EMPIRICAL ANALYSIS OF POVERTY DYNAMICS IN CENTRAL ASIA: UNRAVELING THE VICIOUS CIRCLE OF SYSTEMIC FACTORS AND POLICY IMPLICATIONS

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ABSTRACT

Objective: This research empirically analyzes the dynamics of poverty in Central Asia, incorporating selected factors into a proposed model known as the vicious circle of poverty. The model illustrates a closed cycle in which the development of one factor directly influences the preservation of another, creating a complex web of interdependencies.

Methods: Regression analysis, adapted to address data limitations, was employed to assess the impact of these factors on poverty. The study encompasses 11 periods, necessitating the use of weighted ordinary least squares due to data constraints.

Results: The persistence of poverty in Central Asia is rooted in systemic factors, resulting in cyclical patterns in some nations. While Kazakhstan and Uzbekistan presently lack vicious poverty circles, their vulnerability to such circles remains, requiring substantial transformations. To mitigate the risk of enduring poverty, a comprehensive approach is recommended, encompassing policy measures tailored to the most vulnerable segments of society.

Conclusions: The study underscores that the persistence of poverty in Central Asia is driven by systemic factors, resulting in cyclical patterns. The research highlights the need for substantial transformations to mitigate the risk of enduring poverty, emphasizing a comprehensive approach that includes policy measures tailored to the most vulnerable segments of society. The findings provide a basis for developing strategies to reduce poverty and enhance welfare in Central Asia.

Keywords: Poverty Dynamics, Vicious Circle of Poverty, Central Asia, Regression Analysis, Policy Measures.

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INTRODUCTION

In recent years, the incidence of extreme poverty across the world has reduced from 37.8% to 8.4%. The 2022 report of the World Bank predicts that by 2030, the rate of extreme poverty will lower to 6.8%, which still far exceeds the target level of 3.0% and falls short of meeting target 1.1 of the Sustainable Development Goals (SDGs), aiming to eradicate extreme poverty by 2030 (Jha, 2024).

The International Labor Organization (ILO) forecasts that global employment growth will total only 1.0% in 2023, more than half of what it was in 2022. The number of unemployed people in the world in 2023 is expected to increase slightly (by about 3 million) to 208 million, resulting in a global unemployment rate of 5.8%. This modest predicted rate of growth largely relates to the limited supply of workforce in high-income countries. This will reverse the downward trend in global unemployment seen in 2020-2022, meaning that the number of unemployed globally will stand at 16 million higher than the pre-crisis level dating back to 2019 (Rattan, 2024). Hundreds of millions of people have no access to remunerated work, and those who do have jobs are too often denied social protection and fundamental labor rights, as most workers work informally or lack the capacity to advocate for their interests in social dialogue (Yakuhu, 2024). The distribution of income is highly imbalanced, so much so that many workers are unable to work their way out of poverty (Pektaş, 2024).

On a global scale, more than 50.0% of the poor, or about 593 million people, live without electricity or clean fuels for cooking. Nearly 40.0%, or about 437 million, do not have access to drinking water or sanitation. More than 30.0%, or 374 million people, simultaneously struggle with food, cooking fuel, sanitation, and shelter (Ozkan, 2024).

Presently, research on the reduction of poverty and increasing employment and welfare of the population is an urgent task not only on the global level but also for the economy of the Republic of Uzbekistan (Daiyabu, 2024). As pointed out by the President of Uzbekistan, "In 2022, the poverty rate in the country decreased from 17.0 to 14.0%, and 1 million citizens were lifted out of poverty. A decisive factor in achieving such results is the systematic and well-thought-out policy aimed at training the population in modern professions, creating decent jobs, and providing comprehensive support for entrepreneurship. Through the expansion of social services in the country's mahallas, more than 2,300,000 vulnerable families, women, elderly persons living alone, and persons with disabilities are fully covered by the social
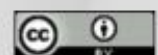
protection system" (Wadhwa et al., 2024).

In the Strategy of development of New Uzbekistan for 2022-2026, Goal 85 is to create new jobs in the country, increase incomes, and thereby cut poverty by at least half by the end of 2026 (Lima & Ribeiro, 2023). Under the Strategy of development of New Uzbekistan for 2022-2026, the priority is to deepen fundamental reforms, consolidate the achievements made, and bring to the forefront the protection of human rights, interests, honor, and dignity. The realization of this task will further unite the multinational people of Uzbekistan on the way to prosperity by improving the well-being of the population (Kumar & Banu, 2023).

Poverty impacts various areas of social life, having a detrimental effect on the development of a particular individual, family, and society. It results in the deterioration of the qualitative characteristics of the population and the growth of socio-economic and gender inequality, acts as a brake on successful social development, and can trigger social cataclysms. Poverty is more than just a lack of food, clothing, poor housing, and a lack of access to necessary education and health care. It implies not only the lack of enough money to buy what is essential to live, at least at the most minimal level (Szeberényi, 2023).

Further reforming Uzbekistan's economy requires the most careful and balanced analysis of the social consequences of economic decisions. The essence of new approaches in the formation and implementation of social policy should consist of strengthening the social component of economic reform while maintaining as its main dominant motivation to highly effective labor and productive employment. The latter will ensure a decent level of wages and incomes for workers and their families, which, in turn, constitutes a strategic direction for overcoming poverty (Ozen & Bilgili, 2023). This determines the relevance of the topic of our research (Rehal et al., 2023).

Literature Review

The international scientific community has been conceptualizing and tackling poverty through a wide range of theories and conceptual approaches. The most broad review of contemporary theories of poverty is provided in a critical article by A. Addae-Korankye (2019). The author identifies several theories describing the reasons and models of the development of poverty, including the theory of individual deficiencies, the cultural beliefs theory, the theory of economic, political, and social distortions, the theory of geographical disparities, and the theory of cumulative and cyclical dependencies. The importance of a detailed review of the leading theories of poverty is stressed by T. Bradshaw (2007), who argues that modern theories
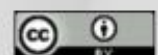
of poverty are extremely politicized, and analyzing a specific situation in a given country using only one theory can affect the choice of measures to reduce poverty among the population.

The theory of individual deficiencies embodies the politicized nature of contemporary poverty theories. M. Rank (2004) and M. Sameti et al. (2012) argue that this theory is inspired by the American model of individualism, which establishes the personal responsibility of the citizen for their poverty. The theory asserts that individual negative personal qualities are the only factor that should be considered when investigating the reasons behind poverty in a society. This theory gave rise to the concept of heritable intelligence, which justifies the existence of a poor population by attributing some negative qualities to this population (Bradshaw, 2007).

The cultural beliefs theory stems from the idea that poverty results from the realization of erroneous patterns of behavior among the population that are reproduced through generations (Olufemi, 2022). It substantiates the concept of the culture of poverty as a complex of values and behavioral attitudes that lead to the persistence of poverty in certain social groups (Jordan, 2004). The culture of poverty is formed among unprivileged social groups in certain geographical areas, which also links this theory to the theory of geographical inequality. The cited researchers proceed from the hypothesis that the cultural attitudes of society can be changed, which should be able to eradicate poverty (McIntyre, 2013). Critics of the cultural beliefs theory proceed from the argument that the theory itself explains the mechanism of poverty persistence, but not the reasons for its emergence (Olufemi, 2022). Adherents of individualistic theories of poverty have also been critiqued for avoiding the analysis of external factors (Davis & Sanchez-Martinez, 2014).

In response to this criticism, the theory of economic, political, and social distortions was developed. Its proponents see social, economic, and political conditions in society as the main source of imbalances in the distribution of benefits leading to poverty (Abdulai & Shamshiry, 2014). Unequal starting positions in the distribution of talent, skills, and capital in the population are recognized as a major source of inequality causing a portion of the population to lose out in competition (Jordan, 2004). R. Davis (Davis & Sanchez-Martinez, 2014) and H.M.F. Giibon et al. (2019) point to the fact that certain jobs and positions in society require knowledge and skills that take time and resources to obtain. If a part of society is deprived of opportunities to gain such skills and knowledge, it will be destined for poverty.

A continuation of this theory is the dual labor market theory, which criticizes the
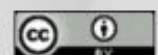
neoclassical approach in its description of the contemporary capitalist economy and emphasizes the unequal opportunities for development available to minorities who face discrimination (Addae-Korankye, 2019). M. Rank underscores that particular geographic characteristics, family and social status, as well as the area of residence, may place the person at higher risk of falling into the poverty stratum (Rank, 2004). The theory of economic, political, and social distortions is a response to the liberal market discourse in theorizing about the nature of poverty.

The theory of geographical disparities attempts to integrate the provisions of conflicting approaches based on the individual and external factors of poverty. This theory assumes that the risk of poverty is conditioned by the geographical area of settlement of social groups (Bradshaw, 2007). This gave rise to the concept of the geography of poverty, which links the spatial distribution of poor citizens to the presence or absence of certain environmental factors. Supporters of the geographic disparities theory consider the main causes of poverty in certain areas to be the lack of investment, remoteness from sources of natural resources, population density, and low diffusion of innovations (Abdulai & Shamshiry, 2014).

The theory of geographical disparities is linked with several other concepts: the economic agglomeration theory, the central place theory, the concept of selective out-migration, and the spatial mismatch theory (Addae-Korankye, 2019). These theories describe a single mechanism: the centers of natural and human resource accumulation also accumulate the potential for economic growth. Remote areas do not enjoy proper development, and the most promising part of the local population migrates to the centers of development. Thus, remote areas develop long-term poverty, which transforms into a culture of poverty.

The theory of cumulative and cyclical dependencies (or the cyclical theory of poverty) unites the contradictory provisions of the theories, seeking to conceptualize poverty as a cyclical process. Poverty as the inability of citizens to secure the satisfaction of their basic needs comes as a result of cumulative or cyclical shocks (natural cataclysm, economic and political shocks, etc.), which also triggers a cycle of deterioration of the socio-economic situation in society. The part of the population deprived of basic goods due to external shocks is excluded from the process of reproduction of public goods, which launches a new cycle of economic recession: reduced demand for goods – reduced production and demand for labor – rising unemployment and poverty rate (Addae-Korankye, 2019, p. 59). The task of the state and society is to break the cycle of growing poverty among the population, creating new incentives
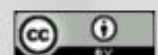
for socio-economic development.

Now let us turn to the interpretation and synthesis of the described theories as applied to Central Asia.

In the framework of this study, it is important to identify the meaning of the systematicity of poverty in Central Asia. Systematicity is a property of objects that describes their interrelation and interdependence. In this, the objects themselves remain independent and possess a set of their own qualitative and quantitative characteristics (Tolpykin, 2011). A distinctive feature of systematicity is the presence of an active interaction between the objects.

Considering the hypothesis of the systemic nature of poverty in Central Asia, it is necessary to identify the main factors (system objects) that contribute to the persistence of poverty as an integral result. To solve this problem, we reviewed academic studies and analytical publications concerning the causes of the emergence and persistence of poverty and identified the most common factors.

The second step of the work is aimed at identifying the links between the factors themselves and the integral result. An empirical analysis of the development of poverty in the region was carried out, in which the selected factors were incorporated into the proposed model of the vicious circle of poverty. The model represents a closed cycle, within which the development of the previous factor n-1 leads to the preservation of factor n, which in turn affects factor n+1. In this, factors n-1 and n+1 are related by a similar dependence through t factors. The development of such a model and confirmation of its validity in describing the real situation in Central Asian countries allows us to quantitatively and qualitatively assess the ultimate impact of each of the above factors on poverty.

Regression analysis was employed for quantitative and qualitative assessment of poverty factors, however, there are some specifics in the method used for this study. Due to the low quality of data and their small frequency, the linear interpolation method was used for missing data. This eliminated the problem of missing the first or last values in the data series for each of the factors. The length of the data series is small – 11 periods. The use of ordinary least squares tools with further estimation of robust standard errors appears inefficient due to the extremely low accuracy and large confidence intervals. The Box-Jenkins model (Magnus, Katyshev, & Peresetskii, 2004) gives a twofold dispersion of the limits of the 95% confidence interval with respect to the predicted value. Satisfactory quality of the model was achieved in the study using weighted ordinary least squares (Greene, 2016).
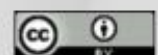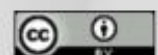
Based on the three steps, the research hypothesis is accepted if the factors of poor quality of education, lack of jobs, and underdeveloped development institutions are applicable within the poverty cycle model and also appear as significant variables in the generated regression models.

Based on the results of the study, practical recommendations are developed and proposed to reduce the severity of poverty in the considered countries and make it possible to realize economic transformations aimed at breaking the vicious circle of poverty.

The extreme politicization of poverty shapes the features of developing strategies to overcome this state of society. Jordan (2004) emphasizes the problem of debates between supporters of the concepts of behavioral/cultural and structural (external) causes of poverty, described by the theories cited earlier (Jordan, 2004, p. 18). The researcher also argues for the need to combine personal and structural factors in the development of policies to overcome poverty. D. Brady also stresses the need for multilateral dialogue in addressing poverty. In Brady's view, successful eradication of poverty calls for interdisciplinary interaction, involving experts from various fields with different points of view (Brady, 2019).

Strategies for overcoming poverty have been developed by various expert groups, identifying the main factors of poverty, combining them into explanatory models, and proposing solutions. E. Garcia et al. (2019) created a model of the main parameters of poverty including indicators of the level of education of the population, welfare, and the quality of healthcare. Proceeding from the proposed model, the authors generated solutions for each of the areas.

Given the high sensitivity of the topic of poverty in Central Asia, local researchers are forced to avoid a comprehensive consideration of the problem, focusing on individual factors and manifestations of this social phenomenon. The strategy of solving special research problems also does not always bring the desired results. For example, D. Jonbekova (2018) emphasizes the phenomenon of methodological and ethical problems faced by researchers of education in Central Asia. Another example of a narrow study that addresses the problem of poverty without naming it directly is the work by A. Hamidov et al. (2022). The authors examine the problem of basic resource endowment in the region, emphasizing the importance of sustainable development of the resource systems of individual Central Asian states. Finally, a striking example of research devoted to the labor market in Central Asia, which is also related to the phenomenon of poverty, is the paper by T. Dadabaev and J. Soipaev (2020). The authors

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refer to the phenomenon of forced educational and labor migration from Central Asian countries, yet do not outline the role of these factors in the dynamics of regional poverty.

The vicious circle of poverty factors (Figure 1) bring together all these problems. Importantly, in this case, we consider the full vicious circle of poverty, which cannot be broken by internal factors of economic development. In the countries under investigation, it exists in this form only in Turkmenistan and Tajikistan. In Kazakhstan and Uzbekistan, it does not appear in an obvious form, but a significant part of the population lives on the poverty line, which was clearly demonstrated by the growth of socio-economic problems caused by the COVID-19 pandemic. Thus, a vicious model in these countries can be generated as a result of any significant crisis, and given the turbulence of the global economy, the probability of this scenario is very high. In Kyrgyzstan, within the framework of the cyclical model, there is no factor of product competitiveness due to its membership in the EAEU, although this does not preclude the existence of a vicious circle.

The factors of poverty persistence do not describe all behavioral preconditions of poverty. In the context of poverty and unemployment, part of the population seeks sources of income and migrates to other regions or countries. Another part of the population is ready to turn to illegal ways of earning money, which leads to an increase in crime. In a society living in closed groups and social discontent with living standards (Konarovskii, 2017), crime is closely linked to the Afghanistan nexus of terrorism and drug trafficking (Vasnetsova, 2019), which stimulates the export of drugs from Afghanistan through established routes in Central Asia. This creates opportunities to establish a convenient business model for drug trafficking and criminality, which facilitates further radicalization of the society or its individual groups.
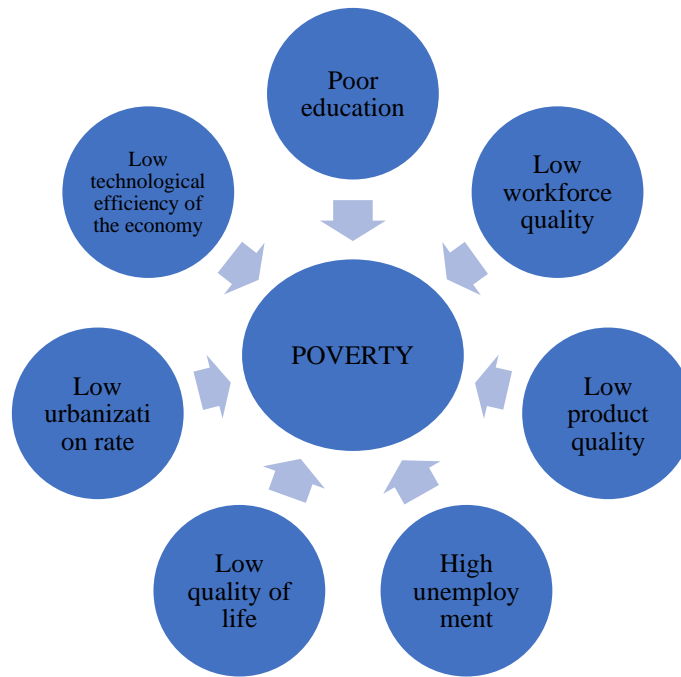
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SUSTAINABLE DEVELOPMENT GOALS

Figure 1. The vicious circle of factors in poverty persistence in Central Asia (compiled by the authors)

One important aspect of poverty in Central Asia is its spatial heterogeneity (Cieślewska, 2016). This means that poverty in the region may considerably differ from one area to another, including in terms of causes, preconditions for its emergence, and consequences. In many cases, this includes water scarcity, increased crime risks, a lack of social benefits, etc. Thus, some intermediate links in the cyclical patterns of poverty may appear and disappear when viewed at the regional or local level.

Methods

The primary research method employed was regression analysis. We used a set of indicators, each of which served to assess the relationship among higher education, the labor market, and institutions that contribute to poverty (through the free coefficient and the estimation of residuals). The examined indicators include the percentage of the population in the relevant age group enrolled in higher education; the average number of students per teacher in higher education; the share of the employed population aged over 15; and the share of the employed population aged 15-24.

The use of indicators of the share of the employed population is justified by the following logic. The fact that a graduate finds a job implies the quality of higher education and the presence of competencies that meet the employer's requirements. The fact that the quality of the diploma remains the main criterion for employment in Central Asian countries is confirmed by recent research (Seitz, 2019). Unfortunately, there is no data on the share of university

graduates who have obtained a job or more detailed data on the employment structure by age, e.g. at 25-35 (the best age to observe the early fate of university graduates).

The dependent variable is the share of the poor population at the border of $5.5 per day. For Central Asian countries, there are no data on poverty among the working population. Objectively, we cannot but note such shortcomings of the model as a small sample and lack of data on significant indicators.

Results

The generated models (Table 1) suggest several conclusions. In Kazakhstan, the rate of enrollment in universities relative to the poverty rate is inelastic, which is to be expected. In the case of Kyrgyzstan, Tajikistan, and Uzbekistan, positive elasticity is observed. This may be due to the phenomenon of increasing poverty due to tuition fees. The quality of education is too low, with tuition fees imposing a heavy burden on poor families, and the end result is not much different than without higher education. This is confirmed by the negative coefficient for working youth aged 15 to 24 in Kyrgyzstan and Tajikistan. Students do not receive real education and skills, and their families bear the cost of education with no increase in economic mobility. The same situation is observed in Kyrgyzstan. Regression analysis indicates that enrollment in higher education is the most important parameter for reducing the poverty rate.

Table 1. Summary table of poverty modeling results for Central Asian countries, excerpt from Gretl reports, based on observations for 2010-2022
(compiled by the authors)

Indicator	Kazakhstan	Tajikistan	Kyrgyzstan	Uzbekistan
const	266.237	−416.504	−52.4079	746.758
WP15	−5.06414	26.5677	1.06358	−28.4539
WP24	1.53404	−30.6066	−0.321916	22.4146
ANP	0.920382	/	0.870374	5.59215
HSE	/	2.63339	1.19242	1.86481
Adjusted R2	0.924171	0.913521	0.987597	0.999833
Durbin-Watson statistic	1.876131	1.150399	1.991121	1.511486
P-value (F)	0.000079	0.000124	1.64e-06	4.02e-12
Stat. error of the model	4.172662	2.077677	4.310264	1.629991

Given the importance of enrollment in higher education for Kyrgyzstan, the negative coefficients for the working population and working youth in Kazakhstan suggest that having a job reduces poverty. However, this occurs much faster in Kazakhstan. In Kyrgyzstan, this applies
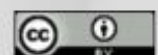
only to university graduates, while in Kazakhstan, due to the presence of an industrialized economy and the demand for workers without higher education, the effect is broader. In Tajikistan and Uzbekistan, the effect is the opposite: education (negative coefficient for working youth) worsens the person's prospects, while employment significantly reduces poverty. A person who has no higher education but started working early is much more likely to overcome poverty in these countries than a person with a higher education. This is largely explained by migration policies and the possibility of earning abroad. However, this opportunity does not allow reaching much higher income levels, leaving the citizen on the poverty line.

The positive value of the constant in Kazakhstan and Uzbekistan indicates that the factors not accounted for in the model increase poverty. For these countries, urbanization, low living standards, and low technological efficiency of the economy are significant factors. Since these countries are distinguished by greater economic development than other countries in the region, this observation suggests that, depending on the level of economic development, the poverty circle can be viewed as two separate semicircles – the basic causes of poverty (right-hand side) and the causes of poverty in developing countries (left-hand side). Notably, for Kyrgyzstan and Tajikistan, the constant has a negative value. For them, low urbanization, standards of living, and technological efficiency of the economy still produce a low base in economic development.

The inelasticity of the average number of students per teacher in Kyrgyzstan suggests that education in any form has so far had a positive effect on poverty reduction. In Uzbekistan, the elasticity of this indicator is very high, which characterizes the country's education system as inefficient and requiring reforms.

Figures 2-5 reflect the results of poverty modeling in the countries. The models accurately reflect the dynamics of poverty. However, in the case of Kazakhstan, there is a factor not considered in the model. From the analysis above, it is reasonable to assume that the model should reflect the institutional or spatial structure of poverty in the country. Preceding the modeling results, we note that the poverty rate in the countries has been declining, although this parameter is extremely unstable.
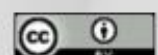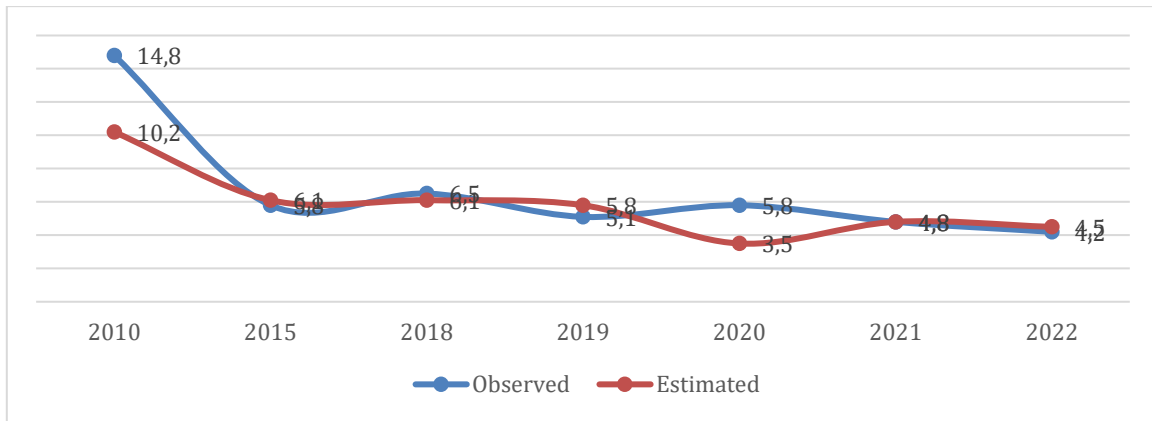
Figure 2. Distribution of observed and estimated poverty in Kazakhstan (compiled by the authors based on modeling in Gretl software)
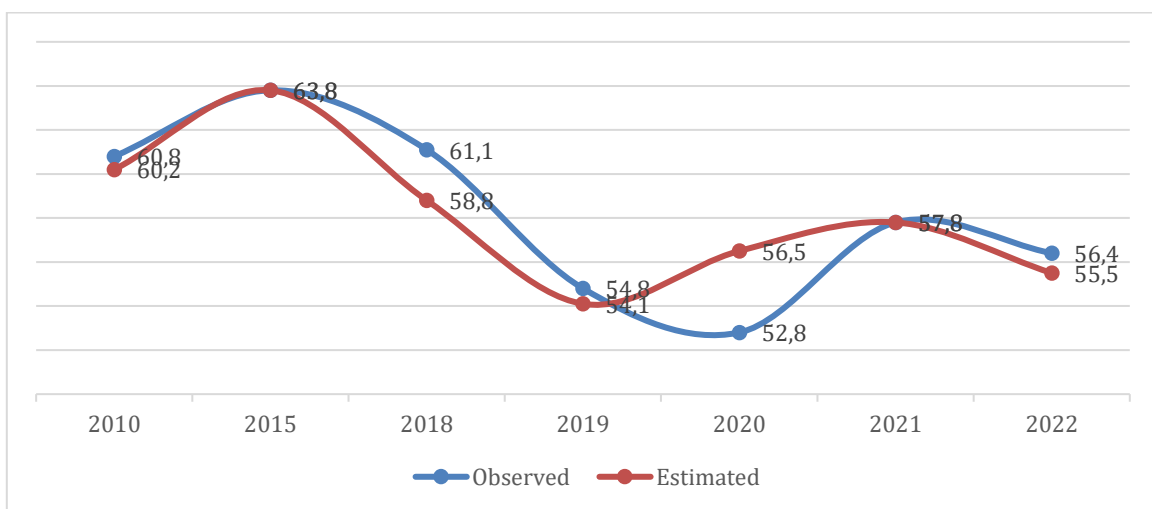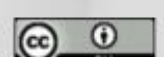

Figure 3. Distribution of observed and estimated poverty in Kyrgyzstan (compiled by the authors based on modeling in Gretl software)

The results of the modeling prove the existence of well-specified factors of poverty persistence, combined into a single model of a cyclical nature, the intermediate links of which are not present in all of the countries. The theories of individual deficiencies and cultural belief systems appear largely unsuitable for Central Asian countries. Assuming their accuracy, one must conclude that the region's population is destined to make bad decisions at the individual level and has considerable individual deficiencies. This assumption is false and disagrees with ethical, biological, and physical realities. Nevertheless, the influence of institutions and dependence on previous development (path dependence) cannot be completely ruled out as factors contributing to the persistence of poverty, although not of primary significance.
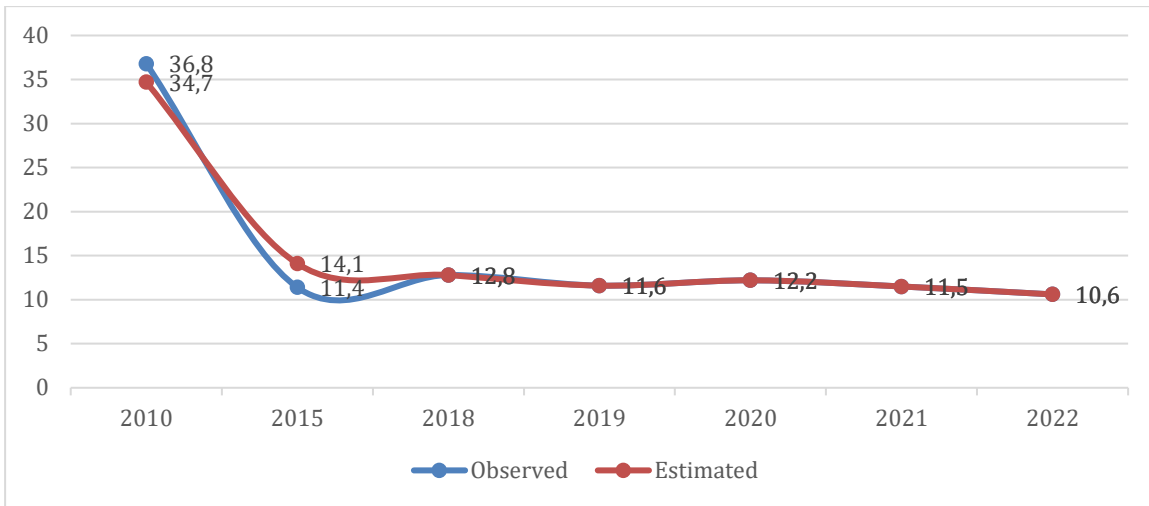
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Figure 4. Distribution of observed and estimated poverty in Uzbekistan (compiled by the authors based on modeling in Gretl software)
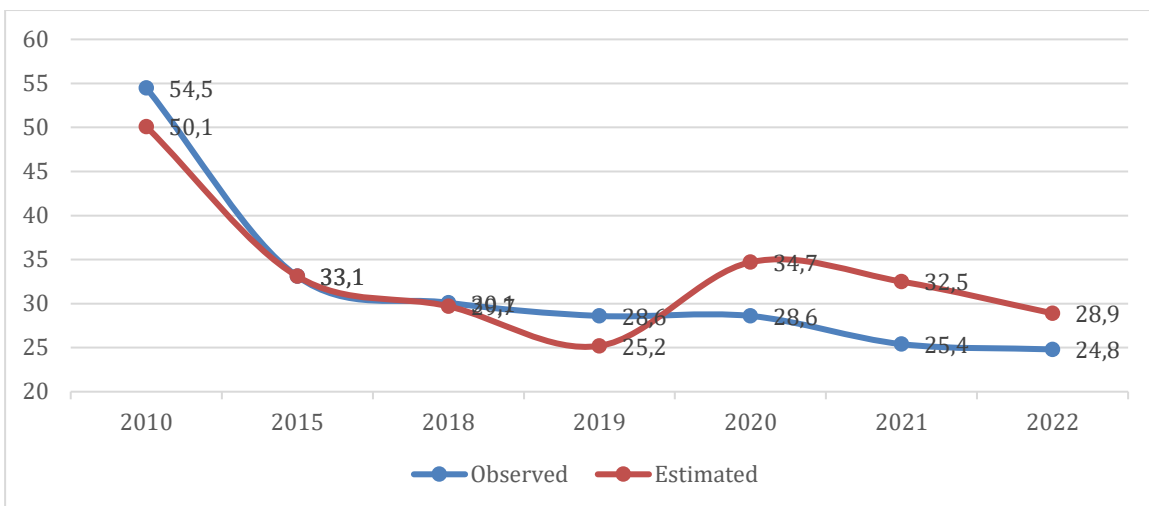

Figure 5. Distribution of observed and estimated poverty in Tajikistan (compiled by the authors based on modeling in Gretl software)

Developing a strategy to overcome poverty in Central Asia requires a detailed consideration of the local specifics of the region's countries. Unfortunately, in the past, the expert community has devoted little attention to a comprehensive review of the features of poverty in Central Asia. Below we shall examine the main provisions of previously published academic papers and analytical reports in the context of our research findings.

Discussion

In early 2020, for the first time in the history of Uzbekistan, the concept of poverty was addressed by President S. Mirziyoyev, and poverty reduction became the priority of socio-economic policy. The Decree of the President of the Republic of Uzbekistan of April 8, 2022 No. UP-101 "On regular reforms to create conditions for stable economic growth by improving the
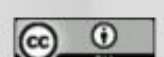
business environment and developing the private sector" establishes as one of the goals halving poverty by achieving inclusive and sustainable economic growth (Presidential Decree of the Republic of Uzbekistan, 2022). This objective is also stipulated in the Strategy of development of New Uzbekistan for 2022-2026. Strengthening the social protection of citizens and reducing poverty have been recognized as priorities of state policy, and the provision of new jobs and a guaranteed source of income, skilled medical and educational services, and decent living conditions have been raised to a qualitatively new level (Presidential Decree of the Republic of Uzbekistan, 2022).

By the end of 2026, Uzbekistan plans to halve poverty in the country as part of the implementation of the Strategy of development of New Uzbekistan for 2022-2026. The task of ensuring macroeconomic stability and sustainable economic growth at high rates is put as the fundamental condition for achieving the set goals. It is estimated that this will create the basis for Uzbekistan to enter the upper group of middle-income countries by 2030.

In our view, poverty reduction efforts need to be guided by the characteristics of poor households, existing barriers, and development priorities, as well as macroeconomic and micro-level policy opportunities (Figure 6).
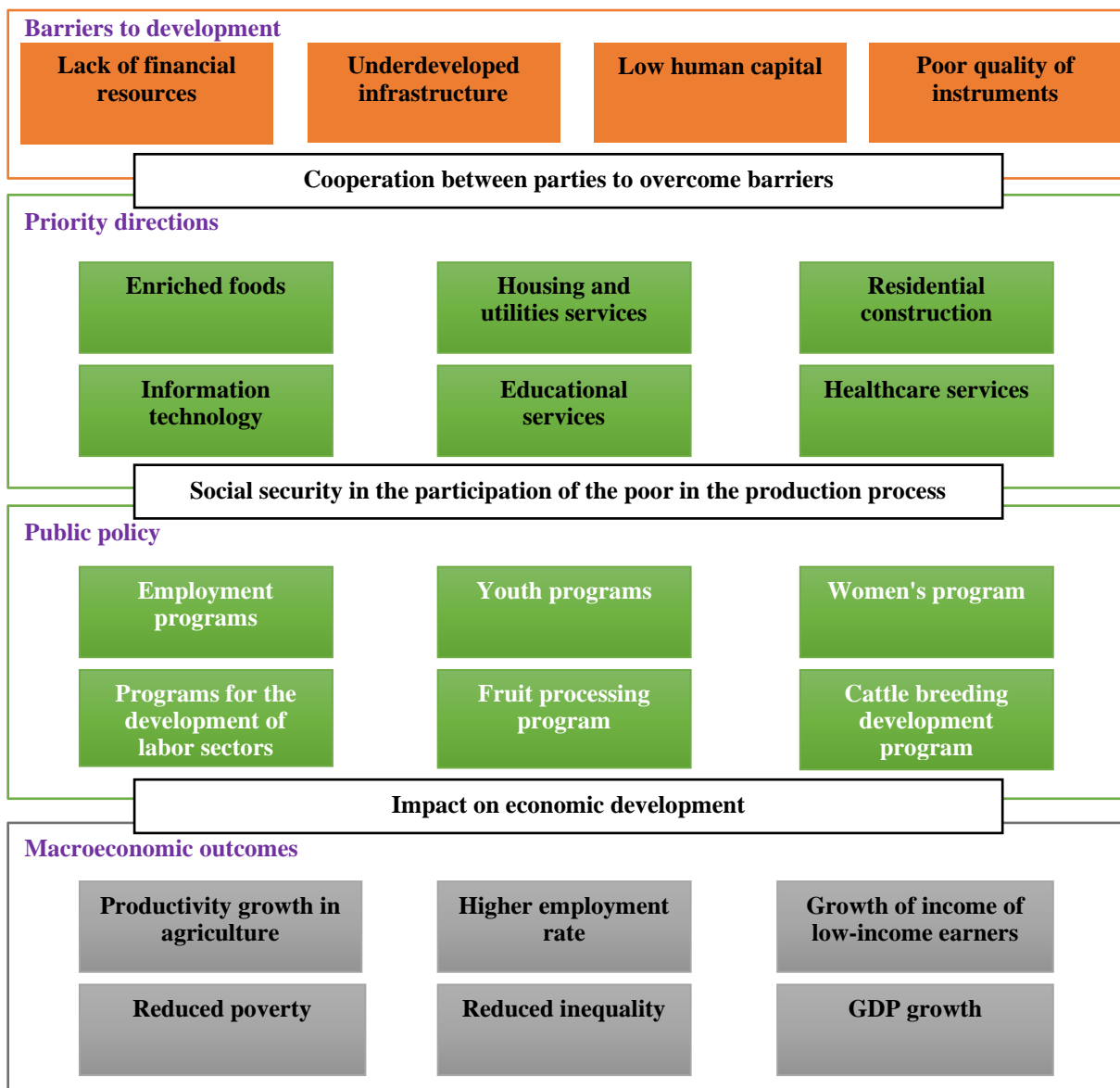
Barriers to development

| Lack of financial resources | Underdeveloped infrastructure | Low human capital | Poor quality of instruments |

Cooperation between parties to overcome barriers

Priority directions

| Enriched foods | Housing and utilities services | Residential construction |
| Information technology | Educational services | Healthcare services |

Social security in the participation of the poor in the production process

Public policy

| Employment programs | Youth programs | Women's program |
| Programs for the development of labor sectors | Fruit processing program | Cattle breeding development program |

Impact on economic development

Macroeconomic outcomes

| Productivity growth in agriculture | Higher employment rate | Growth of income of low-income earners |
| Reduced poverty | Reduced inequality | GDP growth |

Figure 6. Conceptual framework for the main directions of the poverty eradication strategy in Uzbekistan (compiled by the authors)

The key directions in the reduction of poverty in Uzbekistan include:

● Development of human capital;

● Development of agriculture and rural entrepreneurship. For the first time by initiative in the republic, land is leased to the population for a period of 30 years;

● Development of industry in rural areas;

● Development of infrastructure to speed up the delivery of goods and increase the mobility of the population. This means providing the population with potable water and electricity and wide use of green technologies;

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● Development of the urbanization process. In Uzbekistan, the rural population accounts for 50.0%. Therefore, urbanization constitutes one of the most important directions.

Conclusions

Success in the eradication of poverty in Central Asia will depend on the rate of expansion of domestic markets in the countries of the region and the potential level of solvent demand among the population. For particular categories of the urban poor, it is advisable to introduce social support measures in the form of vouchers for the purchase of foods produced by domestic agro-industrial companies. The proposed measure should serve as an incentive for the revitalization of economic life in the region and not as a basis for maintaining the dependence of part of the population on social support from the state. To avoid the risk of long-term poverty in Central Asia, this solution should target the most vulnerable segments of society – citizens in long-term poverty.

Our results require specification in line with the region-specific contexts of their application, as well as additional statistical verification in each individual case for the economy of a particular region. That being said, their applicability for the formulation of development strategies at the state level and roadmaps for overcoming poverty in Central Asia by international institutions and as a theoretical basis for commercial analytics is beyond doubt.

The literature review on poverty clearly demonstrates the political bias of several theories regarding the factors contributing to the persistence of poverty. Existing economic theories justifying poverty are not fully applicable to Central Asia, as they do not account for regional specifics in their entirety.

An important finding of the study is that, factually, there are now two models of vicious circles – factors and consequences of poverty – that are linked to each other and make it difficult to escape systemic poverty.

The study proves that poverty in Central Asia is systemic and fits the cyclical patterns of vicious circles in Tajikistan, Turkmenistan, and Kyrgyzstan.

The absence of vicious circles of poverty in Kazakhstan and Uzbekistan is unstable and can easily transform into systemic poverty. The poor quality of education, the low availability of jobs, and the persistence of a culture of poverty in these countries have been proven econometrically; poverty is not eradicated there, and a part of the population is on the verge of poverty. In a turbulent world economy, external factors have had a major impact on the

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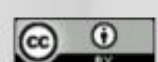vicious circle of systemic factors and policy implications.

development of these states. It is also important to point out the absence of a low base effect and the need for much broader transformations to further reduce poverty.

All countries in the region have significant potential to overcome poverty, yet their domestic drivers of development are underutilized. The proposed measures make sense only when implemented in a comprehensive manner, with an emphasis on information and statistical support for poverty reduction. Further proposals for overcoming poverty can only be built on a reliable statistical basis, which is currently lacking.

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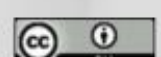
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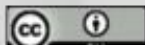
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