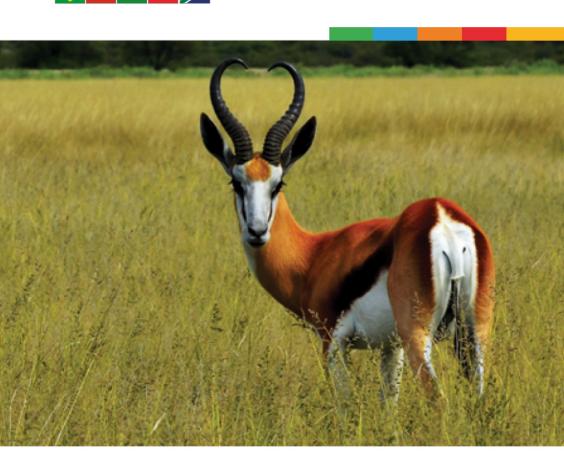


## JOINT 8 STATISTICAL 23 PUBLICATION SNAPSHOT













JOINT 88
STATISTICAL 83
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# **Chapter 1**

General information, economic and social indicators comparison of BRICS countries



Table 1.1 - General Information on BRICS Countries - 2022

	Area of territory (1 000 sq. km)	Capital city	Mid-year population (million persons)	Population density (persons per sq. km)	National currency
Brazil	8 510 <sup>(1)</sup>	Brasília	216.8	25.2	Real - R\$
Russia	17 125	Moscow	146.7 <sup>(2)</sup>	8.6 <sup>(2)</sup>	Rouble - Rub
India	3 287	New Delhi	1 379.7 <sup>(3)</sup>	419.7 <sup>(3)</sup>	Rupee <b>- ₹</b>
China	9 600	Beijing	1 412.2	147.1	Renminbi - RMB
South Africa	1 221	Pretoria	60.6	49.6	Rand - ZAR

## Sources

## **Brazil**

Brazilian Institute of Geography and Statistics - IBGE.

### Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Federal Service for State Registration, Cadastre and Cartography.

## India

Report of the Technical Group on Population Projections, July 2020, National Commission on Population, MoHFW.

## China

National Bureau of Statistics of the People's Republic of China, China Statistical Abstract 2023.

## South Africa

Statistics South Africa.

## Footnotes:

### Brazil

(1) For the surface of Brazil the value of 8,510,345,538 km², published in the DOU nº 41 of 03/03/2021, according to Resolution No. 47 of March 1, 2021, was maintained. Information about the mid-year population and demographic indicators was obtained by a projection of the population by sex and age groups by the component method for the Period 2000–2060. Review 2018.

## Russia

(2) Based on the All-Russian Population Census 2020 results.

## India

(3) Projected population as on 1st July, 2022 based on Census 2011.

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

	Year	Value
Population		
Mid-year (million persons)		
Brazil <sup>(1)</sup>	2022	216.8
Russia (2)	2022	146.7
India <sup>(3)</sup>	2022	1 379.7
China	2022	1 412.2
South Africa	2022	60.6
Male (%)		
Brazil	2022	
Russia	2022	46.5
India <sup>(3)</sup>	2022	51.4
China	2022	51.1
South Africa	2022	48.9
Female (%)		
Brazil <sup>(1)</sup>	2022	
Russia	2022	53.5
India <sup>(3)</sup>	2022	48.6
China	2022	48.9
South Africa	2022	51.1
Population density (persons per sq. km)		
Brazil <sup>(1)</sup>	2022	25.2
Russia	2022	8.6
India (3)	2022	419.7
China	2022	147.1
South Africa	2022	49.6

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

(Continued 1)

		(Ochaniaca
	Year	Value
Crude birth rate (per 1 000 persons)		
Brazil	2022	
Russia	2022	8.9
India	2020	19.5
China	2022	6.8
South Africa	2022	19.5
Crude death rate (per 1 000 persons)		
Brazil	2022	
Russia	2022	12.9
India	2020	6.0
China	2022	7.4
South Africa	2022	10.9
Infant mortality rate (per 1 000 live births)		
Brazil	2022	
Russia	2022	4.4
India	2020	28.0
China	2021	5.0
South Africa	2022	24.3
Maternal mortality rate (per 100 000 live births)		
Brazil	2022	
Russia	2022	13.0
India (4)	2020	97
China	2021	16.1
South Africa	2022	

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

		(Continued 2)
	Year	Value
Life expectancy at birth		
Brazil	2022	
Russia	2022	72.7
India (5)	2020	70.0
China	2020	77.9
South Africa	2022	62.8
Women's Participation in National Parliament (Congress) (%)		
Brazil	2022	
Russia	2022	18.3
India	2019	14.0
China (NPC)	2022	26.5
(CPPCC)	2022	22.4
South Africa (NA)	2022	46
(NCOP)	2022	36
Labour Force		
Share of Labour Force to population 15 years and older (%)		
Brazil <sup>(6)</sup>	2022	62.9
Russia (7)	2022	62.3
India <sup>(8) (9)</sup>	2022	55.2
China (10)	2022	52.0
South Africa	2022	53.5
Unemployment rate (%)		
Brazil <sup>(6)</sup>	2022	
Russia (7) (11)	2022	3.9
India <sup>(9)</sup>	2022	4.1
China (12)	2022	5.5
South Africa	2022	33.5

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

		(Continued 3)
	Year	Value
National Accounts		
GDP (current prices/billion US\$)		
Brazil (13)	2022	1 920
Russia	2022	2 275
India (14)	2022	3 389
China (15) (16) (17)	2022	17 993
South Africa	2022	405
Per capita GDP (current prices/US\$)		
Brazil (13)	2022	8 938
Russia	2022	15 504
India (14)	2022	2 451
China (15) (17)	2022	12 741
South Africa	2022	4 635
Prices		
Consumer Price Index (% change from preceding years)		
Brazil	2022	5.8
Russia	2022	13.8
India (18)	2022	6.7
China	2022	2.0
South Africa	2022	6.9
Producer Price Index (% change from preceding years)		
Brazil	2022	
Russia (industrial products) (19)	2022	11.4
India	2022	
China (industrial products)	2022	4.1
South Africa (final manufactured goods)	2022	14.4

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

(Continued 4) Year Value Science and technology Proportion of R&D Expenditure to GDP (%) Brazil 2022 Russia (20) 1.0 2021 India 2020 0.64 China 2022 2.6 South Africa 2022 8.0 Full-Time Equivalent of R&D Personnel (person-year) Brazil 2022 Russia 2021 729 434 India (21) 2021 361 924 China 2022 6 041 000 South Africa 2022 **People's Living Standards** Public expenditure on education as % of GDP Brazil 2021 5.2 Russia 2021 3.5 India 2022 2.9 China (22) 2021 4.0 South Africa 2021 7.1 Public expenditure on health as % of GDP Brazil 2021 4.5 Russia 2021 3.8 India 2022 2.1 China (23) 2021 6.7

2022

South Africa

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

		(Continued 5)
	Year	Value
Gini coefficient		
Brazil	2022	0.518
Russia (24)	2022	0.396 <sup>(P)</sup>
India		
Urban	2022	
Rural	2022	
China (25)	2022	0.467
South Africa (26)	2022	•••
Industry		
Industrial production (preceding year = 100) (%)		
Brazil	2022	99.3
Russia (19)	2022	99.4
India <sup>(27)</sup>	2022	105.1
China	2022	103.6
South Africa	2022	92.6
Iron ore production (million tons)		
Brazil	2022	
Russia (concentrate of iron ore)	2022	95
India	2020	204
China	2022	968
South Africa	2022	64
Steel production (million tons)		
Brazil	2022	
Russia (28)	2022	72
India <sup>(29)</sup>	2022	125.8
China	2022	1 018
South Africa (million rand)	2022	

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

(Continued 6)

		(Continued)
	Year	Value
Passenger cars production (1 000 sets)		
Brazil	2022	
Russia	2022	451
India	2019	2 309
China	2022	22 389
South Africa	2022	
Energy		
Petroleum production (million tons)		
Brazil	2022	152.9
Russia (30)	2022	534
India <sup>(29)</sup>	2021	29.7
China	2022	205
South Africa	2022	
Production of coal (million tons)		
Brazil	2022	
Russia	2022	435
India (31)	2022	607
China	2022	4 559
South Africa	2022	230

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

(Continued 7)

	(30.1	
	Year	Value
Natural gas (million cu.m)		
Brazil	2022	
Russia (32)	2022	676
India <sup>(29)</sup>	2021	34 024
China	2022	220 110
South Africa	2022	
Electricity production (billion kWh)		
Brazil	2022	
Russia	2022	1 170
India <sup>(29)</sup>	2021	1 719
China	2022	8 849
South Africa	2022	235
Primary energy production (mtoe)		
Brazil	2022	
Russia	2021	2 054
India <sup>(29)</sup>	2021	426
China (30)	2022	3 262 <sup>(P)</sup>
South Africa	2022	
Consumption of energy (mtoe)		
Brazil	2022	
Russia	2021	1 396
India <sup>(29)</sup>	2021	526
China (30)	2022	3 787 <sup>(P)</sup>
South Africa	2022	

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

(Continued 8)

	(001)	
	Year	Value
Agriculture		
Cultivated land (million hectares)		
Brazil	2021	8.6
Russia	2022	123
India (33)	2020	154
China	2022	128
South Africa	2022	
Cereals production (million tons)		
Brazil	2021	108
Russia	2022	158
India <sup>(34)</sup>	2022	303
China	2022	633
South Africa	2022	18
Fruits and vegetables (million tons)		
Brazil	2022	
Russia (35)	2022	20
India <sup>(34)</sup>	2022	320
China	2022	1 113
South Africa	2022	10
Meat production (1 000 tons)		
Brazil	2022	
Russia (36)	2022	11 744
India (37)	2021	9 292
China	2022	93 284
South Africa	2022	3 473

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

(Continued 9)

		(Continued a
	Year	Value
Fish catch (1 000 tons)		
Brazil	2022	
Russia (38)	2022	4 920
India <sup>(39)</sup>	2021	16 248
China	2022	7 317
South Africa	2022	
Transport Transport		
Length of railways in operation (1 000 km)		
Brazil	2022	
Russia	2022	87
India	2021	68
China	2022	155
South Africa	2022	
Length of highways (1 000 km)		
Brazil	2022	
Russia (40)	2022	1 115
India (41)	2022	332
China	2022	5 355
South Africa	2022	
Passenger traffic by air (million persons-km)		
Brazil	2022	
Russia	2022	227 952
India <sup>(42)</sup>	2022	216 536
China	2022	391 387
South Africa	2022	***

Table 1.2 - Economic and Social Indicators Comparison of BRICS Countries

(Continued 10) Year Value **External Economic Relations** Value of imports of goods and commercial services (million US\$) Brazil 2022 379 783 Russia 2021 379 946 India 2022 714 042 China 2022 3 139 498 South Africa 2022 127 707 Value of exports of goods and commercial services (million US\$) Brazil 2022 375 648 Russia 2021 549 900 India 2022 450 958 China 2022 3 715 828 South Africa 2022 135 739 Foreign exchange reserves (million US\$) Brazil 2022 324 703 417 806 Russia 2022 India 2022 607 309 China 2022 3 127 691 South Africa (43) 2022 60 570 Share of external debts to GDP (%) 2022 Brazil 35.5 Russia 2022 17.4 India 2022 20.0 China 2022 13.6 South Africa 2022 40.6

## Sources

## Brazil

- a) Brazilian Institute of Geography and Statistics IBGE, Directorate of Surveys.
- b) National Petroleum Agency ANP.
- c) Energy Research Company EPE.
- d) Ministry of Fishery and Aquaculture MPA.
- e) Brazilian Institute of Environment and Renewable Natural Resources IBAMA.

### Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Federal Service for State Registration, Cadastre and Cartography.
- c) Federal Agency for Air Transport.
- d) Federal Road Agency.
- e) Bank of Russia.
- f) Federal Agency for Fishery.

## India

a) Data in this table have been taken from tables of other chapters of this publication. Data sources are given in those chapters.

### China

- a) National Bureau of Statistics of China.
- b) Ministry of Civil Affairs of the People's Republic of China, Annual Statistical Report 2022.
- National Health Commission of the People's Republic of China, Annual Statistical Report 2022.
- d) Ministry of Transport of the People's Republic of China, Annual Statistical Report 2022.
- e) National Radio and Television Administration of China, Annual Statistical Report 2022.
- f) National Bureau of Statistics of China, Annual Industrial Statistical Report 2022.
- g) National Bureau of Statistics of China, China Statistical Abstract 2022.
- h) National Bureau of Statistics of China, China Statistical Yearbook 2022.
- i) Ministry of Natural Resources of the People's Republic of China.
- i) Ministry of Human Resources and Social Security of the People's Republic of China.
- k) Ministry of Ecology and Environment of the People's Republic of China, Annual Statistical Report 2022.
- Ministry of Water Resources of the People's Republic of China, Annual Statistical Report 2022.
- m) Ministry of Education of the People's Republic of China, Annual Statistical Report 2022.
- n) China Railway Corporation, Annual Statistical Report 2022.

## South Africa

- a) Other data in this table have been taken from tables of other chapters of this publication. Data sources are given in those chapters.
- b) CeSTII. (2017). South African National Survey of Research and Experimental Development (Statistical Report: 2015/16). Pretoria: Department of Science and Technology.
- c) www.pa.org.za, June 2017.
- d) Department of Energy.

### **Footnotes**

Specific footnotes and sources of data may be seen from the respective chapters of the indicators. Some data are provisional (P) and budget estimates (BE).

## Brazil

- (1) Information about the mid-year population and demographic indicators were obtained by a projection of the population by sex and age groups by the component method for the period 2000–2060.
- (6) Population 15 years old and older. Data from ILOSTAT Database.
- (13) Data are derived from quarterly GDP results.
- (15) Gross domestic expenditure on R&D as percentage of GDP. Data are from UIS database.

### Russia

- (2) Based on the All-Russian Population Census 2020 results.
- (7) Before 2017 data on population 15–72 years, since 2017 on population 15 years and older.
- (11) According to ILO methodology.
- (19) Before 2013 the aggregate index by economic activities "Mining and quarrying", "Manufacturing", "Electricity, gas and water production and supply"; since 2013 by economic activities "Mining and quarrying", "Manufacturing", "Electricity, gas, steam and air conditioning supply", "Water supply, water removal, waste management and activity on liquidation of pollution".
- (20) Proportion of internal research and development expenditure to GDP.
- (24) Calculations of Gini Index are based on household budget sample surveys and macroeconomic average per capita monetary income data.
- (28) Since 2017 steel production including unalloyed, stainless, alloyed other steel in ingots or other primary forms and semi-finished products from the above types of steel are taken into account.
- (30) Since 2020 dewatered, demineralized and stabilized petroleum, including natural gas liquids.
- (32) Since 2010 including natural and associated gas.
- (35) Fruits (excluding nuts), berries and grapes.
- (36) Livestock and poultry for slaughter.
- (38) Catch of fish and other live wild aquatic organisms.
- (40) Length of public paved roads in operation (including highways). At the end of the year.
- (P) Preliminary data.

## India

- (3) Projected population as on 1st July, 2022 based on Census 2011.
- (4) For the period 2018–20.
- (5) For the period 2016–20.
- (8) Share of labour force that belong to the population of the age group 15 years and older.
- (9) Estimates are based on PLFS, July 2021 June 2022.
- (14) GDP in US\$ is computed using average Real Exchange Rate taken from RBI's website (link: https://dbie.rbi.org.in). The average is based on the data for the period April 1st to March 31st of the FY. Data relate to new base year (2011–12).
- (18) The Consumer Price Index of India pertains to Combined Sector. Information for 2014–2021 is based on the current series of CPI with Base (2012 = 100).

- (21) Information as on 1.4.2021.
- (27) Provisional Data. Information is as per financial year.
- (29) Data pertains to calendar year. Figures are provisional.
- (31) Figure up to December 2022.
- (33) The period of agricultural year is from July (of the year indicated in the table) to June (next year).
- (34) As per third advance estimates 2022-23.
- (37) The data pertains to March (of the year indicated in the table) to February (next year).
- (39) Estimated figure.
- (41) The information is as on 31st March of the year indicated in the table. The information on highways includes both national and state highways (excluding rural roads, project roads, urban roads, etc.).
- (42) Reference period is financial year, i.e. April of the year indicated in the table to March of the next year. International operations were carried as per DGCA circular dated 26-03-2020.

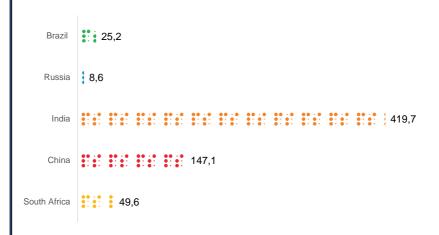
### China

- (10) Share of number of employed persons to national population.
- (12) Urban Surveyed Unemployment Rate.
- (15) GDP and Per Capita GDP in US dollars are converted using the annual average exchange rates.
- (16) Data of GDP are calculated at producers' prices.
- (17) Preliminary data.
- (22) Government appropriation for education to GDP.
- (23) Total expenditure on health as percentage of GDP.
- (25) Data of Gini coefficient are based on per capita annual disposable income.
- (30) Electric power in total primary energy production and total consumption of energy are converted on the basis of equal caloric value.

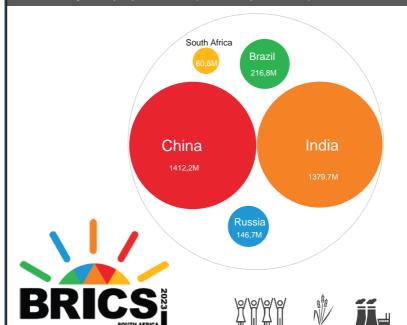
## South Africa

- (26) Gini is per capita expenditure excluding taxes.
- (43) This includes gold.

## 1.1 Population density (persons per sq. km 2022)



## 1.2 Mid-year population (million persons) 2022



## 1.3 Gender Proportions (2022) Female Male 51,1% 48,9% Brazil 53,5% 46,5% Russia 48,6% 51,4% India 48,9% 51,1% China 51,1% 48,9% South Africa













# Chapter 2

**Population** 



## **Summary of Population on BRICS Countries**

## Population (million persons)

	2000	2013	2017	2021	2022
Total (Mid-year)					
Brazil (1)	173.8	200.0	206.8	213.3	214.8
Russia	146.6	143.5	146.8	145.9	146.7 <sup>(2)</sup>
India (3)	1 002.1	1 248.3	1 310.2	1 367.2	1 379.7
China (4)	1 262.7	1 363.2	1 396.2	1 412.4	1 412.2
South Africa (5)		53.6	57.0	60.1	60.6
Male					
Brazil <sup>(1)</sup>	85.5	97.9	101.2	104.3	105.0
Russia	68.5	66.5	68.1	67.8	68.2 <sup>(2)</sup>
India (3)	518.6	642.4	673.9	702.7	709.0
China (4)	654.4	700.6	716.5	723.1	722.1
South Africa (5)		26.1	27.8	29.4	29.6
Female					
Brazil <sup>(1)</sup>	88.3	102.1	105.6	109	109.8
Russia	78.1	77.1	78.8	78.1	78.5 <sup>(2)</sup>
India <sup>(3)</sup>	483.5	605.9	636.3	664.5	670.8
China (4)	613.1	666.6	683.6	689.5	689.7
South Africa (5)		27.6	29.2	30.8	30.9
Urban					
Brazil (6)	141.1	170.4	178.2	185.6	188.1
Russia	107.3	106.3	109.2	109.1	109.8 <sup>(2)</sup>
India (3)	286.2	398.5	435.6	472.1	480.9
China (4)	459.1	745.0	843.4	914.3	920.7
South Africa (5) (7)					

## **Summary of Population on BRICS Countries**

(Continued 1)

## Population (million persons)

	2000	2013	2017	2021	2022
Rural					
Brazil (6)	32.7	29.6	28.6	27.7	26.7
Russia	39.4	37.2	37.7	36.8	36.9 <sup>(2)</sup>
India (3)	715.9	849.8	874.7	895.0	898.8
China (4)	808.4	622.2	556.7	498.4	491.0
South Africa (5) (7)					

## Sources

## **Brazil**

Brazilian Institute of Geography and Statistics — IBGE.

## Russia

Federal State Statistics Service of the Russian Federation.

## India

Ministry of Home Affairs, Office of the Registrar General of India, Reports of The Technical Committee on Population Projection 1996–2016 and 2011–2036.

## China

National Bureau of Statistics of China, China Statistical Yearbooks 2001–2022 and China Statistical Abstract 2023.

## South Africa

Statistics South Africa. MYPE 2020 series.

## **Footnotes**

#### Rrazil

- (1) Data derived from Population Projection by Sex and Age for the Period 2000–2060, Review 2018.
- (6) Urban percentage estimated by linear interpolation for the intercensal period 2000–2010 and designed by the methodology of the United Nations from 2010. These results are not derived from population projection.

### Russia

(2) Based on the All-Russian Population Census 2020 results.

## India

(3) For 2000, information pertains to projected population as on 1st July based on the Report of Population projections for India and States 1991–2016 based on Census 1991. For 2011–2022, the information pertains to projected population as on 1st July based on Report of Population projections for India and States 2011–2036 based on Census 2011.

## China

(4) Data in 2000 and 2020 are estimated from National Population Census respectively. Data in 2015 are estimated from the National 1% Population Sample Survey. The other data are estimated from annual national sample survey on population changes. Data for 2012-2019 are revised according to the data of 2020 census. For historical data, please refer to the new version. Statistical discrepancies on totals and relative figures due to rounding are not adjusted here.

## South Africa

- (5) Population estimation series not active in 2000. Population figures cannot be verified.
- (7) Population estimation series does not split population into rural/urban.

## **Explanatory Notes**

## **General Notes**

**Total population (mid-year)** - Information about the population in the half of the year was obtained by a projection of the population by sex and age groups using the component method. This method consists of working separately with each component of population dynamics of the population: fertility, mortality and migration.

**Sex ratio** - Expressed as the number of males for every 100 females. It is obtained from the ratio of the male and female populations by age group.

**Crude marriage rate** - The nuptiality rate is obtained by dividing the number of marriages of spouses 15 years of age or older by the population of this same age group multiplied by a thousand.

**Total fertility rate** - The total fertility rate expresses the number of children who, on average, would a woman belonging to a hypothetical cohort of women during their fertility life (15–49 years) that had their children according to the fertility rates by age study period and were not exposed to the risk of mortality from birth to the end of the fertile period.

**Infant mortality rate** - The infant mortality rate is defined as the number of deaths of infants under one year of age (per thousand live births) in a given geographical area and time period, and is interpreted as the estimated risk of a born live dying during their first year of life.

**Natural increase rate of population** - The rate of natural increase is obtained by the difference between the crude birth rates and mortality.

**Crude birth rate** - Number of births per 1 000 population in a given year. This definition excludes foetal deaths.

Crude death rate - Number of deaths per 1 000 population in a given year.

**Expectation of life at birth** - Average number of years a new-born child is expected to live under current mortality conditions.

**Under-five mortality rate** - (according to WHO methodology): The probability of a child born in a specific year dying before reaching the age of five, expressed per 1 000 live births.

**Crude divorce rate** - Refers to ratio of divorced couples to the annual average population for the reference year, the formula is:

(Number of couples divorced for the reference year x 1 000) / Annual Average Population

**Dependency rate** - Number of people aged 0–15 and 60 and older to the population aged 15–59.

**Census** - A canvass of a given area, resulting in an enumeration of the entire population and often the compilation of other demographic, social and economic information pertaining to that population at a specific time.

## Russia

The information on births, deaths, marriages and divorces is received on the basis of annual processing of data contained in the records of Civil Registrar Offices.

## India

Neo Natal Mortality Rate - Number of infant deaths less than 29 days of life per 1 000 live hirths

**Number of victims of intentional homicide** - Number of victims registered under murder (Section 302 IPC).





**Labour Force** 



## **Summary of Labour Force on BRICS Countries**

		2000	2013	2017	2021	2022	
Share of Labour Force to population 15 years and older (%)							
Brazil (1)	Total		62.9	63.2	61.6	62.9	
	Male	•••	74.6	73.8	72.4	73.2	
	Female		52.2	53.6	51.5	53.3	
Russia (2)	Total	65.5	68.5	62.8	62.4	62.3	
	Male	71.5	74.7	71.3	70.7	70.4	
	Female	60.0	63.0	55.7	55.5	55.6	
India (3)	Total	61.7		•••	54.9	55.2	
	Male	83.6		•••	77	77.2	
	Female	39.1			32.5	32.8	
China (4) (5)	Total	56.9	55.8	54.3	52.8	52.0	
	Male						
	Female						
South Africa	Total		53.1	55.6	52.0	53.5	
	Male		60.5	62.9	59.1	60.3	
	Female		46.2	48.7	45.4	47.1	

## **Summary of Labour Force on BRICS Countries**

(Continued 1)

						(00::::::::::::::::::::::::::::::::::::
		2000	2013	2017	2021	2022
Share of employed persons in the primary industry to total employed persons (%)						
Brazil	Total	•••	11.0	9.4	9.8	8.7
	Male		15.0	13.1	13.4	12.3
	Female		5.5	4.3	4.6	4.1
Russia (2) (7)	Total	14.5	7.0	5.9	5.9	5.8
	Male	17.1	8.5	7.7	7.7	7.7
	Female	11.7	5.4	4.0	3.9	3.9
India (8) (9)	Total	62.3			46.8	45.8
	Male	55.6			40.2	38.5
	Female	76.5			62.2	63.0
China (5)	Total	50.0	31.3	26.7	22.9	24.1
	Male					
	Female					
South Africa	Total		7.7	7.9	8.3	8.2
	Male		10.4	10.5	11.1	10.7
	Female		4.3	4.5	4.7	5.0
·						

# **Summary of Labour Force on BRICS Countries**

(Continued 2)

						(		
		2000	2013	2017	2021	2022		
Share of employed persons in the secondary industry to total employed persons (%)								
Brazil	Total	•••	23.1	21.0	20.7	20.2		
	Male	•••	30.9	28.5	27.6	27.3		
	Female	•••	12.2	10.9	10.9	10.7		
Russia (2) (10)	Total	29.2	27.8	27.0	26.6	26.3		
	Male	35.8	38.2	37.5	37.5	37.2		
	Female	22.3	16.9	15.8	15.1	14.8		
India (8) (9)	Total	15.3			23.6	24.6		
	Male	17			26.7	28.0		
	Female	11.4			16.3	16.4		
China (5)	Total	22.5	30.3	28.6	29.1	28.8		
	Male							
	Female							
South Africa	Total	20.6	20.8	20.6	18.1	18.5		
	Male		27.9	27.8	23.9	24.7		
	Female		11.6	11.5	10.5	10.5		
			•	•				

## **Summary of Labour Force on BRICS Countries**

(Continued 3)

						(Continued 3		
		2000	2013	2017	2021	2022		
Share of employed persons in the tertiary industry to total employed persons (%)								
Brazil	Total		65.9	69.6	69.5	71.0		
	Male	•••	54.1	58.3	58.9	60.4		
	Female		82.3	84.8	84.4	85.2		
Russia (2) (11)	Total	56.3	65.2	67.1	67.5	67.9		
	Male	47.1	53.3	54.8	54.9	55.1		
	Female	66.0	77.7	80.2	80.9	81.4		
India (8) (9)	Total	22.5			29.6	29.6		
	Male	27.5			33.1	29.7		
	Female	12			21.5	20.7		
China (5)	Total	27.5	38.4	44.7	48.0	47.1		
	Male							
	Female							
South Africa	Total		71.5	71.5	73.5	73.3		
	Male		61.7	61.6	64.9	64.6		
	Female		84.0	84.0	84.8	84.5		

## Sources

## Brazil

Brazilian Institute of Geography and Statistics — IBGE, National Household Sample Survey 2005/2015.

International Labour Organization, ILOStat Database.

## Russia

Federal State Statistics Service of the Russian Federation, Labour Force Sample Survey.

## India

- (a) Ministry of Statistics and Programme Implementation, NSS Survey Reports:
- (b) For 2000, the estimates are based on the Employment and Unemployment Survey conducted during NSS 55th round (July 1999 – June 2000). For 2012, the estimates are based on the Employment and Unemployment Survey conducted during NSS 68th round (July 2011 – June 2012).

For 2018 to 2022, the estimates are based on the Periodic Labour Force Survey (PLFS), July 2017 – June 2018 and the Periodic Labour Force Survey (PLFS), July 2018 – June 2019, July 2019 – June 2020, July 2020 – June 2021 and July 2021 – June 2022.

#### China

National Bureau of Statistics of the People's Republic of China, China Statistical Yearbook 2001–2022 and China Statistical Abstract 2023.

## South Africa

Statistics South Africa, Mid-year Population Estimates (Statistical release P0302); Labour Force Survey (Statistical release P0210); and Quarterly Labour Force Survey (Statistical release P0211).

#### **Footnotes**

#### Brazil

(1) Population 15 years and older.

## Russia

- (2) Before 2017 data on population 15–72 years; since 2017, data on population 15 years and older.
- (7) Agriculture, forestry, animal husbandry and fishery. Data are provided according to NACE Rev. 2, data for 2000 - according to NACE Rev.1.
- (10) Mining and quarrying, manufacturing and electricity, gas and water supply, construction. Data are provided according to NACE Rev. 2, data for 2000 - according to NACE Rev.1.
- (11) Other economic activities not included in the primary and secondary sectors of the economy. Data are provided according to NACE Rev. 2, data for 2000 - according to NACE Rev. 1.

## India

- (3) Share of labour force belonging to the population aged 15 years and older.
- (8) The information is based on usual activity status taking into account both principal and subsidiary activity.
- (9) Primary industry includes Agriculture, forestry and fishing; Secondary industry includes Mining & quarrying, Manufacturing, Construction, Electricity, gas & water, etc.; Tertiary industry includes Trade, hotel and restaurant, Transport, storage and communication and Other services.

## China

- (4) Share of number of employed persons to national population.
- (5) The total number of employed persons since 2011 are revised according to the 7<sup>th</sup> National Population Census.

## **Explanatory Notes:**

## **General Notes**

- 1 Labour Force: Persons who were either 'working' (or employed) or 'seeking or available for work' (or unemployed) constituted the labour force. This is for a particular reference period.
- **2 Unemployment Rate (UR):** UR is defined as the number of persons unemployed per 1 000 in the labour force (which includes both employed and unemployed).
- 3 Workers (or employed persons): Persons who were engaged in any economic activity or who, despite their attachment to economic activity, abstained from work for reasons of illness, injury or other physical disability, bad weather, festivals, social or religious functions or other contingencies necessitating temporary absence from work, constituted workers. Unpaid helpers who assisted in the operation of an economic activity in the household farm or non-farm activities were also considered as workers.
- 4 Activity Status, Labour Force, Employment, Unemployment: It is the activity situation in which a person was found during a reference period with regard to the person's participation in economic and non-economic activities. According to this, a person could be in one or a combination of the following three broad activity statuses during the reference period:
- (i) Working or being engaged in economic activity.
- (ii) Being not engaged in economic activity (work) but either making tangible efforts to seek 'work' or being available for 'work' if 'work' is available.
- (iii) Being not engaged in any economic activity (work) and also not available for work. Broad activity statuses mentioned in (i) and (ii) above are associated with 'being in the labour force' and the last with 'not being in the labour force'. Within the labour force, broad activity statuses (i) and (ii) were associated with 'employed' and 'unemployed' respectively.

Primary Sector of industries includes Agriculture, forestry & fishing and Mining & quarrying.

**Secondary Sector** of industries includes Manufacturing, Electricity, gas & water supply and Construction.

Tertiary Sector of industries includes other industries of the national economy.

## Brazil

Reference Week is the last complete week of September each year.

## Work

It was considered as work in the exercise of economic activity:

- a) Occupation paid in cash, products, goods or benefits (housing, food, clothes, etc.) in the production of goods and services.
- b) Occupation paid in cash or benefits (housing, food, clothes, etc.) in domestic services.
- c) Occupation without pay in the production of goods and services, performed at least one hour per week:

- Helping a member of the household who had work as: employee in the production of primary goods (which includes the activities of agriculture, forestry, livestock, vegetable or mineral extraction, hunting, fishing and fish farming): or own account or employer in any activity:
- Helping in a religious, charitable or cooperative institute; or
- As apprentice or trainee; or
- d) Occupation developed for at least one hour per week:
  - In the production of goods, of the branch that includes the activities of agriculture, forestry, livestock, vegetal extraction, fishing and fish farming, for own consumption or for the consumption of at least one member of the household: or
  - In construction of buildings, private roads, wells and other improvements (except only repair work) for their own use or for the use of at least one member of the household.

**Employed person:** A person who performed some work during all or part of the reference week. It also includes as employed persons who have not exercised their paid work during the reference week due to vacation, leave, strike, etc.

**Unemployed person:** A person without work which had taken specific action to seek work (getting in touch with employers; enrolling or going in for official examination for a government job; registration at employment agency, union or similar body; placing or answering job advertisement; seeking assistance of relative, friend or colleague to find a job; taking an action to start a business; etc.) in the reference week.

## The New Household Sample Survey of IBGE (PNAD Continuous)

**The National Household Sample Survey:** PNAD was an annual survey that was discontinued in 2015. The PNAD was replaced by the Continuous National Household Sample Survey which has updated methodology – PNAD Continuous.

PNAD Continuous is a quarterly survey which started in 2012. There are important methodological differences between PNAD and PNAD Continuous. Therefore, the results of these two surveys are not comparable. Thus, the results of the PNAD were erased and replaced by those of PNAD Continuous. PNAD Continuous started with the labour force investigation, associated with basic demographic and educational information. Gradually other supplementary themes and topics were aggregated.

According to the rotation scheme adopted by PNAD Continuous, a housing unit stays in the sample for five quarters; it is then withdrawn from the sample. Some supplementary themes and topics are surveyed in the determined interviews in all four quarters of the year, and others are concentrated in the determined quarter of the year.

Housing characteristics are investigated in housing units which are being interviewed for the first time in each of the four quarters of the year, and information and communication technologies characteristics are concentrated in the fourth quarter of the year. So, both themes started being surveyed in 2016.

Data on labour force are presented in accordance with Resolution 1 of the 19th International Conference of Labour Statisticians. The numbers of labour force include data on employed and unemployed based on the results of the quarterly household sample survey.

## Russia

Data on labour force are presented in accordance with the standards of the International Labour Organization. The number of labour force includes data on employed and unemployed based on the results of labour force surveys. Before 2017 the monitoring of labour force was carried out for persons 15–72 years old; since 2017 it is carried out for persons 15 years and older.

## India

The National Sample Survey Office, Ministry of Statistics & Programme Implementation, carries out the survey on the subject of employment and unemployment and labour force characteristics at the national and state levels.

The survey was earlier conducted quinquennially along with some annual surveys in between. Considering the importance of availability of labour force data at more frequent time intervals, the National Statistical Office launched the Periodic Labour Force Survey (PLFS) in 2017. The survey is conducted on a quarterly basis. The reference period is usually July–September, October–December, January–March and April–June. The report includes status based on usual activity (reference period 365 days) and current weekly status (reference period 7 days).

**Usual principal activity status:** The usual activity status refers to the activity status of a person during the reference period of 365 days preceding the date of the survey. The activity status on which a person spent relatively longer time during the 365 days is considered as the usual principal activity status of the person.

**Usual subsidiary economic activity status:** A person whose usual principal status was determined on the basis of the major time criterion could have pursued some economic activity for a shorter time throughout the reference year of 365 days preceding the date of survey or for a minor period, which is not less than 30 days, during the reference year. The status in which such economic activity was pursued was the subsidiary economic activity status of that person.

**Usual activity status considering principal and subsidiary status taken together:** The usual status, determined on the basis of the usual principal activity and usual subsidiary economic activity of a person taken together, is considered as the usual activity status of the person and is written as usual status (ps+ss). According to the usual status (ps+ss), workers are those who perform some work activity either in the principal status or in the subsidiary status. Thus, a person who is not a worker in the usual principal status is considered as a worker according to the usual status (ps+ss), if the person pursues some subsidiary economic activity for 30 days or more during 365 days preceding the date of the survey.

**Unemployed:** Persons who, owing to lack of work, had not worked but either sought work through employment exchanges, intermediaries, friends or relatives or by making applications to prospective employers or expressed their willingness or availability for work under the prevailing conditions of work and remuneration, were considered as those who were 'seeking or available for work' or unemployed.

## China

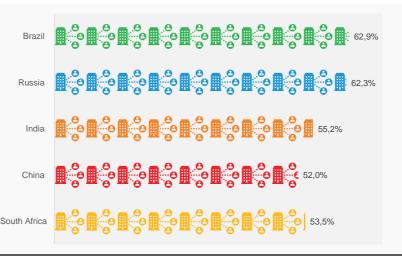
**Employed persons:** refers to persons above a specified age who had labour capacity and performed some social work for compensation or business gains. Specifically, it refers to all persons, aged 16 and older, who performed some work for compensation or business gains

for one hour or more during the reference period; or who had work units or sites but were temporarily not at work during the reference period.

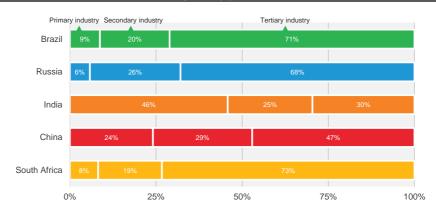
Registered unemployed persons in urban areas: refers to persons with non-agricultural household registration at certain working ages (16 years old to retirement age), who are capable of working, unemployed and willing to work, and have been registered at the local employment service agencies to apply for a job.

**Surveyed unemployment rate in urban areas:** refers to the ratio of the number of unemployed persons in urban areas to the sum of the number of the employed persons and the unemployed persons in urban areas, calculated on the basis of the Labour Force Survey.

## 3.1 Share of Labour Force to population 15 years and over (%)



# 3.2 Share of employed persons in the primary, secondary and tertiary industry(2022) to total employed persons (%)





Primary Sector: involved in the mining/growing/farming of raw materials Secondary Sector: involved the processing & packaging of raw materials Tertiary Sector: Includes the distribution of processed goods (& occasionally raw goods) for sale, as well as the sale of the goods. It also includes the service sector.











Chapter 4

**National Accounts** 



# **Summary of National Accounts on BRICS Countries**

	2000	2013	2017	2021	2022
Gross domestic product (GDF	) (current p	rices/billion (	US\$)		
Brazil (1) (2)	655	2 471	2 063	1 649	1 920
Russia	260	2 294	1 574	1 837	2 275
India (3) (4)	468	1 857	2 650	3 150	3 389
China (5) (6)	1 211	9 574	12 323	17 813	17 993 <sup>(7)</sup>
South Africa	152	401	381	420	405
Per capita GDP (current prices	s/US\$)				
Brazil (1) (2)	3 771	12 357	9 974	7 542	8 938
Russia	1 772	15 982	10 722	12 595	15 504
India <sup>(3) (4)</sup>	460	1 484	2 016	2 302	2 451
China (6)	959	7 023	8 826	12 613	12 741 <sup>(7)</sup>
South Africa	3 477	7 564	6 751	6 988	4 635
GDP growth rate (change from	n the preced	ing year) (%)	)		
Brazil	4.4	3.0	1.3	4.6	2.9
Russia (8)	10.0	1.8	1.8	5.6	-2.1
India (3) (4)	2.0	1.6	15.5	17.9	7.6
China	8.5	7.8	6.9	8.4	3.0 (7)
South Africa	4.2	2.5	1.2	4.9	1.9
Share of primary industry to 0	GDP (%)				
Brazil (1)(2)	5.5	5.3	5.3	8.1	7.9
Russia (9)		3.4	3.9	4.3	4.3
India (4)	26.4	21.4	20.4	21.0	20.8
China	14.7	8.9	7.5	7.2	7.3 <sup>(7)</sup>
South Africa	8.4	8.9	8.6	11.4	11.3

## **Summary of National Accounts on BRICS Countries**

(Concluded 1)

	2000	2013	2017	2021	2022			
Share of secondary industry to GDP (%)								
Brazil (1)(2)	26.7	24.9	21.1	22.2	23.9			
Russia (10)		32.3	34.0	35.4	36.2			
India (4)	26.6	27.9	27.0	26.5	25.9			
China	45.5	44.2	39.9	39.3	39.9 <sup>(7)</sup>			
South Africa	25.1	20.3	20.3	18.6	19.4			
Share of tertiary industry to G	DP (%)							
Brazil (1)(2)	67.7	69.9	73.5	69.8	68.2			
Russia (11)		64.3	62.1	60.3	59.5			
India <sup>(4)</sup>	47.0	50.6	52.5	52.5	53.3			
China	39.8	46.9	52.7	53.5	52.8 <sup>(7)</sup>			
South Africa	66.5	70.8	71.1	70.0	69.4			

## **Sources**

## Brazil

Brazilian Institute of Geography and Statistics — IBGE, National Accounts System 2000–2018.

## Russia

Federal State Statistics Service of the Russian Federation.

## India

Ministry of Statistics and Programme Implementation, National Statistical Office.

## China

National Bureau of Statistics of China and China Statistical yearbook 2001–2022 and Statistical Communiqué of the People's Republic of China on the 2022 National Economic and Social Development.

## **South Africa**

Statistics South Africa.

## **Footnotes**

### Brazil

- (1) Data for 2020 and 2021 are derived from quarterly GDP results.
- (2) Data for 2020 and 2021 are preliminary estimates.

### Russia

- (8) At constant prices.
- (9) Agriculture, forestry, animal husbandry and fishery.
- (10) Mining and quarrying, manufacturing and electricity, gas and water supply, construction.
- (11) Other economic activities not included in the primary and secondary sectors of the economy.

#### India

- (3) GDP in US dollars is computed using average Real Exchange Rate taken from RBI's website (link: https://dbie.rbi.org.in). The average is based on the data for the period April 1st to March 31st of the FY.
- (4) Data relate to new base year (2011-12).

#### China

- (5) GDP and Per Capita GDP in US dollars are converted using the annual average exchange rates
- (6) Data of GDP are calculated at producers' prices.
- (7) Preliminary data.

## South Africa

GDP and Per Capita GDP in US dollars are converted using the annual average exchange rates from https://www.exchangerates.org.uk/.

2021 and 2022 data are preliminary estimates (sum of four quarters).

## **Explanatory Notes**

## **General Notes**

National product by definition is a measure in monetary terms of the volume of all goods and services produced by an economy during a given period of time, accounted without duplication. The measure obviously has to be in value terms as the different units of production and different measures of services are not directly added. In the case of a closed economy, the measure amounts to domestic product (gross domestic product).

## Gross national income (GNI)

GNI = GDP + compensation of employees and property income receivable from the rest of the world – compensation of employees and property income payable to the rest of the world.

## Government final consumption expenditure

Government final consumption expenditure comprises the compensation of employees and purchases of goods and services by the government, including purchases abroad. Compensation of employees of general government consists of wages and salaries and social security contribution.

#### Brazil

The Brazilian System of National Accounts reference 2010, as established by international recommendations, is in accordance with the new manual of the System of National Accounts 2008, SNA 2008.

**Expenditure measure of GDP:** The expenditure measure of gross domestic product (GDP) is derived as the sum of expenditure on final consumption plus gross capital formation plus exports less imports.

**Gross fixed capital formation:** a particular category of fixed asset consists of the value of producers' acquisitions of new and existing products of this type less the value of their disposals of fixed assets of the same type.

**Gross fixed capital formation:** is measured by the total value of a producer's acquisitions, less disposals of fixed assets during the accounting period plus certain specified expenditure on services that adds to the value of non-produced assets.

**Gross capital formation:** shows the acquisition less disposal of produced assets for purposes of fixed capital formation, inventories or valuables.

**Expenditures on goods and services:** are defined as the values of the amounts that buyers pay, or agree to pay, to sellers in exchange for goods or services that sellers provide to them or to other institutional units designated by the buyers.

**Goods and services account:** The goods and services account shows the balance between the total goods and services supplied as resources to the economy as output and imports (including the value of taxes less subsidies on products not already included in the valuation of output) and the use of the same goods and services as intermediate consumption, final consumption, capital formation and exports.

**Final consumption expenditure:** is the amount of expenditure on consumption goods and services

**Household final consumption expenditure:** consists of the expenditure, including expenditure whose value must be estimated indirectly, incurred by resident households on individual consumption goods and services, including those sold at prices that are not economically significant and including consumption goods and services acquired abroad.

**General government final consumption expenditure:** consists of expenditure, including expenditure whose value must be estimated indirectly, incurred by general government on both individual consumption goods and services and collective consumption services.

Final consumption expenditure of NPISHs consists of the expenditure, including expenditure whose value must be estimated indirectly, incurred by resident NPISHs on individual consumption goods and services and possibly on collective consumption services.

**Inventories:** are produced assets that consist of goods and services, which came into existence in the current period or in an earlier period, and that are held for sale, use in production or other use at a later date.

Primary industry: Agriculture, Forestry, Animal Husbandry and Fishery.

Secondary industry: Mining, Manufacturing, Electricity, Gas and Water and Construction.

**Tertiary industry:** The other industries of national economy.

## Russia

**Primary industry:** Agriculture, Forestry, Animal Husbandry and Fishery. Before 2011, data are presented according to NACE 1 Classification of economic activities; since 2011 - according to NACE 2 Classification.

**Secondary industry:** Mining, Manufacturing, Electricity, Gas and Water Supply and Construction. Before 2011, data are presented according to NACE 1 Classification of economic activities; since 2011 - according to NACE 2 Classification.

**Tertiary industry:** The other industries of national economy. Before 2011, data are presented according to NACE 1 Classification of economic activities; since 2011 - according to NACE 2 Classification.

Gross domestic product (GDP): at market prices is the final result of the production activity of all producer units within a country area. It may be estimated using three methods: production, use of incomes (or expenditure method) and GDP formation by income sources. GDP, measured by production method, is defined as a difference between total output of goods and services for the whole economy, on the one hand, and intermediate consumption, on the other, or otherwise as a sum of value added in the sectors of the economy. GDP, measured by the method of use of incomes, represents a sum of expenditures of all the institutional units – residents for final consumption, gross capital formation and net exports. GDP calculated on the basis of income sources reflects primary incomes accumulated in the process of production by all institutional units grouped by sectors of the economy.

**Final consumption expenditures:** comprise final consumption expenditures of households, final consumption expenditures of public administration on individual goods and services and collective services, and final consumption expenditures of non-profit institutions serving households.

**Gross capital formation:** indicates net acquisition by resident units of goods and services produced in the current period or imported, but not consumed in that period. Gross capital formation includes gross fixed capital formation, changes in inventories, as well as net acquisition of valuables.

**Net exports of goods and services:** are calculated as a difference between exports and imports and include trade turnover of Russia with foreign countries.

#### India

The National Statistical Office (NSO) in the Ministry of Statistics & Programme Implementation compiles estimates of various macro-economic aggregates and publishes them in its annual publication called National Accounts Statistics. The estimates are based on performance during the Financial year (April–March). NSO brings out Provisional Estimates for a particular Financial Year in May each year, with a time lag of two months. NSO also brings out First Revised Estimates in February for the preceding year along with revision of estimates for two previous financial years using detailed and more comprehensive data. Various aggregates brought out by NSO include GDP, NDP, GNI, and NNI, Product and Production taxes and subsidies, Consumption of Fixed Capital, Net National Disposable Income, Personal Disposable Income, Private Final Consumption Expenditure (PFCE), Government Final Consumption Expenditure (GFCE), exports and imports, Gross & Net Capital Formation, Savings, etc.

The economy of India is not closed as there are transactions with the rest of the world in the form of exports, imports, loans, etc. This gives rise to the concept of national or domestic. Gross domestic product refers to production of all resident units within the borders of a country, which is not exactly the same as the production of all productive activities of residents. Some of the productive activities of residents may take place abroad. Conversely, some production taking place within a country may be attributed to temporary and seasonal foreign labour.

Net domestic product (NDP) = Gross domestic product (GDP) - Consumption of fixed capital (CFC)

GNI = GDP + compensation of employees and property income receivable from the rest of the world - compensation of employees and property income payable to the rest of the world

Net national income (NNI) = Gross national income (GNI) - Consumption of fixed capital (CFC)

**Final consumption expenditure:** includes both private final consumption expenditure & government final consumption expenditure.

**Private final consumption expenditure**: The household consumption expenditure referred to as private final consumption expenditure (PFCE) in National Accounts Statistics (NAS), consists of expenditure by households and non-profit institutions serving households on durable, semi-durable and non-durable consumer goods and services.

**Government final consumption expenditure:** Government final consumption expenditure comprises the compensation of employees paid and purchases of goods and services by the government used for production of non-market services. Compensation of employees of general government consists of wages and salaries.

**Final consumption rate:** is total Final Consumption expenditure expressed as a percent of Gross Domestic Product at Market Prices (Current Prices).

**Gross capital formation rate:** is total Gross Capital Formation expressed as a percent of Gross Domestic Product at Market Prices (Current Prices).

Valuables are produced goods of considerable value that are not used primarily for purposes of production or consumption but are held as stores of value over time.

The following categorization has been used for industry-wise estimates in the case of India: **Primary sector** of industries includes Agriculture, Forestry & Fishing and Mining & Quarrying.

**Secondary sector** of industries includes Manufacturing, Electricity, Gas & Water Supply and Construction.

**Tertiary sector** of industries includes other industries of the national economy.

## China

**Gross domestic product (GDP)** refers to the final products at market prices produced by all resident units in a country (or a region) during a certain period of time. In the practice of national accounting, GDP is calculated from three approaches, namely production approach, income approach and expenditure approach, which reflect GDP and its composition from different angles.

**Per capita GDP** = GDP / annual average population.

Three strata of industry: in China, economic activities are categorized into the following three strata of industry: Primary industry refers to agriculture, forestry, animal husbandry and fishery industries (except support service activities to agriculture, forestry, animal husbandry and fishery industries). Secondary industry refers to mining and quarrying (except auxiliary activities of mining and quarrying), manufacturing (except repairs for metal products, machinery and equipment), production and supply of electricity, steam, gas and water, and construction. Tertiary industry refers to all other economic activities not included in the primary or secondary industries.

**Indices of GDP** measure the change of GDP at constant prices. GDP at constant prices converts GDP based on the current price into a value based on the price of the base period. When adjusted for price changes, the values of two different periods can be compared to reflect changes of both products and production activities.

**GDP** by expenditure approach refers to the method of measuring the final results of production activities of a country (region) during a given period from the perspective of final uses. It includes final consumption expenditure, gross capital formation and net export of goods and services. The formula for computation is: GDP by expenditure approach = final consumption expenditure + gross capital formation + net export of goods and services.

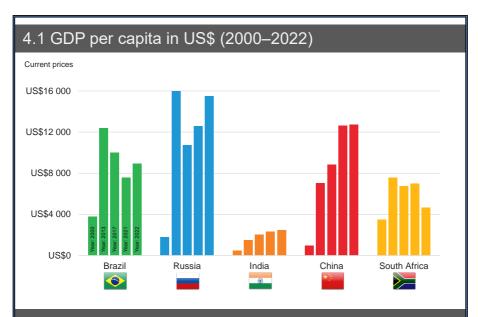
**Final consumption expenditure** refers to the total expenditure of resident units for purchases of goods and services from both the domestic economic territory and abroad to meet the needs of material, cultural and spiritual life. It does not include the expenditure of non-resident units on consumption in the economic territory of the country. The final consumption expenditure is broken down into household consumption expenditure and government consumption expenditure.

**Gross fixed capital formation** refers to the value of acquisitions less those disposals of fixed assets during a given period. Fixed assets are the assets produced through production activities with unit value above a specified amount and which could be used for over one year. Natural assets are not included.

Gross fixed capital formation can be categorized into total tangible fixed capital formation and total intangible fixed capital formation. Total tangible fixed capital formation includes the value of the construction projects and installation projects completed and the equipment, apparatus and instruments purchased (less those disposed) as well as the value of land improved, the value of draught animals, breeding stock and animals for milk, for wool and for recreational purposes and the newly increased forest with economic value. Total intangible fixed capital formation includes the prospecting of minerals and the acquisition of computer software minus the disposal of them.

Changes in inventories refer to the market value of the change in the physical volume of inventory of resident units during a given period, i.e. the difference between the values at the beginning and at the end of the period minus the gains due to the change in prices. The changes in inventories can have a positive or a negative value. A positive value indicates an increase in inventory while a negative value indicates a decrease in inventory. The inventory includes raw materials, fuels and reserve materials purchased by the production units as well as the inventory of finished products, semi-finished products and work-in-progress.

**Net export of goods and services:** refers to the exports of goods and services subtracting the imports of goods and services. Exports include the value of various goods and services sold or gratuitously transferred by resident units to non-resident units. Imports include the value of various goods and services purchased or gratuitously acquired resident units from non-resident units. Because the provision of services and the use of them happen simultaneously, the acquisition of services by resident units from abroad is usually treated as import while the acquisition of services by non-resident units in this country is usually treated as export. The exports and imports of goods are calculated at FOB.



# 4.2 Economic structure (2022)







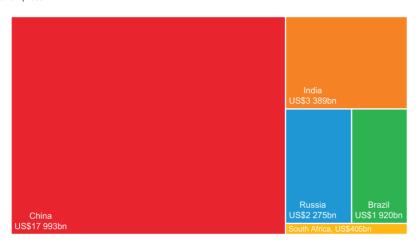




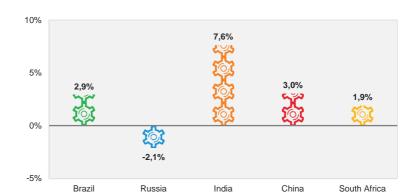


# 4.3 Economic size: Gross domestic product (GDP) (2022)

Current prices



# 4.4 GDP growth rate (2022 compared with 2021)

















**Price Indices** 



## Summary of Consumer Price Index from the Previous Year on BRICS Countries

## Consumer price indices (% change from the preceding year)

	2000	2013	2017	2021	2022
Brazil	6.0	5.9	3.0	10.1	5.8
Russia	20.8	6.8	3.7	6.7	13.8
India (1)			3.3	5.1	6.7
China	0.4	2.6	1.6	0.9	2.0
South Africa	5.3	5.7	5.3	3.3	6.9

#### Sources

#### Brazil

Brazilian Institute of Geography and Statistics — IBGE, Extended National Consumer Price Indices 2000–2020.

## Russia

Federal State Statistics Service of the Russian Federation.

## India

Ministry of Statistics & Programme Implementation, National Statistical Office.

#### China

National Bureau of Statistics of China.

## South Africa

Statistics South Africa.

#### **Footnotes**

#### India

(1) The Consumer price index of India pertains to Combined Sector. Information for 2014–2022 is based on the current series of CPI with Base (2012 = 100).

## **Explanatory Notes**

## **General Notes**

The retail price is defined as the monetary cost to the consumer of a specified unit of sale which is inclusive of all rebates and discounts, etc.

Consumer price index (CPI): It indicates time fluctuations of retail prices of goods and services purchased by the consumers for non-production consumption within a specified period of time. It is a ratio of value of a fixed basket of main goods and services at the prices of the current period as related to its value at the prices of the base period. CPI is calculated monthly on the basis of statistical data collected while observing price changes in retail trade and service establishments and also in commodity, mixed and food market, as well as on data of the actual structure of consumer expenditures of households for the previous year.

**Producer price index (PPI):** It measures the average changes in producers' prices over a period of time. It represents bulk transactions, generally at the early stage of trading. The price pertaining to bulk transactions may have divergent nomenclatures, e.g. farm harvest prices, wholesale prices, procurement prices, support prices, administered prices, import prices, forward prices, etc. Wholesale price index relates to the transactions at the primary stage that broadly correspond to producer prices.

#### Brazil

The Brazilian Institute of Geography and Statistics (IBGE) is the government organisation responsible for the computation of the Extended National Consumer Price Index (IPCA), which is the official and main inflation indicator of the country. IPCA is used by the Central Bank to monitor objectives set in the inflation targets system. The index is computed on a monthly basis and refers to families inhabiting urban localities, with monthly income, from any source, ranging from 1 (one) to 40 (forty) minimum wages. The geographical coverage of the index encompasses 16 areas. The indicator ensures a coverage of approximately 90% of urban areas in the geographical scope of the research.

The index tracks the movement of prices of a fixed basket of goods and services consumed by households, conceived from the Household Budget Survey (Pesquisa de Orçamentos Familiares — POF), which depicts the consumption habits of Brazilian families. The weights applied to the calculation of the current consumer price indices of IBGE are based on the Household Budget Survey (POF) conducted in 2017/2018.

Apparel includes clothing (female, male and child); footwear and accessories; jewels and trinkets; fabrics and haberdasherv.

#### Russia

Consumer price indices (CPI): indicates time fluctuations of prices on goods and services purchased by the consumers for nonproduction consumption within a specified period of time. It measures a ratio of value of a fixed basket of main goods and services at the prices of the current period as related to its value at the prices of the base period. CPI is calculated monthly on the basis of statistical data collected while observing the level of prices in retail trade, service and catering establishments and markets, as well as on data of the actual structure of consumer expenditures of households for the 2 previous years.

CPI is computed for the urban population and it is diffused for the whole population.

**Producer price indices (PPI):** PPI for industrial goods are compiled on the basis of recording prices for representative goods (services) produced by 10 thousand basic (key) organisations covered by the survey. Average prices and price indices are calculated for more than 1 200 representative goods (services) since 2020. Producer prices are actual prices for produced and shipped goods (services rendered) provided for selling on the domestic market (except indirect taxes). PPI calculated for representative goods (services) shall be gradually aggregated into indices of corresponding types, kinds, classes, and divisions of economics activities. Data on the volume of shipment in value terms of the base period are being used as the weight factors.

#### India

Consumer price index (CPI): measures a change over time in prices of a fixed basket of goods and services consumed by a household. CPI is widely used as a macroeconomic indicator of inflation, as a tool by governments and central banks for inflation targeting and for monitoring price stability, and as deflators in the national accounts. The Price Statistics Division (PSD) of the National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI), has been compiling and disseminating the Consumer Price Index for Rural, Urban & Combined Sector since its inception in 2011.

The Price Statistics Division (PSD) of the National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI) started compiling the Consumer Price Index (CPI) separately for rural, urban, and combined sectors on a monthly basis with a base year (2010 = 100) for all India and states/UTs with effect from January 2011. It revised the base year of the CPI from 2010 = 100 to 2012 = 100, incorporating many methodological improvements in consonance with international practices with effect from January 2015. Monthly price data are collected from 1 114 markets in 310 selected towns and from 1 181 selected villages by the Field Operations Division, NSO. The prices are being collected through web portals. The CPI for the Rural, Urban & Combined sector is released monthly with a time lag of 12 days (on the 12th working day of the following month or on the next working day of the following month, if the 12th is a holiday).

Index number of wholesale prices in India is compiled by the Office of Economic Adviser, Ministry of Commerce & Industry. The present series has 2011–2012 as the base year and the data are released monthly. It is most commonly used as a measure of inflation in India. The item basket and the weighting diagram are based on Gross Value of Output as obtained from National Accounts Statistics, 2007. Seasonal items have also been included and when they disappear, their weight is distributed over remaining items in the subgroup on a pro rata basis. Unlike the 1993–94 series, in the new series, instead of Public Distribution System prices of paddy and wheat, their procurement prices have been included to correctly represent the first point of sale.

The existing series is based on ex-factory/ex-mine prices in respect of the manufactured items. In the case of Agricultural commodities, however, the prices as quoted in primary wholesale markets are used. The collection of price data is through correspondence & self-filing of information. Various units submit the prices electronically through online forms. The index is compiled on the principle of weighted arithmetic mean according to the Laspeyre's formula, which has fixed base year weights operating through the entire life span of the series up to 2016; from 2017, the index is compiled on the principle of weighted average method.

## China

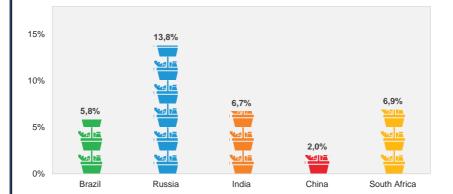
Consumer price indices reflect the trend and degree of changes in prices of consumer goods and services purchased by urban and rural households during a given period. They are obtained by combining consumer price indices of urban households and consumer price indices of rural households. The indices enable the observation and analysis of the degree of impact of the changes in the prices of retail goods and services on the actual living expenses of urban and rural residents.

**Producer price indices** for Industrial Products reflect the trend and degree of changes in general ex-factory prices of all industrial goods during a given period, including sales of industrial goods by an industrial enterprise to all units outside the enterprise, as well as sales of consumer goods to residents. It can be used to analyse the impact of ex-factory prices on gross output value and value-added of the industrial sector.

### South Africa

Break in series, all indices prior to 2008 are not official indices. Linking factors are used to calculate continuous time series. Linking factors: All items; Urban Area; Rural Area; Housing Indices; Food Indices; Electricity; Clothing Indices; Rent Indices.

# 5.1 Change in consumer price indices (between 2021 and 2022)



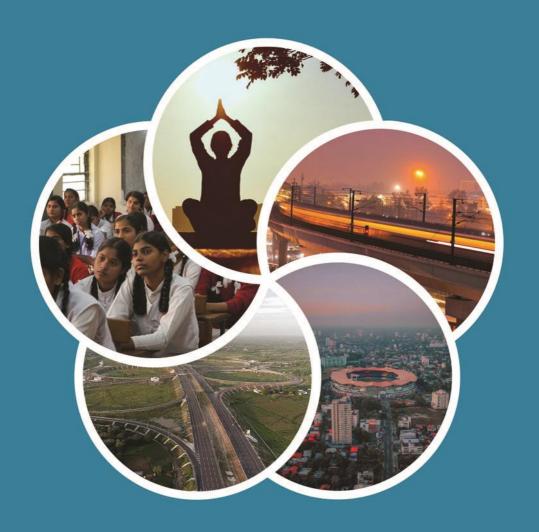












Chapter 6

**People's Living Standard** 



# Summary of People's Living Standard on BRICS Countries

	200	0 2013	2017	2021	2022
Ownership of cars (pe	er 100 persons)				
Brazil <sup>(1)</sup>	8.8	5.1		•••	
Russia (2)	13	27	30	33	33
India (3)	0.5	5 1.7	2.2		
China (4)		5.5	9.8	13.6	14.3
Urban	0.2	7.9	13	16.7	
Rural <sup>(5)</sup>	0.1	3	6	9.6	
South Africa (6)		8.0	8.3	8.8	
Growth rate of averag	je annual real wag	je (% change f	from the pred	ceding year)	
Brazil (7) (8) (9)		3.4	-0.4	-6.3	-2.1
Russia	20.	9 4.8	2.9	4.5	0.3
India					
China (10)	11.	3 7.3	8.2	8.6	4.6
South Africa					
Proportion of R&D ex	penditure to GDP	(%)			
Brazil (11)		0.9	0.7		
Russia	1.1	1.0	1.1	1.0	
India	0.7	0.7	0.7		
China	0.9	2.0	2.1	2.4	2.6
South Africa		0.7	0.8		0.8
Full-time equivalent o	of P&D parsonnal	(norson-voar)			
Full-time equivalent o	n Kap bersonner	(person-year)			
Brazil					
Russia	1 007 257	826 733	778 155	729 434	
India	93 836		•••	361 924 <sup>(12)</sup>	
China	922 100	3 532 817	4 033 597	5 716 330	6 041 0
South Africa		37 957	44 259	•••	

# Summary of People's Living Standard on BRICS Countries

(Continued 1)

	2000	2013	2017	2021	2022
Share of public expenditu	re on education to	GDP (%)			
Brazil (13)	3.9	4.9	4.3	5.2 <sup>(14)</sup>	
Russia (15)	2.9	4.0	3.6	3.5	
India (16)	3.2	3.1	2.8	2.9 (17)	2.9 (18)
China (19)	2.9	4.2	4.2	4.0	
South Africa (20)		6.3	6.3	7.1	
Average years of schoolin	g				
Brazil (21)		8.9	9.5		10.1
Russia (22)		14.8	15.0		
India					
China (23)		9.3	9.6	10.1	10.1
South Africa	•••				
Share of public expenditu	re on health to GD	P (%)			
Brazil	3.9	5.2	5.4	4.5 <sup>(14)</sup>	
Russia	2.1 (24)	3.2	3.1	3.8	
India (25)	4.7	1.2	1.4	2.2 (17)	2.1 (18)
China (26)	4.6	5.3	6.3	6.7	
South Africa (27)		4.1			

## Summary of People's Living Standard on BRICS Countries

(Continued 2)

	2000	2013	2017	2021	2022
Gini coefficient					
Brazil (14) (28)			0.537	0.544	0.518
Russia (29)	0.395	0.417	0.411	0.409	0.396 <sup>(p)</sup>
India (30)					
Urban	0.342				
Rural	0.26				
China (31)		0.473	0.467	0.466	0.467
South Africa (32)	0.64				

### Sources

## Brazil

- a) Brazilian Institute of Geography and Statistics IBGE, National Household Sample Survey 2006/2014.
- b) Education expenditure data compiled by Ministry of Education, Anísio Teixeira National Institute for Education Research and Studies INEP.
- c) Brazilian Automotive Industry Association (ANFAVEA), Brazilian Automotive Industry Yearbook 2015.
- d) National Treasury Secretariat.
- e) UNESCO Institute for Statistics (UIS) database.
- f) World Health Organization (WHO) database.
- g) World Bank Poverty and Equity Database.

## Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Ministry of the Interior of the Russian Federation.
- c) UNESCO Institute for Statistics (UIS) database.

#### India

- a) Ministry of Road Transport & Highways, Road Transport Year Book.
- b) Ministry of Finance, Economic Survey.
- c) NITI Aayog.
- d) Department of Science & Technology.
- e) National Health Accounts Estimates for India 2013-14 to 2016-17.

## China

- a) National Bureau of Statistics of China, Integrated Household Survey in Urban and Rural Areas of China 2013–2022; Urban Household Survey in China 2000–2012; and Rural Household Survey in China 2000–2012.
- b) Ministry of Education of the People's Republic of China, Educational Statistics Yearbooks of China 2000–2022.
- c) National Health Commission of the People's Republic of China, China Health Statistical Yearbooks 2001–2022.

## South Africa

- a) Statistics South Africa: Financial statistics of consolidated general government Time series summary data, 2004/2005–2020/2021.
- b) Statistics South Africa: Gross Domestic Product: Fourth quarter 2022: Industry value added and GDP (current prices) Excel Table.
- c) HSRC: Statistical Report 2017/2018: South African National Survey of Research & Experimental Development.
- d) Statistics South Africa: Financial statistics of consolidated general government annual statistical releases, 2004/2005–2020/2021.

## **Footnotes**

#### Brazil

- (1) The data for Brazil refer to vehicles per 100 persons.
- (7) Revised data, according to the last population estimate.
- (8) Employed population 15 years and older with work income.
- (9) In 2019, the indicators were calculated with information from the households visited for the first time in each of the four quarters of the year. Exceptionally, between 2020 and 2022, these results were generated with information from the interviews carried out in dwellings that were in the sample for the fifth time in each of the four quarters of the year.
- (11) The expenditure on R&D activities on the surveyed units typically results from their own production, with estimates based on the sum of cost approach (intermediate consumption, employees' compensation, consumption of fixed capital). The total expenditure on R&D activities is complemented with those units that produce for the market. The units can be public or private for own production, while R&D market producers are all private.
- (13) The following groups of Nature of Expenditure were considered: Active Personnel and Social Costs; Other Current Expenditures; Investments and Financial Inversions. This information does not include the following expenses: Retirement and reforms, pensions, scholarship resources and financing students, expenses with interest and debt burdens, educational burdens amortizations, current and capital transfers to the private sector.
- (14) Estimated data.
- (17) Gross domestic expenditure on R&D as percentage of GDP. Data from UIS database.
- (19) Government expenditure on education as % of GDP. Data from UIS database.
- (21) The indicators were calculated with information from the second quarter of the year. During 2020–2021, due to the effects of the COVID-19 pandemic on data collection, the questionnaire of the Continuous National Household Sample Survey was reduced and the education module was not investigated.
- (27) Domestic general government health expenditure as % of GDP. Data from WHO database.
- (28) Gini Index of Household Income.
- (32) Data from World Bank Poverty and Equity Database.

#### Russia

- (2) Personal passenger cars.
- (15) Calculations based on the data of the Federal Treasury. Since 2005 including budgets of the state non-budget funds.
- (22) School Life Expectancy from primary to tertiary education. Data from UNESCO Institute for Statistics (UIS) Database.
- (24) In 2000 expenditures on health and physical culture.
- (29) Calculations of Gini index are based on household budget sample surveys and macroeconomic average per capita monetary income data.
- (p) Preliminary data.

## India

- (3) Figures have been derived by dividing the number of registered vehicles as on 31st March of the year indicated in the table (except for 2000 where the data is as on 31st March 2001) by total population.
- (12) Information pertaining to Full Time Equivalent collected for 2017–18 as on 1.4.2018 and for 2020–21 as on 01.04.2021.
- (17) Revised Estimate.
- (18) Budgetary Estimate.
- (25) Information pertains to financial year (i.e. April of the year indicated in the table to March of the next year), and it relates to Expenditure of general government (i.e. Central Government & State Governments Combined).
- (30) Gini coefficient of household consumption has been calculated on the basis of National Sample Survey Periods (i.e. July 1999 June 2000, July 2004 June 2005 & July 2009 June 2010 to July 2011 June 2012) and is based on Mixed Recall Period.

#### China

- (4) In the fourth quarter of 2012, the National Bureau of Statistics of the People's Republic of China conducted the integrated survey of urban and rural households, unifying the names, classification and statistical standards of urban and rural households. On its basis the ownership data of residents in China was obtained, including the number of colour TV sets, cars and personal computers, etc.
- (5) In rural household survey of China, cars refer to the automobiles for living use, including vans
- (10) Average annual wage of staff and workers refers to the average wage level in monetary terms per staff and worker during a year of time.
- (19) Government appropriation for education to GDP.
- (23) Average years of education attained for people aged 15 and older.
- (26) Total expenditure on health as percentage of GDP.
- (31) Data of Gini coefficient are based on per capita annual disposable income.

### South Africa

- (4) Information based on data from the General Household Survey (GHS) in which households were asked to indicate whether the household contained at least one television set. Not asked whether it was colour. Calculation: Total number of sets/total population x k.
- (6) Data from GHS in which households were asked to indicate whether the household contained at least one vehicle in working condition. Calculation: Total number of households with a working vehicle/total population x k.
- (20) General government expenditure on education as a percentage of GDP.
- (27) General government expenditure on health as a percentage of GDP.
- (32) Gini is per capita expenditure excluding taxes.

## **Explanatory Notes**

#### **General Notes**

Population below international poverty line (\$1.25 a day PPP) as % of total population: percentage of the population living on less than \$1.25 a day at 2005 international prices (according to Purchasing Power Parity exchange rates).

Percentage share of income or consumption by 20% subgroups of population: share that accrues to 20% subgroups (quintiles) of population.

**Income quintile ratio:** ratio of the average income (or consumption) of the highest (richest) 20% of the population to the average income (or consumption) of the lowest (poorest) 20% of the population.

**Proportion of population 25 years and older with completed tertiary education:** percentage share of the population aged 25 years and older with completed tertiary education (according to ISCED 5 or 6) to the total population.

## Brazil

## The New Household Sample Survey of IBGE (PNAD Continuous)

The National Household Sample Survey - PNAD was an annual survey and was extinguished in 2015. The PNAD was replaced by the Continuous National Household Sample Survey with updated methodology - PNAD Continuous.

PNAD Continuous is a quarterly survey and started in 2012. There are important methodological differences between PNAD and PNAD Continuous. Therefore, the results of these two surveys are not comparable. Thus, the results of the PNAD were erased and replaced by those of PNAD Continuous. More information about PNAD Continuous can be found at:

https://biblioteca.ibge.gov.br/visualizacao/livros/liv101561\_notas\_tecnicas.pdf

PNAD Continuous started with the labour force investigation, associated with basic demographic and educational information. Other themes and supplementary topics were gradually aggregated.

According to the rotation scheme adopted by PNAD Continuous, a housing unit stays in the sample for five quarters, then it is withdrawn from the sample. Some themes and supplementary topics are surveyed in a determined interview in all four quarters of the year and others are concentrated in a determined quarter of the year.

Housing characteristics are investigated in housing units that are being interviewed for the first time in each of the four quarters of the year, and information and communication technology characteristics are concentrated in the fourth quarter of the year. So, both themes started being surveyed in 2016.

Household's per capita disposable income (R\$): Household's gross disposable income divided by the estimated resident population on 1st July of the respective year.

**Household's per capita savings balance (R\$):** Household's gross savings divided by the estimated resident population on 1st July of the respective year.

**Wage:** it was considered the monthly wage usually received in the reference month (September of each year).

- a) Employees: the wage was the gross monthly income that would normally be entitled to the whole working month and, when the income was variable, it was the average monthly income for the month of reference of the survey year. It does not include 13th salary (14th salary and 15th salary, etc.) and profit-sharing paid by the enterprise to their employees. The amount received in benefits (housing, food, clothing, transport, meal or food stamps, etc.) was also not included in the calculation of the income of the employees.
- b) Employers and own account: the income was the withdrawal usually made monthly or, when the gains were variable, the average monthly withdrawal for the month of reference of the survey year. The withdrawal was the gain (gross income less expense incurred with the enterprise, such as paying employees, raw material, electricity, telephones, etc.). It was not included in the value of the production of the enterprise used for own consumption.

Research and development expenditure (% of GDP): The expenditure on R&D activities on the surveyed units typically results from their own production, with estimates based on the sum of cost approach (intermediate consumption, employees' compensation, consumption of fixed capital). The total expenditure on R&D activities is complemented with those units that produce for the market. The units can be public or private for own production, while R&D market producers are all private.

**Average years of schooling (year):** refers to the average of total years of academic education by adults aged 15 years and older (including general education and adult academic education, excluding various non-academic education).

Explanatory note: this indicator is one of the most important indicators to reflect the educational attainment or national quality in a country or a region.

Formula: Mean years of schooling (of adults) = (sum of years of academic educational years by adults aged 15 years and older/population aged 15 years and older) x 100%, of which, the criteria of various educational levels converted into years of schooling is: never go to school = 0 year; primary school = 6 years; junior middle school = 9 years; senior middle school = 12 years; tertiary education = 16 years.

## Russia

Growth rate (Index) of real wages: relative indicator that is calculated by dividing the indices of accrued wage by consumer price indices for the respective period of time. Average nominal accrued wage is compiled by dividing accrued wages fund of employees by average annual payroll number of employees. The accrued wages fund of employees includes sums of payments added to employed in the monetary and not-monetary forms for fulfilled and unfinished time, the compensatory payments connected with working conditions, surcharges and extra charges, bonuses, occasional incentive payments and also payments of meal and residing, having regular character. Benefits granted to the employees from the state social extra-budgetary funds are not included in the wages fund.

**Proportion of R&D expenditure to GDP (%):** proportion of internal research and development expenditure to GDP.

**Number of physicians:** includes all doctors with higher medical education engaged in the treatment and sanitary organizations, social security establishments, research institutes, policlinics, pre-school establishments, schools, orphanages and others.

Hospital beds: beds equipped with the required appliances and ready to receive patients.

**Area of parks and green land:** includes area of the common using green plantations (parks, gardens, squares and parkways), forest parks and city gardens, area of gardening of local roads

**Gini index:** characterizes the level of deviation of the actual distribution of the income of population from the line of even distribution.

**School life expectancy:** (according to the UNESCO methodology) – number of years a person of school entrance age can expect to spend within the specified level of education.

Population below international poverty line (\$1.90 a day PPP) as % of total population: percentage of the population living on less than \$1.90 a day at 2011 international prices (according to Purchasing Power Parity exchange rates).

## India

**Gini coefficient:** Gini coefficient in the case of India is calculated by NITI Aayog of India on the basis of Consumer Expenditure data (expenditure is used as a proxy for income to measure inequality) compiled by the National Sample Survey Office. The Gini coefficient is produced both for uniform reference period and mixed reference period. The information included is based on mixed reference period, i.e. different recall periods for different items.

**Tertiary education**: According to the Indian Standard Classification of Education (InSCED) 2014, Ministry of Human Resource Development, Department of Higher Education, Government of India, the definition of tertiary education is as follows:

Tertiary education builds on senior secondary education, providing learning activities in specialised fields of education. It aims at learning at a high level of complexity and specialisation. Tertiary education includes what is commonly understood as academic education but also includes advanced vocational or professional education.

In NSS surveys on employment and unemployment and on education, 'tertiary education' is not defined. However, for the purpose of this document, those with general educational level 'graduate and above' have been considered as having completed 'tertiary education'.

#### China

**Government appropriation for education:** refers to state budgetary fund for education, taxes and fees collected by governments at all levels that are used for educational purposes, education fund for enterprise-run schools, income from school-run enterprises, work-study programme and social services that are used for educational purposes.

**Percentage of urban population with access to gas:** refers to the ratio of the urban population with access to gas to the total urban population at the end of the reference period.

**Public recreational green space per capita:** refers to the ratio of the urban public recreational green space to the total urban population. Public recreational green space refers to the green areas open to the public for amusement and rest, with the facilities of amusement, rest and services. Its function also includes improving ecology, beautifying the landscape, education and preventing and reducing disaster.

Regular institutions of higher education: refer to educational establishments set up according to the government evaluation and approval procedures, recruiting graduates from senior secondary schools as the main target by National Matriculation TEST. They include full-time universities, colleges, institutions of higher professional education, institutions of higher vocational education and others (non-university tertiary, branch schools and undergraduate classes), including total enrolment in full undergraduate courses and in specialized courses.

Regular secondary schools are classified into regular senior secondary schools and junior secondary schools, including: Regular Senior Secondary School referring to education establishment providing senior secondary education service to graduates of junior secondary school; Regular Junior Secondary School referring to education establishment providing fundamental secondary education service to graduates of primary school.

**Vocational secondary schools** include vocational junior secondary school and vocational senior secondary school, referring to education establishment ratified by education authority at county level or above to enrol graduates of primary school and junior secondary school, and provide junior or senior vocational education service.

Regular primary schools refer to education establishments ratified by the education authority at county level or above to enrol children of school age and provide primary education service.

**Special schools** refer to regular or vocational primary or secondary education institutions enrolling children with physical or intellectual disabilities and other special children and teenagers that have demand for special education.

**Pre-primary education institutions** include kindergarten and preschool class. Kindergarten enrols three-year-old (and older) preschool children and provides care and education services. Establishment of kindergarten shall be approved by the education authority at county level or above or town government, and shall be registered in file. In those regions without the resources of providing three-year preschool education to preschool children, a one-year preschool class can be set up to provide one-year preschool education service to preschool children.

**Physicians** refer to licensed (assistant) doctors. Licensed assistant doctors refer to the medical workers who have obtained the licenses of qualified (assistant) doctors and are employed in medical treatment, disease prevention or healthcare institutions, excluding the licensed (assistant) doctors engaged in management jobs. The classification of licensed (assistant) doctors is clinician, Chinese medicine, dentist and public health.

**Number of licensed (assistant) doctors per 1 000 population:** The formula is: number of licensed (assistant) doctors per 1 000 population = (number of licensed doctors +

number of licensed assistant doctors) / population \*1 000. The population is the figure of household registration from the Ministry of Public Security.

**Number of beds of hospitals and health care per 1 000 population** = (number of beds of hospitals + number of beds of health care) / population \*1 000. The population is the figure of household registration from the Ministry of Public Security.

## South Africa

**Documents on higher education include:** Higher diploma, Post higher diploma, Bachelor's degree, Honours degree, Higher degree.



Chapter 7

**Resources and Environment** 



# **Summary of Resources and Environment on BRICS Countries**

	2000	2013	2017	2021	2022
Total water consumption	ı (Million m³)				
Brazil		29 453			
Russia (1)	66 924	53 551	53 471	48 079	47 874
India					
China (2)		618 340	604 340	592 020	
South Africa					
Utilization of forest area	(1 000 hectares)				
Brazil	545 943				
Russia (3)	871 539	871 830	870 714	870 738	870 751
India (4)	63 729	69 790	70 827	71379	
China (5)	174 909	207 687	220 446		
South Africa	1 331	37 812	37 495	37 293	
Utilization of perennial c	rop area (1 000 hecta	ares)			
Brazil	6 245	6 028		5 381	
Russia (3)	1 864	1 811	1 910	1 925	1 924
India (6)		9 352	9 133	10 815	10 263
China (7)	11 000	16 000			
South Africa	959				
Carbon dioxide emission	ns per capita (kg)				
Brazil	9 952	5 123			
Russia (8)	6 626	6 946	6 979	8 091	
India <sup>(9)</sup>	940	1 490			
China	•••				
South Africa	9930	9580	8530		

## Summary of Resources and Environment on BRICS Countries

(Continued 1)

				,	
	2000	2013	2017	2021	2022
Proportion of population using	ng safely manag	ed drinking	water serv	ices (%)	
Brazil (10)	91.2	92.0	92.3		
Russia (11)	75.0	75.0	76.0		
India		•••	•••	•••	
China	80.4	90.5	92.8		
South Africa (12)	90.1	85.0	81.9		

#### Sources

#### Brazil

- a) Global forests resources assessment FRA 2015.
- b) Brazilian Institute of Geography and Statistics IBGE, Agricultural Municipal Production Survey.
- c) Second National Communication of Brazil to the United Nations Framework Convention on Climate Change, v. 1, part II.
- d) National inventory of anthropogenic emissions by sources and removals by sinks of Greenhouse gases. Annex-Estimation of Emissions of Greenhouse Gases by Gas and Sector, 1990 to 2005. Brasilia, 2010.
- e) IBGE, Directorate of Surveys, Population Projection of Brazil by sex and age: 1980–2050. Brasilia, 2010.
- f) IBGE, Sustainable Development Indicators Brazil.
- g) Ministry of Science, Technology, Innovation and Communication.
- h) FAO Database.
- i) United Nations Global SDG Database.

## Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Federal Service for State Registration, Cadastre and Cartography.
- c) Federal Service for Hydrometeorology and Environmental Monitoring of the Russian Federation (Rosgidromet).
- d) Federal Agency for Water Resources.
- e) United Nations Global SDG Database.
- f) Federal Service for Supervision of Natural Resources.

## India

- a) Ministry of Agriculture, Directorate of Economics & Statistics, Land Use Statistics at a Glance.
- b) Ministry of Environment & Forests, Forest Survey of India, India State of Forest Report (various issues).
- c) International Energy Agency, Key World Energy Statistics (various issues).
- d) Ministry of Jal Shakti, DWS for Rural and MIS, NSS, Ministry of Statistics and PI for Urban Periodicity: Annual for Rural and 3 years for Urban.

## China

- a) National Bureau of Statistics of China, China Statistical Yearbook 2022.
- b) Ministry of Ecology and Environment of the People's Republic of China.
- c) World Bank WDI Database.
- d) United National Global SDG Database.

## South Africa

- a) Millennium indicators, UN.
- b) United Nations Global SDG Database.

## **Footnotes**

#### Brazil

- (9) Data in concentration (g/m³) for some metropolitan areas (Recife, Salvador-Camaçari, Belo Horizonte, Vitória, Rio de Janeiro, São Paulo, Curitiba, Porto Alegre and Distrito Federal) no weighting by population.
- (10) Urban area. Data are from United Nations Global SDG Database.

## Russia

- (1) Total Freshwater Use.
- (3) Year-end data.
- (8) By data of Rosgidromet. Data on emissions of carbon dioxide, with the account of land use, changing in land use and forestry, are taken from the Russian national inventory of anthropogenic emissions by sources and absorption by absorbents of greenhouse gases not regulated by Montreal Protocol for 1990–2022.
- (11) Data are from United Nations Global SDG Database.

## India

- (4) Data (except for 2013 and 2014) relate to agricultural year (i.e. July of the year indicated in the table to June next year) and is based on Land Use Statistics. Information for 2013 is based on Estimation by Forest Survey of India. 2021 data are from India State of Forest Report.
- (6) Perennial crops include most of the fruit crops and plantation crops such as cashew, areca nut, cocoa, coconut and some spice crops. Data relate to agriculture year (i.e. July of the year indicated in the table to June of the next year) and pertains to perennial horticultural crops. Data for 2021 are based on 1st Advance Estimates.
- (9) Per capita carbon dioxide emission pertains to emission by fuel combustion only. Emission are calculated using the IEA's energy balance and the Revised 2006 IP-CC Guidelines. The figure including Land Use Change & Forestry was 0.7 MT in 2000 and 1.08 MT in 2007 as per 'India Second National Communication to the United Nations Framework Convention on Climate Change', Ministry of Environment & Forests.

## China

- (2) Total freshwater use.
- (5) Data are the figures of the Sixth National Forestry Survey (1999–2003), the Eighth National Forestry Survey (2009–2013), and the Ninth National Forestry Survey (2014–2018).
- (7) Data are from World Bank WDI Database, calculating by using "permanent cropland (% of land area)" multiplied by "land area of China".

## South Africa

(12) Urban area data are from United Nations Global SDG Database.

## **Explanatory Notes**

#### **General Notes**

Proportion of population using safely managed drinking water services (%): proportion of population using an improved basic drinking water source which is located on the premises, available when needed and free of faecal (and priority chemical) contamination. Improved drinking water sources include: piped water into dwelling, yard or plot; public taps or standpipes; boreholes or tube wells; protected dug wells; protected springs; packaged water; delivered water and rainwater (SDG indicators 6.1.1).

Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas (%): is the mean percentage of each important site for terrestrial and freshwater biodiversity (i.e. those that contribute significantly to the global persistence of biodiversity) that is covered by designated protected areas. It is computed by dividing the total protected area within the country by the total territorial area of the country and multiplying by 100 (SDG indicators 15.1.2).

## **Brazil**

**Freshwater resources:** Historical Average 214 361 is the best information available until 2012.

**Sulphur dioxide emissions per capita:** Data in concentration (g/m³) for some metropolitan areas (Recife, Salvador-Camaçari, Belo Horizonte, Vitória, Rio de Janeiro, São Paulo, Curitiba, Porto Alegre and Distrito Federal) no weighting by population.

**Utilization of perennial crop area:** Permanent crops is the land cultivated with long-term crops which do not have to be replanted for several years (such as cocoa and coffee); land under trees and shrubs producing flowers, such as roses and jasmine; and nurseries (except those for forest trees, which should be classified under "forest"). Permanent meadows and pastures are excluded from land under permanent crops.

Carbon dioxide emissions per capita: There has been a modification in the figures due to updating the estimates presented at the 3rd National Communication of Greenhouse Gases. Estimates updated in 2015 cover the GHG emissions in the 1970–2014 period for all sectors, except for change of land use, which covers the 1990–2014 period. The methodological basis for the estimates is the Brazilian Inventory of Anthropogenic Emissions and Removals of Greenhouse Gases, published by Brazilian Ministry of Science, Technology, Innovation and Communication. For agriculture, energy, industry processes and waste sectors the 3rd Inventory methodology has been used. As for land use changes, the methodology used was that from the second inventory.

## Russia

**Perennial crop area:** is the part of utilised agricultural area taken up by perennial crops (fruit and berry plantations, grapes, tea, hop, etc.).

**Freshwater resources:** include internal renewable freshwater resources (river flows and groundwater from rainfall in the country).

**Annual flows:** (annual freshwater using) are water withdrawals, not counting losses from storage basins.

**Freshwater use:** use of water resources taken from various sources (including seawater) to meet domestic needs. This does not include turnaround water consumption, as well as recycling of sewage and collector-drainage water.

**Proportion of wastewater treated:** is defined as the ratio of the volume of normatively pure water and water normatively purified at wastewater treatment plants to the total wastewater (sewage) discharge volume into surface water bodies (%).

#### India

**Per capita carbon dioxide emission**: This has been derived by dividing total carbon dioxide emission by mid-year population. Figures indicating net carbon dioxide emission (including removal) with land use change and forestry are occasionally communicated to United Nations Framework Convention on Climate Change by Ministry of Environment & Forests. However, the time series information provided in Table 7.1 relates only to emission by fuel combustion using sectoral approach, as provided by International Energy Agency.

## China

**Total water resources** refer to total volume of water resources measured as run-off for surface water from rainfall and recharge for groundwater in a given area, excluding transit water.

**National reserves** refer to the area that protect typical natural ecosystems, natural concentrated distribution of rare and endangered wild animal and plant species, and natural relics of special significance. It has a large area to ensure the safety of the main protected objects, and to maintain and restore the quantity of rare and endangered wild animals and plants and their habitats.

Investment in the treatment of environment pollution refers to the fixed assets investment in the treatment of industrial pollution and in the construction of environment infrastructure facilities in cities and towns. It includes investment in treatment of industrial pollution, environment protection investment in environment protection acceptance project in this year, and investment in the construction of environment infrastructure facilities in cities and towns.

**Permanent cropland** is land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee, and rubber. This category includes land under flowering shrubs, fruit trees, nut trees, and vines, but excludes land under trees grown for wood or timber.





Industry



# **Summary of Industry on BRICS Countries**

	2000	2013	2017	2021	2022
Indices of industrial production (p	receding y	rear = 100)			
Brazil	106.6	102.1	102.5	103.9	99.3
Russia (1)	108.7	100.4	103.7	106.3	99.4
Mining	106.4	101.1	101.9	104.2	100.8
Manufacturing	110.9	100.5	105.7	107.4	98.7
Electricity (2)	104.0	97.5	100.4	107.1	100.1
India (3)	105	103.3	104.4	111.4	105.1
Mining	102.8	99.9	102.3	112.2	105.8
Manufacturing	105.3	103.6	104.6	111.8	104.5
Electricity	104	106.1	105.4	107.9	108.9
China (4)	111.4	109.7	106.6	109.6	103.6
South Africa	86	99.9	100.3		92.6
Production of petroleum (million t	ons)				
Brazil	62	103.1	133.7	147.0	152.9
Russia (5)	324	522	547	523	534
India	32.4	37.8	35.7	29.7 <sup>(6)</sup>	
China	163	209.9	191.5	198.9	204.7
South Africa (million kl) (7)	21		•••		
Electricity production (billion-kilo	watt-hours	)			
Brazil (8)	348.9	570.3 <sup>(9)</sup>	589.4 <sup>(9)</sup>	656.1	
Russia	878	1 059	1 094	1 159	1 170
India (10)	561	1 176	1 483	1 719	
China	1 356	5 432	6 604	8 534	8 849
South Africa	210.7	256.1	255.4	244.3	234.8
Production of coal (million tons)					
Brazil	6.0	7.7	7.7	7.5	•••
Russia (5)	258	353	410	435	435
India	310	566	675	778	607
China	1 384	3 974	3 524	4 126	4 559
South Africa	225	257	252	234	230

## Sources

## Brazil

- a) Brazilian Institute of Geography and Statistics IBGE, Indices of Industrial Production 2000–2020.
- b) National Agency of Petroleum, Natural Gas and Biofuels ANP.
- c) Electric System National Operator ONS.
- d) Energy Research Company EPE.
- e) OECD.Stat Database.
- f) International Energy Agency, World Energy Statistics 2019.
- g) Monthly Bulletin of Statistics Online, UN.

## Russia

Federal State Statistics Service of the Russian Federation.

#### India

- a) Ministry of Statistics and Programme Implementation, Press Release of Quick Estimates of Index of Industrial Production.
- b) Ministry of Petroleum & Natural Gas, Indian Petroleum & Natural Gas Statistics (various issues).
- c) Central Electricity Authority, Ministry of Power, General Review (various issues).

## China

National Bureau of Statistics of China, Annual Industrial Statistical Reports 2000–2022; Monthly Industrial Production Survey 2000–2022; and Statistical Communiqué of the People's Republic of China on the 2022 National Economic and Social Development.

## South Africa

- a) South African Petroleum Industry Association.
- b) Statistics South Africa, Monthly Manufacturing Production and Sales Survey 2000–2019.
- Statistics South Africa, Monthly Electricity Generated and Available for Distribution Survey 2000–2019.

#### **Footnotes**

## Brazil

- (8) Electricity Production data is from Operador Nacional do Sistema Elétrico ONS.
- (9) Since 2010 data from World Energy Statistics Yearbook 2019.

## Russia

- (1) Before and including 2013 the aggregate index by economic activities "Mining and quarrying", "Manufacturing", "Electricity, gas and water production and supply"; since 2014 by economic activities "Mining and quarrying", "Manufacturing", "Electricity, gas, steam and air conditioning supply", "Water supply, water removal, waste management and activity on liquidation of pollution".
- (2) Before 2013 "Electricity, gas and water production and supply", since 2014 "Electricity, gas, steam and air conditioning supply".
- (5) Since 2020 dewatered, demineralized and stabilized petroleum, including natural gas liquids.

## India

- (3) The data of India pertains to fiscal year not calendar year, i.e. data for 2006 relates to the financial year 2006–07 and likewise. IIP figure for the year 2000 pertains to base year 1993–94, for 2008–2011 pertains to base year 2004–05 and from 2012 onwards as per new series of IIP with base year 2011–12.
- (6) Provisional data.
- (10) Information pertains to gross electricity production in utilities (including thermal, hydro and nuclear) and non-utilities. Data pertains to financial year.

## China

(4) Coverage of industrial enterprises above designed size had been adjusted since 2011, i.e. enterprises with annual revenue from principal business over 20 million yuan from 2011 on and over 5 million yuan prior to 2011.

#### South Africa

(7) Includes: petrol, jet fuel, illum paraffin, fuel oil, bitumen, LPG.

## **Explanatory Notes**

## Brazil

The reported data on Output of Main Industrial Product reflect production by manufacturing units with more than 30 employees.

Production of Mobile Cellular Subscriptions reflects the national production of mobile cellular.

#### Russia

Index of industrial production: the aggregate index by kinds of economic activities "Mining and quarrying", "Manufacturing", "Electricity, gas and water production and supply" before 2014 year and since 2014 year by kinds of economic activities "Mining and quarrying", "Manufacturing", "Electricity, gas, steam and air conditioning supply", "Water supply, water removal, waste management, activity on liquidation of pollution".

## India

**Index of industrial production** is a simple weighted arithmetic mean of production relatives, the weights being proportional to gross value of output as available from Annual Survey of Industries (ASI) factory sector. At the industry indicator levels, the weights were allocated in proportion to their gross value of output.

The new series of all India index of industrial production (IIP) with base year 2011–12 has a broader coverage of 856 items (clubbed in 407 item groups: Mining – 1, Manufacturing – 405, Electricity – 1) comprising 29 from Mining & Quarrying, 826 from Manufacturing and 1 from Electricity Sector having the weightage of 14,4%, 77,6% and 7,99% respectively in the all-India IIP. National Industrial Classification (NIC)-2008, which is as per ISIC Rev. 4, is being followed.

## China

**Industrial production index in China** refers to the indices of the PPI-deflated value added of industry (% to the previous year) covering industrial enterprises above the designated size. Industrial enterprises above the designated size refer to those with annual revenue from principal business over 20 million yuan from 2011 on and over 5 million yuan prior to 2011.

**Sawn wood:** refers to manufactured woods using wood sawing machines or manual tools to process log into formation of wood of certain width and thickness of sectional dimensions along longitudinal direction.

# 8.1Indices of industrial production, 2022 (preceding year =100)

















Energy



# **Summary of Energy on BRICS Countries**

	2000	2013	2017	2021	2022
Total primary energy pro	duction (mtoe)				
Brazil <sup>(1)</sup>	153	258	303		
Russia	1 488	1 914	1 976	2 054	
India <sup>(2)</sup>	204	354	386	426 <sup>(3)</sup>	
China (4)	970	2 511	2 512	2 990	3 262
South Africa	153	127	181		
Total consumption of en	ergy (mtoe)				
Brazil (5)	190	296	294		
Russia	1 131	1 308	1 337	1 396	
India (6)		414	499	526 <sup>(3)</sup>	
China (4)	1 029	2 918	3 191	3 681	3 787
South Africa	91	60	68		
Energy consumption per	capita (kgoe)				
Brazil (7)	1 088	1 468	1 409		
Russia	7 715	9 114	9 107	9 517	
India (8) (9)		502	566	584 <sup>(3)</sup>	
China (10)	815	2 141	2 286	2 607	
South Africa	1 799				

# **Summary of Energy on BRICS Countries**

(	Continued	1)

	2000	2013	2017	2021	2022
Share of net imports of	of energy to tota	l consumptio	on (%)		
Brazil	22	14.4	0.7		
Russia	2.9	1.9	1.7	1.6	
India		58	65	64	
China	3.4	15.7	19.2	21.2	
South Africa	21.0	40.0	32.0		
Electricity export (mil	lion kilowatt hou	urs)			
Brazil	7	0	160		
Russia	22 850	15 731	11 593	26 714	
India		1 651	7 203	9 249	
China	9 880	18 670	19 470	20 180	
South Africa (11)	4 007	13 929	15 201	13 705	12 270
Electricity import (mil	lion kilowatt ho	urs)			
Brazil	44 345	40 334	36 511		
Russia	8 795	11 461	6 410	2 650	
India		5 598	5 072	7 974	***
China	1 550	7 440	6 420	5 940	
South Africa (12)	4 719	9 428	8 568	10 137	10 761
Electricity consumption	on (million kilov	vatt hours)			
Brazil	331 795	611 169	636 375		
Russia	863 709	1 054 823	1 089 105	1 135 353	1 115 595
India	316 600	874 209	1 123 427	1 316 765	
China	1 347 240	5 420 340	6 591 400	8 520 010	
South Africa	195 660	192 121	202 675	221 030	214 766

## **Summary of Energy on BRICS Countries**

(Continued 2)

	2000	2013	2017	2021	2022
Electricity consumption	t hours)				
Brazil (13)	2 551	3 027	3 002		
Russia	5 931	7 350	7 417	7 784	7 863
India (14)	512 <sup>(9)</sup>	957	1 149	1 255	
China	1 067	3 976	4 721	6 032	
South Africa	4 587	4 315	***		

#### Sources

## Brazil

- a) Ministry of Mines and Energy of Brazil. Brazilian Energy Balance 2016.
- b) International Energy Agency, Electricity information 2019.
- c) UNSD Database.

## Russia

a) Federal State Statistics Service of the Russian Federation, Short Energy Balance.

## India

- a) Ministry of Statistics & Programme Implementation, National Statistical Office, Energy Statistics (various publications).
- b) Ministry of Power, Central Electricity Authority.

## China

National Bureau of Statistics of China, China Energy Statistical Yearbooks 2000–2022.

## **South Africa**

Statistics South Africa: Statistical release P4141: January 2011 and Energy accounts. Department of Energy.

## **Footnotes**

Mtoe stands for million tonnes of oil equivalent, kgoe stands for kilogram of oil equivalent, and ktoe stands for kilo tonnes of oil equivalent.

#### Brazil

- (1) Primary energy production includes natural gas rejected and non-utilized.
- (5) Total consumption, total primary energy supply, or gross domestic supply includes sectorial final energy consumption; losses in transformation, distribution and storage; and energy sector final consumption.
- (7) Energy consumption per capita = total consumption / population.
- (11) Data from Sustainable Development Goals Indicators, UNSD Database.
- (13) Electricity consumption per capita does not include energy consumption in energy sector and losses.

#### India

Information pertains to financial year (i.e. April of the year indicated in the table to March of the next year). Conversion factors have been used for providing data in Oil Equivalents.

- (2) Primary energy comprises coal, lignite, crude petroleum, natural gas and electricity. The conversion factor (production to energy terms) for each energy product has been updated as per the latest available information and data have been updated accordingly.
- (3) Provisional data.
- (6) Includes energy from coal, lignite, crude petroleum (crude oil in terms of refinery crude throughput), natural gas & electricity (hydro, nuclear & other renewable sources electricity from utilities). The conversion factor (production to energy terms) for each energy product has been updated as per the latest available information and data have been updated accordingly.
- (8) The conversion factor (production to energy terms) for each energy product has been updated as per the latest available information and data have been updated accordingly.
- (9) 1 petajoules = 23880000 kgoe. Mid-year population has been taken as on 1st October from population projection for India and states 2011–2036, report of the technical group on population projection.
- (14) (Gross generation + Net imports) / Mid-year population (as on 31st March of the year). The conversion factor (production to energy terms) for each energy product has been updated as per the latest available information and data have been updated accordingly.

## China

- (4) Electric power in total primary energy production and total consumption of energy are converted on the basis of equal caloric value. Energy data of 2022 are preliminary accounting figures.
- (10) Energy consumption per capita is calculated by annual average population.

## South Africa

- (11) Physical energy flowing out of South Africa as measured by the metering system at the South African borders.
- (12) Physical energy flowing into South Africa as measured by the metering system at the South African borders.

## **Explanatory Notes**

#### Brazil

Consumption of crude petroleum: refinery oil input.

**Consumption of petrol:** does not include alcohol and biodiesel. It includes only motor gasoline.

**Energy production from thermal:** includes oil products, natural gas, industrial gas, coal and biomass.

**Primary energy production:** includes natural gas rejected and non-utilized.

Exports: include bunkers.

**Total consumption:** includes sectorial final energy consumption; losses in transformation, distribution and storage; and energy sector final consumption.

**Solids:** Mineral and coal derivatives (other than coke oven gas), firewood and charcoal, sugarcane bagasse, liquor, biomass (Other Renewable) and other primary remaining.

**Liquids:** Oil and derivatives, molasses, cane juice, ethanol, vegetable oils (Other Renewable) and NGL (Other Non-Renewable).

**Gases:** Natural gas, coke oven gas, biogas (Other Renewable) and industrial gas (Other Non-Renewable).

Electricity: Hydraulics and electricity, uranium (U308) and derivatives, wind and solar.

**Share of renewable energy in energy consumption:** is the renewable energy divided by the total primary energy supply = final energy consumption + losses in the energy processing and transferring + energy sector consumption + statistical differences.

## Russia

**Electricity production:** refers to gross production of electricity.

## India

Total primary energy production: Primary energy does not include thermal electricity.

**Electricity consumption per capita** = (Gross generation + Net imports) / Mid-year population.

## China

**Total primary energy production** refers to the total production of primary energy by all energy producing enterprises in the country in a given period of time. It is a comprehensive indicator to show the level, scale, composition and pace of development of energy production of the country. The production of primary energy includes that of coal, crude oil, natural gas, hydro-power and electricity generated by nuclear energy and other means such as wind power and geothermal power. However, it does not include the production of fuels of

low calorific value, bio-energy, solar energy and secondary energy converted from primary energy.

**Total consumption of energy** refers to the total consumption of energy of various kinds by the production sectors and the households in the country in a given period of time. It is a comprehensive indicator to show the scale, composition and pace of increase of energy consumption. Total energy consumption includes that of coal, crude oil and their products, natural gas and electricity. However, it does not include the consumption of fuel of low calorific value, bio-energy and solar energy. Total energy consumption can be divided into three parts: end-use energy consumption; loss during the process of energy conversion; and energy loss.

## South Africa

**General:** The figures populated in this table have been derived from the South African Energy Balance for the respective years. The definitions/descriptions of all energy commodities and activities in our energy balances are aligned to international recommendations espoused in the International Recommendations on Energy Statistics (IRES) document and the IEA's Energy Statistics Manual.

## **Technical clarifications**

Electricity, gas and steam production: We assumed that this includes production of liquid fuels.

**Nuclear:** The figures were derived using electricity produced with the assumption of 33% efficiency.

**Private consumption:** was assumed to be residential + non-specified other under **Other Sectors** and any unspecified consumption.

Manufacturing: calculated as the sum of all industries less commercial and construction.



Chapter 10

Agriculture, Forestry, Animal Husbandry and Fishery



# Summary of Agriculture, Forestry, Animal Husbandry and Fishery on BRICS Countries

	2000	2013	2017	2021	2022
Area of cultivated land (m	Illion hectares)				
Brazil (1)	50	71	78	86	
Russia (2)	124	122	123	123	123
India (3)	156	156	154		
China (4)	128	135	•••		128
South Africa			•••		
Production of cereal (milli	on tons)				
Brazil (5)	45	98	115	108	
Russia	65	92	136	121	158
India (3)	186	246	260	288	303 (6)
China	405	587	615	633	633
South Africa (7)	14	14	19	19	18
Production of meat (1 000	tons)				
Brazil (8)	10 326	23 248	25 114	24 979	
Russia (9)	4 446	8 525	10 319	11 346	11 744
India (10) (11)	1 851	6 236	7 656	9 292	
China	60 139	86 328	86 544	89 900	93 284
South Africa (12)	1 666	3 032	3 082	3 453	3 473
Timber production (million	n cubic meters)				
Brazil	72	130	139	149	
Russia (13)	95	120	140	148	131
India					
China		84	78	116	
South Africa (14)	•••				

#### Sources

#### Brazil

- a) Brazilian Institute of Geography and Statistics IBGE, Agricultural Municipal Production Survey 2000–2019; Systematic Survey of Agricultural Production - May 2021; Forestry Activities 2000–2019; and Quarterly Animal Slaughter Survey 2000–2020.
- b) Ministry of Fishery and Aquaculture, Fishery Data 2008-2011.
- c) Brazilian Institute of Environment and Renewable Natural Resources IBAMA, Fishery Data 2000–2007.
- d) FAO STAT database.

## Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Federal Service for State Registration, Cadastre and Cartography.

#### India

- a) Ministry of Agriculture and Farmers' Welfare, Directorate of Economics & Statistics, Area Production Yield Statistics Database; Land Use Statistics at a Glance; and Advance Estimates.
- b) Ministry of Agriculture and Farmers' Welfare, Department of Animal Husbandry, Dairying & Fisheries, Basic Animal Husbandry and Fisheries Statistics (various issues) and Handbook on Fisheries Statistics (various issues).

#### China

- a) National Bureau of Statistics of the People's Republic of China, China Statistical Yearbook 2000–2022, and Statistical Communiqué of the People's Republic of China on the 2022 National Economic and Social Development.
- b) Ministry of Land and Resources of the People's Republic of China.

#### South Africa

- a) Statistics South Africa.
- b) Department of Agriculture, Land Reform and Rural Development.

## **Footnotes**

## **Brazil**

- (1) Harvested area.
- (5) Major cereals (corn, rice and wheat).
- (8) Major meat (beef, chicken and pork).
- (14) Fishery data refers only to the marine and continental extractive fisheries.
- (19) Preliminary data, may be reviewed.

## Russia

- (2) The data are produced and disseminated by the Federal Service of State Registration, Cadastre and Cartography. At the end of the year.
- (9) Production of livestock and poultry for slaughter.
- (13) Since 2010 wood in the rough; since 2017 raw timber.

# India

- (3) The period of agricultural year is from July (of the year indicated in the table) to June (of the next year).
- (6) As per third advance Estimates 2022-23.
- (10) The data pertains to March (of the year indicated in the table) to February (of the next year).
- (11) Meat production from commercial poultry farm is included from 2007–2008.

# China

(4) Data of area of cultivated land of China before 2016 are from the annual survey of the change of land. Data in 2019 are from the third national land survey.

# South Africa

- (7) Major cereals (maize/corn, wheat, malting barley, sorghum).
- (12) Major meat (beef and veal, mutton, goats, poultry).
- (14) Cubic meters derived from figures in tons provided by DAFF in the Report on commercial timber resources and primary roundwood processing in South Africa.

# **Explanatory Notes**

### **General Notes**

Cultivated area: This consists of net area sown and current fallows.

**Average yield of crops:** Average yields per hectare of principal crops have been obtained by dividing the total production by the corresponding total area under each crop.

### Brazil

**Fruits production:** considers the following fruits: orange, banana, grape, pineapple, papaya, watermelon, apple, coconuts, passion fruit, mango, tangerine, lemon, melon, guava, peach, persimmon, avocado, cashew nuts, fig, pear, nut, quince.

Cultivated area: includes only harvested area.

**Milk data:** obtained in litres and were converted to kg (1 kg = 1.03 litre). Major part of 2016 final data will be available only in September 2017.

Catch of fish data: not available after 2011.

**Timber production:** refers to the volume of timber measured and accepted based on the national timber standards after the procedures of logging, bucking, yarding, and finally transporting to timber depots or defined distribution sites.

**Amount of pesticide use:** Pesticide data available from IBAMA administrative data. Kg of pesticide expressed in *active ingredient, not final formulation*. Source: http://www.ibama.gov.br/relatorios/quimicos-e-biologicos/relatorios-de-comercializacao-de-agrotoxicos, yearly bulletins, file 'sale by class of use' (vendas por classe de uso)

### Russia

**Agricultural production** is the sum of crop-growing and animal husbandry outputs of all agricultural producers, including enterprises of private sector (household enterprises, peasant [farm] enterprises and individual employers) in value terms at actual current prices. To calculate agricultural production index, the indicator of production volume at comparable prices of previous year is used.

### India

Ministry of Agriculture is the nodal agency for collection, compilation and dissemination of agriculture statistics in India.

Directorate of Economics & Statistics in Department of Agriculture & Cooperation, Ministry of Agriculture is the agency primarily involved with crop statistics and the reporting period for the same is agricultural year, i.e. July to June of the next year whereas Department of Animal Husbandry, Dairying & Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying produces and disseminates information on livestock with financial year as the reporting period (i.e. March–February of the next year).

Cultivated area: consists of net area sown and current fallows.

# China

**Indices of agricultural gross output:** The development rates of agricultural gross output value deflated by using producer price indices.

**Timber production:** refers to the volume of timber measured and accepted based on the national timber standards after the procedures of logging, bucking, yarding, and finally transporting to timber depots or defined distribution sites.

**Amount of pesticide use per unit of cultivated land:** refers to the ratio of total volume of pesticides used to the cultivated area in the same period, usually kg/ha or kg/mu used as measurement unit.





**Transport** 



# **Summary of Transport on BRICS Countries**

	2000	2013	2017	2021	2022
Length of railways in	operation (1 000	km)			
Brazil	29	30			
Russia	86	86	87	87	87
India	63	65	67	68	
China	69	103	127	151	155
South Africa	21				
Length of highways (	(1 000 km)				
Brazil	1 573	1 561			
Russia (1)	532	985	1 064	1 108	1 115
India (2)	185	236	276	312	332
China	1 680	4 356	4 774	5 281	5 355
South Africa		•••		•••	
Length of petroleum	pipelines (1 000	km)			
Brazil		8			
Russia	48	55	53	54	54
India (3)	16	38	43	49	50
China	25	98	119	131	136
South Africa	3				***
Passenger traffic (all	means) (billion	oassengers-k	m)		
Brazil					
Russia (4)	496	546.9	560.2	492.7	508.4
India					
China (5) (6)	1 226	2 757	3 281	1 976	1 292
South Africa					

# **Summary of Transport on BRICS Countries**

ouninary or manop	on on binoc co	unuico			(Continued 1)
	2000	2013	2017	2021	2022
Freight traffic (all m	eans) (billion ton	s-km)			
Brazil			***		
Russia	3 638	5 084	5 488	5 701	5 582
India			•••		•••
China (5) (7) (8)	4 432	16 801	19 737	22 360	23 178
South Africa		•••			•••
Passenger traffic by	railway (million	persons-km)			
Brazil	416	392			
Russia	167 054	138 517	123 096	104 204	124 024
India	4,57,022	11,40,412	11,77,699	590 217	***
China	453 259	1 059 562	1 345 692	956 781	657 753
South Africa					***
Passenger traffic by	air (million pers	ons-km)			
Brazil	48 165	116 032	128 940		
Russia	53 410	225 157	259 386	243 262	227 952
India (9)	26 212	114 036	199 409	118 290	216 536 <sup>(10)</sup>
China	97 054	565 676	951 304	652 969	391 387
South Africa					

# Sources

### Brazil

- a) National Terrestrial Transport Agency ANTT.
- b) National Civil Aviation Agency ANAC.
- c) National Department of Transport Infrastructure, National Transportation System 2013.
- d) National Petroleum, Natural Gas and Biofuels National Agency ANP.

# Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Federal Road Agency.
- c) Federal Air Transport Agency.

# India

- a) Ministry of Railways, Statistical Summary Indian Railways (various issues).
- b) Ministry of Road Transport & Highways, Basic Road Statistics of India (various issues).
- c) Ministry of Petroleum & Natural Gas, Indian Petroleum & Natural Gas Statistics (various issues).
- d) Ministry of Civil Aviation, Directorate General of Civil Aviation, Air Transport Statistics (various issues).

# China

- a) Ministry of Transport of the People's Republic of China.
- b) Civil Aviation Administration of China.
- c) National Railway Administration of the People's Republic of China.
- d) China National Petroleum Corporation, Annual Statistical Reports 2000-2022.
- e) China National Offshore Oil Corporation, Annual Statistical Report 2022.
- f) National Bureau of Statistics of the Peoples of China.
- g) China Petroleum and Chemical Corporation.
- h) Pipe China.

### South Africa

Transnet.

# **Footnotes**

### Russia

- (1) Length of public paved roads in operation (including highways). At the end of the year.
- (4) Excluding passenger taxi.

# India

- (2) The information is as on 31st March of the year indicated in the table. The information on highways includes both national and state highways (excluding rural roads, project roads, urban roads, etc.).
- (3) The figures include crude oil and natural gas pipelines.
- (9) Reference period is the financial year, i.e. April of the year indicated in the table to March of the next year.
- (10) Provisional data. International operations were carried as per DGCA circular dated 26-03-2020.

# China

- (5) Since 2013, there have been some changes on the classification, so the data from 2013 and on cannot be compared with the previous ones.
- (6) All means: including railway, road, waterway and air.
- (7) Since 2019, there have been some changes on the classification, the data cannot be compared with the previous ones.
- (8) All means: including railway, road, waterway, air and pipeline.

# **Explanatory Notes**

### Brazil

**Length of highways:** Refers to federal, state and municipal highways, excluding planned highways. Information on federal highways was published in December 2016 on www.dnit.gov.br.

#### Russia

**Passenger traffic (all means):** passenger turnover, which is determined by multiplying the number of passengers for each position of transportation by the length of distance covered in kilometres. Total passenger turnover is the sum of passenger turnover of railway, bus, passenger taxi, tramway, trolley-bus, subway, maritime, inland water and air transport.

**Freight traffic (all means):** freight turnover, which is calculated by multiplying the weight of shipped freight in tons by the length of its shipping in kilometres. Total freight traffic is the sum of freight turnover of railway, motor, pipeline, maritime, inland water and air transport.

**Public roads:** refer to the federal roads of federal property; regional and inter-municipal roads of the property of constituent entities of the Russian Federation; local roads of the property municipalities as well as of property of settlements, municipal and city districts.

### India

**Length of railways in operation:** This indicates total route kilometres, both electrified and non-electrified.

Length of highways: excludes urban and project roads.

Length of petroleum pipelines: includes both onshore and offshore infrastructure.

**Civil aviation:** information on air traffic and air operations includes operations of Indian carriers on scheduled both domestic and international services.

### China

**Length of railways in operation:** refers to the total length of the trunk line for passenger and freight transportation (including both full operation and temporary operation).

**Length of highways:** refers to the length of highways which are built in conformity with the grades specified by the highway engineering standard [Highways WTBZ-Technical Standard JTJ01-88] formulated by the Ministry of Transport, and have been formally checked and accepted by the departments of highways and put into use.

**Length of petroleum pipelines:** refers to the actual transport distance of oil (or gas) products, which is in general calculated according to the length of a single pipeline.

**Freight traffic (passenger traffic):** refers to the sum of the product of the volume of transported cargo (passengers) multiplied by the transport distance in a given period of time.

**Freight traffic of petroleum pipelines:** refers to the total amount of oil (or gas) transported through petroleum pipelines.

**Length of domestic regular civil aviation routes:** refers to the total length of all domestic periodic civil aviation routes during the statistical period.

**Number of regular civil airports opened:** refers to the total number of areas assigned for civil aviation flights to do takeoff, landing, taxiing, parking and other actions.

**Ownership of automobiles:** refers to the total number of vehicles that are registered and received vehicle license tags according to the Work Standard for Motor Vehicles Registration formulated by the Transport Management Office under the Department of Public Security at the end of the reference period.



# Chapter 12

Information and Communication Technology



# Summary of Information and Communication Technology on BRICS Countries

	2000	2013	2017	2021	2022
Main telephone lines per 1 000	) inhabitants				
Brazil	186	225	194 <sup>(1)</sup>		
Russia	226	289	222	164	152
India (2)	26	23	18	17	20 (3)
China (4)	124	196	139	128	127
South Africa (5)		36	24		21
Number of subscribers of cell	ular mobile telepho	ones per 1	000 inhab	itants	
Brazil	140	1 349 <sup>(1)</sup>	1 050 <sup>(1)</sup>		
Russia (6)	22	1 933	2 003	2 188	2 152
India (2)	2	717	901	842	826
China (4)	67	903	1 020	1 163	1 193
South Africa (5)	185	1 432	1 552		
Number of Internet users per	1 000 inhabitants				
Brazil (7)(8)		510			
Russia (9)	20	680	798	901	921
India (10)	5	193	344	605	626
China	18	458	558	730	756
South Africa (11)		76	86	88	•••
Number of daily newspapers					
Brazil		722			
Russia (12)	946	739	362	207	198
India (13)	5 364	13 350	17 160	20 278	
China (14)	2 007	1 915	1 884	1 752	1 750
South Africa (15)	16	22			17

#### Sources

#### Brazil

- a) National Telecommunication Agency ANATEL.
- b) Brazilian Institute of Geography and Statistics IBGE, National Household Sample Survey 2007–2015; Projection of the Population by sex and age groups by the component method for the Period 2000–2030.
- c) Statistics from the Center of Studies on Information and Communication Technologies CETIC.br, ICT Households Survey 2008–2015.
- d) Associacao Nacional de Jornais ANJ (National Association of Newspapers); http://www.anj.org.br/numero-de-jornais-brasileiros-2/
- e) International Telecommunication Union (ITU).

#### Russia

- a) Ministry of Digital Development, Communications and Mass Media of the Russian Federation.
- b) Federal State Statistics Service of the Russian Federation.
- c) World Bank.

### India

- a) Telecom Regulatory Authority of India, Indian Telecom Services Performance Indicator Report (various issues).
- b) Ministry of Information and Broadcasting, Office of the Registrar of Newspapers for India, Press in India (various issues).

# China

- a) Ministry of Industry and Information Technology of the People's Republic of China.
- b) National Bureau of Statistics of China, China Household Survey 2013–2022; Urban Household Survey in China 2000–2012; and Rural Household Survey in China 2000–2012.
- c) National Press and Publication Administration, Annual Statistical Reports 2000–2022.

### South Africa

- a) General Household Survey (GHS) 2002–2019. Statistics South Africa.
- b) South African Audience Research Foundation.
- c) International Telecommunication Union (ITU).

# **Footnotes**

# Brazil

- (1) Data from ITU database.
- (7) Considering population from 10 years and older.
- (8) Until 2012, comprised only persons who accessed the Internet by personal computer and from 2013 onwards, by any equipment.

### Russia

- (6) Number of user devices of mobile radiotelephone (cellular) communication.
- (9) Until 2013 according to the World Bank. Since 2013, based on the sample surveys of the population on the use of ICT.
- (12) Newspapers issued 3 and more times per week (number of titles).

# India

- (2) Data is as at 31st December of the year indicated in the table, except for 2000 where it is as on 31st March of the year 2001. Data for main telephone lines pertain to wireline whereas that for cellular mobile telephone pertains to wireless subscription in case of India.
- (3) Data are as on quarter ending 31st December 2022.
- (10) Information for 2000–2012 is as per ITU database whereas data for 2013 onwards are as per Telecom Regulatory Authority of India, Indian Telecom Services Performance Indicator Report (Various Issues) and as at 31st December of the year indicated in the table.
- (13) Data relate to 31st March of the year indicated in the table, except for 2000 where the same is as at 31st December 2000. Data pertain to registered dailies.

# China

- (4) PHS subscribers are also included in those of the main telephone lines.
- (7) National Bureau of Statistics of China started a household survey in 2013–2014, including both urban and rural households. The coverage, methodology and definitions used in the survey are different from those used for the separate urban and rural household surveys prior to 2013.
- (14) Kinds of newspapers.

# South Africa

- (5) Data from ITU database.
  - Household-based question:
- (5) Does the household have access to a telephone line in the dwelling or household? Calculation: Households with a telephone/total population x 1 000. Survey data.
- (8) Does the household have access to a computer in the dwelling or household? Question was only asked in 2005, 2012–2019.
- (11) Does the household have access to an internet connection in the dwelling or household? Available from 2009.
- (15) Number of current daily newspapers, including those not printing on weekends and public holidays.

# **Explanatory Notes**

#### Brazil

**Reference period:** in the Brazilian surveys when asking about individual use of ICT, it refers to the last three months according to the international recommendation.

**Number of Internet users per 1 000 inhabitants:** Includes inhabitants aged 10 years or older. Internet users — persons aged 10 years or older who accessed the Internet somewhere (own home, workplace, center of free or paid access, home of other persons or any other place) by PC desktop or laptop (notebook, palmtop, pocket pc or handheld) at least once in the reference period of the last three months.

### Russia

**Main telephone lines:** are telephone sets having independent numbers at the public telephone station as well as telephones with a shared line intended for public use. They switched on the public network and render service of local, intercities and international communication.

**Cellular communication:** mobile radio and telephone communication. Mobile communication - complex of technical means (radio and communication equipment, communication lines and structures), which render communication facilities for mobile subscribers and subscribers of public telephone network.

Data on organizations using personal computers and other information and communication technologies are given for organizations which are under statistical observation (excluding small business).

**Number of Internet users per 1 000 inhabitants:** the ratio of the population using Internet within the last 12 months to the total population (in 2013–2017 aged 15–72 years, since 2017 at the age of 15–74 years).

### India

**Main telephone line:** Information relates to wireline connections, i.e. connections with (fixed) telephone line connecting the subscriber's terminal equipment to the network. It includes WLL (fixed line extending up to the base unit).

Subscribers of cellular mobile telephone: includes wireless connections.

**Data on Internet users:** includes information on subscription through both fixed lines as well as wireless (mobile phones) internet subscriptions.

**Number of daily newspapers:** includes newspapers in all languages and bilingual/multilingual newspapers.

**Total Internet subscribers:** comprises narrowband subscribers and broadband subscribers. This also comprises wired internet subscribers & wireless internet subscribers.

### China

**Main telephone line:** refers to a main line which is a (fixed) telephone line connecting the subscriber's terminal equipment to the public switched network and which has a dedicated port in the telephone exchange equipment. The number of ISDN channels are included. PHS subscribers are included.

**Subscribers of cellular mobile telephone:** refer to number of portable telephone users subscribing to a public mobile telephone service and that have access to the Public Switched Telephone Network (PSTN) using cellular technology. This includes analogue and digital cellular systems.

**Internet users:** refer to inhabitants aged 6 or older and have connected with Internet at least once in the last 6 months.

**Number of daily newspapers:** includes all kinds of newspapers with CSSN (China Standard Serial Number).

**Fixed broadband Internet access:** refers to registered users accessing the public internet through xDSL, FTTx+LAN, FTTH/O and other broadband access methods at the end of the reference period. By the administrative area, the internet broadband access users can be divided into urban and rural broadband access users. Breaking down by customers, they can be divided into household broadband access users and office broadband access users.

**Time length access to fixed broadband Internet:** refers to the actual time use by the fixed broadband Internet access users in the enterprise connected to the public Internet through the fixed broadband network at the end of the reference period.

Flow volume access to mobile Internet: refers to the flow volume occurred by the mobile phone users (including wireless LAN users) in the enterprise accessing the public internet or WAP site through the mobile communication network, including uplink and downlink flow.

**Length of optical cable lines:** refers to the sum of the length of the trunk line of the local network, the length of the cable line of the access network, and the length of the long-distance optical cable line at the end of the reference period.

**Length of long-distance optical cable lines:** refers to the actual length of the long-distance optical cable used to realize the transmission of optical signals. Overhead cable length is calculated by the actual length of rod road; cable length buried underground, underwater, submarine pipelines is based on the channel or pipe length.

Base stations of mobile telephones: refer to all the sets of facilities that provide service for wireless receiving and transmitting apparatus for residence, processing the mobile wireless communication between base station and the mobile station, playing relay function between the mobile switching and the mobile stations, monitoring the quality of wireless transmission at the end of the reference period.

**Broadband Internet access ports:** refer to all kinds of broadband internet access ports actually installed and operated for the access of the internet users, and does not include narrowband dial-up access ports. According to the main technical modes at present used for broadband internet access, the xDSL port, LAN port and FTTH/O port are used.

**Number of websites:** refers to websites with the domain name or "WWW.+ domain name" as their site addresses, which include China's country websites of the top-level domain name (CN) and category top level domain name (gTLD). These domains are registered within the territory of China.

# South Africa

Household-based question:

Does the household have access to a telephone line in the dwelling or household? Does the household have access to a cell phone in the dwelling or household? Does the household have access to a computer in the dwelling or household? Question was only asked in 2005, 2012 and 2013.

Does the household have access to an Internet connection in the dwelling or household? Question was asked in 2005, and then again in 2009, 2010. Available 2009–2013. Not access to outside sources, just whether they have access in the household.





**Finance** 



# **Summary of Finance on BRICS Countries**

	2000	2013	2017	2021	2022
Share of deficit (-) / surplus (+) of ge	eneral gove	rnment bu	udget to GD	P (%)	
Brazil <sup>(1) (2)</sup>	-3.8	-3.5	-8.4	-4.1	-4.5
Russia <sup>(3)</sup>	1.4	-0.4	-1.4	0.4	-2.1
India <sup>(4) (5)</sup>	-6.6	-3.3	-2.6	-4.4	-4.1
China	-2.5	-1.9	-3.7	-3.8	-4.7
South Africa (6)	-1	-3.9	-2.8	-9.7	
Share of income tax to revenue (%)					
Brazil <sup>(7)</sup>		17.1	17.5	19.2	21.2
Russia (8)	27.3	18.7	21.1	22.8	22.8
India <sup>(4) (9)</sup>	11.3	21.4	30	32.1	34.7 (15)
China	12.4	22.4	25.5	27.7	28.8
South Africa (6)	42.3	40.8	40.5	38.2	
M2 supply (year-end) (billion US\$)					
Brazil <sup>(10)</sup>	155.2	919.1	808.7	800.7	987.9
Russia (11)	40.9	951.9	736.8	891.8	1 171.3
India <sup>(4) (12)</sup>	82.5	349.9	519.5	725	714.7
China (13)	1 626.1	18 149	25 867.5	37 374.7	38 255.2
South Africa (14)	62.7	197.7	212.7	231.1	225.9

# Sources

# Brazil

- a) Central Bank of Brazil.
- b) National Treasury Secretariat.

# Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Federal Treasury.
- c) Bank of Russia.

# India

- a) Ministry of Finance, Union Budget (various issues).
- b) Reserve Bank of India.

# China

- a) Ministry of Finance of the People's Republic of China.
- b) The People's Bank of China.
- c) National Bureau of Statistics of China.

# South Africa

South African Reserve Bank.

# **Footnotes**

### Brazil

- (1) The general government includes federal government, state governments, and local governments, and excludes Central Bank of Brazil and public enterprises.
- (2) Nominal result
- (7) Total tax revenue corresponds to the fiscal load.
- (10) The annual average exchange rates used is available in Tables 13.2.1 and 14.1.

### Russia

- (3) Share of deficit/surplus of federal budget to GDP. The calculation carried out on the basis of data of the Federal Treasury.
- (8) Share of profit (income) tax of organisations and income tax of individuals to revenue. The calculation is carried out on the basis of data of the Federal Treasury.
- (11) The calculation is according to the data of Bank of Russia.

### India

- (4) For all information, reference year is the financial year (i.e. April of the year indicated in the table to March of the next year). For example, figure given for year 2000 here is virtually for the financial year 2000–01, which means April 2000 to March 2001. This is applicable for each figure in the row.
- (5) The data relate to Revenue Deficit of General Government, i.e. Central Government & State Governments combined. For 2012 to 2022, figures given are based on GDP figures relating to new series (i.e. revised base year 2011–12 = 100) and worked out at current market price.
- (9) Revenue pertains to General Government and includes both revenue and capital receipts. Income tax includes personal income tax only. Income tax is collected by Central Government only.
- (12) Includes currency with the public, deposit money of the public and post office saving bank deposit. M2 supply (year-end) in million US\$ has been calculated on the basis of year-end exchange rate of the concerned financial years.
- (15) Revised estimate.

### China

(13) M2 is calculated using the year-end exchange rates released by State Administration of Foreign Exchange.

### South Africa

- (6) Fiscal year: year begins on 1 April to 31 March of the following year.
- (14) Calendar year: year begins on 1 January to 31 December (year-end). Year-end exchange rates are used.

# M2 comprises:

- \* Notes and coins in circulation outside the monetary sector.
- \* Cheque and transmission deposits.
- \* Other demand, short- and medium-term deposits up to 6 months.
- \* Monthly average exchange rates at year end.

# **Explanatory Notes**

# Brazil

Share of deficit (-)/surplus of General Government to GDP: The general government includes federal government, state governments, and local governments, and excludes Central Bank of Brazil (Bacen), and public enterprises. Nominal result.

Share of income tax to revenue: Total tax revenue corresponds to the fiscal load.

**M2** supply (end of the year): The annual average exchange rates used are available in Tables 13.2.1 and 14.1.

**Expenditure:** Data covers Federal Government only.

**Other expenditure:** is the single largest item because it comprises transactions such as transfers to states and municipalities, and debt management expenditure.

# Russia

**Budget revenues:** monetary funds coming to the budget, excluding funds which in accordance to the Budget Code of the Russian Federation are the sources of financing the budget deficit.

**Budget expenditures:** monetary funds paid from the budget funds, excluding funds which in accordance to the Budget Code of the Russian Federation are the sources financing the budget deficit.

**Deposit rate:** average rate on deposits (in national currency) of individuals in credit institutions for up to 1 year.

**Lending rate:** average rate on loans (in national currency) to legal entities (companies and organizations) in credit institutions up to 1 year.

Annual rates: are calculated as the average of monthly data.

### India

General Government includes both Central Government and State Governments.

Income tax: Income Tax Act, 1961 imposes tax on the income of the individuals or Hindu undivided families or firms or cooperative societies (other than companies) and trust (identified as bodies of individuals associated of persons) or every artificial juridical person. The inclusion of a particular income in the total incomes of a person for income tax in India is based on his/her residential status. There are three residential statuses: (i) Resident and Ordinary Resident (Resident); (ii) Resident but not Ordinary Resident; and (iii) Non Resident. There are several steps involved in determining the residential status of a person. All residents are taxable for all their income, including income outside India.

M1 = Currency with the public + deposit money of the public.

M2 = M1 + Post Office savings banks deposits.

M3 = M1 + time deposits with banks.

M4 = M3 + total Post Office deposits.

### China

**Revenue of consolidated budget:** refers to income for the government finance through participating in the distribution of social products. It is the financial guarantee to ensure government functioning. The contents of government revenue have been changed several times.

**Expenditure of consolidated budget:** refers to the distribution and use of the funds which the government finance has raised, so as to meet the needs of economic construction and various causes.

**Share of deficit/surplus of General Government to GDP:** = (Revenue of consolidated budget - Expenditure of consolidated budget)/GDP.

The contents of Government Revenue include the following main items:

- a) **Various tax revenues:** including domestic value added tax (VAT), domestic consumption tax, VAT and consumption tax from imports, VAT and consumption tax rebate for exports, corporate income tax, individual income tax, resource tax, city maintenance and construct tax, house property tax, stamp tax, urban land use tax, land appreciation tax, tax on vehicles and boat operation, ship tonnage tax, vehicle purchase tax, tariffs, farm land occupation tax, deed tax, tobacco leaf tax, environment protection tax, etc.
- b) **Non-tax revenue:** including special program receipts, charge of administrative and institutional units, penalty receipts and other non-tax receipts.

The contents of Government Expenditure: include the following main items: a) Expenditure for general public services; b) Expenditure for foreign affairs; c) Expenditure for national defence; d) Expenditure for public security; e) Expenditure for education; f) Expenditure for science and technology; g) Expenditure for culture, sports and media; h) Expenditure for social safety net and employment effort; i) Expenditure for medical and health care; j) Expenditure for environment protection; k) Expenditure for urban and rural community affairs; l) Expenditure for agriculture, forestry and water conservancy; m) Expenditure for transportation; n) Expenditure for commerce and services, etc.

# South Africa

M0 = Deposits of monetary institutions with the central bank and banknotes and coin in circulation outside the central bank.

M1 = Notes and coin in circulation plus cheque and transmission deposits and other demand deposits of the domestic private sector with monetary institutions.

M2 = M1 plus other short-term deposits held by the domestic private sector.

M3 = M2 plus long-term deposits held by the domestic private sector.



Chapter 14

**External Economic Relations** 



# Summary of External Economic Relations on BRICS Countries

	2000	2013	2017	2021	2022			
Value of imports and exports of goods and commercial services (million US\$)								
Brazil	137 738	612 867	486 819	621 581	755 431			
Russia	168 991	1 061 609	737 731	929 846	•••			
India (1)	125 940	995 163	769 107	1 035 056	1 165 001			
China (2)	477 398	4 475 810	4 641 545	6 648 969	6 855 326			
South Africa	70 187	236 021	204 212	235 469	263 445			
Value of imports of go	ods and commer	cial services	(million US\$)					
Brazil	63 584	279 142	251 258	315 494	379 783			
Russia	58 471	469 651	327 248	379 946				
India (1)	65 112	528 945	465 581	613 052	714 042			
China (2)	224 306	2 120 215	2 212 267	3 093 737	3 139 498			
South Africa	33 129	122 253	99 924	104 833	127 707			
Value of exports of go	ods and commer	cial services	(million US\$)					
Brazil	74 155	333 725	235 561	306 087	375 648			
Russia	110 520	591 958	410 483	549 900				
India (1)	60 828	466 218	303 526	422 004	450 958			
China (2)	253 092	2 355 595	2 429 277	3 555 231	3 715 828			
South Africa	37 058	113 768	104 288	130 636	135 739			
Share of current accou	unt surplus(+)/de	ficit(-) to GDP	(%)					
Brazil	-4.1	-3.6	-1.2	-2.8	-2,9			
Russia	16,3	1,5	2.0	6,7	10.3			
India (1) (3)	-0.6	-1.7	-1.8	-1.2				
China	1.7	1.5	1.5	2.0	2.2			
South Africa	-0.1	-5.3	-2.4	3.7	-0.5			

# Summary of External Economic Relations on BRICS Countries

(Continued 1)

	2000	2013	2017	2021	2022
Ratio of exports of good services (%)	s and commercial	services to	imports of	goods and o	commercial
Brazil	116.1	119.6	93.8	97.0	98.9
Russia	189.0	126.0	125.4	144.7	
India (1)	93.4	88.1	65.2	69	63
China	112.8	111.1	109.8	114.9	118.4
South Africa	111.9	93.1	104.4	124.6	106.3
Ratio of exports of good	s to imports of go	ods (%)			
Brazil	96.9	100.2	135.7	114.7	114.9
Russia	235.5	152.9	148.1	162.6	
India (1)	88.2	69.8			
China	115.9	120.1	127.3	121.2	125.0
South Africa	117.2	92.7	105.3	133.2	112.4
Inflows of FDI (million U	S\$)				
Brazil	32 995	75 211	68 885	46 439	91 502
Russia (4)	2 678	69 219	28 557	40 450	•••
India (1) (5)	4 031	36 047	60 974	84 835 <sup>(6)</sup>	66 436 <sup>(6)(7)</sup>
China (8)	40 715	117 586	131 035	173 483	189 132
South Africa (9)	888	8 304	2 010	40 896	8 862
Outflows of FDI (million	US\$)				
Brazil	2 497	15 644	21 341	16 239	30 694
Russia (4)	3 179	86 507	36 757	65 883	
India (1) (5)	759	9 199	9 144	17 644	
China (8) (9)		107 844	158 288	178 819	
South Africa (10)	271	6 652	7 377	19	2 453

Summary of External Ecol	ummary of External Economic Relations on BRICS Countries					
	2000	2013	2017	2021	2022	
Foreign exchange reserve	s (million US	\$)				
Brazil (11)	33 011	358 808	373 972	362 204	324 703	
Russia (12)	24 263	456 447	346 507	468 075	417 806	
India (13)	42 281	304 223	424 545	607 309		
China	165 574	3 821 315	3 139 949	3 250 166	3 127 691	
South Africa	7 534	49 587	50 722		60 570	
Share of external debts to	GDP (%)					
Brazil	36.0	25.2	32.3	40.6	35.5	
Russia (12)	61.7	32.7	32.5	26.5	17.4	
India (13)	22.0	22.4	19.8	21.2	20.0	
China (14)		9	14.3	15.4	13.6	
South Africa	27.1	37.2	49.6	38.3	40.6	
nternational investment p	osition (millio	on US\$)				
Brazil (15)		-723 915	-645 227	-605 624	-777 276	
Russia (16) (17)		142 332	219 666	516 731	485 038	
India (13)	-76 848	-326 663	-387 992	-351 128		
China		1 818 365	2 065 230	2 186 059	2 531 328	
South Africa	-10 694	-14 720	34 597		67 188	
Annual average exchange	rates					
Brazil (R\$ per US\$)	1.8	2.2	3.2	5.4	5.2	
Russia (RUB per US\$)	28.1	31.8	58.3	73.7	67.5	
India (RS. per US\$) (1)	45.7	61	65	75	80	
China (RMB per US\$)	8.3	6.2	6.8	6.5	6.7	
South Africa (ZAR per	6.9	9.7	13.3	14.8	16.4	

US\$)

# Sources

# Brazil

- a) Central Bank of Brazil.
- b) Ministry of Development, Industry and Foreign Trade.
- c) International Monetary Fund.

# Russia

- a) Federal State Statistics Service of the Russian Federation.
- b) Bank of Russia.
- c) International Monetary Fund.

### India

- a) Ministry of Commerce & Industry.
- b) Reserve Bank of India, Handbook of Statistics on Indian Economy.
- c) Ministry of Finance, Report on India's External Debt (various issues).

# China

- a) State Administration of Foreign Exchange.
- b) Ministry of Commerce of the People's Republic of China.

# South Africa

South African Reserve Bank.

# **Footnotes**

### Brazil

- (1) According to IMF data.
- (11) Cash concept.
- (15) Since April 2015, Brazilian Direct Investment (DI) data are presented in accordance with the sixth edition of Balance of Payments and International Investment Position Manual (BPM6), edited by the IMF, which uses the principle of assets and liabilities instead of the directional principle. Additionally, new sources of information enabled the inclusion of flows of reinvested earnings from 2010 onwards. As of BPM6, the expression "FDI" was replaced by "Direct Investment Liabilities".

# Russia

- (4) According to the Bank of Russia.
- (12) At the end of the year. The calculation is according to the data of Bank of Russia.
- (16) At the beginning of the year.
- (17) Data are presented in accordance with the 6th version of the IMF's Balance of Payments and International Investment Position Manual.

# India

- (1) All information in case of India pertains to financial year (i.e. from 1st April of the year mentioned in the table to March of the next year).
- (3) GDP estimates used are at current market prices (with base year revised 2011–12 = 100).
- (6) Provisional data.
- (13) Figures are as on 31st March of the year indicated in the table.
- (7) Figures are up to February 2023.
- (5) Inflows of FDI (million US\$) is Gross FDI Inflow to India and Outflows of FDI (million US\$) is Net FDI abroad

# China

- (2) Data of imports and exports of goods and commercial services come from the State Administration of Foreign Exchange.
- (8) Data of FDI come from the Ministry of Commerce of the People's Republic of China.
- (9) Outflows of FDI from 2000 did not include financial intermediation, data for 2012 and onwards included all sectors.
- (14) In accordance with the Special Data Dissemination Standard (SDDS) of the IMF, China adjusted the statistical coverage of external debt and disseminated the full-scale data on China's external debt in 2015, including RMB-denominated external debt, which was classified into medium- and long-term external debt and short-term external debt by contractual maturity. Outstanding external debt at the end of 2014 was adjusted to the full-scale data on the base of comparable coverage. No adjustments were made for previous years.

# South Africa

- (9) These indicate on a net basis an increase in liabilities and a decrease in assets.
- (10) These indicate on a net basis a decrease in liabilities and an increase in assets.

# **Explanatory Notes**

### Brazil

Since April 2015, Brazilian Direct Investment (DI) data are presented in accordance with the sixth edition of Balance of Payments and International Investment Position Manual (BPM6), edited by the IMF, which uses the principle of assets and liabilities instead of the directional principle. Additionally, new sources of information enabled the inclusion of flows of reinvested earnings from 2010 onwards. As of BPM6, the expression "FDI" was replaced by "Direct Investment - Liabilities".

The title of Table14.3.1 has been changed because of the new balance of payments methodology (BPM6).

Table 14.4.1 has been adjusted to the new balance of payments methodology (BPM6).

### Russia

**Export of goods:** removal of goods (commodities) from the Russian Federation territory without of a guarantee of return. Export includes the removal of domestically produced goods and re-export of goods as well. Domestically produced goods also include foreign manufactured goods imported into the country and significantly reprocessed and, as a result, changed their qualitative and technical characteristics. Re-exports - goods imported to the territory of the Russian Federation and then removed from its territory without payment of customs dues, taxes and application of embargo of economic restrictions. Recording of the goods exports is realised by FOB prices or border prices of the exporting country.

**Import of goods:** importing of goods into the Russian Federation territory without a guarantee of return. Imports include the brought goods for consumption in the economy and goods imported into the country territory according to the reimport system. Re-imported goods are those moved out from the Russian Federation territory and then moved in this territory without payment of custom dues, taxes and application of embargo or economic restrictions. Recording of the goods import is realised in Franco-border prices of the importing country (CIF), i.e. prices of goods include expenditures on the insurance and transportation to the border of the importing country.

**Balance of payments:** data are presented in accordance with the 6<sup>th</sup> version of the IMF's Balance of Payments and International Investment Position Manual. In Table 14.2.2.1, data on import and export of Russia are presented about the major trade partners and BRICS countries.

#### India

**Exports:** are credited to the country of final destination as declared by exporters in the shipping bill whether that country possesses a seaport or not. The country of final destination is defined as that to which goods exported from India are intended to pass whether by sea and land or by sea only or by air without interruption of transit, save in the course of transhipment or transfer from one means of conveyance to another.

**Imports:** are classified with reference to the countries whence they were consigned to India and not with reference to the countries whence they were shipped directly to India. The country of consignment is defined as that from which the goods have come whether by land or sea or by sea only or by air, without interruption of transit save in the course of transhipment or transfer from one means of conveyance to another. Thus, the countries where goods are consigned are not in all cases the countries of actual origin. Goods produced in one country may be purchased by a firm in another country and then dispatched after an interval to India

The data for imports, exports and re-exports: given according to the Indian Trade Classification (based on harmonized Commodity description and coding system).

**External debt to GDP:** includes long-term debts as multilateral loans, bilateral loans, International Monetary Fund's trade credit, external commercial borrowings; non-resident Indian deposits, Rupees debts and short-term deposits.

Under current account of the BoP, transactions are classified into merchandise (export and imports) and invisibles. Invisible transactions are further classified into three categories, namely: a) Service - travel, transportation, insurance, Government not included elsewhere (GNIE) and miscellaneous (such as, communication, construction, financial, software, news agency, royalties, management and business services); b) Income; and c) Transfers (grants, gifts, remittances, etc.) which do not have any quid pro quo. Under the Capital Account, capital inflows can be classified by instrument (debt or equity) and maturity (short or long term). The main components of the capital account include foreign investment, loans and banking capital. Foreign investment, comprising Foreign Direct Investment (FDI) and portfolio investment consisting of Foreign Institutional Investors (FIIs) investment, American Depository receipts, Global Depository receipts, Global Depository receipts (ADRs/GDRs) represent non-debt liabilities, while loans (external assistance, external commercial borrowings and trade credit) and banking capital, including non-resident Indian (NRI) deposits are debt liabilities.

#### China

Foreign trade statistics and coverage: China's official external trade statistics are implemented by General Administration of Customs of the People's Republic of China. It's compiled from the declarations, which are made to Customs by imports, exports or their agents and subject to verification by customs officers at the time of customs clearance. External statistics comprise all merchandise passing through China's Customs territory (with the exceptions mentioned below). Including: goods from abroad entering customs warehouses, bonded areas or special economic zones (SEZ) and goods leaving abovementioned areas to abroad; goods for inward or outward processing or assembling and subsequent re-exportation or re-importation; goods on lease for one year or more; goods imported or exported by foreign-invested enterprises; international aid or donations, etc. Excluding: Customs statistics do not cover temporary imports or exports; goods on lease for less than one year; travellers' personal effects; ships and aircraft bunkers and stores obtained abroad; monetary gold and coins being legal tender; goods in transit through China.

**Import and export valuation:** Imports are valued on a CIF basis, which is based on the transaction value and all freight, insurance and other charges incurred before discharging the goods at the first port of entry of China. Exports are valued on an FOB basis, which is based on the transaction value at China's port of shipment equivalent of the actual price at which the goods are sold. The statistical value is expressed in RMB and USD respectively. Any transaction value in terms of a currency other than RMB or USD shall be converted into RMB or USD at the exchange rate issued by the State Administration of Foreign Exchange.

Trading partner: The country of origin is recorded for imports, and the country of final destination for exports. The country of origin refers to the country or region where the imported goods have been grown, mined or manufactured. If two or more countries (regions) were involved in the manufacture of the products, the place where the last substantial working or processing was carried out will be recorded as the country (region) of origin. However, if the countries (regions) of origin of the imported goods are not quite clear, it will be recorded as "country unknown". The country of final destination refers to the country or region where the exported goods are to be consumed, utilized or further processed or manufactured. In instances where the country of final destination cannot be ascertained, the exports will be credited to the final country (region) dispatched to as known at the time of exportation.

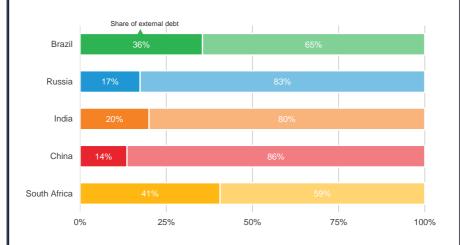
Inflows of FDI: refer to the investments inside China by foreign enterprises and economic organizations or individuals (including overseas Chinese, compatriots from Hong Kong, Macao and Taiwan, and Chinese enterprises registered abroad), following the relevant policies and laws of China, for the establishment of ventures exclusively with foreign own investment, Sino-foreign joint ventures and cooperative enterprises or for cooperative exploration of resources with enterprises or economic organizations in China. It includes the reinvestment of foreign entrepreneurs with the profits gained from the investment and the funds that enterprises borrow from abroad in the total investment of projects which are approved by the relevant department of government.

**Outflows of FDI:** refer to investment made by domestic enterprises and organizations (referred to as domestic investors) in foreign countries and Hong Kong, Macao and Taiwan regions in the form of cash, in-kind, intangible assets and other ways, and the economic activities centering on controlling the operation and management of those foreign enterprises.

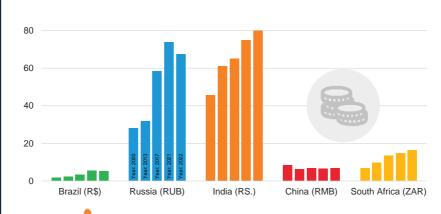
**The Balance of Payments (BOP):** is a statement that summarizes economic transactions between residents and non-residents during a specific time period.

The International Investment Position (IIP): shows at a point in time the value of: financial assets of residents of an economy that are claims on non-resident or are gold bullion held as reserve assets; and the liabilities of residents of an economy to non-residents.

# 14.1 Percentage share of external debts to GDP (2022)



## 14.2 Annual average exchange rates per US\$ (2000–2022)

















Tourism



Number of Foreign Tourist Arrivals in BRICS Countries from Different Continents (100 persons-time)

Africa Brazil 345 948 704 Russia (1) 400 223 234 India 902 2753 3180 689 21 599(2) China 656 5527 6291  South Africa 68 561 75 593 18 736 42 373  America Brazil 38 031 37 264 47 676 Russia (1) 4 685 393 237 India 4554 14 090 18 044 5171 16 953(2) China 12 157 31 238 35 454  South Africa 5 455 5 455 994 3 262  Asia Brazil 1 038 2 476 2 638 Russia (1) 90 893 17 385 35 743 India 10 657 27 355 48 972 5 232 24 373(2) China 61 015 160 601 183 267 South Africa 4 313 3 172 437 1 179  Europe  Brazil 12 661 15 812 14 329 Russia (1) 138 485 44 202 27 374 India 9 257 22 609 26 065 3 780 14 092(2) China 24 890 56 881 59 116 South Africa 14 936 16 608 2 172 9 007	Continents of origin	2000	2013	2017	2021	2022
Russia (1) India 902 2753 3180 689 21599(2) China 656 5527 6291 South Africa 68 561 75 593 18 736 42 373  America  Brazil 38 031 37 264 47 676 Russia (1) 4 685 393 237  India 4 554 14 090 18 044 5 171 16 953(2)  China 12 157 31 238 35 454 South Africa 5 455 5 455 994 3 262  Asia  Brazil 1 038 2 476 2 638 Russia (1) 90 893 17 385 35 743  India 10 657 27 355 48 972 5 232 24 373(2)  China 61 015 160 601 183 267 South Africa 4 313 3 172 437 1 179  Europe  Brazil 12 661 15 812 14 329 Russia (1) 138 485 44 202 27 374  India 9 257 22 609 26 065 3 780 14 092(2)  China 24 890 56 881 59 116	Africa					
India   902   2 753   3 180   689   21 599 <sup>(2)</sup>   China   656   5 527   6 291         South Africa     68 561   75 593   18 736   42 373   America   Brazil   38 031   37 264   47 676         Russia (1)       4 685   393   237   India   4 554   14 090   18 044   5 171   16 953 <sup>(2)</sup>   China   12 157   31 238   35 454         South Africa     5 455   5 455   994   3 262   Asia   Brazil   1 038   2 476   2 638         Russia (1)       90 893   17 385   35 743   India   10 657   27 355   48 972   5 232   24 373 <sup>(2)</sup>   China   61 015   160 601   183 267       South Africa     4 313   3 172   437   1 179   Europe   Brazil   12 661   15 812   14 329       Russia (1)       138 485   44 202   27 374   India   9 257   22 609   26 065   3 780   14 092 <sup>(2)</sup>   China   24 890   56 881   59 116	Brazil	345	948	704		
China         656         5 527         6 291             South Africa          68 561         75 593         18 736         42 373           America         Brazil         38 031         37 264         47 676             Russia (1)           4 685         393         237           India         4 554         14 090         18 044         5 171         16 953(2)           China         12 157         31 238         35 454             South Africa          5 455         5 455         994         3 262           Asia           5 455         5 455         994         3 262           Asia            5 455         5 455         994         3 262           Asia                   Russia (1)	Russia (1)			400	223	234
South Africa          68 561         75 593         18 736         42 373           America         Brazil         38 031         37 264         47 676             Russia (1)           4 685         393         237           India         4 554         14 090         18 044         5 171         16 953(2)           China         12 157         31 238         35 454             South Africa          5 455         5 455         994         3 262           Asia           Brazil         1 038         2 476         2 638             Russia (1)           90 893         17 385         35 743           India         10 657         27 355         48 972         5 232         24 373(2)           China         61 015         160 601         183 267             South Africa          4 313         3 172         437         1 179           Europe           Brazil         12 661         15 812         14 329	India	902	2 753	3 180	689	21 599 <sup>(2)</sup>
America  Brazil 38 031 37 264 47 676  Russia (1) 4 685 393 237  India 4 554 14 090 18 044 5 171 16 953(2)  China 12 157 31 238 35 454  South Africa 5 455 5 455 994 3 262  Asia  Brazil 1 038 2 476 2 638  Russia (1) 90 893 17 385 35 743  India 10 657 27 355 48 972 5 232 24 373(2)  China 61 015 160 601 183 267  South Africa 4 313 3 172 437 1 179  Europe  Brazil 12 661 15 812 14 329  Russia (1) 138 485 44 202 27 374  India 9 257 22 609 26 065 3 780 14 092(2)  China 24 890 56 881 59 116	China	656	5 527	6 291		
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Russia (1) 4 685 393 237 India 4 554 14 090 18 044 5 171 16 953(2) China 12 157 31 238 35 454  South Africa 5 455 5 455 994 3 262  Asia Brazil 1 038 2 476 2 638 Russia (1) 90 893 17 385 35 743 India 10 657 27 355 48 972 5 232 24 373(2) China 61 015 160 601 183 267  South Africa 4 313 3 172 437 1 179  Europe  Brazil 12 661 15 812 14 329 Russia (1) 138 485 44 202 27 374 India 9 257 22 609 26 065 3 780 14 092(2) China 24 890 56 881 59 116	America					
India 4 554 14 090 18 044 5 171 16 953 <sup>(2)</sup> China 12 157 31 238 35 454  South Africa 5 455 5 455 994 3 262  Asia  Brazil 1 038 2 476 2 638  Russia <sup>(1)</sup> 90 893 17 385 35 743  India 10 657 27 355 48 972 5 232 24 373 <sup>(2)</sup> China 61 015 160 601 183 267  South Africa 4 313 3 172 437 1 179  Europe  Brazil 12 661 15 812 14 329  Russia <sup>(1)</sup> 138 485 44 202 27 374  India 9 257 22 609 26 065 3 780 14 092 <sup>(2)</sup> China 24 890 56 881 59 116	Brazil	38 031	37 264	47 676		
China         12 157         31 238         35 454             South Africa          5 455         5 455         994         3 262           Asia         Brazil         1 038         2 476         2 638             Russia (1)           90 893         17 385         35 743           India         10 657         27 355         48 972         5 232         24 373(2)           China         61 015         160 601         183 267             South Africa          4 313         3 172         437         1 179           Europe           Brazil         12 661         15 812         14 329             Russia (1)           138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092(2)           China         24 890         56 881         59 116	Russia (1)			4 685	393	237
South Africa          5 455         5 455         994         3 262           Asia           Brazil         1 038         2 476         2 638             Russia (1)           90 893         17 385         35 743           India         10 657         27 355         48 972         5 232         24 373(2)           China         61 015         160 601         183 267             South Africa          4 313         3 172         437         1 179           Europe           Brazil         12 661         15 812         14 329             Russia (1)           138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092(2)           China         24 890         56 881         59 116	India	4 554	14 090	18 044	5 171	16 953 <sup>(2)</sup>
Asia       Brazil     1 038     2 476     2 638         Russia (1)       90 893     17 385     35 743       India     10 657     27 355     48 972     5 232     24 373(2)       China     61 015     160 601     183 267         South Africa      4 313     3 172     437     1 179       Europe       Brazil     12 661     15 812     14 329         Russia (1)       138 485     44 202     27 374       India     9 257     22 609     26 065     3 780     14 092(2)       China     24 890     56 881     59 116	China	12 157	31 238	35 454		
Brazil         1 038         2 476         2 638             Russia (1)           90 893         17 385         35 743           India         10 657         27 355         48 972         5 232         24 373(2)           China         61 015         160 601         183 267             South Africa          4 313         3 172         437         1 179           Europe           Brazil         12 661         15 812         14 329             Russia (1)           138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092(2)           China         24 890         56 881         59 116	South Africa		5 455	5 455	994	3 262
Russia (1) 90 893 17 385 35 743 India 10 657 27 355 48 972 5 232 24 373(2) China 61 015 160 601 183 267 South Africa 4 313 3 172 437 1 179  Europe Brazil 12 661 15 812 14 329 Russia (1) 138 485 44 202 27 374 India 9 257 22 609 26 065 3 780 14 092(2) China 24 890 56 881 59 116	Asia					
India         10 657         27 355         48 972         5 232         24 373 <sup>(2)</sup> China         61 015         160 601         183 267             South Africa          4 313         3 172         437         1 179           Europe           Brazil         12 661         15 812         14 329             Russia (1)           138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092 <sup>(2)</sup> China         24 890         56 881         59 116	Brazil	1 038	2 476	2 638		
China         61 015         160 601         183 267             South Africa          4 313         3 172         437         1 179           Europe         Brazil         12 661         15 812         14 329             Russia (1)           138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092(2)           China         24 890         56 881         59 116	Russia (1)		•••	90 893	17 385	35 743
South Africa        4 313       3 172       437       1 179         Europe         Brazil       12 661       15 812       14 329           Russia (1)         138 485       44 202       27 374         India       9 257       22 609       26 065       3 780       14 092(2)         China       24 890       56 881       59 116	India	10 657	27 355	48 972	5 232	24 373 <sup>(2)</sup>
Europe           Brazil         12 661         15 812         14 329             Russia (1)           138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092(2)           China         24 890         56 881         59 116	China	61 015	160 601	183 267		
Brazil         12 661         15 812         14 329             Russia (1)          138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092(2)           China         24 890         56 881         59 116	South Africa		4 313	3 172	437	1 179
Russia (1)           138 485         44 202         27 374           India         9 257         22 609         26 065         3 780         14 092(2)           China         24 890         56 881         59 116	Europe					
India         9 257         22 609         26 065         3 780         14 092 <sup>(2)</sup> China         24 890         56 881         59 116	Brazil	12 661	15 812	14 329		
China 24 890 56 881 59 116	Russia (1)			138 485	44 202	27 374
	India	9 257	22 609	26 065	3 780	14 092 <sup>(2)</sup>
South Africa 14 936 16 608 2 172 9 007	China	24 890	56 881	59 116		•••
	South Africa		14 936	16 608	2 172	9 007

# Number of Foreign Tourist Arrivals in BRICS Countries from Different Continents (100 persons-time)

(Continued 1)

				(	Continued 1)	
Continents of origin	2000	2013	2017	2021	2022	
Australasia						
Brazil	219	543	434			
Russia (1)	•••		552	11	11	
India	676	2 636	3 861	389	4 267 <sup>(2)</sup>	
China (3)	2 818	8 634	8 922			
South Africa		1 483	1 337	49	653	
Others (not specified)						
Brazil	840	1 091	107			
Russia (1)	•••		8 886	85 84	18 826	
India	405	233	236	11	70 <sup>(2)</sup>	
China	68	22	22			
South Africa		617	686	168	508	

## Sources

## **Brazil**

Ministry of Tourism.

#### Russia

Federal State Statistics Service of the Russian Federation.

#### India

Ministry of Tourism, India Tourism Statistics (various issues).

#### China

- (a) National Bureau of Statistics of China, China Statistical Yearbooks 2000-2021.
- (b) Ministry of Culture and Tourism of the People's Republic of China, The Yearbook of China Tourism Statistics, 2000–2021.

## South Africa

Statistics South Africa.

#### **Footnotes**

The figures of Australasia pertain to a region of Oceania that includes Australia, New Zealand, the island of New Guinea, and neighbouring islands in the Pacific Ocean.

#### Russia

(1) Number of foreign (inbound) tourist visits (in 100). Data are presented according to the official statistical methodology adopted by Rosstat in 2019.

## India

(2) Figures for 2022 are provisional.

#### China

(3) Refer to Oceania and the Pacific Islands.

## **Explanatory Notes**

#### **General Notes**

Tourism, Rome 1963:

**International visitor:** An international visitor to a country is any person visiting that country on a foreign passport and the main purpose of whose visit is other than the exercise of an activity remunerated from within the country or establishment of residence in the country. This definition covers two segments of visitors: "tourists" and "same day visitors".

#### **Brazil**

**Foreigner tourist arrival:** Arrivals of non-resident persons across international borders of Brazil classified as a tourist (or overnight visitors), and with a stay for less than a year for any main purpose: 1 - Personal (holidays, leisure and recreation, visiting friends and relatives, education and training, health and medical care, religion and pilgrimages, shopping and others); and 2 - Business and professional.

The following persons are not counted as visitors/tourists: employed by a resident entity, border workers, seasonal workers, other short- and long-term workers, nomads and refugees, transit passengers not entering the economic and legal territory, crews on public modes of transport, persons entering the country to establish there as their country of residence, long-term students and patients and their family, diplomats, consular staff, military personnel and their dependants, armed forces on manoeuvre.

#### Russia

A tourist: is a person who visits a country (place) of temporary stay for medical and treatment, recreational, cognitive, sports, professional, business, religious and other purposes without engaging in activities related to obtaining income from sources in the country (place) of temporary stay, for a period from 24 hours until 6 months or at least one night in the country (place) of temporary stay.

**Foreign (inbound) tourist visit:** is the visitor's travel from the moment of entry into the country to the moment of departure.

### India

A "foreign tourist" is a person visiting India on a foreign passport, staying at least 24 hours in the country, the purpose of whose journey can be classified under one of the following headings:

- (i) Leisure (recreation, holiday, health, study, religion & sport).
- (ii) Business, family, mission, meeting.

## China

**Foreign tourist arrivals:** refer to foreign visitor arrivals who come to China (mainland) for sight-seeing, vacation, visiting relatives, medical treatments, shopping, attending conferences or to engage in activities of economic, cultural, sports and religious. In compiling statistics, each time of entering China (mainland) is counted as one person-time.

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