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Assessing the Impact of the COVID-19 Pandemic on the Economies of China and Russia*



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Abstract. The COVID-19 pandemic has significantly affected economic development in countries around the world. It aggravated existing problems and increased the demand for economic transformation, modernization and qualitative development, triggered a new technological reform, which led to the emergence of new economic business forms and new consumption. The article assesses the impact of the COVID-19 pandemic on the economies of China and Russia. To achieve this goal, we review the state of business activity in the manufacturing and non-manufacturing sectors of the national economy, and summarize the main measures of the anti-pandemic policy implemented by the Chinese and Russian governments. We look into the dynamics of functioning of offline economic spheres that are aimed at personal communication (tourism, catering, retail, transport, culture, entertainment), as well as online spheres implying human-computer interaction (electronic retailing, express delivery, remote work, telemedicine) in the context of the COVID-19 pandemic. We make conclude that the extent of COVID-19 impact on the economy depends on the effectiveness of measures for its prevention and control. We are convinced that at the moment it is necessary to correlate these measures with economic and social development policies, and take into consideration increased consumption as an important aspect of mitigating the effects of COVID-19, accelerate the transformation and modernization of traditional industries, actively develop new economic business forms and build a more open monetary circulation both within the country and globally, thus enhancing the role of the state in global supply chains.

Key words: China, Russia, COVID-19 pandemic, economy, impact.

Introduction

The COVID-19 pandemic and the resulting social distancing, isolation, and travel restrictions have changed people's lifestyles and production modes and affected global economic and social development. According to the World Bank, the volume of world trade as of the end of 2020 decreased by 9.5% compared to the previous year¹. The implications of the COVID-19 pandemic have affected almost all economic sectors in one way or another. Airlines and cruise companies, casinos and hotels faced a reduction in the number of tourists by almost 90% [1]. A sharp decline in demand for food products on the part of hotels and restaurants led to a 20% drop in prices for agricultural products [2]. Negative dynamics were observed in many industries, in retail trade, and in the world commodity markets (*Figures 1 and 2*). Oil prices collapsed by 34%, investment activity slowed down by 5.5%².

¹ Source: World Bank. 2021. Global Economic Prospects, January 2021. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-1612-3.

² Source: *Ibidem*.

As a result, global GDP dropped in the first quarter of 2020 by 8.1% compared to the level of the fourth quarter of 2019; the decline accelerated to 13.7% in the second quarter of 2020³. According to the results of 2020, GDP decline in the world is estimated at 4.3% compared to 2019 (*Tab. 1*). The decline and slowdown in economic dynamics were observed in most countries. At the same time, among major economies, China and Russia demonstrated one of the highest levels of resistance to the crisis caused by the COVID-19 pandemic.

The aim of our study is to assess the impact of the COVID-19 pandemic on the economies of China and Russia.

Prevention and control of the spread of COVID-19 in China and Russia

Prevention and control policies have become the foundation of China's pandemic response strategy. The emphasis was placed on strict discipline in terms of compliance with quarantine measures, mass testing, and preventive transition to working

³ Source: *Ibidem*.

Figure 1. Dynamics of global economic activity indicators in 2020, % to the level of December 2019

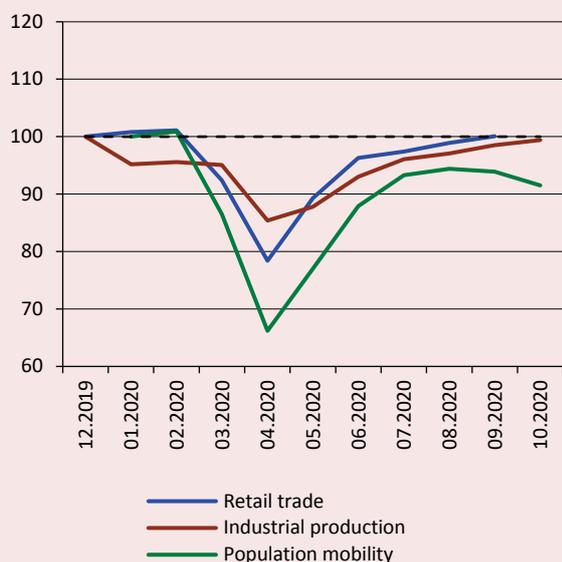
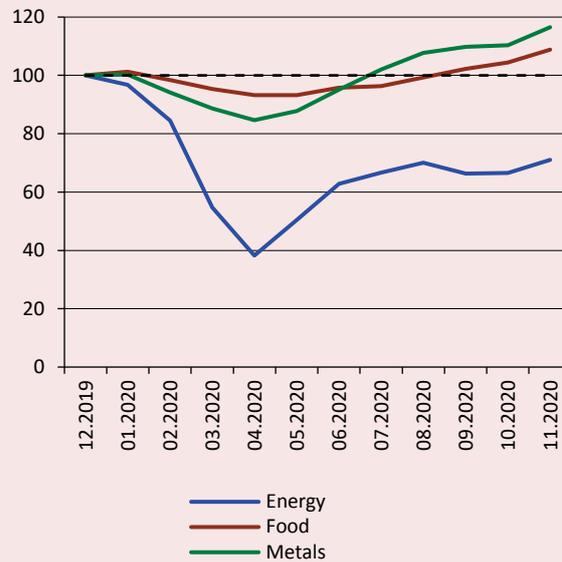


Figure 2. Dynamics of world prices for certain goods in 2020, % to the level of December 2019



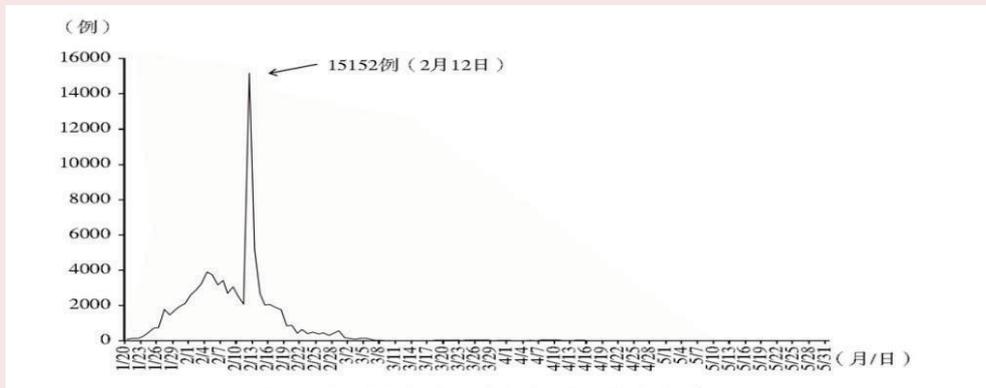
Source: World Bank. 2021. Global Economic Prospects, January 2021. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-1612-3.

Table 1. GDP growth rate, in % relative to the previous year

Country	2018	2019	2020 (estimate)	2021 (forecast)	2022 (forecast)
World	3.0	2.3	-4.3	4.0	3.8
Developed economies	2.2	1.6	-5.4	3.3	3.5
United States	3.0	2.2	-3.6	3.5	3.3
Euro area	1.9	1.3	-7.4	3.6	4.0
Japan	0.6	0.3	-5.3	2.5	2.3
Emerging markets and developing countries	4.3	3.6	-2.6	5.0	4.2
East Asia and the Pacific Basin	6.3	5.8	0.9	7.4	5.2
China	6.6	6.1	2.0	7.9	5.2
Indonesia	5.2	5.0	-2.2	4.4	4.8
Europe and Central Asia	3.4	2.3	-2.9	3.3	3.9
Russia	2.8	2.0	-3.0	2.6	3.0
Latin America and Caribbean countries	1.9	1.0	-6.9	3.7	2.8
Brazil	1.8	1.4	-4.5	3.0	2.5
Middle East and North Africa	0.5	0.1	-5.0	2.1	3.1
Saudi Arabia	2.4	0.3	-5.4	2.0	2.2
South Asia	6.5	4.4	-6.7	3.3	3.8
India	6.1	4.2	-9.6	5.4	5.2
Sub-Saharan Africa	2.6	2.4	-3.7	2.7	3.3
Republic of South Africa	0.8	0.2	-7.8	3.3	1.7

Source: World Bank. 2021. Global Economic Prospects, January 2021. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-1612-3; Rosstat.

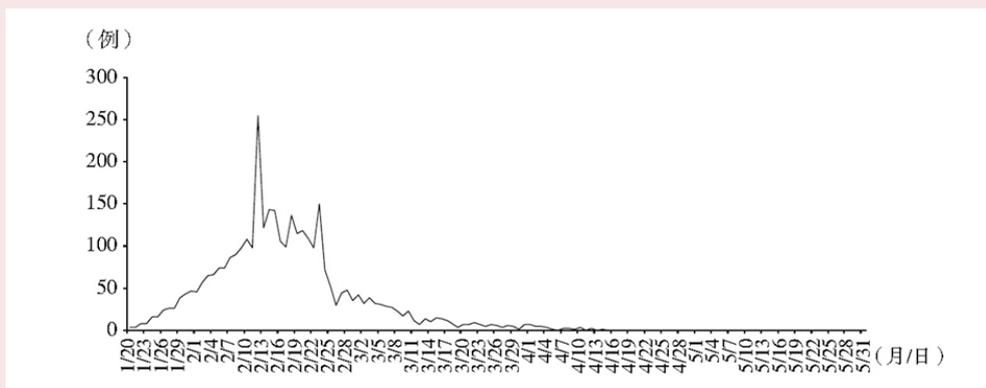
Figure 3. Daily new confirmed cases of COVID-19 in China



Note: 15,152 new confirmed cases of COVID-19 were reported on February 12 (13,332 clinically diagnosed cases in Hubei province were counted as the new confirmed cases on that day)

Source: *Fighting COVID-19: China in Action*.

Figure 4. Daily number of COVID-19 deaths in China



Source: *Fighting COVID-19: China in Action*.

from home. It took China just over a month to establish a preliminary control of the spread of COVID-19, about two months to reduce the number of daily new cases to less than ten, and about three months to achieve convincing results in the fight against COVID-19 in Wuhan and

Hubei, and also obtain significant strategic results in COVID-19 prevention and control (Fig. 3, 4)⁴. Currently, the COVID-19 situation in China is under control, but due to imported cases, there are still periodic outbreaks of the virus in different regions of the country.

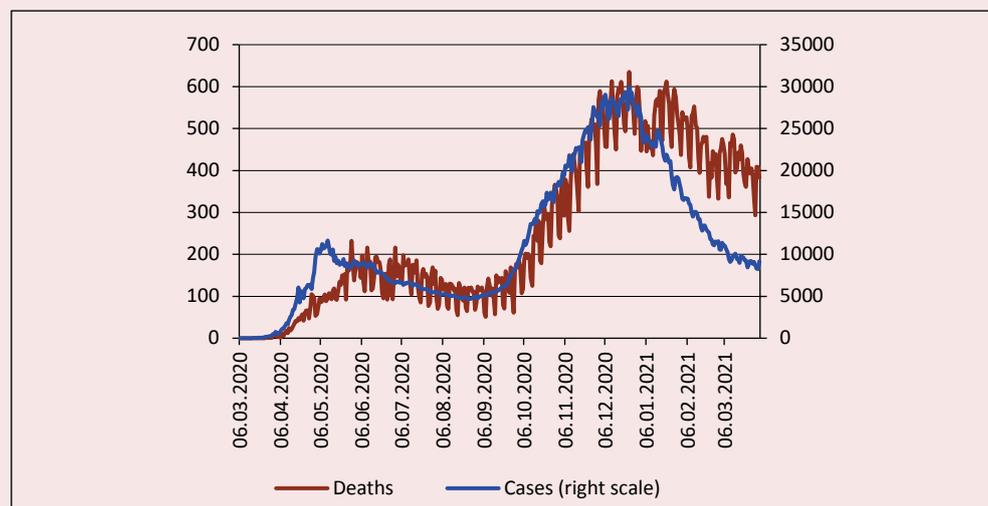
⁴ The course of COVID-19 prevention and control in China can be divided into five stages: 1) from December 27, 2019 to January 19, 2020 – rapid response to COVID-19; 2) from January 20, 2020 to February 20, 2020 – preliminary control over the spread of COVID-19; 3) from February 21, 2020 to March 17, 2020 – daily new COVID-19 cases gradually declined to less than ten; 4) from March 18, 2020 to April 28, 2020 – achievement of decisive results in fighting COVID-19 in Wuhan and Hubei, with a sharp decline in the number of COVID-19 deaths; 5) since April 29, 2020 – regular COVID-19 prevention and control. September 8, 2020, China held a national commendation meeting for the fight against COVID-19 to honor exemplary people who have made an outstanding contribution to this fight. China’s President Xi Jinping awarded Mr. Zhong Nanshan the Medal of the Republic in recognition of his significant contribution to the prevention, control, and treatment of COVID-19 in China and around the world.

In the fight against coronavirus, Russia has chosen a strategy of extensive testing for and the earliest possible detection of COVID-19⁵, compulsory monitoring of those who test positive, and a voluntary and advisable transition to remote work. The period of strict quarantine lasted six weeks, after which Russia started to relax the imposed restrictions for the population and business⁶ (Fig. 5).

In general, we can note that the strategy China used to counter the spread of COVID-19 has proven highly effective. The Chinese authorities managed

to suppress the pandemic very quickly and decisively and to prevent its second wave. The more lenient Russian strategy to combat the coronavirus looks less successful in comparison, but in many large countries the situation with the implementation of anti-pandemic policies was even more difficult. Thus, the death rate from COVID-19 in Russia (715 deaths per 1 million inhabitants) was significantly lower than in Italy (1,927), the UK (1,909), the United States (1,762), Brazil (1,675), Spain (1,645), France (1,514), Argentina (1,293) and Germany (960)⁷.

Figure 5. Daily number of COVID-19 cases and deaths in Russia



Source: yandex.ru/covid19.

⁵ Source: Golikova spoke about the Russian strategy to combat coronavirus. *RIA Novosti*. Available at: <https://ria.ru/20201228/strategiya-1591243205.html>

⁶ The chronology of COVID-19 prevention and control in Russia can be divided into six stages: 1) January 24, 2020 – March 5, 2020 – preparatory stage: testing systems to detect coronavirus were developed and their production was launched; operational headquarters to combat COVID-19 were established; the National Plan to prevent the import and spread of coronavirus infection was approved; entry of foreign citizens into the country was restricted; 2) March 6, 2020 – March 24, 2020 – coronavirus infection started spreading: first COVID-19 cases emerged; a ban on mass events was introduced; 3) March 25, 2020 – April 30, 2020 – the stage of strict quarantine: a single six-week period of non-working days was announced; self-isolation regime in the regions was introduced; remote work; shutdown of many enterprises; closure of state and interregional borders; rapid increase in morbidity; first deaths from COVID-19; 4) May 1, 2020 – mid-September 2020 – the restrictions began to be eased gradually against the background of a decline in the daily number of COVID-19 cases; cafes, restaurants, fitness centers, etc. were reopening; air traffic with some countries was resumed; the first COVID-19 vaccine was registered; 5) mid-September – late December 2020 – the second wave of COVID-19 morbidity emerged: infection started spreading rapidly; large-scale vaccination against COVID-19 in the regions began; authorities decided against the imposition of severe restrictions; 6) early January 2021 – present time – decrease in the incidence of COVID-19; mass vaccination of the population; resumption of regular flights with many countries.

⁷ Source: Johns Hopkins Coronavirus Resource Center (data as of April 12, 2021). Available at: <https://coronavirus.jhu.edu>

Literature review

The impact of the COVID-19 pandemic on various economic and social aspects has been widely studied in the scientific literature.

Scenarios of the evolution the pandemic and its implications for macroeconomics [3], financial markets and institutions [4, 5], transnational supply chains [6], foreign investment flows [7], and foreign trade [8] were evaluated on a global scale.

At the national level, the impact of the COVID-19 pandemic on the socio-economic situation in developed and developing countries (for example, the United States [9], Canada [10], Japan [11], Italy, Spain, the UK [12], Israel [13], African countries [14], Latin America [15], Central and South-East Asia [16, 17]) was analyzed. The development of the Russian and Chinese economies in the context of the new coronavirus infection was considered in [18–21]. Scientists performed variant calculations of economic and financial damage, estimated economic dynamics parameters and changes in consumer behavior in connection with the imposed restrictions⁸, substantiated the principles, priorities and vectors of post-crisis economic recovery.

Scientists have considered short- and long-term effects of public health deterioration caused by the COVID-19 pandemic (such as the loss of an opportunity for primary and secondary prevention, sedentary lifestyle, deterioration of general and mental health, etc.) on the functioning of the economy [22]. The factors that contribute to success in the fight against the spread of COVID-19 [23] and reduce its negative impact on economic development are identified⁹.

⁸ See: Guo Xiaobei. The impact of the epidemic on economy and relevant countermeasures. *China Financial and Economic News*, 2020.02.11; Cai Fang. In the long run, the epidemic won't weaken China's economic growth potential. *Front Page of China Daily (Global Edition)*, 2020.02.12; Wang Jianming. The impact of the epidemic on people's consumption behavior pattern and relevant countermeasures. *China Financial and Economic News*, 2020.02.18.

⁹ See: Liu Zhibiao et al. How would COVID-19 being regarded as a public health emergency of international concern affect the Chinese economy? *Nanjing Daily*. 2020.02.05.

Scientific literature pays significant attention to the impact of the COVID-19 pandemic on the industrial sector of the economy, mainly mining [24, 25], machine-building [26, 27], metallurgical [28] and chemical [29] industries, and energy [30]. According to researchers, the major impact on the industry was caused by a sharp drop in demand and a change in its structure, and by the prohibition of traffic and the disruption of supply chains¹⁰.

The areas most affected by the COVID-19 pandemic include the offline areas aimed at personal communication: tourism, transport, accommodation and food provision, healthcare, retail trade, and entertainment. There were reasonable concerns about the decline in access to foodstuffs due to falling incomes, and it is proposed to introduce additional social protection measures [31]. The loss of workforce, the decrease in the productivity and competitiveness of enterprises and the increasing complexity of logistics were named as key issues in agricultural production [32]. Economic implications for the dairy and meat industries, poultry farming and fishing were analyzed [33–35]. Facts are presented, which convincingly prove that the COVID-19 pandemic has challenged the hospitality industry as never before. In particular, the aviation industry has faced the most serious challenge in history. According to the International Air Transport Association, 95% of the world's aircraft fleet has stopped [36]. At the same time, the main burden of the crisis fell on the airline workforce [37]. The volume of railway passenger transportation has significantly decreased [38]. Travel restrictions have led to a sharp reduction in the number of guests, the income of hotels and catering establishments [39]. At the same time, researchers [40] note that the reopening of restaurants and the easing of travel restrictions will not help restore the usual inflow of customers, since

¹⁰ See: Li Qingjuan, Kong Xue. COVID-19 and China's industrial variation trend. *Shanghai Observer*, 2020.02.20. Huang Qifan. Some suggestions for economic development and manufacturing resumption under COVID-19. 2020.02.11.

people no longer feel comfortable in these places. In this regard, in order to minimize contacts between people and increase sustainability in the hospitality industry, it is important to introduce additional safety measures and use various contactless technologies (service robots, contactless payments, digital menus, etc.) [41].

Having analyzed relevant literature sources we find out that the development of the digital economy in the world has become a natural response of business and states to the challenges of the COVID-19 pandemic¹¹. Most public services started to be provided in electronic format. Many companies began to develop Internet projects and launched a wide-scale recruiting of specialists in e-commerce, PR and SMM [42; 43]. The share of households that purchase products via the Internet has significantly increased, and consumers have massively switched to online shopping and delivery services [32]. Internet traffic in those countries that adopted anti-pandemic measures has increased significantly [44]. Remote healthcare (telemedicine¹²) and working from home were no longer considered impracticable, as they were successfully used during the global isolation [45; 46].

Thus, recently, we note an increase in the number of theoretical and empirical studies devoted to the analysis of the impact of the COVID-19 pandemic and the resulting restrictions on the functioning of the economy. Representatives of various countries and economic schools used their own perspective to assess the ongoing changes in production chains and consumption patterns, described the experience of mitigating negative

¹¹ See: Cheng Shi, Gao Xinhong. Long-term impacts of the epidemic: The accelerated evolution of digital economy and the focus of digital economy will be available for the grass-root level. *China Business News*, 2020.02.25; Chen Hongmin. After the epidemic, "Internet +" may usher in the Second Spring. *National Business Daily*, 2020.03.14.

¹² Telemedicine is the use of computer and telecommunications technologies to exchange medical information.

implications for residents and business. At the same time, comparative analysis of these processes in countries with different anti-pandemic strategies has not been given due attention.

Research methodology and data sources

The methodology of our study is based on the principles of system-wide and comparative analysis. We used general scientific methods and research techniques such as induction and deduction, and synthesis of theoretical foundations and empirical experience.

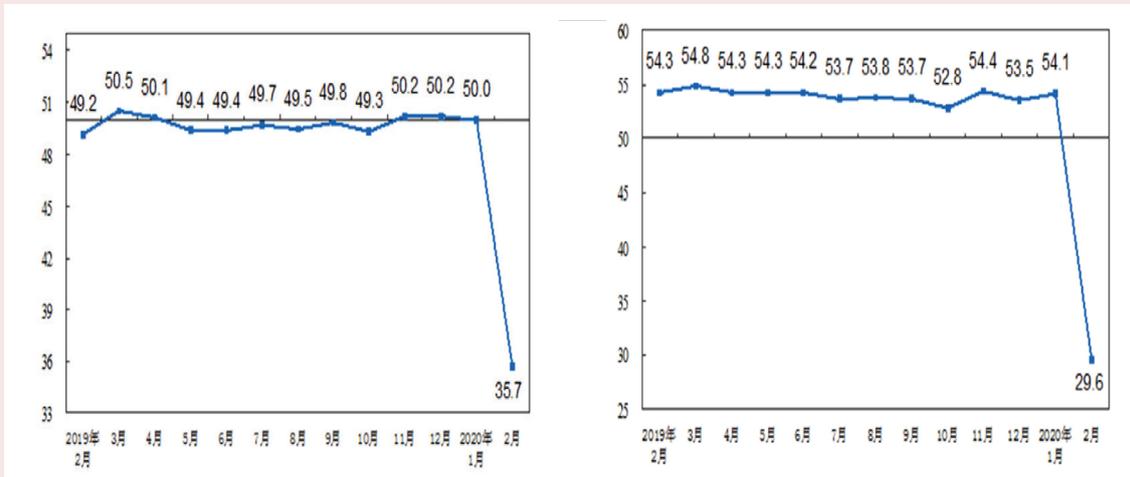
The information base of the study includes data from the World Bank, the Federal State Statistics Service of the Russian Federation, the National Bureau of Statistics of the People's Republic of China, the Ministry of Culture and Tourism of the People's Republic of China, the Ministry of Transport of the People's Republic of China, the Unified Automated Federal Information System on Cinema Viewing Statistics in Russia, the All-Russian Public Opinion Research Center (VTsIOM), the Institute of Research, Haitong Securities, Data Insight, Beijing Maoyan Culture Media, AskCI Consulting, Forward Industry Research Institute.

Research findings

Overall impact of the COVID-19 pandemic on the economies of China and Russia

The extent of the impact of COVID-19 on production depends on the effectiveness of disease prevention and control. According to the National Bureau of Statistics of China, in February 2020, the Manufacturing Purchasing Managers' Index (PMI) and the Non-Manufacturing Purchasing Managers' Index in China were 37.5% and 29.6% respectively; they declined by 14.3 p.p. and 24.5 p.p. respectively from the last month, and the two indices both hit all-time lows, which means that the impacts of COVID-19 on macroeconomy are quite extensive (Fig. 6). Meanwhile, in view of the index decline, the non-manufacturing sector suffered more than the manufacturing sector.

Figure 6. China's Manufacturing PMI and Non-Manufacturing PMI from February 2019 to February 2020 (on a seasonally adjusted basis), %

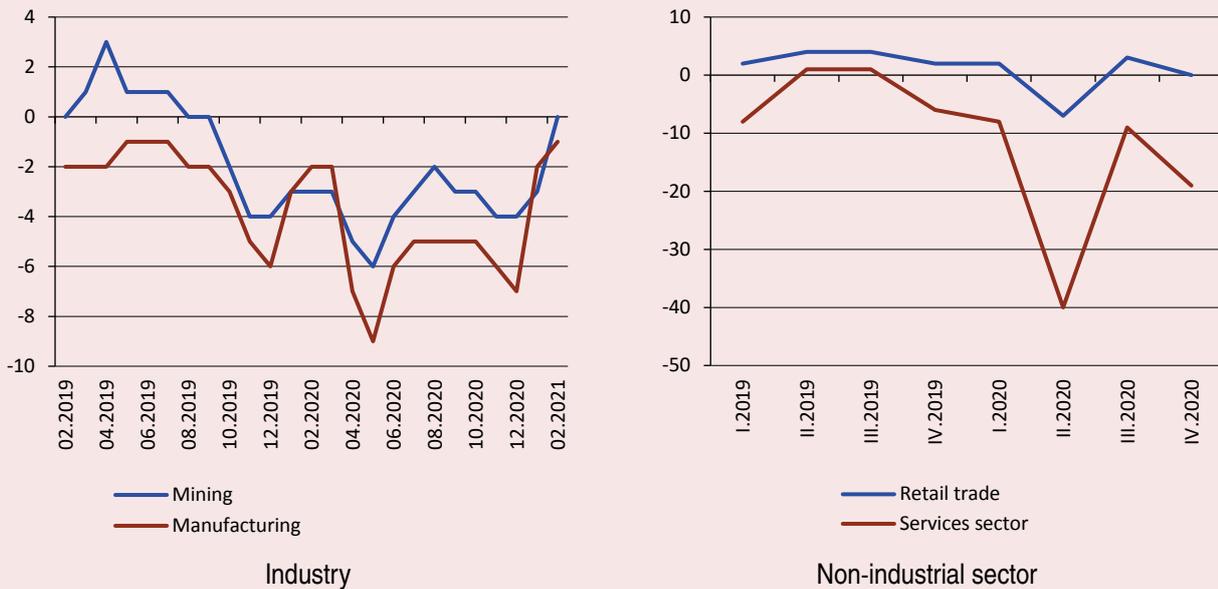


Manufacturing sector

Non-manufacturing sector

Note: 50% indicates that the index is the same as the previous month.
Source: National Bureau of Statistics of China.

Figure 7. Business confidence indices* in the Russian economy in 2019–2020



* The indicator presents an arithmetic mean of the “balance sheets” of the answers of enterprises’ heads to questions about expected output, actual demand, and current balances of finished products (the latter with the opposite sign).
Source: Rosstat.

Business activity in the Russian economy has also been negatively affected by the pandemic. However, the Business Confidence Index (BCI) in industry began to fall since the end of 2019, amid

rising tensions in world trade and the associated decline in prices for Russia’s major export goods. The implementation of restrictive anti-pandemic measures globally and in Russia made the situation

even worse. According to Rosstat, the BCI in Russian mining decreased from -3 to -6 from March to May 2020, and in manufacturing – from -2 to -9. The non-production sphere shows similar, but at the same time more pronounced dynamics of the BCI. Real incomes have been falling since 2014, thus business activity in the consumer sector is being restrained. Due to COVID-19, the BCI in retail trade decreased from 2 in the first quarter of 2020 to -7 in the second quarter, and the BCI in the service sector declined from -8 to -40 (Fig. 7).

In response to the impact of COVID-19, governments of China and Russia have launched measures to support the economy. The Chinese government has launched a policy to ensure stability in employment, financial transactions,

foreign trade, foreign and domestic investment, and consumer expectations (Tab. 2). The state has committed itself to providing jobs, basic necessities of life, the work of market actors, food and energy security, stable industrial and supply chains, the normal functioning of primary-level governments so as to ensure the stable economy and spare no effort to overcome the implications of COVID-19.

The Government of the Russian Federation in April 2020 developed (and subsequently regularly updated) a plan to overcome the economic implications of COVID-19¹³. The plan provided for measures to support the population, business and regions (Tab. 3). A list of the most affected industries¹⁴ was formed, and they received special support. The authorities tried to minimize the

Table 2. Some policies issued by China to respond to COVID-19 since its outbreak

Area	Measures/documents
Healthcare and treatment	Emergency investment of 300 million yuan was allocated from the central budget. In 2020, the central government arranged subsidies for basic public health services and primary-level epidemic prevention and control to a total of 60.33 billion yuan.
Stabilizing prices and ensuring supply	Emergency Notice on Maintaining Normal Production and Marketing Order of Animal Husbandry and Ensuring the Supply of Meat, Egg and Milk Market; Emergency Notice on Further Improving the Agri-businesses Interconnection and Improving the Supply Chain System of Agricultural Products in the Period of Epidemic Prevention and Control; Notice on the Promotion of Typical Practices of Ensuring the Supply of Daily Necessities in the Period of Epidemic Prevention and Control
Tax preferences	Announcement on Tax Policies Related to the Support of COVID-19 Prevention and Control; Notice on Tax Collection and Administration Matters that Support the Resumption of Operation and Production by Individual Businesses; Guidelines on Preferential Tax Policies that Support Epidemic Prevention and Control and Economic and Social Development
Resumption of operation and production	Notice on the Work of Helping Small and Medium Enterprises to Return to Work and Resume Production and Overcoming the Difficulties Together; Emergency Notice on Solving Current Difficulties and Accelerating the Resumption of Operation and Production of Breeding Industry; Notice on Ensuring Foreign Trade and Foreign Investment and Promoting Consumption While Responding to COVID-19; Implementing Opinions on Coordinated Promotion of Epidemic Prevention and Control, Development of Economy and Society, and Transportation
Financial support	Notice on Further Strengthening the Financial Support in the Period of COVID-19 Prevention and Control; Notice on Further Implementing the Periodically Delayed Repayment of Capital and Interest for Loans to Micro, Small, and Medium Enterprises; Guidance on Further Strengthening the Financial Services of Micro, Small, and Medium Enterprises
Providing support to enterprises	Notice on the Proper Handling of Labor Relations in the Period of COVID-19 Prevention and Control; Notice on Strengthening the Cooperation of Financial Service of Industries of Banking and Insurance in Carrying out COVID-19 Prevention and Control; Emergency Notice on Winning the Fight against COVID-19 Prevention and Control and Strengthening the Financial Support of the Key Enterprises that Guarantee the COVID-19 Prevention and Control
Source: own compilation based on publicly available materials.	

¹³ Source: <https://www.economy.gov.ru/material/file/b0c229091827310f12ee94b2d7ee091c/Plan.pdf>

¹⁴ The list includes road transportation, air, water and rail transport, tourism, exhibition activities, hotels, entertainment and leisure, catering, consumer services, culture and sports, non-industrial retail, dental services, additional education, mass media.

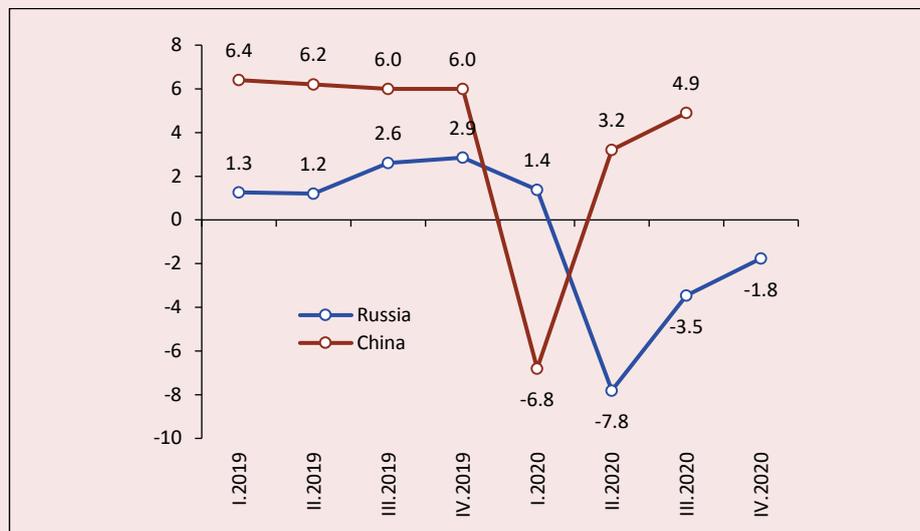
Table 3. Policy of the Government of the Russian Federation to fight COVID-19

Area	Measures
Social support	Allowances for families with children, sick leave for employees over 65 years of age, support for the unemployed, assistance to people with disabilities, support for social workers, support for employees and volunteers, assistance to tourists, extension of the validity of documents, loan repayment holidays, moratorium on the payment of penalties for housing and communal services, monitoring of essential goods, online sales of medicines
Healthcare system mobilization	Providing regions with necessary medical equipment; ensuring adequate bed capacity and bed availability in hospitals; providing hospitals with oxygen; training medical workers; creating rapid COVID-19 tests, as well as test systems for detecting immunity to the virus; developing a vaccine against COVID-19; increasing the production of antiseptics; preparing and constantly updating methodological recommendations for the diagnosis and treatment of acute respiratory viral infection, as well as for the prevention, diagnosis and treatment of new coronavirus infection; providing additional payments to medical workers who are fighting COVID-19; increasing the production, procurement, supplies and stocks of ventilators, medical devices and medicines to combat COVID-19 in the Russian Federation; providing increased insurance guarantees for doctors; developing a system for providing psychological assistance to doctors due to COVID-19; simplified state registration of about 40 types of medical devices; purchasing at least 1.2 thousand ambulances for regions
Measures to support the economy	Moratoriums on bankruptcy and business inspections, loan repayment holidays for businesses, interest-free salary loans, reduced insurance premiums, tax holidays, deferred rent payments, assistance to exporters, gratuitous subsidies, license renewal, support for backbone enterprises, non-refundable loans, support for regions that experience a fall in incomes, support for people's incomes
Changes in the education system	Organizing distance learning for students; developing recommendations for additional education for children; developing an online course on the distance learning process for teachers; providing computer equipment for 234 thousand schoolchildren, mainly from low-income and large families, and for 20 thousand teachers; online submission of documents for enrollment at higher education organizations
Gradual ease of restrictions in regions	Methodological recommendations for the gradual removal of restrictive measures (from the zero to the third stage). Stage zero: almost all the restrictive measures imposed in connection with the spread of COVID-19 are in effect in the region; industrial and construction enterprises and continuously functioning organizations are operating. Stage three: shops and service companies can operate in the region without restrictions on the area and number of visitors; cafes, educational institutions, hotels, as well as parks and squares can open, provided that visitors observe social distancing.
Liability for breaking the COVID-19 lockdown	Administrative and criminal liability for breaking the lockdown (up to seven years of imprisonment). Introduction of lockdown and employee movement permits in several Russia's regions.
Source: own compilation according to the website stopkoronavirus.rf.	

related administrative burden (customs procedures, licensing, certification, public procurement, technical inspections, etc.) and unproductive business costs (moratorium on inspections, cancellation of fines and penalties, postponement of mandatory certifications). Organizations could take advantage of deferred and reduced tax and insurance payments. The moratorium on bankruptcy was introduced so as to protect enterprises from creditors. People's income and employment was protected by providing simplified sick leave, additional allowances for families with children, loan repayment holidays in case of a 30% reduction in income, and interest-free loans to employers to pay wages.

The implementation of these measures made it possible to improve the economic dynamics considerably. Thanks to the effective control of the epidemic, as well as the introduction and implementation of response policies, the economies of Russia and China have shown a V-shaped recovery. In the first quarter of 2020, China's GDP fell by 6.8%, but already in the first three quarters of the year, GDP growth was 0.7% compared to the corresponding period of the previous year (Fig. 8). Russia's GDP, after falling by 8% in the second quarter of 2020 compared to the same period of the previous year, slowed its decline rate to -3.5% in the third quarter of 2020 and to -1.8% in the fourth quarter of 2020.

Figure 8. GDP growth (decline) rate in Russia and China in 2019–2020, in % to the corresponding quarter of the previous year



Source: Rosstat, National Bureau of Statistics of China.

Thus, the governments of both countries managed to respond to the negative impact of restrictive measures in a timely manner and were able to support the economy. China became the only major economy in the world to show positive growth in 2020. In Russia, due to the more complex medical situation regarding the course of the pandemic, the economic recovery was delayed a little longer. It is expected that by the end of 2021, the Russian economy will fully recover from the shocks caused by the COVID-19 pandemic; according to the forecast of the Ministry of Economic Development of the Russian Federation, Russia's GDP in 2021 will grow by 3.3% under the basic scenario (under the conservative scenario –by 2.7%)¹⁵. As of the end of 2020, Russia's GDP declined by 3% (for comparison, in the absence of quarantine and other restrictions, GDP fell by 7.8% in 2009, and by 2% in 2015).

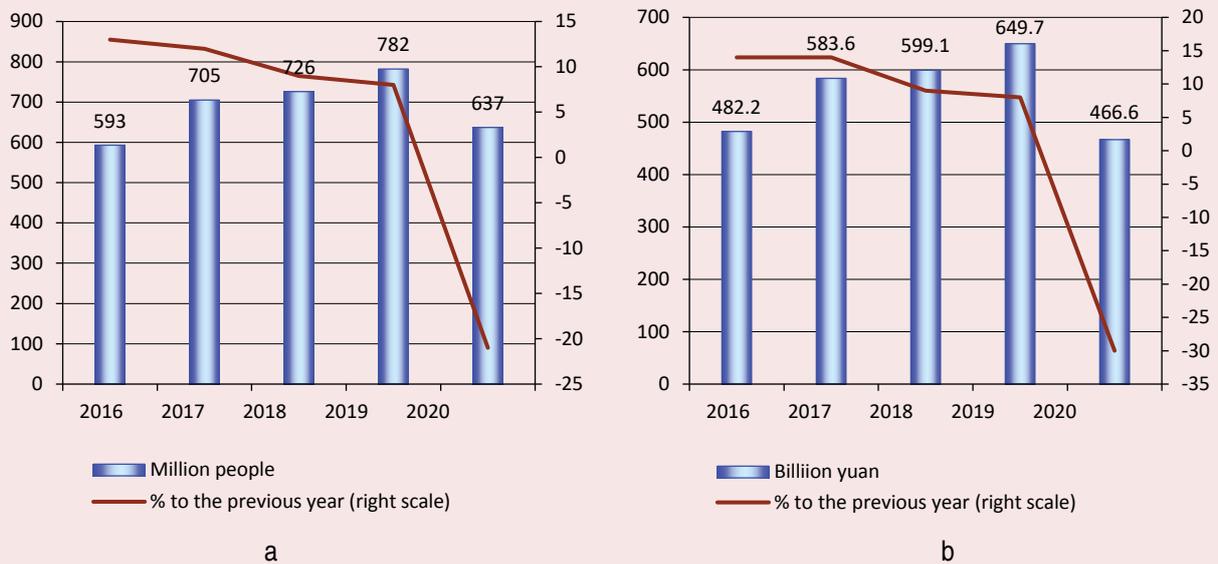
¹⁵ Source: <https://www.economy.gov.ru/material/file/956cde638e96c25da7d978fe3424ad87/Prognoz.pdf>

Impact of COVID-19 on offline areas involving face-to-face interaction

Offline areas focusing on face-to-face interaction (tourism, catering, retail trade, transport, offline entertainment) were the most sensitive to external circumstances and experienced a serious decline.

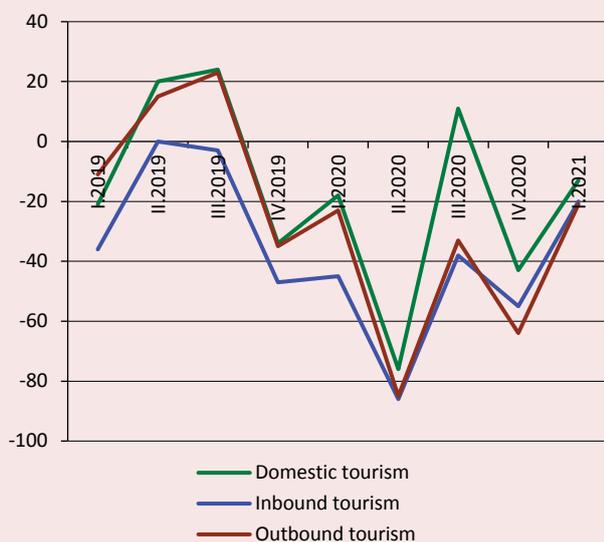
Tourism. A survey of Chinese travel agencies conducted by the Ministry of Culture and Tourism of the People's Republic of China in early 2020 showed that in the first quarter of 2020, the number of inbound tourists who used the services of Chinese travel agencies decreased by 87.2% compared to the previous year; the number of domestic tourists decreased by 84.1%, and the number of outbound tourists – by 77.7%. By the end of 2020, the tourism sector of the Chinese economy began to recover. During the eight-day celebration of the National Day of the People's Republic of China (celebrated on October 1), the number of tourists that visited tourist attractions across the country was by 21% less than a year earlier (against the background of

Figure 9. Number of tourists (a) and tourist income (b) on the National Day of the People's Republic of China in 2016–2020



Source: Ministry of Culture and Tourism of the People's Republic of China.

Figure 10. Estimated demand for tourism services in Russia in 2019–2021, balance (difference) of “improvement” and “deterioration” estimates, in p.p.



Source: Rosstat.

Figure 11. Number of inbound and outbound tourist trips in Russia in 2019–2020, as a percentage compared to the corresponding quarter of the previous year



a five-fold drop in tourist traffic at the beginning of the year; *Fig. 9a*). At the same time, tourist income decreased by 30% (*Fig. 9b*).

As for Russia, it also experienced a significant decline in business activity in the field of tourism during the period of anti-pandemic restrictions;

the demand for tourist services dropped as well. According to Rosstat, in the second quarter of 2020, the balance of estimates of demand for domestic tourism services (the difference between “improvement” and “deterioration” estimates) collapsed by 76 p.p., for inbound tourism – by 86 p.p., for outbound tourism – by 85 p.p. (*Fig. 10*). As a result, tourist trips stopped almost completely during this period (a 99% drop) (*Fig. 11*). Domestic tourism has become a driving force in the recovery of the tourism industry in the context of the pandemic. In order to support domestic tourism, the Russian government has introduced a tourist cashback program, under which citizens were returned part of their expenses for the purchase of domestic tours and booking tickets. According to the Federal Tourism Agency, about 300 thousand Russians participated in the program in 2020.

Public catering. The drop in the tourist flow was one of the factors causing a serious decline in the field of public catering. According to the National Bureau of Statistics of China, national catering revenue was 602.63 billion yuan in the first quarter of 2020, and it saw a year-over-year decrease of 44.3% compared to the catering revenue of 1.06441 trillion yuan in the first quarter of 2019 (*Tab. 4*). As an offline industry

characterized by people gathering together, the catering industry suffered a “cold winter” in the first quarter of 2020. After the prevention and control of COVID-19 in China achieved serious results, the government began to actively promote the resumption of work, production, business and market; consequently, the catering sector was being gradually restored. In the period from January to September 2020, the rate of decline in the turnover of public catering gradually slowed down. According to the results of nine months of 2020, the decline rate decreased by 23.9% compared to the corresponding period of 2019. Although the catering industry is gradually recovering, a serious downturn still leads to the fact that the growth rate of the national food service market is 16.7 p.p. lower than the dynamics of the entire consumer market in China.

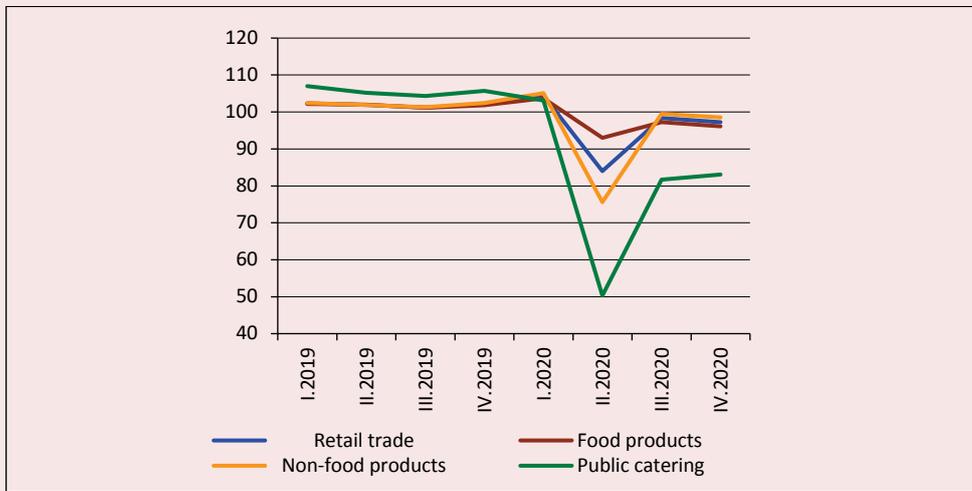
Similar trends are observed in Russia’s public catering sector. The decrease in its turnover in the second quarter of 2020 was 49.7% in comparison with the same period in 2019 (*Fig. 12*). At the same time, the decline in the Russian catering industry was stronger than in Russia’s retail trade as a whole, the volume of which in the period under consideration decreased by 16% (including retail trade in food products – by 7%, in non-food products – by 24.4%).

Table 4. Growth rate (decrease) in the volume of public catering and retail trade in China from January to September 2020, as a percentage compared to the corresponding period of the previous year

Period (2020)	Public catering	Retail sales of consumer goods
Jan.–Feb.	-43.1	-20.5
Jan.–Mar.	-44.3	-19.0
Jan.–Apr.	-41.2	-16.2
Jan.–May	-36.5	-13.5
Jan.–Jun.	-32.8	-11.4
Jan.–Jul.	-29.6	-9.9
Jan.–Aug.	-26.6	-8.6
Jan.–Sept.	-23.9	-7.2

Source: National Bureau of Statistics of China.

Figure 12. Retail trade and public catering turnover in Russia in 2019–2020, as a percentage compared to the corresponding quarter of the previous year

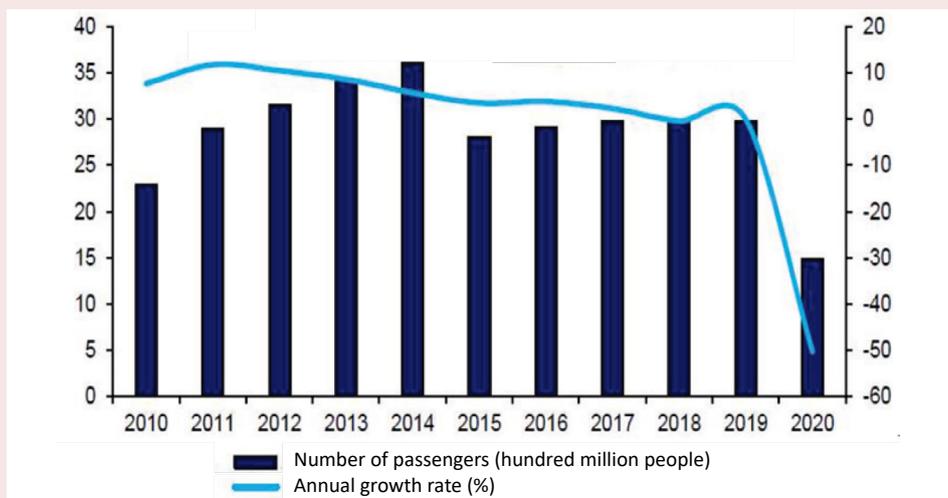


Source: Rosstat.

Transport industry. The Chinese New Year (celebrated in late January – early February) is accompanied by the largest passenger traffic on the planet. According to the Ministry of Transport of the People’s Republic of China, the 40-day Spring

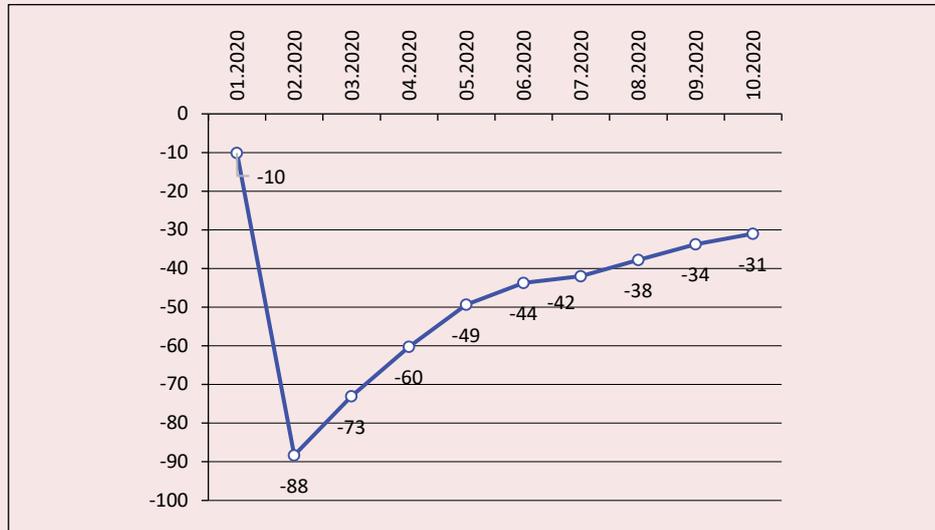
Festival travel rush in 2019 involved 2.98 billion tourists from all over the country. However, due to COVID-19, the 40-day tourist peak of the Spring Festival in 2020 was only 1.48 billion passengers, with a year-on-year decrease of 50.3% (Fig. 13).

Figure 13. Number of passengers (hundred million people) involved in the annual tourist flow during the Annual Spring Festival travel rush, and the year-on-year growth rate (in %)



Source: Ministry of Transport of the People’s Republic of China.

Figure 14. Growth (decline) rate of national commercial passenger traffic in China in 2020, as a percentage compared to the corresponding period of the previous year



Source: Ministry of Transport of the People’s Republic of China.

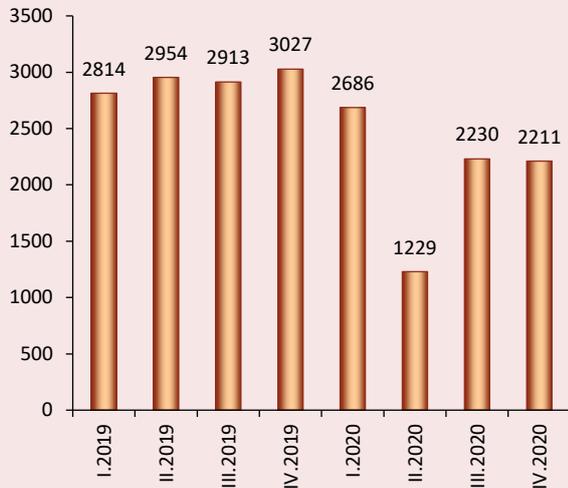
With the improved prevention and control of COVID-19, people’s willingness to go out has gradually recovered. According to the Ministry of Transport of the People’s Republic of China, China’s commercial passenger traffic has been gradually recovering, and in October 2020 it reached almost 70% of the same period of the previous year (Fig. 14).

In the second quarter of 2020, passenger traffic in Russia decreased by 54.2% – from 2.6 to 1.2 billion people. In the following quarters of 2020, passenger traffic began to recover: it increased to 2.2 billion people in the third and fourth quarters. On the whole, by the end of 2020, the volume of passenger transportation has decreased by 28.6%.

Cultural industry. The holidays and Chinese traditional festival, the Spring Festival, is a “golden period” for the Chinese theater industry. However, due to COVID-19, according to Beijing Maoyan

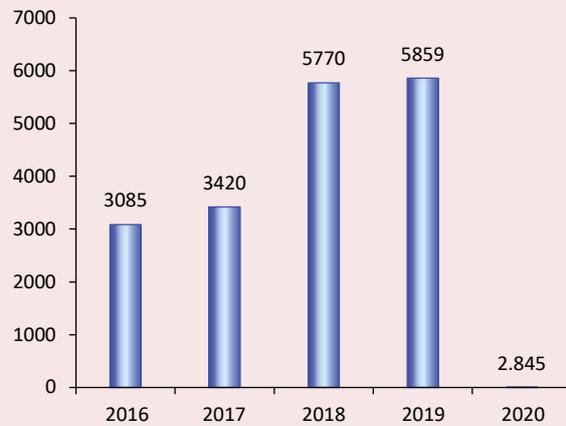
Culture Media Co., Ltd., the national box office revenue on the first day of the Chinese New Year was only 1.81 million yuan, and the national box office revenue during the seven-day celebration of the Spring Festival was only 2.845 million yuan (Fig. 16). In 2019, the box office revenues on the first day of Chinese New Year and during the seven-day Spring Festival holiday were 1.458 billion yuan and 5.859 billion yuan, respectively. As the prevention and control of COVID-19 improved, the industry became dynamic immediately, and the total box office revenue during the eight-day celebration of the National Day of the People’s Republic of China reached nearly 4 billion yuan. As of October 9, the total box office revenue of Chinese movies in 2020 reached 11.991 billion yuan, ranking first in the world. However, this indicator in the same period of 2019 was more than 50 billion yuan, which means COVID-19 still causes a severe setback in the industry.

Figure 15. Passenger transportation in Russia in 2019–2020, million people



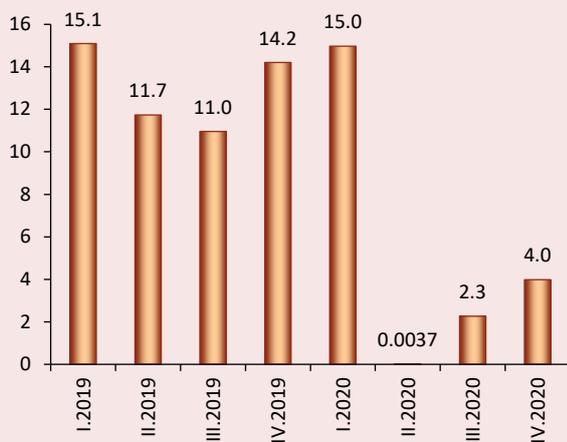
Source: Rosstat.

Figure 16. Box office receipts during the celebration of the Spring Festival in China in 2016–2020, million yuan



Source: Beijing Maoyan Culture Media Co., Ltd. and AskCI Consulting Co., Ltd.

Figure 17. Box office receipts of cinemas in Russia in 2019–2020, billion rubles



Source: Unified Automated Information System on Cinema Viewing Statistics.

The telling example of the negative impact of anti-pandemic restrictions on the cultural sphere in Russia is the dynamics of cinema attendance. Box office receipts in the second quarter of 2020 fell to almost zero, amounting to 3.7 million rubles, compared to 15 billion rubles in the previous quarter (Fig. 17). At the same time, the audience is in no

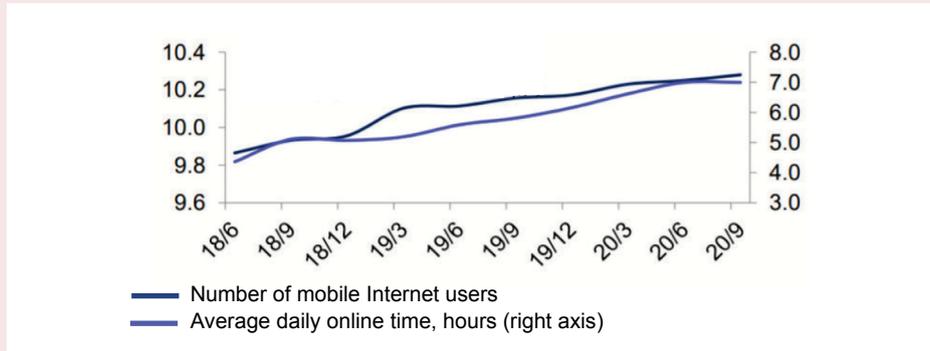
hurry to start attending the cinemas; by the end of 2020, box office receipts increased only to four billion rubles (28% of the level of the corresponding period in 2019).

Impact of COVID-19 on online industries involving human-computer interaction

Online industries that involve human-computer interaction mainly include e-commerce/new retail, online video, online games, online education, remote work, and other areas. In 2020, due to the demand for COVID-19 prevention and control, the online economy grew rapidly as the daily consumption habits and working style of residents changed significantly.

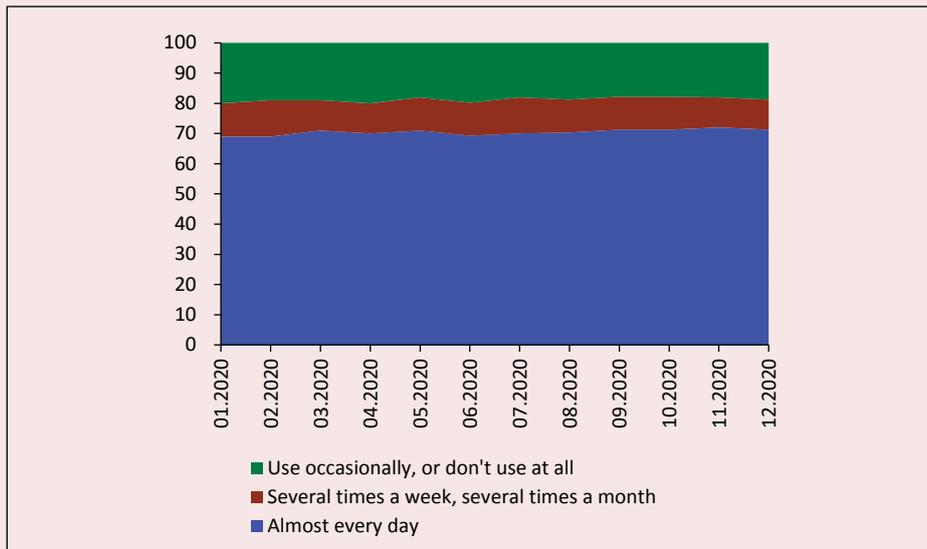
Internet activity. In recent years, the number of Internet users (including mobile Internet users) and the average daily time spent online steadily increased worldwide. Since 2020, the growth rate has been more pronounced due to COVID-19 (Fig. 18, 19). In China, the number of mobile Internet users has exceeded 1 billion people. In Russia, the share of those who use the Internet almost every day has increased to 72%, according to VTsIOM.

Figure 18. Number of mobile Internet users in China and the average daily online time in 2018–2020



Source: Institute of Research, Haitong Securities.

Figure 19. Distribution of answers to the question “Do you use the Internet, and if so, how often?” in Russia, as a percentage of the total



Source: VTsIOM daily All-Russian telephone survey.

Online trading and express delivery. The COVID-19 pandemic has changed people’s shopping and consumption habits, and the online retail industry, as well as related industries, has begun to develop rapidly. Since 2020, China has accelerated the development of new consumption styles, and online retail businesses such as

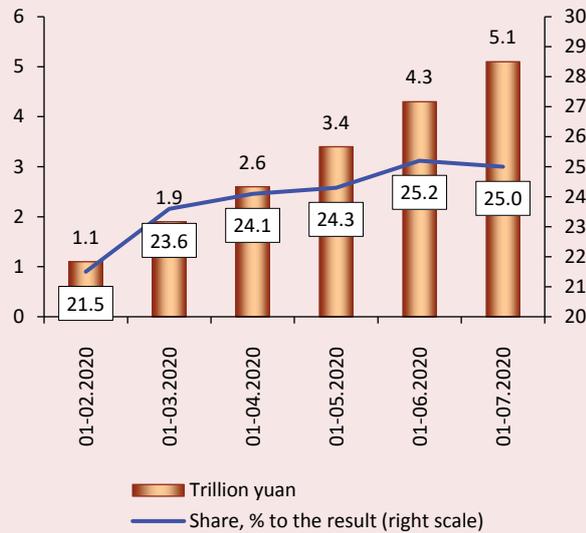
e-commerce of fresh foodstuffs and their delivery to the buyer’s home have grown steadily and rapidly. From January to July, online retail sales of physical goods increased by 15.7% year-on-year (*Tab. 5; Fig. 20*) and accounted for 25% of the total retail sales of consumer goods (a year earlier, their share was 19.4%; *Fig. 21*).

Table 5. Growth (decline) rate in the volume of online retail sales of physical goods in China from January to October 2020, % to the corresponding period of the previous year

Period (2020)	Online retail sales of physical goods	Retail sales of consumer goods
Jan.–Feb.	3.0	-20.5
Jan.–Mar.	5.9	-19.0
Jan.–Apr.	8.6	-16.2
Jan.–May	11.5	-13.5
Jan.–Jun.	14.3	-11.4
Jan.–Jul.	15.7	-9.9
Jan.–Aug.	15.8	-8.6
Jan.–Sept.	15.3	-7.2
Jan.–Oct.	16.0	–

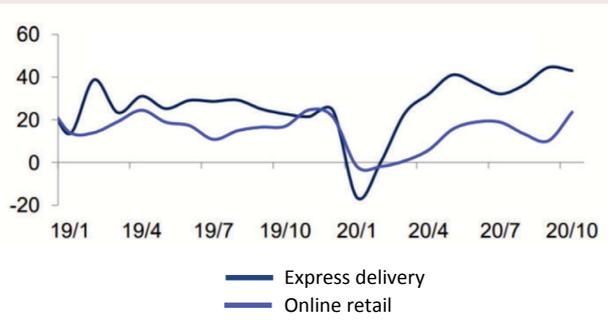
Source: National Bureau of Statistics of China.

Figure 20. Volume of online retail sales of physical goods and its share in the total volume of retail sales of consumer goods in China



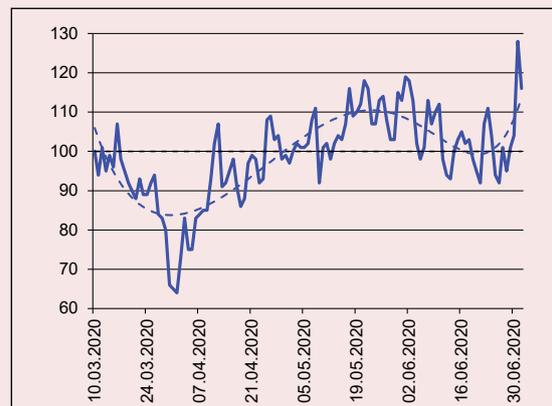
Sources: National Bureau of Statistics of China.

Figure 21. Dynamics of the development of express delivery and online retail in China in 2019–2020, %



Source: Institute of Research, Haitong Securities.

Figure 22. Data Insight E-Commerce Index in Russia



The level of February 25 – March 2, 2020 is taken as 100%

Source: Data Insight.

Due to the impact of coronavirus-related restrictions on the retail market, online shopping in Russia skyrocketed in the first half of 2020. According to Data Insight, the March–June 2020 E-Commerce Index has increased by almost a third (Fig. 22). Its share in the total retail sales reached 10.9% in the first half of 2020 (it was 6.1% in 2019)¹⁶.

¹⁶ Source: <https://www.rbc.ru/rbcfreenews/5f592c909a79471b55995534>

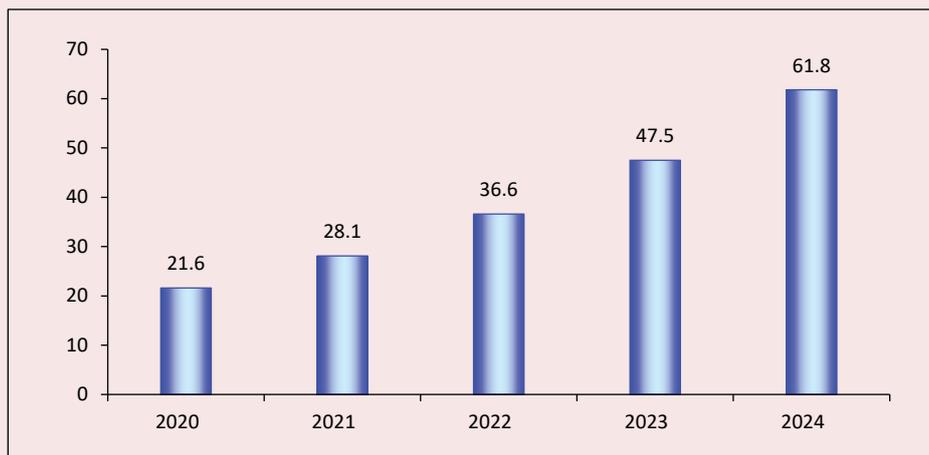
Remote working. The COVID-19 pandemic is gradually changing the way people produce and work, thereby contributing to the development of remote working and related industries. Since February 3, 2020, due to COVID-19, many companies in China have had to opt for remote work. The data showed that from February 3 to February 9, the first week after the Spring Festival, more than 18 million companies adopted remote work, and more than 300 million people used teleworking software. In the post-epidemic era, remote work has become a common thing, and it will drive rapid development of remote personnel management software.

According to VTsIOM, the share of Russians who work remotely has increased eight-fold during the stay-at-home restrictions imposed due to the coronavirus: before the pandemic, only 2% of respondents worked remotely, and 16% have already switched to it in full or in part¹⁷. One third of Russians did not experience any changes in their employment regime in connection with the pandemic.

Telemedicine. The COVID-19 pandemic has gradually changed the way people access healthcare and has pushed for the development of the field of telemedicine. In China, during COVID-19 in 2020, with the help of 5G technology, all the “cloud” medical services of Chinese telemedicine (registration, consultation, diagnosis, prescription, dispensing) reached a new level, providing people with a new medical experience (*Fig. 23*). In the future, we should expect growth in the size of the telemedicine market.

In general, the scale of economic impact of the pandemic and the extent of economic shock are closely related to the effectiveness of prevention and control of the spread of COVID-19 and to the policies implemented to support people and businesses. The COVID-19 pandemic has had the greatest negative impact on offline industries that involve face-to-face interaction. The consumer sector (catering, retail, tourism, and transportation) received the first blow and experienced a downturn. At the same time, COVID-19 has contributed to the development of online spheres involving human-

Figure 23. Anticipated size of China's telemedicine market in 2020–2025, billion yuan



Source: Forward Industry Research Institute.

¹⁷ Source: <https://tass.ru/ekonomika/8478435>

computer interaction. Changes in consumer behavior and habits have boosted modernization of many industries. Due to the widespread application of modern information technology, consumers began to use the Internet more actively; this accelerated the development of online retail: e-commerce in foodstuffs, express logistics and other new types of business (online entertainment, online education, remote work, telemedicine).

Suggestions

1. COVID-19 prevention and strict control. People's lives and safety should be a priority. COVID-19 prevention and control activities should be carried out comprehensively and effectively. It is important to monitor the spread of the virus, respond to it in a timely and effective manner, and focus on preventing the risk of COVID-19 importation from abroad. Prevention should be accompanied by simple things such as washing hands regularly, maintaining personal hygiene, and wearing masks. It is necessary to understand COVID-19 spreading patterns, use the working mechanism of joint prevention and control to the fullest extent, continue working on comprehensive screening, and create a reliable mechanism for preventing health emergencies in the long run.

2. Supporting domestic demand. It is necessary to reveal the potential for increasing domestic demand, promote the growth of people's incomes, and promote the diversified and differentiated development of industries by upgrading consumption.

3. Promoting the transformation and modernization of traditional industries. In order to help traditional industries adapt to the major changes in consumer demands, it is necessary to increase the supply of healthy, green, safe and convenient products and services; to promote digitalization, intellectual transformation and modernization of industries, including housing construction, catering, tourism, transport, etc.; to accelerate the promotion and application of modern information technology in agriculture, manufacturing, services and other sectors; to accelerate the development of online and offline integration.

4. Promoting intensive development of new industries, new business forms and production modes. It is necessary to adapt to business reform trends and upgrades in consumer behavior, to collect resources and implement policies to further support the development of the Internet+ industry, to encourage widespread use of 5G networks, artificial intelligence, big data, blockchain and other technologies in business, culture, tourism, education, medicine and other areas, and to build a new business form for the service sector.

5. Increasing the country's role in global supply chains. We find it important to integrate domestic and international markets and improve the system of interaction between industrial chains, capital chains, talent chains, political and service chains in global supply chain networks.

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