CHINA IN NUMBERS

(2023)

This issue brief summarises the main data points relating to China's economy, people-related metrics, energy, and CO_2 emissions.

The aim of this issue brief is to reflect the current condition of China's economy and society, whilst providing a comprehensive view of the trends that have emerged over time.

The views expressed in this publication are those of the authors and do not necessarily reflect the views or policies of the United Nations (UN) and the United Nations Development Programme (UNDP).
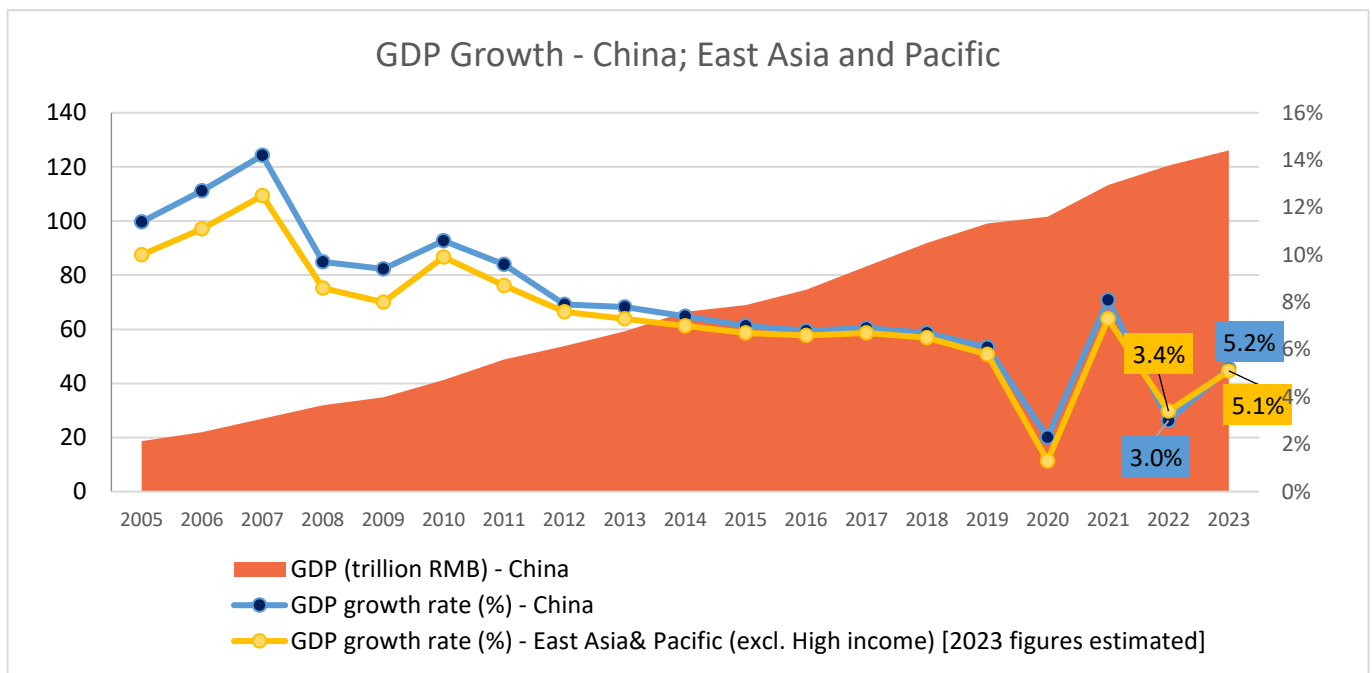
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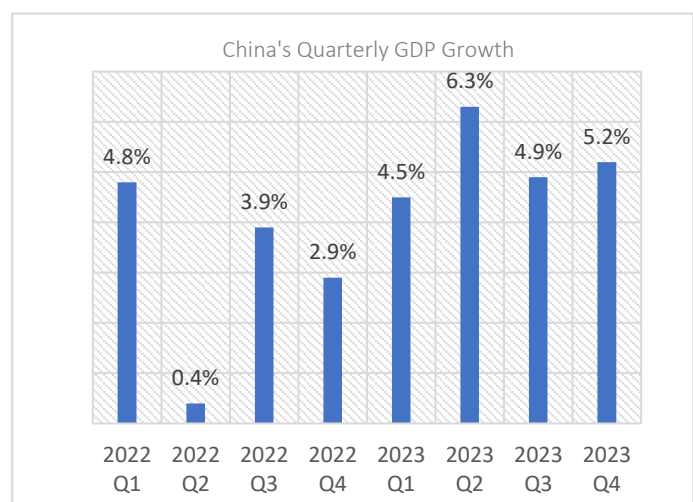
1. The Economy

1.1 Economic Growth

As China eased its COVID-19 control measures and reopened its borders in December 2022, the economy **began to gradually recover from its 3% growth slowdown in 2022**. In 2023, the country's GDP grew by 5.2% in real terms, reaching RMB 126.06 trillion (US$17.5 trillion). This was in line with the Government's **target of "around 5%"** set at the beginning of the year.

China's 2023 growth rate is likely to have marginally exceeded the regional average, with East Asia and the Pacific (excluding high-income countries) expecting to have recorded a growth rate of 5.1% in 2023.[1]

GDP Growth - China; East Asia and Pacific

Legend:
- GDP (trillion RMB) - China
- GDP growth rate (%) - China
- GDP growth rate (%) - East Asia& Pacific (excl. High income) [2023 figures estimated]

Throughout 2023, China's economic growth remained above 4.5% across four quarters. The second quarter saw the strongest performance, primarily due to the base effect.

The economic outlook, however, still carries some uncertainty due to various challenges faced by the economy. These challenges include a weakened property sector and softer global and domestic demand. According to the latest estimates released by the International Monetary Fund (IMF) in January, China's growth is projected to slow down to 4.6% in 2024.

China's Quarterly GDP Growth

Quarter	Growth
2022 Q1	4.8%
2022 Q2	0.4%
2022 Q3	3.9%
2022 Q4	2.9%
2023 Q1	4.5%
2023 Q2	6.3%
2023 Q3	4.9%
2023 Q4	5.2%

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[1]https://thedocs.worldbank.org/en/doc/661f109500bf58fa36a4a46eeace6786-0050012024/related/GEP-Jan-2024-Analysis-EAP.pdf East Asia and the Pacific includes the following countries: Cambodia, China, Indonesia, Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Pacific Islands, Papua New Guinea, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam.

As the economy recovered, the **contributions of the three key sectors** – primary, secondary, and tertiary industries to GDP growth returned to pre-pandemic levels. Particularly **noteworthy is the service sector**, which has greatly benefited from the lifting of COVID-19 preventive measures. The contribution of **services to GDP rose from 55.3% in 2022 to 60.2% in 2023**. Meanwhile, the contribution of the primary industry dropped to 5.9%.
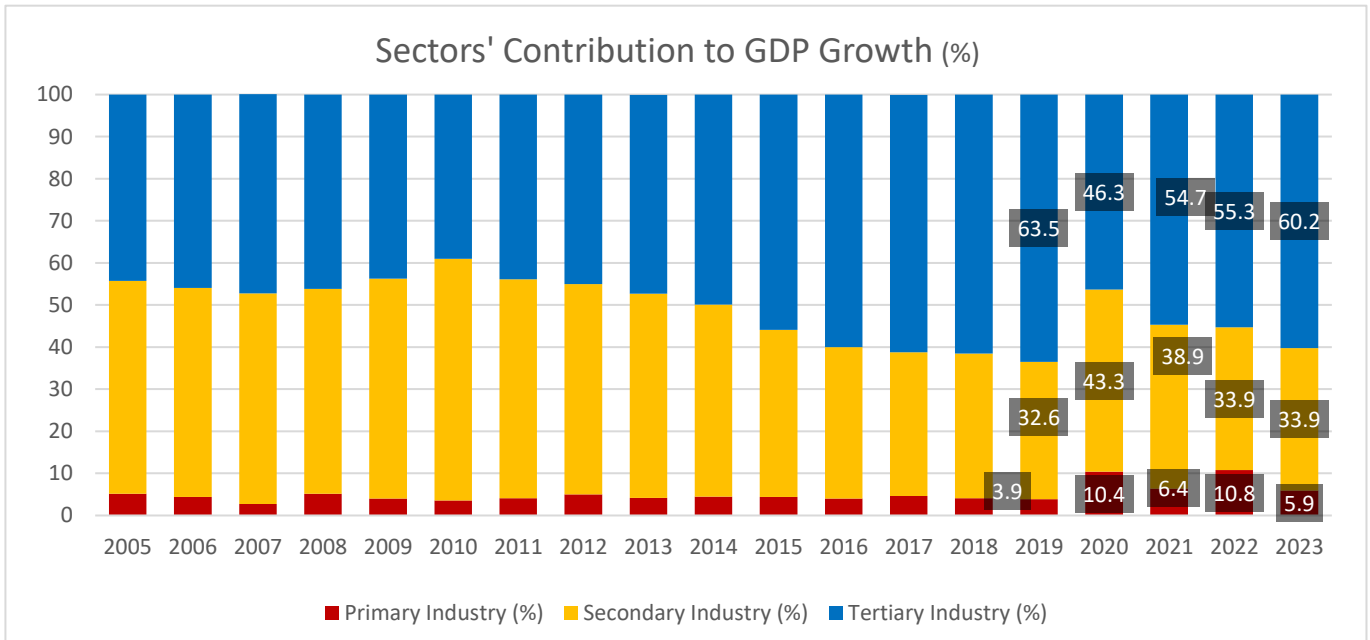

In 2023, the **real estate sector's share of GDP continued to decline**, reaching 5.8% from its peak level of 7.3% in 2020. By contrast, the construction sector remained relatively stable, hovering around 6.8%. Given the growing concerns over the property market, China has taken a series of measures to support both sectors, including adjusting mortgage lending-related policies and easing restrictions on buying homes.[2]

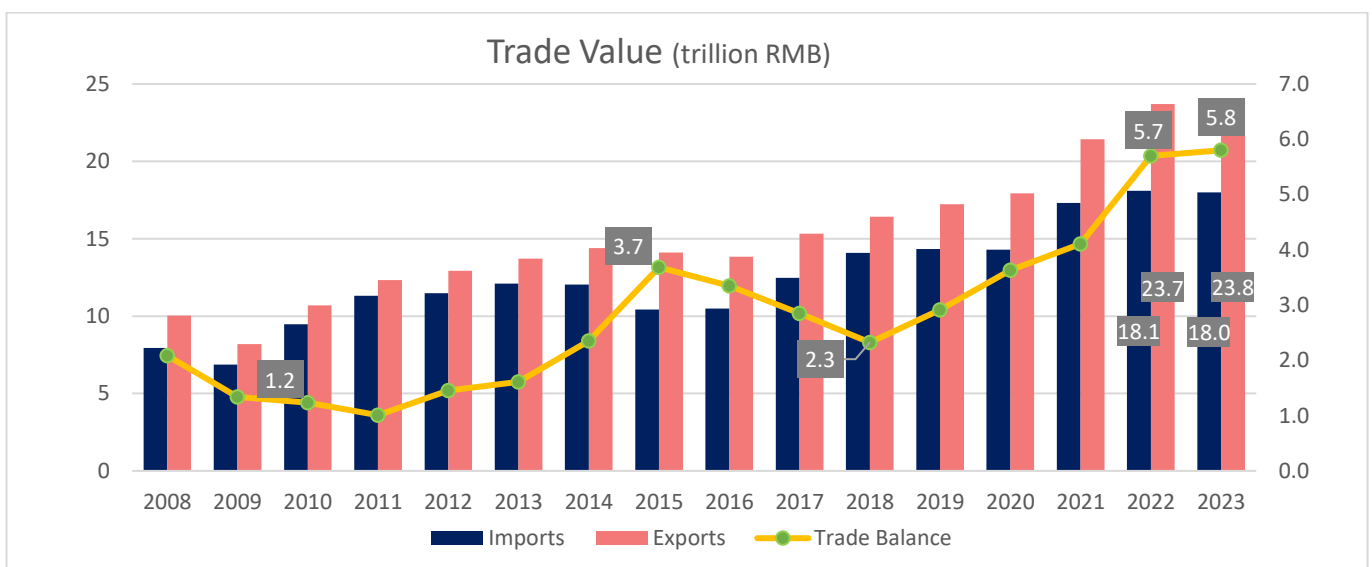[2] https://www.chinadaily.com.cn/a/202310/11/WS6526044ba31090682a5e7e1d.html
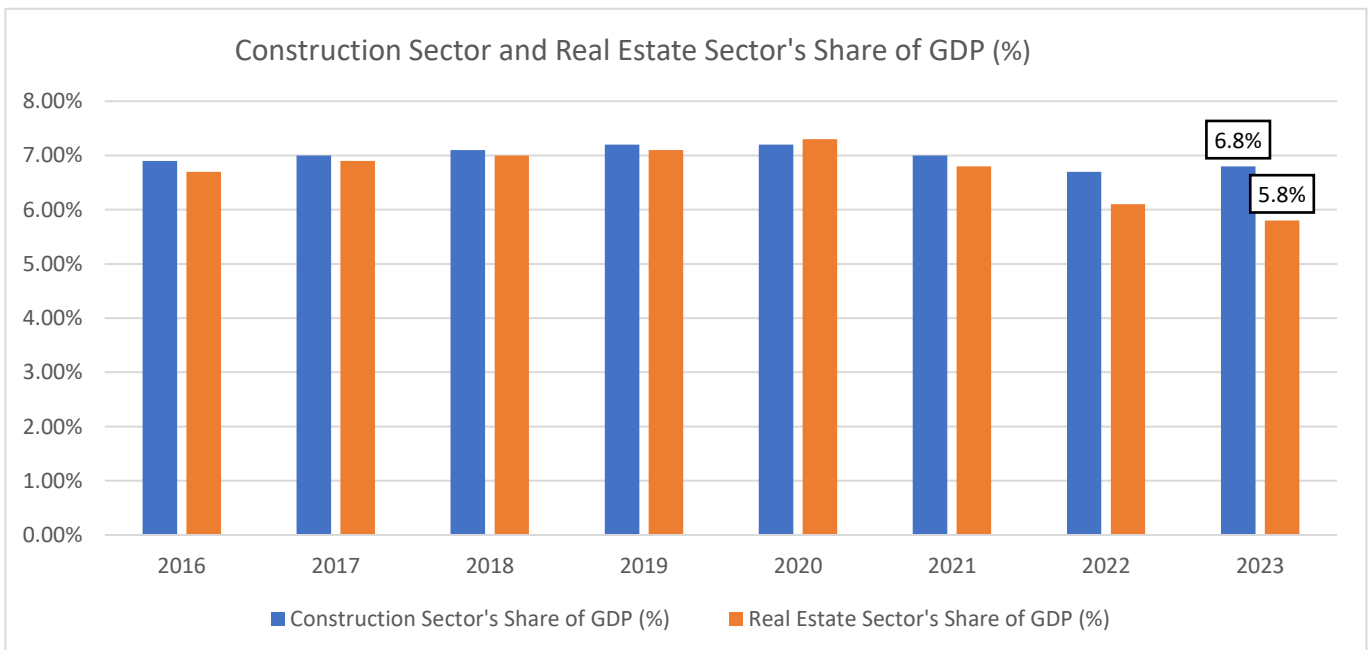
In 2023, **domestic demand emerged as the dominant driver** of China's economy, contributing **82.5%** of its GDP growth. The contribution of **investment decreased to pre-COVID levels at 28.9%**. Meanwhile, net exports exerted a downward pressure on economic performance, contributing negatively by 11.4%. This trend occurred amidst a global decline in international trade in 2023.[3]

Contribution to GDP Growth (%)
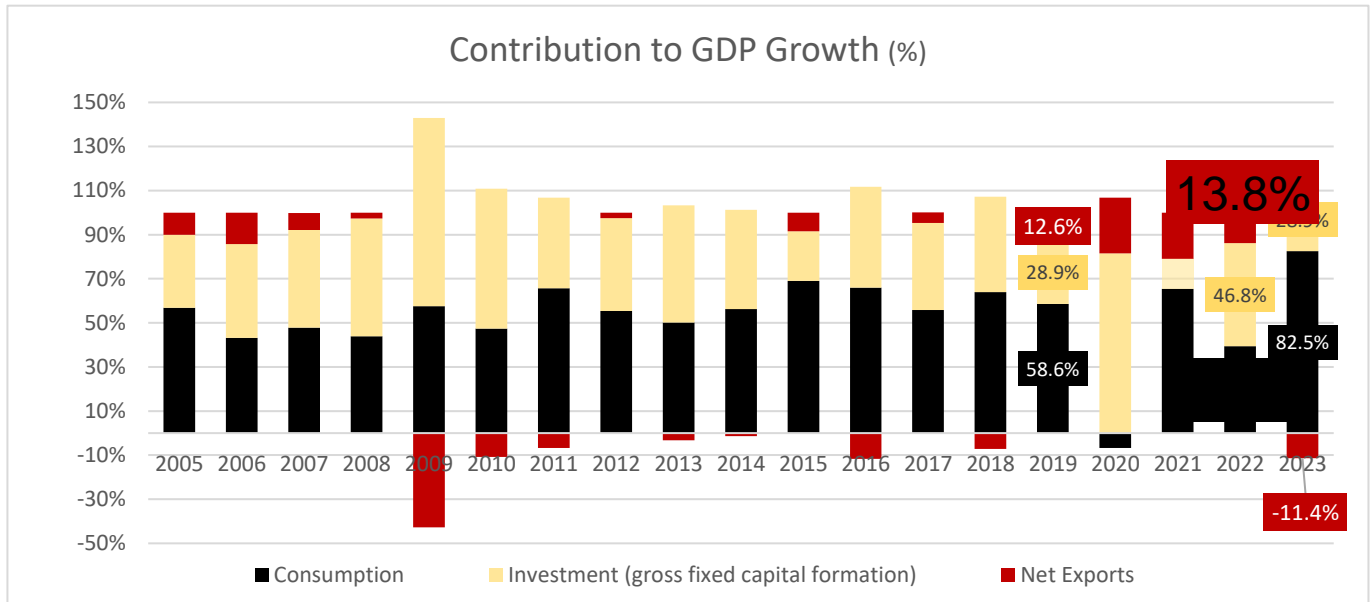
1.2 International Trade and Investment Flow

In 2023, China's trade stagnated, with the total value of imports and exports remaining around 41.8 trillion RMB. While there was a slight increase in exports, imports declined. Geographically categorising, China's trade share with the European Union (EU), the United States, Japan, and Korea decreased from a peak of **38.3% in 2020 to 35% in 2023**. In the meantime, **the Association of Southeast Asian Nations (ASEAN)** vaulted to and remained China's biggest trading partner, as it has been since 2020.

Trade Value (trillion RMB)

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[3] https://unctad.org/system/files/official-document/ditcinf2023d3.pdf

In 2023, China witnessed **a decline in foreign direct investment** (FDI), marking the **first decrease** since the 2008 global financial crisis. Additionally, outbound direct investment (ODI) decreased by 6% to US$163 billion in 2022. Nevertheless, China retained its position as the **third-largest source of ODI globally**.[4]
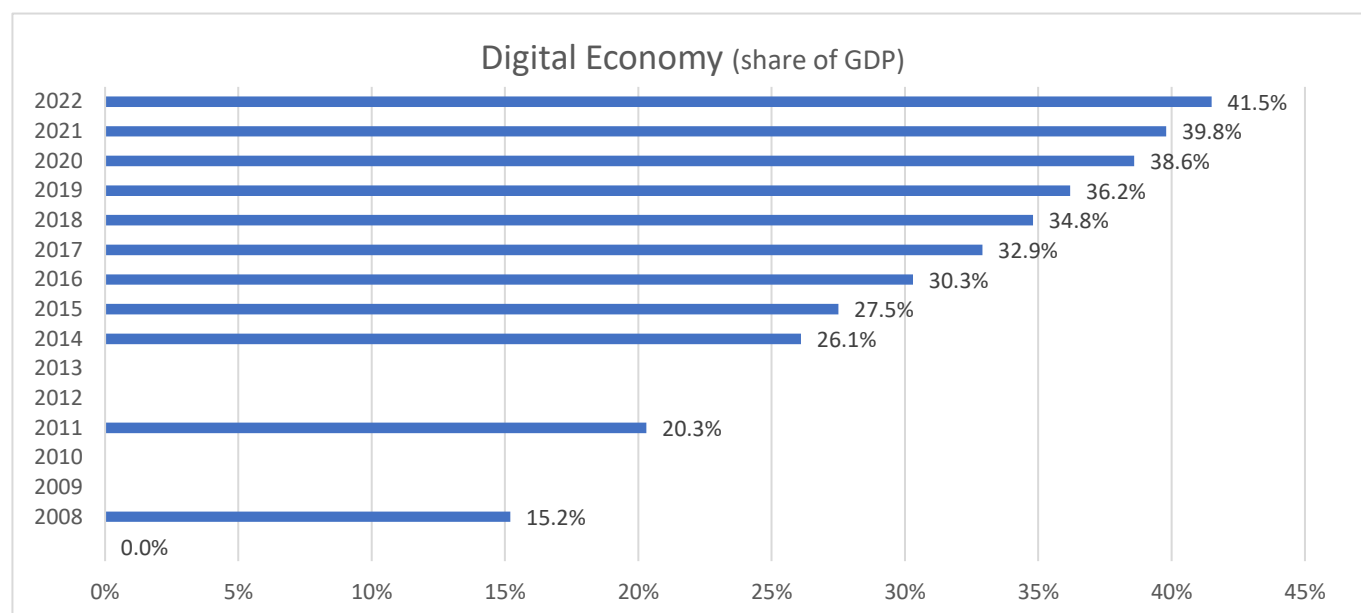
ODI and FDI (billion USD)
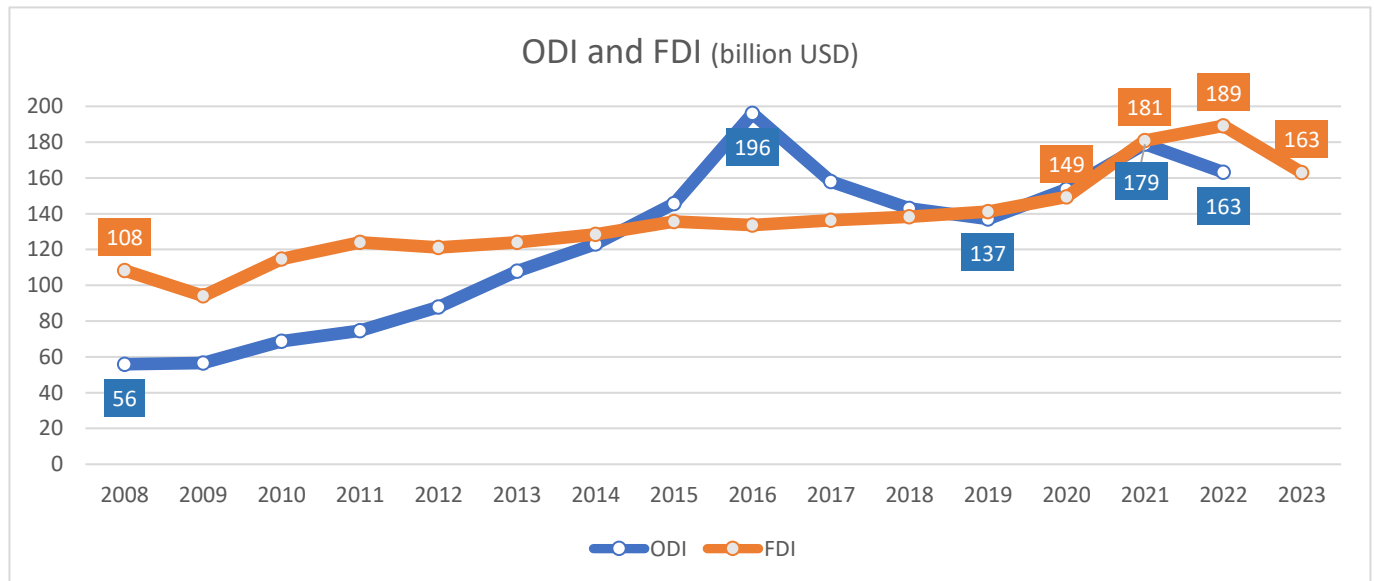
1.3 Government Debt

China's **outstanding central and local government debt continued to climb**, after a significant expansion in 2020. The total of central and local government debt reached 70.77 trillion RMB by the end of 2023, **amounting to 56.1% of GDP**. Meanwhile, China's general government **budget deficit** was set to 3.8% of GDP in 2023 compared to 2.8% in 2022.

Budget Deficit and Government Debt (% of GDP)

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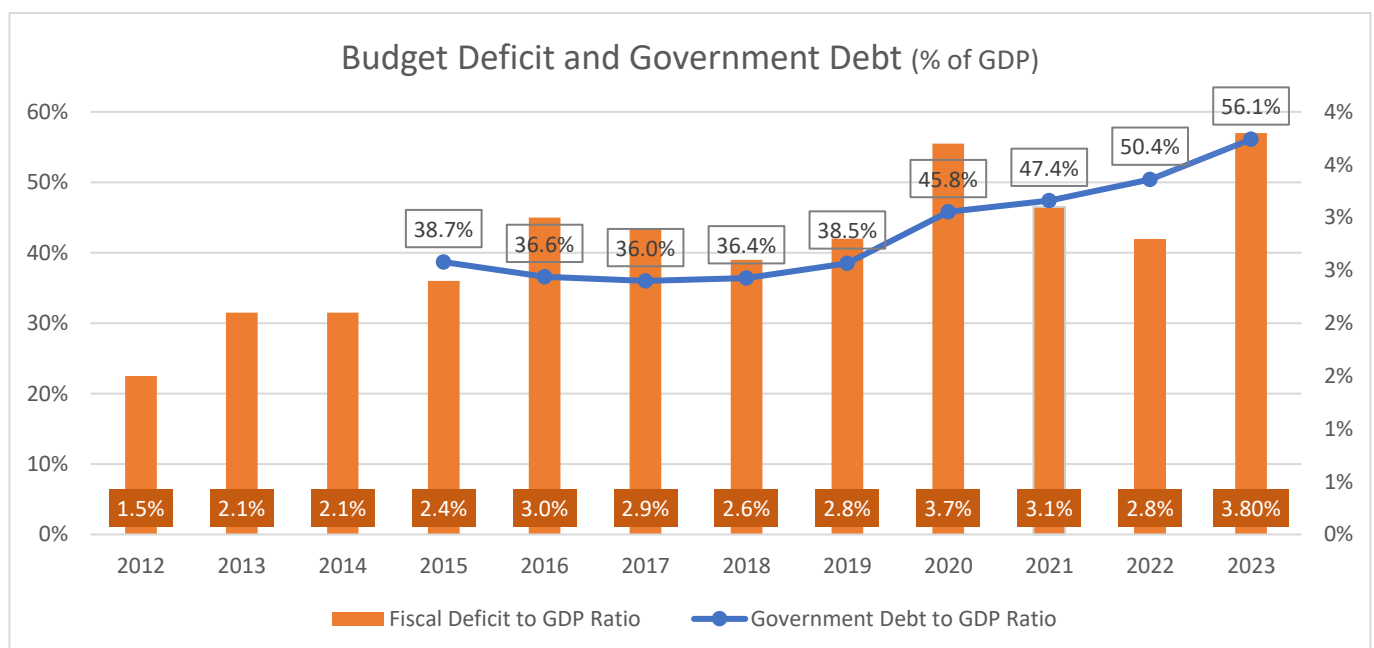
4 https://unctad.org/system/files/official-document/wir2023_en.pdf

1.4 Digital Economy

China's digital economy continued to expand robustly in 2022, topping **50.2 trillion RMB, up 10.2% year-on-year.** The digital economy's share of GDP climbed to **41.5% in 2022**.[5]

Digital Economy (share of GDP)

Year	Share
2022	41.5%
2021	39.8%
2020	38.6%
2019	36.2%
2018	34.8%
2017	32.9%
2016	30.3%
2015	27.5%
2014	26.1%
2013	
2012	
2011	20.3%
2010	
2009	
2008	15.2%
	0.0%

2. People

2.1 Human Development Index (HDI)

Amidst mounting economic challenges both domestically and globally, China continues to make positive progress in its human development. China's HDI increased to 0.788 in 2022, placing it in the **"high human development" category**. China's ranking also improved from 79 in 2021 to 75 in 2022, out of 193 countries and territories.

|	Human Development Index value (HDI)	Inequality-adjusted HDI (IHDI)	Planetary pressures-adjusted Human Development Index (PHDI)
China	0.788	0.662	0.679
East Asia and the Pacific	0.766	0.640	0.683

PHDI is the level of human development adjusted to **account for the excessive human pressure on the planet**. In 2022, China's PHDI was 0.679, a loss of 13.8 percent compared to its HDI. This loss has decreased from 15.6% in 2021, but remains **higher than** the average loss due to planetary pressure observed in East Asia and the Pacific region (10.8%).

When China's **HDI is inequality-adjusted**, the index falls to 0.662, **a loss of 16%**. China's loss is **lower than** the average loss for East Asia and the Pacific (16.4%).
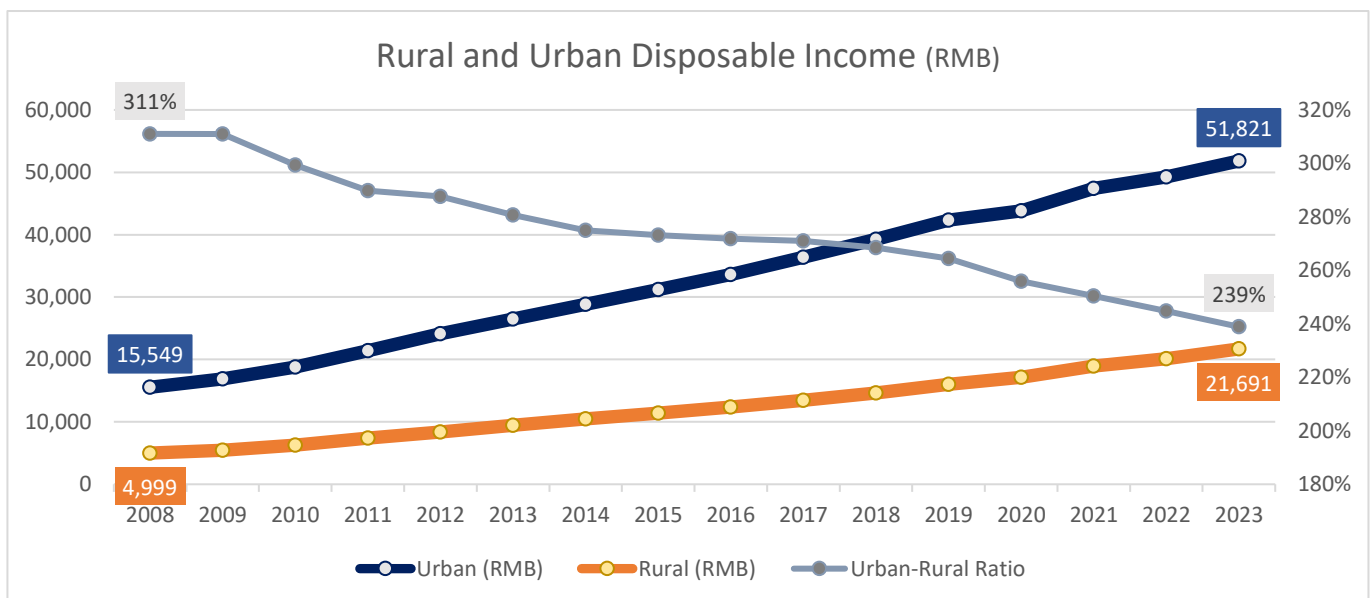
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[5] The digital economy refers to an emerging economic form, where digitalised knowledge and information are taken as essential productive factors, digital technology taken as the core driver, and modern information networks taken as the key carrier.

2.2 Inequality

China's **Gini coefficient for income** peaked in 2008 and steadily declined until 2015. In 2022, the value rebounded to 0.467, higher than the average of 0.35 for Asia-Pacific economies.[6]


Gini Coefficient
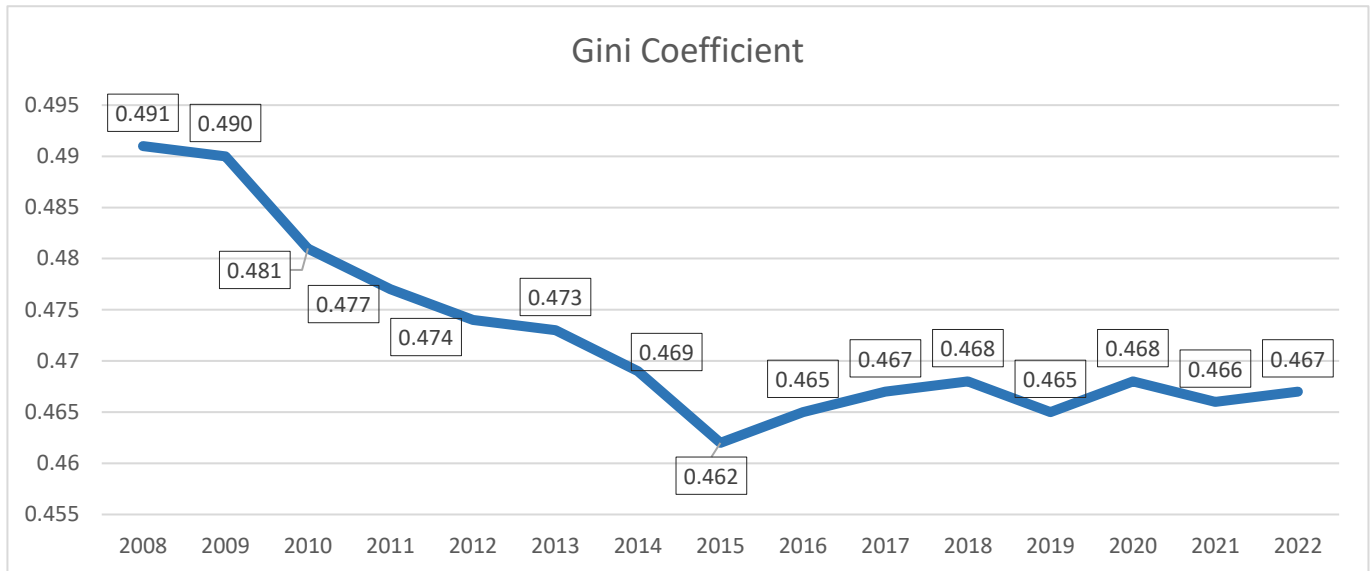
Over the past decade, the annual per capita disposable income in both urban and rural areas of China improved, up to 51,821 RMB and 21,691 RMB respectively in 2023. While there remains a large income disparity between urban and rural areas, it is worth noting that the gap, as measured by urban-rural income ratios, has been declining since 2013 and stood at 2.38 in 2023.

Rural and Urban Disposable Income (RMB)

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[6] https://www.oecd-ilibrary.org/sites/01bc89ac-en/index.html?itemId=/content/component/01bc89ac-en.

In addition to the income gap, there is also evidently a **digital divide between rural and urban areas**. In 2023, urban and rural internet penetration rates were at 85.1% and 60.5% respectively. While the digital divide had been steadily decreasing since 2018, a trend reversal was recorded in 2023, which rose to 24.6% from the 21.1% indicated in 2022.
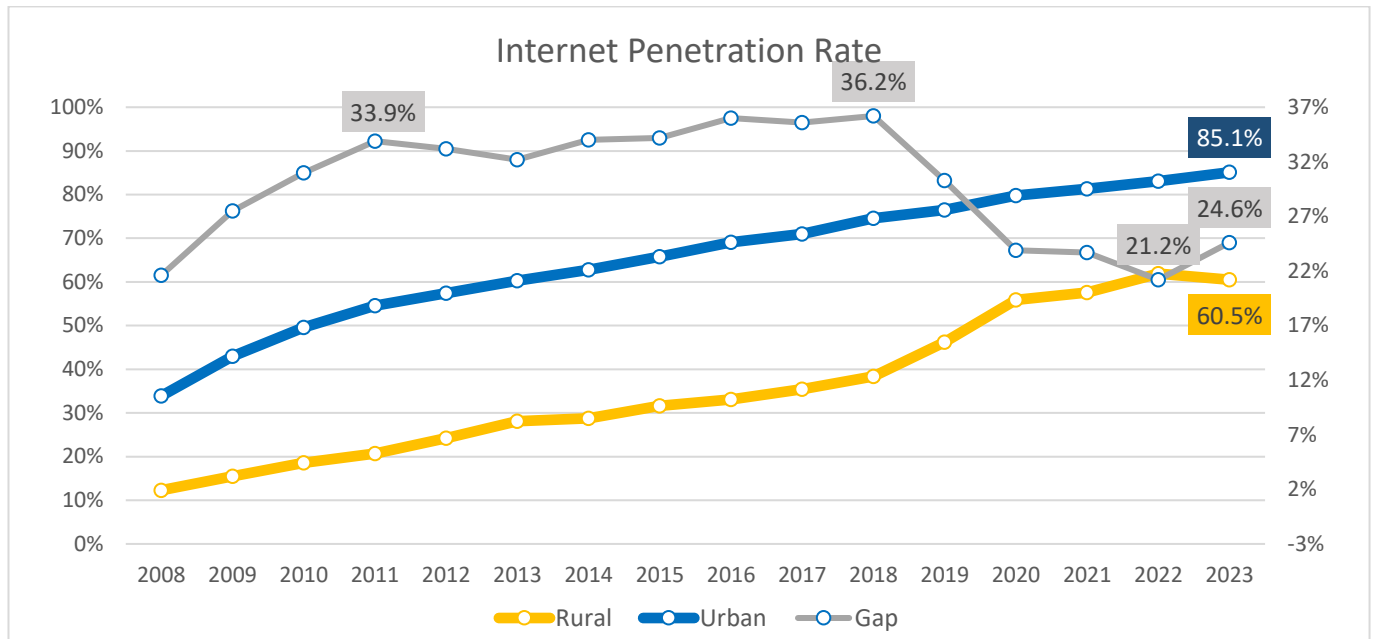

2.3 Unemployment

In 2022, the average **surveyed unemployment rate increased to 5.6%, higher than the 5.5% target** set in the Government Work Report delivered at the start of the year. Notably, the average surveyed youth unemployment rate saw a significant rise from 14.3% in 2021 to 17.6% in 2022. By June 2023, youth unemployment hit an all-time high of 21.3%, indicating strong pressures on China's job market.
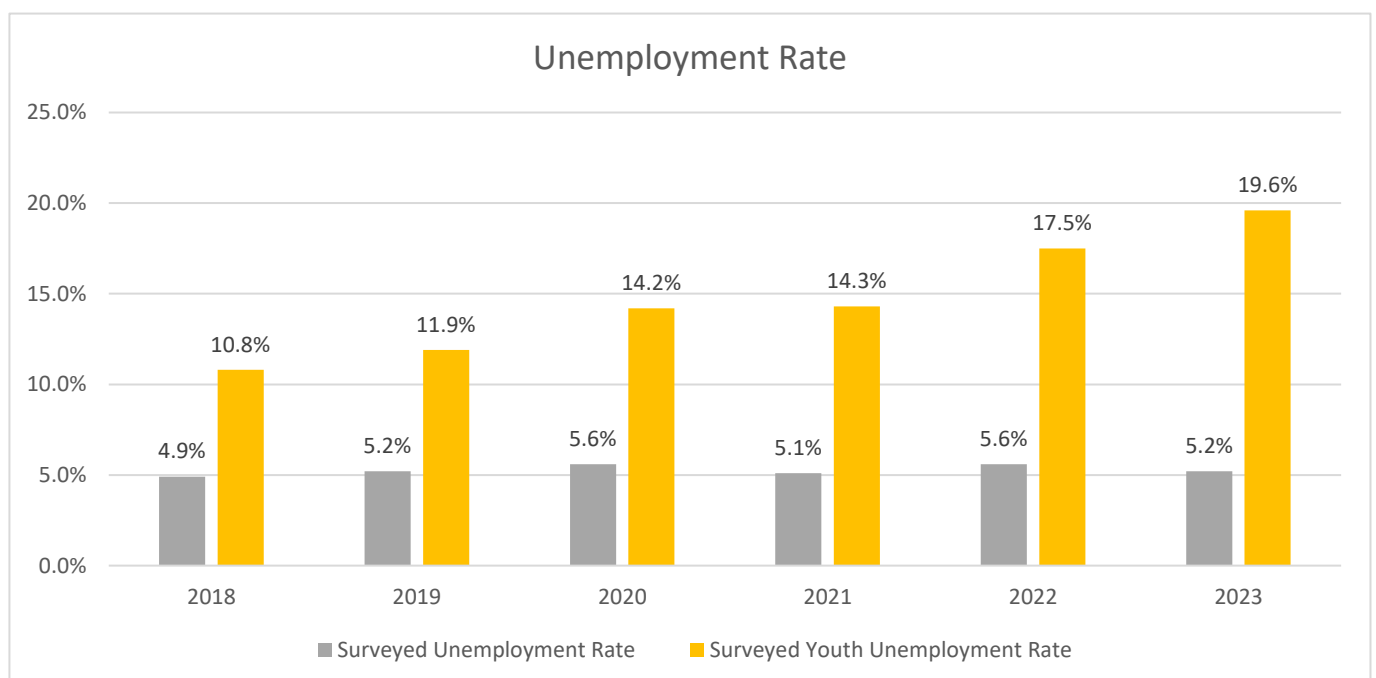
2.4 Urbanisation and Migrant Workers

In the past four decades, China underwent a rapid urbanisation process. The urbanisation rate of permanent residence more than tripled since 1982, reaching 66.2% in 2023. China's rapid urbanisation has also led to a surge in **migrant workers**, with the total number reaching 295.6 million in 2022.


Scale and Growth Rate of Migrant Workers
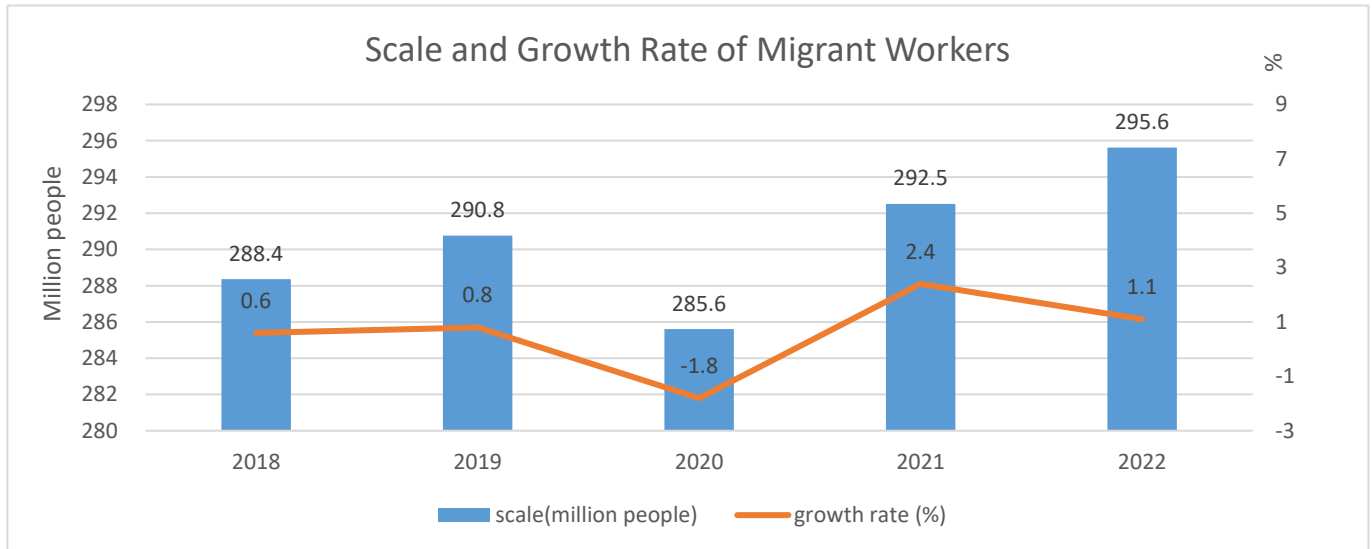
Looking at the demographic composition, **men comprise the majority**, accounting for 63.4% of the total migrant worker population. However, there has been an increase in the proportion of women in recent years, with their share rising from 34.8% in 2018 to 36.6% in 2022. **The average age of rural migrant workers** is 42.3 years and **has been steadily increasing**. Notably, the percentage of migrant workers aged 50 and above has also risen from 22.4% in 2018 to nearly 30% in 2022.

Age Composition of Migrant Workers (%)
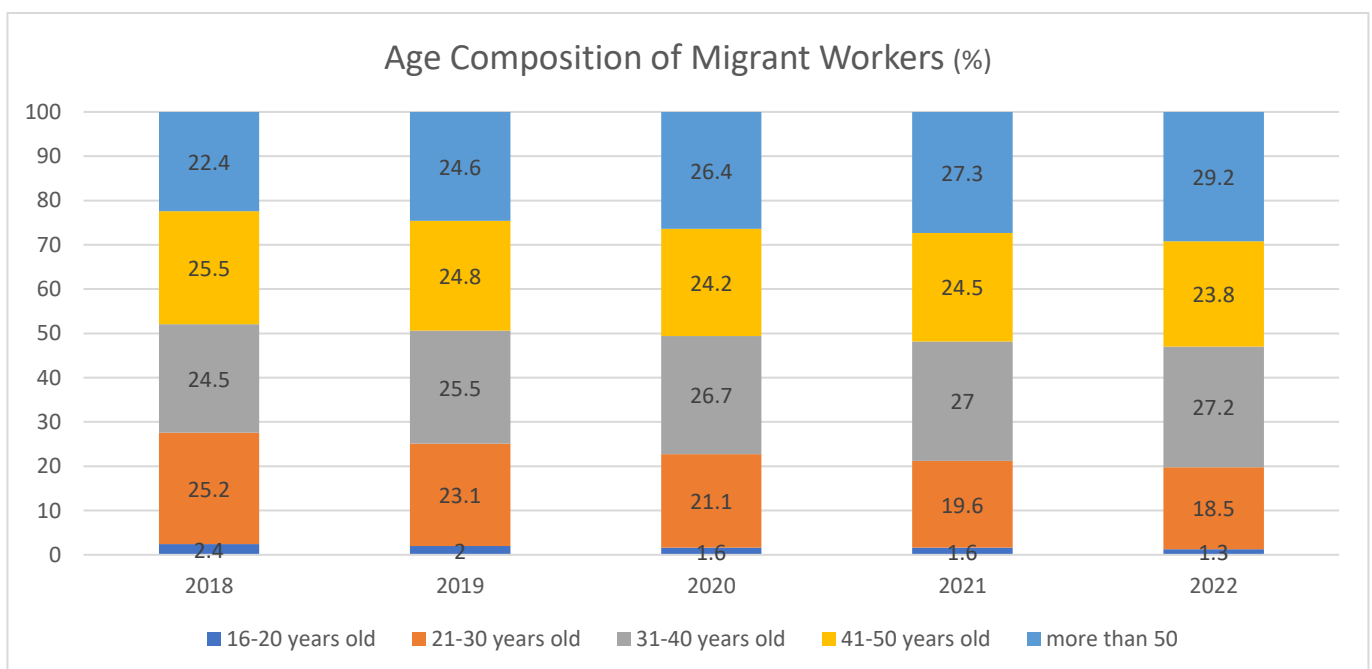
2.5 Ageing Population

China is one of the fastest ageing countries in the world. It currently has 216.8 million people aged 65 years or older, accounting for 15.4% of the population. China's natural population growth rate fell drastically from 6.53% in 2016 to -1.48% in 2023. This marks a turning point for China's demographic trends with implications for its labour markets and consumption patterns.

Elderly Population (%) and Natural Population Growth Rate (%)
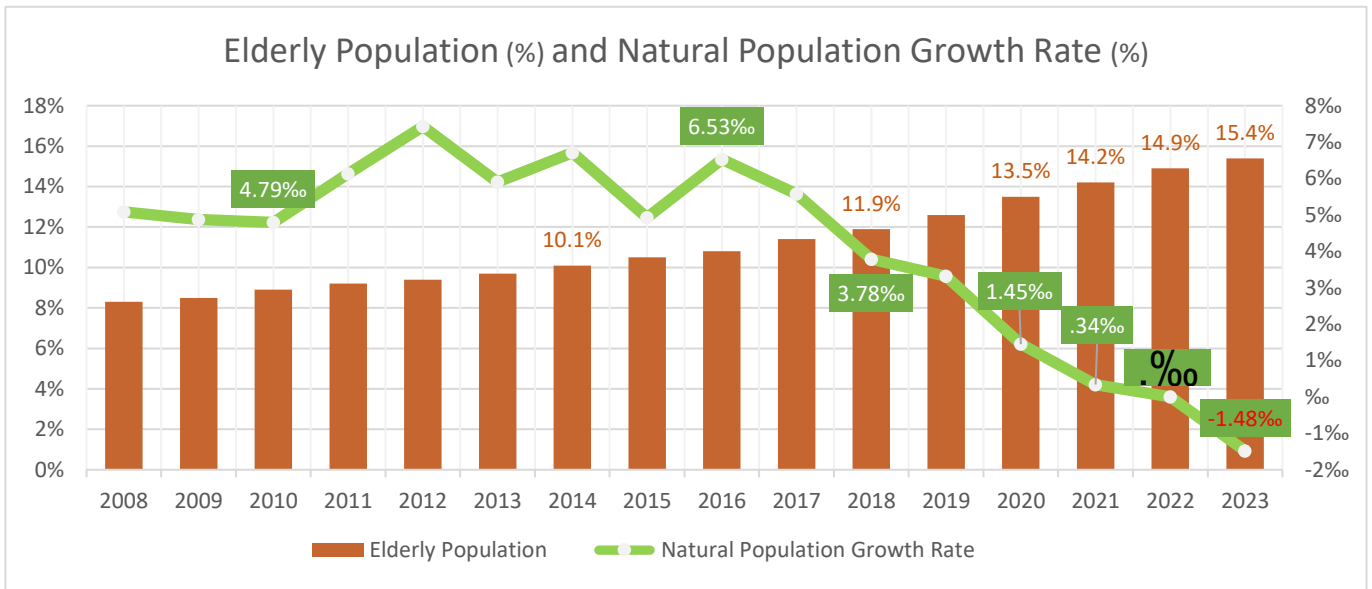
3. Energy and CO$_2$ Emissions

3.1 Primary Energy Production

As the largest energy producer in the world, **China's primary energy production reached 4.66 billion tons of standard coal equivalent (BtSCE) in 2022, an increase of 7.6% year-on-year**. The latest data on energy production composition shows that coal (69.2%) leads, followed by crude oil (6.3%), gas (6%) and non-fossil energy resources (18.6%).

Total Primary Energy Production (BtSCE) and Share (%)
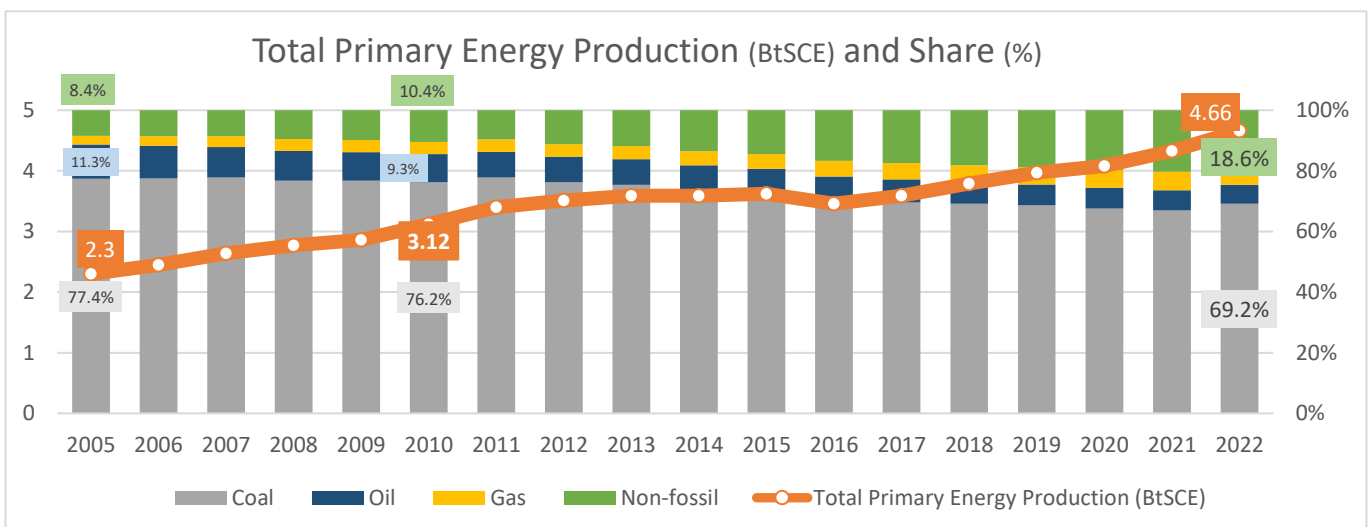
3.2 Energy Consumption

China's **total energy consumption reached 5.41 BtSCE in 2022**, a 3.2% year-on-year increase from last year. While coal (56.2%) remains dominant, the share of non-fossil energy (hydropower, nuclear, wind and solar power) has shown an upward trend, rising from 16.6% in 2021 to 17.4% in 2022. As a reference, China's latest Nationally Determined Contribution (NDC) target is to increase the share of non-fossil fuels in primary energy consumption to 25%.
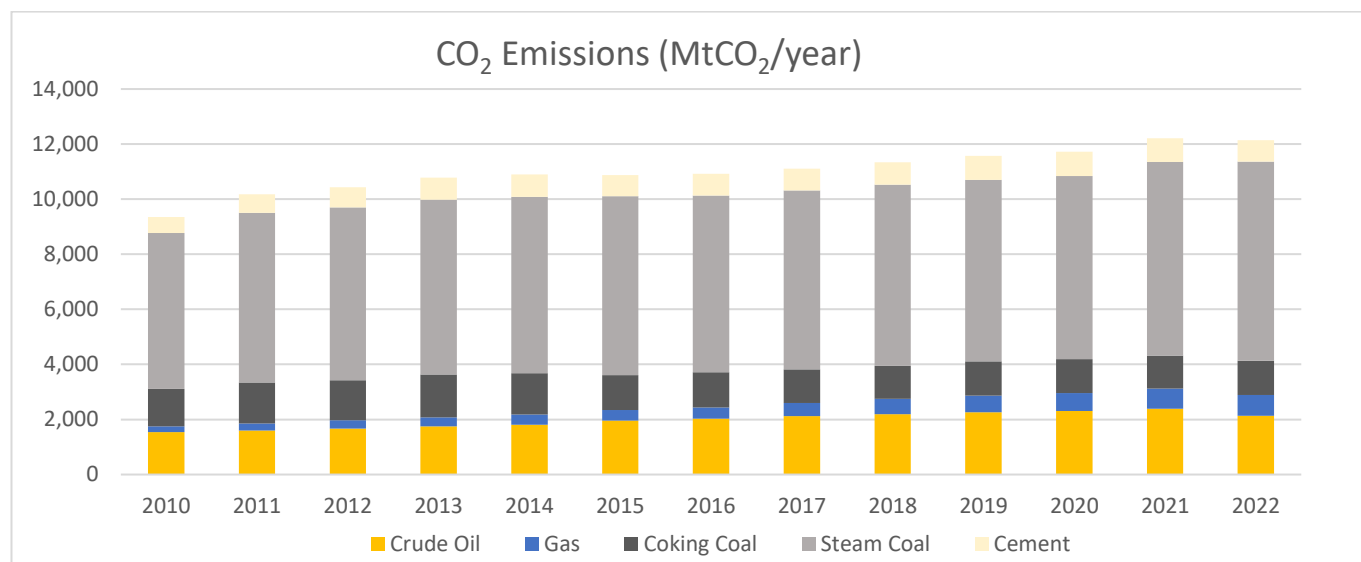

Total Energy Consumption (BtSCE) and Share (%)
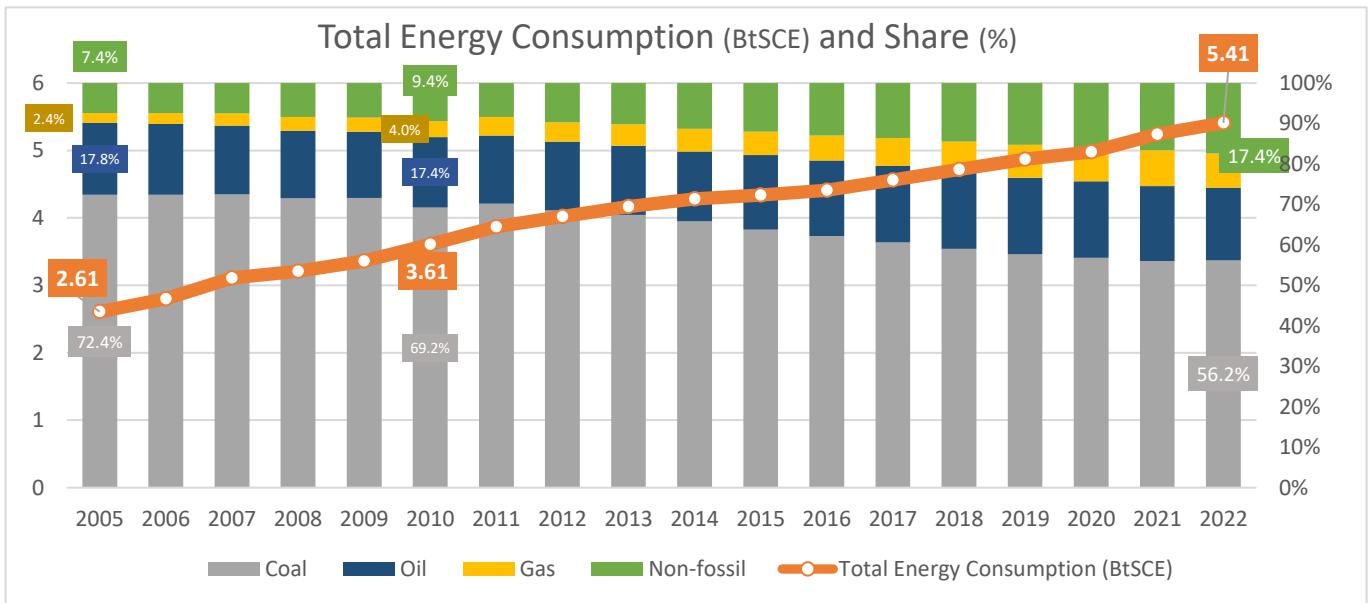
3.3 Installed Electricity Capacity

In terms of installed electricity capacity, the share of non-fossil electricity has steadily increased in the last decade. In June 2023, this ratio reached 50.9%, achieving a significant milestone two years ahead of target. This trend is mainly driven by the rapid rise in installed electricity capacity from wind and solar as depicted below.

Electricity Generation by Source (%)
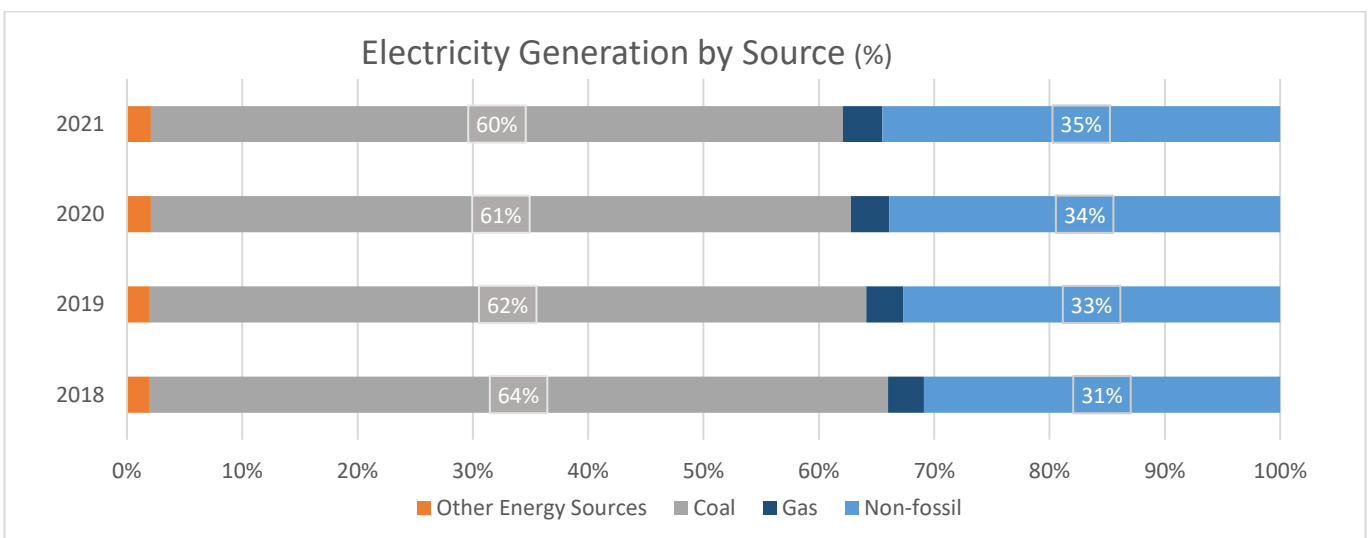
3.4 CO_2 Emissions

In 2022, China's **total CO_2 emissions were estimated to be 12.14 $GtCO_2$/year**, lower than its emissions in 2021, which stand at 12.22 $GtCO_2$/year. In 2022, 67.3% of China's CO_2 emissions came from coal (steaming[7] and coke[8]), 19.6% from oil, 7.1% from cement and 5.9% from gas.[9]

CO_2 Emissions (MtCO_2/year)

4. Annex

Data	Source	Source link
Economy		
GDP (billion RMB) – China	National Bureau of Statistics (NBS)	2005-2023: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A0201&sj=2021
GDP growth rate (%) – China		
GDP growth rate (%) - East Asia& Pacific (excl. High income)	World Bank	2023: https://www.worldbank.org/en/news/press-release/2023/03/30/east-asia-and-pacific-regional-growth-to-accelerate-as-china-rebounds 2005-2022: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=4E
Digital economy (% of GDP)	CAICT	2008-2022: http://www.caict.ac.cn/kxyj/qwfb/bps/201904/t20190417_197905.htm http://www.caict.ac.cn/english/research/whitepapers/202007/P020200728343679920779.pdf http://www.caict.ac.cn/kxyj/qwfb/bps/202104/P020210424737615413306.pdf http://www.caict.ac.cn/kxyj/qwfb/bps/202207/P020220729609949023295.pdf http://www.caict.ac.cn/kxyj/qwfb/bps/202304/P020230427572038320317.pdf
Sector contribution to growth (%)		
Primary industry	NBS	2005-2023: https://data.stats.gov.cn/easyquery.htm?cn=C01
Secondary industry		

[7] Steam coal refers to "coal burned, primarily in boilers, to generate steam for the production of electricity, or for process heating purposes, or to be used as a direct source of process heat."
https://www.eia.gov/tools/glossary/index.php?id=steam%20coal.
[8] Coke from coal "is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace".
https://www.eia.gov/tools/glossary/index.php?id=C#coke.
[9] As time series data on CO2 emissions is not available from China's official sources, the data presented here is estimated by Lauri Myllyvirta. It is slightly higher than the estimation made by Chinese scholar Prof. He Jiankun (Tsinghua University), but both trends are very much aligned.

Tertiary industry		
Demand component contribution to growth (%)		
Consumption	NBS	2005-2023: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A020A&sj
Investment		
Net exports		
Trade Value (billion RMB)		
Imports	NBS	2023: https://www.stats.gov.cn/sj/zxfb/202402/t20240228_1947915.html 2008-2022: https://data.stats.gov.cn/easyquery.htm?cn=C01
Exports		
Trade balance		
Total		
Government Account & Investment		
Fiscal deficit (ratio to GDP)	MOF	2023: http://m.ce.cn/bwzg/202310/30/t20231030_38769258.shtml 2022: http://lianghui.people.com.cn/2023/n1/2023/0306/c452482-32637378.html 2021: http://www.gov.cn/xinwen/2022-03/05/content_5677343.htm 2020: http://yss.mof.gov.cn/2020zyys/ 2012-2019: http://www.mof.gov.cn/zyyjsgkpt/zyzfyjs/
Government debt – central (billion RMB）	NBS	2023: https://www.gov.cn/yaowen/liebiao/202403/content_6936792.htm 2015-2022: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A0807&sj=2022
Government debt - local (billion RMB）	MOF, Gov	2023: https://www.gov.cn/yaowen/liebiao/202403/content_6936792.htm 2022: https://www.gov.cn/xinwen/2023-03/15/content_5746960.htm 2021: http://www.gov.cn/xinwen/2022-03/05/content_5677343.htm 2020: yss.mof.gov.cn/zhuantilanmu/dfzgl/sjtj/202101/t20210125_3649040.htm 2015-2019: www.celma.org.cn/ndsj/index.jhtml
ODI (billion USD)	NBS, Gov	2023 FDI: https://www.stats.gov.cn/sj/zxfb/202402/t20240228_1947915.html 2022 ODI: https://www.gov.cn/lianbo/bumen/202310/content_6907590.htm 2008-2021 ODI: https://data.stats.gov.cn/easyquery.htm?cn=C01 2008-2022 FDI: https://data.stats.gov.cn/easyquery.htm?cn=C01
FDI (billion USD)		
People		
Gini Coefficient (on disposable oncome)	NBS	2023: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A0A0G&sj
Urbanization Rate	NBS	2023: https://www.stats.gov.cn/sj/zxfb/202402/t20240228_1947915.html
Migrant workers related statistics	NBS	2022: http://www.stats.gov.cn/sj/zxfb/202304/t20230427_1939124.html
Unemployment rate	NBS	2018-2023: https://data.stats.gov.cn/easyquery.htm?cn=A01&zb=A0E01&sj
Disposable income - rural Disposable income - urban	NBS	2008-2023: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A0A03&sj
Elderly population (%)	NBS	2008-2023: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A0301&sj=2023
Natural population growth rate (‰)		2005-2023: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A0A03&sj
Internet penetration rate – rural	CNNIC	2021-2023: https://www.cnnic.net.cn/NMediaFile/2023/0908/MAIN1694151810549M3LV0UWOAV.pdf 2016-2020: https://www.cnnic.net.cn/NMediaFile/2023/0908/MAIN1694151810549M3LV0UWOAV.pdf 2008-2015: https://www.cnnic.net.cn/NMediaFile/old_attach/P020160803367337470363.pdf
Internet penetration rate – urban		
Human development index – China	UNDP	HDI: https://hdr.undp.org/data-center/specific-country-data#/countries/CHN
Human development index - East Asia and the Pacific		
Energy and CO₂ emissions		
Total primary energy production (billion tons of	NBS	

standard coal equivalent (SCE))		2005-2022: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb
- Share of coal, oil, natural gas, non-fossil		
Total energy consumption (billion tons of standard coal equivalent (SCE))		
- Share of coal, oil, natural gas, non-fossil		
Energy consumption	NBS	2005-2022: https://data.stats.gov.cn/easyquery.htm?cn=C01&zb
Installed electricity capacity	China Electricity Council	2018-2021: https://www.cec.org.cn/menu/index.html?542
Electricity generation	China Electricity Council	
CO_2 emissions	Myllyvirta (2023)	https://www.carbonbrief.org/analysis-chinas-co2-emissions-see-longest-sustained-drop-in-a-decade/

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