ORIGINAL PAPER

DOI: 10.26794/2587-5671-2020-24-4-47-57
UDC 336.7/336.14(045)
JEL G20

(cc) BY 4.0

Post-Pandemic Scenarios of Economic Development of Developed Countries and Russia

L.A. Petrova[a] ✉, T.E. Kuznetsova[b], V.M. Volodin[c]
Penza State University, Penza, Russia
[a] https://orcid.org/0000-0003-3358-5853; [b] https://orcid.org/0000-0003-1526-7114;
[c] https://orcid.org/0000-0002-4799-9726
✉ Corresponding author

ABSTRACT

Amid the Kondratiev cycle`s downward slope movement and global pandemic, a recession in many countries is likely to lead to a deep long-term economic crisis. The **aim** of the article is to study the simplest recession indicators in developing and developed countries, economic-recovery measures, and economic development scenarios. The **objectives** of the paper are to study current economic situations in different countries, including Russia; identify measures to prevent a recession in developing and developed countries; evaluate possible economic development scenarios with regard to the cyclical dynamics in the current climate. The authors used **methods** of analysis, modelling, monitoring of major economic indicators based on the data of past recessions and other crises. The **results** of the research show different scenarios of economic growth depending on the number of Covid-19 cases and the effectiveness of government's responses to the pandemic; a correlation between monetary and fiscal policies in overcoming crisis; monetary policy priorities necessary for economic recovery; problems and prospects of monetary and fiscal policy implementation. The authors **concluded** that GDP, unemployment, and inflation rate are key indicators for the evaluation of the current and future money, credit, and production-related events. Proactive measures ensure a smoother average economic growth. Both monetary and fiscal policy have advantages and disadvantages. Proactive measures, in particular, inevitably cause two time lags: in the reaction to a recession and in the effectiveness of implemented measures. The governments and central banks must be proactive in overcoming the economic recession and providing support to the citizens.

Keywords: economy; pandemic; GDP; unemployment; inflation; fiscal policy; monetary policy; economic development scenarios, cycle, crisis, recession

For citation: **Petrova L.A., Kuznetsova T.E., Volodin V.M. Post-pandemic scenarios of economic development of developed countries and Russia. *Finance: Theory and Practice.* 2020;24(4):47-57. (In Russ.). DOI: 10.26794/2587-5671-2020-24-4-47-57**

© Petrova L.A., Kuznetsova T.E., Volodin V.M., 2020

INTRODUCTION

Life has changed dramatically. World leaders, governments, banks and millions of citizens face a challenge of survival. Coronavirus is not only life-threatening but also impacts people's livelihoods and economic stability in both developed and developing countries.

The pandemic affected the economic, political, social and other spheres of life of the population and caused the greatest economic shock in the last 100 years, which can lead to a deep and long-term recession in many countries.

However, there are differences between countries, regions and sectors of the economy. Comprehensive measures implemented by governments can help to deal with increased unemployment, target inflation, keep GDP at the optimal level, overcome the crisis and minimize the impact of it.

The restrictions introduced during the pandemic, for example, lockdown and self-isolation, closing trade and production, had a negative impact on the global economy [1]. People and economies will face the consequences of these restrictions for a long time [2]. Therefore, timely measures are required to overcome the crisis as soon as possible.

At the same time, public health measures are just as important as post-pandemic economic measures. Therefore, governments should add healthcare measures to their post-pandemic economy programs.

THE STATE OF ECONOMY OF DEVELOPLED AND DEVELOPING COUNTRIES

According to the report by Global Economics Intelligence (GEI) McKinsey, world economies were in recession at different time periods. Statistics show that since February, the economic situation has deteriorated sharply. The peak of pandemic in China was in January and February [3, 4]. The volume of production and services sank to unprecedented lows. Exports decreased by 17% compared to 2019. Europe and the USA did not experience such a negative impact. In Europe, the moderate economic growth observed at the beginning of 2020 was halted in March. The economic performance in India was mainly positive, but it plummeted after March 25, when the lockdown was introduced for the entire country [2].

Globally, from February 20 to the end of March 2020, stock market indices decreased by about a third (*Fig. 1*).

Along with measures taken to stop the spread of the coronavirus, governments and central banks applied mitigation measures to stabilize economies. Financial markets reacted positively, but remain sensitive to the number of reported cases and deaths as well as restrictive measures.

Among the government assistance programs being enacted to support businesses and citizens during the pandemic, the $ 2 trillion U.S. stimulus package stands out.

The European Central Bank (ECB) announced € 870 billion in quantitative easing. Attempting to prevent a credit crunch, the ECB also asked EU banks not to pay dividends to investors or buy back shares by the end of 2020. The European Parliament allocated € 37 billion to support small and medium-sized enterprises (SMEs) and the healthcare sector [2, 5].

The People's Bank of China announced a supply of an additional 550 billion yuan (about $ 78 billion) to the banking system. The US Federal Reserve System Board (FRS) decided to bring its policy rate near zero (0.00 to 0.25%) and announced $ 700 billion in quantitative easing [2, 5].

The spread of coronavirus and measures introduced to prevent it negatively affected the economies of different countries. These effects are uneven for different sectors of the economy, occur at different stages and vary by country.

RUSSIAN ECONOMY TODAY

According to the Federal State Statistic Service (Rosstat), in 2019 GDP in volume terms

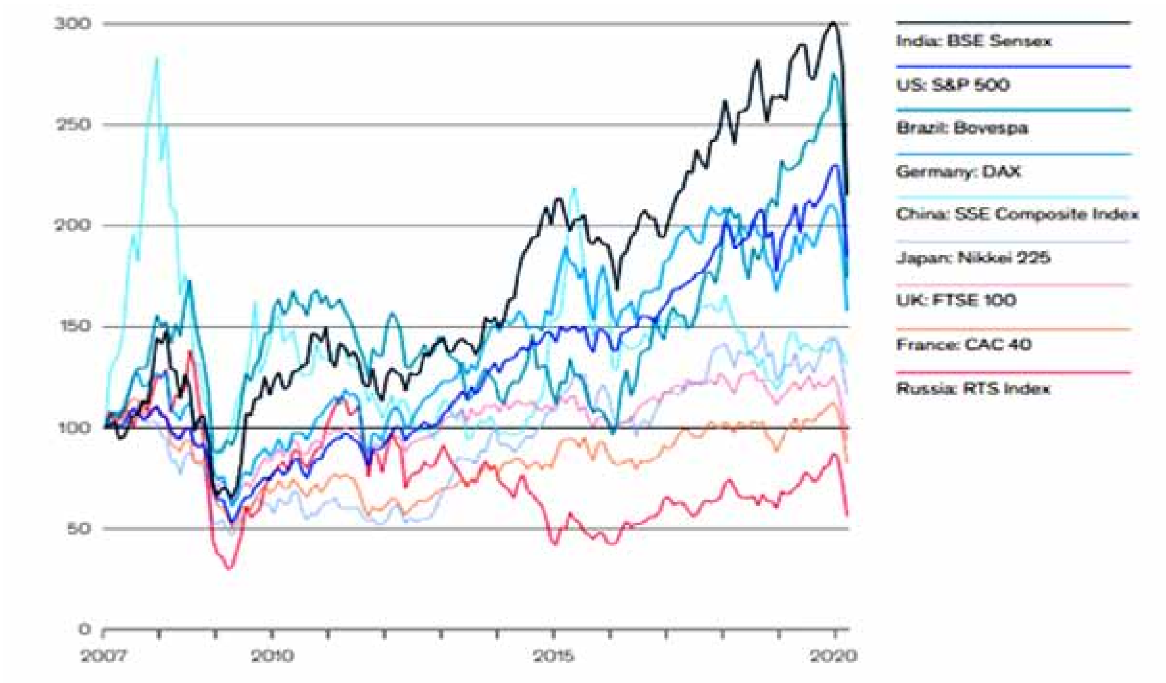


Fig. 1. **Status of stock markets for the period 2007–2020**

Source: FitzGerald A., Kwiatkowski K., Singer V., Smit S. [5].

fell by 1.3%. In the first quarter of 2020, the annual GDP growth rate was 1.5% according to the estimates of the Bank of Russia. In the second quarter annual GDP growth rates are likely to be negative due to the significant impact of restrictive measures on the Russian economy. The financial authorities assume that the restrictive measures will be lifted at the beginning of June, which will lead to the economic recovery. At the same time, the forecast shows GDP for 2020 falling by 4–6% [1] (*Fig. 2*).

However, this forecast does not consider the existing 5–7-year business cycle with the last crisis in 2014–2015 and, possibly, the next one in 2020–2021.

Unemployment is another significant indicator of the development of the economy. In March 2020, unemployment amounted to 4.6% [2] (*Fig. 3*), this was due to a decline in demand for labor. At the same time, the US unemployment rate was 14.2%. The IHS Markit PMI survey in March 2020 revealed a huge rise in unemployment numbers of the service sector. Other studies highlighted a part-time employment increase: the transfer of full-time employees to part-time jobs, unpaid leave, etc.

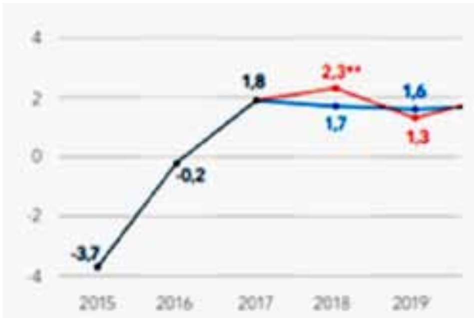
The considered indicators confirm the recession of the Russian economy. The decline is also illustrated by the inflation rate, which exceeded the baseline of 4% in March 2020. This was caused by a weak ruble and an increase in demand for food products, despite its decline in other goods and services.

Economic and business activity indicators show a deterioration of the Russian economy since March 2020 due to the coronavirus and the introduction of restrictive measures to prevent its spread.

In the medium turn, amid low demand for goods and services, the global and Russian economies will further slow down. In addition, the peak of the crisis will contribute to this during the 5–7-year business cycle in 2020–

[1] Bulletin of the Research and Forecasting Department of the Bank of Russia for April 2020 "Talking trends".

[2] Bulletin of the Research and Forecasting Department of the Bank of Russia for April 2020 "Talking trends". URL: https://cbr.ru/Collection/Collection/File/27780/bulletin_20–02.pdf (accessed on 11.05.2020).

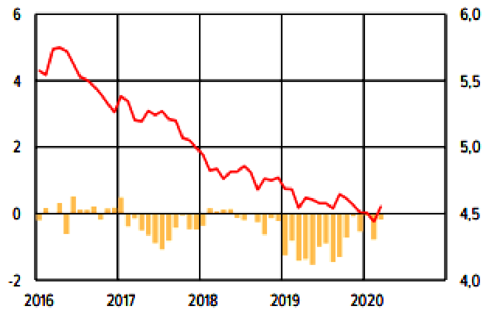


according to the IMF

according to the Ministry of economic development Russian Federation

Fig. 2. **GDP rate dynamics from 2015 to 2019, %**

Source: Banking system-2019: Proportional regulation and its practical application. URL: https://asros.ru/upload/iblock/e87/19081_bankovskayasistemarossii2019_proportsionalnoeregulirovanie.pdf (accessed on 12.05.2020).



labour force to the corresponding month of the last year, %

unemployment rate, % SA (right scale)

Fig. 3. **Unemployment rate and labour force dynamics from 2016 to March 2020, %**

Source: Bulletin "Talking trends" prepared by the Bank of Russia's Research and Forecasting Department, April 2020. URL: https://cbr.ru/Collection/Collection/File/27780/bulletin_20–02.pdf (accessed on 11.05.2020).

2021 on the downward wave of the Kondratiev cycle [6]. The recovery period, when the restrictive measures are lifted, will depend on economic policy measures as well as the financial stabilization efforts of the Bank of Russia. Currently, the government and the Bank of Russia are supporting the Russian economy. This requires a coordinated and comprehensive strategy adopted by the government and the financial market regulator.

MEASURES INTRODUCED IN DIFFERENT COUNTRIES TO PREVENT RECESSION

In modern conditions, central banks and governments are trying to support their economies introducing various measures (*Table 1*). They can be roughly divided into:

1. Fiscal policy measures to support sectors of the economy.
2. Monetary policy measures to support the financial stability of economies.
3. Targeted policy measures to support individuals and legal entities.

Thus, fiscal and monetary policy measures in different countries vary significantly depending on the development of economies, the business activity level, and GDP rate affected by the pandemic But they have one common feature — scale.

The package of measures is designed to maintain economic stability and minimize negative consequences for both industries and enterprises. According to the calculations of the Analytical Credit Rating Agency (ACRA), countries suggest allocating from 0.2 to 36.6% of GDP for this purpose as of April 20, 2020. In Russia, the fiscal package is 2.6–2.8% of GDP (*Fig. 4*), provided the total decrease of income, this amount exceeds 5.5% of GDP[3].

[3] Unprecedented fiscal packages used by leading countries to support business and people. URL: https://www.acra-ratings.ru/research (accessed on 19.05.2020).

Table 1

Monetary and fiscal policy measures as consequences of the pandemic

Country	Monetary policy measures	Fiscal policy measures	Targeted measures for individuals and legal entities
1	2	3	4
USA	• Rate decrease to 0.25%; • transaction limit increase; • launch of the FIMA Repo Facility program for 6 months to exchange U.S. Treasury securities for U.S. dollars; • easing credit conditions, etc. [2]	• Program to support healthcare; • $ 700 billion in quantitative easing; • program to buy back unsecured loans from enterprises; • cancellation of reserve requirements, etc.	• Measures to support citizens, etc.
EU [9]	• Weekly auctions at a reduced rate of –0.5%; • easing lending conditions for banks; • programs for the purchase of assets of financial and non-financial sectors in case of instability; • weakening requirements for liquidity and capital adequacy of banks; • cancellation of stress tests for banks, etc.	• Healthcare packages; • provided state guarantees; • tax deferrals; • use of the funds of the European Stabilization Mechanism Fund to support finance industries, etc.	• Subsidizing small and medium enterprises; • subsidizing incomes of the population, etc.
UK	• Rate reduced to 0.1%; • increase in the repurchase of government bonds by 3 times; • use of bills for payments by large companies; • cancellation of stress tests for banks, etc. [5]	• Tax holidays for business; • credit guarantees, etc.	• Funds for direct support of individuals and others.
Russia	• Base rate reduced to 5.5%; • sale of foreign currency in the domestic market as part of the implementation of the budget rule mechanism; • easing credit conditions for the trade sector, etc.* [8]	• Tax exemption for small businesses excluding VAT for the second quarter of 2020; • suspension of OFZ auctions “until the market is stable”; • measures to support the healthcare sector; • simplified deliveries from abroad and within the country, restrictions on cargo transportation in cities removed; • tax deferrals, etc.**	• Measures to support the population (child benefit); • program for lending to legal entities for the payment of wages to employees, etc.

Source: compiled by the authors.

* Implementation of support measures by the Bank of Russia is vital for maintaining the stability of the banking system. URL: https://www.acra-ratings.ru/research (accessed on 20.05.2020).

** Support measures for regional budgets. URL: https://www.acra-ratings.ru/research (accessed on 18.05.2020).

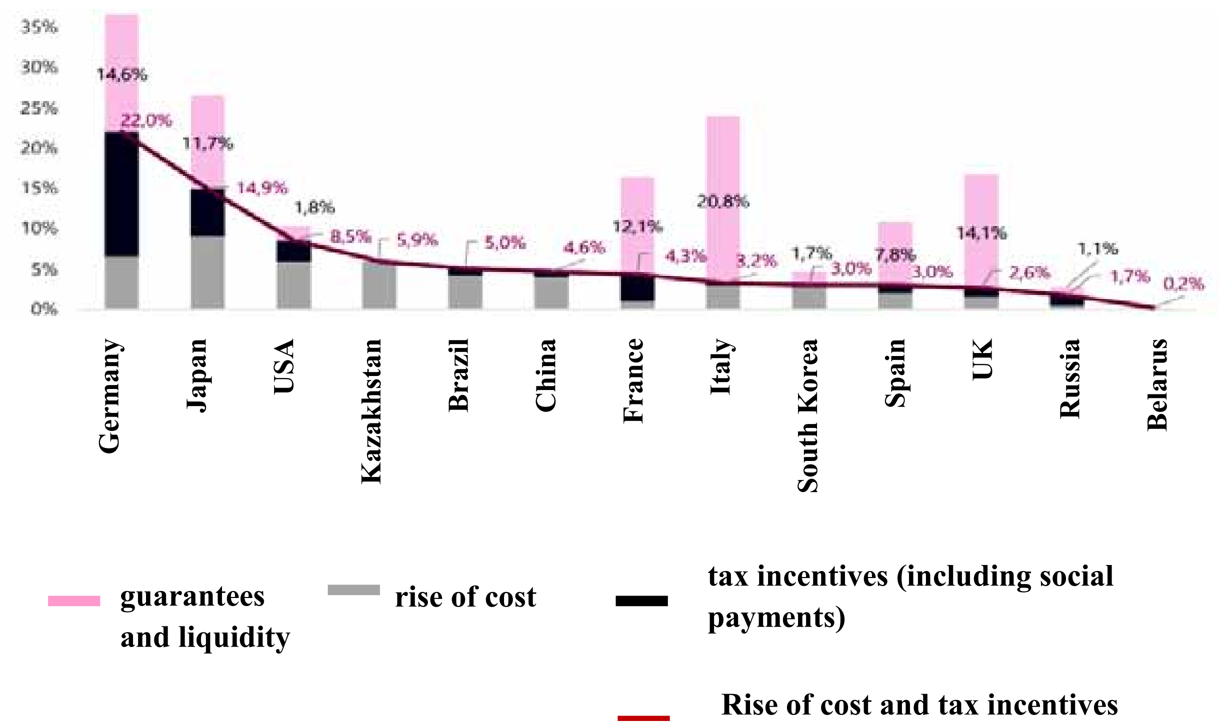


Fig. 4. **Fiscal packages of developed and developing countries in 2020**

Source: URL: https://www.acra-ratings.ru/research (accessed on 19.05.2020).

In most countries the package of measures is ensured by state guarantees. In addition, most central banks have lowered their base rates and expanded liquidity programs for commercial banks [9]. Countries with low base rates (Germany) or negative (Japan) mostly rely on fiscal policy as monetary policy measures will not be effective. Stricter public measures have been introduced in less economically stable countries.

However, it is necessary to develop additional measures in case of the second wave of coronavirus or long-term crisis, provided some countries have insufficient financial resources by that time.

THE FORECAST FOR THE WORLD AND RUSSIAN ECONOMY DEVELOPMENT REGARDLESS OF THE PANDEMIC

The base case scenario for the development of the Russian economy implies the cancellation of restrictive measures from June 2020 similar to China (2–2.5 months of quarantine); the financial authorities expect the start of economic recovery in 2022. This process will be supported by an increase in oil prices by $ 45 per barrel, an increase in GDP by 3.55%, the US Dollar/Russian ruble exchange rate at 70 rubles, a decrease in unemployment to 4.5% and in inflation to 3%, the balance of the federal budget will be estimated at 1.5% of GDP[4].

However, the base case scenario for Russia does not assume the fact that the spread of coronavirus will not end as soon as financial authorities expect. The next crisis within the business cycle of 5–7 years will be the reason to it (*Fig. 5*).

The governments' objective now is to eliminate any uncertainty as soon as possible. As we have seen in previous crises, when uncertainty subsides, the public confidence returns and the economy starts to recover. The level of uncertainty has been rated as the highest in 35 years, which may

[4] Analytical Credit Rating Agency. Official Website. URL: https://www.acra-ratings.ru/research/1769 (accessed on 19.05.2020).

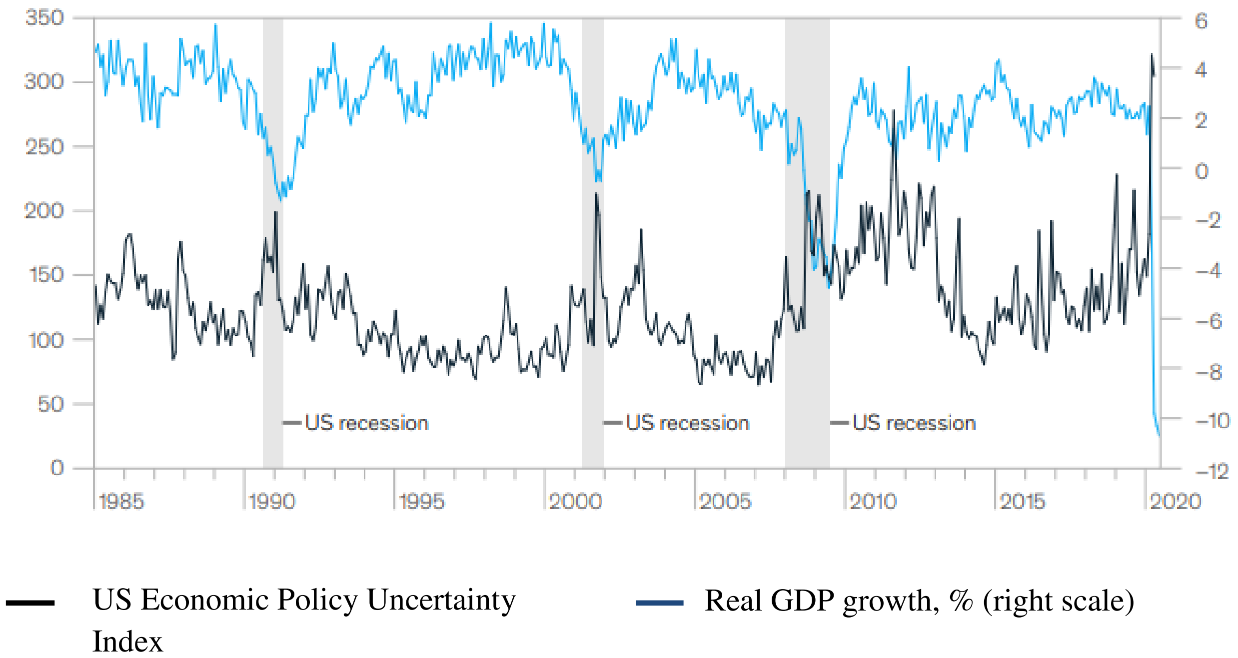


Fig. 5. **GDP cyclical growth from 1985 to present**

Source: Baker S.R., Bloom N., Davis S.J. [10].

indicate the onset of a global recession and a long-term crisis in many countries [11].

According to McKinsey & Company, from now to the end of 2023, the loss of global GDP will amount to about $ 15 trillion, given a high number of coronavirus cases in developed countries and "near zero-virus" situation in developing countries. The economic implications are expected to be more serious than from severe acute respiratory syndrome (SARS, 2003) and the Middle East respiratory syndrome (MERS, 2015). The current crisis is already seen as a "new great depression". Governments around the world must recognize that much work remains to be done and that they should prepare for the crisis after the recession [12].

ECONOMIC SCENARIOS OF THE COUNTRY DEPENDING ON THE PANDEMIC ACTIVITY

Amid the fast-moving pandemic and the response measures, economic forecasting has become uncertain. The Organisation for Economic Co-operation and Development, for example, canceled the March release of its forward-looking composite leading indicator [13].

Currently, most governments and central banks use a variety of measures to stimulate the economy and maintain financial stability. Unfortunately, according to forecasts, we will observe a significant drop in the level of GDP by 8–13% in the second quarter of 2020 [14].

The McKinsey Global Institute developed scenarios for the global economic recovery depending on the coronavirus spread (*Fig. 6*). A positive scenario anticipates economic recovery within a year, while a pessimistic scenario — within 5 years. The X-axis shows time, and the Y-axis shows GDP,%.

Fig. 6 illustrates scenarios for the world economy, depending on the coronavirus spread and a corresponding change in GDP.

According to the Fig. 6, there are four most favorable economic recovery scenarios that countries can follow — A1, 2, 3, 4 [2, 13, 14]:

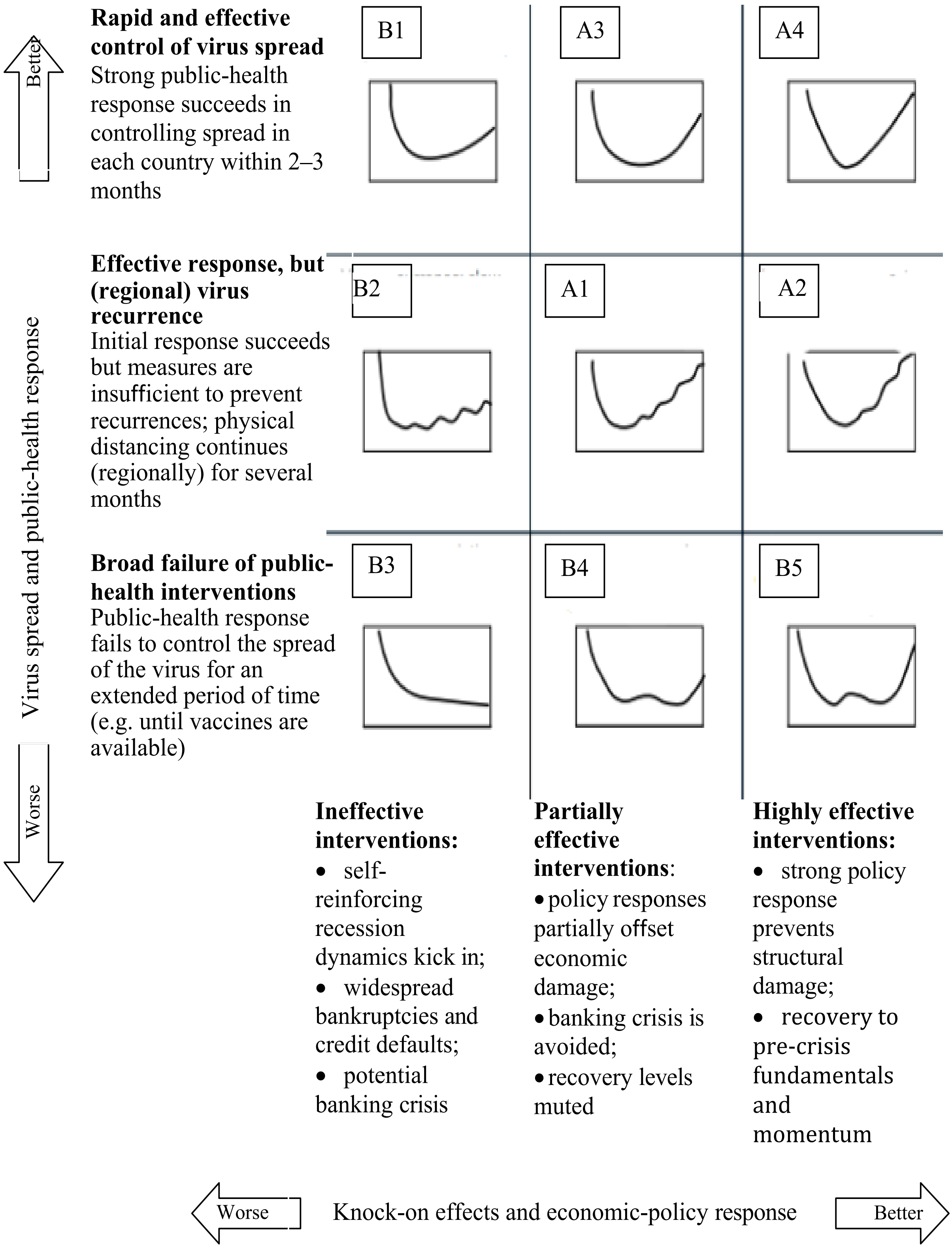


Fig. 6. **Scenarios for the world economy, depending on the coronavirus spread and the effectiveness of the government's measures**

Source: COVID-19: Briefing materials. Global health and crisis response, 2020. URL: https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Risk/Our%20Insights/COVID%2019%20Implications%20for%20business/COVID%2019%20March%2025/COVID-19-Facts-and-Insights-March-25-v3.ashx (accessed on 17.05.2020).

- A1 — virus recurrence; slow long-term growth; muted world recovery;
- A2 — virus recurrence; return to trend growth; strong world rebound;
- A3 — virus contained; slow recovery;
- A4 — virus contained; strong growth rebound;
- B1, 2 — virus contained in the first case; virus recurrence with slow long-term growth in the second case;
- B3, 4, 5 — progression toward economic recovery varies depending on the virus spread.

CONCLUSIONS

Proactive measures are required to deal with a recession. Measures are effective when introduced at the beginning of a recession.

Proactive actions are important for the population. For example, during the recessions in the United States after World War II, there was a significant increase in unemployment. In the 2000s, the number of unemployed increased by 7 million people (almost doubled) [15].

Historically and traditionally, the question was raised about the possibilities of fiscal policy in assisting the population. And this is what we are now observing: tax cuts and increased government spending.

According to New Keynesians and monetarists, monetary policy is still preferable in overcoming a recession, because it is more flexible and effective while deciding on the increase in government spending and tax reduction takes time. Taxes and government spending issues need to be approved by governments. For example, in Russia they must be approved by the State Duma and the Federation Council, in the United States by the US Congress and Senate. This is much slower than the actions of the central bank to change rates, which affects the demand in the economy.

In addition, there are volatility losses, i. e., the more unstable the economy, the slower its growth.

On the other hand, there is a negative side to the proactive policy of central banks due to the existence of two lags. The first lag is between the decision to change politics and the shock. Typically, a recession slowly seeps into the economy and business activity and the shock is not immediately visible.

The second lag occurs between the changed rates and the reaction of the economy. The central bank does not influence the process instantly, since credit organizations may not want to immediately expand lending in response to lower rates. It will take some for the economy to react.

These two lags indicate that the central bank and governments face a challenging task. In addition, amid the pandemic, effective healthcare measures are important but still insufficient.

According to G. Mensch, "innovations overcome the depression." It is only possible to revive the global economy when a group of basic innovations of the new sixth wave is formed. It is likely that in 2025 the economy will start to recover amid the rising wave of the sixth Kondratiev cycle, which will last until 2045 [6]. Significant changes in education and labor law are also required for a faster economic recovery.

REFERENCES

1. Sneader K., Singhal S. Beyond coronavirus: The path to the next normal. McKinsey & Company. Mar. 23, 2020. URL: https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/beyond-coronavirus-the-path-to-the-next-normal#
2. Craven M., Singhal S., Wilson M. COVID-19: Briefing note, April 13, 2020. McKinsey & Company. 2020. URL: https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Risk/Our%20Insights/COVID%2019%20Implications%20for%20business/COVID%2019%20April%2013/COVID-19-Briefing-note-April-13–2020.ashx

3. Isaifan R. J. The dramatic impact of Coronavirus outbreak on air quality: Has it saved as much as it has killed so far? *Global Journal of Environmental Science and Management*. 2020;6(3):275–288. DOI: 10.22034/GJESM.2020.03.01
4. Liu Q., Zheng Z., Zheng J. et al. Health communication through news media during the early stage of the COVID-19 outbreak in China: Digital topic modeling approach. *Journal of Medical Internet Research*. 2020;22(4): e19118. DOI: 10.2196/19118.
5. FitzGerald A., Kwiatkowski K., Singer V., Smit S. An instant economic crisis: How deep and how long? Strategy & Corporate Finance Practice. April 2020. URL: https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Strategy%20and%20Corporate%20Finance/Our%20Insights/An%20instant%20economic%20crisis%20How%20deep%20and%20how%20long/An-instant-economic-crisis-How-deep-and-how-long-FINAL.ashx (accessed on 10.05.2020).
6. Chernykh L. A. Strategy management of industrial enterprises in the context of reproductive cycles: The example of the Russian defense industry. Cand. econ. sci. diss. Synopsis. Penza: Penza State Univ.; 2013. 27 p. URL: https://www.dissercat.com/content/upravlenie-strategiei-promyshlennykh-predpriyatii-v-usloviyakh-vosproizvodstvennoi-tsiklichn (accessed on 19.05.2020). (In Russ.).
7. Ciżkowicz P., Radzikowski B., Rzońca A., Wojciechowski W. Fiscal devaluation and economic activity in the EU. *Economic Modelling*. 2020;88:59–81. DOI: 10.1016/j.econmod.2019.09.010
8. Teterina D. Yu., Ryabova A. D. Monetary policy of the central banks of the world and Russia during the coronavirus pandemic. *Nauka cherez prizmu vremeni*. 2020;(5):105–109. (In Russ.).
9. Aleksandrova V. A. The impact of COVID-19 control measures on the global economy. *E-Scio*. 2020;(4):353–360. (In Russ.).
10. Baker S., Bloom N., Davis S. J., Terry S. J. COVID-induced economic uncertainty. Becker Friedman Institute White Paper. April 2020. URL: https://bfi.uchicago.edu/wp-content/uploads/BFI_White-Paper_Davis_4.2020.pdf (accessed on 15.05.2020).
11. Smit S., Hirt M., Dash P. et al. Crushing coronavirus uncertainty: The big 'unlock' for our economies. McKinsey & Company. May 13, 2020. URL: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/crushing-coronavirus-uncertainty-the-big-unlock-for-our-economies
12. Marinova D. M., Anduiza E. When bad news is good news: Information acquisition in times of economic crisis. *Political Behavior*. 2020;42(2):465–486. DOI: 10.1007/s11109–018–9503–3
13. Esin P. A. Scenario of the global market development in the context of coronavirus crisis. *Izvestiya vysshikh uchebnykh zavedenii. Prikladnaya nelineinaya dinamika = Izvestiya VUZ. Applied Nonlinear Dynamics*. 2020;28(2):158–167. (In Russ.). DOI: 10.18500/0869–6632–2020–28–2–158–167
14. Barthélémy S., Binet M.-E., Pentecôte J.-S. Worldwide economic recoveries from financial crises through the decades. *Journal of International Money and Finance*. 2020;105:102204. DOI: 10.1016/j.jimonfin.2020.102204
15. Blueschke D., Neck R., Wittmann A. How relieving is public debt relief? Monetary and fiscal policies in a monetary union during a debt crisis. *Central European Journal of Operations Research*. 2020;28(2):539–559. DOI: 10.1007/s10100–020–00677–7

ABOUT THE AUTHORS

Lyubov' A. Petrova — Cand. Sci. (Econ.), Assoc. Prof., Department of Digital Economy, Penza State University, Penza, Russia
lyu-c@yandex.ru

Tat'yana E. Kuznetsova — Cand. Sci. (Econ.), Assoc. Prof., Department of Digital Economy, Penza State University, Penza, Russia
kuznetzovat2007@yandex.ru

Viktor M. Volodin — Dr. Sci. (Econ.), Prof., Department of Management and Economic Security, Penza State University, Penza, Russia
7volodin7@mail.ru

Authors' declared contribution:
Volodin V. M. — conceived and designed the study, developed the conceptual framework, performed the analysis of sources.
Petrova L. A. — interpreted and described the results, wrote the conclusions.
Kuznetsova T. E. — collected statistical data, designed tables and graphical representations.

The article was submitted on 22.05.2020; revised on 05.06.2020 and accepted for publication on 04.07.2020.
The authors read and approved the final version of the manuscript.