

UDC 338.1

DOI: <https://doi.org/10.32782/2413-9971/2021-37-11>

**Posypanko Olha**

*Postgraduate Student of International Economic Relations Department  
Uzhhorod National University*

**Посипанко О. А.**

*аспірантка кафедри міжнародних економічних відносин  
ДВНЗ «Ужгородський національний університет»*

## **COVID-19 EXTERNALITIES: ECONOMIC IMPACTS AND POLICY RESPONSES IN CHINA**

**Summary.** This article focuses on the Chinese experience in mitigating the influence of COVID-19 and addresses the impact of the pandemic on the world economy and, in particular, on China's economy; examines Chinese policy responses to the supply and demand shocks in terms of fiscal and monetary measures, and considers gains and costs of those actions. Thus, the research is made from the stance of China, with regard to its slowdown which concerning economists and may be also aggravated by the trade confrontation. Considering the size of the Chinese economy in terms of global interdependence, its contribution to world growth, and growing weight in the international arena, this study makes timely contributions over determining of the global economic developments and prospects. The result of this study open new avenues for future research and may serve as the source of hypotheses for further quantitative research on Chinese economy and crisis measures amid global pandemic.

**Key words:** COVID-19, China, GDP, global trade, final consumption expenditure, unemployment rate, value-added industrial output, fiscal measures, monetary measures.

**Problem definition.** It is generally accepted that the pandemic has greatly affected global economy and the most obvious challenges it may cause are:

– financial market vulnerabilities caused by investors' uncertainties and policy responses aimed to mitigate impacts of the pandemic;

– suspension of production in some markets because of pandemic impact on Chinese economy as one of the important participant of global supply chain systems;

– the drop of demand in Europe and the United States (caused by slowdown of economic activity, growth of unemployment and, therefore the fall in purchasing power that also may lead to disruption of China's foreign trade orders).

The global pandemic has caused a double blow to global supply chains and demand. And it should be considered that the

Chinese capacity of epidemic response is vital in terms of determining of the global economic developments and prospects.

**Literature review.** The above statement is borne out, more tellingly, by apparent interest of foreign and Ukrainian scientists to this topic. For instance X.L. Liu, Y.X. Dou, K.X. Zhai, S.H. Huan [11] in their paper «Forecasting on China's final consumption in 2021» analyzed and predicted the Chinese final consumption level amid the pandemic and considering the Chinese focus on domestic demand as the international trade environment comes less supportive. In addition, the impact of COVID-19 on Chinese and global trade was analyzed by Alessandro Nicita and Carlos Razo (UNCTAD) [17], also the recovery of Chinese economy in «post-pandemic» era was examined by Tianlei Huang and Nicholas R. Lardy [6] etc. Amid Ukrainian scientists such as Riznyk N.M., Onisi-

forova V.Iu, Sidelnikova V.K., Hrytsiuk N. O, more attention were paid to the topic about the global challenges created by the pandemic.

Consequently, the lack of local studies dedicated to Chinese experience in halting the spread of COVID-19 and mitigating the economic impact of it, provides a research gap.

**The purpose of the article.** In order to identify the economic impacts of the pandemic in China, the paper includes the examination of the latest global and Chinese macroeconomic data and trade indicators. Those figures were also used to describe the success of Chinese policy response and outline its peculiarities of approach.

**The main body of the article.** Despite the Chinese economy was hit the first, it recovered the fastest. On January 2020, Chinese authorities determined that a pneumonia outbreak in Wuhan was caused by new coronavirus. In that regard, the government imposed strict containment measures. Reflecting these containment measures, the economy of China contracted by 6.8% (yoy) in 2020 Q1 [8]. In mid-February 2020, the government has gradually started to remove mobility and activity restrictions and along with normalizing of economic activity, real GDP rebounded by 3.2% (yoy) in 2020 Q2 and continued to recover by 4.9% and 6.5% in Q3 and Q4, respectively (Figure 1).

The Chinese economy started 2021 with a strong momentum as the GDP grew 18.3% YoY in Q1. Such record-high growth rate, though, was largely within the market's expectation due to the very favorable base effect.

One way to address the issue is to look at the growth rate from a QoQ perspective. After seasonal adjustments, China's

QoQ growth rate was 0.6% in Q1 2021 versus Q4 2020. This is lower than the average seasonally adjusted QoQ growth rates (1.9%) for the pre-pandemic period (2017–2019).

Nonetheless, real GDP grew by 2.3% in 2020 according to data from IMF, which is the lowest growth rate since 1976 when the Chinese economy contracted, by 1.6%. According to the estimation of IMF in 2021 the Chinese economy will grow by 8.4% the global economy is projected to grow by 6% [8].

At the same time, in 2020, China became the only economy among the largest that avoid the recession even amid the global pandemic and trade confrontation with the United States [8]. According to the data of IMF the biggest contraction occurred with the GDP of the United Kingdom – 9.9%, the economy of Italy and France that also have suffered from COVID-19 decreased by 8.8% and 8.2% respectively. The highest real GDP growth after a dip in 2020 is expected in India – 12.5% [8].

The volume of world merchandise trade declined in 2019 for the first time since the financial crisis of 2008-09 [27], weighed down by rising trade tensions and weakening economic growth (Figure 2). Although the first cases of COVID-19 were recorded in late 2019, the crisis did not contribute to the slowdown for the year [31].

The economic and social disruptions brought about by COVID-19 greatly affected global trade during 2020. Overall, world trade recorded a drop in value of about 9% and in volume of about 5.3%, with trade in goods declining by about 6% and trade in services decreasing by about 16.5% [31].

However China became the only large economy in the world to achieve positive commodity trade growth in 2020 [5]. The

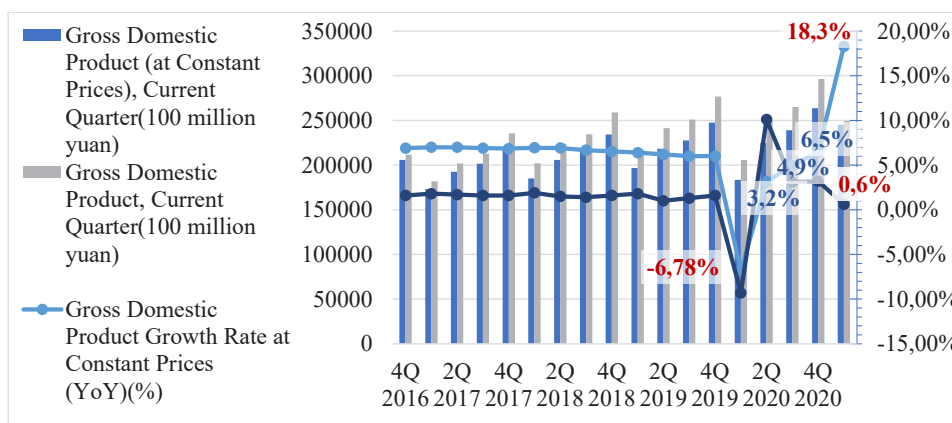


Figure 1. Gross Domestic Product of China (Quarterly) (4Q2016–1Q2021)

Source: developed by author based on [13;14;16]

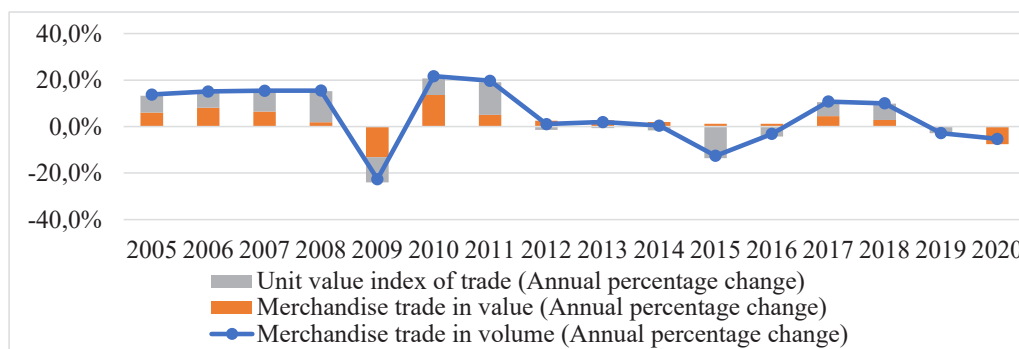


Figure 2. Global Merchandise trade (Annual percentage change) 2005–2020

Source: developed by author based on [28]

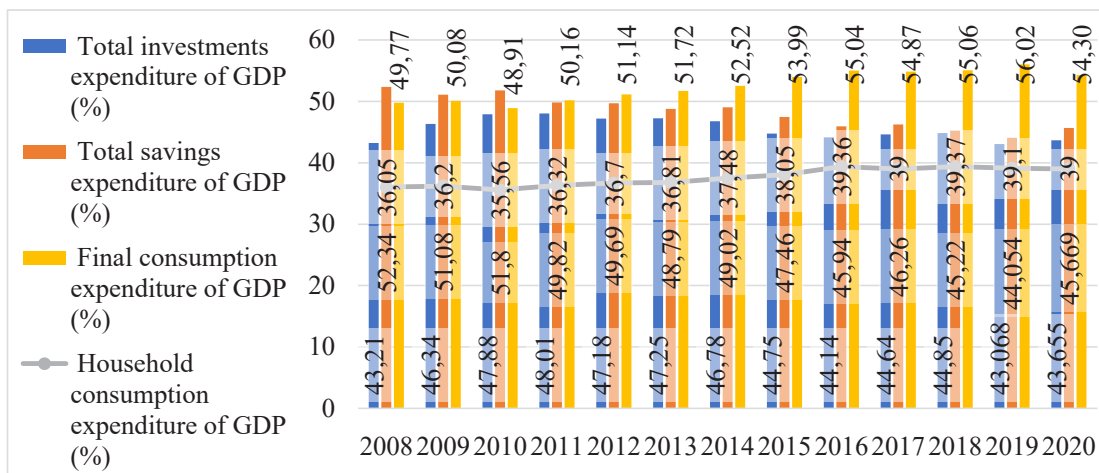


Figure 3. Final consumption expenditure, total savings, total investments (% of GDP) 2008–2020

Source: developed by author based on [5; 24; 29; 30]

country’s exports of goods in US dollars gained 3.7% growth while imports edged down 0.7%. As a result, Chinese share of global trade increased further during 2020, to nearly 15% [17].

Obviously, China is also a large importer and could be the locomotive of a recovery in global growth with a sharp increase in its imports, but this is limited by a limited increase in consumption. According to PricewaterhouseCoopers in 2020 final consumption expenditure in China reached more than 55 trillion yuan and accounted for 54.3% of total GDP (Figure 3) while household consumption accounted only for 39% [24].

This compares with 55% and over for other large economies. For instance, in 2019 the same indicator in the US amounted 81,83% in Italy -78,86% [29]. The final consumption in France and Germany were 76,82% and 72,81% respectively [29]. That illustrates that Chinese people are still tend to save, especially during pandemic but With the development of society, young people are more willing to consume and have less awareness of saving. Affected by the upgrading of consumption level and the two-child policy, the scale of the maternal and infant market continues to expand [11].

From the perspective of government consumption due to COVID-19 China continued to implement the tax and fee reduction, accordingly, the national revenue had declined more, and the fiscal revenue and expenditure conflicts were intensified.

In 2020 the health crisis also negatively impacts the country’s private sector, which is a key source of employment and results in the highest unemployment rate (5%) over the last 20 years which was 5% [7] (Figure 4).

As stated above, young people are more willing to consume but during pandemic this part of the population was the one that struggled to find job. For instance, in August 2020 unemployment for those between the ages of 16-24 was 16.8% (High unemployment rate is common for summer period but for instance same indicator in 2019 was amounted 13,8% and 13,1% in August 2018) [15].

Private firms produce about two-thirds of China’s output, and the disproportionate losses of the private sector were among the biggest causes of China’s historic GDP contraction in the first quarter of 2020 [6].

China’s industrial output contracted at the sharpest pace in 30 years in the first two months of 2020 as the fast spreading coronavirus and strict containment measures severely disrupted the world’s second-largest economy.

In April 2020 China’s value-added industrial output, went up 9.8% year-on-year as factory activities continued to pick up. The figure was up 14.1% from the level in 2019, bringing the average growth for the past two years to 6.8%. In the first four months of 2021 industrial output went up 20.3% year-on-year, resulting in an average two-year growth of 7% (Figure 5).

To mitigate the economic influence of pandemic the People’s Republic of China conducted the following fiscal measures:

- cutting social security contributions and refunding unemployment insurance premium;
- provided longer tax loss carry-forward period (from five to eight years) for severely affected companies;
- allows enterprises to make catch-up employer social security contributions within a period of three months follow-

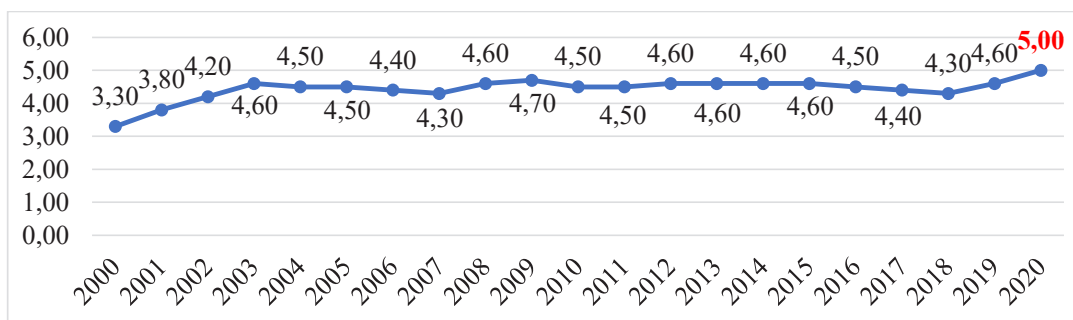


Figure 4. Unemployment, total (% of total labor force) (modeled ILO estimate) 2000–2020

Source: developed by author based on [7]

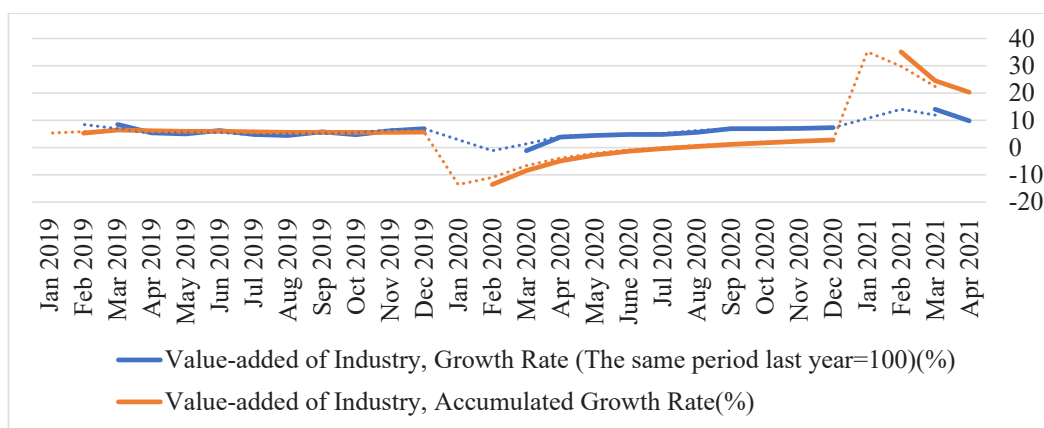


Figure 5. Total Industry Production Excluding Construction for China (Quarterly, Not Seasonally Adjusted)

Source: developed by author based on [15]

ing containment of COVID-19 outbreak without adversely affecting employee rights to social security benefits;

- the Ministry of Finance allowed local governments to retain 5% more tax revenue from March to June 2020, which aims to increase total local revenue by RMB 110 Billion (\$16 billion);

- local authorities have introduced policies included deferring adjustments to social security contribution base, adjusting employer contribution rate for certain social security plans and extending payment of employer social security contributions;

- provided VAT exempt on a wide range of customer services (medical services, catering, accommodation, public transport, delivery services, some personal services) for an unlimited period;

- CIT and VAT incentives for companies producing medical supplies, used in relation with COVID-19 [10].

The People’s Bank of China (PBOC) was the first major central bank to act during the crisis. The monetary measures conducted by the Regulator were as follows:

- cuts on required reserve ratio;
- cuts on lending benchmark rate;
- small and medium enterprises were allowed to postpone principal and interest repayments on their loans;
- unblocked extensions or renewals of loans to companies;
- injects liquidity into the banking sector through reverse repo operations;
- relending and rediscount [9; 12; 26].

The reserve requirement ratio is a quantity-based monetary policy instrument used actively by the PBoC. The adjustment

of the reserve requirement ratio can unleash or lock up huge amounts of liquidity. Since 2018, the People’s Bank of China (PBC) has cut the required reserve ratio (RRR) 12 times, releasing about RMB8 trillion of long-term funds in total (Figure 6). With the RRR cuts, the PBC has met the liquidity demand of the banking system at tough times, enhanced the support for micro, small and medium-sized enterprises (MSMEs) and lowered the financing cost for the real economy [20].

It should be noticed that the one-year loan prime rate LPR, the rate for lending to prime customers, is a standard for all loans in China. Under the authorization of the People’s Bank of China (PBC), the National Interbank Funding Center (NIFC) announced the loan prime rate (LPR) on May 20, 2021 as follows: the one-year LPR is 3.85% (Figure 7) and the above-five-year LPR is 4.65% [21].

To analyze if this monetary measures influence the funding of real economy the figure of Aggregate Financing to the Real Economy should be examined. Aggregate Financing to the Real Economy includes indirect finance via the banking system, as well as direct financing via stocks and bonds on the capital market. It excludes inflows of overseas funds such as funds outstanding for foreign exchange or foreign direct investment, as well as government bonds whose proceeds are used for spending by the state [1].

According to preliminary statistics in 2020, aggregate financing to the real economy (AFRE) reached RMB284.8 trillion (Figure 8) increasing by 13.3% year on year. As you see, the biggest share of aggregate financing has RMB loans to the real economy which accounted for 60.2% of the total amount of funding [20].

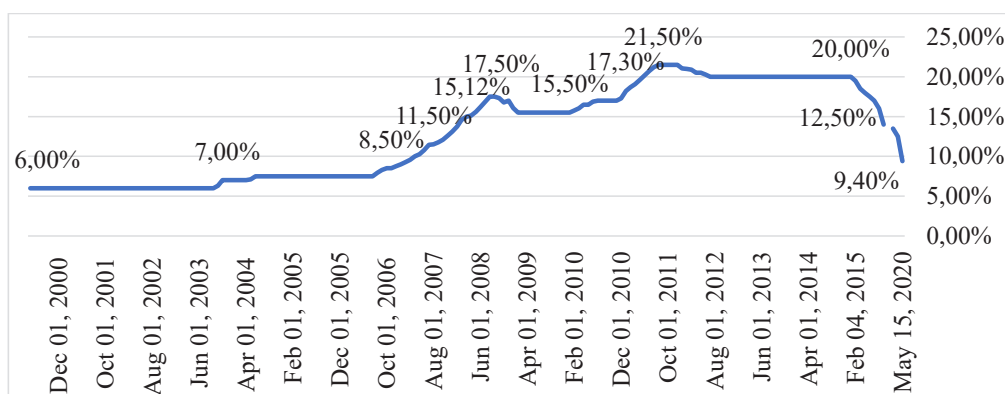


Figure 6. PBC Required reserves ratio

Source: developed by author based on [19; 23]

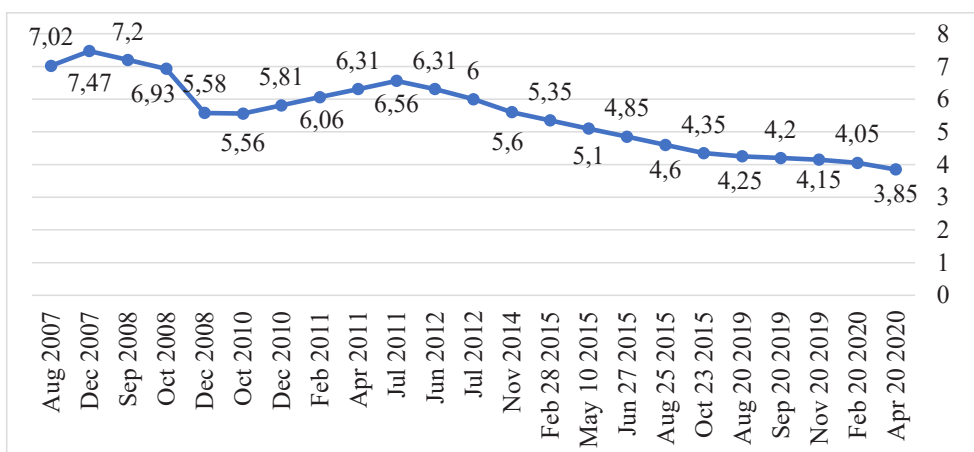


Figure 7. PBC Basic interest rate

Source: developed by author based on [2; 18]

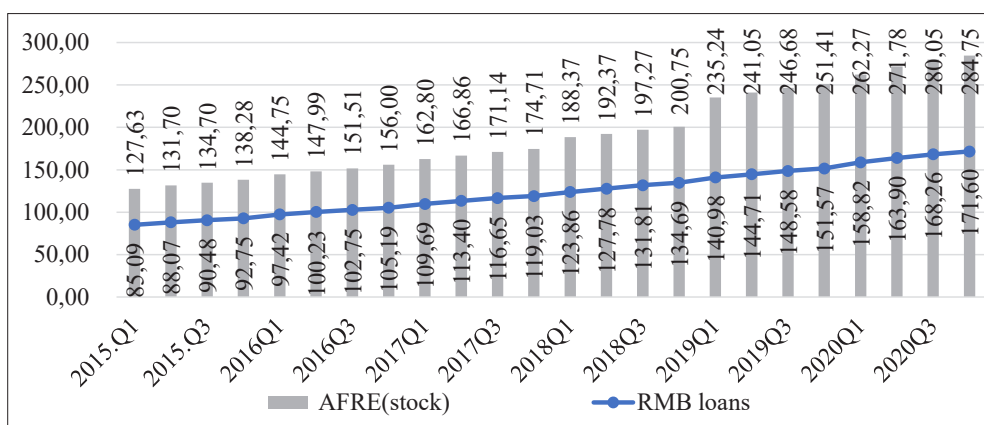


Figure 8. Aggregate Financing to the Real Economy (Stock) (trillion yuan)

Source: developed by author based on [24]

In 2020, RMB and foreign currency loans to enterprises and public institutions amounted RMB110.53 trillion, increasing by 12.4% year on year. In the same period the household loans accounted for RMB63.19 trillion, rising by 14.2% year on year. Outstanding household consumption loans grew by 12.7% year on year to RMB49.57 trillion, a deceleration of 3.6% points from end-2019 [20].

It should be noted that the Chinese precautionary approach in conducting monetary policy leaves it with more room to respond to future shocks. «The basic characteristics of China’s economic potential, strong resilience, large room for maneuver, and multiple policy tools have not changed» it wrote in a financial risk report released in November. It has frequently warned of the negative effects of excessively low interest rates [3].

**Conclusion.** China was seriously damaged and threatened by the disease in the first quarter of 2020, but succeeded in halting its spread in a short period and mitigating the economic influence of pandemic. This was achieved through

quick measures in activity and mobility control, alongside with the fiscal and monetary measures intended to minimize supply and demand shocks caused by COVID-19.

Backed by tough coronavirus containment measures and emergency relief for businesses, the world’s second-largest economy has largely recovered to pre-pandemic levels, but resurgence of infections worldwide and in parts of China is keeping policymakers cautious.

According to the research, alongside with fast recovery the Chinese economy is still threatened by the rising of unemployment rate; reduce of household consumption (amid the attempts to rebalances the economic structure towards domestic consumption), rising of local government debt, rising of debt burden of non-financial borrowers (including an existing problem of high indebtedness of state-owned enterprises) etc. In this case, the results of the paper provide basis for further research on Chinese economy and its crisis measures amid global pandemic, economic rebalancing and tariff confrontation.

**References:**

1. China Banking News. Total Social Financing. Available at: <https://www.chinabankingnews.com/total-social-financing/> (accessed 14 June 2021).
2. China Central Bank key rates. Available at: <https://countryeconomy.com/key-rates/china> (accessed 10 June 2021).
3. Dipanjan, R. Ch. (2020, September 24). China’s economy faces uphill task in its journey towards attaining high income status. The Economic Times. Available at: <https://economictimes.indiatimes.com/news/international/world-news/chinas-economy-faces-uphill-task-in-its-journey-towards-attaining-high-income-status/articleshow/78288492.cms?from=mdr> (accessed 5 June 2021).

4. Global Times reporters (2021, January 14). Chinese exports rise 3.6% in coronavirus-plagued 2020; only economy with positive trade growth. Available at: <https://www.globaltimes.cn/page/202101/1212770.shtml> (accessed 14 June 2021).
5. Hodges, P. (2021, March 14). China's dual circulation policy aims to reduce debt reliance. Independent Commodity Intelligence Services. Available at: <https://www.icis.com/chemicals-and-the-economy/2021/03/chinas-dual-circulation-policy-aims-to-reduce-debt-reliance/> (accessed 23 June 2021).
6. Huang, T. & Lardy, R. N. (2020, April 28). Bias against private sector slows China's recovery from COVID-19. The Peterson Institute for International Economics. Available at: <https://www.piie.com/blogs/china-economic-watch/bias-against-private-sector-slows-chinas-recovery-covid-19> (accessed 10 June 2021).
7. International Labour Organization (2021). Unemployment, total (% of total labor force) (modeled ILO estimate). Retrieved on January 29, 2021, from ILOSTAT database. Available at: <https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?end=2020&locations=CN&start=2000> (accessed 14 June 2021).
8. International Monetary Fund (2021, April). The World Economic Outlook (WEO) April 2021 Edition, from IMF database. Available at: <https://www.imf.org/en/Publications/WEO/weo-database/2021/April/> (accessed 11 June 2021).
9. International Monetary Fund. Policy responses to COVID-19 Policy Tracker. Available at: <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>
10. KPMG. International, China: Tax developments in response to COVID-19. Available at: <https://home.kpmg/xx/en/home/insights/2020/04/china-tax-developments-in-response-to-covid-19.html> (accessed 18 June 2021).
11. Liu, X. L. (2021). Forecasting on China's final consumption in 2020. In Computational Social Science (pp. 1001–1004). CRC Press. Available at: [https://www.e3s-conferences.org/articles/e3sconf/pdf/2021/33/e3sconf\\_aesee2021\\_02003.pdf](https://www.e3s-conferences.org/articles/e3sconf/pdf/2021/33/e3sconf_aesee2021_02003.pdf) (accessed 10 June 2021).
12. Monetary Policy Analysis Group of the People's Bank of China (2021, February 8). China Monetary Policy Report Q4 2020. Available at: <http://www.pbc.gov.cn/en/3688229/3688353/3688356/3982925/4211743/2021032416273231646.pdf> (accessed 18 June 2021).
13. National Bureau of Statistics of China (2020, April 20). Preliminary Accounting Results of GDP for the First Quarter of 2020. Available at: [http://www.stats.gov.cn/english/PressRelease/202004/t20200420\\_1739811.html](http://www.stats.gov.cn/english/PressRelease/202004/t20200420_1739811.html) (accessed 23 June 2021).
14. National Bureau of Statistics of China (2021, April 20). Preliminary Accounting Results of GDP for the First Quarter of 2021. Available at: [http://www.stats.gov.cn/english/PressRelease/202104/t20210420\\_1816603.html](http://www.stats.gov.cn/english/PressRelease/202104/t20210420_1816603.html) (accessed 23 June 2021).
15. National Bureau of Statistics of China. Monthly indicators. Available at: <https://data.stats.gov.cn/english/easyquery.htm?cn=A01> (accessed 23 June 2021).
16. National Bureau of Statistics of China. Quarterly indicators. Available at: <https://data.stats.gov.cn/english/easyquery.htm?cn=B01> (accessed 23 June 2021).
17. Nicita, A. & Razo, C. (2021, April 27). China: The rise of a trade titan. UNCTAD. Available at: <https://unctad.org/news/china-rise-trade-titan> (accessed 7 June 2021).
18. PBC latest interest rate changes 2009–2021. Available at: <https://www.global-rates.com/en/interest-rates/central-banks/central-bank-china/pbc-interest-rate.aspx> (accessed 14 June 2021).
19. People's Bank of China (2020, May 26). 12 RRR Cuts Since 2018 Help Bolster the Real Economy, Available at: <http://www.pbc.gov.cn/en/3688229/3688335/3730270/4028850/index.html> (accessed 28 June 2021).
20. People's Bank of China (2021, January 13). Report on Aggregate Financing to the Real Economy (Stock) (2020). Available at: <http://www.pbc.gov.cn/en/3688247/3688978/3709140/4162135/index.html> (accessed 28 June 2021).
21. People's Bank of China (2021, June 21). Announcement on Loan Prime Rate. Available at: <http://www.pbc.gov.cn/en/3688229/3688335/3883798/4272859/index.html> (accessed 25 June 2021).
22. People's Bank of China, Statistics and Analysis Department. Aggregate Financing to the Real Economy (AFRE). Available at: <http://www.pbc.gov.cn/diaochatongjisi/116219/116319/3959050/index.html> (accessed 28 June 2021).
23. People's Bank of China Reserve Requirement Ratio (2007–2021). Available at: <https://www.investing.com/economic-calendar/pboc-reserve-requirement-ratio-1084> (accessed 10 June 2021).
24. PricewaterhouseCoopers. China Economic Quarterly Q4 2020. Available at: <https://www.pwccn.com/en/research-and-insights/china-economic-quarterly-q4-2020.html> (accessed 14 June 2021).
25. Reuters (2020, April 14). China's 2020 GDP growth set to sink to 44-year low as coronavirus cripples economy: Reuters poll. Available at: <https://www.reuters.com/article/us-china-economy-poll-idUSKCN21W0XL> (accessed 14 June 2021).
26. State Administration of Foreign Exchange (2020, March 20). Respond to the Pandemic and Ensure Financial Market Stability – Press Conference Transcript. Available at: <https://www.safe.gov.cn/en/2020/0416/1666.html> (accessed 23 June 2021).
27. UNCTAD (2021 February). Global Trade Update. Available at: [https://unctad.org/system/files/official-document/ditcinf2021d1\\_en.pdf](https://unctad.org/system/files/official-document/ditcinf2021d1_en.pdf) (accessed 10 June 2021).
28. Unctadstat. Merchandise: Trade value, volume, unit value, terms of trade indices and purchasing power index of exports, annual. Available at: <https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=184185> (accessed 11 June 2021).
29. World Bank. Final consumption expenditure (% of GDP). Available at: <https://api.worldbank.org/v2/en/indicator/NE.CON.TOTL.ZS?downloadformat=excel> (accessed 11 June 2021).
30. World Bank. Households and NPISHs final consumption expenditure (% of GDP) – China. Available at: <https://data.worldbank.org/indicator/NE.CON.PRVT.ZS?locations=CN> (accessed 21 June 2021).
31. World Trade Organization. World trade and GDP, 2019–20, Chapter III. Available at: [https://www.wto.org/english/res\\_e/statis\\_e/wts2020\\_e/wts2020chapter03\\_e.pdf](https://www.wto.org/english/res_e/statis_e/wts2020_e/wts2020chapter03_e.pdf) (accessed 21 June 2021).

## ЕКСТЕРНАЛІЇ COVID-19: ЕКОНОМІЧНІ НАСЛІДКИ ТА ІНСТРУМЕНТИ ПРОТИДІЇ В КНР

**Анотація.** Виклики з якими зіткнулася світова економіка під час пандемії COVID-19 очікувано призвели до рецесії в 2020 році. Зважаючи на те, що КНР є одним із провідних елементів глобальних ланцюгів поставок, введення карантинних обмежень в даній країні неминуче вплинуло на обсяг світового ВВП. Не дивлячись на це, Китаю котрий першим постраждав від пандемії вдалось за підсумками 2020 року зберегти позитивний приріст цього показника. Дана стаття присвячена дослідженню досвіду КНР у боротьбі із різноманітними шоками спричиненими спалахом пандемії, а також аналізу макроекономічних показників країни з метою окреслення наслідків кризи та результатів від вжитих урядом фіскальних та монетарних заходів. Зокрема, в статті приведено дані щодо обсягу та динаміки ВВП, вартості експорту та імпорту КНР, рівня кінцевого споживання та споживання домогосподарств, виокремлено високий показник безробіття та наведено динаміку показника доданої вартості виробництва в структурі ВВП. В роботі також висвітлені застосовані Китаєм фіскальні стимули та пом'якшення на період пандемії й подано дані, що ілюструють вжиті урядом монетарні заходи, зокрема динаміка показника обов'язкового резервування, зміна відсоткової ставки для преміум клієнтів (LPR), що є наразі базовою відсотковою ставкою в Китаї для видачі кредитів домогосподарствам та бізнесу, показник сукупного фінансування реальної економіки (AFRE або TSF) та в його структурі проаналізовано динаміку обсягу банківських кредитів, зокрема, бізнесу та населенню. Таким чином, дослідження проведено з позиції Китаю з огляду на його уповільнене зростання спричинене виснаженням колишніх драйверів росту та загострене затяжною торговельною конфронтацією з США. З точки зору глобальної взаємозалежності, беручи до уваги масштаби китайської економіки, її внесок в приріст світового ВВП й, очевидно, зростаючу вагу на міжнародній арені, дана тема є актуальною в контексті дослідження глобального економічного розвитку і перспектив. Результат роботи відкриває нові можливості для майбутніх досліджень і може служити джерелом гіпотез для подальшого кількісного аналізу китайської економіки й антикризових заходів в умовах пандемії.

**Ключові слова:** COVID-19, Китай, ВВП, світова торгівля, кінцеве споживання, рівень безробіття, додана вартість промислового виробництва, фіскальні заходи, монетарні заходи.

## ЭКСТЕРНАЛИИ COVID-19: ЭКОНОМИЧЕСКИЕ ПОСЛЕДСТВИЯ И ИНСТРУМЕНТЫ ПРОТИВОДЕЙСТВИЯ В КНР

**Аннотация.** В этой статье основное внимание уделяется китайскому опыту смягчения влияния COVID-19 и рассматривается воздействие пандемии на мировую экономику и, в частности, на экономику Китая; исследуется политика Китая принятая в ответ на шоки спроса и предложения с точки зрения фискальных и монетарных мер, а также рассматриваются выгоды и издержки этих действий. Таким образом, исследование ведется с позиции Китая учитывая его замедления, которое беспокоит экономистов и может быть усугублено торговым противостоянием. Учитывая размер китайской экономики с точки зрения глобальной взаимозависимости, ее вклад в мировой рост и растущий вес на международной арене, это исследование вносит своевременный вклад в определение глобального экономического развития и перспектив. Результат этого исследования открывает новые возможности для будущих исследований и может служить источником гипотез для дальнейших количественных исследований китайской экономики и антикризисных мер в условиях глобальной пандемии.

**Ключевые слова:** COVID-19, Китай, ВВП, мировая торговля, конечное потребление, уровень безработицы, добавленная стоимость промышленного производства, фискальные меры, монетарные меры.