

The Healthcare industry and Innovation in China

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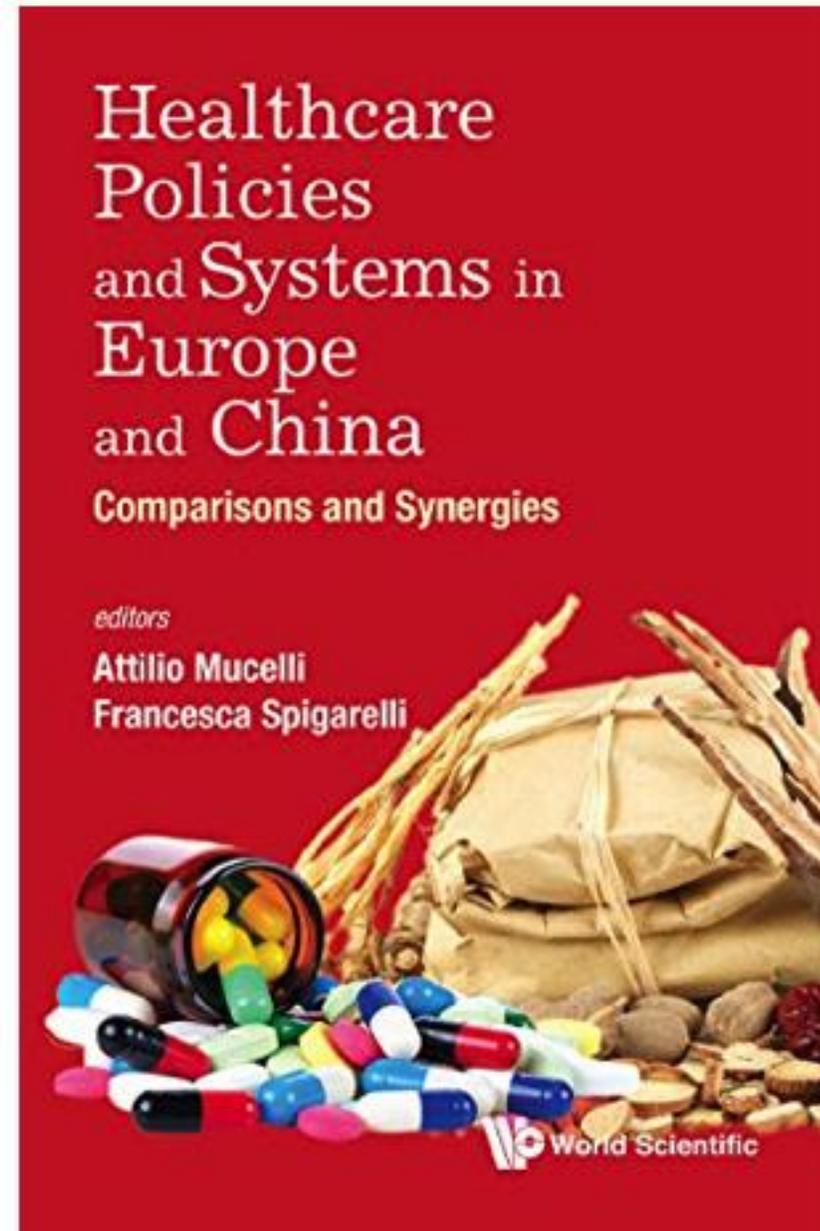
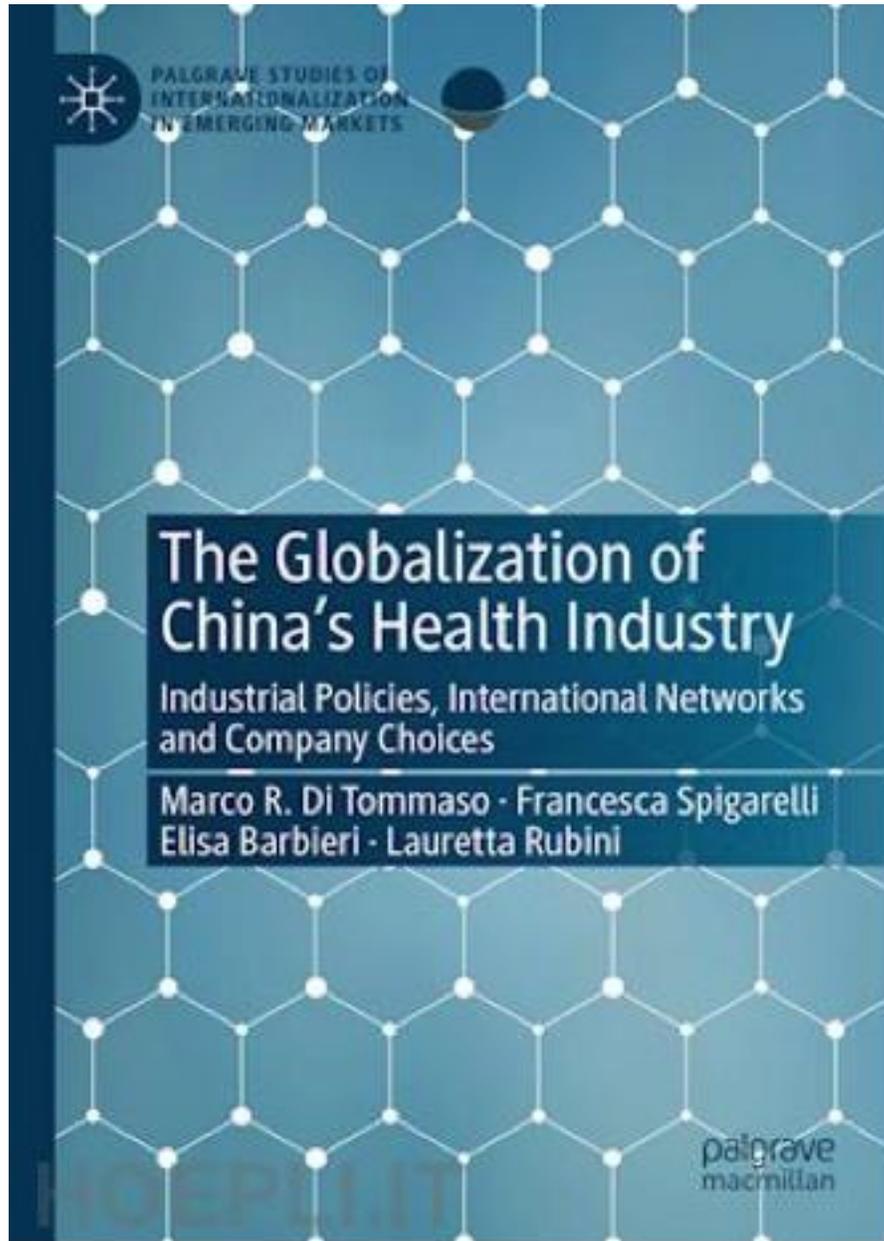
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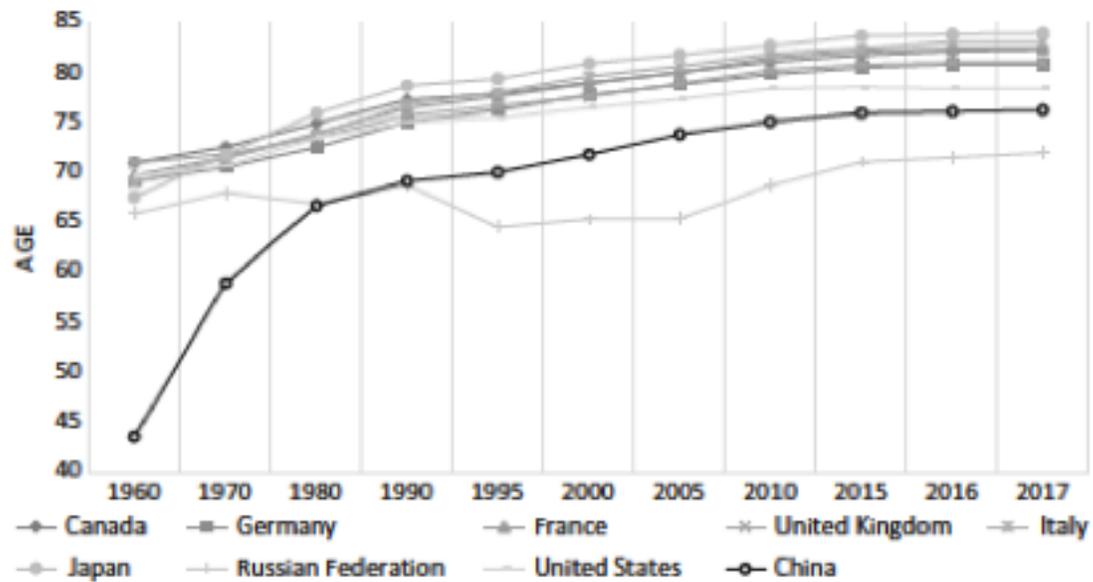


Fig. 1.2 Life expectancy at birth. (Source: Authors' elaboration on World Bank data)

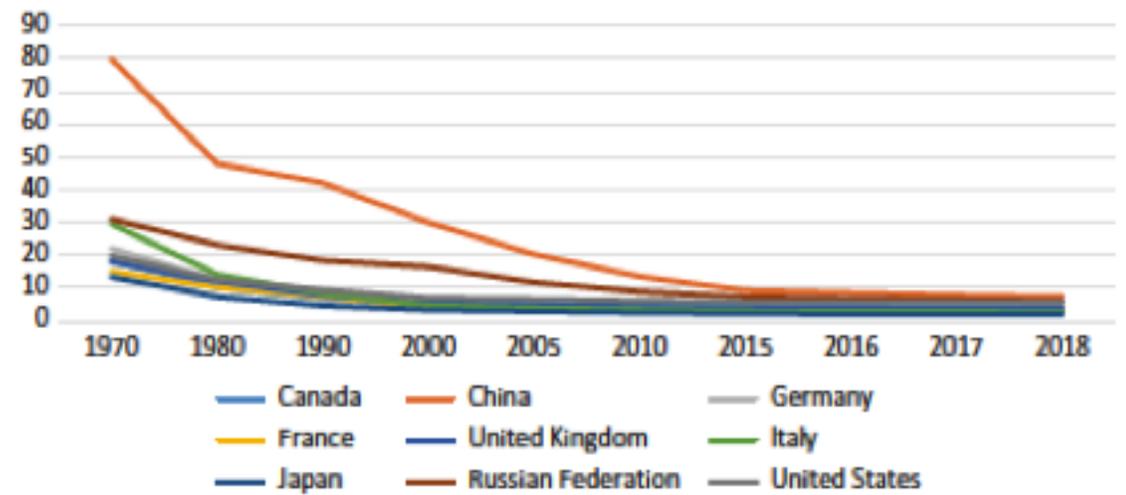


Fig. 1.5 Infant mortality rates (per 1,000 live births). (Source: Authors' elaboration on World Bank data)

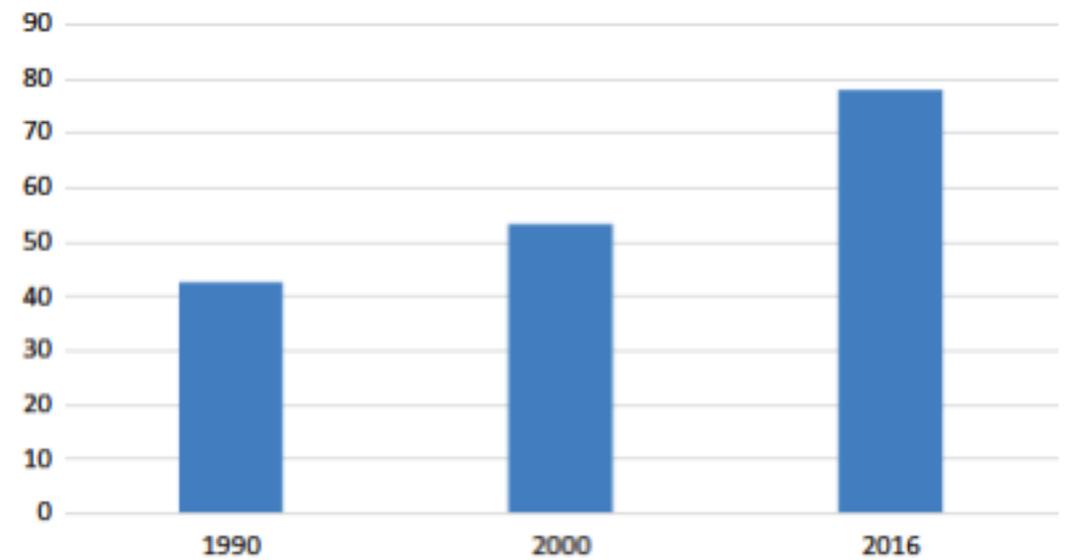


Fig. 1.7 Healthcare access and quality (HAQ) index for China, various years. (Source: Authors' elaborations on Fullman et al. (2018))

The new Chinese Dream

Primary goals:

- “**mildly prosperous society**” by 2021 (doubling the 2015 GDP by 2020) and **innovative country**
- “**fully developed country**” by 2049, **World leader in innovation by 2050**

Secondary goals:

- Better environment
- Healthy life
- Economic stability



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Better health for a sustainability and political continuity

»The all-round moderately prosperous society could not be achieved without people's all-round health (...)

China is facing health problems that occur in developing countries as well as developed countries (...)

If these problems are not effectively addressed, people's health may be seriously undermined and economic development and social stability will also be compromised (...)

Efforts should be made to boost the salary and treatment, development space, professional environment and social status of health workers so as to make them more active»

(Xi Jinping's Speech to the National Meeting on Health, 19

August 2016, Beijing)



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Recent healthcare reforms

Healthy China 2020, healthcare reform plan (2009) aimed at achieving basic healthcare coverage for all residents living in urban and rural areas by 2020, to improve the health delivery system and the social health security system and to reform the essential medicines system.

Healthy China 2030 further healthcare reform (2016)

4 core principles: (1) health should be considered a priority; (2) the healthcare industry has to increase its innovative capacity; (3) scientific development should be strategic in order to improve prevention, control and cure; (4) the provision of healthcare services should be equal in rural and in urban areas.

4 strategic goals: (1) steady improvement in the population's standard of health; (2) effective control over key health risk factors; (3) increased capacity for healthcare industry; and (4) improvements in the institutional settings for health promotion



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Pushing innovation in the Healthcare industry

Healthcare industries are prioritized in many ways under the “Made in China 2025” (MIC25) Plan.

“Guidelines for the Pharmaceutical Industry Development Plan” is one of the 11 strategic supplementary documents specifying the rollout of the Made in China Plan.

Two industry-spanning priorities covered by MIC25, smart manufacturing and artificial intelligence, are expected to impact on the healthcare industry.

For example, China is emerging as a world-class competitor in smart home products and medical image-assisted diagnostic systems



China's resilience to the pandemic

WHO Coronavirus Disease (COVID-19) Dashboard

Data last updated: 2020/9/15, 12:30pm CEST

Back to top 

Situation by WHO Region



Americas 14,903,891 confirmed



South-East Asia 5,565,977 confirmed



Europe 4,840,830 confirmed



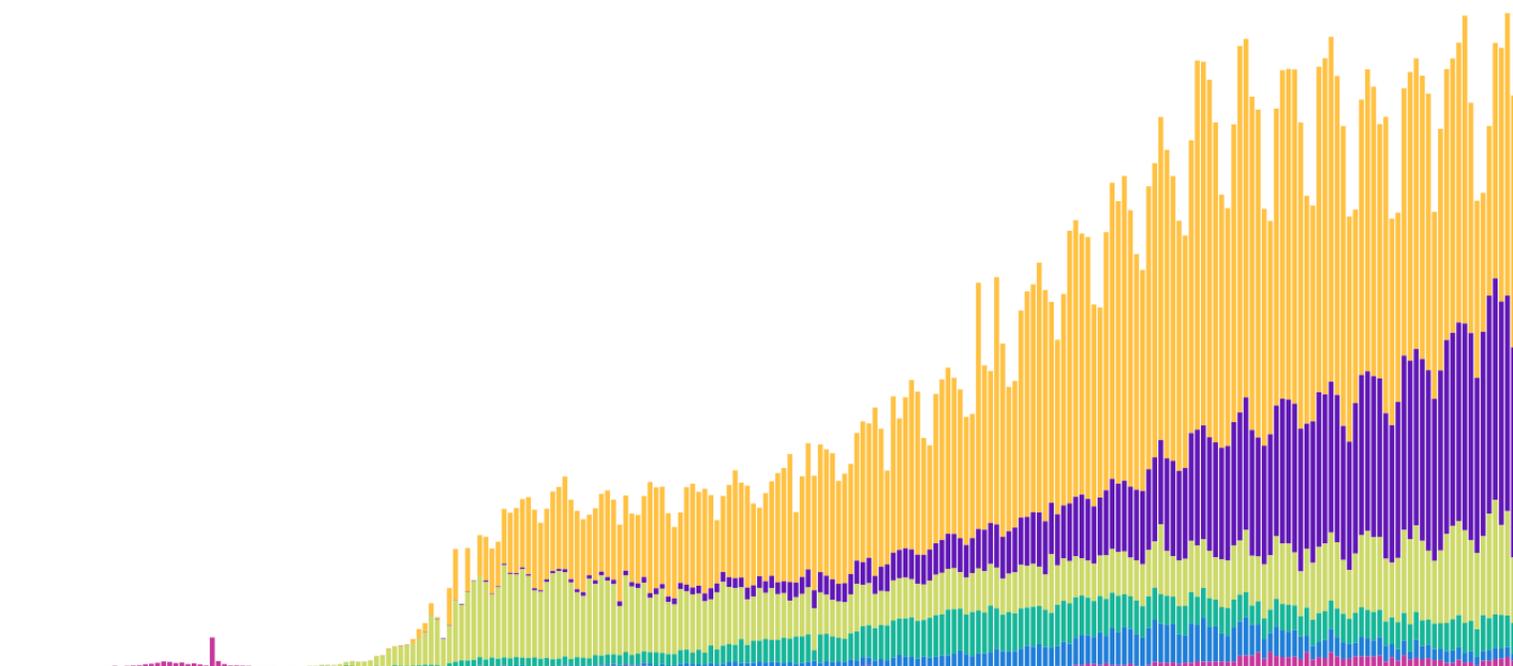
Eastern Mediterranean 2,132,383 confirmed



Africa 1,119,641 confirmed

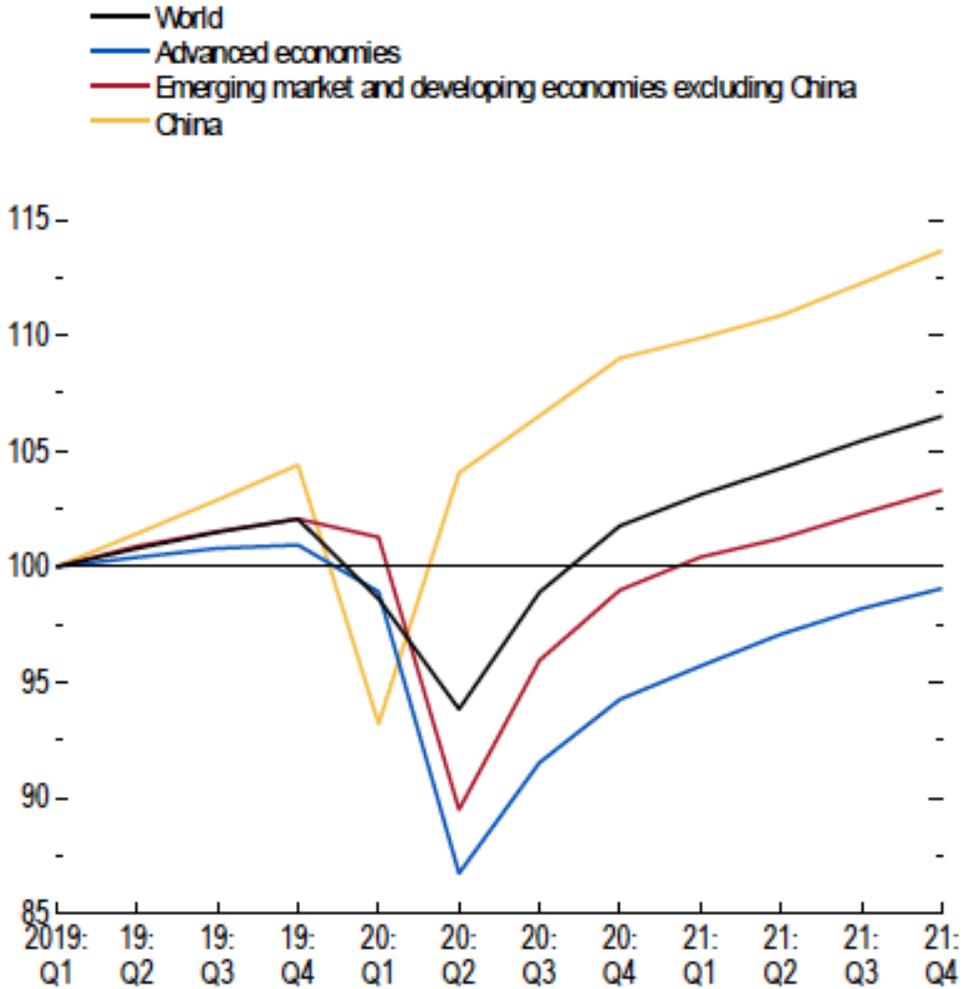


Western Pacific 555,970 confirmed



The impact of Covid19

Figure 1. Quarterly World GDP
(2019:Q1 = 100)



Source: IMF staff estimates.

(real GDP, annual percent change)	2019	2020	2021
World Output	2.9	-4.9	5.4
Advanced Economies	1.7	-8.0	4.8
United States	2.3	-8.0	4.5
Euro Area	1.3	-10.2	6.0
Germany	0.6	-7.8	5.4
France	1.5	-12.5	7.3
Italy	0.3	-12.8	6.3
Spain	2.0	-12.8	6.3
Japan	0.7	-5.8	2.4
United Kingdom	1.4	-10.2	6.3
Canada	1.7	-8.4	4.9
Other Advanced Economies	1.7	-4.8	4.2
Emerging Markets and Developing Economies	3.7	-3.0	5.9
Emerging and Developing Asia	5.5	-0.8	7.4
China	6.1	1.0	8.2
India	4.2	-4.5	6.0
ASEAN-5	4.9	-2.0	6.2
Emerging and Developing Europe	2.1	-5.8	4.3
Russia	1.3	-6.6	4.1
Latin America and the Caribbean	0.1	-9.4	3.7
Brazil	1.1	-9.1	3.6
Mexico	-0.3	-10.5	3.3
Middle East and Central Asia	1.0	-4.7	3.3
Saudi Arabia	0.3	-6.8	3.1
Sub-Saharan Africa	3.1	-3.2	3.4
Nigeria	2.2	-5.4	2.6
South Africa	0.2	-8.0	3.5
Low-Income Developing Countries	5.2	-1.0	5.2

Source: IMF, World Economic Outlook Update, June 2020



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Issues and challenges for the Chinese healthcare sector

a) uneven accessibility to services, due to regional disparities in economic growth, quality of service and social imbalances;

(b) world industry dynamics, including the race for innovation supremacy and the trade war with the US

(c) sustainability, considering aspects such as pollution or the protection of individual rights.

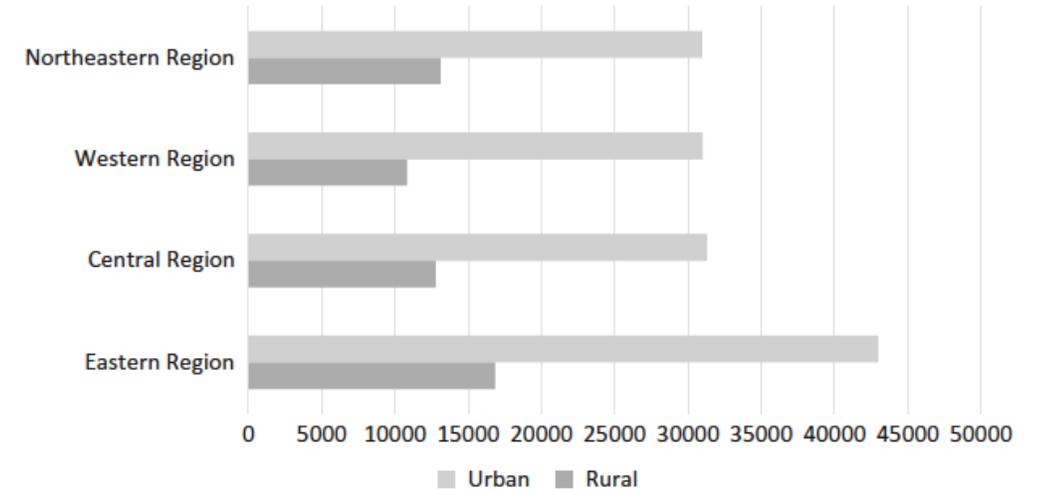


Fig. 1.11 Urban vs. rural per capita disposable income, by region, 2017. (Source: Authors' elaboration on NBS (2019))



But Covid boosted

- a) Use of **Artificial Intelligence** on online patient management, remote diagnosis, use of sensors for remote monitoring of vital parameters, etc.
- b) Use of **machine learning** and **data analytics** for tracking infections
- c) Web use and technological platforms for teleworking, telehealth and remote case view and virtual co-consultation, as well as

