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IMPACT OF GLOBALIZATION FACTORS ON INFLATION RISKS DURING COVID-19 PANDEMIC

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ABSTRACT

Background: With the changes in the world economy associated with the COVID-19 pandemic, inflationary risks are rising in many countries, while the factors affecting the trend of inflation are becoming more global. At the same time, standard inflation risk prediction models are focused on assessing domestic factors and oil and commodity prices, while globalization factors are considered secondary and neglected. For a more objective assessment of inflationary risks, one must consider the nature and strength with which various globalization factors influence inflation. **Objective:** The purpose of this article is to determine the presence and nature of the relationship between the globalization factors and the level of inflation. **Methods:** To confirm the proposed research hypotheses, the authors use the methods of correlation analysis and multiple linear regression. **Results:** The findings partially confirm the hypotheses put forward about the existence of a relationship between the growth rates of consumer prices and globalization factors. The research hypothesis is confirmed in terms of the existence of a relationship between inflation risks and factors of global trade, financial, interpersonal, informational, and cultural globalization. At the same time, the study shows that the factors of political globalization do not have a significant impact on inflation risks. The inflation rate and globalization factors have a negative correlation, i.e. a high degree of globalization of the country in the world space leads to a decrease in inflation risks.

Keywords: Inflation; Proinflationary risk; Deflation risk; Globalization; Integration; Consumer price index.

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IMPACTO DOS FACTORES DE GLOBALIZAÇÃO NOS RISCOS DE INFLAÇÃO DURANTE A PANDEMIA DE COVID-19

RESUMO

Antecedentes: Com as mudanças na economia mundial associadas à pandemia de COVID-19, os riscos inflacionários estão aumentando em muitos países, enquanto os fatores que afetam a tendência da inflação estão se tornando mais globais. Ao mesmo tempo, os modelos padrão de previsão de risco de inflação estão focados na avaliação de fatores domésticos e preços de petróleo e commodities, enquanto os fatores de globalização são considerados secundários e negligenciados. Para uma avaliação mais objetiva dos riscos inflacionários, deve-se considerar a natureza e a força com que diversos fatores de globalização influenciam a inflação. **Objetivo:** O objetivo deste artigo é determinar a presença e a natureza da relação entre os fatores de globalização e o nível de inflação. **Métodos:** Para confirmar as hipóteses de pesquisa propostas, os autores utilizam os métodos de análise de correlação e regressão linear múltipla. **Resultados:** Os achados confirmam parcialmente as hipóteses levantadas sobre a existência de uma relação entre as taxas de crescimento dos preços ao consumidor e os fatores de globalização. A hipótese de pesquisa é confirmada em termos da existência de uma relação entre os riscos inflacionários e os fatores de globalização do comércio global, financeiro, interpessoal, informacional e cultural. Ao mesmo tempo, o estudo mostra que os fatores de globalização política não têm um impacto significativo sobre os riscos de inflação. A taxa de inflação e os fatores de globalização têm uma correlação negativa, ou seja, um alto grau de globalização do país no espaço mundial leva a uma diminuição dos riscos de inflação.

Palavras-chave: Inflação; Risco pró-inflacionista; Risco de deflação; Globalização; Integração; Índice de preços ao consumidor.

1 INTRODUCTION

Since the global financial crisis of 2008, a lot of countries have developed national economic strategies to strengthen and maintain the stability of their economies. The measures taken have made it possible to achieve some progress. In 2015-2016, the average global inflation rate was at historically low levels of 2.7%, and in countries with developed economies, the inflation rate was 0.31%-0.75%, respectively (International Monetary Fund, 2021a). This was achieved through the influence of factors that reduce the price pressure on the global market for goods and services, such as the growth of technological progress, the expansion of world trade as well as the high level of competition (United Nations Department of Economic and Social Affairs, 2020).

During the COVID-19 pandemic, when many countries took measures to curb its spread, economic activity was stimulated through eased monetary policy and reduction of key rates by central banks.

Thus, for example, in 2020 in the USA, the base interest rate was reduced from

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1.75% to 0.25% (Board of Governors of the Federal Reserve System, 2021), in the UK and Canada – from 0.75% to 0.10% (Bank of Canada, 2021; Bank of England, 2021). Similar trends were observed in emerging markets: in 2020, the key rate was cut twice in China and India: from 4.15% to 3.85% (People's Bank of China, 2020) and from 5.15% to 4% (Reserve Bank of India, 2020) respectively. The key rate was reduced the most in Russia, where the decision to lower it by the Central Bank of the Russian Federation was made four times and reached a historic low of 4.25% by the end of 2020 (Central Bank of Russia, 2020).

The COVID-19 pandemic has accelerated the global trend towards disinflation. Thus, the average annual inflation rate in advanced economies in 2020 decreased compared to the previous year from 1.4% to 0.68% (International Monetary Fund, 2021b), in emerging markets and developing economies of Europe and Asia, this indicator fell from 6.63% to 5.36% and from 3.28% to 3.12% respectively.

As the global economy adapts to the changes associated with COVID-19 pandemic, we believe that the prospects for further development of the economy remain highly uncertain.

Additional threats to the global economy are associated with the exacerbation of geopolitical risks, such as armed conflicts and trade wars. Thus, as a result of military conflicts, the situation in the global energy market may change significantly, which will lead to a significant increase in world prices for vital energy resources. Rising tariffs, quotas, and embargoes on imports as a result of trade wars lead to a recession in world trade and higher prices for key resources on the international market. Climate risks put additional inflationary pressure on the global economy. The global policy aimed at reducing the net level of hydrocarbon emissions leads to an increase in prices for electricity, gas, and other fuels. This, in turn, has a direct impact on the growth of consumer prices and an increase in the production costs of enterprises in various sectors of the economy (Reinsdorf, 2020).

Against the background of the uneven recovery of countries, there is a noticeable increase in inflation risks, the balance of which has shifted from disinflationary risks towards proinflationary. Numerous countries are facing rising inflation well above their monetary policy targets. Thus, over ten months of 2021, the inflation rate in advanced economies rose to 2.8%, in European countries with emerging markets, this figure reached 8.4% (International Monetary Fund, 2021b). The highest growth in the inflation rate is observed in the eurozone: from 0.3% to 2.2%, i.e. 8.7 p.p.

Both deflation and high inflation are serious risks to the economy. Under the current

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conditions, one of the urgent tasks facing central banks is the development of measures in the field of monetary policy aimed at ensuring price stability. To do this, central banks must monitor inflation risks and assess the impact of various factors on the inflation rate in the country.

As political situations become more complicated, including the emergence of armed conflicts, external risks increase, accompanied by an increase in the exchange rate of the national currency, which can become an additional pro-inflationary factor, since it affects the current prices of goods and leads to an increase in devaluation and inflationary expectations. To maintain financial and price stability central banks can use a wide range of instruments, including raising the key interest rate. This allows compensating for the growing inflationary risks, maintaining the attractiveness of deposits, and protecting citizens' savings from depreciation. In addition, the banking system uses the mandatory sale of foreign exchange earnings, changes in reserve requirements, operations to provide or absorb liquidity for long periods, auctions to provide and withdraw liquidity, etc. as effective tools to maintain price stability.

One of the most important factors determining the inflation forecast is macroeconomic conditions. At the same time, standard inflation-forecasting models focus on prioritizing domestic determinants such as reduction in domestic production and consumption (Imbs et al., 2011; O'Brien et al., 2021) and inflation expectations (Adam & Padula, 2012; Clark & Davig, 2008; Fuhrer, 2012; Nunes, 2010). We believe that this approach is used to identify the main trends in inflation. Standard models need to be revised and, as commodity, financial and service markets become international and more integrated into global production chains, should include an assessment of the impact of globalization factors on inflation trend (Ramazanov et al., 2018).

The purpose of the study is to identify the relationship between inflation indicators and factors of various types of globalization to improve the quality of forecasting inflation risks in the development of national monetary policy.

2 LITERATURE REVIEW

Currently, there is a fairly wide range of research devoted to the study of inflation as a global phenomenon (Kabukcuoglu & Martinez-Garcia, 2018; Parker, 2018), the interdependence of inflation and world commodity prices (Choi et al., 2018; Ciner, 2011; Lapinskaitė & Miečinskienn, 2019; Saleuddin & Coffman, 2018; Sekine & Tsuruga, 2018; Zakaria et al., 2021), imports of goods and services (Islam, 2013;

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Kiganda & Atieno, 2020; Taylor & Barbosa-Filho, 2021), labor market situation (Attiyah Mohammed Omran & Bilan 2021; Mohamed Mustafa, 2019) as well as the impact of monetary policy and inflation targeting (Chugunov et al., 2021; Ojo D Delaney & Dierker, 2021; SamarIna & de Haan, 2014; Vedala & Vedala, 2018). There is still no consensus as to which type of risk poses a more significant and immediate threat to the economy.

The level of inflationary risks largely depends on the ongoing monetary policy.

The expansionary monetary policy pursued by governments of many countries since the beginning of the 21st century has been continued during the COVID-19 pandemic and reinforced by new programs and stimulus measures. While such a policy helps to stabilize the situation in the short term, in the long term, it can create imbalances and exacerbate risks, such as a return of inflation in developed countries, over-indebtedness of the population, and investment errors in financial risks (Echarte Fernández et al., 2022).

Thus, the soft monetary policy of a number of states, and, above all, the US, has become one of the reasons for the growth in consumer prices around the world. The ongoing policy of zero rates and an unprecedented package of anti-crisis measures related to the pandemic, combined with the growth of public debt, has led to a massive emission of money in the three main world reserve currencies. The release of banknotes unsecured by real assets caused a significant increase in inflation. Considering the importance of the American economy to the whole world and the importance of the dollar as the most demanded reserve currency, this certainly affected the entire world economy.

Periods of international economic boom or easing of the monetary policy of large economies, such as the US, Eurozone, China, and Japan, are translated into an increase in the demand of large economies for goods exported from small open economies. As a result, economic activity and incomes in small economies grow faster than the equilibrium rate, which creates inflationary pressure on their domestic market and causes the import of inflation.

In addition, sanctions wars have a significant impact on the inflation rate. For example, the sanctions policy toward Russia will lead to a reduction in Russian exports of energy resources and other commodities and will cause an additional rise in prices on world markets.

Some researchers believe that inflation is the main risk for advanced economies in the next few years (Barrell & Fic, 2010; Lopez-Salido & Loria, 2020).

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Other authors believe that the most immediate threat is the risks of deflation (a decrease in the general price level measured by the consumer price index), which leads to a slowdown in investment and economic growth (Arias et al., 2016; Blanchard, 2019; Clinton et al., 2010).

Research results testify to the growing role of global factors in changing inflation rates (Ali et al., 2019; Feldkirchen & Tondl, 2020; Mumtaz & Suriko, 2012; Shin & Kang, 2021).

Claudio E. V. Borio and Andrew J. Filardo (2007), examining the disinflationary effects of globalization, concluded that to explain the cyclical fluctuations in inflation in different countries, it is necessary to include an indicator of the global recession in traditional investment risk assessment models. M. Ciccarelli and B. Modjon (2010) came to similar conclusions, arguing that the inclusion of global factors in the models significantly improved inflation forecasting.

F. Bianchi and A. Civelli (2015) prove a positive relationship between inflation and the factors of trade and financial globalization, but at the same time note that to be economically significant, changes are needed in terms of the openness of the economy.

At the same time, some authors do not find a direct relationship between inflation and globalization. For example, the results of the study by D. Lodge and I. Mikolajun (2016) show that there is insufficient evidence for the existence of direct consequences of the global economic slowdown for domestic inflation.

K. Forbes (2019), analyzing the impact of global variables on the inflation trend, confirmed the conclusions that, despite the presence of a positive correlation between the indicators of the global recession and cyclical inflation, the impact on the more stable component of inflation was insignificant.

The findings are consistent with the results of the study by G. Kamber and B. Wong (2020), who concluded that although global factors had an impact on the inflation gap, the factors played only an insignificant role in stimulating trend inflation.

A limited number of studies are devoted to studying the influence of information integration factors.

During the COVID-19 pandemic, both manufacturers and consumers have become more digitally dependent (Batool et al., 2021). The widespread adoption of information technology can have a significant impact on overall inflation, both through the prices of digital products in countries and through the development of online retail. According to studies, lower prices for ICT products reduce the annual HICP inflation rate by an

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average of 0.15 percentage points annually. In addition, information technology contributes to the expansion of global e-commerce, which affects the reduction of inflation, lower costs compared to traditional channels, and price containment by suppliers in order to maintain their competitiveness.

For example, the analysis presented by F. Chiakio, K. Gradova, and P. Lopez-Garcia (2018) supports the argument that the growing integration of countries into the global economy makes inflation less susceptible to domestic conditions.

It should be noted that, although the influence of global factors on the domestic consumer price index is widely covered in modern academic literature, the impact of certain types of integration development, including economic, and political aspects of globalization on domestic inflation indicators, remains underexplored.

The following points constitute the research hypothesis in this work:

- Globalization factors significantly impact the level of inflation. As a null hypothesis, it is accepted that the correlation coefficient is equal to zero and a certain factor of globalization does not have any effect on the level of inflation.

-The globalization factors have an inverse relationship with the level of inflation, i.e. the high level of integration of the country into the world space has a downward effect on the consumer price index.

3 METHODS

In the study, to analyze the impact of global factors, we used a quantitative approach based on indicators for 2019 for eight advanced economies (Germany, Canada, France, Japan, the Republic of Korea, the USA, the UK, Singapore) and eight largest economies among emerging market countries (Brazil, China, India, Mexico, the Russian Federation, Nigeria, Saudi Arabia, and South Africa).

The strength and nature of the relationship between global factors and the level of inflation in the country are assessed using correlation analysis. With the help of this analysis, the first hypothesis about the degree with which the selected factors influence the level of inflation is tested on the Chaddock scale:

$0.1< r_{xy} < 0.3$	weak
$0.3< r_{xy} < 0.5$	moderate
$0.5< r_{xy} < 0.7$	noticeable
$0.7< r_{xy} < 0.9$	high
$0.9< r_{xy} < 1$	very high

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To study the nature of the relationship between the level of inflation and globalization factors, the method of multiple linear regression is used.

Factors are described below in the text – these are indices by types of globalization (trade, financial informational, etc.).

This method of analysis was chosen because the method makes it possible to test the hypotheses of this study and predict the value of the dependent variable in the near future.

The dependent variable (Y) is the inflation rate in the country, which is the change in the average consumer price for 2020 compared to the same indicator for 2019. The source of information for the analysis is the database of the International Monetary Fund (International Monetary Fund, 2021c).

Quantitative indicators of the globalization factors are the components that make up the Index of the degree of globalization of countries (KOF Globalization Index), which reflects the scale of integration of a country into the world space (Humanitarian Technology Centre, 2021). These factors of economic, social, and political globalization were grouped by quantitative indicators and presented in Table 1.

Table 1. Grouped globalization factors

Globalization factor	Integrated index	Indicators
Economic	X1 Trade globalization index	Volume of export and import of goods and services Number of trade partners, Trade regulations International trade taxes, Tariffs Trade agreements
	X2 Financial globalization index	Volume of foreign direct investment Volume of portfolio investment International debt, International reserves International income payments
Social	X3 Interpersonal globalization index	International transfers, International tourist arrivals Voice traffic Percentage of international students Percentage of migrants
	X4 Informational globalization index	Used Internet bandwidth Number of international patents High technology exports Television and Internet access Press freedom
	X5 Cultural globalization index	Trade in cultural goods Trade in personal services Number of international trademarks
Political	X6 Political globalization index	Number of embassies UN peacekeeping missions International non-governmental organizations International treaties

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Each index is evaluated on a scale from one to 100, where 100 indicated the maximum degree of globalization.

4 RESULTS

The initial data for correlation-regression analysis are presented in Table 2.

Table 2. Initial data for correlation-regression analysis

Country	Level of inflation, % (Y)	Global trade index (X1)	Financial globalization index (X2)	Interpersonal globalization index (X 3)	Informational globalization index (X4)	Cultural globalization index (X5)	Political globalization index (X6)
Germany	0.371	79.5	82.81	76.81	92.02	93.08	97.72
Canada	0.717	59.92	82.95	77.67	95.61	93.87	92.14
France	0.525	73.05	85.87	82.35	87.44	86.57	97.99
Japan	-0.027	56.72	78.54	58.24	93.06	90.31	87.2
The Republic of Korea	0.537	62.86	64.29	65.51	93.97	87.31	90.44
Singapore	-0.182	96.46	92.1	88.2	89.18	87.52	67.82
The USA	1.248	54.33	80.52	71.81	95.39	93.52	92.51
The UK	0.851	73.49	89.68	79.14	93.2	93.78	97.65
Brazil	3.212	39.37	44.11	40.64	84.51	62.2	90.15
China	2.39	44.97	46.16	33.97	77.6	62.31	90.18
India	6.175	46.28	37.61	31.17	67.69	61.55	92.01
Mexico	3.399	51.92	67.08	56.27	82.16	61.72	87.61
Nigeria	13.247	36.95	51.4	33.79	54.46	22.43	84.78
The Russian Federation	3.382	49.87	60.51	60.14	79.02	66.36	92.39
Saudi Arabia	3.438	65.29	62.1	68.4	83.97	65.34	66.42
South Africa	3.268	55.34	54.54	56.18	80.22	63.44	89.04

The highest rate of inflation is observed in Nigeria, where the economy is heavily dependent on the sale of oil and money transfers. A high level of inflation risks is formed under the influence of negative supply shocks, such as lower production rates of domestic companies, conflicts in the northern states, and floods.

Against the backdrop of recession periods, weak domestic demand, a deflationary environment persists in Saudi Arabia where falling consumer prices are partly due to the weakened economy, which is focused on the hydrocarbon sector and is heavily dependent on international oil prices.

Since the start of the pandemic, the inflation rate in the BRICS countries has been largely contained and, by the end of 2020, is in the range of 2.4%-6.2%. Inflation risks have risen particularly sharply in India, with inflation above 6%, the upper end of the target due to supply disruptions and food-driven inflation. Core inflation was also on a higher trajectory in Russia and Brazil.

For China and South Africa, inflation risks did not become critical since inflation was successfully contained by the governments of these countries.

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In advanced economies, inflation risk remained at an acceptable level, as average annual inflation was within target levels. The slowest growth in the consumer price index among advanced economies in 2019 was recorded in South Korea, Japan, and Singapore.

The results of the correlation analysis of the presented data are shown in the form of a matrix in Table 3.

Table 3. Correlation matrix of inflation level and globalization factors

	Y	X1	X2	X3	X4	X5	X6
Y	1.00	-0.64	-0.64	-0.70	-0.93	-0.92	-0.12
X1	-0.64	1.00	0.80	0.87	0.58	0.68	-0.24
X2	-0.64	0.80	1.00	0.92	0.71	0.77	0.03
X3	-0.70	0.87	0.92	1.00	0.76	0.78	-0.07
X4	-0.93	0.58	0.71	0.76	1.00	0.94	0.13
X5	-0.92	0.68	0.77	0.78	0.94	1.00	0.23
X6	-0.12	-0.24	0.03	-0.07	0.13	0.23	1.00

The findings show that there is a very high negative correlation between the growth rate of consumer prices and the levels of informational (-0.93) and cultural globalization (-0.92). There is a noticeable correlation between the level of inflation and indices of trade, financial and interpersonal globalization.

At the same time, the relationship between the factors of political globalization (X6) and the level of inflation (Y) is weak. Therefore, when building a multiple regression model, this factor is excluded from consideration.

The regression statistics of the multiple regression model are presented in Table 4.

Table 4. Regression statistics of the multiple linear model

Indicator	Value
Multiple R	0.964
R-squared	0.930
Adjusted R-squared	0.895
Standard error	1.075
Observations	16
Total sum of squared deviations of the y variable from the mean ȳ.	165.5
Fisher's F-test	26.65
Significance of F	0.00002

The findings allow one to conclude that the constructed model is of high quality: the coefficient of determination (R-squared) is 0.93, and the value of the significance level corresponding to the value of the F-criterion is significantly lower than the accepted significance level (0.05). A standard error of 1.075 indicates that 95% of the observations are within +/- two regression standard errors (1.075*2=2.15<5), which allows one to speak of fairly high accuracy of the model.

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The results of the regression analysis are presented in Table 5.

Table 5. Regression analysis results

	Coefficients	Standard error	t-statistic	p-value
Y-пересечение	25.065	4.286	5.848	0.000
Variable X 1	-0.080	0.040	-1.999	0.073
Variable X 2	0.042	0.044	0.951	0.364
Variable X 3	0.046	0.056	0.827	0.428
Variable X 4	-0.229	0.083	-2.752	0.020
Variable X 5	-0.053	0.049	-1.087	0.302

P-values for most factors (except X4) exceed 0.05 which means that these regression coefficients are not significant for the model. The most significant factor for assessing the forecast value of the inflation rate is the factor of informational globalization.

The findings made it possible to obtain a multiple regression equation, which is used to build a forecast of the level of inflation under the influence of globalization factors:

Y=25,065-0,08*X1+0.042*X2+0.046*X3-0.229*X4-0.053*X5

The forecast of changes in the average annual inflation rate under the influence of global factors for selected countries of the world is presented in Table 6.

Table 6. The forecast of changes in the average annual inflation rate under the influence of global factors

Country	Actual average annual level	Forecast average annual inflation rate
Germany	0.371	-0.29
Canada	0.717	0.46
France	0.525	2.00
Japan	-0.027	0.41
The Republic of Korea	0.537	-0.40
Singapore	-0.182	0.21
The USA	1.248	0.60
The UK	0.851	0.28
Brazil	3.212	2.99
China	2.39	3.90
India	6.175	5.61
Mexico	3.399	4.23
Nigeria	13.247	12.16
The Russian Federation	3.382	4.77
Saudi Arabia	3.438	2.90
South Africa	3.268	3.78

According to the findings, if the current level of globalization of the country is maintained in Germany and the Republic of Korea, there may be a risk of a “deflationary trap”. At the same time, the forecast indicators for Japan and Singapore, under the influence of global factors, show a reverse trend – from deflation to low inflation. However, in general, countries with a high level of globalization will not

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experience serious inflationary shocks: the growth/decrease in inflation will remain within acceptable limits.

In emerging market economies with a medium level of globalization such as Russia, Mexico, South Africa, and China, proinflationary risks are projected to increase. At the current level of globalization, consumer price inflation is forecast to slow in Brazil, India, and Saudi Arabia.

Nigeria, the country with the lowest degree of informational, intercultural, and trade globalization among the compared countries is most exposed to proinflationary risk, but according to the forecast, the inflation rate in the country will decrease.

5 DISCUSSION

5.1 Comparison of the obtained results with earlier studies

The findings confirm the opinion of experts from the European Bank (Attinasi & Bolatti 2021), as well as some other studies (Borio Claudio EV, Filardo Andrew J., Bianchi F., and Civelli, A. et al.) that the factors affecting the inflation trend are becoming increasingly global. We agree with Forbes K.'s statement that globalization can affect inflation more fundamentally and not just cause temporary shifts in the inflation rate.

We cannot unequivocally agree with the conclusions by D. Lodge, I. Mikolajun that the influence of globalization factors on curbing inflationary risks is insignificant. The exception is the factors of political globalization, which, according to the results obtained, do not have a noticeable effect on inflation processes.

The results of this study support the findings (Kim et al., 2016) that globalization, on average, has a significant and positive effect on inflation in developing countries, while there is no significant effect of openness in developed countries.

We agree with the opinion of experts F. Chiakio, K. Gradova, P. Lopez-Garcia who argue that the factors of informational globalization weaken the correlation between inflation and internal factors.

Digitalization and transparency of the Internet expand the geographical horizons for consumers, facilitate cross-border information flow and reduce the costs for manufacturers to enter the international market, which affects the trend of business development, transparency, and price competitiveness (Magomedov, 2019; Mandych & Bykova, 2021). We agree with the opinion of A. Cavallo (2018) that increased

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competitive pressure increases the geographic correlation of price changes and restrains them.

The findings of this study showed that the factors of cultural globalization can also have a disinflationary effect on the economy. We agree with the opinion of the Central Bank experts (Central Bank of Russia, 2021) that the stabilization of the labor market may lead to a slowdown in price and demand growth in the economy and limit the associated proinflationary risks. If the human resources shortage spreads across a wide range of industries, the risks of rising inflationary pressures from the labor market could prove to be justified.

It should be noted that we share the opinion of experts who note that high inflation, requiring unforeseen policy adjustments, in the context of the exit from the pandemic, is the main macro risk for many countries of the world. Therefore, the macroeconomic focus of the recovery has shifted to stabilizing inflation (Economist Intelligence, 2021; Grunwald, 2021).

Questions about whether inflation is temporary and will gradually decrease, or whether it is permanent and requires an immediate response, are currently causing active debate in the expert community.

Thus, according to experts of the European Bank, inflation growth will be moderate due to temporary factors, such as a one-time increase in prices for services as the restrictions associated with COVID-19 pandemic are eased, the cancellation of the reduction in the VAT rate in Germany, a significant increase in commissioning costs associated with interruptions in supplies.

5.2 Theoretical contribution of the study to the study of the influence of global factors on the level of inflation

The methodology presented in this study made it possible to identify a causal relationship between various factors of globalization and the level of inflation and build a forecast of pro-inflationary risks depending on changes in one of the selected variables.

The results of the research can be used in updating inflation forecasting models, which determines the theoretical significance of this work and allows us to determine the directions of new research in the field of inflation risk forecasting, considering global trends, such as the impact of the pandemic and geopolitical factors on global inflation risks.

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At the same time, the use of this model has some limitations since some variables involved in the calculation of the KOF index are obsolete and do not fully meet the requirements for the accuracy and relevance of analytical data.

In addition, in a rapidly changing external environment, the calculation of the KOF index is carried out with a significant time lag, which does not allow for complete objectivity of the data as of the date of the analysis.

5.3 Practical significance of the study

The practical significance of our study lies in the fact that the results obtained allow us to assess the context and prospects of monetary policy.

According to the received forecast of inflationary risks, it can be argued with a high degree of probability that price pressure will persist, and in most countries, it will increase more.

We are especially concerned about the growth of inflation risks in emerging markets and a low degree of globalization in the world space (Karashchuk et al., 2019). Inflation is expected to be above target in the short term. Therefore, the central banks of such countries began to raise interest rates and tighten monetary policy measures. For example, the Central Banks of Brazil, Mexico, Russia, and South Africa have already raised rates and are planning further increases.

For example, in 2021, the Central Bank of Brazil decided to raise the key rate seven times, as a result of which it increased from 7.75% to 9.25% over the year. In Mexico, the key rate increased from 4% to 5.5% over the year, in South Africa – from 3.5% to 3.75%. The most active growth of the key rate was observed in Russia, where the decision to raise it by the Central Bank of the Russian Federation was made seven times and over the year it increased from 4.25% to 8.5%. At the same time, in the longer term, we believe that as the temporary imbalance between supply and demand eases, inflation will fall. This assumption requires additional and more thorough research, including a detailed study of the determinants of supply and demand at the global level and their impact on consumer price growth rates.

6 CONCLUSION

The methodology presented is aimed at studying the strength and nature of the relationship between global factors and the level of inflation.

The findings allowed us to partially confirm the research hypotheses: not all

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globalization factors have a significant impact on the level of inflation.

The analysis shows that the relationship between the factors of political globalization and the level of inflation is weakly expressed and does not affect the growth rate of consumer prices. At the same time, other considered factors have a noticeable (indices of global trade, financial, interpersonal globalization), and very high (indices of informational and cultural globalization) impact on inflation.

All considered factors of globalization have a negative correlation with the level of inflation, i.e. the country's high level of integration into the world economy helps to reduce the consumer price index and mitigate inflation risks.

The presented model has been tested in the construction of a forecast of changes in inflation in individual countries. Based on the forecast results, it is highly likely that pro-inflationary risks will increase in the short term for many emerging market economies.

In the absence of new crises and unpredictable shocks in countries with a high degree of globalization in the world economy, inflationary risks remain moderate and do not bear critical consequences.

The results obtained can be used to adjust monetary policy and determine the steps to be taken to support the economy, ensuring a steady return of inflation to the target.

At the same time, a significant limitation of this model is the rapid moral and historical obsolescence of the statistical data involved in the calculation of the KOF index, which, in the light of rapidly changing global trends, can lead to a distortion of the current situation.

The object of further research may be a modification of the presented model, which allows to deepen the analysis and improve the quality of the forecast of inflationary risks, taking into account changes in global trends, including pandemic and geopolitical factors.

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