

Demographic transition and “demographic security” in post-Soviet countries

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Abstract

The review-and-analytical article deals with the interrelation between demographic transition and national security. The focus is on the countries of the former Soviet Union. It proves that along with two traditional approaches of population policy, i.e. prevention and overcoming of negative consequences of demographic transition, measures of adjustment to demographic change are acquiring increasing importance.

Keywords

demographic transition; demographic security; post-Soviet countries

JEL codes: J10, J11, J18

Introduction

The concept of “demographic security” is considered, including in Russian academic literature, as one of the components of national security (Glushkova and Khoreva 2014; Rybakovskiy 2003; Epstein et al. 2013; Cincotta 2004; Goldstone 2002; Nichiporuk 2000). Demographic security can be defined as the central and unifying component of national security, which ensures the interplay of all other elements of national security — military, economic, social, cultural, personal, etc. (Karmanov et al. 2015), or can be “a platform for all other aspects of national security, without exception” (Bokov 2015).

The areas of national security most affected by demographic factors include the state military forces, as well as the labour market. Through the labour market, the influence of demographic factors on other areas of state structures and functions dependent on the collection of taxes and, consequently, the size of the budget, is mediated: social security and social protection; health and social services.

The concept of demographic security is commonly associated with demographic processes that cause changes in the size and demographic structure of the population, including its geographical distribution, as well as age, ethnic, and religious composition (Rybakovskiy 2003; Cincotta 2004). These changes can be perceived as threats to security at different levels, from personal to global level (Karmanov et al. 2015).

The main demographic factors associated with the emergence of political instability and conflicts, including armed conflicts, may include the following (Cincotta 2004):

1. *An increasing proportion of young adults* (15-29 years) among the working age population, i.e. the so-called "youth bulge". In countries with a youth bulge, civil conflict is on average 2.5 times more likely than in other countries; at least this tendency was observed in the 1990s (Cincotta et al. 2003).

2. *Rapid urbanization*, accompanied by a concentration of young adults and often unemployed people in urban areas. The "youth bulge" in developing countries is formed mainly in urban settings (United Nations 2017a).

3. *Shift in the sex structure of the population towards the predominance of males*. This threat hardly applies to post-Soviet countries: with the exception of Tajikistan, women outnumber men in all post-Soviet countries. The predominance of women in the population structure increases with the age of cohorts, whereas the largest gap in life expectancy at birth between women and men is observed in Eastern Europe and Central Asia: in 2017, it remained at 9.1 years, despite the ongoing decrease of the gap over the past 15 years (GBD 2017 Mortality... 2018).

4. *Differences in the rate of growth of the population* belonging to different ethnic and religious groups; the differences in growth rates are likely to be observed between different language groups.

5. *High mortality among the adult population of working age*. This factor is present in a number of developing countries, as well as in almost all post-Soviet countries. In developing, or low-income countries, high mortality among young people is linked to epidemics of communicable diseases, including the HIV/AIDS epidemic. In post-Soviet countries, the high mortality rate of young males is related to other causes, primarily non-communicable diseases and injuries. The largest number of lost years of life in the post-Soviet countries of Eastern Europe (Belarus, Estonia, Latvia, Lithuania, Moldova, Russia, and Ukraine) in 2015 was due to ischemic heart disease, strokes, self-injuries, lung cancer and road injuries (GBD 2015 Mortality... 2016). In the post-Soviet countries of Western Asia (Armenia, Azerbaijan and Georgia) and Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), the main death causes include ischemic heart disease, stroke, lower respiratory infection, neonatal encephalitis and neonatal preterm birth complications (GBD 2015 Mortality... 2016).

6. *Migration*, which can affect the security of both the sending and receiving countries (Nichiporuk 2000). In sending countries, the economic emigration of youth results in a reduction in the number of army draftees and reduction and ageing of the labour force. Overseas diasporas can become a source to fuel political conflicts in sending countries. In receiving countries, the influx of refugees can "overload" the infrastructure of the host country and/or significantly alter the ethnic composition of the population. Both factors can provoke instability and conflict. In addition, the incoming refugees may be members of various radical movements.

7. *Ageing of the population and its decline (depopulation)*. However, older countries are not characterized by increased levels of economic or political instability. This remark also applies to those post-Soviet countries where the population ageing is obvious and the thre-

at of depopulation exists, for example, Belarus and Russia. At the same time, a number of post-Soviet countries, which are demographically “older” (Armenia, Georgia, Moldova and Ukraine), periodically experience civil and even military conflicts, but their emergence is related to political, including external political factors, and economic factors rather than to demographic change. Nevertheless, population ageing is often seen as a demographic process that poses a threat primarily to the development of society and its economic security (Aleshkovsky 2012; Bokov 2012, 2015; Karmanov et al. 2015; Rybakovskiy 2003; Clements et al. 2015, 2016; Leuprecht 2011).

Analysis of the above factors may be the basis for diagnostics and monitoring of “demographic security”. For the purposes of such analysis it is suggested to use panels of relevant indicators (Rybakovskiy 2003; Smelov et al. 2015; Zwigong 2017; Epstein et al. 2015).

However, demographic processes and emerging changes themselves are not direct threats to national security, and their role in the emergence and maintenance of crises and conflicts is carried out through interaction with other factors, primarily political as well as social and economic (Nichiporuk 2000). Demographic threats are often based on unfavourable socio-economic conditions. A possible illustration is the decline in life expectancy in post-Soviet countries in the 1990s; at the global level this trend was observed in those years only in two “superregions”: (1) Central and Eastern Europe, Central Asia and (2) Subequatorial Africa; in the latter case due to the HIV/AIDS epidemic (GBD 2017 Mortality... 2018).

Without presenting a direct threat to national security, demographic processes, however, can serve as *sources* of such threats (Bokov 2015). For example, changes in population size can lead to overpopulation or, conversely, depopulation; changes in the geographical distribution of the population may lead to excessive urbanization and concurrent depopulation of rural areas; changes in the structure of the population by sex, age, ethnic composition, marital status - to corresponding imbalances in the population structure, etc. Therefore, it would be more accurate to speak not about demographic threats and demographic security, but about the areas of national security affected by demographic factors and, consequently, demographic factors contributing to or preventing threats to national security. There is also a view that it is extremely difficult to establish a direct link between demographic changes and the occurrence of violent conflicts. Threats to national and international security are formed under a combination of certain conditions — social, ethnic, economic, etc., which contribute to the transformation of demographic processes into security threats (Goldstone 2002).

Demographic transition and demographic threats

Most, if not all, demographic processes that can form security threats and become a trigger or supporting mechanism for civil and military conflict are induced by “demographic transition” (Cincotta 2004). The main content of the demographic transition is the change in the age structure of the population through successive and later simultaneous reductions in mortality and fertility; migration can also contribute to changing the age structure of the population (Demograficheskij perehod, no date; United Nations 2017a).

The demographic transition is ubiquitous and apparently irreversible, however, it occurs asynchronously in different regions of the world. For example, higher-income countries, or more developed countries, are in the later stages of demographic transition: the proportion of the older population in them is high and continues to grow, including on the account of increasing the life expectancy of older people; the transition in these countries has been

relatively slow. Lower income countries, or less-developed countries, are demographically “young”, they have embarked on a demographic transition relatively recently, but it is occurring much faster than in demographically “older” countries (United Nations 2017b).

In the early stages of the demographic transition, which begins with the reduction of mortality and the persistence of high fertility, a significant increase in the population size, first of all, in children and young adults, can lead to a “youth bulge” (see above). This phenomenon, coupled with the concentration of marginalized youth in urban areas and, above all, the absence or inadequacy of social and economic policies, can contribute to threats for national security.

However, a significant increase in the absolute and relative numbers of young adults underlies another phenomenon — the first demographic dividend (Vasin 2008; Lee and Mason 2006). Its essence is that the growth of the absolute and relative numbers of the young working population can potentially contribute to economic prosperity by enlarging the human and intellectual capital and increasing the size of labour and consumption markets. With the gradual decline in the birth rate, an additional factor of the demographic dividend is emerging: reduction of the relative number of children leads to reducing demographic burden and releasing additional financial resources previously devoted to the support of this dependent population.

Governments often try to “deflate” the “youth bulge” through palliative measures such as encouraging emigration while facilitating the inflow of migrant remittances or conscripting young people into the army and the police force (Cincotta 2004). But there are also other approaches, such as investments in the economy that generate employment, as well as educational programmes and programmes focused on improving the health of children and young people (United Nations 2017a). These public policy approaches can stimulate social and economic mobility and transform the “youth bulge” into a source of skilled workers and, consequently, neat taxpayers and, thus, promoting the economic and social development of the country. Similarly, infrastructure investment in a growing urban environment can prevent slum formation and stimulate economic growth.

In countries in the later stages of demographic transition, the principle demographic phenomenon is population ageing stipulated by the continued decline in fertility and mortality and increased life expectancy at almost all ages, including later ages (Lesthaeghe 2014). The demographic situation in many “old” countries is accompanied by depopulation, the main mechanism of which is also low fertility and emigration in a number of countries, including post-Soviet countries.

Population ageing and depopulation, if not compensated as in some Western European countries by the influx of young migrants, brings about a demographic deficit (Harper 2014). This phenomenon is characterized by a decrease in the share of the working-age population and a corresponding increase in the dependency ratio due to an increase in the share of older persons. Demographic deficit, as a consequence of the two interconnected demographic processes, ageing and depopulation, may pose threats to economic security, if corresponding policies are inadequate or insufficient. However, even in an ageing society in the later stages of demographic transition, there are demographic prerequisites for designing and implementing the compensatory or preventative public policy measures in the areas of economics, finance, health and education (Bloom et al. 2015; Harper 2014).

Obviously, with the rapid demographic ageing, the first demographic dividend, resulting from the young population structure, ceases to work. Attempts to reverse the demographic transition, including by stimulating fertility, are not productive because the preconditions

for a certain level of fertility are rooted in the previous demographic processes, which determine the number of women of childbearing age (Center for Strategic Research 2017).

A number of authors have substantiated the existence of a second demographic dividend inherent in society in the late stages of demographic transition, when the low fertility is accompanied by a significant increase in life expectancy, including healthy life expectancy, at almost all ages (Lee and Mason 2006). The second demographic dividend emerges within the “second demographic transition” (Lesthaeghe 2014). This increase in life expectancy forms the basis of the second dividend which provides an opportunity for sustainable social and economic development of society. Healthy and active longevity will extend the period of employment beyond the traditional retirement age and thereby increase the size of the working age population and, accordingly, reduce the old age dependency ratios. The extension of the employment period may, in turn, ensure that the notional number of “producers” exceeds the notional number of “consumers” or, in general terms, increase the level of production and income over the level of consumption and expenditure (Lee and Mason 2010). Secure, regular and regulated migration can also contribute to this. Additional income can bring about increased savings, and their investment can stimulate economic growth (United Nations 2015a). A thoughtful fiscal policy will ensure sustainable financing of social protection, health care and social services.

The potential of the second dividend is enhanced by policy measures aimed at reconciling the family and work responsibilities of women and men and bringing women into the labour market. Such measures include parental leave for both parents, flexible employment opportunities for men and women, affordable care for children, family members with disabilities and older relatives in need of care (United Nations 2017a).

The measures listed above have the following main objective: increase and improve human capital, which is the main condition for realization of the second demographic dividend in society at any stage of demographic transition, including in an ageing society (United Nations 2015a, 2017a,b). The ideas of using demographic dividends to increase human capital are close to the previously formulated concept of the *life potential of the generation*, understood as the total number of man-years lived by a generation (realized potential) or expected man-years lived by a generation (expected potential) (Vishnevsky et al. 2003). The value of the generation potential is determined by two variables: the number of members of a given generation and their lifespan. Thus, lengthening life expectancy in an ageing society can compensate for a reduction in the size of a generation caused by depopulation associated with demographic ageing.

Another economic factor associated with the second demographic dividend can help to adapt to the ageing of society — the expansion of production and consumption markets through additional products and services for a growing population of older persons, i.e. the “silver economy” (European Union 2018).

Specific approaches to harnessing the potential of the second demographic dividend can be drawn from major international instruments in the field of ageing, such as the Madrid International Plan of Action on Ageing (MIPAA) (United Nations 2002a) and a Policy Framework for Active Ageing (World Health Organization 2002). The first and broadest priority area of the MIPAA contains a list of objectives and actions to harmonize the processes of ageing and development of society. Implementation of the MIPAA in the region of the United Nations Economic Commission for Europe (all post-Soviet countries belong to this region) is guided by the corresponding regional strategy within the framework of the MIPAA (United Nations 2002b).

The concept and strategy of active ageing was formulated in 2002 by the World Health Organization (WHO) as a contribution to the preparations for the Second World Assembly on Ageing (World Health Organization 2002). WHO defines active ageing as the process of optimization of opportunities for health, participation and security in order to enhance quality of life as people age. Accordingly, the list of actions was outlined to preserve and improve the health of older persons, to involve them in various areas of public life, including economic life, and to create a safe environment — physical, psychological and social. In the European Union (EU) for conducting in 2012 the European Year for Active Ageing and Solidarity between Generations, three areas of action were selected: employment; participation in society; and independent living (European Union 2015).

Thus, at different stages of the demographic transition, both negative and positive effects of demographic change are emerging. This balance of challenges and opportunities creates the preconditions for action to prevent or eliminate undesirable consequences, including those that threaten national security. At the same time, public policies should focus not only and, perhaps, not so much on fighting and overcoming problems, but rather on identifying and taking advantage of the opportunities of demographic transition. MIPAA points to the need to "guide policy formulation (on ageing) and implementation towards the specific goal of successful adjustment to an ageing world" (MIPAA, § 14).

Demographic dividends can generate between 1.5 and 2.3% of annual economic growth, with the second dividend potentially exceeding the first in both size and duration (United Nations 2017a). However, neither the first nor the second demographic dividend alone ensure economic prosperity and sustainable social and economic development of society, and thus economic security. To benefit from demographic dividends and at the same time prevent possible threats to national, primarily economic security, effective measures in such key areas of public policy as health, family policy, education and economics are needed.

Definitely the health of the nation is the most important prerequisite not only for social and economic development and the growth of human capital, but also for national security. Effective family policies are designed to help regulate fertility and replacement of generations, as well as to preserve the balance between family responsibilities and professional interests and career growth of the parents. In the economic area, there is a need for increased employment, openness to investment and trade. At the same time, the relevant reforms should be carried out gradually and in a manner that protects those who may lose in the transition processes. Effective public administration should strengthen the rule of law, improve the effectiveness of public operations, reduce corruption and secure execution of contracts and obligations, both domestic and international (Nichiporuk 2000). Almost all public policy measures in this short list are designed to create conditions not only for sustainable social and economic development of the nation, but also for ensuring national security in all its aspects.

Crisis situations and civil conflicts are more likely to occur in countries in the early stages of demographic transition, with high fertility rates and gradually declining mortality. If the growth of the young population is not accompanied by an increase in employment in various sectors of the national economy or by the out-migration of migrant workers, the "surplus" of the unemployed and marginalized youth can create a predisposition to civil and military conflicts. This phenomenon is seen as a major demographic factor that poses a potential threat to national security. According to some authors, the likelihood of such a threat increases if the "youth bulge" is formed "asymmetrically" in population groups with different ethnic, religious or other characteristics (Nichiporuk 2000). This view is confirmed by the long history of religious, ethnic crises and armed conflicts in a number of countries in Asia and Africa.

To date, no country in the late stages of the demographic transition has experienced political or economic instability in any way associated with demographic change. Conflict seems to diminish as fertility declines and the country moves towards demographic transition. While the links between the demographic transition and the democratic transition from authoritarianism to democracy are ambiguous, it appears that at later stages of the demographic transition the likelihood of the emergence of civil conflicts declines. At the same time, “incomplete democracies”, where civil liberties are mixed with authoritarian restrictions, are more prone to state crises than “full” democracies or authoritarian regimes (Esty et al. 1999). This assumption is confirmed in the analysis of the relationship between demographic transition and political-socio-economic transition in post-Soviet countries. It is assumed that states in the early stages of demographic transition are expected to reduce the risk of civil conflict in the course of their transformation into democratic societies with market economies if they accelerate the demographic transition. For example, in a number of East Asian countries, significant fertility declines preceded major democratic and market reforms (Cincotta 2004). However, this observation hardly indicates the existence of a universal pattern, at least not in post-Soviet countries, where political regimes have so far played a greater role in ensuring state stability than the demographic situation.

Another “deterrent” may be the extent to which a country participates in international trade. The likely basis for this factor appears to be income from international trade, which discourages national elites from engaging in conflicts at the national and international levels (Goldstone 2002).

Features of demographic transition in post-Soviet countries

Different demographic factors may contribute to threats to national security in countries at different stages of demographic transition. In demographically “young” countries these are primarily unregulated population growth, while in demographically “old” countries these are ageing and depopulation. Such differences can be traced on the example of post-Soviet countries. Of the 15 former Soviet republics, 12 are included in the below analysis; the situation in the EU Baltic countries, namely Latvia, Lithuania and Estonia, is not addressed.

The demographic situation in post-Soviet countries is characterized by a number of common features yet it significantly differs in countries belonging to this category (Danilova et al. 2018; Botev 2012; Sidorenko 2016). All 12 post-Soviet countries can be divided into two groups: demographically “younger” and demographically “older” countries or, alternatively, countries “in the earlier stages of demographic transition” (ESDT countries) and countries “in the later stages of demographic transition” (LSDT countries). The first group consists of Azerbaijan and the countries of Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan); the second group consists of Armenia, Georgia and the countries of the European part of the former USSR (Belarus, Republic of Moldova, Russia and Ukraine).

Table 1 presents the selected demographic (median age) and socio-economic (belonging to the categories of “development” and income level) characteristics of countries from these two groups. Two additional groups of countries are included in the table: countries of South-East Asia and countries of Western Europe. The author compares the demographic indicators of the post-Soviet countries with the demographic indicators of these two groups. The geographically close countries of South-East Asia have been chosen as a group of “demographically younger” countries, while the countries of Western Europe have been selected as “demographically older”.

Table 1. Some characteristics of post-Soviet countries.

Country	Median age, years	Geographic subregion	Level of development of the country (UN)	Income level in the country (World Bank)
Azerbaijan	30.3	Western Asia	LD	UM
Kazakhstan	29.4	Central Asia	LD	UM
Kyrgyzstan	25.1		LD	LM
Tajikistan	22		LD	L
Turkmenistan	25.6		LD	UM
Uzbekistan	26.2		LD	LM
Armenia	33.8	Western Asia	LD	UM
Belarus	39.5	Eastern Europe	MD	UM
Georgia	37.7	Western Asia	LD	LM
Moldova	35.6	Eastern Europe	MD	LM
Russia	38.6		MD	UM
Ukraine	40		MD	LM
Brunei Darussalam	29.9	South-East Asia	MD	H
East Timor	19.6		TLD	LM
Vietnam	30.5		LD	LM
Indonesia	28.5		LD	LM
Cambodia	24		TLD	LM
Laos	22.8		TLD	LM
Malaysia	28.2		LD	UM
Myanmar	27.5		TLD	LM
Singapore	39.7		MD	UM
Thailand	37.9		LD	UM
Philippines	24.1			
Austria	43.2	Western Europe	MD	H
Belgium	41.3			
Germany	45.9			
Luxembourg	39.3			
Netherlands	42.1			
France	41.2			
Switzerland	42.2			

Notes. 1. Levels of development of the country: MD — more developed; LD — less developed; TLD — the least developed.

2. Income levels in the country: H — High; UM — Upper-Middle; LM — Low-Middle; L — Low.

Sources: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online edition: <https://population.un.org/wpp/Download/Metadata/Documentation/>

World Bank Country and Lending Groups: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

The demographic differences between the two groups of post-Soviet countries in terms of fertility (Fig. 1) and median age of the population (Fig. 2) are quite expressive. Both indicators in the post-Soviet “younger” countries are grouped around the corresponding indicators in countries of South-East Asia, while the same indicators in the “older” post-Soviet countries are grouped near those of Western Europe. However, in terms of adult mortality (Fig. 3), especially male adult mortality (Fig. 4), both groups of post-Soviet countries are much closer to countries of South-East Asia than to countries in Western Europe and in most (8 out of 12) of the post-Soviet countries adult mortality is higher than average in countries of South-East Asia. Excess adult mortality is also characteristic of post-Soviet countries classified by the UN as “more developed countries” (see Table 1): Belarus, Moldova, Russia and Ukraine.

Differences between post-Soviet countries are also evident in the net migration rates, which characterizes the scale and “direction” (immigration/emigration) of migration processes (Fig. 5). According to the calculations of the United Nations Population Division,

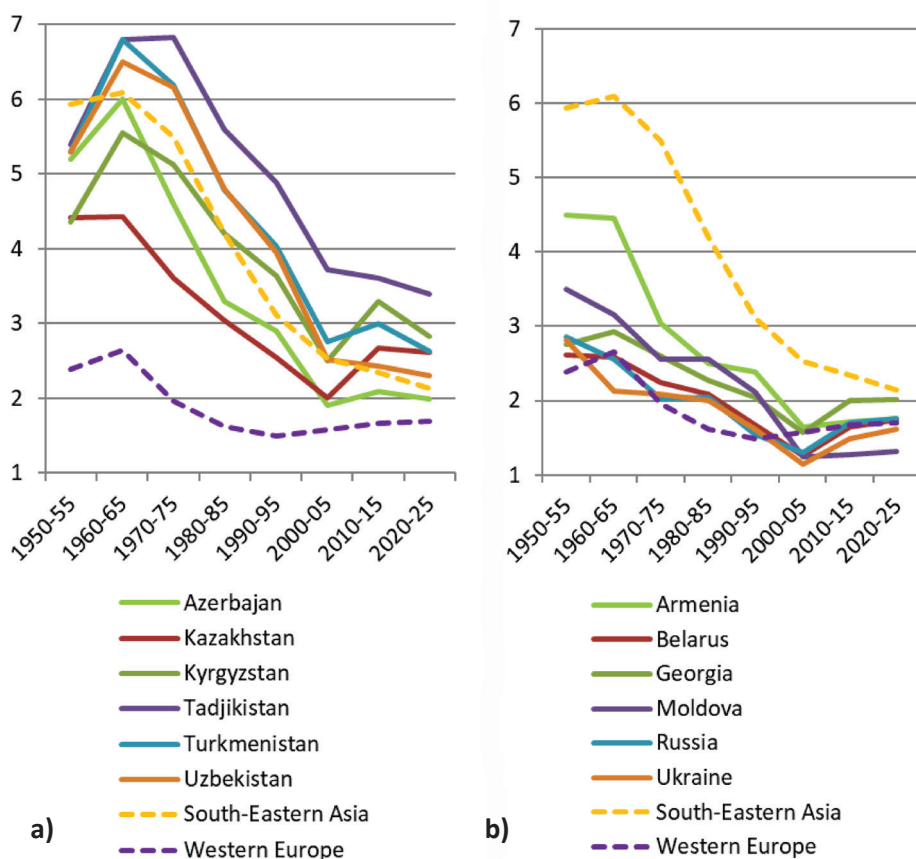


Figure 1. Total fertility rate (number of births per woman): a) countries in the earlier stages of demographic transition; b) countries in the later stages of demographic transition. Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, custom data acquired via website. <https://population.un.org/wpp/DataQuery/>.

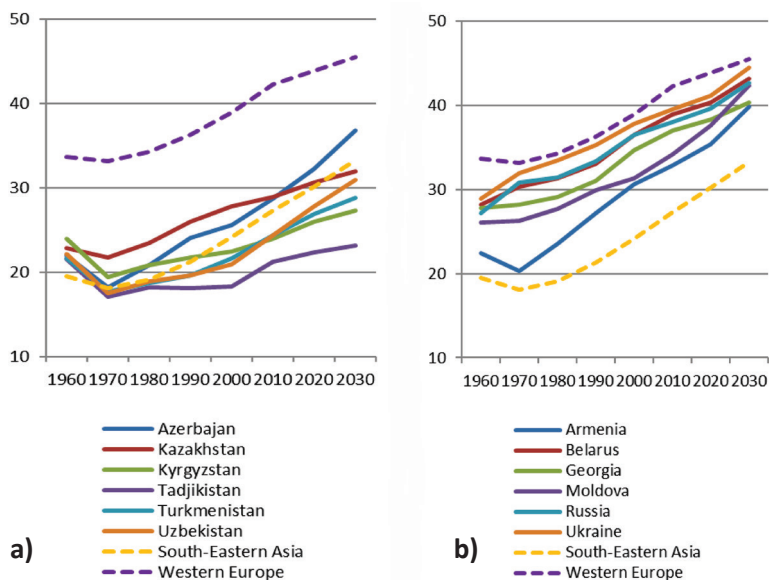


Figure 2. Median age of the population: a) countries in the earlier stages of demographic transition; b) countries in the later stages of demographic transition. Source: see Figure 1.

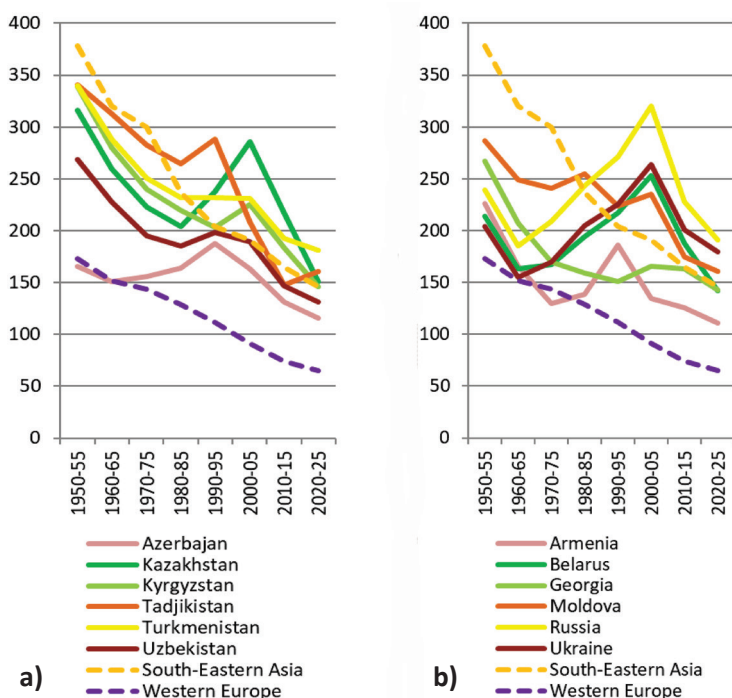


Figure 3. Adult mortality rates between age 15 and 60 years (deaths under age 60 years per 1,000 persons alive at the age of 15), 1950-2025 : a) countries in the earlier stages of demographic transition; b) countries in the later stages of demographic transition. Source: see Figure 1.

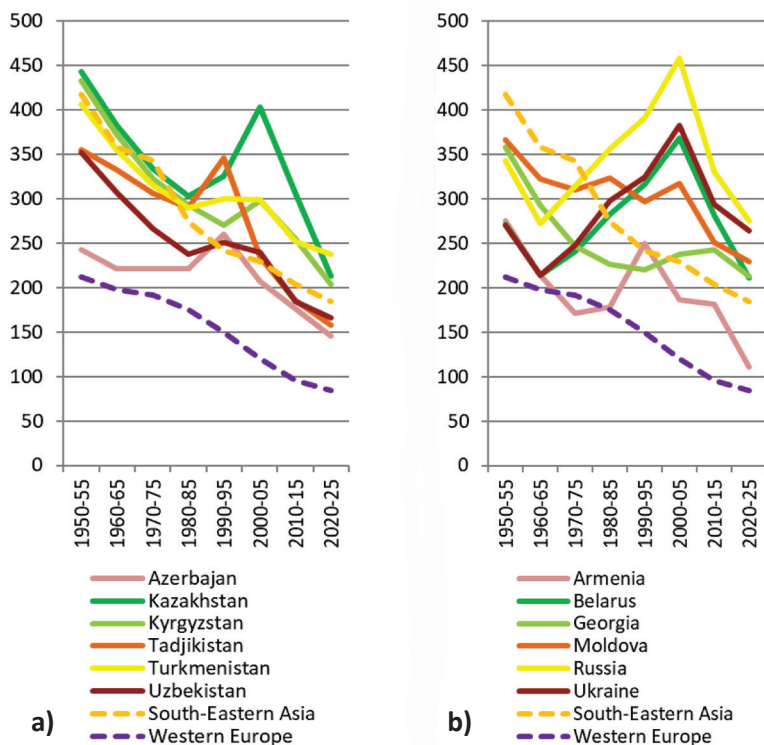


Figure 4. Mortality rates of adult male population between age 15 to 60 years (deaths under 60 years per 1,000 persons alive at the age of 15 years), 1950-2025: a) countries in the earlier stages of demographic transition; b) countries in the later stages of demographic transition. Source: see Figure 1.

only Azerbaijan has maintained a positive balance of international migration over the last 15 years. In the group of LSDT countries, the positive value of this indicator was recorded in four countries during the same years: Belarus, Moldova, Russia and Ukraine. At the same time, in the same group of countries the lowest (negative) values of net migration rates were found in Armenia and Georgia (see Fig. 5).

Fertility, mortality and migration determine the dynamics of population change. This dynamics is also different in two groups of post-Soviet countries (Fig. 6). All ESDT countries, except Kazakhstan, have experienced steady population growth in recent decades; in Kazakhstan, over a relatively short period (1990-1995) population was declining. All LSDT countries, without exception, have experienced, and most of them continue to experience, a decline in population.

A brief review of the differences and similarities of a number of demographic characteristics of the two groups of post-Soviet countries shows significant changes in the demographic landscape in these countries. In the ESDT countries, these changes are taking place according to the scenario of developing countries with continued population growth and relatively slow ageing. In LSDT countries, the demographic processes are largely opposite: a distinct ageing of the population and its decline. The processes of different direction and intensity determine the age structure of the population: in ESDT countries, the “young” age

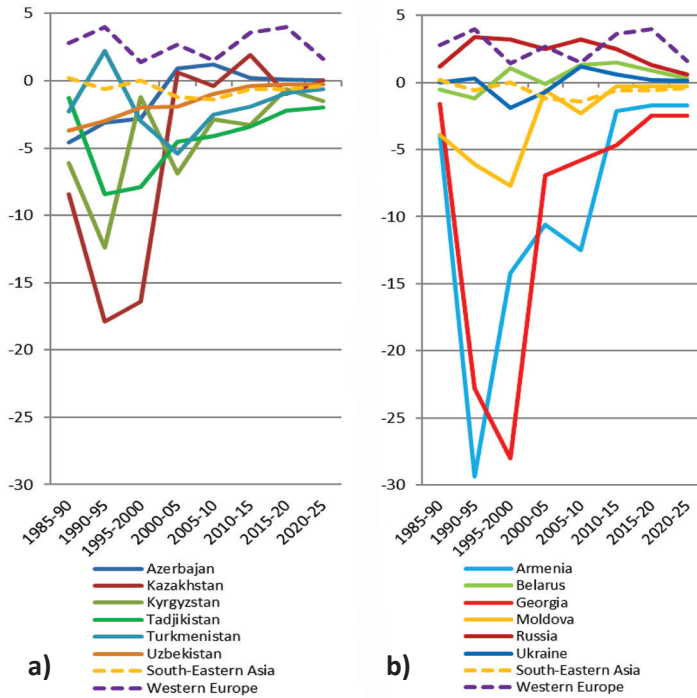


Figure 5. Net migration rates (per 1,000 population): a) countries in the earlier stages of demographic transition; b) countries in the later stages of demographic transition. Source: see Figure 1.

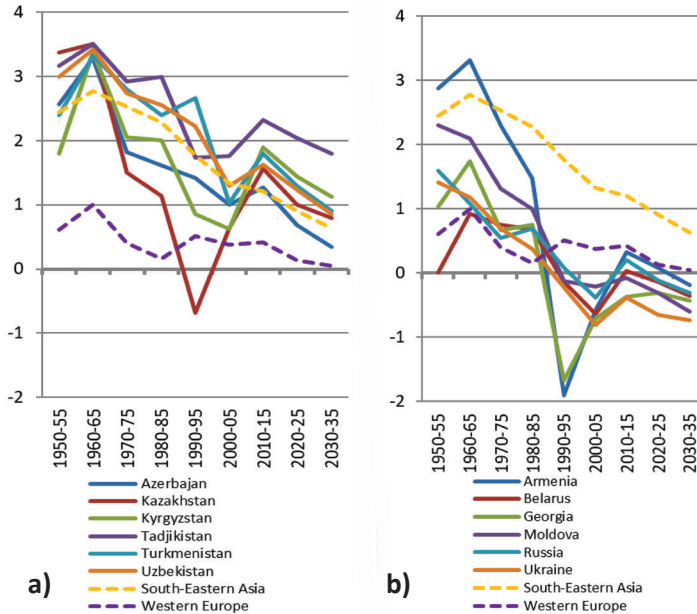


Figure 6. Average annual rate of population change (%): a) countries in the earlier stages of demographic transition; b) countries in the later stages of demographic transition. Source: see Figure 1.

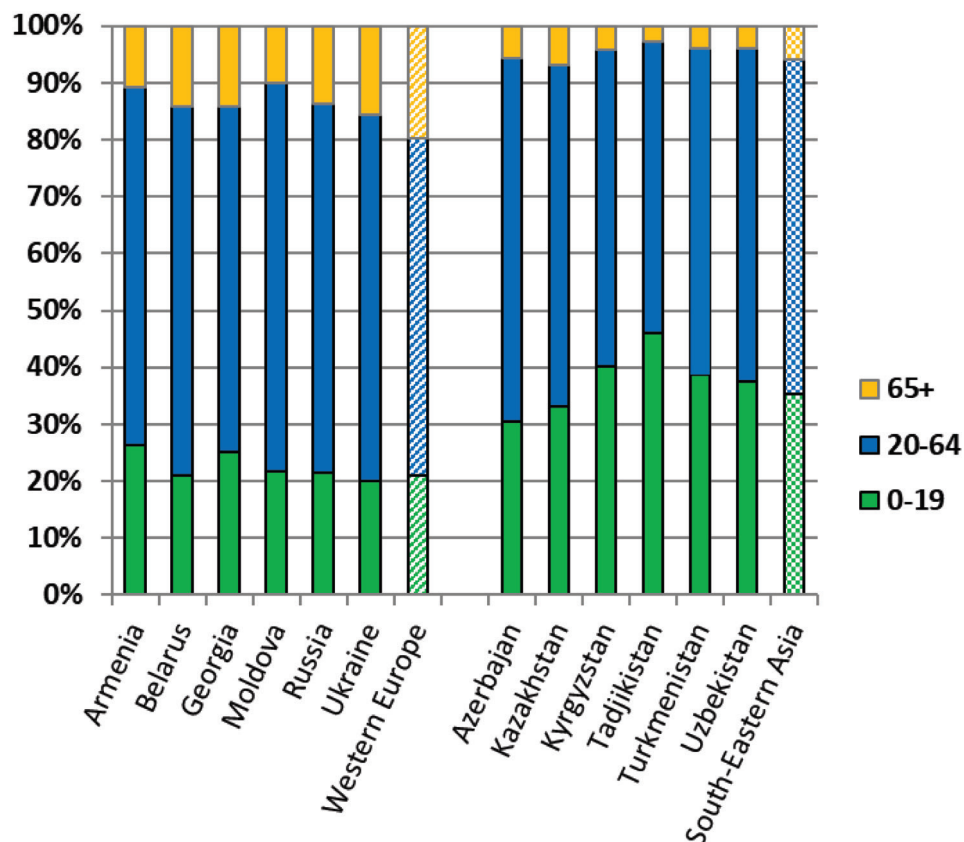


Figure 7. Age structure of population, both sexes (%), 2015. Source: see Figure 1.

structure of the population is close to that of the developing countries of South-East Asia and other developing regions, and in LSDT countries - to that of the developed countries of Western Europe (Fig. 7).

In the “young” population structure of the ESDT-countries, the relative number of young people among the population of “working” or “productive” age (20-64 years) increases along with a slight increase in the older population (65+), while in the LSDT countries the gradual decline in the population of “working age” is accompanied by a significant increase in the size of population of older ages. Differences in the age structure of the population between the two groups of post-Soviet countries are clearly shown by one of the indicators of economic demography — the potential support ratio. The values of this ratio are 2-4 times higher in ESDT countries than those of the LSDT countries (Fig. 8). The high rates indicate that there is a temporary, albeit gradually decreasing, demographic potential — the first demographic dividend — to overcome the negative effects of demographic transition. It is too late for LSDT countries to benefit from the first demographic dividend, although the potential support ratio in these countries is slightly higher than in Western Europe. In LSDT countries, the second demographic dividend could be the basis for overcoming the undesirable effects of the demographic transition.

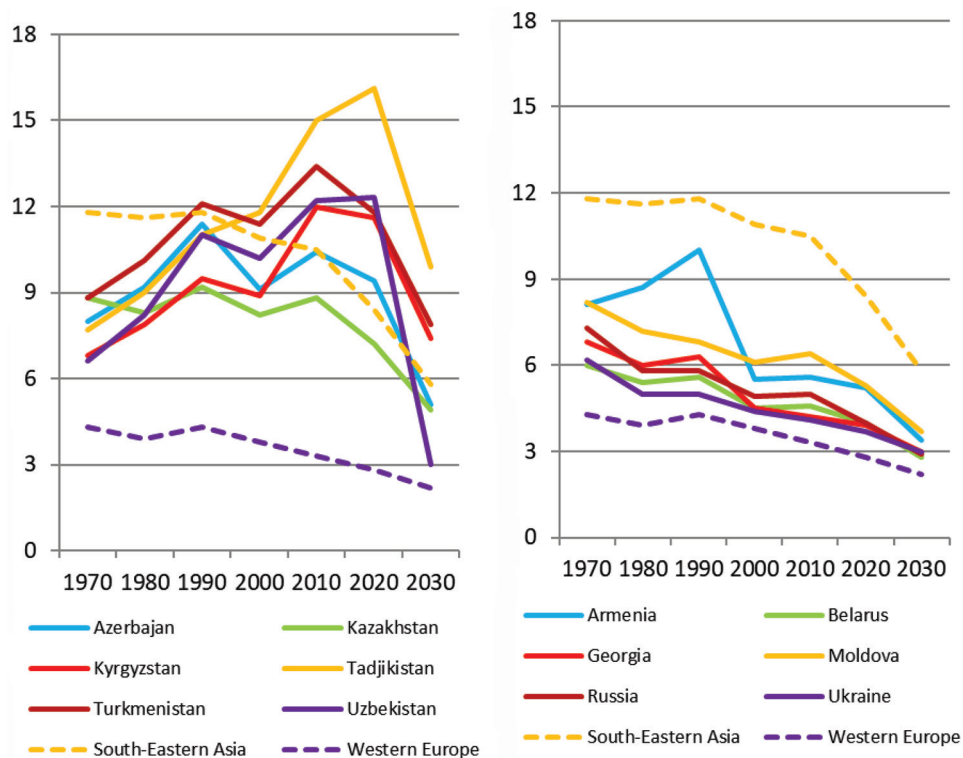


Figure 8. Potential support ratio (20-64/65+): a) countries in the earlier stages of demographic transition; b) countries in the later stages of demographic transition. *Source:* see Figure 1.

Challenges, opportunities and solutions

This section of the article deals with the approaches of the EU and post-Soviet countries to addressing the issues related to the demographic transition and national security. The main attention is paid to the review of the relevant state policy documents.

Features of the demographic transition in post-Soviet countries are reflected in demographic and political terminology used by the expert community of these countries. For example, in Russian-language literature the term “active longevity” is used instead of the term “active ageing”, which was used by WHO in the title and text of the framework strategy for active ageing (World Health Organization 2002) and accepted by almost all countries of the world. The reason for this substitution is associated with the peculiarities of demographic processes in post-Soviet countries, including the phenomenon of “accelerated ageing”, which has acquired negative content in these countries (Sidorenko and Zaidi 2013). Another example is the expression “time/ period of survival” (*srok/period dojitiya*), which reflects the deep-rooted negative attitude of government officials and probably a number of expert groups of post-Soviet countries to the processes and effects of demographic ageing.

Semantic peculiarities also exist in the area that can be attributed to the “demographic security” discussed in this article. Definitions such as “demographic crisis”, “demographic pit”, “demographic collapse”, “demographic catastrophe”, “destruction of statehood” and other are very common in the Russian-language academic literature and the mass media in describing the demographic situation in the post-Soviet countries.

In the EU countries, the terms “demographic security” and “demographic threats” are practically not used; their equivalents, but not synonyms, are such terms as “demographic changes”, “demographic impacts”, “demographic consequences”, “demographic challenges” and, less often, “demographic problems”. Among the demographic challenges in the EU countries are the low (below replacement) fertility, ageing and immigration (May 2015). Regional negative demographic processes in the EU include depopulation in remote, border and rural areas, as well as in areas of industrial decline, and increasing migration of younger populations to urban settlements (European Union 2019). These challenges almost coincide with those in post-Soviet countries.

“Positive” terminology in the EU countries is not just a tribute to political correctness, it reflects the attitude of society to recognized challenges and the main orientation of policy measures. The European population policy is comprised of measures aimed at mitigating and, if possible, eliminating problems by adapting the size and age structure of the population to the rights, needs and aspirations of people (May 2015). Such concept does not refer to ensuring geopolitical status and military power, preservation of territorial integrity or advantages of the “titular nation”. All of the above does not mean that the EU has found and implemented ideal and productive responses to demographic challenges. Moreover, population issues have not yet become a priority in many European countries, and there is a noticeable inertia in this area of national policy (May 2015).

Many European governments are not satisfied with the demographic processes in their countries, and the further to the East, the greater the dissatisfaction (Lutz 2008). This view is confirmed by information received by the United Nations Population Division from governments around the world, including the governments of post-Soviet countries. This information is contained in the World Population Policies Database. The World Database records reflect the views of governments on the state and importance of a number of key demographic indicators and processes in their countries: population size, growth and distribution, fertility, family planning and reproductive health, health and mortality, internal and international migration. The vast majority of the opinions expressed by the governments of post-Soviet countries on the national demographic situation are negative. Such views are sufficiently substantiated, taking into account the above-mentioned characteristics of demographic transition and its consequences in post-Soviet countries: high mortality, accelerated ageing and irregular migration. MIPAA notes that countries with economies in transition face particular difficulties in responding to the opportunities and challenges of population ageing in the twenty-first century (United Nations 2002a). This observation is quite applicable to other consequences of demographic transition in post-Soviet countries (Sidorenko 2016).

Discrepancies in the demographic situation in the two groups of post-Soviet countries imply differences in the resulting problems and corresponding solutions. Experts assess the demographic situation in a number of ESDT-countries, such as Azerbaijan, Kyrgyzstan and Uzbekistan, as relatively calm, without signs of crisis, though noting a number of problems, for example, youth unemployment and the spontaneous, unregulated nature of internal

population movements (Kryzhanova and Salamatin 2015; Maksakova 2012; Efendiev and Asadov 2017).

Another demographic situation and its assessments dominate processes in the LSDT countries. Almost all countries in this group have experienced accelerated ageing and depopulation or these are expected to occur in the near future. Experts and the political leadership of the LSDT countries consider these phenomena as threats to demographic security.

Belarus was the first post-Soviet country to use the term "demographic security" in its legislative documents; later similar terminology was introduced in the documents of the policies of Moldova and Georgia.

On 04.02.2002, the Parliament of Belarus adopted the Law No. 80-Z "On Demographic Security of the Republic of Belarus", which established "the legal and organizational basis for ensuring the demographic security of the country" (Belarus 2002). The 2002 law was the basis for the development and approval by the Government of Belarus of a series of national demographic security programmes. The main priorities of demographic security programmes were fertility, morbidity and mortality, migration, age structure of the population and demographic ageing. Currently, the State Programme "Health of the People and Demographic Security of the Republic of Belarus for 2016–2020" is in effect; its aims are stabilizing the population size and increasing life expectancy (Belarus 2016).

Belarus was followed by Moldova. In 2011, the Government of the Republic of Moldova approved the "National Strategic Programme in the Field of Demographic Security of the Republic of Moldova (2011-2025)". The programme comprises 11 strategic areas that deal with fertility, life expectancy, migration, age structure and population ageing. In addition to purely demographic directions, the Programme contains also social directions, such as the establishment of equal opportunities for all social groups and the development of solidarity between generations (Republic of Moldova 2011).

Georgia joined Belarus and Moldova in 2016. The Parliament of Georgia approved the Concept of Demographic Security of Georgia, which includes four priority areas: 1) fertility, sexual and reproductive health; 2) morbidity and mortality; 3) migration; 4) structure and ageing of the population. For each priority area, the Concept proposes lists of relevant priority actions (Georgia 2016).

Population concerns are also evident in two other LSDT countries – Russia and Ukraine. This concern is justified and detailed in many scientific publications, some of which have already been cited in this article. However, in both countries, public policies on demographic security are not in the form of separate legislative or governmental documents, but this does not mean that demographic security has no place in public policy.

The National Security Strategy of the Russian Federation, approved in 2015 (Russia 2015), contains the list of "national interests", which includes the goal of "ensuring stable demographic development of the country". Meanwhile, demographic security is not enlisted among the "strategic national priorities", the implementation of which is intended to ensure the national interests of Russia. At the same time, the need to create "conditions for stimulating the birth rate, reducing mortality, conducting healthy lifestyles, developing mass youth sports" and to organize "promotion of a healthy lifestyle" are mentioned in the section on the national priority "Improving the quality of life of Russian citizens" (art. 53). The national priority "Health" sets out a strategic objective: "to increase life expectancy, decrease the level of disability and mortality, and increase of the population" (art. 71). Finally, the "life expectancy" indicator (art. 115) is included in the "Basic indicators for assessing the state of national security".

In the Law “On Fundamentals of National Security of Ukraine” (Ukraine 2003) demographic issues were included among the priorities of national interests and mentioned among threats to national interests and national security. Preserving and strengthening the demographic and labour force potential of the country and overcoming the demographic crisis were among the directions of the state policy on national security. At the same time, there was no direct mention of “demographic security” in the 2003 law. In 2018, the Parliament of Ukraine approved a new law “On National Security of Ukraine”, replacing the law of 2003 (Ukraine 2018). The new law does not at all mention the demographic situation in the country. Earlier in Ukraine, the draft law “On Demographic Security of Ukraine” was developed, but this law was not adopted, in particular, due to insufficient scientific substantiation of the proposed actions (Grishnova and Kharazishvili 2019).

Conclusion

The population policy of any state attempts to influence the three main mechanisms of demographic transition: fertility, mortality and migration. In other words, population policies are aimed at changing the two key parameters: population size and age structure. Most often, these policies claim to overcome or prevent the negative effects of demographic changes, such as depopulation, and less often to adapt and use the emerging opportunities. Adaptation to an irreversibly changing demographic situation requires adjustment of social institutions to it and rethinking many approaches of state policy (Vishnevsky et al. 2003).

As discussed above, demographic processes themselves are neutral and do not pose a direct threat to national security, and the relevant demographic indicators only reflect (as *indicators*) the changes in the size and structure of the population. The conclusion about the positive or negative, threatening nature of the changes taking place in society should be based on the analysis of social and economic processes associated with demographic changes. It is socio-economic phenomena such as poverty, extinction of villages, economic decline of regions, etc., and not the levels of fertility, mortality or the migration rate that can become a trigger and supporting mechanisms of political, civil and military crises and conflicts.

The “policy of demographic transition” strives to *prevent* and *overcome* the negative effects of demographic changes and to *adapt* to changes that have already occurred and are often irreversible (Center for Strategic Research 2017; Lutz 2008; United Nations 2017a). The corresponding policy measures relate to the areas of social policy (health, education, social protection, etc.) and economic policy (labour and employment, taxes and budget, investments, etc.). Of course, there is nothing new in the conclusion that population policy is a policy of social and economic measures, which are based, inter alia, on the analysis of demographic indicators. But it is appropriate to emphasize that the solution to the problems associated with demographic transition in post-Soviet countries should not be based on attempts to necessarily increase fertility or adopt prohibitive migration laws, but to introduce adequate, timely and sustainable social and economic measures.

Another important aspect of population policy may be to replace the quantitative approach with a predominantly qualitative approach. The aim of such an approach is not to “stabilize populations” (in fact, prevent overpopulation or depopulation), but to create “high quality”, “balanced” human capital (Lutz 2008). Lutz proposes to consider the formation of a “population balance”, which provides “not too high, not too low” fertility, allowing a moderate decrease in size of population cohorts. The impact of the birth rate on the quality of

life of the population is ambiguous, as it is mediated both at the macroeconomic level (tax collection and the state of the budget) and at the individual level (family and individual expenses). Analysis of national accounts shows that moderately low fertility and declining population size contribute to improvement of living standards (Lee et al. 2014). The formation of a "population balance" supposes a reduction in fertility accompanied by an improvement in human capital through education and health measures. Thus, the goal of public policy is not to regulate population size, but to generate human resources to achieve the highest possible standard of living for all citizens (Lutz 2008; Basten et al. 2012). This goal is quite consistent with the UN Sustainable Development Goals, which are designed to "ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment... (and) can enjoy prosperous and fulfilling lives" (United Nations 2015a).

The need for a qualitative, rather than purely quantitative approach to solving issues related to the demographic situation is also recognized in post-Soviet countries, for example in Russia (Aleshkovsky 2012; Vishnevsky et al. 2003; Elizarov 2018; Center for Strategic Research 2017; Epstein et al. 2013) and in a number of other countries (Elizarov et al. 2018; Kryzhanova and Salamatin 2015; Libanova 2015). In the sections of the 2015 National Security Strategy of the Russian Federation, which deal with the demographic situation in the country, the emphasis is placed on measures of social and economic policy. The Strategy points that the strategic goal of the national security within the national priority to improve the quality of life of Russian citizens is human development (art. 50).

Attempts to reverse the demographic transition, including by stimulating fertility, are now considered to be futile. Sustainable development of the state and its security are determined not by attempts to restore the lost status quo, but mainly by successful efforts to adapt to internal and external changes, including demographic changes.

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