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# Stresses and contradictions in the Chinese economy in the early 2020s

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## IN-DEPTH ANALYSIS

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EPRS invites leading experts and commentators to share their thinking and insights on important topics of relevance to debate in the European institutions. In this paper, Jacob Funk Kirkegaard, Senior Fellow at the Peterson Institute for International Economics and the German Marshall Fund of the United States, looks at the current state of the Chinese economy, and at the various factors likely to influence its evolution in the coming years. He argues that Chinese growth will slow to below the levels of the past decades, but that a devastating financial crisis is unlikely. Nevertheless, the changing pressures felt domestically will also influence China's foreign economic policy vis-à-vis other major economies, including the EU.

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## Table of contents

1. Introduction	1
2. Rebounding is important for economic miracles, including in China	1
3. China's dramatic demographic transition will have far-reaching economic consequences	3
4. China's unsustainable reliance on investment-led growth	7
5. Inequality at the individual and regional level remains unaddressed in China	12
6. Omicron is turning into a major policy challenge for China	20
7. The war in Ukraine will increase pressure on China's growth model	23
8. Going green will be a challenge for China, too	25
9. Concluding remarks	28

## Table of figures

Figure 1 – China crude birth/death rate 1978-2021, births/1000 capita	3
Figure 2 – Global high-speed railway tracks in operation, 2020, km	7
Figure 3 – Gross fixed capital formation (% of GDP) and GDP/capita 1961-2020	8
Figure 4 – Total public and private debt (% of GDP) and GDP/capita, 2020	10
Figure 5 – Gini coefficient, 2019 or latest available	12
Figure 6 – Chinese GDP/capita and population, by province 2018	13
Figure 7 – Chinese general government revenue level and central/regional revenue split, % of GDP and % share	14
Figure 8 – Chinese general government expenditure level and central/regional expenditure split, % of GDP and % share	15
Figure 9 – Chinese provincial/local government expenditure and own fiscal revenues 1978-2018, % of GDP	15
Figure 10 – Chinese provincial government own fiscal resource (% of total expenditure) and GDP/capita, 2018	16
Figure 11 – General government tax revenue collection, 2019, % of GDP	18
Figure 12 – China, OECD and select other countries' general government revenues, by tax category, % of GDP, 2019	19
Figure 13 – Daily new confirmed Covid-19 deaths per million people	21
Figure 14 – Shanghai subway passenger volumes (million passengers, 7 day average)	22
Figure 15 – Global foreign exchange reserves Q3 2021, by currency of claim	24
Figure 16 – Primary energy supply 2020, by fuel/source, % of total	25
Figure 17 – Chinese monthly domestic coal production, 2015-2021, millions of tonnes	26
Figure 18 – Renewable electricity production, by source, TWh, 2000-2020	27

## Table of tables

Table 1: Historical examples of sizable TFR rebounds among middle- and high-income countries	5
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## 1. Introduction

China's economic reforms after 1978 unleashed an economic growth miracle that has today made China the world's second largest economy measured at market exchange rates, the world's largest trading nation and among the largest recipients of foreign direct investments.<sup>1</sup> The Chinese government is widely heralded as a competent steward of the Chinese economy, and through its extensive and technologically sophisticated domestic surveillance and repression apparatus assumed able to keep political control in the strategically minded hands of Chinese Communist Party. The path towards eventual Chinese economic and political pre-eminence in the world economy and eclipse of the last centuries of Western dominance appears open. This is a scenario with the utmost economic and political implications for the EU as well.

This paper will argue that for several reasons it is not (yet at least) warranted to assume that China's economic ascent will continue in the future, and by extension that it would be a mistake for the EU to base its economic and political strategies on the assumption that the Chinese economy will stay on the same ascendant trajectory seen in the recent four decades. The stresses and contradictions in China's economy today are likely to cause medium-term economic growth to slow more than the base effects of China's now much higher GDP levels alone would dictate. The Chinese government retains tremendous capabilities. China's economy – in key sectors, such as banking, still state-dominated – is unlikely to face a devastating financial crisis. Yet maintaining politically dictated growth targets, such as Xi's Jinping's goal from 2020 of doubling the size of China's GDP in 15 years, by 2035,<sup>2</sup> will become increasingly unsustainable. Parts of China's foreign economic policies towards partners, competitors and rivals like the EU will also increasingly reflect these domestic growth challenges.

This paper will proceed in nine sections. Section II focuses on China's past and the need to recognise the specific circumstances that preceded China's remarkable economic growth period prior to 1978, before passing a comprehensive judgement on Beijing's recent economic stewardship. Section III analyses the effects of China's accelerating ageing and demographic transition. Section IV focuses on the unique degree to which China's economic growth remains driven by fixed capital formation, and the long-term challenges this poses for China. Section V analyses the effects of China's high levels of individual income inequality, regional economic differences and the central government's apparent inability to address these issues. Section VI explores the potentially lasting effects on the Chinese economy of the ongoing Covid-19 pandemic. Section VII investigates how the new global economic sanctions regime against Russia will adversely impact China's economic mode. Section VIII analyses the challenge of meeting both China's short-term growth needs and its ambitious environmental and climate change targets. Section IX concludes.

## 2. Rebounding is important for economic miracles, including in China

It is irrefutable that China since economic reforms began in 1978 has experienced a historic economic growth period and witnessed a remarkable decline in poverty. The standard World Bank poverty indicator of US\$1.90/day (in 2011 PPP) suggests a drop in poverty in China from a ubiquitous

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<sup>1</sup> Data from IMF WEO database and UNCTAD Databank.

<sup>2</sup> See <https://asia.nikkei.com/Economy/Xi-raises-prospect-of-doubling-China-s-GDP-by-2035>

close to 90 per cent in 1981 to essentially elimination at less than 1 per cent of the Chinese population by 2016, just 35 years later.<sup>3</sup> Deng Xiaoping's economic reforms unquestionably revolutionised the lives of many hundreds of millions of Chinese.

Yet Deng's guiding pragmatic and gradual economic philosophy of 'crossing the river by feeling the stones' often in practical terms meant getting the 'state and the planned economy out of the way' one step at a time, while unleashing Chinese entrepreneurship and private enterprise to power the economy forward.<sup>4</sup> By removing an increasing share of state-centric policies and institutions from the Chinese economy, Deng and his successors, however, implicitly acknowledged the failures of the People's Republic's first almost 30 years from 1949 to 1978. It was Mao's disastrous rule that prepared the foundation, the low starting point for China's subsequent economic success. In this regard, post-1978 China is comparable to other economic growth wonders following immediately after disastrous wars in for instance Japan and West Germany after 1945, and South Korea after 1953. Ravallion (2021) shows how in poverty-fighting terms China after 1978 mostly undid its prior failures. He compares China since the founding of the People's Republic with credible counterfactuals in South Korea and Taiwan, countries of comparable high poverty levels in 1950, and finds that two thirds of the poverty in China at the start of the Deng reform era can be attributed to the failures of the Maoist period relative to the economic development witnessed in its two peers.

The People's Republic's early economic disaster facilitated China's growth spurt after 1978 in several ways; the government could generate growth to a degree merely by undoing its own earlier mistaken policies and China could import foreign knowhow, technology and capital, and rapidly integrate its enormous and very poor workforce into the much more advanced global economy. Prior years of extreme poverty among the Chinese population helped create a singular focus on the need for economic growth at any cost, a simple public policy goal that an authoritarian political system has been well suited to execute after 1978.

Today, China is however no longer a poor country, it has the largest number of billionaires in the world after the United States, it is the world's largest CO<sub>2</sub> emitter, and also has a declining working-age population. Unlike Deng Xiaoping after 1978 when growth was paramount, China's leaders today face a more complex set of challenges in which trade-offs between long-term policy goals for things like decarbonisation, reversing demographic decline, or reducing income inequality must be made with the traditional political need for rapid economic growth to maintain social stability. It is far less obvious today than in 1978 that China's authoritarian system is well equipped to manage this type of public policy dilemma. This is amplified by the changes made to the functioning of China's top leadership by Xi Jinping. Eerily for the certainty of China's future economic trajectory, Xi Jinping since 2012 appears to have eliminated many of the aspects of China's collective leadership model successfully put in place by Deng Xiaoping and replaced it with what appears to be a more Maoist one-man rule model. As China already experienced from 1949-1978, this is a potentially very risky form of economic governance.<sup>5</sup>

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<sup>3</sup> Data from the World Bank's WDI database and Ravallion (2021).

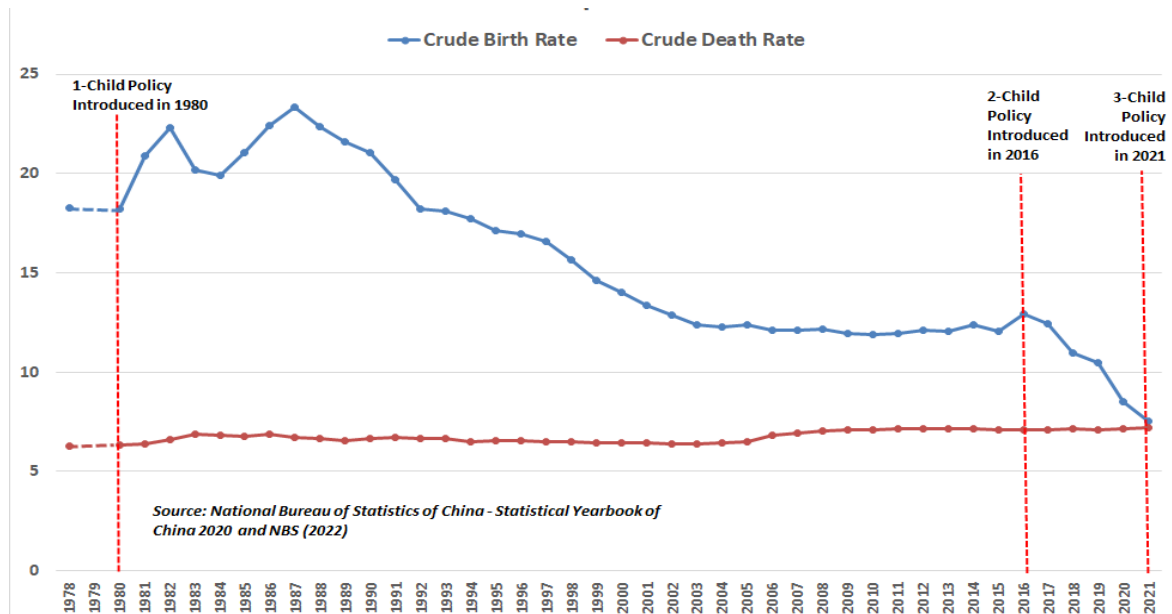
<sup>4</sup> See Lardy (2014) for the standout scholarly review of the growth of the Chinese private sector after 1978.

<sup>5</sup> Maintaining a high degree of state-ownership in key sectors of the economy may itself be another source of potential risk, even in the absence of outright one-man rule. A state-owned banking system certainly bestows potential stability in many crisis scenarios, but state-owned productive industries and industrial policy often leads to overproduction, as provinces compete to produce the politically favoured product. This dynamic appears to have played a role in constructing China's enormous production capacity in for instance the steel sector.

### 3. China's dramatic demographic transition will have far-reaching economic consequences

China infamously introduced its one-child policy in 1980, fearing continued rapid population growth would threaten the new leadership's plans for economic revival. Initial implementation was far from universal and China's crude birth rate (the number of births per 1000 capita) peaked only in 1987, after which it dropped steadily by almost half over the next 30 years (Figure 1). In 2016, China allowed families to have two children, and the reported crude birth rate rose marginally from 12.1 to 12.9. Since 2016, China however has suffered a demographic earthquake, as the crude birth rate has dropped by over 40 per cent to just 7.52/1000 capita in 2021. The causes of this dramatic recent decline are complex. Out-of-wedlock births remain extremely rare in China, meaning the recent decline in marriages in China has a very direct short-term implication on fertility levels. China National Bureau of Statistics data show a 43 per cent decline Chinese marriages from 2013 to 2021, from 13.46 million to 7.63 million, risking a higher level of childlessness among Chinese women unless reversed in the future.<sup>6</sup> Preliminary demographic research suggests the recent sharp decline in China extends earlier declines in third or higher order births in China to first and second order births too.<sup>7</sup>

Figure 1 – China crude birth/death rate 1978-2021, births/1000 capita



Source: National Bureau of Statistics of China.

In response, the Chinese authorities in 2021 shifted policies again and allowed, indeed began to encourage, families to have three children. Unless the trend since 2016 is changed dramatically in 2022, China will experience outright natural population decline in 2022. Given how the size of China's population makes any contribution from net migration trivial in scope, this would with certainty see the total Chinese population decline in 2022.

<sup>6</sup> Data from Wright and Tian (2022). See also Kirkegaard (2021) for an in-depth analysis of similar related marriage-fertility trends in South Korea.

<sup>7</sup> See Jiang et al. (2019) or Yang et al. (2022) for more detailed analysis.

A probable population decline in China as early as 2022 would be a staggering demographic reversal, coming just five years after the Chinese labour force aged 15-64 years recorded its first outright decline in 2017. In comparison, it took Japan 14 years from 1995 to 2009 to proceed from a declining working age population to witnessing a drop in its total population.<sup>8</sup> China moreover would see its population decline at an estimated average level of GDP/capita of PPP US\$18 400, just half of Japan's PPP US\$36 400 in 2009.<sup>9</sup> Growing old and becoming fewer in numbers before it gets rich is a very real prospect for China.

The degree to which the Covid-19 pandemic has affected Chinese fertility numbers in 2020 and 2021 cannot yet be discerned, though it is noteworthy how the two most recent years merely continue the downward post-2016 trend. Given how domestically produced Chinese vaccines offer very limited protection against infection,<sup>10</sup> and that China continues to implement a '(near) zero Covid-19' policy, China seems likely to be one of the last major economies to re-emerge from regular Covid-19 lockdowns and see life normalise. As such, it may be excessively optimistic to believe any possible Chinese fertility rebound will take place in 2022.

China's latest officially reported Total Fertility Rate (TFR) was 1.3<sup>11</sup> in 2020, which preliminary estimates, based on the reported 2021 decline in crude birth rates, suggest will have dropped to just 1.15 in 2021. This is a TFR level considerably below the 2005 all-time low for Japan of 1.26 and would place China in the uncomfortable group of 'very low Asian TFR countries/entities' It would, in 2021, join several of its geographical neighbours and culturally affiliated entities here, including South Korea at just 0.82, Taiwan at 0.95, Hong Kong at 0.77, Macao at 0.76, Singapore at 1.12 and Thailand at 1.18.

Some TFR rebound seems likely in China once the Covid-19 pandemic emergency is finally declared over by the Chinese authorities, but it may be overly optimistic to believe that this would lead to a very big increase. Chinese TFR rates are now so low that it would take a significant rebound to bring them back the still below replacement rate TFR levels currently seen in the EU or Anglo-Saxon countries of around 1.6. It would today for instance require a 39 per cent increase China's TFR, by 0.45, to reach 1.60. Regretfully, TFR increases of such magnitudes are very rare among middle- and high-income countries, as shown in Table 1.

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<sup>8</sup> Data from the US Census IDB Database.

<sup>9</sup> Data from the IMF WEO database Oct 2021 in real 2017 international PPP US dollars.

<sup>10</sup> See Cheng et al. (2022).

<sup>11</sup> See Normile (2022).



Table 1: Historical examples of sizable TFR rebounds among middle- and high-income countries

Country	TFR Rebound	TFR Rebound Range	TFR Rebound Percent Increase	Observed Rebound Period (China = Assumed)
<b>China</b>	<b>0.45</b>	<b>1.15-1.60</b>	<b>39%</b>	<b>2022-2040</b>
Russia	0.62	1.16-1.78	53%	1999-2015
Czechia	0.58	1.13-1.71	51%	1999-2018
Bulgaria	0.57	1.09-1.66	52%	1997-2009
Latvia	0.52	1.22-1.74	43%	2001-2016
Sweden	0.52	1.61-2.13	32%	1983-1990
Denmark	0.51	1.38-1.89	37%	1983-2008
Romania	0.51	1.27-1.78	40%	2002-2016
Belarus	0.49	1.23-1.72	40%	2003-2015
Sweden	0.48	1.50-1.98	24%	1999-2010
Lithuania	0.47	1.23-1.70	38%	2002-2015
Estonia	0.44	1.28-1.72	34%	1998-2010
Slovenia	0.42	1.20-1.62	35%	2003-2016

*Source: National Vital Statistics and Health Authorities*

Data for middle- and high-income countries reveal only 12 instances of TFR rebounds of the magnitude needed for China to get up to 'Western TFR levels' of 1.6. Almost all large fertility rebounds among this group of countries occurred in former Communist countries (Russia, Belarus, eastern Europe).<sup>12</sup> These countries experienced fundamental political and economic transitions, and their populations in the 1990s suffered a dramatic decline in living standards after the end of the Cold War. As many of these countries eventually stabilised economically and in many cases could look forward to EU membership (in 2004) strong rebounds in fertility after temporary post-Communist postponement become more frequent. In short, if China's TFR were to ever rebound to current Western levels, it would represent a virtually unprecedented fertility event in a non-developing country. Yet, the UN's World Population Prospects, the official UN population projections,<sup>13</sup> currently assume that China and other east Asian nations gradually experience TFR rebounds by 0.65 back all the way up to 1.80 by the mid-21st century, a feat no middle- and high-income country has ever achieved. It consequently seems plausible that the official UN population forecasts for China are biased, potentially significantly upwards. Not least if China follows its more

<sup>12</sup> The only two non-post-Communist countries that have witnessed fertility rebounds of the rough magnitude required to see China reach a TFR of 1.60 are Denmark and Sweden (twice), two Scandinavian countries with social welfare state services, childcare availability, parental support, and social norms that are very different from China. Denmark and Sweden never fell to the lows of China's current TFR levels.

<sup>13</sup> UN (2019).

developed north-east Asian neighbours in South Korea and Taiwan, and as the country continues to urbanise, it would experience further declines in TFR in the future.<sup>14</sup>

Facing an outright population decline earlier than expected due to a dramatic decline in the number of births is dire news for China's long-term forecast population numbers,<sup>15</sup> as the dearth of newborns today means a dearth of workers in the future. It is striking therefore in the face of dramatically declining birth rates and a life expectancy now of 77 years<sup>16</sup> that China retains among the lowest retirement ages in the world. Most men can retire at 60, female civil servants at 55 and female blue-collar workers at 50. China's retirement ages were fixed in the 1950s, when life expectancy was much lower (even in 1960 the average Chinese could expect to live to just 44 years<sup>17</sup>), and successive Chinese presidents Hu and Xi have since proposed, but to date shied away from, increasing them. Many European political leaders are very familiar with the political difficulties of raising retirement ages, but that this should be even more difficult in authoritarian China may come as a surprise.

Several factors however may explain the unwillingness of the Chinese population to accept this. First, it is the case also in advanced economies that retirement ages are often only raised in times of acute economic crisis, and China's remarkable growth record in recent decades has prevented one from occurring here. Secondly, many Chinese blame the accelerating ageing on the government's one-child policy and do not wish to bear the costs of its implications. Thirdly, China retains a very large low-skilled workforce, who often work long hours in physically gruelling conditions. Many Chinese workers will consequently be physically worn down before or at the currently low retirement age and unsurprisingly strongly oppose raising it. And lastly, with long working hours and childcare facilities in China rare or very expensive, looking after children is often the responsibility of retired grandparents. Were this type of 'cheap within family childcare option' to become unavailable due to higher retirement ages, it seems probable that many Chinese families would have even fewer children than today.

Addressing the deep structural effects of rapid population ageing is difficult in all societies, and China is no exception. The inability or unwillingness of the Chinese government to date to raise its retirement age, despite estimates showing China's pension system will run out of money as early as 2035,<sup>18</sup> suggests that despite its enormous coercive power, the Chinese Communist Party remains unable to sway or confront Chinese popular will on this issue. In 2021, Premier Li Keqiang stated in his annual government work programme speech at the Chinese National People's Congress that *The statutory retirement age will be raised in a phased manner*,<sup>19</sup> generally interpreted to mean by 'a few months per year' starting no later than 2025.<sup>20</sup> In 2022, however, his work programme speech included no explicit reference to raising the Chinese retirement age, merely stating on this issue

<sup>14</sup> The fact that recent TFR data for Shanghai, China's largest metropolitan area, at just an estimated 0.75 in 2021 is comparable to Seoul's record low 2020 level of just 0.64 gives rise to concern. Regional Chinese 2021 data by province available from STCN News, April 6<sup>th</sup> 2022 "The birth population data of 23 provinces in 2021 is released: 9 provinces have natural negative growth". Available at [https://www.stcn.com/xw/news/202204/t20220406\\_4323529.html](https://www.stcn.com/xw/news/202204/t20220406_4323529.html)

<sup>15</sup> Had China instead for instance suffered an outright population decline from higher mortality rates due to for instance excess Covid19 mortality among elderly infected the long-term consequences would have been negligible.

<sup>16</sup> Source; World Bank WDI Data.

<sup>17</sup> Source; World Bank WDI Data.

<sup>18</sup> Caixin (2019).

<sup>19</sup> Li (2021, 13).

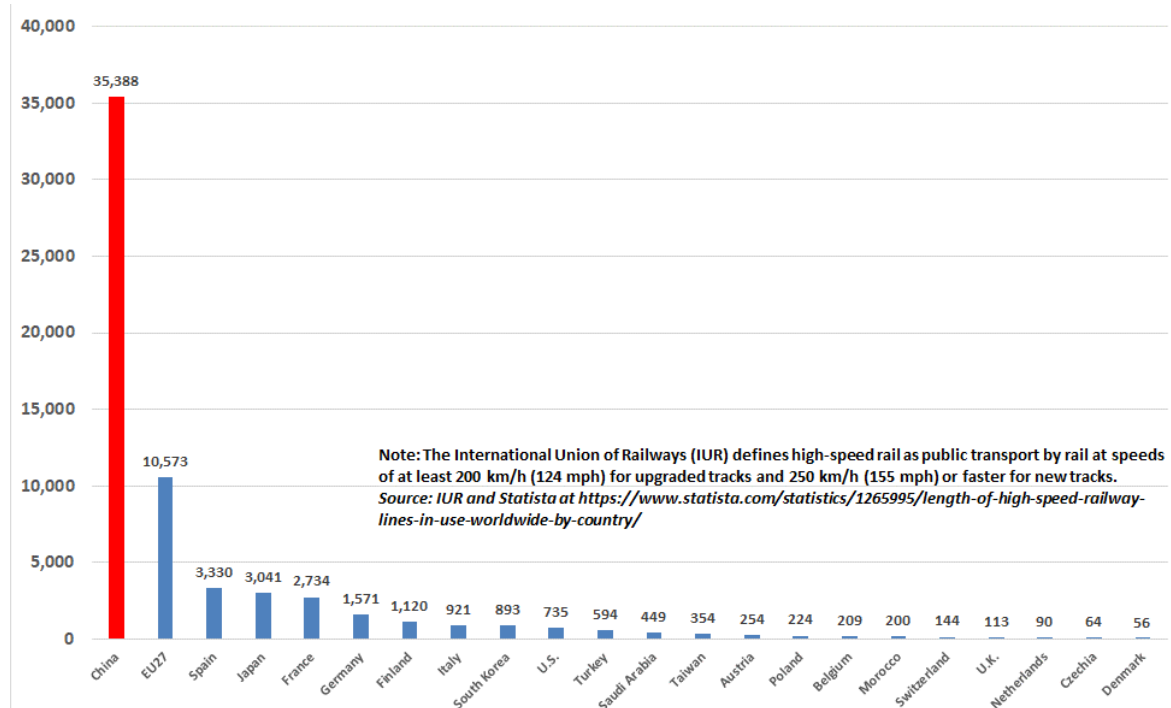
<sup>20</sup> See South China Morning Post, February 22 2022, China to delay retirement ages 'gradually' by 2025, after holding firm for seven decades, available at <https://www.scmp.com/economy/china-economy/article/3167985/china-delay-retirement-ages-gradually-2025-after-holding-firm>

that: *We will improve social security and social services. We will work steadily toward national unified management of basic old-age insurance funds for enterprise employees, appropriately raise the basic pensions for retirees and basic old-age benefits for rural and non-working urban residents, and ensure that these payments are made on time and in full. We will continue to regulate development of third-pillar pension plans.*<sup>21</sup> Whether the lack of explicit reference to raising the retirement age in China in China's most important annual government policy declaration in 2022 means that this crucial reform no longer has as high a priority as in earlier years is unknown. China though is self-evidently failing to address the implications of its rapidly ageing population in a timely manner. This will invariably push the rising costs of ageing in China onto its future generations.

## 4. China's unsustainable reliance on investment-led growth

China's remarkable economic growth record since 1978 has seen the economy integrate fully with global markets and become the world's largest trading nation.<sup>22</sup> Part of China's global trade integration has been powered by continuous investments in and upgrades to China's infrastructure. Six out of the world's top-10 container ports by volume were by 2020 located in China,<sup>23</sup> and China's high-speed rail system now has 3.5x the tracks of that of the EU-27 and dwarfing any other nation in the world (Figure 2). Moreover, as China battles an economic slowdown from the Covid-19

Figure 2 – Global high-speed railway tracks in operation, 2020, km



Source: International Union of Railways and Statista.

<sup>21</sup> Li (2022,31).

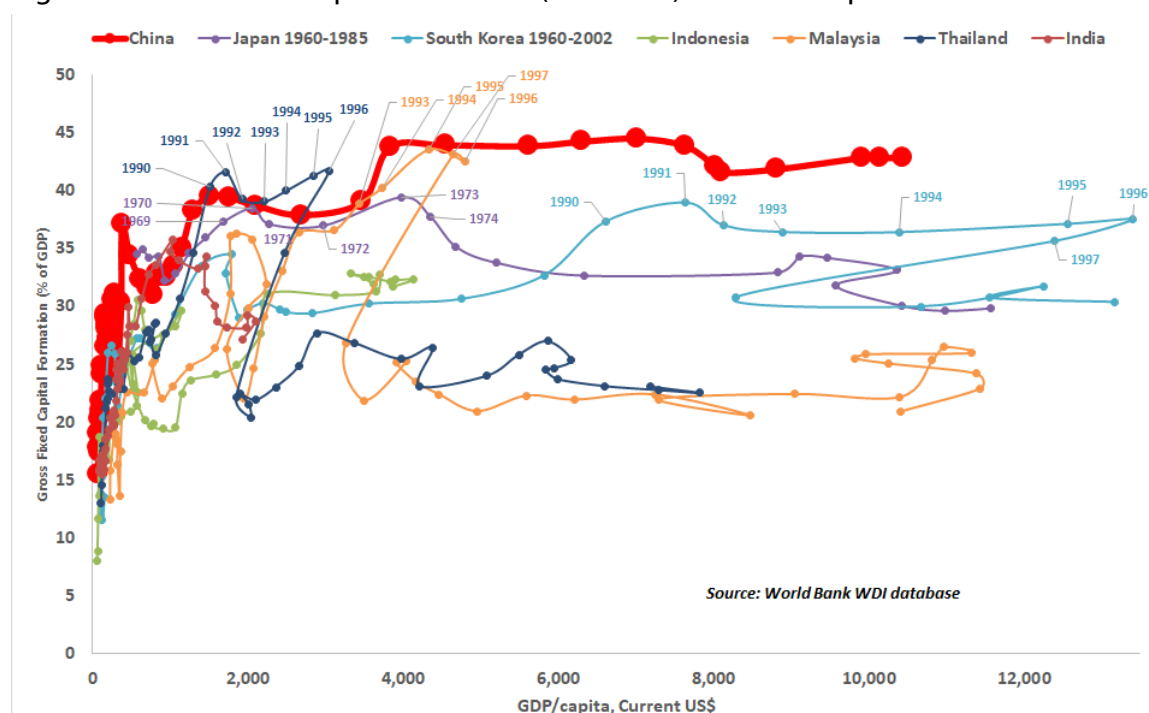
<sup>22</sup> China overtook the United States in global merchandise goods export share in 2008 and the latest available UNCTAD data from 2020 show China at 14.7 percent of global exports, excluding Hong Kong (3.1 percent). This compares to second placed United States at 8.1 percent. UNCTAD (2021).

<sup>23</sup> That number grows to seven if you include Hong Kong. Source: World Shipping Organization at <https://www.worldshipping.org/top-50-ports>

pandemic, the central government has announced a frontloading of infrastructure investments in 102 mega-projects planned during the 14th 5-year plan from 2021-2025.<sup>24</sup> These include roads, railways (China's declared intent is to expand its high-speed rail system to 50 000 km by 2025), metros and mass transit systems, airports, nuclear power plants, power transmission lines and pipelines. China's infrastructure is going to become even better, as the government explicitly invests more now to boost short-term economic growth.<sup>25</sup>

China's physical infrastructure development has been a major component of China's extremely investment-intensive growth model in the 21st century. Chinese gross fixed capital formation (GFCF includes all national investment, irrespective of sector of the economy)<sup>26</sup> reached 40 per cent of GDP in 2004, and 45 per-cent by 2009, before dropping back slightly to around 42 per-cent after 2015. These are extremely high sustained investment levels in any economy, and exceeds the investment levels of China's comparable fast growing Asian economies at similar levels of economic development at up to US\$10 000/capita (Figure 3).

Figure 3 – Gross fixed capital formation (% of GDP) and GDP/capita 1961-2020



Source: World Bank.

Figure 3 uses data for China and relevant fast growing Asian peers from 1961-2020 to show how countries like South Korea, Malaysia and Thailand reached GFCF levels of around 40 per-cent during a brief period in the early/mid-1990s, just before the 1997 Asian financial crisis. Afterwards

<sup>24</sup> Source, Construction World at <https://www.constructionworld.in/transport-infrastructure/metro-rail-and-railways-infrastructure/china-to-rollout-infra-projects-to-combat-economic-slowdown/32162>

<sup>25</sup> Source, China Global Times January 18 2022, China moves swiftly to expedite infrastructure projects amid pressure on economy, available at <https://www.globaltimes.cn/page/202201/1246285.shtml#:~:text=China's%20central%20and%20local%20governments,steadily%20push%20forward%20the%20102>

<sup>26</sup> See detailed OECD definition of GFCF at <https://data.oecd.org/gdp/investment-gfcf.htm>

investment levels in Malaysia and Thailand fell to around 25 per-cent of GDP, and in South Korea to about 30. Japan similarly reached (almost) 40 per-cent GFCF shortly before the first oil price shock in 1973-74, before falling to a level closer to 30 per-cent. The same levels of investment sustained by China since at least 2004 has in other words in other fast-growing Asian economies tended to have been followed by crises and a dramatic slowdown in new GFCF.

Major crises are always difficult to predict, and China's extensive capital controls and state-owned banking system offers Chinese authorities more levers of economic control in any future sudden difficulty, likely giving China a degree of insurance against such an outcome. Yet at the same time, China's economic growth rate is increasingly expensive to maintain via GFCF and infrastructure investments. The incremental capital output ratio (ICOR) is a measure of how much additional investment it takes to produce each additional unit of GDP growth in an economy.<sup>27</sup> The Chinese aggregate ICOR level has for many years been roughly double what the IMF considers best practice, and the latest pre-pandemic Chinese ICOR data showed its value steadily rising from 2018 to 2020.<sup>28</sup> China has in other words in recent years been getting less 'growth bang' for its 'investment buck' than it did historically, and a lot less than what many other countries achieve. While acknowledging that much of China's future investments will go towards broadly beneficial goals like decarbonisation, and achieve other relevant public health and environmental targets, its ICOR level and trend nonetheless make it clear that continuing to rely on a very investment-intensive growth model will not prove sustainable for China in the long term.

Many years of high growth has ensured that China's regular government indebtedness at 69 per cent of general government gross debt to GDP remains quite low. However, China's reliance on investment-led growth more broadly has generated a high level of debt and leverage across the Chinese economy, among state-owned enterprises, local government financial vehicles, private businesses and households, once all debt instruments are included in the estimates.

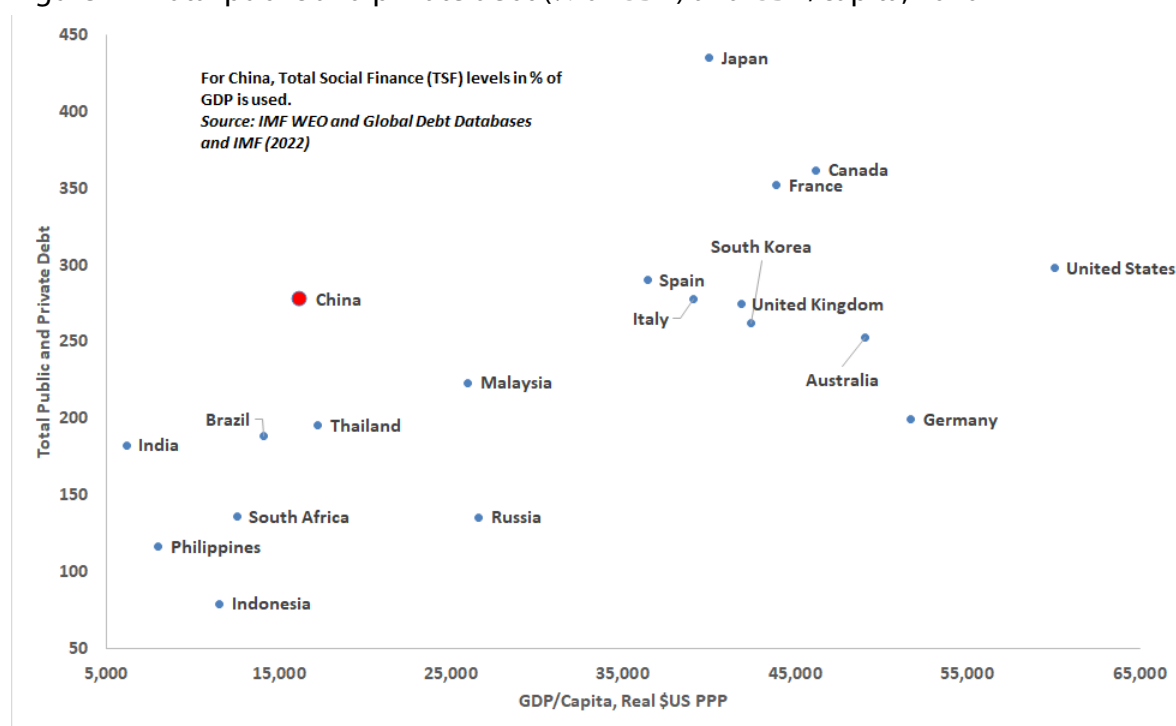
China's Total Social Finance (TSF) is estimated by the People's Bank of China and includes total debt raised by non-government entities including banks, non-financial businesses and households. Add to that China's general government debt and you get a number comparable to OECD country data for total private non-financial and general government debt. This is illustrated in Figure 4.

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<sup>27</sup> ICOR is usually estimated as the ratio of gross capital formation, divided by overall GDP growth lagged by two quarters. ICOR is a crude measure of investment quality and can be estimated for the economy as a whole or sectorally, and for the public and private sector separately. Public sector investments tend to have a considerably higher ICOR (i.e. implying higher degree of investment inefficiency) than the private sector, as government investments often tend to pursue multiple policy goals, including many whose benefits are not captured in GDP growth. These can include improved environmental outcomes or better public health. ICOR values can be used for cross-country comparisons and for directional time-series analysis (i.e. is overall investment efficiency in country A better than country B, or is country A's investment efficiency improving or deteriorating over time). See IMF (2015) an in-depth theoretical description of investment efficiency.

<sup>28</sup> In periods of large economic shocks such as the Covid19 pandemic, the ICOR will become volatile as GDP growth drops or turns negative. ICOR scores for the pandemic period are hence not analytically useful. Data from the Asia Society China Dashboard at <https://chinadashboard.gist.asiasociety.org/winter-2021/page/financial-system>.

Figure 4 – Total public and private debt (% of GDP) and GDP/capita, 2020



Source: International Monetary Fund.

China in 2020 had a total debt level in its economy of roughly 350 per-cent of GDP, roughly comparable to large OECD members like Spain, Italy, South Korea and the United Kingdom and not massively off the 375 per-cent found in the United States. China however had a GDP/capita level at less than half that of Spain and barely a quarter of the United States. Its debt level meanwhile was far higher than that of Brazil with comparable GDP/capita. In short, China is a very highly leveraged economy for its stage of economic development. The Chinese government has repeatedly in recent years made the effort to limit increased leverage a top policy priority,<sup>29</sup> and TSF rose only slowly from 240 to 254 per-cent of GDP from 2016 to 2019. The economic necessity to fight the Covid-19 pandemic in 2020 however saw it rise to 278 per-cent in 2020 and, according to IMF estimates<sup>30</sup> 293 per-cent in 2022. The Chinese government is in other words struggling to contain leverage in its economy, as Beijing tries to counter the major shocks that hit it by falling back on its traditional very effective and expeditious, but also investment heavy, methods of economic stimulus. This creates rising over-investment and leverage risk in the Chinese economy.

A particular long-term over-investment risk currently relates to China's real estate market. It has been well publicised how major Chinese real estate developers, including Evergrande, Shimao and others,<sup>31</sup> have in recent months come under acute financial pressure. They are suffering from a combination of new regulatory restrictions on their highly leveraged business model and

<sup>29</sup> Xi Jinping as early as the 19<sup>th</sup> Communist Party Congress in 2017 signalled the need to contain leverage and associated financial risks in the Chinese economy. See section V in Xi Jinping's speech to the Congress on "Applying a New Vision of Development and Developing a Modernized Economy". Available here: [https://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content\\_34115212.htm](https://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content_34115212.htm)

<sup>30</sup> IMF (2022)

<sup>31</sup> See Guardian newspaper, December 15 2021, China housing market slumps again as another developer runs into trouble, available at <https://www.theguardian.com/world/2021/dec/15/china-housing-market-slumps-again-as-another-developer-runs-into-trouble>



plateauing or declining Chinese real estate prices, due to weak fundamental demand from Chinese would-be owner-occupiers.

Section III showed how China is poised to enter rapid long-term population decline in 2022, due to an ongoing collapse in new births in China. As family expansions are among the most important life events to drive real estate demand, China's recent demographic decline is now and will continue to undermine basic demand for new dwellings in China. In a country already with among the highest homeownership rates in the world at over 90 per-cent (87 per-cent in urban and 96 per-cent in rural areas)<sup>32</sup> and up to 20 per-cent of Chinese households already owning multiple homes,<sup>33</sup> the possibility to grow the homeownership rate is very limited, making the number of new would-be homebuyers crucial. Perhaps reflecting this issue, Ren Zeping, the former Evergrande chief economist, controversially proposed that China should finance 50 million extra births in the next 10 years by printing RMB 2 trillion to spend on family related social benefits, helping create millions of new future Chinese homebuyers in the process.<sup>34</sup> Ren Zeping's radical proposal implied that existing Chinese government policies towards promoting higher birth numbers will be ineffective, causing his ideas to be censored out of the Chinese debate.

With the number of new potential homebuyers, however, in inexorable decline with the size of the age group of 25-39 year-olds dropping almost 100 million to about 230 million by 2040,<sup>35</sup> demand for housing and real estate prices in China will eventually start to drop. And with it the significant contribution of residential real estate construction to China's GDP growth. Some estimates like Rogoff and Yang (2020) suggest that China's total real estate activities<sup>36</sup> contributed 29 per-cent of China's GDP from 2013 to 2016. Other contribution estimates are lower relying on narrower sector definitions, but it is uncontroversial that China has a significantly larger real estate sector than advanced economies in general and has been comparable in scope in recent years to Spain during the peak of its real estate boom in 2006.<sup>37</sup> Many EU governments are familiar with the great difficulties of restoring economic growth following a slowdown in the construction sector. While the Chinese government may well be capable of easing monetary policy and reversing real estate leverage restrictions and boosting the sector's growth in the short term, significantly lower real estate sector contributions to Chinese GDP beckons. For China to continue to grow at rates commensurate with reaching the government's long-term GDP targets, a new and less investment- and leverage-driven economic model must be established. To date, the Chinese government has not shown itself capable of moving decisively towards this goal.

<sup>32</sup> China ended government provision of housing in 1998 and an aggressive housing privatization and construction strategy was implemented. Source: Huang et al. (2020)

<sup>33</sup> Chinese households have been strongly incentivized to invest in housing for many years, due to the negative real interest rates bank depositors have faced and China's capital controls preventing them from diversifying their portfolios into also non-Chinese assets.

<sup>34</sup> See The Economist, March 5<sup>th</sup> 2022 "China scrambles to prevent property pandemonium", available at <https://www.economist.com/finance-and-economics/china-scrambles-to-prevent-property-pandemonium/21807940>

<sup>35</sup> Data from Census IDB Database.

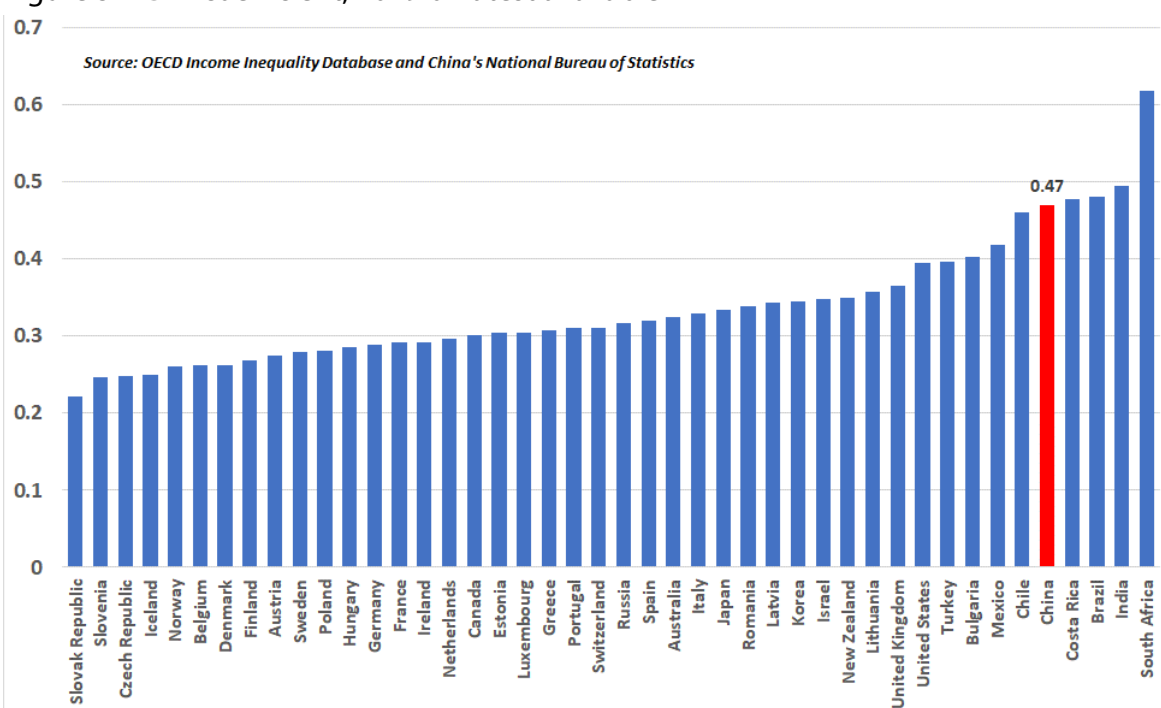
<sup>36</sup> Real estate activity involves both the construction, renovating, repairing and maintaining of new housing/buildings and production of property related services, including buying, selling, renting and managing of property.

<sup>37</sup> Rogoff and Yang (2020) estimates the GDP contribution of Spain's real estate related activities, using EU KLEMS data, to be 28 percent in 2006, by far the highest level of any advanced economy. By 2011, this contribution level in Spain had dropped below 20 percent.

## 5. Inequality at the individual and regional level remains unaddressed in China

Countries experiencing rapid growth, accelerating urbanization and a transformation to an increasingly market-based economic system will almost invariably witness significant increases in income inequality, irrespective of the rhetorical political leaning of their government. So too also in China in recent decades as income inequality has risen dramatically from the pre-reform era and today China is among the most income-unequal middle and high countries in the world (Figure 5).

Figure 5 – Gini coefficient, 2019 or latest available



Source: OECD.

A reported Gini coefficient<sup>38</sup> in 2019 of 0.47 puts Chinese income inequality well above European and North American levels and on par with Latin American countries and India, though still below South Africa. Previous Asian tiger economies in Japan and South Korea meanwhile today have inequality levels well below that of China, highlighting how even fast-growing economies through the right economic policies can address income inequality. The question is, however, whether the nominally communist Chinese government has the political and administrative capacity to do so.

China has, as mentioned above, effectively eliminated abject poverty among its population, shifting its primary domestic economic challenge from solely economic growth creation towards also ensuring a better distribution of China's wealth. Directly addressing high income inequality is mostly

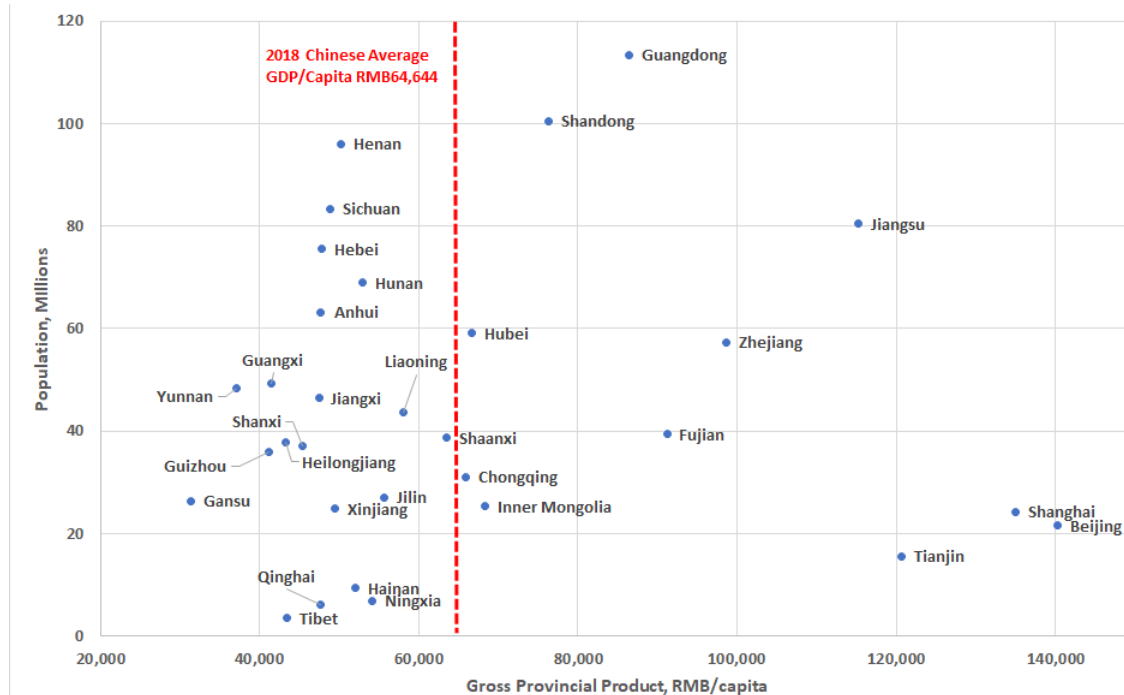
<sup>38</sup> The Chinese data is from the National Bureau of Statistics (NBS), which relies on a national Chinese definition of income for the purposes of estimating its Gini Coefficient. The OECD data relies on a new common OECD definition of income, which may not completely match that used by Chinese statistical authorities. OECD estimates for China exists using their income definition for 2011 with a reported Gini Coefficient of 0.51, compared to the nationally reported Chinese number of 0.47. As such, the reported NBS number for 2019 in figure 5 may be biased downwards relative to the other OECD country data. This however does not materially alter the conclusion from figure 5 of China being among the most unequal middle- and high-income countries in the world today.



a matter of engineering adequate fiscal redistribution through taxes and government transfers, and services provision in the manner least intrusive to economic growth creation. Middle- and high-income countries have different political priorities and the scale of redistribution and size of government sectors vary greatly among them. The Chinese fiscal system, its scale and the relationship between the central and provincial/local governments is naturally unique and a product of China's size and economic history since 1949. Several characteristics shape China's fiscal system and the prospects of its ability to successfully help reduce income inequality in China.

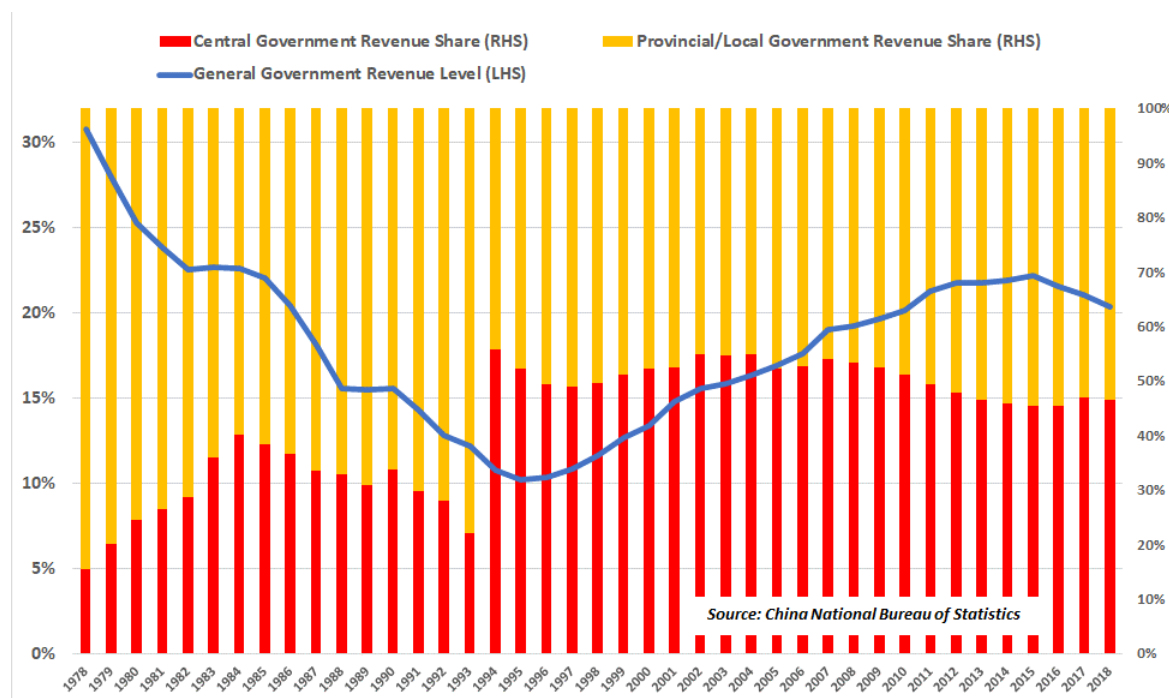
First of all, regional income inequality in China remains very large, as particularly the large coastal mega-cities and their provinces remain 4-5x as rich today as China's poorest provinces. Figure 6 shows the dramatic regional income inequality and how as much as 300 million Chinese live in provinces with only one third or less of the output per capita of the mega-metropolis provinces of Shanghai and Beijing. Fiscal redistribution in China in other words invariably must mean continued sizeable redistribution among provinces with the rich subsidising the poor.

Figure 6 – Chinese GDP/capita and population, by province 2018



Secondly, the Chinese fiscal system is by OECD country standards quite limited and highly decentralised, as key public services including health, education and social welfare are the responsibility of the provincial and local government levels. Figures 7 and 8 break down China's general government revenues and expenditures from 1978 to the latest available data from 2018.

Figure 7 – Chinese general government revenue level and central/regional revenue split, % of GDP and % share



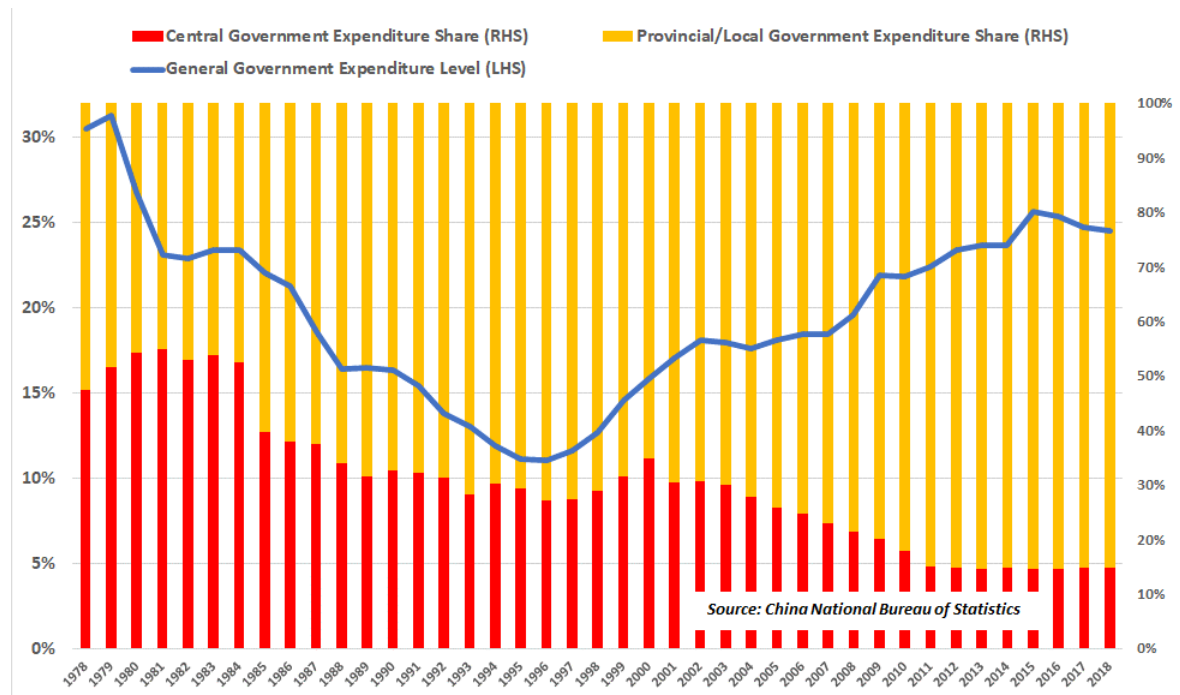
Source: China National Bureau of Statistics.

Figure 7 illustrates the remarkable decline in the size of the Chinese government sector in the early reform period until the mid-1990s. This arose from the gradual transition to a more market-based economy and the erosion of the role of state-owned enterprises (SOEs) in the Chinese economy. SOEs' profitability from the planned economy's administrative prices and monopolies were undermined by the reformist spread of market forces. No longer able to remit their huge artificial profits back to the government, public revenues continuously declined to just over 10 per cent of Chinese GDP by 1994. China's communist authoritarian state by then accounted for a much smaller direct share of the economic output than in the free-market OECD economies, clearly jeopardising the central Chinese government's economic policy-making capacity. Zhu Rongji's 1994 fiscal reform in China reversed the decline in government revenues by dramatically increasing the central government's fiscal revenues to suddenly over 50 per cent of the general government total and gradually growing total government tax revenues to over 20 per cent of (a rapidly growing) GDP by 2010. The post-1994 Tax Sharing System (TTS) in China gave the central government the dominant role in revenue collection, greatly increasing the importance of revenue sharing and fiscal transfers from Beijing to the provinces.<sup>39</sup> Figure 8 illustrates this clearly by showing how the growth of Chinese government expenditures after the 1994 reform occurred almost entirely at the provincial and local government level. The early 2000s saw, under the heading of the 'harmonious society' slogan adopted by President Hu Jintao in 2004, a dramatic expansion of healthcare, education and other social services and safety net features to cover China's rural population too. The new social programmes were to be implemented by the provincial and local governments, but at least in theory largely funded by transfers from the central government. This made regional governments increasingly fiscally dependent on the central government, strengthening Beijing's political control, but also risked aggravating China's regional inequalities further. Figure 9 shows how China's

<sup>39</sup> See Wong (2021) for a detailed discussion of the implication of the 1994 Chinese tax reform.

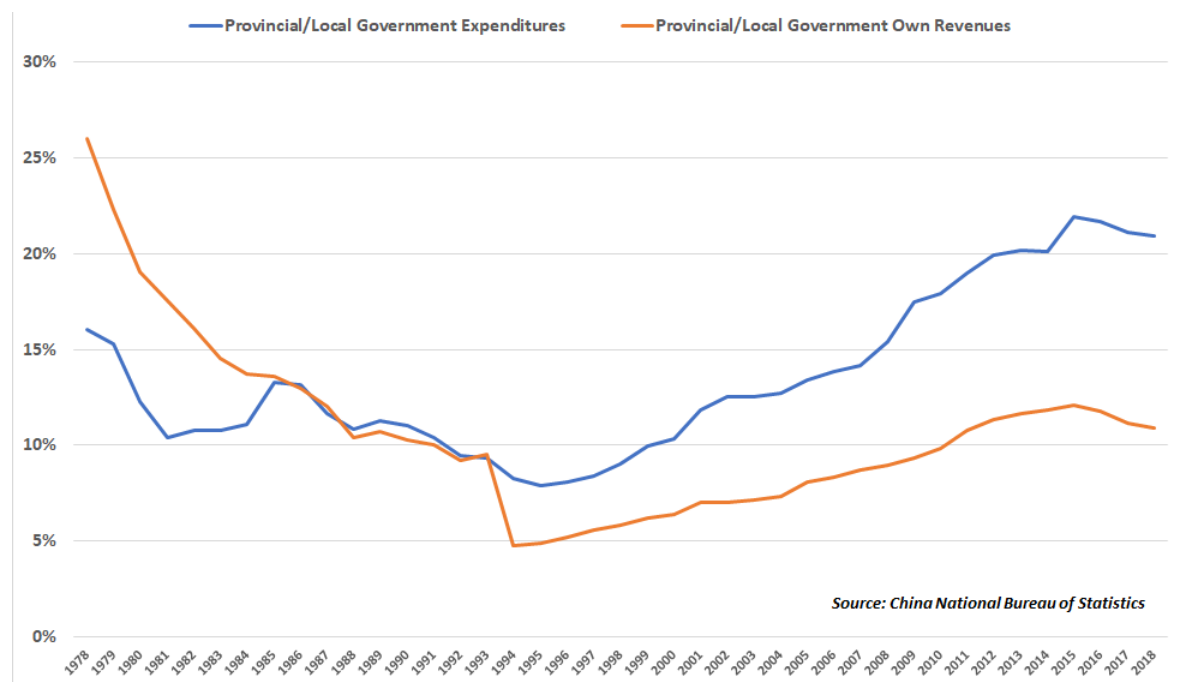
provincial and local governments by 2018 relied on the central government for funding almost half of their total budgetary expenses.

Figure 8 – Chinese general government expenditure level and central/regional expenditure split, % of GDP and % share



Source: China National Bureau of Statistics.

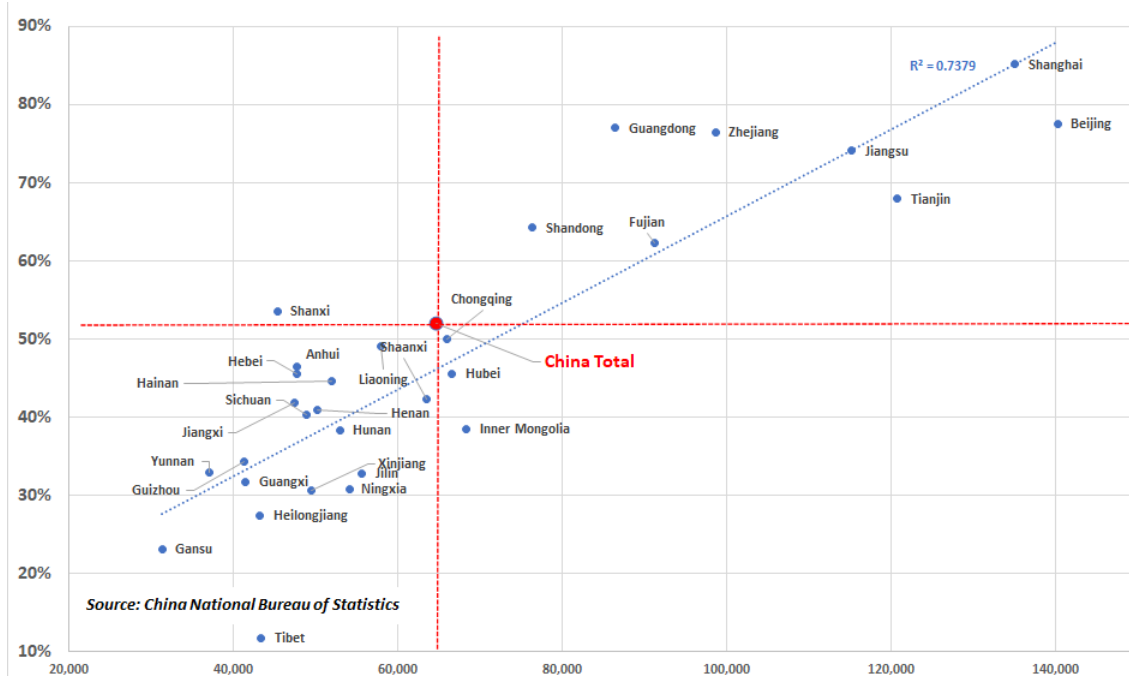
Figure 9 – Chinese provincial/local government expenditure and own fiscal revenues 1978-2018, % of GDP



Source: China National Bureau of Statistics.

With a lengthening list of central government social programmes and other demands to implement, provincial and local governments in China have faced chronic fiscal revenue shortfalls since the mid-1990s. This led regional governments at all levels to turn to extra-budgetary sources of revenue, especially from land sales to private developers and irregular fees and levies on businesses. These alternative revenue sources have in many provinces grown to be very significant, but have, due to the importance of revenue from land sales, disproportionately accrued to the richer regions. Provincial and local governments in China's coastal regions have hence overall had access to significantly larger fiscal resources than those in the poorer interior provinces, leaving the latter group even more dependent on fiscal transfers from the central government. Figure 10 illustrates how there is in principle a strong progressive effect of China's general government budget, as the richer regions rely to a far higher degree on their own fiscal resources, while the poorer provinces must cover an often large majority of their expenditure through fiscal transfers from the central government. Figure 10 includes only official budget resources<sup>40</sup> and not additional provincial revenues from land sales, etc. Estimates suggest that many regional governments get up to one third of their total revenue from land sales to private developers.<sup>41</sup> Once such revenues are included, the fiscal advantages in richer provinces from a higher share of locally derived revenue is further amplified.

Figure 10 – Chinese provincial government own fiscal resource (% of total expenditure) and GDP/capita, 2018



Source: China National Bureau of Statistics.

Until China's provincial and local governments are no longer out of necessity compelled to raise large amounts of extra-budgetary revenues from land sales and other irregular items, the progressive elements of China's regional fiscal transfers are potentially substantially blunted and

<sup>40</sup> These include all categories of tax revenues, tariffs, licensing fees, excise duties, and non-tax revenue like regular administrative fees, fines, profit remittances from SOEs and other income from the private use of public assets. See table 7.2. in the China Statistical Yearbook 2019 for a complete breakdown of revenue components.

<sup>41</sup> See Wall Street Journal, October 21, 2021, In Tackling China's Real-Estate Bubble, Xi Jinping Faces Resistance to Property-Tax Plan, available at <https://www.wsj.com/articles/in-tackling-chinas-real-estate-bubble-xi-jinping-faces-resistance-to-property-tax-plan-11634650751>

regional inequality prolonged. It is possible that a future slowdown in the Chinese real estate sector (see Section IV) will materially reduce the availability of land sale revenues to Chinese regional governments. However, such a real estate sector slowdown is likely to be more pronounced in the smaller cities and poorer regions. A real estate sector slowdown would hence leave probably all China's provinces potentially materially worse off, but hit the less well-off hardest and leave the poorest provinces with relatively less revenue available than the richer Chinese regions.<sup>42</sup> The current Chinese fiscal system does not appear well suited to continue to aggressively mitigate China's regional inequality.

Persistent regional inequality is lastly to a degree a feature of China's successful 'horizontal competition' between provinces to generate economic growth. Too much fiscal redistribution from richer to poorer provinces may blunt the incentive for continued high growth among China's wealthiest regions.

Government policies aiming to alleviate individual level inequality are focused on the design of the tax system and the scope of government services and transfer provision. Overall, in China the government social safety net and services provision in health and education tend to be materially better in China's urban areas.<sup>43</sup> As urbanites are generally richer in China than the rural population, government services provision is overall regressive in nature and after transfers aggravates income inequality. The gradual roll-out of social services in rural areas begun in the early 2000s must be completed, and with access to significantly more central government transfers for the poorest regions to address this issue. Overcoming the rural-urban income divide in China, however, will also require other fundamental non-tax reforms in China. The infamous hukou system in China, under which rural Chinese do not have residency rights in the Chinese urban areas<sup>44</sup> where they often migrate to find work, helps perpetuate gross income inequality in China. While some regional differences in the legal treatment of and services available to migrant workers exist in China, overall this group constitute a legally disenfranchised and overwhelmingly low-skilled workforce. In 2021 migrant workers accounted for 292.5 million workers, or almost 40 per-cent of China's total employment,<sup>45</sup> often living in precarious employment without access to social services or employer-based pensions in their urban area of residence. The Chinese government in 2014 launched the National New-type Urbanisation Plan, aiming to reduce the difference in government social services access between rural and urban hukou holders by 2020. Chan (2021), however, shows that the plan has failed, and the rural and urban social services access gap has instead risen since 2014. Failure to reform the hukou system in China hence represents a failure to implement a crucial China-specific structural reform without which other government attempts to materially reduce income inequality, through for instance the tax system, look doomed.

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<sup>42</sup> The most recent slowdown in Chinese home sales exhibit this pattern, as prices have declined nationally during the six months prior to and including February 2022, but have increased marginally in the biggest tier 1 cities including Beijing, Shanghai and Shenzhen. See Wall Street Journal, March 15 2022, China's New-Home Prices Fall Again Despite Efforts to Help Developers, available at [https://www.wsj.com/articles/chinas-new-home-prices-fall-again-despite-efforts-to-help-developers-11647402673?st=9v7rk69ja4d44iz&reflink=mobilewebshare\\_twitter](https://www.wsj.com/articles/chinas-new-home-prices-fall-again-despite-efforts-to-help-developers-11647402673?st=9v7rk69ja4d44iz&reflink=mobilewebshare_twitter)

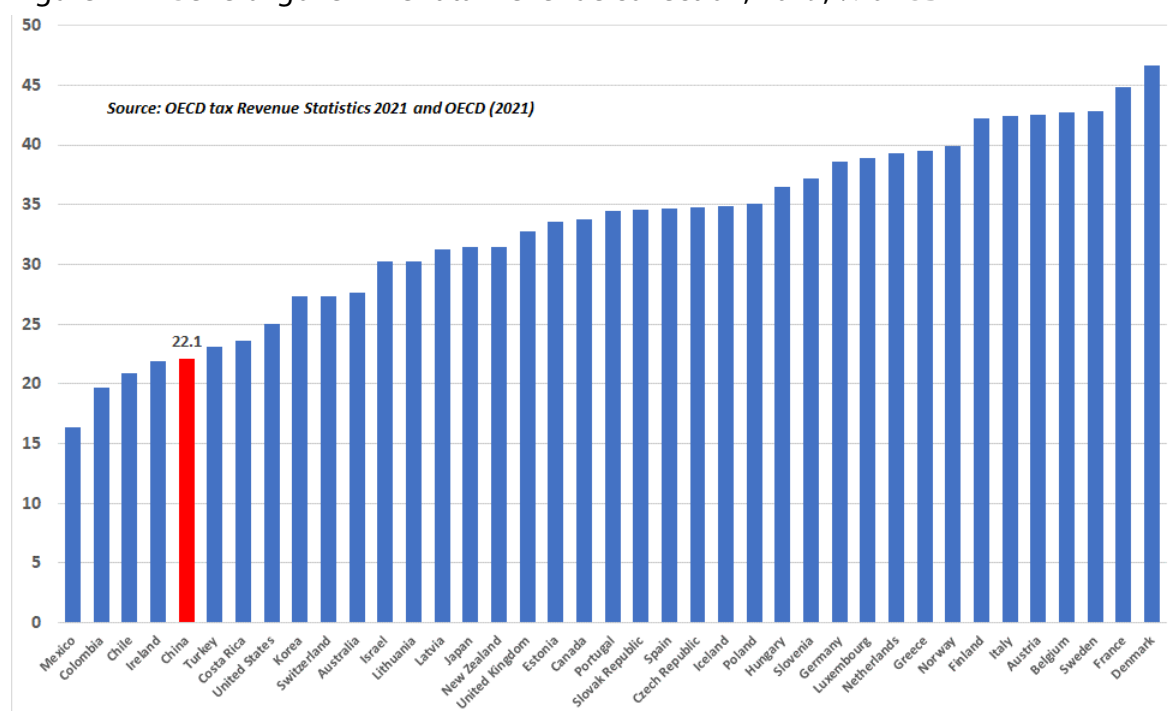
<sup>43</sup> See Rozelle and Hell (2020) for a detailed discussion of the condition of China's urban and rural welfare state.

<sup>44</sup> Rural workers can in some of China's smaller urban areas with less than 1mill inhabitants gain access to an urban hukou residency permit by purchasing a home here. This right, however, does not exist in China's largest and richest provinces. Some provinces also seek to attract high skilled rural workers by offering them an urban hukou, while keeping lower skilled workers in precarious employment and living conditions. For a detailed analysis of income inequality and hukou, see Jakimow (2021).

<sup>45</sup> See NBS (2022b) for details.

China's tax revenue system remains quite modest in scope for an authoritarian government overseeing large expansions of both its military and domestic surveillance apparatus (Figure 11).

Figure 11 – General government tax revenue collection, 2019, % of GDP



Source: OECD.

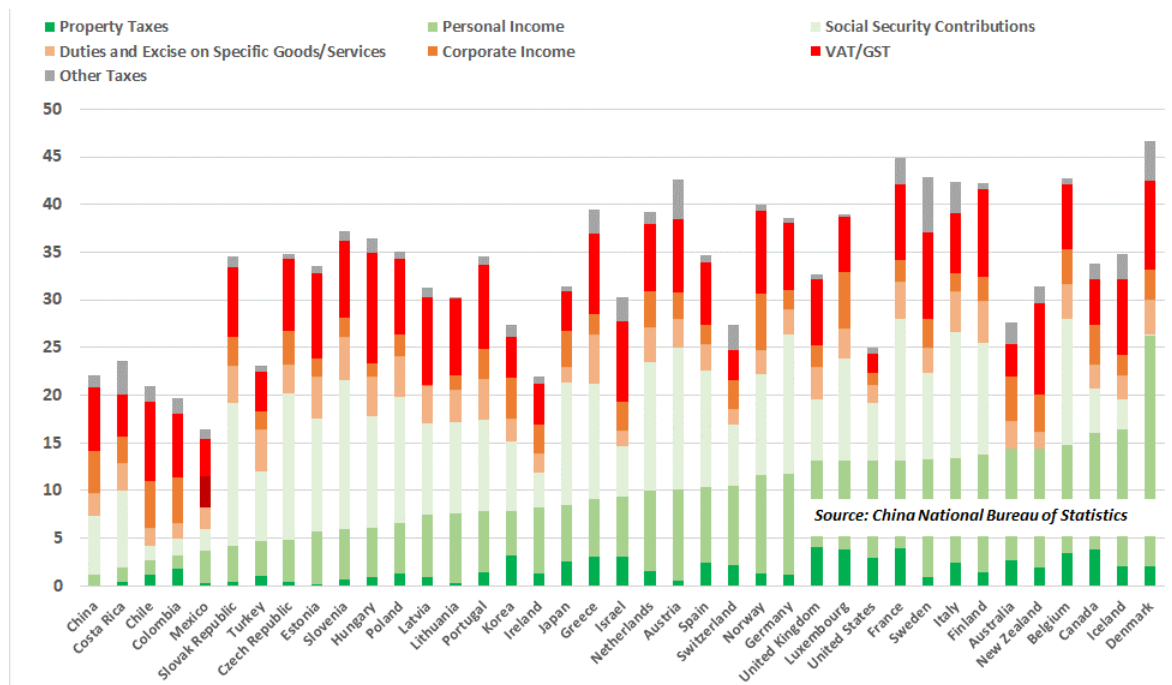
China's general government tax revenues<sup>46</sup> in 2019 remained lower than high income OECD members (with the exception of Ireland) and three percentage points of GDP lower than even those of the United States depleted by decades of excessive tax cuts. The small scope of China's tax revenues alone is an obstacle for China combating income inequality by making financing more extensive welfare state services for its entire population more difficult. The cost of China's rapidly ageing population will further strain the use of China's comparable limited general government fiscal revenue in the future.

There are also important redistributive aspects in how and through which category of taxation government revenues are raised. Property taxes and personal income taxes are, at least in high income countries, invariably progressive in nature and tax wealthier individuals more due to their more expensive dwellings and through higher income tax levels at higher personal income brackets. Earmarked social security and pension contributions often also rise with income, but since rising contributions typically go towards higher pensions for the payee, this category of taxation is typically far less progressive than standard income taxation going towards regular government revenue. Fiscal transfers from general government revenue to 'top-up' inadequate social security contributions will increase progressivity. Corporate income taxation hurts shareholders most directly, so if these are predominantly wealthy individuals, corporate income taxes may also be progressive in nature. If the shareholder structure is dominated by other owner categories, such as governments or large general access pension funds, the progressive character of corporate income

<sup>46</sup> Total tax revenues include all income, corporate, VAT/GST, excise, tariff, property and any other regularized legislated fee income collected by any level of government.

tax revenues may disappear.<sup>47</sup> Consumption taxes like VAT or GSTs or excise duties on everyday items like cigarettes or alcohol<sup>48</sup> meanwhile are generally regressive in nature, as lower income people consume a larger share of their income and disproportionately therefore pay this category of taxes. How countries levy taxes hence matters for the overall progressive nature of government policy,<sup>49</sup> and the ability of government interventions to effectively reduce income inequality. Figure 12 breaks total government tax revenues in China and other middle- and high-income countries down into the relevant taxation groups, and ranks them by the scope of the revenue collection in the two most progressive tax categories, property and personal income taxes.

Figure 12 – China, OECD and select other countries' general government revenues, by tax category, % of GDP, 2019



Source: China National Bureau of Statistics.

Figure 12 shows how China not only, per figure 11, has among the lowest government revenue levels among middle- and high-income countries, it also uniquely does not levy any property taxation at all and collects the lowest share of personal income taxes – just around 1.1 per cent of GDP – among this group of countries. Instead, China collects most of its tax revenue through regressive consumption taxes and through the remitted profits of SOEs. The prospects for the Chinese tax system in its current form to be a progressive force for reducing income inequality in China are therefore bleak. This will require very fundamental reforms and, at a minimum, to see China increase personal income taxation in a progressive way and institute a nationwide property

<sup>47</sup> In the long run, economic theory would dictate that workers will grab a share of higher company profits, or lose some wages if corporate taxes rise. The impact on income distribution from corporate tax revenue when the corporate income tax rate is within the current OECD range of up to around 35-40 percent is hence less straightforward than for instance personal income taxes.

<sup>48</sup> Luxury taxation via targeted excise duties of say sportscars affecting overwhelmingly the wealthy will have the opposite progressive effect.

<sup>49</sup> Evaluating the true degree of progressiveness of a tax system is highly complex, as it involves also looking at the scope of tax rebates and preferences, and whether social services are provided by the government or purchased on a private market. See Kirkegaard (2015).



taxation. The recent disappearance of Xi Jinping's slogan of 'common prosperity' from Chinese government policy announcements<sup>50</sup> seems indicative of the government's ultimate unwillingness or incapacity to implement the necessary reforms to materially redistribute wealth in China.

The striking absence of any property taxation in China is related to real estate's outsized role in Chinese household's wealth portfolio. Estimates suggest that up to 80 per cent of China's household wealth is tied up in real estate, as home prices have outstripped economic growth in recent decades.<sup>51</sup> Combined with the fact that a large percentage of high-income Chinese households own more than one property, any material property tax would in reality be an extraordinarily effective wealth tax in China. The concern among many Chinese policymakers is that such a tax could initiate a vicious circle in which China's elevated house prices begin to decline, cut into household wealth levels, undermine households' willingness to consume and thereby threaten the overall growth prospects of the Chinese economy. Many local and provincial level government officials similarly worry that a property tax would reduce their future ability to raise revenue from land sales. As a result of this widespread opposition, an earlier plan by the Chinese government to begin a pilot property tax scheme in 30 major cities in 2022 has now been postponed to probably 2025, reduced to only 10 of China's richest cities and is likely to only include taxing second homes and the most expensive addresses.<sup>52</sup>

Given how the original property tax plan was endorsed by Xi Jinping, its dramatic scaling back represents a rare political setback for the powerful Chinese president. As is the case with the inability of the Chinese government to implement a much-needed pension reform in a timely manner, Beijing's failure to create a fairer tax system, and especially to include more progressive elements like general property taxation, leaves the impression of an authoritarian government nonetheless unable to impose its will concerning the most difficult structural reforms. The unreformability of both China's pension and tax systems may change in the future, but the longer China's ageing, inequality and untaxed property wealth linger, the more imbalances build up in the economy and the higher the risks of an eventual crisis become. The consequences of failing to implement required structural reforms in time is a long-term peril well known to many EU leaders.

## 6. Omicron is turning into a major policy challenge for China

China is currently suffering from its worst outbreak of Covid-19 since the beginning of the pandemic in early 2020, and Hong Kong is experiencing a tragedy of epic proportions as mortality rates spike from an uncontrolled outbreak of the Omicron variant and low levels of vaccinations among the

<sup>50</sup> See Wall Street Journal April 3, 2022 "Xi Jinping's 'Common Prosperity' Was Everywhere, but China Backed Off", available at <https://www.wsj.com/articles/xi-jinpings-common-prosperity-was-everywhere-but-china-backed-off-11648978380>

<sup>51</sup> The costs of an apartment in one of China's main tier one cities Beijing, Shanghai or Shenzhen ranged from 35-40 times the median household disposable income. This compares to less than 10 in New York, 13 in London or 20 in Paris. See Wall Street Journal, October 3 2021, China's Evergrande Debt Crisis: Sizing Up a Big Mess, available at [https://www.wsj.com/articles/chinas-evergrande-debt-crisis-sizing-up-a-big-mess-11633253402?mod=article\\_inline](https://www.wsj.com/articles/chinas-evergrande-debt-crisis-sizing-up-a-big-mess-11633253402?mod=article_inline)

<sup>52</sup> See Wall Street Journal, October 21, 2021, In Tackling China's Real-Estate Bubble, Xi Jinping Faces Resistance to Property-Tax Plan, available at <https://www.wsj.com/articles/in-tackling-chinas-real-estate-bubble-xi-jinping-faces-resistance-to-property-tax-plan-11634650751>

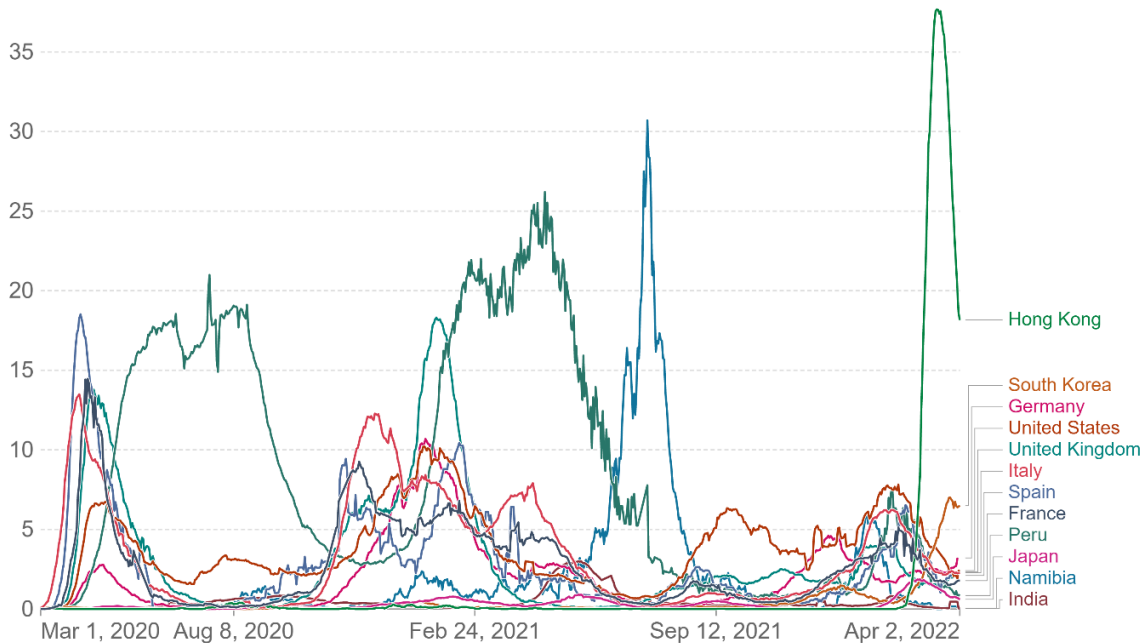


elderly. Figure 13 illustrates how Hong Kong mortality rates in mid/late March 2022 exceeded those experienced by any other country during earlier waves of the Covid-19 pandemic.

Figure 13 – Daily new confirmed Covid-19 deaths per million people

### Daily new confirmed COVID-19 deaths per million people

7-day rolling average. Due to varying protocols and challenges in the attribution of the cause of death, the number of confirmed deaths may not accurately represent the true number of deaths caused by COVID-19.



Source: Johns Hopkins University CSSE COVID-19 Data

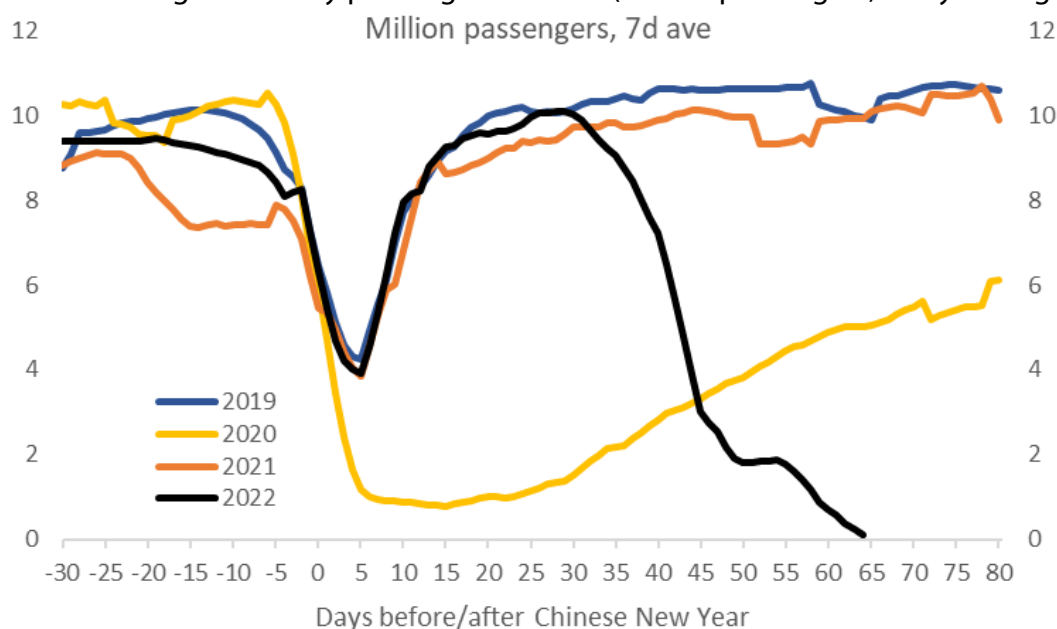
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Source: Johns Hopkins University CSSE Covid-19 data.

China has to date successfully repressed the Covid-19 virus and vaccinated the majority of its population with domestically developed vaccines. These Chinese vaccines, however, have a far lower reported effectiveness against spreading the Omicron variant than mRNA-based vaccines.<sup>53</sup> Higher Omicron infectiousness combined with a less effective vaccine, a low vaccination rate of the elderly population, and low natural Covid-19 immunity from very low levels of population infections during earlier pandemic waves is in mid-March 2022 proving deadly in Hong Kong, a situation that could spread to the rest of mainland China. The Chinese government is therefore facing a crucial Covid-19 policy dilemma in 2022 – maintain its de facto near Zero Covid Policy of frequent, wide-ranging lockdowns of often large urban areas, irrespective of their continued heavy economic toll. Or adapt its policy to rely less on lockdowns, but then run a higher risk of seeing the Omicron variant run rampant among elderly Chinese with limited protection from domestic vaccines or previous infections? To date it is clear that China remains firmly committed to the first option of tough economic lockdowns. The current lockdown in April 2022 in Shanghai, China's commercial capital and largest metropolitan area, is more comprehensive than at any moment here so far in the pandemic, as illustrated in Figure 14 with Shanghai subway passenger volumes from Nordvig (2022).

<sup>53</sup> See Cheng et al. (2022).

Figure 14 – Shanghai subway passenger volumes (million passengers, 7 day average)



Source: Exante Data, Wind, metrodb.org.

Shanghai's struggle with containing the Omicron variant is ominous for the success of the current de facto near zero Covid policy elsewhere in China. Given the very large regional difference in economic development (see Figure 6), it is unlikely that there will be a single national shift in Covid-19 policy in China, as the ability to manage the risks of the Omicron variant in China's poorer provinces with less built out healthcare systems will be very high. Beijing and Shanghai as China's richest and most developed regions may at some point be in a position to implement less stringent lockdown policies in a controlled manner, but the rest of China seems far less likely to be. This suggests that China will be unable to wholly emerge from Covid-19 related lockdowns at least during all of 2022, and that the Chinese economy will continue to suffer as a result both in the short and long term. A more prolonged Covid-19 lockdown scenario for parts of China in 2022 will continue to exert downward pressure on birth rates, property prices and other structural economic areas in which China currently stands at possible inflection points. Recalling also that the United States, Europe and most other regions of the world seem likely to emerge fully from Covid-19 measures during the first half of 2022, China's continued virus difficulties will soon stand out among the major economies in the world. This is certain to be politically damaging to President Xi, who in late 2020 publicly rejoiced in China's initial success against the virus,<sup>54</sup> and poses questions regarding the Chinese government's strategic decisions during the pandemic. At the very least, Beijing's response will soon look as error prone as that initially unveiled in many EU and OECD countries.

<sup>54</sup> See Xi Jinping's remarks on September 8 2020 at reported in Xinhua at [http://www.xinhuanet.com/english/2020-09/09/c\\_139353396.htm](http://www.xinhuanet.com/english/2020-09/09/c_139353396.htm) and the laudatory descriptions of his personal leadership against the virus in Xinhua on the same day at [http://www.xinhuanet.com/english/2020-09/07/c\\_139349538.htm](http://www.xinhuanet.com/english/2020-09/07/c_139349538.htm)

## 7. The war in Ukraine will increase pressure on China's growth model

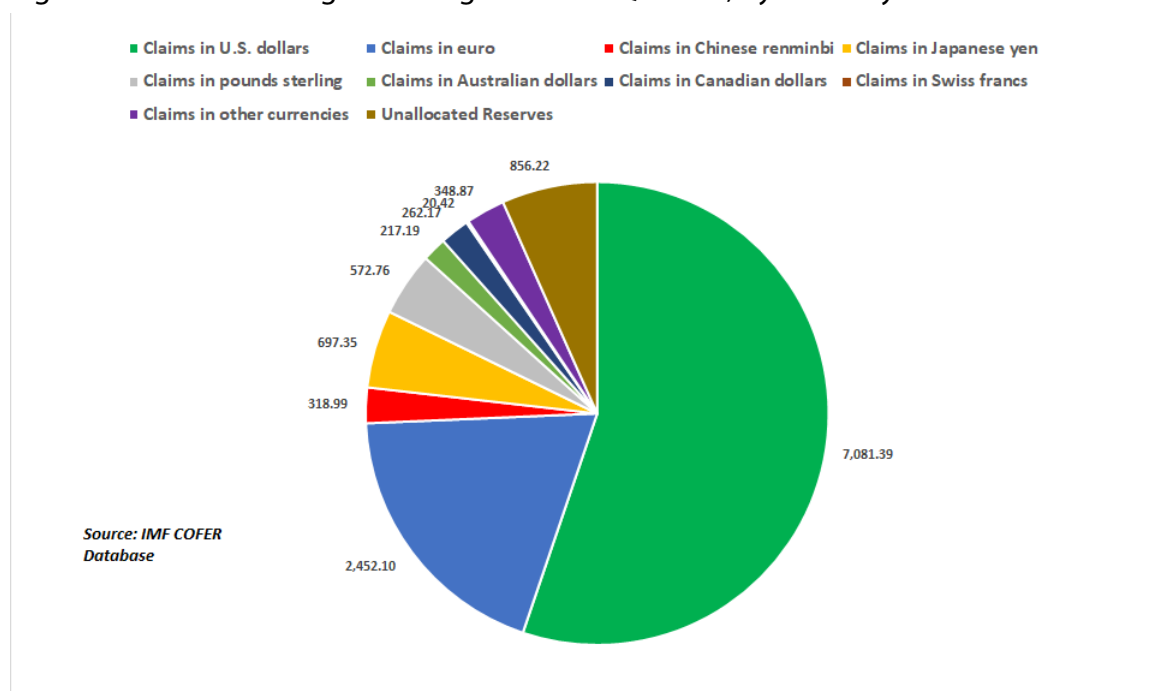
The outbreak of the war in Ukraine poses another sudden political and economic challenge to China. China appears not, given its more than 6 000 nationals stranded in Ukraine at the outbreak of the war, to have anticipated Russia's actions, and it remains politically exposed by its at least until recently deepening economic and political alliance with Moscow against the United States. Irrespective of how the war in Ukraine ultimately ends, China's unwillingness to explicitly join economic sanctions against Russia will have cost Beijing significant political capital across (almost) all of the EU, other Asian OECD countries and even perhaps among some developing countries wary of territorially expansionist imperialist policies by any great power. The prospects of an isolated Russia becoming overwhelmingly dependent on China in the future seem unlikely to make up for these global political setbacks.

Perhaps more ominously for China's economic future, the international response to the Russian invasion of Ukraine raises significant questions about China's ability to economically withstand the international response to a hypothetical future invasion of Taiwan. The Russian government has acknowledged that approximately half of Russia's gold and foreign exchange reserves of US\$640 billion was immediately frozen by the governments of all the world's major reserve currencies.<sup>55</sup> China's foreign exchange reserves meanwhile are the largest in the world at approximately US\$3.25 trillion. The currency composition of China's foreign exchange reserves is not publicly available, but looking at the composition of the total amount of foreign exchange reserves in the world reported from 149 countries to the IMF's COFER database, it is evident that virtually all such global reserves are in currencies whose government joined the sanctions against Russia (Figure 15).

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<sup>55</sup> See comments by Russian finance minister Siluanov as reported in TASS on 13 March 2022 at [https://tass.com/economy/1421403?utm\\_source=google.com&utm\\_medium=organic&utm\\_campaign=google.com&utm\\_referrer=google.com](https://tass.com/economy/1421403?utm_source=google.com&utm_medium=organic&utm_campaign=google.com&utm_referrer=google.com)

Figure 15 – Global foreign exchange reserves Q3 2021, by currency of claim



Source: IMF COFER database.

Figure 15 shows how over 90 per-cent of global foreign exchange reserves are currently held in currencies issued by the United States, the euro area, Japan, UK, Australia, Canada, and Switzerland that joined the sanctions, or are held in Chinese Renminbi logically unavailable as a store of value for China's foreign exchange reserves. In other words, under the reasonable assumption that sanctions enacted against Russia would be replicated against China if it invaded Taiwan, Beijing would with certainty lose access to the vast majority of its trillions in foreign exchange reserves. It is moreover impossible that any other currency in a country potentially allied with Beijing in such a conflict could feasibly store literally trillions of dollars worth of value to potentially shield China's foreign exchange reserves against international sanctions. No other country has the financial market depth to do so, and China's only alternative route would be to stockpile actual commodities, e.g. gold, energy resources, food, metals, rather than financial assets, or invest its foreign exchange reserve in other less liquid assets. This however would be both very costly for China and would probably not be a guarantee against the effect of commodity price fluctuations or economic sanctions following a Taiwan invasion. In short, the response to the invasion of Ukraine has illustrated that the costs to China of invading Taiwan in the future will likely be considerably higher than Beijing anticipated. This may yet at least influence the strategic thinking and debate about Taiwan in China.

Perhaps equally important for the EU, the impotence of Russia's large foreign exchange reserves and other national precautionary savings to act as an effective insurance against economic sanctions raises the question about the efficacy of any export-led growth strategy to restore growth. Especially for a country like China with excessively high existing foreign exchange reserves, and a clear policy of not ruling out a future military intervention in Taiwan. At the very least, given China's current struggles in restoring domestic demand in its economy, the strategic risks of accumulating additional foreign exchange reserves from running large future trade surpluses should mitigate against such a short-term economic approach to the current slowdown. Given the EU's deep and

increasingly imbalanced trade relationship with China, such considerations in Beijing could have considerable impact on relevant EU policy areas.

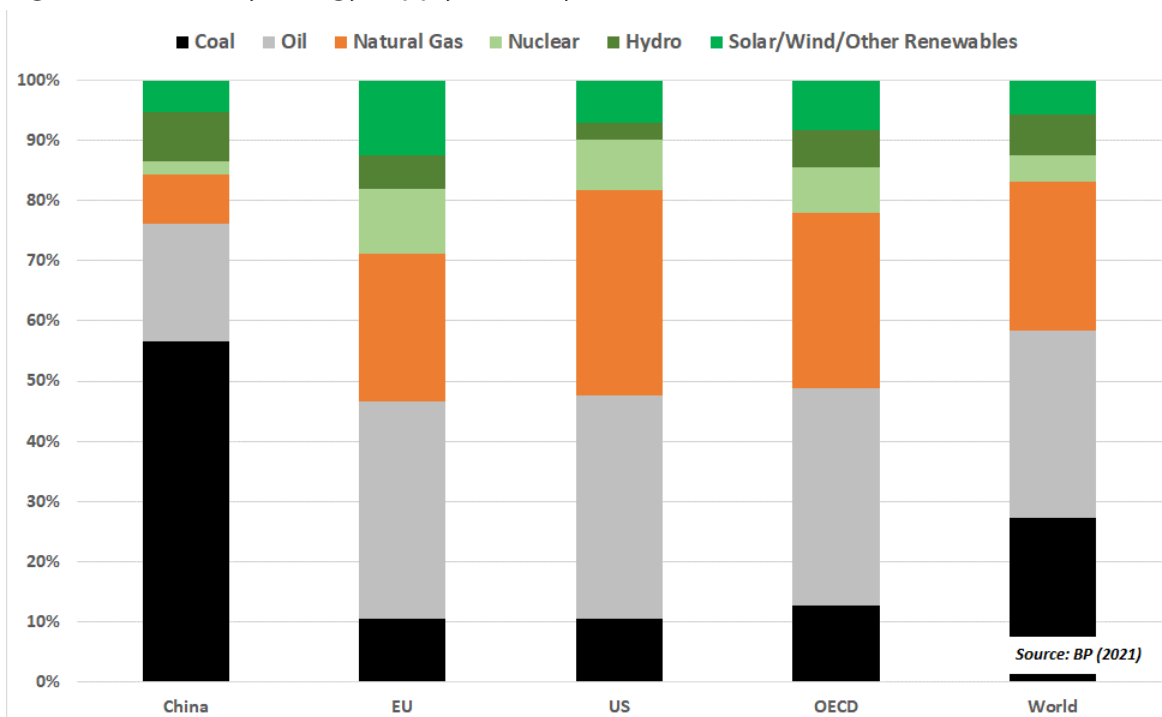
The outcome of the war in Ukraine remains uncertain, but what is clear is that it, like China's current Omicron wave, poses significant challenges for Chinese economic policies and will complicate Beijing's ability to focus on quickly restoring economic growth in China in both the short- and long-term. Stopping future accumulation in and reducing current Chinese net foreign asset holdings would require the type of domestic economic rebalancing away from high savings and investments towards a higher consumption share that China has unsuccessfully pursued for over a decade.

Lastly, the political costs to Xi Jinping from a Russian military failure in Ukraine will be potentially considerable. The allure of long-ruling strongmen – Putin had been in power for about 20 years when he launched the invasion of Ukraine – will be dramatically dented by a continuously militarily successful Ukraine in the very year that Xi planned to set himself as ruler of China for life. Other Communist party leaders will worry about the wisdom of Xi's long-term plans.

## 8. Going green will be a challenge for China, too

Decarbonising the economy by mid-century will be an epic challenge for the EU and every other country committed to such ambition targets by 2050. China, however, faces a particularly steep challenge. China today accounts for over 30 per cent of total global CO<sub>2</sub> emissions,<sup>56</sup> making it the

Figure 16 – Primary energy supply 2020, by fuel/source, % of total



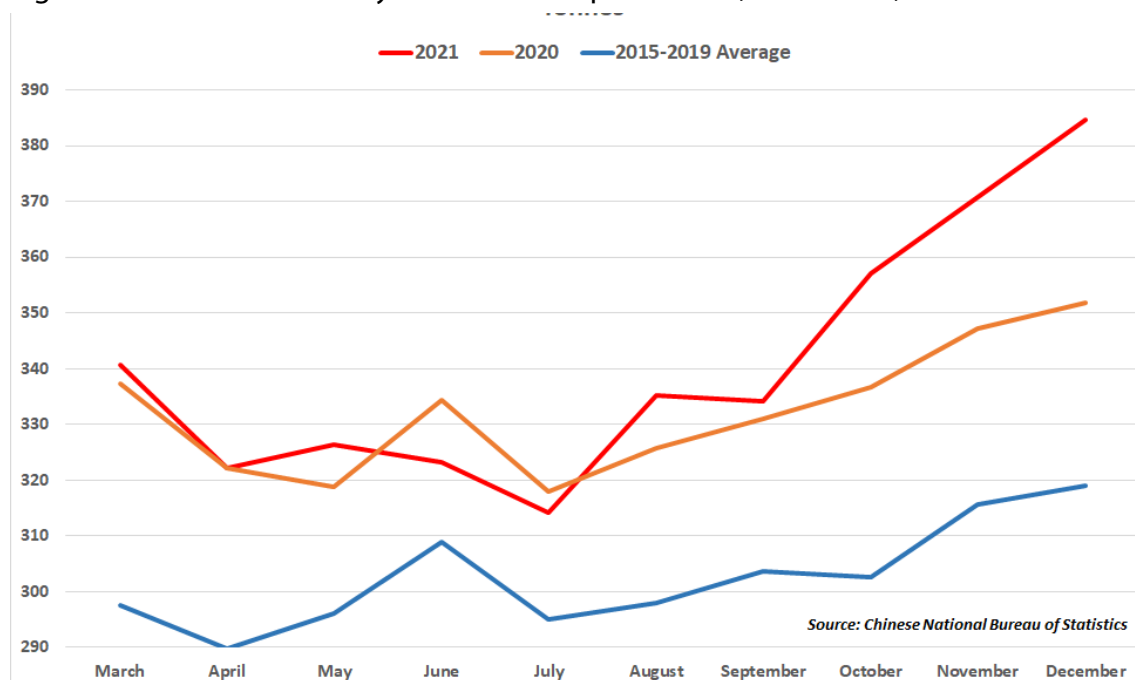
Source: BP. 2021.

<sup>56</sup> Latest available data suggests 30.7 per cent in 2020, according to the BP (2021), or almost as much as the entire OECD at 33.3 per cent. 2020 figures however are distorted by the imposition of Covid-19 lockdowns in many parts of the world, resulting in a 6.2 per cent decline in global emissions from 2019, coming disproportionately in OECD countries implementing more comprehensive lockdowns.

pivotal global emitter. Ahead of COP26 Beijing committed to achieving net zero emissions by 2060. Chinese energy supply remains dominated by fossil fuels and particularly coal, which still in 2020 accounted for almost 60 per-cent of total primary energy supply (Figure 16).

Moreover, during the pandemic in 2020-21, China increased its domestic production of coal further to overcome the risk of energy shortages. A degree of seasonality exists in Chinese coal production, but the sizable increase especially in late 2021 is visible in Figure 17.

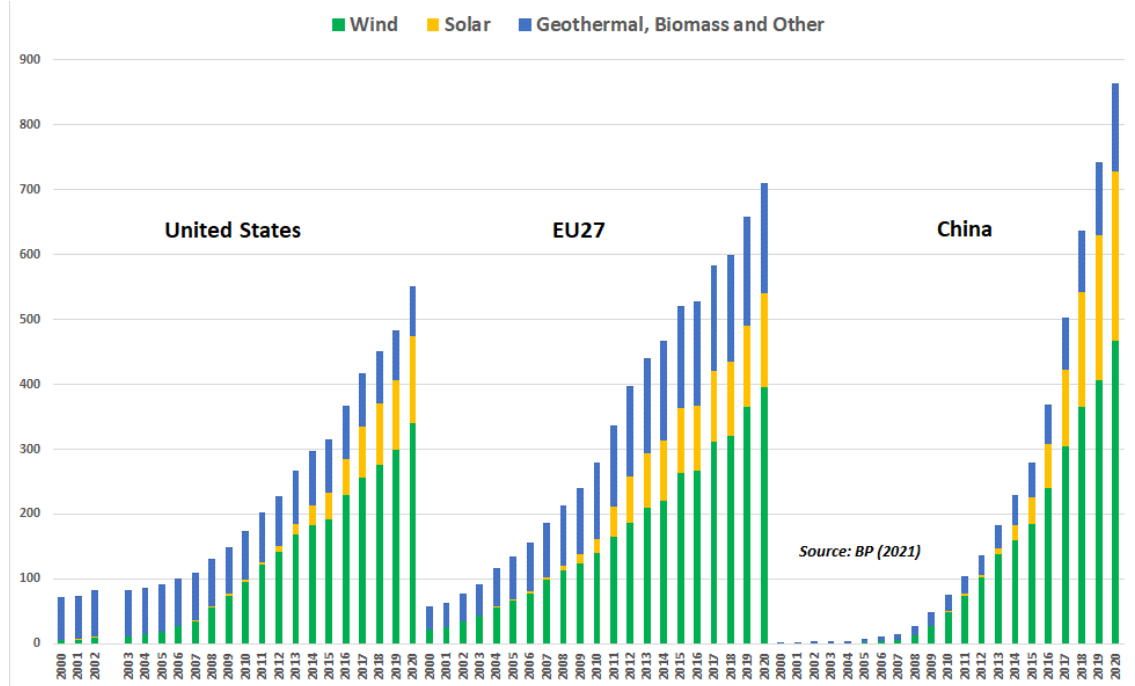
Figure 17 – Chinese monthly domestic coal production, 2015-2021, millions of tonnes



Source: Chinese National Bureau of Statistics.

As in the EU, the recent spike in fossil fuel prices will hence result in increased CO<sub>2</sub> emissions in the short-term. At the same time, however, China's electricity production from renewable sources has grown almost exponentially in recent years and in 2020 at 853 TWh exceeded the also rapidly rising renewables production levels in both the EU and the United States (Figure 18).

Figure 18– Renewable electricity production, by source, TWh, 2000-2020



Source: BP, 2021.

China's overall reliance on investment-led growth (see section IV) poses long-term challenges for the future returns on much of this investment. However, in rapidly scaling up renewable energy production capacity from already existing technologies especially in solar and wind to take over from China's continuing heavy coal-dependent power production, China's unmatched ability to deploy at scale will be a critical advantage. Largely unconstrained by local public NIMBY'ist concerns over solar and wind park construction, China's renewable energy production rollout seem poised to continue to outpace that of all other regions. Despite its current very emissions intensive economic structure, China's capacity to make swift progress towards its decarbonisation goals is credible, if in all probability subject to the political imperative of reaching the central government's ambitious short-term growth goals. Progress towards China's decarbonisation goals is likely to mirror the steady forward steps made by the government in China's other crucially important environmental issue, urban air pollution. Measured by the standard PM2.5 concentration ( $\mu\text{g}/\text{m}^3$ ), China's urban air quality remains poor by OECD standards,<sup>57</sup> yet has improved materially in recent years.<sup>58</sup> China in 2021 accounts for just two of the world's 50 most polluted cities, with the vast majority of those instead now located on the Indian subcontinent and in Central Asia. China's environmental record in reducing both general air pollution and CO<sub>2</sub> emissions hence remains a mammoth task, but one in which tangible progress is visible.

<sup>57</sup> See the global interactive IQAir map of 6475 urban centres at <https://www.iqair.com/us/world-air-quality-report>

<sup>58</sup> Data from IQAir (2021).

## 9. Concluding remarks

This paper has argued that while the Chinese government deserves considerable credit for its economic stewardship since 1978, a number of structural economic challenges will make it necessary for Beijing to shift from its singular focus on economic growth to weighing policy trade-offs between several important government policy goals. China's rapidly accelerating population ageing, continued reliance on investment-intensive growth and associated over-reliance on the growth contribution from the real estate sector, and inadequate current policy tools to address income inequality must be addressed if continued high economic growth rates are to be successfully maintained in China. China's current investment-intensive growth model meanwhile offer good opportunities to continue a rapid expansion of renewable energy sources.

As the Chinese government has repeatedly in recent years postponed increasingly urgent reforms of its pension system, Hukou system, tax revenue collection and real estate market, it is no longer self-evident that the Chinese government, despite its authoritarian character, possesses the political capacity to enact these far reaching and increasingly urgently needed structural economic reforms. The risks of a major economic crisis in China, or perhaps more probable an imminent stagnation in sustainable economic growth,<sup>59</sup> are consequently rising in China. The domestic political implications of such adverse economic growth scenarios for China's current political system may be dramatic, and negative implications for global economic growth prospects are highly probable.

Despite all the well-known current political and economic difficulties in the United States and Europe, it is therefore unwarranted to simply assume that China's recent economic rise to global prominence will continue unabated. China's domestic economic problems are far too big for such a prediction to go unquestioned. Relevant EU political and economic policies must properly reflect this high degree of uncertainty about the future of also China's economic trajectory.

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<sup>59</sup> Sustainable economic growth cannot include for instance continued reliance on credit-fuelled contribution of the real estate sector to reach politically determined aggregate growth targets.



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EPRS invites leading experts and commentators to share their thinking and insights on important topics of relevance to debate in the European institutions. In this paper, Jacob Funk Kirkegaard, Senior Fellow at the Peterson Institute for International Economics and the German Marshall Fund of the United States, looks at the current state of the Chinese economy, and at the various factors likely to influence its evolution in the coming years. He argues that Chinese growth will slow to below the levels of the past decades, but that a devastating financial crisis is unlikely. Nevertheless, the changing pressures felt domestically will also influence China's foreign economic policy vis-à-vis other major economies, including the EU.

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