.5	145.1	91.0	59.8	94.2	64.9	98.0
2008	85.3	87.8	126.9	144.6	90.2	64.1	97.2	67.2	104.0
2009	86.2	83.4	112.8	135.3	92.6	66.0	103.4	76.4	99.0
2010	87.3	86.2	100.1	116.2	95.0	72.0	101.3	87.2	92.0
2011	91.0	88.9	101.8	114.6	97.5	76.9	102.4	89.4	96.0
2012	93.7	91.4	99.9	109.3	98.5	81.8	102.5	93.8	97.0
2013	96.2	93.7	97.0	103.6	99.2	87.1	102.6	99.1	97.0
2014	98.4	95.3	100.8	105.7	100.6	93.2	103.2	97.6	101.0
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	101.8	102.3	106.5	104.1	99.5	106.4	99.5	95.6	105.0
2017	104.3	105.0	105.4	100.3	98.1	110.5	99.3	98.9	106.0
2018	107.8	107.6	106.5	99.0	95.4	111.6	100.1	101.2	109.0
2019	110.5	110.7	102.8	92.9	93.5	114.2	99.8	107.5	108.0
2020	111.2	106.2	78.2	73.6	91.5	110.1	104.7	142.2	93.0
2021	114.9	107.8	86.9	80.6	89.9	111.0	106.6	132.2	102.0
2022	119.4	107.5	92.7	86.3	87.2	110.5	111.0	128.7	111.0

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.

### 3.9. General government services

	Real Output Index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	62.6	68.0	46.1	67.8	74.4	2.9	92.1	135.7	99.2
1981	64.1	70.7	51.6	73.0	60.5	3.6	90.6	124.1	96.6
1982	66.6	73.4	51.9	70.7	61.7	4.2	90.7	128.3	97.4
1983	69.9	76.7	45.7	59.6	62.0	4.7	91.3	153.2	101.6
1984	72.7	78.5	42.0	53.5	70.7	5.9	92.6	172.9	105.0
1985	72.8	78.7	41.9	53.2	68.4	6.7	92.4	173.7	105.2
1986	75.3	82.2	37.1	45.1	66.3	7.7	91.7	203.1	107.8
1987	78.7	83.2	34.0	40.9	67.5	8.9	94.5	231.1	113.2
1988	81.1	84.0	35.0	41.7	66.7	9.7	96.5	231.4	115.4
1989	83.1	83.2	36.8	44.3	75.1	12.1	99.9	225.6	117.7
1990	84.4	83.2	32.1	38.6	79.0	14.3	101.4	262.7	122.9
1991	86.3	84.6	28.8	34.1	83.1	17.3	102.0	299.5	126.4
1992	87.3	85.7	25.7	30.0	86.1	20.4	101.9	339.4	129.1
1993	65.9	84.1	46.6	55.4	45.2	15.3	78.3	141.5	91.6
1994	66.5	85.1	44.6	52.4	47.1	17.3	78.1	149.0	92.5
1995	67.1	82.1	47.1	57.4	51.0	19.5	81.7	142.3	94.3
1996	68.4	84.3	50.8	60.2	55.4	22.9	81.1	134.7	92.2
1997	68.9	83.3	54.1	65.0	57.8	25.4	82.8	127.3	92.0
1998	68.4	82.2	52.6	64.1	58.8	27.5	83.3	130.0	92.4
1999	67.8	78.1	47.7	61.1	62.1	29.3	86.8	142.1	97.8
2000	67.2	75.6	48.8	64.5	64.9	31.5	88.9	137.8	99.2
2001	66.6	74.7	45.9	61.4	66.0	33.8	89.1	145.0	100.9
2002	67.0	74.9	49.3	65.8	66.3	36.9	89.5	136.0	99.9
2003	68.9	75.9	55.7	73.3	68.4	39.9	90.8	123.8	98.4
2004	70.2	77.8	59.1	76.0	72.7	43.1	90.2	118.7	96.7
2005	73.2	79.2	58.4	73.7	72.5	43.4	92.5	125.5	100.4
2006	74.7	81.8	65.6	80.3	73.7	46.7	91.4	113.9	96.9
2007	77.4	85.1	81.8	96.2	73.6	50.2	90.9	94.6	91.9
2008	81.1	89.7	91.8	102.3	71.7	54.8	90.4	88.4	89.8
2009	83.7	85.7	88.8	103.6	84.1	63.5	97.7	94.2	96.7
2010	85.1	88.9	80.6	90.6	89.1	71.5	95.7	105.6	98.2
2011	88.7	91.7	90.0	98.1	91.4	76.3	96.7	98.5	97.2
2012	91.1	93.8	86.0	91.7	91.7	80.4	97.1	105.9	99.5
2013	94.7	96.2	87.1	90.5	94.3	86.4	98.4	108.7	101.1
2014	97.6	99.6	91.3	91.7	96.0	93.6	98.0	106.8	100.3
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	101.9	99.0	102.0	103.0	103.9	107.3	103.0	99.9	102.2
2017	103.4	98.5	91.8	93.2	107.1	114.2	104.9	112.6	106.9
2018	105.4	98.9	86.6	87.5	108.4	119.2	106.5	121.7	110.3
2019	106.8	101.4	80.9	79.7	108.2	125.2	105.3	132.1	111.7
2020	107.5	103.7	75.3	72.6	106.5	129.3	103.7	142.8	112.7
2021	107.7	107.9	74.7	69.2	100.5	132.5	99.8	144.2	109.9
2022	107.3	103.4	75.4	72.9	101.6	137.7	103.8	142.3	112.7

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.



### 3.10. Community, social and personal services

	Real Output index	Capital Input Index	Labour Input Index	Capital Labour Ratio Index	Compensation Per Employee Index	Unit labour cost Index	Capital Productivity Index	Labour Productivity Index	Multifactor Productivity Index
1980	8.8	46.1	21.9	47.6	33.7	6.4	19.1	40.2	12.5
1981	9.2	50.3	22.6	44.9	26.0	7.6	18.3	40.8	12.1
1982	9.6	49.8	20.4	40.9	26.8	8.6	19.3	47.3	12.4
1983	10.1	51.2	18.8	36.6	24.8	8.6	19.8	54.0	12.2
1984	10.7	55.6	20.0	36.0	25.0	10.1	19.1	53.2	12.3
1985	10.9	52.3	20.1	38.5	24.9	10.8	20.8	54.1	13.2
1986	11.1	53.7	20.1	37.4	22.7	11.7	20.7	55.5	13.2
1987	11.5	55.6	19.1	34.4	21.7	13.0	20.7	60.2	13.0
1988	11.9	56.2	21.7	38.6	21.7	14.4	21.1	54.8	13.7
1989	12.2	60.0	23.3	38.8	20.6	16.2	20.4	52.4	13.6
1990	12.3	64.5	22.8	35.4	19.7	19.0	19.1	53.9	12.8
1991	12.4	69.7	21.1	30.2	18.7	22.2	17.8	59.0	11.8
1992	12.5	71.7	21.7	30.3	18.6	25.7	17.5	57.7	11.6
1993	51.6	81.2	27.6	34.0	45.6	19.0	63.6	187.0	45.2
1994	54.1	84.3	28.3	33.5	47.1	21.1	64.2	191.6	46.3
1995	57.1	83.7	30.3	36.3	50.5	23.2	68.3	188.3	50.0
1996	58.6	85.0	32.7	38.4	53.7	26.1	69.0	179.6	51.6
1997	58.6	77.7	35.1	45.2	61.5	29.7	75.5	167.1	56.9
1998	62.3	72.3	36.9	51.0	67.5	30.6	86.1	168.8	64.4
1999	64.7	79.4	36.8	46.4	63.9	32.2	81.4	175.5	61.9
2000	67.8	71.1	40.9	57.5	76.2	34.5	95.4	165.8	72.0
2001	69.3	67.6	39.0	57.7	81.8	36.4	102.6	177.7	75.7
2002	71.0	79.7	43.6	54.8	70.9	39.6	89.2	162.7	69.5
2003	75.0	75.6	50.8	67.2	78.9	42.1	99.2	147.5	79.0
2004	76.3	83.5	55.6	66.5	78.3	45.8	91.3	137.3	76.3
2005	79.2	84.7	56.4	66.5	82.3	48.7	93.5	140.5	78.6
2006	83.3	79.0	66.1	83.6	93.2	51.2	105.4	126.0	90.1
2007	87.9	77.5	81.8	105.5	100.1	54.7	113.5	107.5	101.9
2008	91.2	77.8	88.7	114.0	102.2	60.2	117.2	102.8	107.5
2009	90.5	82.5	87.0	105.5	100.1	67.2	109.7	104.0	101.2
2010	90.8	85.8	80.9	94.3	102.5	74.4	105.8	112.2	96.6
2011	93.1	87.5	90.0	102.8	105.3	79.9	106.4	103.4	100.0
2012	95.0	92.1	86.3	93.7	102.7	84.7	103.2	110.1	97.0
2013	97.5	92.6	88.2	95.3	104.9	89.7	105.4	110.6	99.9
2014	99.1	93.5	92.3	98.7	104.0	93.8	106.0	107.4	102.0
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	101.2	108.6	103.0	94.9	92.1	105.1	93.2	98.3	96.1
2017	102.6	118.8	94.5	79.6	86.9	112.6	86.3	108.5	89.1
2018	103.0	126.7	89.1	70.3	83.0	119.6	81.3	115.7	83.9
2019	104.5	132.3	83.1	62.8	80.4	124.1	79.0	125.8	80.9
2020	102.4	126.2	78.3	62.0	82.4	127.9	81.1	130.9	80.9
2021	108.1	129.1	77.4	60.0	81.5	128.1	83.7	139.6	83.7
2022	111.0	127.5	77.8	61.0	79.9	129.0	87.1	142.8	86.9

Notes: Index. Base Year 2015=100. Data on all indicators available from 1970-2022.



## CONTACT INFORMATION

### HEAD OFFICE

#### Physical Address

International Business Gateway,  
Cnr New Road and Sixth Road, Midrand

#### Contact

Tel: +27 11 848 5300, Fax: +27 11 848 5555,  
[info@productivitysa.co.za](mailto:info@productivitysa.co.za)

### CAPE TOWN

#### Physical Address

Office 201, Edward III Building,  
70 Edward Street (cnr Bloemhof and Mispel Road),  
Tyger Valley

#### Contact

Tel: +27 21 910 1591, Fax: +27 21 910 1574  
[Info\\_cape@productivitysa.co.za](mailto:Info_cape@productivitysa.co.za)

### DURBAN

#### Physical Address

Cowey Office Park,  
Cnr Cowey Road and Marriot Road, Essenwood

#### Contact

Tel: +27 31 268 9770, Fax: +27 31 268 9777  
[Info\\_durban@productivitysa.co.za](mailto:Info_durban@productivitysa.co.za)

Any comments and queries regarding this document should  
be addressed to:

#### Productivity SA

Private bag 235, Midrand, 1685

Email: [Info@productivitysa.co.za](mailto:Info@productivitysa.co.za)

Tel: 011 848 5300, Fax: 011 848 5555