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## A STUDY OF THE ORDER OF IMPLEMENTING TEMPORARY GOVERNMENT REGULATION OF COMMODITY PRICES IN THE EAEU: A VIEW FROM THE POSITIONS OF QUALITY

**Abstract:** *The purpose of this paper is to study and reconsider the order of implementing temporary government regulation of commodity prices in the EAEU from the positions of quality and to develop recommendations for improving this order for the comprehensive fight against poverty and support for the middle class amid economic crises. This paper is based on the scientific provisions of the systems approach. The authors perform economic and mathematical modelling of the influence of implementing temporary government regulation of commodity prices on their quality in the EAEU based on the method of regression analysis. For the qualitative research of the practical experience of implementing temporary government regulation of commodity prices in the EAEU amid the COVID-19 pandemic, the method of case study is used. The scientific novelty of this paper consists in the fact that it is for the first time that the order of implementing temporary government regulation of commodity prices in the EAEU is treated from the positions of quality. The originality of this paper consists in the systemic view at the quality of life and the well-balanced consideration - during the determination of its level - of not only the inflation factor (price affordability of commodities) but also the factor of quality of commodities (level of satisfying population's needs during consumption of goods).*

**Keywords:** *Temporary government regulation of prices; Commodity prices; EAEU; COVID-19 pandemic; quality; Fight against poverty; Quality of life*

### 1. Introduction

The Eurasian Economic Union (EAEU) is an embodiment of the ideas of free trade since it was created to support these ideas in practice, through eliminating customs barriers. Due to this, the EAEU has

“healthy” competition in commodity markets, which stimulates the growth of their effectiveness through the search for the Pareto optimal ratios of price and quality. Both these characteristics of commodities determine the quality of life. Though generally, the increase of quality of life takes

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place in case of the decrease of prices and the increase of quality of products, their tendencies should be considered in a systemic manner and the connection to incomes – for the most correct determination of the consequences for population's quality of life.

An increase of quality with unchanged commodity prices leads to an increase in quality of life and an increase of the "middle class". An increase of quality with the growth of commodity prices leads to stability of quality of life, and with the simultaneous growth of incomes – to increase of quality of life, with support for "middle class". Growth of prices with the unchanged quality of goods leads to the reduction of quality of life, which could be kept at the previous level with the help of the growth of incomes. This deals damage to the "middle class" and increases the level of poverty in a country.

Reduction of prices with a decrease of quality stimulates the fight against poverty, but deals damage to the "middle class". This also leads to a decrease in quality of life. The decrease of quality with the growth of prices is accompanied by the reduction of quality of life, dissolution of the "middle class", and increase of poverty. The increase of incomes allows fighting poverty, but not preserving the "middle class" or sustaining the quality of life.

The above shows the contradiction of the international economic integration, in particular, the EAEU, since, on the one hand, when markets are effective (which is most peculiar for a stable market environment at the upward phase of an economic cycle), integration support "healthy" competition at them. However, on the other hand, when there appear "market gaps" (which is typical for the crisis conditions in the economy at the downward phase of its cycle), integration hinders their overcoming, limiting the opportunities for government interference with the markets' freedom. Therefore, the international economic integration does not

fully take into account the cyclicity of the market economy, which, despite the multiple advantages of integration, is its serious drawback.

This drawback of the international economic integration could be reduced or even – in some cases – overcome with the help of government regulation of the commodity process, which is actively used in the EAEU. The problem is that price regulation of commodity markets, which allows restraining inflation and, thus, increasing the quality of life, could lead to the decrease of quality of products, wiping out the achieved effect or even reducing the quality of life.

Thus, the following hypothesis ( $H_1$ ) is offered: among countries of the EAEU, the consequences of implementing temporary government regulation of commodity prices for quality are different – positive (or neutral) in some countries and negative in other countries. That's why the order of implementing temporary government regulation of commodity prices in the EAEU has to be flexible, to take into account the specifics of all EAEU countries and guarantee the preservation or increase of quality of life (avoid its decrease).

This paper aims at studying and reconsidering the order of implementing temporary government regulation of commodity prices in the EAEU from the positions of quality and developing recommendations for improvement of this order for the comprehensive fight against poverty and support for the middle class amid economic crises.

The scientific novelty of this paper is as follows: it is for the first time that the order of implementing temporary government regulation of commodity prices in the EAEU is treated from the positions of quality. The originality of this paper consists in the systemic view at the quality of life and well-balanced consideration – during the determination of its level – of not only the inflation factor (price affordability of commodities) but also the factor of

commodities' quality (level of satisfying the population's needs during consumption of commodities). Due to this, the authors form a new approach to government regulation of commodity prices, which allows not only avoiding the critical reduction of the quality of life but also supporting its stable level.

This specific feature differentiates the new approach from the existing one, at which the establishment of price limits for commodity markets while ensuring the proper fight against poverty (performing its main task), leads – as a negative externality – to the reduction or full loss of “middle class” in society. This is caused by the following: 1) price limits are imposed only for essential goods (from the minimum subsistence basket) and 2) there are no requirements to fixed quality.

As a result, companies, firstly, transfer the increased costs from essential goods (purchased by the poorest social groups) to other goods (purchased by the middle class) and, secondly, reduce the quality of all goods to reduce the costs (prime costs). As a result, commodities become less affordable for the middle class and of lower quality, which puts the representatives of the middle class in the poorest social groups. The new approach envisages the refusal from the implementation of price limits in case of a high risk of reduction of the middle class and ensures its invariableness during the fight against poverty amid economic crises.

## **2. Literature Review**

This paper is based on the fundamental provisions of the theory of international economic (customs) integration and the Theory of free trade (free-trading). The contribution of free trade and international economic integration to support "healthy" competition in national markets and the increase of quality of life in the integrated countries are noted in the works of the following scholars.

Chang et al. (2021) model the process of formation of symmetric free-trade blocs, optimal tariff structure, and world welfare. Singh (2021) substantiate the positive impact of the India-ASEAN free trade agreement and assess the trade creation and trade diversion effects. Arreyndip (2021) presents the projected economic impact assessment under future warming in CMIP6 and determine the significant contribution to their prevention in the African continental free trade area (AfCFTA).

Kuc-Czarnecka et al. (2021) present the critical assessment of the opening of Central and Eastern European countries to free trade. Castillo Mezarina (2021) substantiate the impact of free trade agreements in national markets based on the evidence from the telecommunications sector in Latin America. Harada and Nishitateno (2021) substantiate the positive influence of free trade agreements based on evidence from the wine trade in East Asia. Bronckers and Gruni (2021) prove the necessity and offer recommendations for retooling the sustainability standards in EU Free Trade Agreements.

The experience and specifics of the Eurasian economic integration and the advantages of the integration of countries based on the EAEU for the quality of their population's life are studied in the following works. Leybert and Khalikova (2020) determined and systematized the current tendencies of transformation of the Russian practice of decision making in business systems. Sergi et al. (2019) perform modelling of Russian industrial, tech, and financial cooperation with the Asia-Pacific region. Popkova and Sergi (2021) offer perspective paths to the development of social entrepreneurship in Russia and central Asian countries from the positions of standardization and de-regulation. Marrella et al. (2021) consider trade liberalization necessary for political ends, which is shown by the example of the EAEU. Zuev et al. (2021) substantiate the perspectives of the trade service agreement between Vietnam and the EAEU and the

formation of negotiation strategies on new agreements in the service sector.

Sokolov (2021) proves that the Eurasian company is a tool of the EAEU anti-crisis strategy. Kurylev et al. (2021) substantiate the perspectives of cooperation of the SCO and the EAEU in the context of Eurasian integration. Zaurbekova (2020) notes the role of global supply chain strategy in the control of transfer pricing in the EAEU countries. Smirnov et al. (2021) develop retraining systems for the implementation of the pharmaceutical quality system at pharmaceutical production enterprises of the EAEU countries.

The implementation of temporary government regulation of commodity prices as a mechanism of economic crisis management and the experience of its use in the conditions of international economic integration is considered in the following works. Tan and Zeng (2019) show the interconnection between price transmission, reserve regulation and price volatility. De Jorge-Huertas and De Jorge-Moreno (2021) note the significant effects of (de)regulation on housing prices in Spain in 1977-2019. Li et al. (2020) determine the long-term trends and present the results of scenario simulation of the carbon price based on the energy-economic regulation.

Quality of goods, as an economic category, is studied in the following works. Bogoviz et al. (2021) prove the interconnection between digitalization and quality of labour and dwell on the contradictions in developing countries and the prospects of harmonization. Vagin et al. (2021) note the interconnection between quality and safety in the digital economy and substantiate the specifics of developing countries.

Osipov et al. (2021) form a complex scientific view of financial provision of quality in the unity of state financing of innovations and direct foreign investments. Švikruhová et al. (2021) specify the essence of the effective establishment of quality management systems and their impact on

business performance. Thach et al. (2021) prove the necessity for technology quality management of Industry 4.0 and cybersecurity risk management on current banking activities in emerging markets by the example of Vietnam. Alvarenga et al. (2021) determine the main perspectives of quality of life students in the second cycle and performance of opportunities, challenges and elements of greatest impact.

The literature review on the given topic has shown that it has been thoroughly studied and presented in multiple sources of scientific literature. However, there are several research gaps. One of the gaps is the insufficient elaboration of the order of implementing temporary government regulation of commodity prices in the EAEU. Though the theoretical basis of the mechanism of implementing temporary government regulation of commodity prices are known to economic science, the modern practice of implementing this mechanism has been studied in a fragmentary manner, and the EAEU's experience requires deep elaboration.

Another gap is the uncertainty of the consequences of implementing temporary government regulation of commodity prices in the EAEU for various members of the Eurasian economic integration. When making decisions on implementing temporary government regulation of commodity prices, the modern economic systems are guided by the existing hypothesis ( $H_0$ ) that this regulation allows – through reduction of inflation-fighting poverty, thus supporting the quality of life.

Contrary to this hypothesis, this paper offers the hypothesis ( $H_1$ ) that price regulation of commodity markets has a contradictory influence on the quality of life since it could – together with the limitation of inflation – increase or decrease the quality of products. Additional consideration of the consequences for the middle class is necessary for the precise determination of the consequences of implementing price

limits in commodity markets for the quality of life, which should be performed in each country separately. Both these hypotheses require testing, which envisages the modelling of the influence of inflation on the quality of products in each member of the EAEU.

The gaps also include the insufficient elaboration of the theory and practice of implementing temporary government regulation of commodity prices from the positions of quality (in particular in the EAEU). The interconnection between prices (inflation) and the quality of products is poorly studied and has to be specified. The above gaps predetermine the organization of this research, which fills them by studying the order of implementing temporary government regulation of commodity prices in the EAEU from the positions of quality.

### 3. Materials and methodology

This paper is based on the scientific provisions of the systems approach, to study, comprehensively, the consequences of implementing temporary government regulation of commodity prices in the EAEU – from the positions of inflation and the positions of quality; from the positions of the fight against poverty and from the positions of support for the middle class – and forming a comprehensive view at the influence of this regulation on the quality of life.

The economic and mathematical modelling of the impact of implementing temporary government regulation of commodity prices on their quality in the EAEU is performed with the use of regression analysis. This method is used to evaluate the impact of inflation (Inflation, average consumer prices, per cent change) – *ifl* – on the quality of products (ISO 9001 quality certificates/bn PPP\$ GDP) – *qlt*. The experimental model of this research shall have the following form:

$$qlt = \alpha + \beta * ifl \quad (1)$$

Since the implementation of temporary government regulation of commodity prices leads to reduction of inflation, the treatment of the results of regression analysis (experimental model (1)) is performed according to the following logic:

- positive regression ( $\beta > 0$ ) shows that the growth of inflation leads to the increase of quality (direct connection between the variables). Accordingly, implementing temporary government regulation of commodity prices leads to the reduction of inflation and quality. This ensures the fight against poverty but deals damage to the middle class, decreasing the quality of life in the country on the whole;

- negative regression ( $\beta < 0$ ) shows that growth of inflation leads to a reduction of quality (direct connection between variables). Accordingly, implementing temporary government regulation of commodity prices leads to reduction of inflation and increase of quality. This ensures the fight against poverty and development of the middle class, increasing the quality of life in the country on the whole;

- Small ( $\beta \approx 0$ ), statistically insignificant (F-test and Student's t-test are not passed) regression and/or moderate/weak (below 40%) correlation means that inflation does not have a significant impact on quality (the connection between variables strives to zero). Accordingly, implementing temporary government regulation of commodity prices leads to a reduction of inflation with unchanged quality. This ensures the fight against poverty and preservation of the middle class, raising the quality of life in the country on the whole.

The economic sense of the offered hypothesis is that different regularities of the change of quality depending on inflation are supposed to be determined in the EAEU countries. The statistical basis of the research is shown in Tables 1-2.

**Table 1.** Dynamics of quality of products (ISO 9001 quality certificates/bn PPP\$ GDP) in countries of the EAEU in 2013-2021 (y), \$ billion

Year	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Russia
2013	1.95	1.21	2.74	0.38	5.32
2014	1.34	1.17	2.47	0.48	5.02
2015	0.70	0.80	1.3	0.3	3.4
2016	0.66	27.13	1.2	0.21	3.26
2017	1.04	22.73	1.07	0.05	2.44
2018	1.20	1.00	1.2	0.2	2.3
2019	1.00	22.20	0.8	0.3	0.9
2020	0.9	24.6	1.1	0.4	1.1
2021	0.8	34.1	1.0	0.5	1.1

Source: Compiled by the authors based on Knoema (2021), WIPO (2021)

As shown in Table 1, in Kyrgyzstan, the quality of products is the lowest in 2021 (0.5), though it increased as compared to 2013 (0.38). In Armenia, the quality of products is \$0.8 billion in 2021, which is lower than in 2013 (\$ 1.95 billion). In Kazakhstan, quality is assessed at \$1 billion in 2021, which is lower than (\$2.74 billion). In Russia, the quality of products is assessed at \$1.1 billion, which is also lower than in 2013 (\$5.32 billion). The highest quality of

products in 2021 among countries of the EAEU is observed in Belarus (\$34.1 billion) – it grew substantially since 2013 (\$1.21 billion). On average for the EAEU in 2021, the quality of products equals \$7.5 billion, which is much higher than the 2013 level (\$2.32 billion). It should be noted that amid the COVID-19 pandemic, the quality of products grew: from \$5.04 billion in 2019 to \$5.62 billion in 2020.

**Table 2.** Dynamics of inflation (Inflation, average consumer prices, % change) in countries of the EAEU in 2013-2021 (x), %

Year	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Russia
2013	5.788	18.303	5.829	6.614	6.754
2014	2.981	18.107	6.717	7.534	7.823
2015	3.731	13.523	6.652	6.503	15.534
2016	-1.406	11.829	14.556	0.389	7.042
2017	0.974	6.032	7.429	3.175	3.683
2018	2.521	4.867	6.025	1.543	2.878
2019	1.443	5.600	5.244	1.136	4.470
2020	1.230	5.536	6.799	6.323	3.382
2021	6.947	9.231	7.536	12.997	5.937

Source: Compiled by the authors based on International Monetary Fund (2021)

As shown in Table 2, among the countries of the EAEU, the highest level of inflation is observed in Kyrgyzstan (12.997%), and the lowest – in Russia (5.937%). On average for the EAEU, inflation equals 8.530% in 2021, which is similar to the 2013 level (8.658%). Amid the COVID-19 pandemic, inflation in the EAEU grew from 3.579% in 2019 to 4.654% in 2020.

The economic and mathematical modelling allows determining quantitative regularities. The method of case study is used for the qualitative research of the practical experience of implementing temporary government regulation of commodity prices in the EAEU amid the COVID-19 pandemic. Evaluation of the consequences for quality is performed based on the method of expert evaluations and logical methods.

## 4. Results

### 4.1 Economic and mathematical modelling of the influence of implementing temporary government regulation of commodity prices on their quality in the EAEU

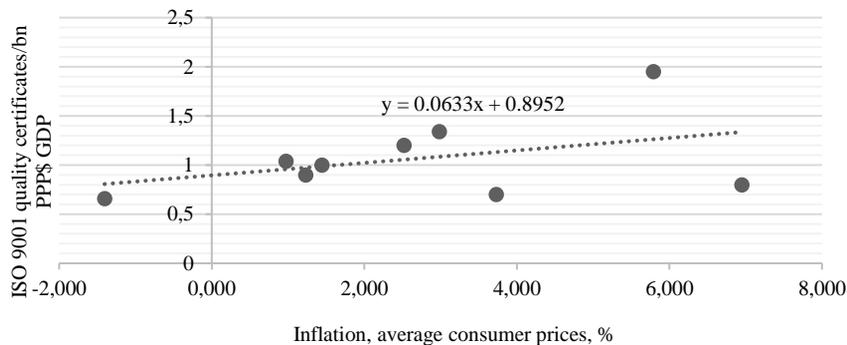
To determine the level of optimality of the order of implementing temporary government regulation of commodity prices in the EAEU from the positions of quality, let us consider the results (obtained based on the data from Tables 1-2) of the economic and mathematical modelling of the impact of inflation on quality in each country of the EAEU (Figures 1-5).

As shown in Figure 1, an increase of inflation by 1% in Armenia leads to an increase in the quality of products by \$0.0633 billion. Therefore, if the model's reliability is confirmed, this will mean that

implementing temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, to the reduction of quality (and reduction of quality of life). The correlation between the indicators is moderate – 40.55%. Additional expertise (at  $\alpha=0.05$ ) includes the following:

- F-test. The observed value of F-test is 1.38, and the table value of F-test (at  $v_1=m=1$ ,  $v_2=n-m-1=9-1-1=7$ : for one variable and nine observations) is 5.59. The observed value does not exceed the table value ( $1.38 < 5.59$ ) – therefore, the F-test is not passed;

- Student's t-test. The observed value of the t-test is 1.17, and the table value of the t-test (at the number of degrees of freedom:  $df=n-1=9-1=8$ ) is 2.306. The observed value does not exceed the table value ( $1.17 < 2.306$ ) – therefore, the t-test is not passed.

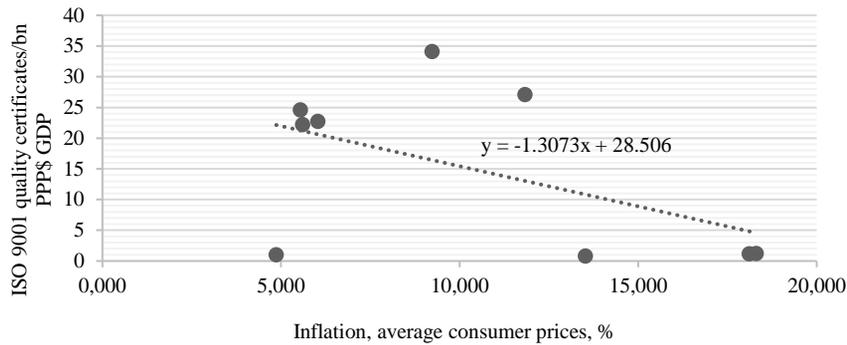


**Figure 1.** The model of the influence of inflation on the quality of products in Armenia

Source: Compiled by the authors

Both additional tests show that model 1 is not reliable at the set level of significance (0.05). Therefore, the implementation of temporary government regulation of commodity prices in Armenia leads to the

reduction of inflation with unchanged quality. This ensures the fight against poverty and preservation of the middle class, increasing the quality of life in the country on the whole.



**Figure 2.** The model of the influence of inflation on the quality of products in Belarus  
Source: Compiled by the authors

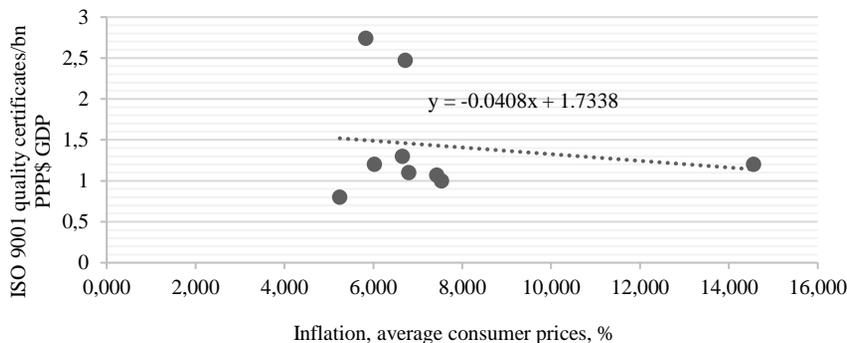
As shown in the model in Figure 2, an increase of inflation by 1% in Belarus leads to a decrease of quality of goods by \$1.3073 billion. Therefore, if the model's reliability is confirmed, this will mean that implementing temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, to the increase of quality (and the increase of quality of life). The correlation between the indicators is moderate – 51.43%. The additional expertise (at  $\alpha=0.05$ ) includes the following:

- F-test. The observed value of the F-test equals 2.51, and the table value of the F-test (at  $v_1=m=1$ ,  $v_2=n-m-1=9-1-1=7$ : for one variable and nine observations) equals 5.59. The observed value does not exceed the table

value (1.38<2.51) – therefore, the F-test is not passed;

- Student's t-test. The observed value of the t-test equals -1.58, and the table value of the t-test (at the number of degrees of freedom:  $df=n-1=9-1=8$ ) equals 2.306. The observed value does not exceed the table value (-1.58<2.306) – therefore, the t-test is not passed.

Both additional tests have shown that model 1 is not reliable at the set significance level (0.05). Therefore, implementing temporary government regulation of commodity prices in Belarus leads to the reduction of inflation with unchanged quality. This ensures a simultaneous fight against poverty and preservation of the middle class, increasing the quality of life in the country on the whole.



**Figure 3.** The model of the influence of inflation on the quality of products in Kazakhstan  
Source: Compiled by the authors

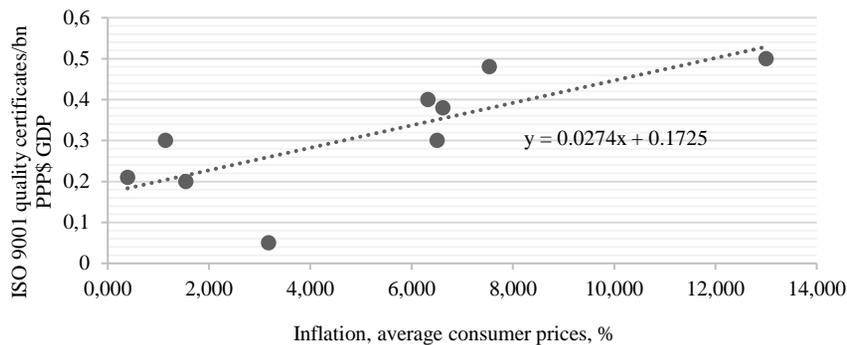
As shown in the model in Figure 2, an increase of inflation by 1% in Kazakhstan leads to a decrease in the quality of commodities by \$0.0408 billion. Therefore, if the model's reliability is confirmed, this will mean that implementing temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, to the increase of quality (and the increase of quality of life). The correlation between the indicators is low – 16.55%. The additional expertise (at  $\alpha=0.05$ ) includes the following:

- F-test. The observed value of the F-test equals 1.20, and the table value of the F-test (at  $v_1=m=1$ ,  $v_2=n-m-1=9-1-1=7$ : for one variable and nine observations) equals 5.59. The observed value does not exceed the table

value ( $1.20 < 5.59$ ) – therefore, the F-test is not passed;

- Student's t-test. The observed value of the t-test equals -0.44, and the table value of the t-test (at the number of degrees of freedom:  $df=n-1=9-1=8$ ) equals 2.306. The observed value does not exceed the table value ( $-0.44 < 2.306$ ) – therefore, the t-test is not passed.

Both additional tests have shown that model 1 is not reliable at the set significance level (0.05). Therefore, implementing temporary government regulation of commodity prices in Kazakhstan leads to the reduction of inflation with unchanged quality. This ensures a simultaneous fight against poverty and preservation of the middle class, increasing the quality of life in the country on the whole.



**Figure 4.** Model of the influence of inflation on the quality of products in Kyrgyzstan  
Source: Compiled by the authors

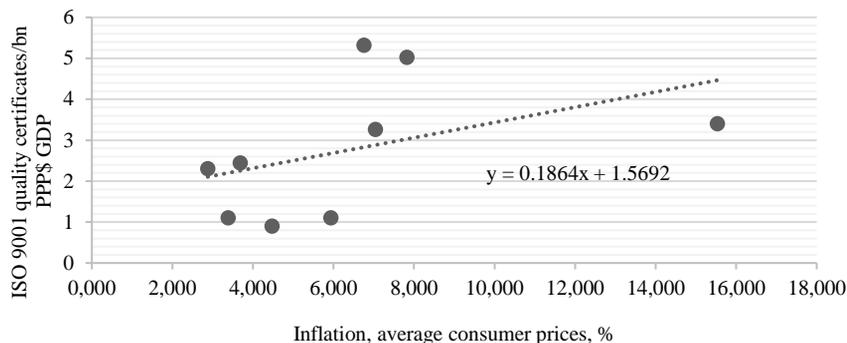
As shown in the model in Figure 1, an increase of inflation by 1% in Kyrgyzstan leads to an increase of quality of commodities by \$0.0633 billion. Therefore, if the model's reliability is confirmed, this will mean that implementing temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, to the reduction of quality (and the reduction of quality of life). The correlation between the indicators is high – 75.81%. The additional expertise (at  $\alpha=0.05$ ) includes the following:

- F-test. The observed value of the F-test equals 9.46, and the table value of the F-test (at  $v_1=m=1$ ,  $v_2=n-m-1=9-1-1=7$ : for one variable and nine observations) equals 5.59. The observed value does not exceed the table value ( $9.46 > 5.59$ ) – therefore, the F-test is passed;

- Student's t-test. The observed value of the t-test equals 3.08, and the table value of the t-test (at the number of degrees of freedom:  $df=n-1=9-1=8$ ) equals 2.306. The observed value does not exceed the table value ( $3.08 > 2.306$ ) – therefore, the t-test is passed.

Both additional tests have shown that model 1 is reliable at the set significance level (0.05). Therefore, implementing temporary government regulation of commodity prices in Kyrgyzstan and bringing inflation to the level of 2019 (1.14% - i.e., by 91.26%) in

2020-2021 would have led to the reduction of quality of commodities from \$0.5 billion to \$0.2 billion, i.e., by 59.26%. That's why regulatory interference with the market pricing in Kyrgyzstan is undesirable and should be conducted in a restrained manner.



**Figure 5.** Model of the influence of inflation on the quality of products in Russia  
Source: Compiled by the authors

As shown in the model in Figure 1, an increase of inflation by 1% in Russia leads to an increase in the quality of commodities by \$0.0633 billion. Therefore, if the model's reliability is confirmed, this will mean that implementing temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, to the reduction of quality (and the reduction of quality of life). The correlation between the indicators is moderate – 43.71%. Additional expertise (at  $\alpha=0.05$ ) includes the following:

- F-test. The observed value of the F-test equals 1.65, and the table value of the F-test (at  $v_1=m=1$ ,  $v_2=n-m-1=9-1-1=7$ : for one variable and nine observations) equals 5.59. The observed value does not exceed the table value ( $1.65 < 5.59$ ) – therefore, the F-test is not passed;
- Student's t-test. The observed value of the t-test equals 1.28, and the table value of the t-test (at the number of degrees of freedom:  $df=n-1=9-1=8$ ) equals 2.306. The observed value does not exceed the table value ( $1.28 < 2.306$ ) – therefore, the t-test is not passed.
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Both additional tests have shown that model 1 is not reliable at the set significance level (0.05). Therefore, implementing temporary government regulation of commodity prices in Russia leads to the reduction of inflation with unchanged quality. This ensures a simultaneous fight against poverty and preservation of the middle class, raising the quality of life in the country on the whole.

#### 4.2 Case study of implementing temporary government regulation of commodity prices in the EAEU amid the COVID-19 pandemic and the assessment of the consequences for the quality

According to the materials of the 2020 Annual report of the Eurasian Economic Commission (2021a), the key factor that caused the growth of inflation in the EAEU amid the COVID-19 pandemic was the depreciation of national currencies of the integration union's members. Thus, the depreciation of the national currency in Belarus was especially large – 7.9%; the same was observed in Kazakhstan (4.5%) and Russia (8.5%). The main manifestations

of inflation in the EAEU amid the COVID-19 pandemic are as follows:

- The rapid inflation of food products (the consumer prices index for food products on the whole for the EAEU reached its peak and exceeded the 2014 level, growing from 95% in 2019 to 102% in 2020 and 121% in 2021. (2014-2016=100%);
- Growth of inflation's volatility. Thus, inflation decreased in Armenia in the third quarter of 2020; inflation decreased in Kyrgyzstan in mid-year; inflation accelerated in Armenia and Kyrgyzstan in the fourth quarter of 2020 (up to 3.7% and 9.7%, accordingly);
- Increase of the normative level of inflation. According to Prime Press (2021), before the COVID-19 pandemic, all countries of the EAEU conformed to the normative values of the consumer prices index. According to the Treaty on the EAEU, "the inflation level must not exceed by more than 5% the inflation level in a member state with the lowest indicator's value" (ConsultantPlus, 2021). In 2020, according to International Monetary Fund (2021), the admissible level of inflation was critically exceeded in Kyrgyzstan, where inflation grew from 1.136% in 2019 to 6.323% in 2020 (the lowest inflation in 2020 was observed in Armenia: 1.230%);
- The uncharacteristically large growth of prices for medicines (pharmaceutical products), caused by the COVID-19 pandemic. According to Milknews (2021), a quick increase in demand for medicines led to inflation in the sphere of pharmaceutical products, the high level of which is not peculiar for crises of the EAEU and is a specific feature of 2020-2021.

The specifics of the manifestation of the impact of the COVID-19 pandemic on inflation of commodities in the EAEU countries (contribution of commodity categories to the aggregate national inflation, in %) predetermined the specific directions of temporary government regulation of commodity prices (Eurasian Economic Commission, 2021b):

- in Armenia, prices for eggs grew the most (reason of 0.78 of national inflation in March 2021 as compared to December 2020), meat products (0.39), sunflower oil (0.25), medicines (0.19), household cleaning products (0.15), and clothing (0.15);
  - in Belarus, the highest level of inflation was observed in such commodity markets as the market of products (0.37), pharmaceutical products (0.37), confectionery (0.14), fish products (0.09), potatoes (0.08), and sunflower oil (0.07);
  - in Kazakhstan, the largest contribution to the national inflation was made by the growth of prices for sunflower oil (0.11), eggs (0.10), clothing (0.03), flour (0.02), alcohol (0.01), and footwear (0.01);
  - in Kyrgyzstan, the basis of inflation was the growth of prices for sunflower oil (0.31), sugar (0.29), gas (0.25), clothing (0.11), eggs (0.09), meat products (0.04), household cleaning products (0.03), and bread (0.03);
  - in Russia, the national inflation was determined by the growth of prices for meat products (0.37), gas (0.11), potatoes (0.10), eggs (0.10), furniture (0.05), passenger cars (0.05), fish products (0.05), bread (0.04), fresh fruits (0.03), and sunflower oil (0.01).
- Given the above specifics of inflation, the EAEU countries implemented temporary government regulation of prices for the corresponding (mainly food) products amid the COVID-19 pandemic. According to the basic scenario on the forecast of the Eurasian Development Bank (2021), as of year-end 2023, inflation will have returned to normal values: Armenia – 4.5%, Belarus – 4.6%, Kazakhstan – 4.8%, Kyrgyzstan – 5.4%, and Russia – 4.0%.

## **5. Discussion**

The obtained results allow specifying, reconsidering, and forming a systemic scientific treatment of the order of implementing temporary government regulation of commodity prices in the EAEU from the positions of quality (Table 3).

**Table 3.** The scientific treatment of the order of implementing temporary government regulation of commodity prices in the EAEU from the positions of quality.

Regularity of the change of quality depending on the change of price	The influence of implementing temporary government regulation of commodity prices		Countries of the EAEU which have this regularity and the corresponding influence
	on quality	on quality of life	
The implementation of temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, <b>reduction</b> of quality	negative	negative	Kyrgyzstan
	weak/zero (inflation does not cause the change of quality)	positive	Kazakhstan Belarus
The implementation of temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, <b>increase</b> of quality	weak/zero (inflation does not cause the change of quality)	positive	Armenia
			Russia

Source: Compiled by the authors.

Based on the treatment presented in Table 3, the authors have developed and offered for practical use the following recommendations on improving the order of implementing temporary government regulation of commodity prices in the EAEU in the interests of quality management:

- refusal from the unified practice of temporary government regulation of commodity prices in the EAEU and increase of the flexibility of the order of its implementation given the specifics of different countries of the EAEU;
- in Kyrgyzstan, it is necessary to implement temporary government regulation of commodity prices only in extreme cases, with the orientation at the alternative mechanisms of supporting the quality of life amid economic crises (e.g., support for employment, subsidies for population, anti-monopoly regulation of markets, etc.);
- in Kazakhstan and Belarus, it is allowed to implement temporary government regulation of commodity prices, but under the conditions of monitoring of quality and stimulation of its preservation at the pre-crisis level (e.g., through the implementation and control of observation of the national standards of products' quality, similarly to ISO and GOST);

- in Armenia and Russia, it is offered to freely implement temporary government regulation of commodity prices.

The above recommendations determine the basis of the new approach to government regulation of commodity prices, which allows sustaining the quality of life amid economic crises.

The conclusions specify the existing theory of implementing temporary government regulation of commodity prices as a mechanism of economic crisis management in the conditions of international economic integration. The provisions of this theory are set in the works De Jorge-Huertas and De Jorge-Moreno (2021), Li et al. (2020), and Tan and Zeng (2019). New results, obtained in this paper, ensure the systemic treatment of the order of implementing temporary government regulation of commodity prices in the EAEU – from the positions of not only inflation but also quality. Due to this, the authors' conclusions and recommendations reduce the risks of implementing temporary government regulation of commodity prices in the EAEU and maximize its contribution to the support for quality of life.

## 6. Conclusion

Thus, the authors have studied and reconsidered the order of implementing temporary government regulation of commodity prices in the EAEU from the positions of quality. This allows determining the specifics of the EAEU countries. Thus, in Kyrgyzstan, implementing temporary government regulation of commodity prices leads to the reduction of inflation and the following reduction of quality. It is determined that implementing temporary government regulation of commodity prices in Kyrgyzstan and bringing inflation to the 2019 level (to 1.14%, i.e., by 91.26%) in 2020-2021 would have led to the reduction of products' quality from \$0.5 billion to \$0.2 billion, i.e., by 59.26%.

That's why to sustain the quality of life amid the crisis in Kyrgyzstan, it is recommended to implement temporary government regulation of commodity prices only in extreme cases during the orientation at alternative mechanisms of sustaining the quality of life amid economic crises (e.g., support for employment, subsidies for population, anti-monopoly regulation of markets, etc.).

In Kazakhstan and Belarus, the influence of implementing temporary government regulation of commodity prices on quality is weak. However, implementing temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, to the reduction of quality. That's why to sustain the quality of life amid the crisis in Kazakhstan and Belarus, it is

allowed to implement temporary government regulation of commodity prices, but under the conditions of monitoring of quality and stimulation of its preservation at the pre-crisis level (e.g., through implementing and controlling the observation of the national standards of quality of products, similarly to ISO and GOST).

In Armenia and Russia, implementing temporary government regulation of commodity prices leads to the reduction of inflation and, accordingly, to the increase of quality. That's why, to sustain the quality of life amid the crisis in Armenia and Russia, it is offered to freely implement temporary government regulation of commodity prices. The contribution of this paper to literature is as follows:

- specifying the treatment of the order of implementing temporary government regulation of commodity prices from the positions of quality based on the quantitative and qualitative research of the experience of the EAEU;
- forming a systemic view at the quality of life: well-balanced consideration – during its determination – of not only the inflation factor (price affordability of commodities) but also the factor of quality of commodities (level of satisfying the population's needs during the consumption of commodities);
- developing a new approach to government regulation of prices, which specific feature and advantage is the emphasis on quality and its management in the interests of raising the quality of life; and developing recommendations for its practical application in the EAEU.

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