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POTENTIAL EFFECTS OF DEMOGRAPHIC TRANSITION ON SUSTAINABLE COMPETITIVENESS

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In the latest report of the World Economic Forum, it is pointed out that the global competitiveness index does not cover the analysis of the drivers of sustainable competitiveness, and that neglecting them can cause the vulnerability of economies to the negative effects of all future "shocks". Potentially the most problematic ones are demographic questions, especially those concerning changes in the population age structure. Recognizing the importance of demographic trends for "shaping" future competitiveness is the key motive for writing this paper. The main objectives are twofold: a) to review theoretical considerations about the economic consequences of changes in the population age structure; and b) to analyze the characteristics of demographic transition in different regions, as well as its potential effects on the sustainable competitiveness of the economy.

Keywords: demographic transition, the age structure of the population, sustainable competitiveness

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INTRODUCTION

The influence of population changes on economic growth has been attracting attention of researchers in economics and other social sciences for decades (Maddison, 1995, Bloom et al, 2001, Bloom et al, 2003). As a result of discussions on this issue, three alternative perspectives are differentiated: population growth restricts, promotes or is completely neutral regarding its impact on economic growth, and the character of this effect depends on the level of the development of an economy (all countries being "roughly" divided

into one of the following two categories: developed and developing ones). In addition, it appears that discussions and debates, regardless of the positions they represent, have until recently exclusively been focused on the size and the population growth rates, underestimating the way they are distributed amongst different age groups (Bloom et al, 2001, 1-2; Bloom et al, 2003, xi; Bloom et al, 2011, 3).

Exceptions to the rule, at least when the social and economic aspects of sustainable development are considered, were reports of the Center for Strategic and International Studies (Jackson & Howe, 2003) trying to measure the "sensitivity" of developed economies to an increase in costs caused by the aging of the population during the current age-structural

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transition. Also, the latest report of the World Economic Forum (WEF, 2011), studying the long-term drivers of productivity (as a crucial element of competitiveness), has once again actualized this problem. The idea of sustainable competitiveness itself is an attempt to integrate sustainability into the concept of the global competitiveness (WEF, 2011, 53), or to determine factors which, in the long run (and with respect to the requirements of sustainable development), may affect productivity, thus also affecting the competitiveness of the national economies in the global milieu. In the area of human capital (as potentially the most sensitive element of national competitiveness), it emphasizes a fact that the demographic changes we are witnessing nowadays can cause a drop in productivity, thereby jeopardizing the long-term national competitiveness. The very dynamics of the demographic transition, as a lengthy time interval during which the trend of high birth and mortality rates evolves towards the low values of these sizes (Dictionary of Economics, 2006, 88), vary across regions and within them. Since the volume and speed of the demographic change are different, their potential effects will consequently manifest in different ways and with varying intensity.

Bearing in mind the necessity of the further reaffirmation of the issues associating demographic changes with sustainable competitiveness, this paper will overview some discussion concerning the implications of the current demographic trends for economic growth; more precisely – we shall try to determine whether there is “evidence” of the impact of changes in the number and age structure of the population on its growth and economic development. On this occasion, we will turn to what is offered by diverse literature on the relationship between the population change and economic development in different regions of the world. In addition, we intend to show the specificity of the demographic transition in Serbia, as well as its potentially problematic effects on the sustainable competitiveness of the economy. The research methodology was adapted to the object and purpose of this paper. For the sake of consistency in the analysis and the comparability of data and/or results, we relied on the available synthesized data of the United Nations’ projections of population trends. Calculating the following parameters: a potential

support ratio, the share of different age groups and the proportion of the most productive population in the total and working-age population in the case of Serbia, we used the methods of descriptive statistics.

SOME SPECIFIC FEATURES OF THE DEMOGRAPHIC TRANSITION

Judging by the forecasts of population trends, two quite contradictory demographic phenomena will attract our attention in the coming decades: a further population growth and the rapid aging of the population.

The latest (i.e. the twenty-second so far) report of the United Nations’ projections of population trends claimed that the world population had reached the figure of 7 billion in the previous year, and is expected to grow to 9 billion by mid-century (UN, 2011).

This situation is a consequence of the predictable and prolonged impact of an earlier “demographic wave” on the number and age structure of the population. In fact, even when the total fertility rate falls to its replacement level, the population continues to grow as long as those belonging to the aforementioned “wave” are not out of the reproductive age. This process is called the population momentum, and its effects are spread during 50 to 100 years before the age structure has stabilized (Bloom et al, 2001, 18; Bloom et al, 2003, 32). Only owing to the delayed effects of the same are the populations of developing countries supposed to grow by 40% in this century (Bloom et al, 2001, 19; Bloom et al, 2003, 32); simultaneously, the world’s population is supposed to increase by 2 billion people by 2050 (Lutz et al, 2008b, 5). At the end of the last century, even Europe exercised a slow and declining population growth rate thanks to the “wave” and in spite of thirty or more years during which the fertility rate had been below its “replacement” (Coleman, 2006, 4).

On the other hand, in most developed countries, a high level of the old-age dependency ratio (25% or more) has already been reached and fertility rates have fallen below their replacement level (which is 2.1 in developed countries and 2.4 in developing ones) and is showing a further decreasing tendency (UN, 2011).

In the circumstances of the ever-increasing economic interdependence and the intertwining of the economic trends, it means that the creators of the economic policy and other policies are supposed to simultaneously deal with a “pressure” on resources due to the population growth, and a reduced labor supply due to population aging (Lutz et al, 2008b, 3). At the same time, these demographic changes may be of crucial importance in explaining differences in the actual growth rates across countries (Kelley & Schmidt, 2005, 279).

Having all these in mind, it is essential for our analysis to understand the demographic transition as the key driver directing the evolution of the classic Malthusian population dynamics (driven by the fixed factors of production) to the “mode” of sustainable growth (Galore & Weil, 2000, 808). It is characterized by the following unsynchronized phenomena: reducing mortality, increasing life expectancy and dramatically declining fertility. The scope, speed and time of these changes are not identical, so that their passing through the stages of demographic changes (the dynamics of the demographic transition) varies across regions and within them.

In fact, some countries have not experienced all the features of the demographic transition yet (countries with high fertility rates, as well as those with 60 or more percent of the population under 30 years of age); others are in its middle phase (when 45-60% of the population belongs to those younger than thirty); and there are economies characterized by the so-called post-demographic transition – with low fertility rates and the almost completed demographic transition, producing as a result the dominance of the elderly – less than 45% of the population aged under 30 and up to one-quarter of the population older than 60 (Lehr, 2007, 1-26; Poot, 2008, 130-137; Leahy Madsen et al, 2010).

Generally, developing countries are still experiencing a significant increase in their populations. For instance, the African countries have high rates of population growth, Latin America has recently suffered a dramatic decline in the fertility rates, and somewhere between these two extremes are the Middle East and South Asia (Attanasio et al, 2006, 2). Although population growth itself produces a negative effect on the growth of the

per-capita income, it can be neutralized by a statistically significant positive effect caused by a growth in the share of the economically active population. In other words, the demographic transition manifests a mechanical effect on the labor supply here: the generations of those able and willing to work are growing up, which – in the circumstances when the labor market is “ready” to absorb them (if properly designed policies and an appropriate institutional environment exist) – can have a positive impact on increasing productivity and income.

Over the last three decades of the twentieth century, the demographic changes in this area have generated the acceleration of the per-capita income from 0.7 to 1.35% per year (Bloom et al, 2001; Attanasio et al, 2006). This result is modest if we bear in mind that these are the low-income countries; on the other hand, it is (to a certain extent) promising from the standpoint that the demographic transition “in its infancy” generates and explains almost one-third of the growth of underdeveloped countries, and that, over the next five decades, the growth of the per-capita income (on average) will be 0.8% (Attanasio et al, 2006, 20-21), which means that the “window of opportunity” is still open.

Since capital markets are linked with each other and integrated, the potential effects of the demographic transition on developing countries depend to a large extent on the demographic trends in developed countries as well as the factors mobility (Attanasio et al, 2006, 3). If a synchronized demographic change encourages capital flows to developing countries, their output will grow faster.

The main macroeconomic effects of the completed demographic transition in this area would as well be the following ones: a significant increase in the savings rate, the annual wage increase of approximately 0.4% over next fifty years, a substantial reduction in interest rates and (which is the most important for our analysis) an increase in an average productivity of 1.5 times during the same time period due to changes in the age structure of the active population, induced by transition in the domain of fertility (Attanasio et al, 2006, 19).

As for developed countries, the demographic transition has played an important role in the emergence of modern growth by enabling such economies to convert a large part of the gains from the capital accumulation and technological progress into the growth of the per-capita income (Galore & Weil, 1999, 151; Galore, 2010, 1).

Appropriate and timely decisions in the field of the economic policy were the fundamental prerequisite to exploit the opportunities offered by the demographic circumstances. Several variables affected the ability of some economies to do so. They include: the health policy, family planning, the educational policy and the economic policy measures improving the labor market's flexibility and openness, and promoting savings. They all had (and still have) a direct and indirect (collateral – Bloom et al, 2001) influence on the pace of the demographic transition, economic growth and development.

The countries experiencing the effects of a rapid demographic transition (during the 1960's and the 1970's) were exactly those achieving the significant rates of economic growth; economists refer to this phenomenon as the "demographic dividend". Thus, for example in the case of East Asia, one-third of the achieved results are attributed to the exploitation of favorable demographic circumstances (Bloom et al, 2000, 282).

However, the demographic dividend is not an inevitable thing; quite the contrary – it must be "earned". Hence, it is no wonder that such one-time (time-limited) "demographic gift" (Golin & Marini, 2005, 1) is considered to be economically meaningful if there is a "proper investment in human and physical capital and if job opportunities for young people are created" (World Bank, 2003, 36).

In fact, if an increase in the working-age population is not accompanied by certain circumstances of their employment, it will consequently cause rising unemployment. Therefore, an emphasis on applied and properly designed policies is important since the acquiring of the "demographic dividend" is not possible by a sort of default. In other words, the demographic transition leading to the "domination" of the working-age population group, represents an opportunity and

a chance for a country to eventually materialize such an advantage (in the form of higher productivity and growth rates). This is what Japan has done, having experienced the so-called "population bonus" – the high rates of growth owing to an increased share of the working-age population (Shirakawa, 2011).

However, the demographic bonus in the twentieth century appears to have expired (at least when developed economies are considered) (Coleman, 2006). Specifically, according to forecasts (UN, 2011), by the middle of this century, developed countries will have experienced an increase in their populations over the age of 60 by more than 50% (or 2.4% per annum). The number of elderly people in this area has already surpassed the number of children (persons under the age of 15), and its share in the total population, from the current 22%, will have reached 32% by the year 2050. The proportion of the working-age population, as an important factor showing a potential for economic growth, was slightly falling in the time period 1950-1970 only to increase to a certain extent by the year 2005 (when it reached 63%), and then again to manifest a tendency to decrease (according to the projections for the year 2050, it will have amounted to 51.5%). In other words, the average annual rate of the change in the group of developed countries will have been negative (-0.31%) over the next four decades, primarily due to the extremely unfavorable tendencies in Europe (where an annual reduction of the working population of 0.61% is expected, resulting in the future share of this group in the overall population of about 50%). Although the literature in the field of demography and economics did not reach a consensus on the definition of the population bonus (saying that this is either a time period when the proportion of the working-age population is over 65% or believing that an increase in percentage is the only thing that matters - Shirakawa, 2011, 4), there is no doubt that, in this situation, researchers in various fields will agree that developed countries are on the threshold of or have greatly stepped into the era of the population "bonus" (when the current structure of the population represents rather a burden and an obstacle to a further prosperity).

In principle, developed countries have come to an end of their demographic transition. This means that, in some of them (such as Italy, Spain, Japan, Korea, Singapore

and Taiwan), the changes are already evident in the form of the workforce reductions and the accelerated aging of the population, while in others, they will have been manifested in no later than ten to twenty years (Bloom et al, 2003; Lutz et al, 2008b). This phenomenon raises new challenges in the sphere of distribution (in terms of transferring income from the active workforce to those who are not), leading to a lower productivity growth, less flexibility in the labor market, the increased costs of health insurance, nursing and health care (Heller, 2003; Poot, 2008; Shirakawa, 2011).

To determine whether there is a pattern according to which the number of a population and a population structure affect its economic growth, Bloom and others (2011) compared the demographic trends in the time period 1960-2005 with those projected by mid-century (exploring what economic growth could be achieved if the demographic changes are like today's projections say). Their calculation determined that in the circumstances predicted by the demographic scenario for the future, more than one-half of the countries would experience a slower growth, and, speaking of the OECD countries, their past (in demographic terms) as particularly good (Bloom et al, 2011, 19). In other words, the time period when developed economies have a high proportion of the working-age population and an appropriate demographic composition (i.e. the predominant share of the most productive group – those between 30 and 49 years of age – Prskawetz, 2007) has ended; now, they are awaiting entirely different demographic trends with unfavorable economic consequences.

All the above-mentioned calculations are related to the accounting effects and neglect the following changes in behavior that may be initiated by the changes in the age structure: a) due to an increased life expectancy, the working period is extended: the average age for retirement at the level of European Union in the time period 2001-2008 increased from 59.1 to 61.4 years of age (Bloom et al, 2011, 10), and there are suggestions that it should be increased to 72-75 years (Coleman, 2006, 27); this transferred individuals from the "dependent" to those economically active (changing both the numerator and the denominator of the dependence ratio) simultaneously preventing the slowing-down or reduction of the achieved living standard; b) an

increased life span induced an increase in savings over the working period; c) the labor participation is increased (owing to the greater participation of women); d) investments in human capital are changing – a forecast made by Becker (Becker & Luis, 1973) saying that parents will have fewer but better-educated children turns out to be accurate, although it remains unclear whether a smaller group of more productive people (through increasing the average income and reducing the tax burden) can compensate for a larger group of less productive members of the society; e) the employment of the older population is consequently increasing.

Bearing in mind the already mentioned possibilities of adjustment, the cumulative effect of the changes (in the age structure of the population in developed countries) on their productivity, competitiveness and economic growth appears to theoretically be ambiguous (Poot, 2008; Bloom et al, 2011): the accounting effects are negative (Jones, 2005); however, they might partially be offset under the influence of the behavioral factors.

MITIGATION OF THE NEGATIVE CONSEQUENCES OF THE AGE-STRUCTURAL TRANSITION IN EUROPE: POSSIBLE (NON-) DEMOGRAPHIC SOLUTIONS

At the beginning of this century, analysts projected that, because of the long-lasting decline in the fertility rates, the population of Europe would be decreasing by 6% over the next 25 years, and that, by the mid-XXI century, the region's share in the world population would manifest a tendency of a constant decline (UN, 2001). Nowadays, 10.6% of the world population lives in Europe; due to the expectations that the average annual population growth rate over the next forty years will be negative (-0.24%), it is predicted that this area will be inhabited by between 6.1% and 7.8% of the world population in the year 2050 (UN, 2011). A continuous fall in the fertility rates will keep on inducing the aging of the population; in the long run, when the birth rates stabilize, a constant reduction in the mortality rates will become the only one cause of the aging (Coleman, 2006, 19).

A concern about population aging has initiated a series of discussions on this subject, and special attention has been paid to the future trends of the “potential support” ratio (comparing the number of the nominally active people (usually those aged 15 to 64) to the number of elderly people (those over 65 years of age). In most European countries, the above-mentioned ratio was nearly 4 at the beginning of this century, and according to the expectations and forecasts of the situation by mid-century, it will have been about 2 at the European level and 1.4 in Southern Europe (UN, 2011).

In this decade, the number of the people in the most productive working age will reach its peak, only to be followed by yet another fall. Also, unlike the mid-twentieth century, when the proportion of young people in European countries amounted to 27% and those older than 60 to 12%, by the middle of this century, these shares are expected to change dramatically and reach 16% and 33%, respectively, whereas the average age of the Europeans will have increased from 38 years of age in 2000 to 49 years of age in 2050 (UN, 2011).

The European countries are therefore faced with a problem that the growing number of the elderly relies on the reduced number of the working age population. The regions of Eastern and Southern Europe are in a particularly difficult situation; under the circumstances of low fertility and a considerable emigration, they are undergoing a rapid decrease in the population (in both absolute and relative terms), which will halve their populations during this century (Lutz et al, 2008b, 8).

These trends are very problematic, especially if the fact that some countries in the region have missed an opportunity to take advantage of their previous, somewhat atypical, demographic trends is taken into account. Specifically, compared with the other parts of world, in the middle of the last century, this region had a high proportion of the working age population; however, they failed to benefit from that (Bloom et al, 2003, 67). Also, the proportion of the elderly in Eastern Europe was lower (only 12.9%) compared to other Europe’s regions; apart from Serbia and Albania, at the end of the last century, the percentage of the elderly population in Russia was the lowest in Europe (Coleman, 2006, 9). This was obviously a time when several countries still had an “open window” (Golin

& Marini, 2005, 3) on the path of their demographic transition. By mid-century, the share of the elderly in Eastern Europe will have increased to 26%, and in Southern Europe, there will have been even 33% of the population older than 65 (Coleman, 2006, 19). The difficulties regarding the then efficiency and competitiveness will further be complicated due to the aforementioned aging, and as a consequence of reducing the working age population (especially the younger segment of it).

Bearing in mind the disadvantages of the current demographic situation, it is logical to examine what possibilities of mitigating their (certainly negative) pulses to economic growth developed countries have at their disposal. Roughly speaking, the solutions can be divided into the demographic and non-demographic ones (Coleman, 2006).

The choice of the demographic solutions is of a moderate character – an increase in fertility and an “enhanced” migration are essential for an increase in the potential support ratio. Specifically, for merely maintaining the current level of the ratio, the total fertility rate in Europe would have to rise to 3.5, which is a “mission” impossible. Can a migration of younger people compensate for the population deficit created by the low birth rates?

Although the general benefits of the migration of the skilled labor force are undeniable, the effects of these immigration trends seem not to be considerable – for example, if we want to preserve the current level of the potential support ratio, approximately 25 million people per year would have to migrate to Europe (Coleman, 2006, 22). That is why the idea that it would constitute a kind of an economic “salvation” for Europe is fully rejected (Coleman & Rowthorn, 2004, 699). In addition, in some parts of South-Eastern Europe, the situation is even more complicated – being developed at a much lower level, they are not considered to be an attractive area for immigration.

So, it seems that there are no demographic solutions to population aging. Therefore, it is necessary to resort to non-demographic answers (solutions) related to the improvements in the education sphere, adjustments in the labor markets, the pension systems and the age of retirement.

Increased investments in the education of the working-age population are an important determinant with an exclusively positive effect on economic growth (Lutz et al, 2008a). Assuming the “scenario” of global education, i.e. future trends in enrollment (transition to a higher level of education) in each country follow the overall historical trajectory of global trends (Lutz et al, 2008b, 15), the educational profile of the workforce will undoubtedly be constantly improving.

If, however, the labor inputs continue to decline owing to technological changes, this combination of less numerous but better-educated workers might have a stimulating effect on an increase in labor productivity – exactly what the European countries are in need of (Lutz et al, 2008b, 22). However, it is uncertain whether the positive effects of a higher educational attainment will be able to compensate for the negative ones created by the above-mentioned reduction in the workforce.

In addition, less developed countries are generally faced with the problems of the unreformed labor markets and pension systems, and those countries that are (from the demographic point of view) in the worst position at the same time have the largest institutional problems (Jackson & Howe, 2003). So, given the fact that population aging is not treated as a demographic problem per se (Bloom et al, 2011, 29), but rather as a function of rigid and outdated institutions and policies, the combination of “answers” for the proper “handling” of these changes is considered to be necessary and indispensable. This could involve the following actions (Coleman, 2006, 25-28):

- Improving the ratio of “real” support, i.e. increasing the proportion of the current labor force (through an increased participation of women in the workforce, shortening studies, finding the first job earlier);
- The modification of the mandatory and further development of voluntary pension insurance;
- Stimulating capital investments in order to improve productivity (and thus competitiveness and economic growth); the productivity growth required to “cover” a problem that occurs due to population aging (increasing the category of the “dependent”) would have to be at least 0.5% per year until 2020.

THE DEMO-ECONOMIC TRANSITION OF SERBIA

What are the trends in the population changes observed in Serbia? Are they just the reflection of the same tendencies manifested in the region of Southeast Europe? Has the situation deteriorated from the last decade of the previous century since the general economic conditions were not favorable for the demographic and demo-economic evolution?

Given the fact that the demographic indicators in Serbia are rather contradictory, it seems that in this case, the reasoning which is the as the one in the region of Southeast Europe applies. On the one hand, in fact, some parameters from the last decade of the previous century indicate that there was room to take advantage of the relatively favorable demographic situation of the time. Thus, for example, the proportion of the working-age population to the total population was 67.2%, whereas the share of the elderly was only 9.6% (UN, 2011). Also, when (using the available data of the UN) we calculated the proportion of the most productive group in the total population as well as the working-age population and compared it with the same indicators in the other European regions, the results were similar and relatively promising. The share of those aged 30-49 in the total population in the last decade of the previous century amounted to 27.5% in Serbia, while its proportion in the working-age population was 41%; these sizes correspond to those achieved in the region of Northern Europe. However, when some other indicators were calculated, the situation seemed to be an extremely unfavorable one – as if the demographic opportunities had not existed at all. Thus, for example, the share of children and young people up to 30 years of age in the total population in Serbia stood at 44.75%, while the share of the population above 60 years of age accounted for 15.33%. Since there was less than 45% of the population aged under 30, and nearly a quarter of those 60 plus and older, it reflected the so-called mature age structure, however unfavorable for economic growth and development.

The situation in Serbia is even more serious since the last decade of the twentieth century represented the embodiment of the simultaneous performing of two types of transition, and it eventually turned out that

they had not been proceeding independently of each other: the economic transition, which began at that time, and the demographic transition – which had lasted for decades before that time.

In the mid-1950's, Serbia recorded the total fertility rate of around 2.1, providing a simple renewal of the population; the rate lowered to 1.74 in the 1990's (UN, 2011), with a decreasing trend expected to be lasting until the second half of this century. The reducing of the fertility rates was, among other things, the consequence of the economic transition, namely: a dramatic reduction in the living standard, increased poverty, greater insecurity in terms of job and income, the emigration of the young population and the like.

Although the demographic transition has the characteristics of regional variations (differentiating the areas of under versus over population growth), Serbia as a whole is also faced with a depopulation process. According to the forecasts, Bosnia and Herzegovina, Bulgaria, Croatia, Serbia, Russia, Romania belong to the group of 49 countries whose population will be shrinking in the mid-century by at least ten percent (due to a prolonged decline in fertility below its replacement level) (UN, 2011).

Since the year 2000, the changes in the age structure have been moving in the direction of an absolute decrease and a relative one in the share of young people, simultaneously being increased in the share of those belonging to the older generation, which are the features of the countries undergoing the post-demographic transition (Lehr, 2007; Poot, 2008). The total dependency ratio is increasing and the effects of aging on the further economic and demographic evolution are expected to manifest particularly in this decade. Specifically, the contingent of the working-age population (as the main source of the active population) consists of fewer generations of those born in the time period of the economic transition, and the problem emphasizes the decline of their participation in the labor market (their later entering the market) as a result of an extended time period of their schooling (which is a forced response to the reduced opportunities for finding a job immediately after graduation).

Hence, it is no surprise that the potential support ratio, which was at the level of 4.87 (and above the

European average) at the end of the last century, will begin to fall rapidly over the next ten years and is expected to reach 2.43 by the middle of this century. Unlike the developed countries of North and Western Europe, which will maintain a relatively constant share of their populations aged 30-49 in the working-age group, Serbia will be suffering a decline in this size, too. If about half a million people who emigrated from the country during the time period 1995-2005 (UN, 2011) are taken into account, the situation seems to be far more onerous. Specifically, the migratory movements (the more rapid emigration) caused not only the current decline in the population but also the long-term demographic consequences (in terms of a loss of potential, future offspring). They also imposed the structural changes, since the emigration of highly educated young people produced the negative consequences for productivity, economic growth and development.

Therefore, the analyzed demographic solutions for solving the problems produced by the demo-economic evolution in this area are completely unusable. Serbia cannot increase the potential support ratio owing to migration since it is not an attractive area for immigration. Although only the fertility rate can substantially change the composition of the population groups, this solution is also irrelevant for Serbia because the population deficit caused by the low birth rates cannot be compensated for in the circumstances where the rate is becoming even lower.

The changed structure of the population is no longer a strictly demographic problem because the time of the economic transition (with the poor economic conditions and large gaps in human resources management) has only made (the already negative) trends worse, leaving its mark in the disorder of the demographic transition. Since the problem goes beyond the scope of demography, the non-demographic solutions to ADDRESS it are the only thing available in Serbia at the moment.

CONCLUSION

The study of the impact of population changes on a country's economic growth and its development is

becoming more attractive for researchers not only because of the objective actualization of the issue in the decades to come but also owing to an increased interest expressed by institutions bearing a decisive influence on the deepening of the analysis in the domain of competitiveness.

In the next few decades, the world will be faced with two opposite trends: a further increase in the population and rapid population aging. The high fertility rates in the group of underdeveloped countries produce negative effects on their per capita income. On the other hand, the growth of the working-age and economically active population may produce an increase in their labor productivity and consequently induce income growth. However, only in simple economic models do some types of the economic policy enable the exploitation of the advantages of the current age structure in developing countries and the acquisition of the demographic dividend. In real circumstances, as we have seen, the effects of the demographic changes in this area are not considerable: they are supposed to generate annual growth in the per-capita income of 0.8%, but it is not such a kind of acceleration that would bring a fundamental change in the status of underdeveloped countries.

Developed economies are being faced with the so-called age-structural transition. In fact, the demographic transition has left them a legacy in the form of an aging population in XXI century. Although an increase in the share of this (from economy's standpoint) unproductive segment of the population may produce certain negative effects and does inhibit economic growth, the consequences need not be fatal, under a rigorous assumption that it is feasible and possible to perform simultaneous behavioral adjustments in the form of an extended working period, greater savings and increased investments in human capital.

In demographic terms, Serbia shares the fate of developed countries regarding the issues of the declining fertility and the increasing proportion of the elderly. However, the Serbian situation is more serious due to the disturbances in the demographic transition caused by the economic transition. Like the other European countries, Serbia needs investments in human capital, so that an improvement in the education

and the achievements of the working population may induce an increase in its productivity, thus (at least partially) compensating for the negative consequences of both the population decline and its aging. Therefore, an analysis of possible non-demographic solutions appropriate to the demographic transition in Serbia could be the subject matter of a subsequent research; it may as well produce positive developments in the field of the sustainable competitiveness of its economy.

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