UNICEF

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BELARUS COUNTRY OFFICE

DEMOGRAPHIC DIVIDEND FOR BELARUS

MARCH 2020

Executive Summary

The demographic dividend potential arises when the growth of working-age population is faster than the growth of the dependent young generation in the situation of declining fertility. It opens up the possibilities of the additional investments in children and adolescents and reaping these investment returns – harnessing the demographic dividend. Belarus is currently well-positioned for these investments, and the population ageing challenge only adds urgency to the necessity to invest in the future. According to the WB, the ratio of dependent population (children aged 0-14 and elderly aged 65 and older) per working-age adults aged 15-65 years is 0.46 – lower than in many ECA countries. The next 15-20 years present a window of opportunity for 'demographic dividend' where wise investments in fewer dependents now could effectively capacitate the next generation workforce to be able to pay pension contributions and to look after a larger dependent population.

This brief presents the results of DemDiv modelling for Belarus. This tool allowed us to see how additional investments in children and youth could affect the economic and human development outcomes in the next 40 years. Harnessing the demographic dividend through economic, education and health policy interventions would result in significant improvement in Human Development index for Belarus (from current 0.77 to 0.90). It would bring effects equivalent to 2.5 years increase in schooling; increase of 3 years in female life expectancy; and 164 thousand lives saved due to lower mortality over the next 40 years.

Overall, simulations show that by 2030 all demographic dividend-related policy interventions could contribute to over two-fifths of the projected GDP per capita growth envisioned in the 2030 target of 4% aggregate growth (SDG 8.1.1).

DEMOGRAPHIC DIVIDEND EXPLAINED

As fertility declines and life expectancy grows, countries face new demographic challenges and opportunities. **The demographic dividend** potential arises when the dependent young generations are growing slower than the working-age population. If public finance and other policies refocus their efforts on investment in future generations, greater return from human capital is possible, laying ground for more sustainable and equitable growth for all. Investments in health and education, as well as improvements in economic policies and institutions would in this case result in higher-quality human capital and sustainable growth for all.

In the demographic dividend situation investments could generate triple dividend: (1) they benefit the current cohort of children, and hence the future generation of the grown-ups; (2) when this cohort reaches adulthood, they generate benefits for the society and for themselves; and (3) they transmit these investments to their children, and the cycle perpetuates.

Demographic and economic situation in Belarus poses serious challenges along with opportunities, as the population ageing puts pressure on public finance. But in this situation looking into the future, investing in the next generations, and harnessing the demographic dividend becomes increasingly important.

DemDiv modeling for Belarus

The demographic dividend can be modeled with the tool developed by USAID and Health Policy Project. The tool allows interacting he policy changes in education, economic policy and family planning (health) in the model with the demography and economic growth components. In this section we describe the changes in the model policy parameters we have used in each policy scenario, while in the section Policy Recommendations we further explain what measures could be implemented to achieve the modelled changes.

The DemDiv tool was applied to Belarus to generate four development scenarios for the next 40 years (2018-2058):

• a Base Scenario with no changes in current economic policies, education or health;

• an Economy-only Scenario, with improvements in public institutions, ICT use and labor market efficiency;

• an Economy + Education Scenario adds improvements in education variables;

• an Economy+Education+Health Scenario also ads health improvements which are modeled through better education, lower sterility, higher labor market efficiency and better public institutions in the DemDiv tool.

All policy variables are set to match reference country levels. For example, for the ICT use Estonia was chosen as a mid-term benchmark, as this is one of the leading countries by this indicator, but also a country from the same region and sharing common background with Belarus. Sweden was used as a benchmark for public institutions goal for 2058 under the cumulative scenario. Canada was used as a benchmark for labor market flexibility as an example of the country which provides certain level of worker protection without sacrificing labor efficiency. In education scenario, we assumed that the average and expected years of education would grow by 0.5 years each decade. Education variables are also affected by the increased health policies – lowering mortality in childhood and working age would bring increases to education years.
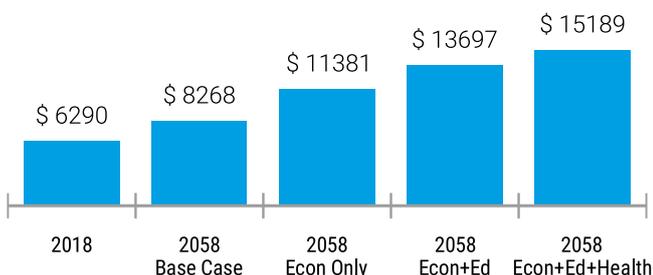
Gross Domestic Product per capita

Figure 1. GDP per capita under the baseline and three investment scenarios

¹ The GDP per capita growth rate SDG target of 4% could be reached if the total factor productivity in the economy grows more dynamically. In DemDiv modelling we only considered child- and youth- relevant policy changes, and we left the parameters of financial market efficiency and TFP unchanged. It those parameters were to improve, the growth rates would reach the targets or become even higher. However, the implication that the demographic dividend, if harnessed, would bring the target closer, remains.

Effects of Demographic Dividend in Belarus

The combined scenario Economy+Education+Health delivers the best results across the board of indicators, but the Economy only scenario also generates a big improvement over the Base scenario. In terms of GDP per capita, the combined Economy+Education+Health scenario generates almost two-fold increase in 2058 compared to the base scenario (**see Fig 1**).

Under the Base scenario the average GDP per capita growth rate in the medium term (2020-2030) would amount to only 0.8% percent per year due to low economy potential and population ageing. The reforms in the Economy only scenario would generate the average annual GDP growth rate of 1.2%; the Economy + Education scenario - 1.4%, while Economy + Education + Health – 1.8% ¹. The GDP growth rates would continue increasing up to around 2040, when the demographic decline would become more significant and drive the growth rates down. At the peak growth year of 2040, the DemDiv modeling predicts 0.7% growth under the Base scenario, and 3.5% growth under the combined Economy + Education + Health scenario. Simulations show that by 2030 all demographic dividend-related policy interventions could contribute to over two-fifths of the projected GDP per capita growth envisioned in the 2030 target of 4% aggregate growth (SDG 8.1.1). Hence, harnessing the demographic dividend by increasing investment in human capital would multiply the growth potential of the Belarusian economy.

Even more telling are the changes in the human development. The Human Development Index (HDI) will grow from the current level of 0.77 to 0.795 over the next 40 years in the Base scenario. Harnessing the demographic dividend would bring the HDI significantly higher: to 0.81 in the Economy only scenario; 0.88 in the Economy+Education scenario; and to 0.90 in the combined Economy + Education + Health scenario. Belarus would than take 34th, 12th or 5th place in the HDI ranking, compared to only 47th in the base scenario (assuming other countries would remain at the current level).

Under the combined Economy+Education+Health scenario, in 40 years mean years of education (proxy for both the quantity and the quality of education) would increase by 2.5 years; female life expectancy would increase by almost 3 years; and lives saved would amount to 164 thousand people (difference in population projection between the Base and the combined scenarios).

Policy Recommendations

Evidence, including from the Lancet Commission, indicates that investments in adolescent health and wellbeing are some of the best options possible, resulting in a 10-fold economic benefit, and are essential for accelerating progress towards achieving the SDGs.

To successfully achieve the demographic dividend, Belarus should take the following steps:

Economy, Finance and Social Protection

•*Introducing performance-based budgeting and participatory budgeting; building trust between the government and*

the population, especially in the areas of public finance; promoting efficiency along with the accountability; improve efficiency of public institutions by improving property rights and intellectual property protection.

There is ample space to increase the efficiency of the public finance in Belarus, especially in terms of the social spending (social assistance, health and education). Introduction of cost- and performance- based budgeting, long-term planning and higher openness and accountability would help the public finance system meet the current demography challenges. The introduction of per capita funding in certain education and healthcare programs is the first step in the right direction.

The Belarusian government is already working towards this goal with the help of UNICEF which has developed a public finance analytical tool Child-focused Public Expenditure measurement (C-PEM). In 2019, the Ministry of Finance estimated a Child Budget following the C-PEM methodology. Consequently, the child budget represented 7.6% of GDP in 2018 and will increase by 0.5% (equating to USD$330 million) reaching 8.1% GDP in 2020 despite a sharp childbirth reduction.

• Improve efficiency of labor market, not only through the purely economic measures, but also through the support of continued, life-long learning; development of programs targeted at NEET youth and their reintegration into training or labor market.

These measures directly translate into economic growth through higher employment and lower human capital losses due to unemployment, as well as higher human capital accumulation. We envision that the introduction of these measures would reduce the average unemployment duration from 8.6 months to 4 months, and reduce NEET (share of those not in employment nor training) from 6.3% to 3%.

• Introduce family-friendly policies in the workplace through the relevant policy changes and development of public-private partnerships.

Current lack of childcare facilities for children under 3 implies that women have to stay at home to take care for children. As a result, in 2018 10% of working women were on maternity leave. Increasing the kindergarten availability for children aged 1-2 years from the current 44% to 70% (both through state-provided childcare and through encouragement of private services and family-friendly policies at work) would release more women on the labor market. As Lvovskiy and Bornukova (2020) show, this boost would generate 2.7% GDP growth, both through the direct increase of employment and the indirect human capital effects. Long maternity leaves are also among the major reasons of gender wage gap in Belarus, and introduction of family-friendly policies will lower the gap significantly (from current 27% to target 15%). The CEQ4C analysis suggests that the shortening of the paid maternity leave would not lead to increase in child poverty, but would also release public funds which could be redirected to children in need. Moreover, the focus on early development in childcare would bring long-run human capital benefits, especially for children from disadvantaged families (Heckman, 2008). The family-friendly policies introduced by Nordic countries over the past 50 years have boosted growth in GDP per capita by between 10 – 20 per cent (UNICEF, 2019).

• Reduce child poverty and multidimensional poverty and thus improve future outcomes in education through more efficient use of available public funding; the CEQ4C analysis and simulations can provide the necessary evidence to

channel the funding to the most vulnerable.

The CEQ4C analysis suggests that today only 64% of the poor receive some kind of social assistance. The gaps in coverage are mostly due to the absence or weakness of existing means-based social programs. At the same time, poverty may lead to poor learning outcomes (Lee, 2011), jeopardizing the future, hence child poverty should be addressed first of all. The CEQ4C analysis and simulations provide evidence on the efficiency of the possible new support measures which could increase the social support coverage of the poor, increase the efficiency of social spending and effectively reduce poverty, with the target being 10% moderate poverty rate compared to 29% today. These measures would also allow reducing the national child poverty rate by half by 2030 (SDG 1.2.1 target) at the cost of around 0.2% of GDP.

Another important poverty dimension is the multidimensional child poverty (MDCP). The CEQ4C analysis shows that due to the ack of means-tested and accessible programs, 6.8% of children face either monetary or multidimensional poverty, and are not covered by social assistance.

• Promote ICT use by expanding infrastructure and providing trainings were necessary.

Today 8.4% of households with children do not have a PC. In our current day and age this is a serious deprivation shown to have detrimental effects on learning (Schmitt and Wadsworth, 2006; Fiorini, 2010). The policies aimed at promotion of PC use and digital learning practices in schools are crucial for future success. The current norm is 1 PC per 30 students in school; the bold vision of the digitalization program is to have 1 PC per student.

Education

• Increase the quality of education, not only by increasing the average education years, but through the particular focus on school education and elimination of socio-economic inequalities.

The recent PISA report on Belarus highlighted important socio-economic inequalities in learning outcomes. The disparity between low-income and high-income students is higher than OECD average. Socio-economic status explains 20% of variation in mathematics score in Belarus, compared to only 14% on average in OECD. The elimination of inequality in schooling opportunities would allow to discover and develop all the talents, contributing to equality and higher human capital.

• Reform the educational system to support life-long learning and constant skill acquisition through the public-private partnerships.

Life-long learning is inevitable in the age of quickly changing technologies and workplaces. The introduction of life-long learning is not limited to educational system only; it also requires the suitable labor market institutes and a shift in societal attitudes (Quendler and Lamb, 2016). Public-private partnerships are the best-suited vehicles for life-long learning promotion.

• Develop programs targeted to address NEET youth, to reintegrate them into education and training which will further lead to successful labor market participation and acquiring XXI century skills for the labor market.

Life-long learning and educational programs specifically tailored to NEET youth would further decrease the NEET share to 2%.

• Promote inclusive education and education opportunities and accessibility for children with disabilities.

Currently the share of children with disabilities not attending educational institutions is 11.6%, the target is to reduce this figure to 5%.

Health

• Reduce mortality of children, adolescents and working-age population with the focus on narrowing the gender mortality gap (and life expectancy gap) driven by NCDs. NCDs prevalence could be lowered through the promotion of healthy lifestyle and prevention in healthcare.

19% or 138,000 Belarusian adolescents experience vulnerabilities like substance use, conflicts with the law, violence, mental health challenges, disability and living without family care or in poverty (UNICEF Belarus 2018). If not addressed promptly, those vulnerabilities, especially multidimensional ones, will continue into their adulthood, limiting life expectancy at birth, and widening a pronounced life expectancy gender gap of more than 10 years as of 2018 (Toritsyn et al., 2018).

Currently the gender mortaility gap in Bealrus is driven by the NCDs, and high tobacco and alcohol consumption are key factors behind the mortality gap (Richardson et al., 2013). For tobacco consumption the target is lowering tobacco use prevalence from 24% to the WHO goal of less than 10%.

• Reduce alcohol consumption by implementing measures known to work in similar settings: increasing the alcohol excises; limiting access to alcohol by imposing strict restrictions in retail; increasing the drinking age.

According to Bobrova and Pilyutik (2017), 8.8% of male deaths in Belarus are associated with alcohol, and most of them are concentrated in the working age. Reducing alcohol consumption from the current level of 11.5 liters per capita per annum to 9.2 (current Sweden level) will bring the increases in longevity and quality of life. The above-mentioned measures are known to have worked successfully in other European countries.

• Promote positive parenting, breastfeeding and other nurturing care and early development practices

Only 31.1% of children aged 2-4 years engaged in the developmental activities with their fathers (compared to 93% with mothers); 57% of children are subject to violent punishment. Promotion of positive parenting could be a non-expensive and effective intervention promoting psychological health and social skills. The increase in the share of babies aged 0-5 m exclusively breastfed will also bring well-documented health benefits.

• Prevent disabilities by developing comprehensive and intersectoral early childhood development services aimed at early detection and treatment of developmental delays.

Many of the suggested policy measures do not require substantial increases in funding; instead they require soft investments in institutions and changes in the rules, approaches and social values, through right communication. The success story of Ireland shows that it is not the expensive investments that we need to improve the potential of the future generations, but rather a coordinated and evidence-based, well thought-through action across the board.

Table 2 in the Annex summarizes the suggested policy measures and policy indicators which could be used to track the implementation and effectiveness of the proposed policies.

References

Боброва, А. Г., & Пилютик, А. А. (2017). Демографические потери, обусловленные потреблением алкоголя в Беларуси. *Демографический потенциал стран ЕАЭС. Том II.— Екатеринбург*, 2017, 2(8), 406-411.

Bornukova, K., J. Cuesta, G. Shymanovich and U. Valetka, Commitment to Equity for Children: Redistributive Effects and Efficiency of Social Assistance to Households with Children in Belarus, UNICEF, 2020

Evans A, Naurodski S. Ranking Belarus on competitiveness and economic freedom. Journal of Entrepreneurship and Public Policy. 2019

Fiorini, M. (2010). The effect of home computer use on children's cognitive and non-cognitive skills. *Economics of Education review, 29*(1), 55-72.

Heckman, J. (2008): The Case for Investing in Disadvantaged Young Children, CESifo DICE Report, ISSN 1613-6373, Institut für Wirtschaftsforschung an der Universität München, München, Vol. 06, Iss. 2, pp. 3-8

Lee, J. The Effects of Persistent Poverty on Children's Physical, Socio-emotional, and Learning Outcomes. *Child Ind Res* 4, 725–747 (2011) doi:10.1007/s12187-011-9120-8

Lvovskiy, L. and K. Bornukova, Demography and Economic Growth; BEROC mimeo, 2020

Richardson, E., Malakhova, I., Novik, I., & Famenka, A. (2013). Belarus: Health system review.

Quendler, E., & Lamb, M. (2016). Learning as a lifelong process-meeting the challenges of the changing employability landscape: competences, skills and knowledge for sustainable development. *International Journal of Continuing Engineering Education and Life Long Learning, 26*(3), 273-293.

Schmitt, J., & Wadsworth, J. (2006). Is there an impact of household computer ownership on children's educational attainment in Britain?. *Economics of Education review*, 25(6), 659-673.

Sheehan, Peter, et al. "Building the foundations for sustainable development: a case for global investment in the capabilities of adolescents." The Lancet 390.10104 (2017): 1792-1806.

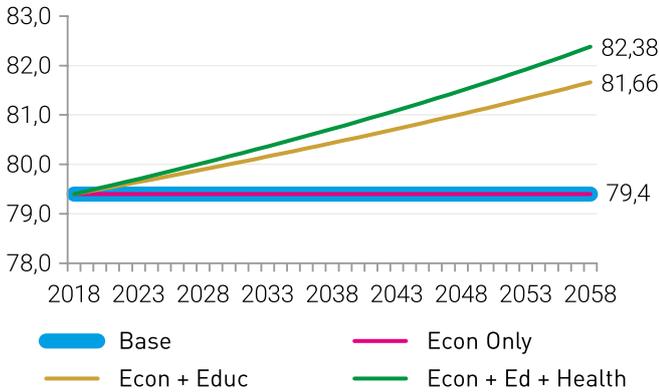UNICEF Belarus. 2018. *Vulnerabilities of Belarusian Adolescents in the Context of Achieving the SDGs.* UNICEF.

Toritsyn. A, Aydinyan, L. & L. Romanovskaya. 2018. *Thematic Evaluation of Government Interventions and UNICEF Contribution to Reducing Vulnerabilities, Strengthening Resilience and Promoting the Rights of Adolescents in Belarus (2011-2017)*. UNICEF Belarus. Available at https://www.unicef.org/evaldatabase/index_103503.html

UNICEF. 2019. *Family-Friendly Policies*. UNICEF https://www.unicef.org/sites/default/files/2019-07/UNICEF-policy-brief-family-friendly-policies-2019.pdf
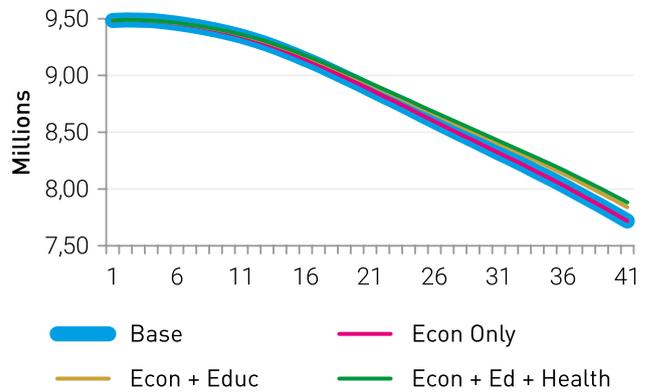
Main data sources: Belstat website, dataportal and statistical reports; UN World Population Prospects; WEF Global Competitiveness Index; UNICEF KAP database.
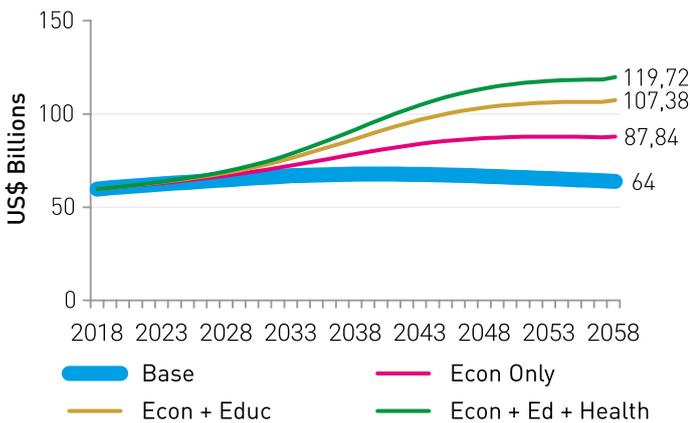
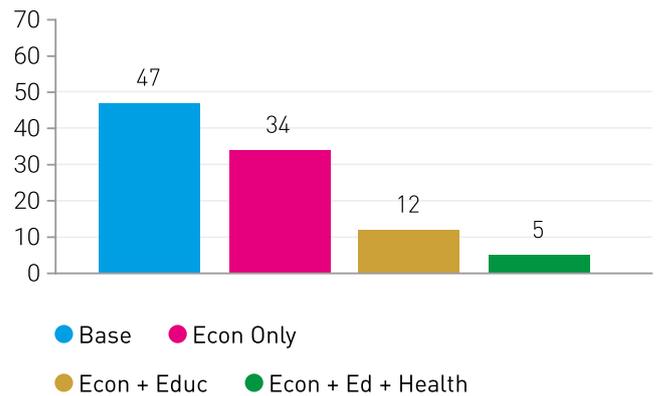# Major Indicators under Different Scenarios

Female Life Expectancy

- Base
- Econ Only
- Econ + Educ
- Econ + Ed + Health

Values: 82,38 / 81,66 / 79,4

Total Population

Y-axis: Millions

- Base
- Econ Only
- Econ + Educ
- Econ + Ed + Health

Gross Domestic Product

Y-axis: US$ Billions

- Base
- Econ Only
- Econ + Educ
- Econ + Ed + Health

Values: 119,72 / 107,38 / 87,84 / 64

HDI Ranking in 2058

- Base: 47
- Econ Only: 34
- Econ + Educ: 12
- Econ + Ed + Health: 5

Investment per capita

Y-axis: US$

- Base
- Econ Only
- Econ + Educ
- Econ + Ed + Health

Values: 3609,90 / 3292,65 / 2784,27 / 2105,00

Education

Categories: Econ + Ed + Health, Econ + Educ, Econ Only, Base, 2018

- Mean years (Male)
- Mean years (Female)
- Expected Years (Male)
- Expected Years (Female)
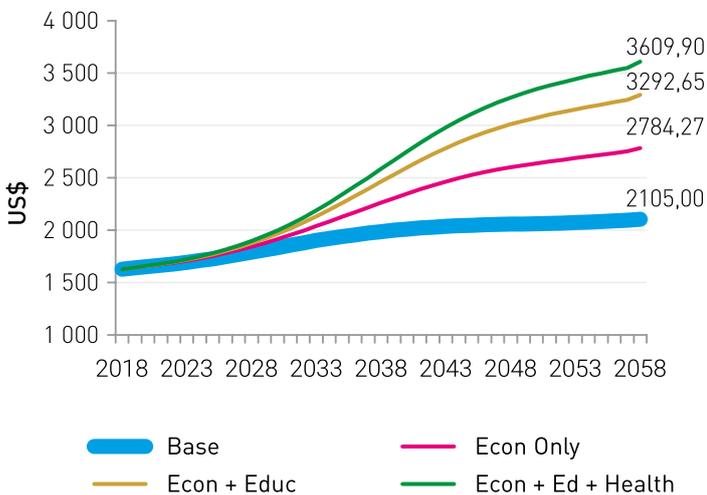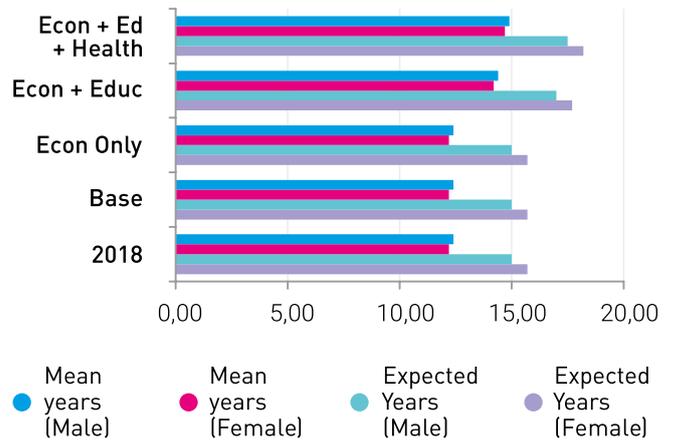
Major Indicators under Different Scenarios

Table 1. DemDiv Model Indicators

INDICATOR	2018	2058 BASE SCENARIO	2058 ECON ONLY SCENARIO	2058 ECON+EDUC SCENARIO	2058 ECON+ED+HEALTH SCENARIO
GDP (bln constant $)	59.66	63.81	87.84	107.38	119.72
GDP per capita (constant $)	6,290	8,268	11,381	13,697	15,189
Investment per capita (constant $)	1,628	2,105	2,784	3,293	3,610
Mean years of education (both sexes)	12.30	12.30	12.30	14.49	15.03
Female life expectancy	79.40	79.40	79.40	82.04	82.85
Population	9,484,499	7,718,194	7,718,194	7,839,613	7,881,970
Employment	4,337,900	3,452,018	3,452,018	3,532,276	3,558,215
TFR	1.63	1.63	1.63	1.56	1.55
HDI	0.77	0.79	0.81	0.88	0.90

Table 2. Policy Recommendations and Indicators

SCENARIO COMPONENTS	BASE-LINE	ECON ONLY	ECON +EDUC	ECON+ED +HEALTH
ECONOMY+FAMILY FRIENDLY POLICIES				
Public institutions	**4,31**	**4,71**	**5,10**	**5,50**
Share of social expenditure on lower quintiles	17,5%	25,0%	27,0%	30,0%
Labor market flexibility	**4,16**	**4,47**	**4,78**	**5,40**
Family-friendly policies in the workplace				
Kindergarten 1-2 availability	44,3%	70,0%	70,0%	70,0%
Gender wage gap	27,3%	15,0%	10,0%	10,0%
Improve labor market reintegration and support to unemployed				
Average unemployment duration, months	8,6	4	3	3
NEETs	6,3%	3,0%	2,0%	1,0%
Poverty rate (moderate - based on minimal consumption budget)	29,4%	15,0%	12,0%	10,0%
Social protection coverage of the poor	64,0%	95,0%	95,0%	95,0%
Cost of 1 pp.p. official poverty reduction due to social policies; mln BYN	32	20	20	20
ICT use	**5,00**	**6,00**	**6,70**	**7,00**
Promote ICT use by expanding infrastructure and digital learning systems				
Share of households with children without PC	8,4%	3,0%	2,0%	2,0%
SDG 4.a.1.1 Proportion of schools provided with computers for educational purposes	100,0%			
EDUCATION				
Mean years of education	**12,30**	**12,30**	**14,30**	**14,80**
Promote inclusive education for children with disabilities				
Share of children with disabilities aged 3-17 years not attending educational institutions	11,6%	11,6%	5,0%	5,0%
HEALTH				
Reduce mortality of adolescents and working-age population from NCD (alcohol and tobacco consumption)				
SDG 3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	11,50	11,50	11,50	9,2
SDG 3.a.1.1 Prevalence of tobacco use by persons aged 16 and over (percent)	23,8%	23,8%	23,8%	10,0%
Promote exclusive breastfeeding, positive parenting, and fathers' engagement in early development practices				
Percentage of children age 2-4 years with whom the father engaged in activities that promote learning and school readiness during the last three days	31,1%	31,1%	31,1%	70,0%
Percentage of infants aged 0-5 months receiving only breastmilk	21,7%	21,7%	21,7%	50,0%
SDG 16.2.1 Percentage of children subjected to physical punishment and / or psychological aggression on the part of caregivers of these children (percent)	57,0%	57,0%	57,0%	30,0%