# From Recovery to Rebalancing China's Economy in 2021



Special Topic: Growing together or growing apart? Regional disparity and convergence in China

WORLD BANK GROUP

China Economic Update - December 2020

© 2020 International Bank for Reconstruction and Development / The World Bank 1818 H Street NW Washington DC 20433 Telephone: 202-473-1000 Internet: www.worldbank.org

This work is a product of the staff of The World Bank. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

### **Rights and Permissions**

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

Cover Photo: by Cat Box / Shutterstock

## Acknowledgements

The December 2020 issue of China Economic Update was prepared by a team comprising Luan Zhao (Task Team Leader), Sebastian Eckardt, Ibrahim Saeed Chowdhury, Ekaterine Vashakmadze, Maria Ana Lugo, Dewen Wang, Ruslan G. Yemtsov, Maryla Maliszewska, Ileana Cristina Constantinescu, Chiyu Niu, Yang Huang, Linghui Zhu, Franz Ulrich Ruch, Qiong Zhang, Yusha Li, Xintian Wang, and Lubai Yang. The team is grateful to Barbara Yuill for editing the report. Guidance and thoughtful comments from Aaditya Mattoo, Antonio Nucifora, Carmen Estrades Pineyrua, Deepak Mishra, Ergys Islamaj, Hassan Zaman, Martin Raiser, Michele Ruta, Rinku Murgai, and Yasser El-Gammal are gratefully acknowledged. The team would like to thank Tianshu Chen, Li Li, Xiaoting Li, Lin Yang, Ying Yu, and Li Mingjie for support in the production and dissemination of this report. The findings, interpretations, and conclusions expressed in this report do not necessarily reflect the views of the Executive Directors of the World Bank or the Chinese government. Questions and feedback can be addressed to Li Li (<u>Ili2@worldbank.org</u>).

## **Table of Contents**

Executive Summary	8
I. Recent Economic Developments	.13
The global economy has started to recover but remains in recession	.13
China has recovered swiftly but unevenly	.14
China's trade activity has been resilient, benefitting from rising global demand for medical goods and	
electronics	. 18
External imbalances have resurfaced	.21
Improving labor market and rising incomes have provided support to households	22
Deflationary trends amid lower pork prices and subdued consumption	
Fiscal deficit widened amid stimulus and a cyclical revenue decline	
Credit growth has accelerated and contributed to a further buildup in debt, adding to financial sector	
vulnerabilities	27
II. Outlook, Risks, and Policy Considerations	31
Short-term outlook	.31
Risks	.33
Policy implications: Solidifying the recovery, reigniting rebalancing	.35
III. Growing together or growing apart? Regional disparity and convergence in China	.41
Introduction	.41
China's changing geography of growth	.43
Narrower gaps but rising imbalances	.48
Despite convergence, spatial imbalances persist in social outcomes	.51
Looking ahead	53
References	.55

## Figures

Figure 1. The China Economic Update at a Glance	10
Figure 2. The global economy has started to recover but remains in recession	13
Figure 3. Effective suppression of COVID-19	14
Figure 4. GDP growth has rebounded swiftly but unevenly	15
Figure 5. The recover was led by industrial production	16
Figure 6. Public and real estate investment led the growth	16
Figure 7. Consumption and retail sales recovered more slowly	17
Figure 8. Buoyant trade flows	18
Figure 9. Import slowdown	19
Figure 10. The Balance of Payments has been resilient	22
Figure 11. Labor market conditions have improved	23
Figure 12. Consumer spending has yet to catch up with rising disposable income	24
Figure 13. Poverty headcount in 2020 is expected to remain unchanged or even increase	25
Figure 14. Inflation remains subdued	26
Figure 15. Fiscal stimulus substantive but less aggressive than in other major economies	26
Figure 16. Fiscal deficit widened	27
Figure 17. PBOC has refrained from further monetary easing	28
Figure 18. Credit growth accelerated	29
Figure 19. Credit defaults have led to rising risk premia	30
Figure 20. Global outlook remains precarious	31
Figure 21. The output gap and potential growth during COVID-19	35
Figure 22. Global share of RCEP members	38

Figure 23.	Real income gains by country in RCEP	39
Figure 24.	Additional people with middle-class status in 2035, by country and scenario	39
Figure 25.	Driven by faster growth in coastal regions, regional incomes initially diverged, but this trend	l
reversed s	ince the mid-2000s	43
Figure 26.	Lagging provinces started to catch up	44
Figure 27.	Within provinces, the rural-urban income gap started to converge over the past decade	44
Figure 28.	but some provinces are more equal than others	44
Figure 29.	Inequality in China rose steeply with development until 2009	45
Figure 30.	China's inequality declined sharply but has plateaued since 2015	45
Figure 31.	Investment picked up in the lagging regions in the past decade	46
Figure 32.	as lower wages in interior provinces attracted capital	46
Figure 33.	State footprint remains larger in the interior provinces	46
Figure 34.	Structural transformation varies across regions	47
Figure 35.	The geography of ideas—Innovation capacity is higher in richer provinces	47
Figure 36.	Export value chains slowly migrated inward	47
Figure 37.	Urban employment growth picked up in lagging regions in the past decade	48
Figure 38.	The surge in investment was associated with diminishing returns	48
Figure 39.	and lower productivity growth	48
Figure 40.	The savings-investment position has deteriorated in many provinces	49
Figure 41.	Vertical imbalances are a defining feature of China's intergovernmental system	49
Figure 42.	and horizontal imbalances prevail despite equalizing transfers	49
Figure 43.	Credit growth accelerated, especially in lagging regions	49
Figure 44.	A dominant share of the intra-provincial capital flows has been channeled through the finance	ial
system		50
Figure 45.	Mounting public debt	50
Figure 46.	Easy financing conditions for local governments	51
Figure 47.	but some re-pricing of risks associated with Local Government Financing Vehicle Debt	51
Figure 48.	The geography of carbon emissions	51
Figure 49.	Disparities in life expectancy and years of schooling narrowed across provinces	52
Figure 50.	Access to health insurance varies widely across provinces	53
Figure 51.	Poorer provinces spend less on education than richer ones	53

## **Tables**

Table 1. Aggregate imports of goods and services from national accounts	
Table 2. China selected economic indicators	
Table 3. Decomposition by region of household income GE(1)	

## Boxes

Box 1. Drivers of China's import slowdown	. 19
Box 2. Impact of COVID-19 on the output gap and potential growth in China: An update	.34
Box 3. Regional Comprehensive Economic Partnership Agreement (RCEP): Significance and Potential	
Impact	.38
Box 4. Economic geography, growth and inclusion	.42
Box 5. The geography of inequality	.44

## **List of Abbreviations**

ADB	Asia Development Bank
ASEAN	Association of Southeast Asian Nations
Вр	Basis Point
CCF	Counter-Cyclical Factor
CEEMEA	Central & Eastern Europe, Middle East and Africa
CFPS	China Family Panel Study
CNY	Chinese Yuan
COVID-19	Coronavirus Disease 2019
CPI	Consumer Price Index
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DR007	Repo Rate for Depository Institution
DRC	Democratic Republic of Congo
EBIT	Earnings Before Interest and Taxes
EMDE	Emerging Market and Developing Economy
ETS	Emissions Trading Scheme
EU	European Union
FAI	Fixed Asset Investment
FDI	Foreign Direct Investment
FX	Foreign Exchange
FYP	Five-Year Plan
G3	Group of three
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GNI	Gross National Income
GVC	Global Value Chain
HS	Harmonized System
ILO	International Labour Organization
ISSS	Institute of Social Science Survey
LGB	Local Government Bonds
LGFV	Local Government Financing Vehicle
MOF	China Ministry of Finance
MOHRSS	Ministry of Human Resources and Social Security
MSE	Micro and Small Enterprises
NBS	China National Bureau of Statistics
NPL	Non-performing Loan
NTM	Non-tariff Measures
OECD	Organization for Economic Co-operation and Development
PBOC	People's Bank of China
PMI	Purchasing Managers' Index
pp	Percent Point
PPI	Producer Price Index
PPP	Purchasing Power Parity
q/q	Quarter-on-Quarter
Q1	First Quarter
Q2	Second Quarter
Q3	Third Quarter
Q4	Fourth Quarter

RCEP	Regional Comprehensive Economic Partnership
REER	Real Effective exchange rates
RMB	Renminbi
RoO	Rule of Origin
S&P	Standard & Poor's
saar	Seasonally Adjusted Annual Rate
SAFE	State Administration of Foreign Exchange
SEZ	Special Economic Zone
SHIBOR	Shanghai Interbank Offered Rate
SLF	Standing Lending Facility
SME	Small and Medium-sized Enterprise
SOE	State-Owned Enterprise
TFP	Total Factor Productivity
TiVA	OECD Trade in Value Added (TiVA) database
U.S.	The United States
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
USD	U.S. Dollar
WDI	World Development Indicators
WHO	World Health Organization
WTO	World Trade Organization
y/y	Year-on-Year
ytd	Year-to-Date

## **Executive Summary**

Following a collapse in the first quarter of 2020, economic activity in China has normalized faster than expected, aided by an effective pandemic-control strategy, strong policy support, and resilient exports. While swift, the recovery has been uneven, with domestic demand recovering more slowly than production and consumption more slowly than investment. Real GDP growth is projected to slow to 2 percent this year before accelerating to 7.9 percent in 2021, as consumer spending and business investment continue to catch up, along with improving corporate profits, labor market conditions, and incomes. The growth outlook is predicated on the assumption that well-targeted containment efforts supported by the gradual rollout of effective COVID-19 vaccines starting in early 2021 will continue to keep new infection rates low and prevent the resurgence of large-scale outbreaks.

Even as GDP returns to its pre-pandemic level by 2021, the COVID-19 shock has accentuated preexisting imbalances and highlighted structural challenges. The pandemic and ensuing recovery have caused imbalances in the structure of aggregate demand to relapse, as households increased savings, government support stressed investment, and external imbalances widened. Public and private debt stocks—already high before the pandemic—have increased further. The vulnerabilities in fiscal, corporate, and banking sector balance sheets together with rising debt service costs will weigh on China's growth, following next year's strong cyclical rebound.

The external environment is expected to remain challenging and highly uncertain. Despite an initial rebound, the global economy remains in recession, and its recovery path is uneven and precarious. In addition, near-term global prospects have recently dimmed amid re-escalating COVID-19 outbreaks and renewed lockdowns in several major economies. Entrenched geo-economic tensions, most notably persistent bilateral frictions with main trading partners over trade and technology, also continue to pose risks to China's sustained recovery and its medium-term growth prospects.

Navigating near-term uncertainty will require an adaptive policy framework calibrated to the pace of the recovery both in China and the rest of the world. A premature policy exit and excessive tightening could derail the recovery. Against the backdrop of persistent output gaps, still fragile private demand, and emerging deflationary pressures, the return of the People's Bank of China (PBOC) to a normal policy stance should proceed cautiously. At the same time, monetary policy should return to more conventional tools while phasing out window guidance, lending targets, and relending facilities adopted to provide targeted support in the context of the COVID shock. Similarly, regulatory forbearance measures that were necessary to deal with temporary liquidity problems should be rolled back to facilitate recognition and resolution of non-performing assets and mitigate risks of a "zombification" of bad credit.

Along with a flexible and supportive monetary policy, China could use its fiscal space to hedge against downside risks to growth and ensure a smooth rotation from public to private demand. Focusing these fiscal efforts on social spending and green investment rather than traditional infrastructure investment would not only bolster short-term demand but contribute to the intended medium-term rebalancing to greener and more inclusive growth. For example, some of the special direct fiscal transfers to local governments that were implemented this year could be extended through next year and explicitly targeted to increased social spending and/or green investment by local governments.

Market oriented, structural reforms would help avoid a sharper decline in potential growth, reduce external imbalances, and lay the foundation for a more resilient and inclusive economy. Strengthened insolvency and bank resolution frameworks would facilitate an orderly exit of weak or failing corporates and banks, reduce overcapacity, assist the deleveraging process, and free up resources to flow to more productive uses. Further extending the liberalization of China's household registration system (Hukou) to

large cities would lower barriers to labor mobility, equalize access to services, and boost urbanization as a driver of growth. Rebalancing fiscal spending from investment to social safety nets would make growth more resilient by encouraging households to reduce precautionary savings, thereby lifting domestic consumption. The demand shift to domestic consumption should be accompanied by further opening China's domestic market, particularly in services, to enhance competition and facilitate diffusion of knowledge and technologies as key drivers of productivity growth. While benefitting China, further action to reduce trade barriers, including in services, would increase opportunities for further growth in global and regional trade. This would provide an important fillip to the global recovery.

China Economic Outlook	<i>2018</i>	2019	2020f	2021f	2022f
Real GDP growth (%)	6.6	6.1	2.0	7.9	5.2
Consumer Price Index (CPI) (% change, average)	2.1	2.9	2.5	1.8	2.0
Current account balance (% of GDP)	0.4	1.1	1.8	1.3	1.1
Augmented fiscal balance (% of GDP) <sup>a</sup>	-4.6	-6.4	-11.8	-7.8	-6.4

Sources: World Bank.

*Notes:* f = forecast.

(a) World Bank staff calculations. The augmented fiscal balance (narrow definition) adds up the public finance budget, the government fund budget, the state capital management fund budget, and the social security fund budget.

### Focus Chapter: Growing together or growing apart? Regional disparity and convergence in China

Economic rebalancing toward services, innovation and consumption driven growth has important spatial implications. This issue is at the heart of the exploratory analysis of the focus chapter in this report. While regional disparities in output, labor productivity, and income have narrowed since the mid-2000s, convergence was driven by a surge in investment in lagging regions. This has led to growing financial imbalances, mounting debt, and diminishing returns that constrained further investment-driven catch-up growth. Moreover, as China seeks to rebalance its economy from investment to a more innovation- and services-driven growth model, it will need to embrace the growth potential of its most developed and innovative metropolitan areas and city clusters, shifting the growth pole back to the coastal regions. Against this backdrop, policies to foster market integration and reduce spatial frictions in factor markets would enable a more efficient spatial allocation of labor and capital, harnessing the benefits of agglomeration and urbanization. Such a shift will need to be accompanied by fiscal policies to ensure a more equitable delivery of public services and investment in human capital to mitigate the very real consequences of resultant spatial disparities on people's lives and opportunities.



### Figure 1. The China Economic Update at a Glance

Effective control of COVID-19 in China kept new cases low since March ...

### **COVID-19 daily new confirmed cases**



... and allowed a rapid resumption of production



The recovery was led by industrial production but has recently broadened ...

#### C. Industrial production and retail sales





#### **E. Fiscal stimulus**



... supply-led recovery and weak energy prices contributed to a widening trade surplus



### Already elevated before the pandemic, debt levels increased further

#### F. Total credit and nominal GDP growth



Regional disparities declined over the past 15 years ... G. Coefficient of variation in per capita GDP across regions



## Investment driven convergence is constrained by diminishing returns ...





#### ... but this was driven by a surge in investment H. Investment rate and GDP per capita across provinces



#### ... and mounting debt

## J. Government debt and GDP per capita across provinces



Rebalancing from investment to innovation and service-driven growth may shift growth pole back to coastal areas



#### + 2015 + 2019 6000 Number of patents granted per million 5000 4000 people 3000 2000 1000 0 4.2 4.4 4.6 4.8 5.0 5.2 Log of GDP per capita, CNY

#### L. Service sector share in GDP across regions



**Source**: World Health Organization (WHO); China National Bureau of Statistics (NBS); Haver Analytics; People's Bank of China (PBOC); Ministry of Finance (MOF); China Statistical Yearbook 2016; China Statistical Yearbook 2020; CEIC; World Bank estimates and projections.

Notes: A. Johns Hopkins University based on figures reported by the WHO. B. Figure shows the year-on-year percentage change of contribution to growth by demand components in 2015 prices. C. Year-on-year change of total real industrial value added (2005=100) and non-seasonally adjusted nominal retail sales. Last observation is November 2020 for industrial production and retail sales. D. Figure shows monthly goods trade surplus and threemonth moving average of real growth of goods imports and exports. E. Figure shows estimated fiscal support by categories, including investment, tax and non-tax measures, and other spending, which includes transfers to households. Government debt includes contingent debt associated with liabilities of local government finance vehicles. Data for 2020 and general government gross debt in 2019 are estimates. F. Total debt is defined as a sum of domestic and external debt, including household, non-financial corporate, and public sector debt expressed as a share of the four-month average quarterly, seasonally adjusted GDP. Last observation is 202003. G. Coefficient of variation of per capita GDP at constant prices across eastern, western, and central regions. H. Investment rate is defined as gross capital formation as share of GDP at current prices. I. The return to capital is calculated using data on the share of capital in total income, the capital-output ratio (where both capital and output are measured at market prices), the depreciation rate, and the growth rate of output prices relative to capital prices, following Bai, Hsien, and Qian (2006). J. Government debt represents direct local government debt reported by Ministry of Finance. K. The density of patents is measured using number of granted patents per million people. L. Figure shows service sector share in GDP at current prices.

## I. Recent Economic Developments

## The global economy has started to recover but remains in recession

After a collapse in 2020H1, the global economy remains in recession, despite an initial rebound in 2020Q3. Following a collapse in 2020H1, global activity rebounded strongly in sequential terms, with GDP growth accelerating to 35.5 (q/q saar) in 2020Q3 (figure 2.A). Notwithstanding this improvement, helped by unprecedented policy support measures implemented in major economies, global output has continued to contract in year-on-year terms and was still 3.4 percent below its pre-pandemic level by end-September (figure 2.B and 2.C).

After its initial rebound, global activity has shown some signs of slowdown, most recently reflecting the resurgence of COVID-19 cases and renewed lockdowns. New cases of COVID-19 increased to more than 625,000 per day in December globally, while daily fatalities rose to nearly 11,000. After six months of consecutive improvement, the global Purchasing Managers' Index (PMI) fell to 53.1 in November, reflecting a decline in global services PMI (figure 2.D). The recovery of global goods trade has also slowed amid lagging trade in services. The number of international commercial flights has remained steady at about 60 percent of 2019 levels since August. A brief recovery in international tourism was also interrupted by the increased spread of COVID-19, with tourist arrivals in the majority of countries at a standstill.

Nevertheless, market sentiment has improved on better-than-expected prospects for the containment of the virus. The initial rollout of some vaccines and the regulatory progress of others have buoyed prospects for the containment of the virus in 2021. This contributed to an increased appetite for emerging market and developing economy (EMDE) assets and higher equity inflows to EMDE equity markets. Amid a recovery in capital inflows, EMDE credit spreads narrowed by almost one percentage point since the end of October and stand at about one-half a percentage point above their pre-pandemic levels. Energy, metals, and agriculture prices also experienced notable gains on stronger expectations for oil demand due to positive news about vaccine developments. Brent crude oil prices reached \$50/bbl by mid-December.



## Figure 2. The global economy has started to recover but remains in recession



## Figure C. Global output

## Figure D. Global manufacturing and services PMIs

#### Source: Haver Analytics.

Note: A. Figure shows quarter-on-quarter annualized growth rate for 2020Q2 for selected countries. Red bar indicates the 2020Q3 quarter-on-quarter nonannualized growth rate for China. D. Manufacturing and services are measured by PMI. PMI readings above 50 indicate expansion in economic activity; readings below 50 indicate contraction.

## China has recovered swiftly but unevenly

Effective and well-targeted efforts have helped control the spread of the virus in China, even as many other countries continue to grapple with resurgent COVID-19 outbreaks. After the initial strict lockdown, the authorities have adopted a targeted virus-control strategy involving wide-scale testing, contact-tracing, and locally targeted restrictions. Notwithstanding the occasional localized COVID-19 flare-ups, active confirmed cases have fallen dramatically from their peak of over 58,000 in mid-February to below 1,000 since late April (Figure 3.A). Meanwhile, restrictive measures in many advanced economies and EMDEs have been reintroduced as COVID-19 cases continued to spread in the second half of 2020 (Figure 3.B).



### Figure 3. Effective suppression of COVID-19

Sources: CEIC; Goldman Sachs Effective Lockdown Index Database; World Bank.

**Notes**: B. Western Europe includes Germany, France, Italy, United Kingdom, Spain, Switzerland, Sweden, and Norway; Asia Pacific (ex. China) includes Japan, Australia, New Zealand, Hong Kong SAR of China, Singapore, India, South Korea, Malaysia, Indonesia, Philippines, Taiwan province of China, Thailand, and Vietnam; Latin America includes Brazil, Mexico, Chile, Argentina, Colombia, Peru, Ecuador; CEEMEA includes Turkey, South Africa, Saudi Arabia, Poland, Hungary, Romania, Egypt, Israel, Lebanon, Ghana, Kenya, Nigeria, Czech Republic, Ukraine, and Russia.

**Following a collapse in the first quarter of 2020, economic activity in China has since recovered fast but unevenly.** The rollback of lockdown measures combined with a sizable fiscal and monetary policy support led to a quick rebound of economic activity. Real GDP rebounded to 3.2 percent y/y in the second quarter following a 6.8 percent contraction in the first quarter. Starting in the second half of 2020, economic activity firmed further, and the economy expanded by 4.9 percent y/y in the third quarter, bringing growth in the first three quarters to 0.7 percent y/y (Figure 4.A). Growth became more broad-based as all components of aggregate demand contributed positively to headline GDP. The recovery, however, relied heavily on public support, while private consumption has rebounded but continued to lag (Figure 4.B). The contribution of net exports to growth has remained positive since the second quarter of this year, supported by rising exports of medical equipment and electronics amid trailing imports.



#### Figure 4. GDP growth has rebounded swiftly but unevenly

#### **B. GDP demand components**

(Contribution to growth, percentage points)



Sources: Haver Analytics; NBS; World Bank.

**On the supply side, industrial production has continued to expand at a faster pace than services.** Industrial production growth surpassed its pre-pandemic growth rate, expanding by 6.0 percent y/y in 2020Q3, suggesting supply-side constraints have largely eased (Figure 5.A). Industrial value-added growth rose across sectors, with auto, machinery equipment, and computer and electronics increasing the most (Figure 5.B). Growth in the services sector accelerated to 4.3 percent y/y but remained below its pre-pandemic rates, reflecting a slow recovery of sub-sectors that were hit hard by COVID-19, such as transportation and traditional wholesale and retail trade. Meanwhile, output in the agricultural sector expanded by 3.9 percent in 2020Q3—faster than during the same period last year, despite the impact of floods on production. A. Industrial production indices



Figure 5. The recover was led by industrial production

## On the demand side, public and real estate investment drove the recovery in economic growth. Following a contraction in the first quarter, gross capital formation accelerated in subsequent quarters, increasing by 11.6 percent v/y in 2020O2 and 6.1 percent in 2020O3. Public investment in infrastructure, supported by special bond issuances at the central and local government level, initially drove much of the acceleration in investment, which started to moderate in the second half of this year on receding policy support (Figure 6.A and 6.B). The contribution of gross capital formation to overall growth slowed to 2.6 percent in the third quarter from 5.0 percent the previous quarter. Meanwhile, growth in manufacturing investment steadily increased as uncertainty eased but continued to trail infrastructure and real estate investment (Figure 6.B). As investor confidence started to improve on the back of a steady recovery in private sector corporate revenues and profits, private investment also started to firm up in recent months (Figure 6.C and 6.D).

#### Figure 6. Public and real estate investment led the growth





B. Real growth of industrial value-added

(y/y percent, by sub-industry)



The recovery of private consumption was more protracted, held back by losses in household income and lingering behavioral effects of the pandemic. Following a sharp contraction in the first quarter of 2020, consumption started a gradual recovery in subsequent quarters and increased by 3.1 percent y/y in 2020Q3. It contributed positively to economic growth for the first time this year in the third quarter by 1.7 percent, helped by an improving labor market, rising household income, lower precautionary savings, and strengthening consumer confidence (Figure 7.A). Services consumption has been recovering slowly, held back by lingering restrictions in contact-intensive sectors. Retail sales, a key indicator for private consumption, steadily improved across a broad range of consumption goods in recent months (Figure 7.B).





#### C. Consumption growth

(*y*/*y* percent, in real terms: contribution to growth)



**B.** Retail sales growth





(Enterprises above designated size, y/y percent, in real terms; contribution to growth by product)



# China's trade activity has been resilient, benefitting from rising global demand for medical goods and electronics

**Trade flows have experienced a strong cyclical post-recession rebound since 2020Q2**—a temporary deviation from the ongoing long-term structural slowing trend (Box 1). Export sector activity has picked up steadily following the sharp contraction in the first quarter of this year (Figure 8.A). The rebound in exports, which was initially driven by strong demand for medical supplies and electronic goods in response to increased remote work, has broadened to other product groups that were previously lagging (Figure 8.B). China's import performance has also been improving on the back of a broadening domestic recovery. China's import growth accelerated in 2020Q3, supported by broadening and firming domestic demand. Weak global energy prices have weighed on import values for much of 2020 (Figure 8.C). Nonfuel imports performed better, particularly in the second half of 2020, reflecting the strong growth of import-intensive investment (Figure 8.D).

### Figure 8. Buoyant trade flows



(y/y percent, 3-month moving average)







#### C. Import volume and value growth

(y/y percent, 3-month moving average)



### **D.** China goods imports

(y/y percent change, by contributing HS product group)



Sources: NBS; World Bank.

## Box 1. Drivers of China's import slowdown

**China's import demand has slowed substantially over the past decade.** Import growth in real terms has decelerated to below 1 percent y/y on average over the past five years from double-digit growth in previous years (Figure 9.A). Several factors drove this structural moderation in China's imports. Findings from our empirical analysis suggest that both a moderation in domestic demand as well as weaker exports are important factors driving import dynamics. In fact, sluggish exports accounted for more than half of the total slowdown since 2015. Together with the rebalancing from investment to consumption, weaker domestic demand has contributed to about 40 percent of the deceleration (Figure 9.B). Import substitution or onshoring, proxied by the ratio of processing imports to total exports, has been an additional drag on import growth.

### **Figure 9. Import slowdown**



**Notes:** A. We use aggregate trade data from the national accounts. B. Contributions to import growth are implied from model (5) in Table 1 for aggregate imports of goods and services.

**Both weak domestic demand and sluggish exports led to the structural decline in import demand.** Import demand is driven by both final demand in China (for consumption or investment) and intermediate demand for components that are used to produce export goods. Indeed, evidence from estimated import elasticities suggests that domestic demand and export growth are positively and statistically associated with import growth (Table 1). Since both of these drivers of import demand moderated since the global financial crisis, they contributed to the slowdown in imports.

**China's rebalancing from an investment and export-driven growth model to more consumption has also contributed to the slowdown in imports.** A slowdown in investment and export, especially in the manufacturing sectors, led to a decline in imports of capital and intermediate goods. This is consistent with previous findings that demonstrate a relatively higher import intensity of investment and exports than consumption (Kang and Liao, 2016).

The acceleration of onshoring—the substitution of imported intermediate inputs with domestic production—has been an additional drag on import growth. With the acceleration of onshoring either by local suppliers or foreign subsidiaries, the share of processing imports in total exports has gradually declined from around 40 percent in the early 2000s to around 16 percent (Figure 9.C). Increased onshoring contributed to about 7 percent of the total import slowdown after 2015 (Figure 9.B).

**Changes in the exchange rate have a counterintuitive effect on import dynamics, which can be explained by China's role as an assembly hub in global value chains.** Contrary to conventional expectations, we find that currency appreciation in China tends to be associated with declining imports (Table 1). Several previous studies have found similar results, pointing to China's important role as an assembly hub in the global value chain process in explaining why trade flows may not respond to exchange rate changes as expected (Parsley and Popper, 2010; Kang and Liao, 2016). Given China's prominent role in the global production chain, a currency appreciation that causes a decrease in the export sector's competitiveness also implies a decline in demand for imported inputs.<sup>1</sup> The indirect effect through the supply chain linkages of China's export sector dominates the direct impact on imports. Going forward this effect is likely to weaken. As China continues to rebalance to greater consumption, import demand will be driven increasingly by final demand in China as opposed to intermediate demand related to import content in China's exports.

Model	(1)	(2)	(3)	(4)	(5)
GDP	1.2204*** (0.4449)	1.3468*** (0.4106)			
Domestic demand			0.6674*** (0.2333)	0.7028*** (0.2328)	
Consumption					0.6680**
Investment					0.7573* (0.4184)

### Table 1. Aggregate imports of goods and services from national accounts<sup>2</sup>

<sup>2</sup> Following Kang and Liao (2016), the empirical work undertaken uses the model specification:

<sup>&</sup>lt;sup>1</sup> A separate regression of China's exports shows that China's export competitiveness has eroded with the appreciation in the real effective exchange rate.

 $<sup>\</sup>Delta \ln Import_{t} = c + \beta_{1} \Delta \ln Y_{t} + \beta_{2} \Delta \ln REER_{t} + \beta_{3} \Delta Onshoring_{t} + \varepsilon_{t}$ 

where import denotes imports of goods and services under current accounts in real terms, Y represents real demand, which is captured by different combinations of contemporaneous demand components (i.e., GDP; domestic demand and exports; and consumption, investment, and exports), REER is the CPI-based real effective exchange rates of the RMB. Onshoring captures the substitution effect of China's imported intermediate goods with domestically produced inputs, proxied by the ratio of processing imports to total exports where processing import is the combination of processing and assembly imports and processing with imported materials. We use a log difference over four quarters (i.e. y/y growth). Due to data availability, the sample period is 2001Q1-2020Q2 for models (1) and (2) and 2009Q1-2020Q2 for models (3)-(5).

Exports			0.7363***	0.6503***	0.6503***	
-			(0.0809)	(0.1036)	(0.1049)	
Onshoring	0.3173	0.3261	0.9301***	1.0263***	1.0269***	
	(0.3202)	(0.2945)	(0.3248)	(0.3301)	(0.3344)	
Real effect exchange rates	-0.2670***	-0.2861***	-0.0413	-0.1251	-0.1207	
	(0.0864)	(0.0796)	(0.1012)	(0.1189)	(0.1236)	
GFC		-0.0936***		-0.0566	-0.0582	
		(0.0246)		(0.0431)	(0.0448)	
Observations	78	78	45	45	45	
Adjusted R-squared	0.429	0.517	0.784	0.788	0.783	
Source: World Bank staff calculations.						
Notes: Standard errors in par	entheses (*** p	<0.01, ** p<0.0	05, * <i>p</i> <0.1).			

## External imbalances have resurfaced

**External imbalances have temporarily resurfaced reflecting the asynchronous and uneven recovery and differences in the policy response in China and other parts of the world.** The surplus in the current account widened to 1.6 percent of GDP in the first three quarters of 2020, from 1.1 percent of GDP during the same period last year (Figure 10.A). The increase reflects a stronger trade balance due to robust exports, lower energy prices, and reduced outbound tourism and travel during the global pandemic. In part, this is reflecting China's fiscal policy response that has been predicated on mitigating impacts on the supply side rather than stabilizing domestic demand through support to households, despite some measures to scale up social assistance, unemployment benefits and social pensions. On a sequential basis, both trade and current account surpluses narrowed in 2020Q3, as import growth accelerated further, but imports continued to trail exports in the final quarter of 2020.

The financial and capital account slipped into a small deficit in the first half of 2020. Following a surplus of 0.3 percent of GDP in 2019, the financial account recorded a deficit of 0.4 percent of GDP in the 2020H1 (Figure 10.B). Net Foreign Direct Investment (FDI) inflows continued despite heightened global uncertainty and stood at 0.3 percent of GDP compared to 0.5 percent in the same period last year. On the back of a strengthening economic recovery, portfolio investment inflows reversed in the second quarter to the turn of 1.2 percent of GDP compared to net outflows of 1.8 percent of GDP in the previous quarter, driven by strong debt inflows. Meanwhile, (non-portfolio) capital outflows increased in the second quarter as residents accumulated other investment assets abroad and net errors and omissions turned negative, signaling informal capital. FX reserves remained largely stable this year. Overall, China's external position has remained strong, with FX reserves estimated at \$3.1 trillion (the equivalent of around 17 months of imports) by the end of November.

**Movements in the exchange rate have exhibited greater market-driven volatility**. While the RMB weakened in the first five months of 2020, it has since appreciated more than 7 percent against the U.S. dollar (Figure 10.C). The strength in the RMB has been supported by a confluence of factors, including a stronger current account surplus, weaker U.S. dollar, China's rapid recovery, widening interest rate differentials, and a gradual financial opening (Figure 10.D). In addition, several measures taken by the PBOC, including cuts in reserve requirements for FX forward trading and the suspension of the counter-cyclical factor (CCF) in the daily yuan fixing, contributed to greater exchange rate flexibility.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Historically, the countercyclical factor (CCF) was introduced in May 2017 when RMB faced depreciation pressures. The CCF was reportedly suspended in early January 2018 but reactivated in late August 2018 as the trade tension with the U.S. intensified, and depreciation and capital outflow pressures reemerged.



## Figure 10. The Balance of Payments has been resilient



2010-15

(Percent of GDP)
Current account

4

-4

**B.** Net capital outflows

Net error and omisssions



1 10

(Renminbi per dollar; Index December 31, 2016 = 1)

CNY-CEETS basket index





202001

202002

2016-19

Financial and capital account

Reserve accumulation



Sources: NBS; World Bank.

# Improving labor market and rising incomes have provided support to households

CNY-USD index

**Labor market conditions continue to improve with employment returning to pre-pandemic levels.** The headline surveyed urban unemployment rate declined from 6.2 percent in February to 5.2 percent in November as economic activity firmed (Figure 11.A). New urban employment has grown, and, at 11.0 million, exceeded the 2020 target at the end of November. Overall, though, it is lower than the pre-COVID level of 12.8 million, reached at the end of November 2019 (Figure 11.B and 11.C).

The recovery of employment has been uneven across regions and sectors. Labor market conditions in the eastern coastal areas enjoyed a more rapid recovery and improved faster relative to central and western regions. Employment in the manufacturing sector has mostly rebounded to pre-COVID-19 levels, while hiring in the service sectors still lags, particularly in sectors that were hit hard during the pandemic. As lockdown measures eased, the number of migrant workers, who account for 30 percent of the total labor force in urban areas, steadily increased to 180 million in the third quarter, compared to about 120 million

in the first quarter. Migrant workers' average monthly income, which took a sharp hit in the first quarter, also recovered but has not yet reached pre-pandemic period levels (Figure 11.D).







C. Targeted and actual employment creation







**B.** Monthly new employment and working hours (*Thousands*)



**D. Migrant workers** (*Million*; y/y percent)



**Household incomes are recovering but at an uneven pace.** Income losses endured by households as a result of the COVID-19 shock gradually reversed. Growth in real disposable income per capita rose by 2.5 pp to 4.5 percent y/y in 2020Q3 from the previous quarter, still 0.8 pp lower than the same period last year (Figure 12.A). Per capita disposable income of rural households, which sharply declined in the first three months of the year, expanded faster than urban households' per capita disposable income, rising by 6.9 percent y/y in 2020Q3, surpassing pre-pandemic levels. The quick recovery of rural incomes can be attributed to large transfers that contributed to 70 percent of total income growth and a strong recovery in wage and business incomes in rural areas (Figure 12.B). In contrast, real disposable income per capita for urban households recovered more moderately, to 3.2 percent y/y 2020Q3, and has not yet caught up to prepandemic levels. Nevertheless, median incomes in 2020Q3 grew faster than the average for the first time this year, suggesting quicker income recovery for poorer households.

**Despite improvements in disposable income, households remained cautious in their spending decisions.** The contraction in overall household expenditures per capita eased by 4.5 pp to -1.1 percent y/y in 2020Q3 from the previous quarter, as spending by rural households increased (Figure 12.C). In fact, rural

A. Per capita disposable income

(y/y percent, in real terms)

household expenditure growth returned to positive territory in June 2020, while spending among urban households remained more cautious and contracted in 2020O3, albeit by a smaller pace. Both urban and rural households spent less on services, reflecting the pandemic's lingering effects on face-to-face services. The continuous increase in food spending among households in rural areas suggests they are no longer cutting essential expenditure items (Figure 12.D).

**B.** Per capita disposable income

(ytd y/y in real terms: contribution to growth by income

Rural



### Figure 12. Consumer spending has yet to catch up with rising disposable income



Sources: NBS; World Bank.

10

5

0

-5

-10

-15

**Income losses are expected to halt poverty reduction.** An analysis based on a micro-simulation model<sup>4</sup> considering changes in employment, earnings and transfers, found that income poverty for 2020, as

<sup>&</sup>lt;sup>4</sup> Poverty projection based on microsimulation methodology introduced in the July 2020 China Economic Update (World Bank 2020b). The model superimposes macroeconomic sectoral growth projections on behavioral models of labor transitions and earnings determinants to determine total household labor income. Transfer income (private and public government assistance) and property income are assumed to grow at the rate reported by NBS up to 2020Q3. Simulation done using 2018 China Family Panel Study (https://opendata.pku.edu.cn/dataverse/CFPS?language=en). See World Bank (2020b) for more detail. Two scenarios are simulated: Homogenous impact, where all workers within a sector see their income change at the same rate, and

measured using the \$5.50/day per person (2011 PPP), is expected to remain at the same level as at the end of 2019, halting a trend of decades of poverty reduction (Figure 13.A). The \$5.50 poverty line is typically observed in upper-middle income countries, and hence would be more relevant to China's current level of development. Based on the \$5.50/day poverty line, and allowing for a larger shock experienced by informal and migrant workers ("heterogeneous impact on migrant/informal"), poverty may even increase. National level results are driven by expected increased poverty in urban areas. The recent signs of recovery and the release of substantial additional assistance may not be enough to compensate households' income losses in the first half of the year. Poverty in urban areas may rise as much as 1 percentage point, from 9 percent in 2019 (Figure 13.B).





Sources: China Family Panel Study 2018.

**Notes**: Poverty is calculated using disposable household income and a \$5.50/day line (2011 PPP), typical of upper middle-income countries. "Homogenous impact" is based on GDP projections for 2020 by economic sectors, and "heterogeneous impact on migrant/informal labor" uses GDP projections as in "homogenous impact," but also allows for heterogeneity of the labor income shock across formal and informal workers and migrants. Transfers and property income are assumed to grow as they did until 2020Q3.

## Deflationary trends amid lower pork prices and subdued consumption

**CPI inflation has declined sharply, reflecting lower pork prices and subdued consumption.** Headline CPI inflation dropped to -0.5 percent y/y in November. The decline marked the first negative reading in about a decade and was primarily due to lower pork price inflation, which dropped sharply to -12.5 percent in November (Figure 14.A). Excluding pork, food prices rose by 2.9 percent y/y on average in July-November, compared to a 0.7 percent average increase in 2020Q2. Core inflation, excluding food and energy prices, remained unchanged at 0.5 percent y/y during the period of July to November, after displaying a declining trend in the first half of the year.

**Producer prices have been trending down for much of the year, largely driven by global commodity price dynamics.** As economic activity rebounded, PPI deflation eased to -2.0 percent y/y on average in July-November from 3.3 percent y/y in 2020Q2, driven by a significant easing of producer price deflation

Heterogenous impact on migrant/informal labor, in which after labor reallocation, informal and migrant workers (as well as their remittances) experience an additional loss equivalent to one-and-one-half months of earnings. The assumption of one-and-a-half labor income loss represents the time of the lockdown and is consistent with the results by Rozelle et al. (2020) in rural villages in the first half of the year.

in the mining sector (Figure 14.B). During this period, PPI inflation in the manufacturing sector also narrowed to -1.3 from -2.2 percent y/y.



#### Figure 14. Inflation remains subdued

## Fiscal deficit widened amid stimulus and a cyclical revenue decline

**China has adopted fiscal stimulus to support the recovery, but its fiscal policy response has been weighted toward supporting firms and banks and encouraging public investment**. Overall fiscal support is estimated at 5.4 percent of GDP. Of this, public investment, including through local government bonds, is estimated to account for 2.6 percent. Tax cuts, including deferrals of social security contributions, account for another 1.7 percent. In relative terms, direct transfers to households have been relatively limited (Figure 15.B). As economic activity resumed, fiscal policy support has moderated since 2020Q3.



#### Figure 15. Fiscal stimulus substantive but less aggressive than in other major economies

**Sources:** International Monetary Fund Database of Country Fiscal Measures in Response to the COVID-19 Pandemic; MOF; World Bank.

**Notes:** A. Underlying definitions of the scope of support measures may vary and include on-budget and off-budget support. B. f = forecast. Figure shows estimated fiscal support by categories, including investment, tax and non-tax measures, and other spending, which includes transfers to households. Government debt includes contingent

debt associated with liabilities of local government finance vehicles. Data for 2020 and general government gross debt in 2019 are estimates.

**Fiscal revenue outturns have started to improve on the back of an economic recovery.** Following an 8.6 percent y/y decline of revenues in the consolidated public finance and government fund budgets in the first half of 2020, revenues increased by 6.7 percent y/y on average in July-November 2020. Notably, growth in tax revenues improved substantially, from -11.3 percent y/y in 2020H1 to 8.9 percent y/y on average in July-November 2020, reflecting the ongoing recovery of industrial profits and household income, eased labor market pressures, as well as rising housing sales.

**Fiscal expenditures accelerated in the second half of 2020.** Overall expenditures rose by 16.5 percent y/y in July-November 2020, compared to 0.6 percent y/y in the first half of 2020 (Figure 16.A). Buoyant spending on social welfare, health care, education, and transportation, partly related to the outbreak, contributed to the rise in overall expenditure. Expenditures for non-essential services only increased modestly during July-November 2020.

**The fiscal deficit widened as expenditure growth outpaced revenue growth.** The consolidated budget deficit widened to 5.9 percent of GDP in the first 11 months of 2020, up from 3.5 percent of GDP during the same period last year (Figure 16.B). The higher deficit was, to a large extent, financed by increased government bond issuance. Net financing from central and local government bonds reached 7.4 percent of GDP in the first 11 months of 2020, 2.3 percentage points higher than the same period last year.

### Figure 16. Fiscal deficit widened



Sources: NBS; MOF; World Bank.

# Credit growth has accelerated and contributed to a further buildup in debt, adding to financial sector vulnerabilities

While the PBOC has refrained from further monetary easing and policy rate cuts, domestic financing conditions have tightened in recent months. Overall, the central bank injected RMB 602 billion (0.6 percent of GDP) in July-October, much less than the RMB 3.9 trillion (3.8 percent of GDP) infused during the first half of 2020 (Figure 17.A). Although the authorities have kept policy rates unchanged since May, market rates have increased. By November, both the Shanghai Interbank Offered Rate and repo rates rebounded to their pre-crisis levels (Figure 17.B). Increasing bond defaults since late October have contributed to tighter liquidity conditions, particularly for non-bank financial institutions.



### Figure 17. PBOC has refrained from further monetary easing

### Sources: PBOC; CEIC; World Bank.

**Notes:** A. Lending facilities refer to net liquidity injection provided by the PBOC through standing lending facility (SLF), the medium-term lending facility (MLF), the targeted medium-term lending facility (TMLF), the pledged supplementary lending (PSL), the special-purpose refinancing (SPRF) and the special relending or rediscounting facilities. B.10-day moving average for all market rates.

**Despite tighter domestic financing conditions, credit growth has accelerated on the back of higher corporate and government bond issuances.** Credit growth to the non-financial sector accelerated to 12.6 percent y/y in the first 11 months of 2020, up from 11.0 percent y/y in the same period last year. This reflected a sharp pickup in issuances of corporate bonds (19.0 percent y/y) and government bonds (17.9 percent y/y). Meanwhile, bank loans grew by 12.9 percent y/y, reflecting COVID-19 related credit and loan extensions, while non-bank lending continued to contract, reflecting efforts to contain shadow banking activities (Figure 18.A).

Driven by the acceleration in credit growth, China's aggregate debt-to-GDP ratio—already at an elevated level—increased further. Total debt increased to 288 percent of GDP at the end of 2020Q3, an increase of 27 percentage points since the start of 2020 (Figure 18.B). Total external debt, including the debt of Chinese subsidiaries operating abroad, ticked up to 20 percent of GDP by the end of 2020Q3. With the debt interest burden already exceeding 10 percent of GDP in 2020, more than an estimated one-third of new credit will go merely to service the existing debt.

**Household and government debt expanded in 2020Q3 while corporate debt moderated.** Higher treasury bond and local government special bond issuances pushed the explicit government debt to 44 percent of GDP. At the same time, a pickup in Local Government Financing Vehicle (LGFV) bonds has increased implicit liabilities of local governments and state-owned enterprises (SOEs). Household debt reached 61 percent of GDP in 2020Q3, up from 55 percent of GDP in 2020Q2, driven predominantly by mortgage loans (Figure 18.C). In contrast to public and household debt, the pace of corporate debt buildup has moderated, although the debt ratios of SOEs are still significantly higher (Figure 18.D).



#### Figure 18. Credit growth accelerated

**Sources:** Bank for International Settlements; Haver Analytics; PBOC; WIND database; World Bank. **Notes:** A. Non-bank lending includes entrusted Loan, trust Loan, and banker's acceptance bill; B. Total debt is defined as a sum of domestic and external debt, including household, non-financial corporate, and public sector debt expressed as a share of the four-month average quarterly, seasonally adjusted GDP. Last observation is 2020O3.

Although sizable liquidity injections and regulatory forbearance have prevented a sharp rise of bad debts so far, defaults among Chinese SOEs have picked up recently. The non-performing loan (NPL) ratio remains low at about 2 percent in 2020Q3 but will likely increase once forbearance on recognition of NPLs ends as planned in early 2021 and loan losses are realized. A preliminary analysis of available data for a sample of A-listed non-financial companies indicates that total "debt-at-risk" (defined as the debt of borrowers whose earnings cannot fully cover their interest expenses) was still above pre-crisis levels, at 8.2 percent in 2020Q3 (Figure 19.A). Meanwhile, defaults among Chinese state-owned enterprises (SOEs) have picked up in recent months, causing many SOEs to suspend or delay bond issuances amid widening bond spreads and risk premia (Figure 19.B and 19.C). On the positive side, allowing SOEs to default would reduce public perception of an implicit guarantee, thereby enhancing market-based credit allocation. Despite recent in 2020 (January to November), up from 0.9 percent in 2019. By comparison, the average bond default rate was 1.5 percent in 1981- 2018 for the S&P global sample of rated companies (Figure 19.D).



## Figure 19. Credit defaults have led to rising risk premia

**A. Debt-at-risk ratio of listed non-financial firms** (*Percent*)





**B.** Number of corporate bond defaults picked up in November



**D. Corporate bond defaults** (*RMB bn; percent*)





**Notes:** A. The China sample contains 3,837 listed firms (2020Q3 YTD). The debt-at-risk ratio is defined as the debt of firms with interest coverage ratio below one over debt of all firms, and it depicts the proportion of total borrowing by companies unable to generate sufficient Earnings Before Interest and Taxes (EBIT) to cover debt interest payment. Interest coverage ratio is EBIT/interest expense of the corporate. D. The default rate measures the RMB value of defaults as a percentage of the overall corporate bond market capitalization.

## II. Outlook, Risks, and Policy Considerations

## Short-term outlook

The external environment is expected to remain challenging, less supportive, and highly uncertain. Global recovery after a sharp contraction in 2020—the deepest global recession in eight decades—is expected to be subdued and uneven (Figure 20.A and 20.B). Despite a rebound of global economic activity, helped by unprecedented policy support measures implemented in the advanced economies, the subsequent recovery remains prone to setbacks. Global growth, trade, and investment are expected to remain subdued and sluggish, hampered by severely impaired balance sheets, heightened financial market stress, and widespread bankruptcies in EMDEs. Travel bans, stringent border controls, and impaired international transportation are expected to remain in place until the end of the pandemic, weighing on global activity and contributing to the uneven nature of global recovery.



### Figure 20. Global outlook remains precarious

Source: World Bank (2020a; 2020c).

**Note:** EMDEs = emerging market and developing economies. Shaded area indicates forecasts. Aggregate growth rates calculated using constant 2010 U.S. dollar GDP weights. The projections are based on 2020 June GEP (World Bank, 2020c) forecasts. Updated forecasts will be published in January 2021. A. Shaded areas indicate forecasts. Data for 2019 are estimates. Aggregate growth rates are calculated using GDP weights at 2010 prices and market exchange rates. B. Figure shows the percent difference between the level of output in the January and June 2020 editions of Global Economic Prospects (World Bank, 2020a; 2020c).

**Growth in China is expected to decelerate to 2.0 percent this year before rebounding to 7.9 percent in 2021.** The growth outlook envisages that localized COVID-19 flareups—occurring until the effective rollout of an effective vaccine—are effectively contained and will not cause major disruptions to economic activity in China. Under this scenario, the recovery in China is projected to continue in 2021, as economic activity broadens to private investment and consumption in response to improved consumer and business confidence and better labor market conditions. The outlook is predicated on a resumption of structural reforms in China, which are expected to bolster business confidence and support private investment spending. Financial conditions are assumed to remain broadly stable, even though some segments of the economy will continue to experience liquidity pressures as de-risking efforts intensify, and the economy returns to the path of structural moderation that predates the pandemic.

### Table 2. China selected economic indicators

China selected indicators	2018	2019	2020f	2021f	2022f
Real GDP growth, at constant market prices	6.6	6.1	2.0	7.9	5.2
Private consumption	9.5	6.8	-1.0	11.0	6.0
Government consumption	10.4	8.4	9.7	7.2	8.0
Gross fixed capital formation	4.8	4.5	1.1	6.5	3.6
Exports, goods and services	4.0	2.5	0.8	2.5	2.0
Imports, goods and services	7.9	1.0	-1.7	4.0	2.0
Real GDP growth, at constant factor prices	6.6	6.1	2.0	7.9	5.2
Agriculture	3.5	3.3	3.0	3.4	3.3
Industry	5.8	5.5	2.3	6.5	4.7
Services	7.6	7.0	1.6	9.7	5.9
Inflation (Private Consumption deflator)	2.1	2.9	2.5	1.8	2.0
Current account balance (% of GDP)	0.4	1.1	1.8	1.3	1.1
Financial Account Balance, excl. reserves (% of GDP)	1.0	0.9	0.2	0.6	0.7
Net foreign direct investment (% of GDP)	0.8	0.9	0.5	0.7	0.8
Public finance budget balance (% of GDP)	-3.4	-2.8	-3.6	-3.0	-2.8
Augmented fiscal balance (% of GDP) <sup>a</sup>	-4.6	-6.4	-11.8	-7.8	-6.4
Primary balance (% of GDP) <sup>a</sup>	-3.6	-5.1	-10.7	-6.5	-5.0
Government debt (% of GDP)	38.5	41.9	52.2	55.3	57.9

Source: World Bank.

*Notes:* f = forecast (baseline).

(a) World Bank staff calculations. The augmented fiscal balance (narrow definition) adds up the public finance budget, the government fund budget, the state capital management fund budget, and the social security fund budget. The primary balance is the difference between revenue and non-interest expenditures.

**Sources of growth are expected to shift toward domestic demand led by private consumption.** Private consumption, which trailed investment and exports in most of 2020, is expected to recover fast and become the main driver of growth. The rise in consumption is expected to be supported by stronger labor markets and sustained income growth, as well as a gradual decline in precautionary savings amid improved consumer confidence. The recovery of services-related consumption is expected to accelerate as remaining restrictions are relaxed, especially after a COVID-19 vaccine is rolled out.

The structure of investment is expected to shift in favor of private investment. A significant improvement in manufacturing capex is expected to drive investment growth, while infrastructure and property investment will continue to moderate amid a gradual decline in policy support. Manufacturing investment will continue to benefit from stronger revenue and profits and improved business sentiment. A sustained economic recovery in China will likely reduce the need for state-led infrastructure and shanty-town property investment and lead to less fiscal policy support. Tighter property rules to reduce pressure in premium housing markets in first-tier cities are expected to weigh on property investment.

The current account surplus is projected to shrink on the back of a lower trade balance and widening services deficit. A gradual moderation in exports of medical supplies and remote work-related equipment is expected to be offset by a further rebound in other exports as global demand normalizes. Broadened domestic demand and a gradual resumption of international travel are expected to support stronger import growth. In addition, the projected recovery of energy prices and resumption of outward tourism as travel restrictions are gradually relaxed is expected to contribute to a narrowing of trade and current account surpluses in 2021. The contribution from net exports to growth is projected to decline from an estimated 0.3 percentage points in 2020 to close to zero in 2021.

**On the supply side, economic growth is expected to shift from industry toward services.** The recovery is expected to accelerate in those lagging services sectors that rely heavily on face-to-face communication or close physical interaction. In general, growth in services is expected to take the lead in the economic recovery and outpace growth in industrial production and manufacturing. More than half of GDP growth in 2021 is expected to originate from services.

Inflation is expected to remain soft in 2021 but gradually pick up in line with the recovering consumption and services and tighter labor markets. Producer prices are expected to continue their slow recovery, helped by improved prospects for manufacturing investment and higher industrial capacity utilization.

**Growth is projected to moderate to 5.2 percent in 2022.** This reflects the progressive de-risking and deleveraging efforts, policy normalization, and diminished support from net exports. Domestic demand will continue to trend toward its pre-pandemic level, while its structure will gradually shift in favor of private domestic spending. GDP growth would stabilize slightly below its earlier trend rate by late 2022, as weaker global demand, the negative impact on activity from needed fiscal consolidation, de-risking and deleveraging will weigh on growth and prevent it from returning to its pre-pandemic trajectory.

## **Risks**

**Risks to China's growth outlook are more balanced than in July, at the time of publication of the last China Economic Update (World Bank 2020b).** The main downside risk arises from a prolonged pandemic triggering recurrent outbreaks at a wider scale and causing significant economic disruption both in China and the rest of the world. Private incomes, budget revenues, and corporate profits would suffer, and uncertainty would linger and lead to protracted weakness in consumer and business confidence.

**Risks could also emanate from tighter financial conditions, which in turn, could exacerbate preexisting vulnerabilities such as highly leveraged public and private sector balance sheets.** This could force struggling corporations and SMEs into bankruptcy, worsening credit risk and financial stability and aggravating debt overhangs. While system-wide buffers appear to be adequate to absorb shocks, vulnerabilities in localized banks and fintech companies could intensify. This may trigger additional stateled bailouts. Banks in the aggregate have robust capital cushions. Regional banks, though, appear more vulnerable due to their high exposure to the commercial service sector, unsecured consumers, and micro and small enterprises (MSEs), as well as their weaker financial performance even before the crisis.

Lingering bilateral tensions between China and its key trading partners could also undermine the recovery. Persistent policy uncertainty due to renewed economic tensions between major economies, for example, could dampen the recovery of confidence, investment, and trade. Such an adverse development could also harm potential growth by restricting China's access to imports of critical technology.

**Challenging and highly uncertain global growth prospects could amplify these risks.** The pandemic is likely to have a durable impact on the global economy through multiple channels, including lower investment and innovation, the erosion of human capital, and a retreat from global trade and supply chains. In combination with financial stress that triggers cascading defaults, this could become a shock that triggers an outright global financial crisis.

**Longer-term risks are related to the possibility of deeper and long-lasting effects of the pandemic on potential output.** Even if none of the downside risks materialize and the rebound proceeds as expected, the pandemic has already caused some output losses in China and large output losses in the rest of the world. In China, even as GDP returns to its pre-pandemic level by mid-2021, it is still expected to be around 2

percent below its pre-pandemic projections by end-2022 (Box 2). In the rest of the world, output losses are larger and unlikely to be reversed quickly. Over the longer-term, a number of factors could depress potential growth, including lasting changes to household behavior, a change in the public perception and tolerance of risks, and a costly reconfiguration of global production.

**There are also upside risks to the outlook**. A swifter and more widespread rollout of an effective vaccine would boost domestic and global consumer and business confidence and support stronger growth. In addition, a de-escalation of economic tensions between China and key trading partners would provide an additional boost to GDP growth in 2021 and beyond.

## Box 2. Impact of COVID-19 on the output gap and potential growth in China: An update<sup>5</sup>

This box updates the state of the output gap and potential growth dynamics in China. While much of the world suffers from multiple waves of COVID-19 outbreaks and the renewed economic pressures from repeated lockdowns, China has managed to keep the virus under control since March and sustain and broaden the economic recovery. The crisis in 2020, nonetheless, resulted in deficient demand and a large negative output gap. The collapse in supply has temporarily decreased potential growth in 2020. Industrial production experienced a large fall in 2020Q1, followed by a stronger rebound than sales, which remained sluggish for much of 2020. In 2021, a sustained rebound in exports and a recovery in domestic demand are expected to begin closing the output gap in China.

**Supply and demand dynamics in 2020.** China's output returned to its pre-pandemic level in 2020Q3, helped by a strong rebound in investment and exports. While exports and investment have returned to their pre-pandemic level, consumption has not. Reflecting this uneven recovery, a decomposition of growth into its domestic and foreign supply and demand components show the rebound in domestic supply and foreign demand (Figure 21.A). Domestic demand played a minimal role in the strong rebound in second and third quarters.

**Deficient demand and potential growth.** The economic damage induced by COVID-19 strongly shifted the output gap into negative territory in 2020, following three years of being effectively zero. The output gap is estimated to be just slightly above -3.0 percent of potential output in 2020. In 2021 the output gap is expected to close to about -1 percent, as the recovery gains steam and the economy grows above its potential growth rate.

The temporary shift in supply from the disruption to production and service provision suggests that potential growth in the first quarter also dropped sharply (Figure 21.B). However, as the situation normalized, and production ramped up to catch-up lost output and meet external demand, potential growth received a boost. Reflecting the partly temporary nature of the supply shock, potential growth is expected to be just above 5 percent in 2020, rebounding to over 6 percent in 2021.

**Significant uncertainty.** The size of deficient demand is highly uncertainty, as is the likely path of growth and the pandemic's longer-term consequences (Figure 21.C and 21.D). In 2020, the volatility of output was more than 11 times that seen over the longer run and about four times the volatility of the global financial crisis. In 2021, volatility is expected to be about the same as during the global financial crisis.

<sup>&</sup>lt;sup>5</sup> Written by Franz Ulrich Ruch.



Notes: A. Estimates from a sign restricted Bayesian vector autoregressive model based on Ha et al. (2019) and World Bank (2018). The model includes Group of Three (G3) output, oil (crude) prices, G3 inflation, and China's output, inflation, policy rates, and the real exchange rate. G3 economies include the euro area, Japan, and the United States. The model is estimated from 2000Q1. All variables are in log difference, except interest rates. B and C. Based on estimates from a modified multivariate filter model of World Bank (2018). Data available to 2020Q3. D. Stochastic volatility estimates from a sign restricted Bayesian vector autoregressive model based on Ha et al. (2019).

## **Policy implications: Solidifying the recovery, reigniting rebalancing**

Navigating near-term uncertainty will require an adaptive policy framework that is carefully calibrated to the pace of the recovery in China and the rest of the world. While fiscal and monetary policies are expected to normalize as private domestic demand firms up and the economy returns to prepandemic levels, a premature policy exit and excessive tightening could derail the recovery. To ensure a

sustainable recovery, short-term policy support should be designed to lay the foundation for a return to more balanced and sustainable growth in the medium term.

- Monetary and financial policies will need to balance trade-offs between securing the recovery and addressing emerging financial vulnerabilities. Against the backdrop of a still-incipient domestic demand recovery and deflationary price outlook in China, PBOC's should proceed carefully to return to a normal policy stance. Unless inflation moves above target, an accommodative monetary stance appears warranted, focusing on maintaining adequate liquidity to prevent money market rates from diverging from policy rates. To address concerns about elevated asset prices, macro-prudential measures rather than general monetary tightening should be used to continue to curtail shadow banking and contain leverage and speculative investment, especially in the real estate sector.
- Monetary policy should return to more conventional tools and phase out window guidance, lending targets, and re-lending facilities that were adopted to provide targeted support in the context of the COVID shock. By introducing subsidized lending rates and directing credit to specific uses or types of borrowers, these programs can distort incentives and impair the efficient allocation of capital. Similarly, regulatory forbearance measures that were necessary to help banks and the corporate sector deal with temporary liquidity problems should be rolled back to facilitate recognition and resolution of non-performing assets and mitigate risks of a "zombification" of bad credit. Strengthened insolvency and banking resolution frameworks—which were important priorities before COVID-19— have become even more urgent, given the likely increase in corporate and banking sector distress once forbearance measures are rolled back.
- Along with a more market-based and transparent monetary policy framework, a flexible exchange rate that moves in line with fundamentals can play an important role in mitigating potential imbalances. Especially in the context of China's gradual liberalization of the capital account, greater exchange rate volatility would also facilitate the development of a foreign exchange hedging market and enhance risk management practices in both banking and corporate sectors.
- The withdrawal of fiscal support should proceed gradually while rebalancing from traditional infrastructure investment to more social spending and green investment. China could use its fiscal space to hedge against downside risks to growth and ensure a smooth rotation from public to private demand. This would entail maintaining a neutral fiscal stance and avoiding a significant contraction next year. With a cyclical recovery in revenue, some fiscal measures could be retained. Focusing these fiscal efforts on social spending and green investment rather than traditional infrastructure investment would not only bolster short-term demand but contribute to intended medium-term rebalancing to greener and more inclusive growth. For example, some special direct fiscal transfers to local governments that were implemented this year could be sustained and explicitly linked to increased social spending and/or green investment, such as investment in making public buildings more energy-efficient, reforestation, electric vehicle infrastructure, mass transportation, and sponge cities.

**Over the medium term, deeper structural reforms to engender more balanced, inclusive, and sustainable growth remain a central policy priority for China.** While next year's growth will be exceptionally high, we expect the economy to return to a path of structural moderation thereafter. This slowdown—which predates COVID-19—reflects demographics and rising constraints to an investment-driven growth model. The COVID-19 shock has accentuated preexisting domestic and external macroeconomic imbalances, lending additional urgency to reforms to rebalance the economy. Market-oriented reforms, especially in factors markets, will be needed to stem the decline in potential growth, complemented with fiscal and social policy measures to rebalance the economy on the demand side. The

14th Five-Year Plan (FYP) offers an opportunity to anchor policy shifts around the following broad elements:

- Further extending Hukou liberalization to China's large cities to lower barriers to labor mobility, equalize access to services, and boost urbanization as a driver of growth. Simultaneously, land conversion quotas could be increased in large metropolitan areas to stimulate housing supply and keep house price growth in first-tier cities in check. Land reforms would allow rural landholders to lease out their land and not lose land rights if they moved to cities (see also the focus chapter of this report).
- Establishing a unified domestic social security system with portable pension and unemployment benefits for rural and urban residents would reduce inequality, lower the need for precautionary savings and thereby help boost private consumption. This could be combined with parametric reforms to the contributory social security system to lower contribution rates, encourage formalization, and ensure long-term financial sustainability.
- Deeper financial reforms to address growing financial risks while enhancing market-based financial intermediation. Regulatory changes to limit risky exposures of commercial banks to the shadow market, as well as the dependency of these banks on attracting resources from the interbank market, should remain in place. At the same time, insolvency and bank resolution frameworks should be strengthened to facilitate an orderly exit of weak or failing corporates and banks and assist the deleveraging process. Bank resolution will need to go hand-in-hand with improved corporate debt restructuring and insolvency and careful communication to markets to enhance the understanding and tolerance of financial market risks.
- Reforms of inter-governmental finances to reduce inequalities in fiscal envelopes across locations and between expenditure mandates and revenue sources at the local government level. This would help address regional and rural/urban differences in access to social services. General transfers should be expanded further toward a fully-funded financing pool for universal basic public services. Using intergovernmental fiscal transfers instead of debt financing would also allow for greater flexibility to rebalance public spending from excessive infrastructure investment toward more social spending. This would reduce social inequalities and likely generate long-term returns to human capital formation. A stronger role for transfers in lagging regions could be combined with reforms to enhance revenue autonomy, including a recurrent property tax assigned to subnational levels that would help close financing gaps and make especially richer provinces less dependent on central transfers (see also the focus chapter of this report).
- Further opening China's domestic market, particularly in the service sector, would create more competition and facilitate the exchange of knowledge and technologies. The recent conclusion of the Regional Comprehensive Economic Partnership (RCEP) contains important steps in this regard, but the magnitude of benefits will hinge on effective implementation (see Box 3). Aside from tariff reductions and measures to improve market access and infrastructure connectivity, China could focus more on behind-the-border issues (including IPP, trade-in services, public procurement, etc.). Going forward, joining the Comprehensive and Progressive Transatlantic Trade and Investment Partnership could provide an anchor for additional reforms, as China's WTO accession did almost 20 years ago. The reform measures required under CPTPP commitments would benefit China's economy and could send a strong signal of China's commitment to openness and globalization.
- Accelerating the transition to a low carbon economy. President Xi's pledge to achieve zero net emissions by 2060 is an important signal in this regard. Setting an absolute, mass-based emissions target for carbon during the 14th FYP could help accelerate progress in this direction, unleash an

additional round of innovation, and help achieve peak carbon before 2030. In addition, reforms to create more efficient power markets would enable China's increasingly competitive renewable capacity to expand faster, especially if complemented by the rollout of China's Emissions Trading Scheme (ETS) in the power sector. China's ETS could also be expanded beyond the energy sector, turning it into a true cap-and-trade regime. Policies to drive a faster and deeper decarbonization should be accompanied by steps to ensure a just transition path and facilitate adjustment. These include reforms of China's household registration system to enable greater labor mobility, skills upgrading and retraining, efforts to diversify local economies away from coal and polluting industries, and strengthened social safety nets to protect households from adverse shocks associated with economic restructuring (see also the focus chapter of this report).

## **Box 3. Regional Comprehensive Economic Partnership Agreement (RCEP): Significance and Potential Impact**

**Fifteen Asia-Pacific nations signed RCEP on November 15.** Once ratified by all its members, the pact will cover almost one-third of the global population and global activity (Figures 22.A and 22.B), and is expected to boost growth in the coming years by lowering barriers to trade and investment. Notably, the RCEP is the first single trade agreement that covers China, Japan, and South Korea, which account for around 80 percent of RCEP's total GDP and are linked through important production networks and value chains.

### Figure 22. Global share of RCEP members



Sources: World Development Indicators and Eurostat for EU growth rates.

**RCEP consolidates and updates existing free trade agreements between the Association of Southeast Asian Nations (ASEAN) and its partners, focusing largely on reducing non-tariff measures (NTMs)**. With import tariffs already relatively low among RCEP members, the agreement has a stronger focus on NTMs. A key feature under the RCEP is the creation of a common Rule of Origin (RoO), which consolidates disparate rules of origin provisions, allowing the sourcing of intermediate goods from any of the RCEP member countries.<sup>6</sup> It is noteworthy, however, that RCEP is less comprehensive and ambitious

<sup>&</sup>lt;sup>6</sup> According to Dib, Huang, and Poulou (2020), the cost of rules of origin ranges between 1.4 percent and 5.9 percent of the export transaction amount. They estimate a 4 percent increase in merchandise trade among RCEP members from the reduction of trade costs associated with the implementation of a common rule of origin.

than the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), another regional trade pact that includes several of the signatories of the RCEP, though not China.<sup>7</sup>



**Sources**: World Bank estimates prepared by C. Estrades, M. Maliszewska, I. Osorio-Rodarte, and M. Pereira. **Notes**: "RCEPtar" models a 90 percent reduction of tariffs between RCEP countries by 2035. "RCEP" assumes a reduction of NTMs among RCEP members, which vary according to sector,<sup>8</sup> and a 10 percent reduction of non-preferential NTMs applied by RCEP members. RCEP\_roo assumes, in addition, a 1 percent reduction in trade costs among RCEP members associated with the introduction of a Rules of Origin (RoO) regime in RCEP. Additionally, "RCEProo" assumes an increase in productivity associated with the fall in applied tariffs and increased competition.

## Figure 24. Additional people with middle-class status in 2035, by country and scenario



**Sources**: World Bank estimates prepared by C. Estrades, M. Maliszewska, I. Osorio-Rodarte and M. Pereira

**RCEP** is expected to generate economic benefits boosting trade, output, and income across member countries (Figure 23). World Bank estimates from a dynamic global computable general equilibrium model show that incremental income gains could be between 0.3 percent and 3.3 percent of GDP by 2035 compared to a business-as-usual scenario. The magnitude of income gains depends on assumptions concerning tariff liberalization, reductions of NTMs, trade cost decreases due to common rules of origin, and productivity gains associated with lower import protection.<sup>9</sup> In terms of sectoral impacts, manufacturing output is expected to expand the most under RCEP, with the largest gains in apparel, electrical equipment, motor vehicles and parts, and textiles. Some

manufacturing sectors may be negatively impacted. Chemicals, rubber and plastic, and metals reduce the aggregated output in the region, mainly because RCEP may reduce non-preferential NTMs, which may lead to higher imports from third countries.

<sup>&</sup>lt;sup>7</sup> China has recently signaled that it is considering CPTPP membership.

<sup>&</sup>lt;sup>8</sup> We simulated a 35 percent reduction of NTM on agricultural goods, a 25 percent reduction in manufacturing goods, and a 25 percent reduction in services.

<sup>&</sup>lt;sup>9</sup> Another recent study by the Peterson Institute suggests that by 2030 the agreement would increase the GDP of the RCEP bloc by 0.4 percent (equivalent to US\$170 billion), with a 0.3 percent increase for China and 0.2 percent for ASEAN members. Petri, P. and Plummer, M. 20-9 East Asia Decouples from the United States: Trade War, COVID-19, and East Asia's New Trade Bloc, Peterson Institute for International Economics (PIIE), June 2020.

**Simulations of the distributional impacts suggest that the RCEP agreement's gains will be broadly shared, boosting incomes of the middle class.** For middle-income countries in the RCEP region, the agreement offers the potential to lift up to 34.3 million additional people above global middle-class status by 2035, with the largest increases in China, Indonesia, and Vietnam (Figure 24).

Effective implementation of RCEP commitments is key to reaping its full potential benefits and should be accompanied by steps to enhance competitiveness and trade facilitation. The most significant benefits of RCEP will stem from reducing NTMs. Unlike stroke-of-a-pen tariff reduction, addressing these barriers will require effective implementation and institutional changes that facilitate the harmonization of standards, licensing, and border management procedures across RCEP countries. Complementary investments in improved regional connectivity would help enable deeper integration into global value chains and contribute to lowering trade costs in the region.

# III. Growing together or growing apart? Regional disparity and convergence in China

"If all of China is to become rich, some must get rich before others." Deng Xiaoping during his Southern Tour in 1992

"Growth will be imbalanced, but development can still be inclusive." World Development Report 2009

Summary: Since the mid-2000s, regional disparities in output, labor productivity, and income have narrowed across China's provinces and within provinces across rural and urban areas. However, this convergence was driven by a surge in investment in lagging regions that was associated with growing financial imbalances. Mounting debt and diminishing returns to investment have rendered this investmentdriven convergence model increasingly unsustainable, especially as the government's deleveraging campaign tightened lending standards and access to liquidity in lagging regions with highly leveraged balance sheets. At the same time, as China seeks to rebalance its economy from investment to a more innovation- and services-driven growth model, it will need to embrace the growth potential of its most developed and innovative metropolitan areas and city clusters, shifting the growth pole back to the more developed coastal regions. As China embarks on its 14<sup>th</sup> Five-Year Plan, policies should not resist this trend but rather reinforce it by fostering market integration and reducing spatial frictions and distortions in factor markets that would enable a more efficient spatial allocation of labor and capital, harnessing the benefits of agglomeration and urbanization. Since such a shift will inevitably create tensions with other policy objectives, notably the aim to reduce inequality, it will need to be accompanied by fiscal policies to ensure more equitable public service delivery and investment in human capital to mitigate the very real consequences of resultant spatial disparities on people's lives and opportunities.

## Introduction

Like other large territorial economies, China faces wide regional disparities in economic performance and access to public services, economic opportunity, and social welfare. These geographic imbalances in economic performance are as much a driver as they are a product of China's rapid economic development. China's economic expansion over the past four decades was intrinsically linked to a spatial reconfiguration of economic activity. The forces of urbanization and agglomeration of economic activity played a critical role in unleashing rapid industrialization and productivity gains, which fueled China's overall economic success. But these very forces also led to widening income gaps between swiftly growing coastal and lagging interior provinces and between rural and urban areas within provinces. Despite recent convergence, large gaps persist. Today, Shanghai's per capita GDP is almost five times that of the northwestern province of Gansu, the poorest province. On average, rural incomes are 60 percent lower than incomes in urban areas, with these differences even more pronounced in poorer regions. Alongside these disparities in economic performance, large gaps also persist in other dimensions of well-being. For example, a resident of the eastern coastal province of Zhejiang can expect to live a full ten years longer than a resident of the southern province of Yunnan. A child born in Shanghai is more than twice as likely to attend university than a child born in Henan, one of the most populous but less developed interior provinces.

The last 15 years saw faster catch-up growth in lagging regions, but the current convergence process is facing growing headwinds. Regional convergence since the mid-2000s was largely driven by an investment surge in lagging regions, in part a result of the government's Western Development Strategy. While rapid capital accumulation helped narrow gaps in output, labor productivity, and incomes, it was associated with sharply diminishing returns, widening financial imbalances, and mounting debt, especially in poorer regions. These factors will constrain further investment-driven growth to propel income convergence. Moreover, as China seeks to rebalance from an investment to a more innovation-, technology,

and services-driven economy, it will need to harness the growth potential of its most developed and innovative metropolitan areas and city clusters along the east coast. All this suggests that the recent convergence process may continue to slow or even reverse in the future. How to promote leading regions as drivers of growth while mitigating inequality in lagging regions thus remains a predominant policy concern for China as it embarks on its 14<sup>th</sup> Five-Year Plan. Against this backdrop, this paper examines the spatial patterns of economic growth and its underlying drivers, and draws policy implications to achieve growth that is not only strong but inclusive (Box 4).

## Box 4. Economic geography, growth and inclusion

A decade ago, the World Bank published a World Development Report called Reshaping Economic Geography. The report looked at the important role of spatial transformation in economic growth, the underlying forces driving it and policies that could help countries harness the benefits of economic densification while at same time ensuring inclusion. The report is framed around three D's that encapsulate the forces that shape economic geography: Density, Distance and Division.

- **Density:** Density refers to the geographic concentration and agglomeration of economic activity. Economic density can be thought of as the level of output produced per unit of land area and tends to be highly correlated with population density. Cities and urbanization are the direct manifestation of economic densification.
- **Distance:** Distance refers to the economic cost of moving goods and factors of production across space. This is a function of physical distance between locations as well as the quality of connectivity, e.g. available transportation and communication infrastructure.
- **Division:** Division refers to frictions caused by regulatory and institutional barriers that restrict the mobility of goods, people, and services across space.

This principal framework informs this chapter. Until the mid-2000s, China's rapid and unbalanced growth was the result of a conscious decision to not resist density – which is reflected in the Deng Xiaoping quote that opens this chapter. The paradigm shifted during the last 15 years when efforts to achieve more balanced growth and revitalize the rural economies led to high investment-led growth in lagging regions. While this strategy has reduced economic distance and produced higher growth in lagging provinces, the economic benefits of density will likely persist and maybe even increase as China becomes a more services and innovation driven economy with agglomeration effects favoring the larger and more globalized urban areas along the east coast. Policies should not resist this trend but rather reinforce it by addressing remaining barriers to factor mobility (reducing division) and creating balanced development through higher fiscal equalization grants to lagging regions.

## China's changing geography of growth

China's rapid economic expansion over the past four decades was initially accompanied by widening economic disparities across regions. During the first three decades following China's opening up, regional disparities widened, as growth in the coastal regions outpaced the rest of the country (Figure 25, top panels).<sup>10</sup> This was partly a consequence of advantageous initial conditions, including a favorable geographic location and higher initial levels of development. These fundamental endowments were reinforced by China's market-oriented reforms, which favored faster urbanization and development in the densely populated coastal region. In particular, the creation and success of Special Economic Zones (SEZs)—which started in 1980 in four cities in the coastal provinces of Guangdong and Fujian—led to rapid industrialization and gains in productivity growth along the coast. In addition to being the recipient of the majority of foreign direct investment, the coastal region also received a disproportionate share of the government's capital investment (53 percent, versus 25 and 21 percent to the central and western regions, respectively) between 1999 to 2005.<sup>11</sup> Until today the eastern coastal area remains China's main economic hub, accounting for more than half of China's GDP and 84 percent of its exports, despite having just over a third of its population.





Sources: NBS, World Bank staff calculations.

**Since the mid-2000s, China experienced a process of gradual regional convergence.** Regional disparities have trended downward, with the central and western regions gradually closing the per capita GDP gap with the wealthier eastern region (Figure 26 upper panel). Although China's secular deceleration in growth over the past decade affected all regions, the slowdown was most pronounced in the coastal regions. As a result, per capita growth in non-coastal regions has continuously exceeded that of the coastal region since 2008. Generally, the last 15 years have seen provinces with lower levels of initial per capita GDP outpacing growth in richer provinces, as evidenced by the downward sloping trendline in Figure 26. Consequently, the gap in per capita GDP between these regions has narrowed over the past decade.

<sup>&</sup>lt;sup>10</sup> Huang (2010).

<sup>&</sup>lt;sup>11</sup> Fan, Kanbur, and Zhang (2011), based on Yao (2009).



Figure 26. Lagging provinces started to catch up

Sources: NBS, World Bank staff calculations.

Figure 27. Within provinces, the rural-urban income gap started to converge over the past decade ...



**Rural and urban incomes exhibit a similar trend of convergence.** Within provinces, income growth in urban areas initially far outpaced rural areas, as higher productivity industrial and higher value service activities clustered in urban and peri-urban areas. This trend started to reverse in 2007, due to increased investment in rural areas, higher productivity growth, and expanding non-farm employment in rural areas (Figure 27). However, within-province inequality measured by the rural-urban income gap—remains markedly higher in poor provinces (Figure 28).

## Figure 28. ... but some provinces are more equal than others



Sources: NBS, World Bank staff calculations.

#### Box 5. The geography of inequality

**Income inequality in China increased sharply from the early 1980s following the reforms that spurred economic growth.** By 2008, China's income-based Gini coefficient reached its highest level at 49.1, a level found typically in highly unequal regions such as Latin America or Sub-Saharan Africa (Figure 29). The end of the 2000s represents a turning point, as the Gini coefficient began to fall, declining to 46.2 in 2015 (Figure 30).<sup>12</sup> More recently, inequality began to surge again in 2015, bringing renewed concern over the country's high levels of inequality. The latest official estimate for 2019 put China's income inequality at 46.5, a level similar to or slightly lower than some of the most unequal large developing countries, such as Mexico, Brazil, or South Africa, but significantly higher than OECD countries or economies in East Asia.<sup>13</sup>

<sup>&</sup>lt;sup>12</sup> Scholars have debated whether China has reached a critical turning point in development, <sup>12</sup> as reflected in the "great Chinese inequality turnaround" Kanbur et al. (2020), *Ibid*.

<sup>&</sup>lt;sup>13</sup> World Bank (2018).



**Sources:** WDI, China NBS, and Ravallion and Chen (2007).

**Notes:** \*indicates that Gini coefficient is based on consumption. All other series are based on income.



Overall inequality	Within province	Between province
0.592	0.427	0.165
0.515	0.434	0.081
0.458	0.348	0.110
0.515	0.434	0.081
0.551	0.442	0.109
-0.041	0.015	-0.056
100	-37	137
	Overall inequality 0.592 0.515 0.458 0.515 0.551 -0.041 100	Overall inequalityWithin province0.5920.4270.5150.4340.4580.3480.5150.4340.5510.442-0.0410.015100-37

**Sources:** Reproduced from Kanbur et al. (2020), from CFPS.



**Sources:** China NBS and Ravallion and Chen (2007).

**Notes:** Gini coefficient is based on per capita disposable income.

To some extent, China's inequality trends upward and downward—are driven by spatial disparities. As income inequality increased during the 1990s and 2000s, inequality between rural and urban areas and among provinces steadily increased. The urban-to-rural ratio of disposable income and expenditures rose sharply until the mid-2000s (Figure 30). Several estimates suggest the contribution of urban-rural gaps to overall inequality grew from around one-third in the early 1990s to almost half by the mid-2000s.<sup>14</sup> Since then, and more strongly since 2009, the urban-rural gaps narrowed considerably, as did their contribution to overall inequality.

While spatial inequalities are, to a great extent, driven by urban-rural disparities, inter-provincial differences also play an important role in overall inequality. The rise in per capita GDP differences between provinces until the mid-2000s translated into an increasing contribution to inter-county inequalities. Similarly, income and consumption differences between coastal and inland regions grew faster than income inequality up to 2006, contributing increasingly to overall inequality. Since then, almost one-quarter of the decline in overall income inequality could be attributed to a narrowing of the disparities between provinces has fallen since 2010 from 16.5 percent to 10.9 in 2018 to the extent that the change in overall inequality is entirely due to reductions in inequality between provinces, as within province inequalities increased (Table 3).

<sup>&</sup>lt;sup>14</sup> Li et al. (2013), Kanbur et al. (2020), Sicular et al. (2020), ADB (2012).

This reallocation of capital to lagging regions was partly driven by market forces, as high commodity prices and lower wages fueled investment in the manufacturing and natural resource sectors in interior provinces. With wages and land prices rising rapidly in coastal areas, growth centers gradually shifted inward, propelled by investment in search of more cost-competitive locations. During that period, high commodity prices also benefited natural-resource rich provinces, such as inner Mongolia, Gansu, Qinghai, and Xinjian.





**Sources:** NBS, World Bank staff calculations. **Notes:** Investment rate is measured as the ratio of Gross Capital Formation to GDP.

Figure 33. State footprint remains larger in the interior provinces



Figure 32. ... as lower wages in interior provinces attracted capital



**Sources:** NBS, World Bank staff calculations. **Notes:** Urban real wage is for urban non-private firms.

**Public policies also played an important role in driving the shift toward interior provinces.** Regional development strategies, such as the "Great Western Development," "Rejuvenating Northeast Old Industrial Bases," and "The Rise of Central China," initiated in the early 2000s, channeled considerable government resources, including capital and social welfare spending, toward inland provinces. As a result, public spending went from contributing quite significantly to interprovincial inequality in the late 1980s and early 1990s to detracting from it since 2000. The fiscal stimulus package launched to mitigate the impact of the global financial crisis in 2008, and the ensuing expansion of public investment accelerated this trend. Between

2009 and 2017, fixed asset investment in infrastructure in central and interior provinces accounted for 36 percent of the total infrastructure investment during that period, up from 33 percent in the prior five years with the state share in investment accounting for a third and quarter in western and central provinces, respectively, larger than in coastal regions (Figure 33). Much of this increase in capital spending supported a major expansion in the country's infrastructure and transportation networks, in particular in central and interior provinces, reducing transportation costs and allowing them to integrate more fully into industrial value chains.<sup>15</sup>

<sup>&</sup>lt;sup>15</sup> Huang (2010) and Fan, Kanbur, and Zhang (2011), citing Khan and Riskin (2005). According to these authors, other policy changes associated with the inequality turnaround include the end of agricultural taxation, social protection investments (creation of minimum support program and rural collective medical schemes), and the rising of the minimum wage and its enforcement.



#### Figure 34. Structural transformation varies across regions



With deeper market integration across provinces, provinces not only converged, but regional specialization increased, shifting economic structures in both leading and lagging regions (Figure 34). The industrial structure of leading coastal regions has rapidly shifted toward services. Rapid urbanization and rising incomes boosted an urban middle class with growing purchasing power and more sophisticated consumer demand, fueling the emergence of dynamic e-commerce and consumer-oriented service industries in the coastal areas. Not surprisingly, innovation capacity is highest in China's most developed regions (Figure 35). While most export-oriented, high-technology industries remain concentrated in China's coastal areas, some interior locations, such as Sichuan's capital Chengdu and the province Chongqing, have started to gain ground in attracting notable clusters of high-tech firms. Moreover, improved connectivity and the search for lower labor costs gradually extended supply chains farther south and west, with labor-intensive and resource-based industries spreading more widely to central and interior provinces (Figure 36)











Sources: NBS, World Bank staff calculations.

Figure 37. Urban employment growth picked up in lagging regions in the past decade



As provincial production patterns shifted, the pull of economic activity to urban areas accelerated within lagging provinces. Within provinces, the process of spatial transformation changed markedly the decades. Initially, leading over regions experienced faster growth in urban employment. However, the last decade saw this pattern reverse, as urban job creation picked up in lagging regions, due to higher investment in manufacturing and infrastructure. At the same time, urban employment growth moderated in already highly urbanized leading provinces (Figure 37).

**Sources:** Ministry of Human Resources and Social Security, World Bank staff calculations.

Rising labor productivity and wages, in turn, fueled household income growth in lagging provinces.

After falling precipitously for the first decades of China's transition, the ratio of per capita disposable incomes in the Center and West relative to the East rose by 1.7 percentage points between 2013 and 2019.

## Narrower gaps but rising imbalances

While boosting growth and income convergence, the surge in investment in lagging regions was associated with diminishing returns and declining productivity growth. The surge in public investment in the lagging regions has been the predominant force behind the growth catch-up with the coastal areas. Still, the excessive build-up in physical capital has also led to diminishing returns to capital accumulation, as evidenced by declining real returns to capital, especially in provinces with high investment rates (Figure 38). Finally, the diminishing returns to factor accumulation are also reflected in TFP growth—a measure of the overall productivity in the use of production factors—which has generally weakened in China in the past decade, but disproportionately so in regions that experienced high investment (Figure 39).





Sources: NBS, World Bank staff calculations.

Since internal resource mobilization in lagging regions is constrained, resource transfers from other parts of the country partly financed the investment boom. The savings-investment position has deteriorated in several provinces that have experienced an increase in investment share in GDP (Figure 40). Therefore, intra-provincial capital flows increasingly financed the rise in investment. These capital flows took the form of direct fiscal transfers, but to a larger extent, financial flows through the banking system.

Figure 40. The savings-investment position has deteriorated in many provinces



Sources: NBS, World Bank staff calculations.

Direct fiscal transfers from the central government increased over the past decade but still account for a relatively small portion of crossprovincial capital flows. China's intergovernmental fiscal system has been characterized by persistent fiscal imbalances; vertically, across levels of government and horizontally, across provinces and within provinces across counties. Subnational governments, especially in lagging regions, rely heavily on fiscal transfers from higher-level governments. On average, transfers are estimated to account for about 70 percent of county-level public spending. There is significant variation across counties, with transfers accounting for 56 percent of

spending in the 20 percent of counties that are least transfer-dependent, but about 90 percent in the 20 percent of counties that are the most transfer-dependent. Nevertheless, fiscal disparities remain sizable even after accounting for transfers (Figure 42). Moreover, direct fiscal transfers largely finance recurrent spending. By contrast, public capital expenditures tend to be financed through subnational debt, predominantly through off-budget local government financing vehicles (until 2016) and through local government bonds under quota, assigned by the central government (after the 2016 budget reforms).





1953 1959 1965 1971 1977 1983 1989 1995 2001 2007 2013 2019

**Sources:** NBS, MOF, World Bank staff calculations. **Figure 43. Credit growth accelerated, especially in lagging regions** 



Sources: NBS, PBOC, World Bank staff calculations.

Figure 42. ... and horizontal imbalances prevail despite equalizing transfers



Growing investment created a demand for financing in lagging regions, attracting interprovincial capital flows from other regions. A dominant share of the intra-provincial capital flows has been channeled through the financial system (Figure 44). As local governments, local government financing vehicles, and other corporate borrowers ramped up borrowing to fund increased investment, credit growth accelerated. Figure 43 shows how total credit growth, including borrowing by governments, firms, and households started to expand rapidly over the past decade, especially in some lagging regions. At the local level, city rural commercial banks are often involved in extending

loans to smaller businesses within their jurisdictions, relying in turn on wholesale funding from the interbank market to finance credit expansion.

Figure 44. A dominant share of the intra-provincial capital flows has been channeled through the financial system



Sources: NBS, MOF, World Bank staff calculations.





Sources: MOF, NBS, World Bank staff calculations.

The sizeable credit-financed investment boom has left many provinces saddled with large debt burdens. The rapid expansion of credit (both bank and nonbank) and mounting debt, combined with sharply diminishing returns to investment, render the current investment-driven convergence model unsustainable. While rapid capital accumulation enabled lagging regions to achieve convergence in output, labor productivity, and incomes, it has widened imbalances and growing risks. The public debt burden has risen sharply, especially in poorer provinces (Figure 45). Financial distress signals associated with interconnected subnational fiscal, corporate, and financial institutions

abounded in recent years, as evidenced by defaults and acute distress in several subnational corporates and some local banks. Financing conditions of local governments remain favorable regardless of their level of indebtedness (Figure 46). But off-budget, more leveraged Local Government Financing Vehicles (LGFVs) have seen their risk premia rise, especially after authorities announced that they would no longer bear the losses incurred by the LGFVs, starting in 2017-18. A broader repricing of risks and localized sudden stops in liquidity access in interbank markets will place severe financial pressure on some highly leveraged regional banks, firms, and local governments and further constrain investment-driven growth.

## Figure 46. Easy financing conditions for local governments ...

Figure 47. ... but some re-pricing of risks associated with Local Government Financing Vehicle Debt



**Sources:** MOF, NBS, WIND database, World Bank staff calculations. **Notes:** LGFV bond credit spread are calculated by CIB research using weighted average of LGFV bond outstanding, excluding bonds with a remaining maturity of less than half a year, bonds with special terms, rights, and credit enhancement measures, and bonds with non-fixed interest rates.



**Sources:** NBS, World Bank satff calculations.

Finally, environmental impacts vary spatially depending on regional industrial structures, exposing some provinces to risks associated with economic losses and stranded assets as China transitions to a greener growth path. China's transition to a low carbon economy also has spatial implications. Some of the country's most developed coastal regions and leading cities-Beijing and Shanghai-have already decoupled emissions from output growth. In contrast, emissions in China's more resourcedependent interior provinces, such as Shanxi and Inner Mongolia, and the industrial heartland around Shandong, Hebei, and Jiangsu continue to grow rapidly (Figure 48). Since these regions' economic fortunes are

tied to carbon-intensive industries and manufacturing, they face significant transition costs.

## **Despite convergence, spatial imbalances persist in social outcomes**

With rising incomes, spatial disparities in social indicators have narrowed. Rural-urban gaps in some key health indicators, such as maternal mortality, have declined and almost disappeared in recent years (UNICEF 2018). The neonatal mortality rate in rural areas, which was three times that of urban areas in 1991, now stands at around two. Disparities in other social indicators across provinces have also narrowed in the past decades, as lagging provinces were able to progress faster than richer ones. In the 2000s, for instance, life expectancy and the average years of schooling in the poorest provinces grew twice or even three times as fast as more affluent ones (Figure 49). Other indicators, such as maternal and child health and school enrollment, experienced similar progress, particularly at the primary and junior secondary level, which is now universal across the country.



Figure 49. Disparities in life expectancy and years of schooling narrowed across provinces

Sources: United Nations (2019), CEIC, World Bank staff calculations.

**Gaps persist across provinces in the provision of and access to public services.** Despite significant progress, the infant mortality rate is still high in the lagging regions (UNICEF, 2018) and remains more than twice as high in rural as in urban areas. In addition, unlike compulsory education, the attendance rate among senior secondary school-age children varies widely across provinces. Nine in 10 children in most eastern provinces attend senior secondary level, while fewer than six in 10 do so in the western region (UNICEF, 2018).

**New migrants to urban areas, including children, are particularly affected by unequal access to public services.** In 2018, there were over 280 million migrant workers in China.<sup>16</sup> Given its characteristics, the Hukou system continues to offer unequal access to the social welfare system. Only 17 percent of migrant workers have access to unemployment insurance. Most migrant children are attending schools, but access to public schools may be limited. One in 5 children at the compulsory education stage has the option to study in private schools only.<sup>17</sup>

**Public spending on social services continues to diverge, affecting the quality of public services across provinces.** In the late 1990s the government started to introduce and roll out medical insurance schemes to cover urban and rural areas that expanded coverage from less than 10 percent in 2003 to 97 percent in 2019. Yet, medical insurance coverage is lower in the poorest provinces (Figure 50), particularly in the central region. The cash transfer program, Dibao, was adopted in urban areas in 1999 and expanded to rural areas in 2007. While social assistance programs (including Dibao, Tekun, and temporary assistance) have expanded significantly in recent years, coverage remains low, at around 4 percent of the total population. Per capita spending on education also varies with the province's GDP, with the eastern region spending almost twice as much as the western region (Figure 51), although the relationship is not linear. This is also reflected in sizeable provincial differences in student-to-teacher ratios for senior secondary and higher education students.

<sup>&</sup>lt;sup>16</sup> "National Monitoring and Survey Report on Rural Migrant Workers 2018," released by the National Bureau of Statistics, http://www.stats.gov.cn/tjsj/zxfb/201904/t20190429\_1662268.html

<sup>&</sup>lt;sup>17</sup> UNICEF (2018).

Figure 50. Access to health insurance varies widely across provinces

Figure 51. Poorer provinces spend less on education than richer ones



Sources: CEIC, World Bank staff calculation.

## Looking ahead

Since the mid-2000s, regional disparities in output, labor productivity, and income have narrowed across China's provinces and within provinces across rural and urban areas. Mounting debt and declining returns are growing constraints to investment-driven convergence. Higher financing costs and tighter lending standards will likely weigh on investment, especially in lagging regions with highly leveraged balance sheets. At the same time, China will need to embrace the growth potential of its most developed and innovative metropolitan areas and city clusters if it wants to rebalance the economy to a more innovation-, technology-, and services-driven growth model. And China's commitment to accelerating the transition to a low carbon economy will mean a faster exit from polluting industries with asymmetrical impacts on some of China's poorest regions. All this suggests that the recent convergence process may slow or even reverse in the future. Rather than resisting this trend and the forces of densification, market-oriented policies should reinforce it. Instead of relying on investment-driven growth in lagging regions, structural and fiscal policies could play an important role in reaping the benefits of agglomeration and urbanization while mitigating the very real consequences of resultant spatial disparities on people's lives and opportunities.

- 1) Structural policies to foster market integration and reduce spatial frictions and distortions in factor markets. This outcome involves reducing jurisdictional and institutional barriers that hamper the mobility of labor, capital, and goods across provinces. For example, further liberalizing the residency system, as some provinces have started doing, and expanding Hukou reforms to first-tier cities will reduce labor mobility barriers and increase equal access to public services for migrants. Moving toward a unified national social protection and pension system with portable benefits would also remove barriers to labor mobility between provinces and across cities. In terms of capital allocation, an improved debt resolution framework to enable an orderly exit and deleveraging process would not only address potential localized distress but also facilitate the transition to adequate pricing of risk and more market-based allocation capital, including across geographies.
- 2) Further strengthening the distributional aspects of the intergovernmental fiscal system. This would help address regional and rural-urban differences in access to social services, which are reduced and less constrained by the limited financing capacity in poorer regions. General transfers should be expanded further toward a fully-funded financing pool for universal basic public services, with distribution to subnational governments according to a needs-based formula that accounts for

differences in fiscal capacities and the costs of delivering services. Using intergovernmental fiscal transfers instead of debt financing will not only reduce disparities but also allows for greater flexibility to rebalance public spending from excessive infrastructure investment. It permits a move toward more social spending, which would reduce social inequalities and likely generate long-term returns to human capital formation. A stronger role for transfers in lagging regions could be combined with reforms to enhance revenue autonomy. These include a recurrent property tax assigned to subnational levels, which would help close financing gaps and make especially richer provinces less dependent on central transfers thereby freeing up fiscal space for higher transfers to less developed provinces.

- 3) Reduce regional disparities in human capital investment and service delivery. Closely linked to the fiscal equalization agenda are reforms to boost the quality of public services in lagging regions. Improving educational and training quality to enhance learning outcomes in rural areas would increase social mobility and narrow opportunity gaps. Similarly, health insurance coverage should be expanded in lagging regions to ensure adequate protection against health-related shocks and access to affordable care.
- 4) Place-based interventions and regional development strategies tailored to regional comparative advantages. Spatially targeted, place-based fiscal policies and investments, especially in connectivity, may also help lagging regions. However, place-based policies should be carefully designed to avoid excessive and imbalanced public investment and facilitate an adjustment to regional comparative advantages. Including measures to improve the regional investment climate and competitiveness would not only help attract private investment but also increase the returns to public infrastructure investment.
- 5) Addressing asymmetric regional impacts of decarbonization to ensure a just transition. High carbon regions will require additional support to compensate for some losses from stranded assets. In addition, mitigating asymmetric impacts and social risks calls for a combination of increased labor mobility, including reforms of China's household registration system, efforts to diversify local economies away from coal, and strengthening social safety nets to protect households from adverse shocks associated with economic restructuring. While the costs associated with China's energy transition are concentrated, there are significant national and global benefits. Thus, there is a strong case for transition support to help exposed regions mitigate these risks and ensure that China's transition to a low carbon economy is fast and also fair.

## References

ADB. 2012. Asian Development Outlook 2012: Confronting Rising Inequality in Asia. Mandaluyong City, Philippines: Asian Development Bank, 2012.

CFPS. 2015. Institute of Social Science Survey, Peking University. China Family Panel Studies. https://doi.org/10.18170/DVN/45LCSO, Peking University Open Research Data Platform

Dib, G., F. Huang, and A. Poulou. 2020. "RCEP: Common Rule of Origin Could Boost Regional Trade by around USD90bn Annually." Nov. 17, 2020. <u>https://www.eulerhermes.com/en\_global/news-insights/economic-insights/RCEP-common-rule-of-origin-could-boost-regional-trade-by-around-USD90bn-annually.html</u>.

Fan, S., R. Kanbur, and X. Zhang. 2011. "China's Regional Disparities: Experience and Policy." *Review of Development Finance* 1 (1): 47-5. <u>https://doi.org/10.1016/j.rdf.2010.10.001</u>.

Ha, J, M Kose, F Ohnsorge and H Yilmazkuday. 2019. "Sources of Inflation: Global and Domestic Drivers", in J Ha, M Kose and F Ohnsorge (eds), Inflation in Emerging and Developing Economies, World Bank Publications.

Huang, Yukon, 2010. "Reinterpreting China's Success Through the New Economic Geography", Carnegie Papers, No. 115, 2010.

Kanbur, R., Y. Wang, and X. Zhang. 2020. "The Great Chinese Inequality Turnaround." *Journal of Comparative Economics* (forthcoming). First published Oct. 21, 2020. https://doi.org/10.1016/j.jce.2020.10.001

Kang, J. S. and W. Liao. 2016. "Chinese Imports: What's Behind the Slowdown?" IMF Working Paper 16/106, International Monetary Fund, Washington, DC.

Khan, A. R. and C. Riskin. 2005. "China's Household Income and Its Distribution, 1995 and 2002." *China Quarterly* 182 (June): 356-384.

Li, C., and J. Gibson. 2013. "Rising Regional Inequality in China: Fact or Artifact?" *World Development* 47 (July): 16-29. <u>https://doi.org/10.1016/j.worlddev.2013.02.008</u>.

Luo, C., S. Li, and T. Sicular. 2020. "The Long-term Evolution of National Income Inequality and Rural Poverty in China." *China Economic Review* 62 (August): 101465. https://doi.org/10.1016/j.chieco.2020.101465.

Moody's. 2020. "Regional Banks Are Most Vulnerable to the Coronavirus Outbreak." Sector In-Depth, Moody's Investors Service, April 29, 2020.

NBS (National Bureau of Statistics, China). 2019. "National Monitoring and Survey Report on Rural Migrant Workers 2018."

OECD. 2020. "Productivity Gains From Teleworking in the Post COVID-19 Era: How Can Public Policies Make It Happen?"

Parsley, D. C., and H. Popper. 2020. "Understanding Real Exchange Rate Movements with Trade in Intermediate Products." *Pacific Economic Review* 15 (2): 171-188.

Petri, P. and M. Plummer. 2020. "East Asia Decouples from the United States: Trade War, COVID-19, and East Asia's New Trade Bloc." Working Paper 20-9, Peterson Institute for International Economics, Washington, DC.

Ravallion, M. and S. Chen. 2007. "China's (Uneven) Progress Against Poverty." *Journal of Development Economics* 82 (1): 1-42.

Rozelle, S., H. Rahimi, H. Wang, and E. Dill. 2020. "Lockdowns Are Protecting China's Rural Families from COVID-19, But the Economic Burden Is Heavy." In *COVID-19 and Global Food Security*, edited by J. Swinnen and J. McDermott, 52-55. Washington, DC: International Food Policy Research Institute (IFPRI). <u>https://doi.org/10.2499/p15738coll2.133762\_11</u>

Sicular, T., S. Li, X. Yue, and H. Sato, eds. 2020. *Changing Trends in China's Inequality: Evidence, Analysis, and Prospects*. Oxford, England: Oxford University Press. https://books.google.co.kr/books?id=r8fXDwAAQBAJ

UN Children's Fund (UNICEF). An Atlas of Social Indicators of Children in China 2018.

United Nations, Beijing. https://www.unicef.cn/en/atlas-2018-en

UNICEF. 2018. UNICEF Annual Report 2018. New York, NY: UNICEF. https://www.unicef.org/reports/annual-report-2018

United Nations. 2019. China National Human Development Report Special Edition: In Pursuit of a More Sustainable Future for All: China's Historic Transformation over Four Decades of Human Development.

World Bank. 2018. *Global Economic Prospects: Broad-based Upturn, but for How Long?* January. Washington, DC: World Bank.

World Bank. 2020a. *Global Economic Prospects: Slow Growth, Policy Challenges*. January. Washington, DC: World Bank.

World Bank. 2020b. *China Economic Update, July 2020: Leaning Forward — COVID-19 and China's Reform Agenda*. World Bank, Washington, DC.

World Bank. 2020c. *Global Economic Prospects: Pandemic, Recession: The Global Economy in Crisis.* June. Washington DC: World Bank.

Yao, Y. 2009. "The Political Economy of Government Policies Toward Regional Inequality in China." Peking University,

China.https://www.researchgate.net/publication/239602765\_The\_political\_economy\_of\_government\_policies\_toward\_regional\_inequality\_in\_China

