

A POSSIBLE DEMOGRAPHIC CRISIS OF THE 21ST CENTURY AND THE EMERGING MARKETS

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Abstract: Although demography is now, at a world level, on an upward trend, in the future, under the impact of the transformation resulting from globalization and progress, we will witness a reduction of the global population and even a crisis, anticipated now for the mid-21st century.

In the present paper we are going to answer questions such as: To what extent is the rate of demographic growth of the emerging states going to follow the trend of the developed countries? Will the population of the emerging states represent, in the future, the solution to the demographic crisis of industrialized countries? What economic outcomes will a demographic crisis have?, starting from the concrete case of the emerging states.

Key words: *crisis, demography, emerging markets, economic growth*

Introduction

The whole world is transforming. The most important reality of the 21st century will be, as far as it seems, the end of the demographic explosion... in 2050, the industrially developed countries will go through a significant decrease of population; in 2100 even the most underdeveloped countries will reach birth rates that will stabilize the population number... transformations will make people become more and more dependent on technology (Friedman George, 2009, 17).

Why is it important to analyse the demographic crisis? For the simple fact that it has economic consequences. Together with an increasingly amplified aging process, controversies will emerge in more and more countries regarding the policy of supporting the inactive population. Funding an increasing number of inactive people makes pressures on the public budget. Subsequent allocations will probably be made in the detriment of other sectors such as education, environment, national defence. The labour force, smaller in terms of size and aged, will be less flexible, less adaptable to changes and less creative. In the long run, the economic power of a country depends on the volume and structure of its population (Guillochon Bernard, 2003, 95).

Scenario of demographic crisis

Population is a fundamental factor of economic growth and influences directly upon the rhythm, quality and modernity of development (Dobrescu Paul, 2010, 265).

Presently, demography is rising. Estimations show that in the future the population will decrease in number. The tendency will be stronger in the developed countries. The modification of the life style, of mentality, as well as progress are factors with a direct impact on demography. The most affected segments are those of young population, which is decreasing, and that of the population over 65, which is growing more numerous. The inverted pyramid of ages turns into a proven reality from one day to the next. The economic and social implications are doubled by the increasing risks. The massive economic

transformations at a global scale and the massive population movements disorient and frighten many people (Smith D. Anthony, 2002, 133).

Initially, the increasing tendency for the segment of population aged over 65 and that of reduction of the young population were manifest only in the industrialized countries. Presently, we assist the extension towards the emergent states as well.

Table no. 1

**Segment of population aged over 65
(estimations, % of the total population)**

Country	2010	2050
India	4,9	11,9
Mexico	6,6	19,8
Brazil	6,9	20,3
China	8,2	23,9
Russia	12,9	25,9
Poland	13,5	31,6
South Korea	11,0	36,1
Japan	22,6	39,3
USA	13,0	20,5
Germany	20,5	34,1
Italy	20,4	34,8

Source: Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, *Global Aging and the Future of Emerging Markets*, CSIS - Center for Strategic & International Studies, p. 1; http://csis.org/files/publication/110307_Global_Aging_Future_of_Emerging_Markets.pdf

The population aged over 65 from the developed countries represent now 17% of the total population. In 2050 it is estimated that this population segment will probably reach 26%. The population aged over 65 of the countries that already face the problem of aging will increase to 36% of the total amount in Europe and to 40% in Japan (Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, 2). In the developed countries the ratio of active population will stagnate or decrease, except for the USA.

People have a longer, healthier or more efficient life than they had before... and the dependent population is more and more numerous (Giddens Anthony, 2010, 175-187). It is estimated that around 2025 the population of the developed countries will start decreasing. The same will happen in the emergent states. China, Brazil and Mexico will become as *old* as USA, while South Korea, Taiwan and Singapore will “compete”, from a demographic point of view, with Germany, Italy and Japan for the first positions in the world hierarchy (Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, 2).

The emergent states enter a period of *demographic transition* (decline of fertility rate, reduction of death rate, i.e. a declining rate of natural increase, which are characteristics of the developed economies).

The demographic transformations started in the mid-20th century (the 1950s-1960s). Progress (technological innovations and discoveries in the medical sector, the improvement of life quality, the increase of life expectancy, and the reduction of infant mortality), urbanization and industrialization modified life style and mentality. From the traditional perspective of the early 20th century, from a numerous family and well-grounded values, afterwards we gradually assist non-conventionalism, small families, with one or two children, or single-parent families, and a dilution of values, all of them characterizing the 21st century. Woman's entering the labour market generated modifications in the demographic structure. From the very beginnings until very recently, women were ascribed the interior area, that is home, children, family, while men were ascribed the exterior, public activities... The woman evaded the interior and entered the public area and, legally, she is the equal of man (Boia Lucian, 2013, 46-47). This is *demographic transition*, an outcome of economic and social progress.

Table no. 2

**Fertility rate and life expectancy at birth by emergent regions
(1950 - 2010)**

Emergent region	Fertility rate				Life expectancy at birth			
	1950-55	1970-75	1990-95	2005-10	1950-55	1970-75	1990-95	2005-10
East Asia	6.0	4.7	2.0	1.7	41.3	63.2	69.0	73.2
Eastern Europe	3.1	2.4	1.7	1.4	62.3	70.0	71.3	74.9
Latin America	5.9	5.1	3.1	2.3	52.0	61.3	69.1	73.5
Russia*	2.9	2.1	1.6	1.4	64.7	69.3	67.2	67.3
South Asia	6.0	5.4	3.8	2.7	39.3	51.4	60.3	64.9
Sub-Saharan Africa	6.6	6.7	6.1	5.2	37.9	45.5	49.9	51.7

Note: * including areas of influence

Source: Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, *Global Aging and the Future of Emerging Markets*, CSIS - Center for Strategic & International Studies, p. 5; http://csis.org/files/publication/110307_Global_Aging_Future_of_Emerging_Markets.pdf

Starting with 1975, in the developed countries the fertility rate started to decrease and, at the same time, the population size diminished. The age pyramid is changing, estimations being made that in the future an inversion will be recorded, so that the narrow and the broad bases will change places. In the emergent countries, the fertility rate has constantly decreased starting with the second half of the last century. This is lower in the developed regions and higher in the less developed ones, such as the Sub-Saharan Africa and South Asia. Life expectancy in its turn increased in the emergent regions in the same time span. The highest

life expectancy is recorded in Eastern Europe, followed by Latin America and East Asia, Russia, South Asia and, as expected, Sub-Saharan Africa.

The middle segment of the age pyramid is the most important one. The active population, aged between 15 and 64, supports the other segments. The higher the ratio of this segment in the total population, the more beneficial the economic outcomes. The young people aged between 15 and 24 record an increasingly smaller ratio in the total adult population (aged over 15) in the emergent regions, which results in a future diminishing of the future active population.

Table no. 3

Segment of young population (15-24 years old)
(% of the total adult population – aged over 15, 1975-2050)

Region	1975	1990	2000	2010	2020	2030	2040	2050
East Asia	31.6	30.1	20.9	20.9	15.4	14.3	13.1	11.8
Eastern Europe	23.1	19.5	19.2	15.8	12.1	12.1	10.8	9.7
Latin America	33.5	30.9	28.4	24.8	21.6	18.9	18.2	16.9
Russia*	23.7	17.5	19.2	17.1	11.8	13.4	11.3	10.4
South Asia	33.5	31.1	29.6	27.5	23.9	21.6	20.7	18.4
Sub-Saharan Africa	33.9	35.1	35.8	35.3	33.7	32.6	30.6	27.4

Note: * including areas of influence

Source: Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, *Global Aging and the Future of Emerging Markets*, CSIS - Center for Strategic & International Studies, p. 6; http://csis.org/files/publication/110307_Global_Aging_Future_of_Emerging_Markets.pdf

The segment of young population will get significantly narrower in Eastern Europe, Russia and East Asia. On the other hand, in Sub-Saharan Africa in 2050 the ratio of young population will be bigger compared to that of Eastern Europe and Russia in 1975.

The *demographic transition* started when young people and women became active on the labour market. If, at the beginning of the 20th century, the woman's role was, as we have already stated, to take care of the family, the mentality has gradually changed ever since, women becoming active on the labour market and even, at the beginning of the 21st century, proactive. Women are now educated/trained to study and to work. More and more women occupy leading positions and start businesses. The young people enter the labour market earlier and earlier. The wish for independence and emancipation make them be active from the period of their studies. The youth are the future labour force. The whole dynamics is

called *demographic dividend* and opens a niche of opportunities for the stimulation of economic growth (Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, 6).

Table no. 4

Segment of mature population (20 - 64 years old)
(% of the total population, 1975-2050)

Region	1975	1990	2000	2010	2020	2030	2040	2050
East Asia	46.8	55.7	59.6	64.1	63.9	61.5	57.8	56.5
Eastern Europe	56.8	58.3	60.4	62.8	62.1	60.5	58.9	54.6
Latin America	43.8	48.5	52.3	56.3	58.0	57.3	56.5	55.3
Russia*	57.7	59.6	60.8	65.6	63.5	61.1	61.3	57.3
South Asia	45.2	48.1	50.8	54.8	56.9	57.2	58.1	57.6
Sub-Saharan Africa	42.0	41.1	42.1	43.5	44.9	47.2	50.6	53.0

Note: * including areas of influence

Source: Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, *Global Aging and the Future of Emerging Markets*, CSIS - Center for Strategic & International Studies, p. 6; http://csis.org/files/publication/110307_Global_Aging_Future_of_Emerging_Markets.pdf

Some emergent regions such as East Asia and Eastern Europe reached the climax of population aged between 20 and 64 in 2010. Latin America and Russia will reach it in the 2020s, while South Asia in the 2040s. In Sub-Saharan Africa the population aged between 20 and 64 will continue to increase. The positive rate of natural increase and the growing young population are indicators that draw the future tendency of the other groups of populace.

The demographic tendencies seem to be favourable to the emergent states, but they do not guarantee their development. First of all, the duration of the demographic transition differs from one country to the other. In some of the emergent countries the process is in an incipient stage. Second, the demographic tendencies, advantageous for economic growth, did not favour the obtaining of positive rates of GDP increase. Demography is not a major factor of growth. It is favouring one, which works well when it is correlated with other factors. Balanced demography allows for the mobilization and efficient utilization of resources, especially in the fields specific to production with high value-added. Demographic structure is important, but equally important are, among others, the policies applied, the regime of regulations, the legal system and people's trust in it, public and private investment in infrastructure, research-development and people.

The demographic transition also brings forth disequilibrium examples, such as: the changing of economic and social structures as a result of the integration on the world market,

the increase of social costs associated with the process of urbanization, the increase of inequalities between incomes, and degradation of the environment. The strongest disequilibrium examples are recorded in countries with deep demographic transformations. The present demographic advantage of the emergent states is a transitory one. The states in Eastern Europe, those in Russia's sphere of influence, China and the new industrialized states in Asia approach the critical point when the demographic structure does not support any more the economic development. Approaching this point leads the emergent states to face the same challenges as the developed world. Such a challenge is, for instance, the system of social protection of the population aged over 65. In the emergent countries, even if the tax pressure is lower compared to the developed states, social tension might be higher. The population's incomes in the emergent countries are relatively small. The inactive persons need support from the active members of the family in order to ensure a decent life. If, in the future, the system of social protection will not be effective any more, the demographic crisis will grow worse in the emergent world, which is not a homogenous one. East Asia, Eastern Europe and the countries under Russia's influence enter the phase of population aging and demographic decline. These regions will be much more affected by the modification of the population's structure, compared to Latin America and South Asia.

Table no. 5

**Segment of population aged over 65
(% of the total population, 2010-2050)**

Region	2010	2030	2050
East Asia	8.4	16.3	24.2
Eastern Europe	14.9	21.6	30.3
Latin America	6.9	11.7	17.4
Russia*	13.5	20.1	26.3
South Asia	5.1	8.4	12.4
Sub-Saharan Africa	3.1	3.6	5.2

Note: * including influence areas

Source: Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, *Global Aging and the Future of Emerging Markets*, CSIS - Center for Strategic & International Studies, p. 13; http://csis.org/files/publication/110307_Global_Aging_Future_of_Emerging_Markets.pdf

In 2010, the oldest emergent region of the world was Eastern Europe. About 15% of the population was making the segment aged over 65. Russia comes next, very nearly. The hierarchy of the emergent areas will stay approximately the same in the decades to come, but what will be different is the ratio of this demographic segment. In 2050 in Eastern Europe over 30% of the population will correspond to this segment. Russia and East Asia are regions whose population aged over 65 will exceed 24% in the 2050s. In the emergent areas, where life expectancy is low, the ratio of the population aged over 65 will rise in a much slower rhythm. In Sub-Saharan Africa, the ratio of the population aged over 65 will be in 2050 only 5.2%, under the level recorded in Latin America in 2010.

East Asia is one of the regions where demographic transition took place in an accelerated rhythm. Starting from the 1980s, the emergent countries in East Asia had an adequate demographic structure, with a numerous active population, a clear advantage in the development process. From the mid-1970s the newly industrialized Asian states also known as the *Asian tigers* recorded increasing per capita incomes, from 38% to 86% of the average incomes of the developed states (Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, 17). China's performance is outstanding. The per capita income rose from 2% to 18% of the average income of the industrialized countries.

The end of the 1990s and the beginning of the 2000s represented for East Asia a reversed tendency. The population aged over 65 represents 11% of the total population, and the estimations foresee an increase to 24% in the 2030s and to 36% in the 2050s. China will not record, in the future, a chronicle aging of the population, but it is estimated that in the decades to come it will be a state with a demographic structure resembling that of the USA. China applies the controversial *one-child policy*, an efficient regulation from the point of view of the population control, but an inefficient one from the standpoint of the population structure. The Chinese's preference for the newborn boys and the refusal to give birth to girls have strongly unbalanced the gender structure, a major issue for the Chinese, with future socio-economic repercussions.

The active population will decrease in the whole East Asia by 2050, China included. For instance, China's active population will diminish with 10% and that of South Korea with 33% over four decades (2010-2050). The economic and social negative impact did not remain without an answer. After the birth discouragement policy was put into practice, South Korea and Singapore take inverse measures: they grant tax exemptions in the prenatal period, bonuses for children and, in the case of South Korea, matrimonial services supported by the government and gradual opening towards immigrants. In the case of China, the one-child law is much disputed. If it had not been applied, the size of the Chinese population would have grown overwhelmingly. The atrocity of the way in which this is applied is, sometimes, hard to imagine. The law violates human rights, so that giving it up is taken into consideration. These are, for now, ideological discussions. The Chinese's liberty to have the number of children they want will lead to a global – demographic, social, economic and environmental – disaster. The reverted tendency, of demographic deterioration, will affect the rate of economic growth. Over three decades of reform, China's active population rose, on an average, with 2% every year. By 2030 it will diminish with 0.7% annually. In 2010, 7.8% of the active Chinese supported one inactive individual. It is estimated that in 2030, 3.8% of the active Chinese will support an inactive individual, while in 2050 the ratio will be 2.4 to 1, an aspect that will be reflected in the increase of budget expenditure and of the tax level.

If China, an emergent country in East Asia, entered a period of temperate economic growth, India, an emergent state in South Asia has just opened the door to progress. South Asia and East Asia are not similar from the point of view of demographic transformations. The demography of South Asia is not one of the extremes, such as economy. In South Asia there are no too big ratios of the extremes of the age pyramid (too young or too old populations). China and India, two big emergent countries, half of the BRIC group, which are states with big populations, will record divergent situations in terms of demography and

economic growth. In China, the adult population represented 8% in 2010. A doubling, up to 16%, is estimated by 2030, and almost a tripling, up to 24%, by 2050. In India, population will get old gradually: 5% in 2010, 8% in 2030 și 12% in 2050. In China, the active population will diminish, in India it will increase. The demographic tables of the two emergent countries are different, but in terms of economic growth China outmatches India.

In absolute expression, India will add, by 2050, 424 million persons apt for work, while China will lose 83 millions (Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, 25). In case it will keep this rhythm, India has chances to become, in the next decades, the country with the most numerous population on earth, and one of the highest rates of economic growth.

Latin America is for the most part an emergent area. Brazil is a member of the BRICS, together with Russia, India, China and South Africa. Latin America's progress has been significant, except for the demographic one. By 2050, the population aged over 65 will reach 17% in Argentine, 20% in Brazil and Mexico, and 22% in Chile. The emergent countries of Latin America will be as old as USA.

Table no. 6

**Segment of the population aged over 65 in Latin America countries
(% of the total population, 2010-2050)**

Country	2010	2030	2050
Argentina	10.7	13.4	17.5
Brazil	6.9	13.0	20.3
Chile	9.2	16.7	21.5
Mexico	6.6	11.9	19.8

Sursa: Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, *Global Aging and the Future of Emerging Markets*, CSIS - Center for Strategic & International Studies, p. 25; http://csis.org/files/publication/110307_Global_Aging_Future_of_Emerging_Markets.pdf

Mexico, Brazil and Argentina gather two thirds of the population of Latin America, while Venezuela and Columbia complete almost all the rest (Parag Khanna, 2008, 122).

Latin America is getting old rather quickly, compared to the much too slow economic progress.

Russia's demographic scene is demoralizing compared to both the developed and the emergent states. Demographic transition started in Russia long before other emergent states, its population being almost as old as that of the US. The causes are the reduction of fertility rate, the degradation of the population's health condition and the decline of life expectancy.

In Russia's case, the demographic tendencies will erode the economic potential in the long run, as well as growth and stability. The demographic tendency in Russia is one of decline. It is estimated that in 2030, Russia's population will reach 125 millions, from 140 millions, while in 2050 it will reach 105 millions, i.e. about a quarter of the USA population.

Table no. 7

Population, by regions
(% of the total, 1950-2050)

Region	1950	1970	1990	2010	2030	2050
<i>Developing states</i>	77.8	81.2	85.0	86.9	88.6	89.9
East Asia	22.8	23.6	23.0	20.9	18.0	14.8
Eastern Europe	4.0	3.4	2.7	2.0	1.5	1.1
Latin America	6.6	7.8	8.4	8.5	8.4	8.2
Muslim world	12.4	13.7	16.0	17.8	19.5	20.9
Russia*	6.1	5.4	4.2	3.0	2.1	1.5
South Asia	19.1	19.9	21.7	23.2	24.1	24.6
Sub-Saharan Africa	6.8	7.5	9.1	11.7	15.0	18.8
<i>Developed states</i>	22.2	18.8	15.0	13.1	11.4	10.1
USA	6.2	5.7	4.8	4.6	4.4	4.3
Western Europe	11.7	9.3	6.9	5.8	4.8	4.0
Japan	3.3	2.8	2.3	1.8	1.4	1.0
<i>Rest of the world</i>	0.9	1.0	0.9	0.9	0.8	0.8

Note: * including areas of influence

Sursa: Jackson Richard, Howe Neil, Nakashima Keisuke, 2012, *Global Aging and the Future of Emerging Markets*, CSIS - Center for Strategic & International Studies, p. 13; http://csis.org/files/publication/110307_Global_Aging_Future_of_Emerging_Markets.pdf

In the developing states has lived and is still living most of the global population. If in the middle of the last century in these countries there were about 78% of the world population, in the middle of this century the ratio will be of about 90%, which means a 12% increase. In the developed countries there will be a decline at the same ration, from 22.2% in 1950, to 10.1% in 2050. The general tendency is a declining one, except for the Muslim world (an emergent region that we have not analysed), South Asia and Sub-Saharan Africa, the less developed emergent regions. The strongest diminution will be recorded in East Asia and Eastern Europe. In 1950 15.7% of the world population lived in Western and Eastern Europe. In 2050, 5.1% of the population will live in Europe. East and South Asia was, in 1950, the home of 41.9% of the world population, while in 2050 it will host 39.4% of it. A pronounced demographic decline will be recorded in Russia, where in three decades and a half 1.5% of the world population will live, only 0.5% more than in Japan, which is an amazingly small difference considering the surfaces of the two countries respectively.

We assist and quick and effervescent changing of the world (Cristian Alexandru, 2014, 16), from the demographic point of view as well, a changing that has different faces all over the world, but which is surely occurring everywhere.

Conclusions:

In the future, the probability for the development of the whole world to rely on the population of the emergent states is extremely high. We have presented the scenario of a possible demographic crisis, based especially on the CSIS (Center for Strategic & International Studies) studies and estimations, made by Richard Jackson, Neil Howe and Keisuke Nakashima. They are not the only ones to prognosticate a demographic crisis. At the same time, reality and some more optimistic forecasts show us a different situation, that of a rising demography. The global population of over 7 billion inhabitants in the first decades of the 21st century will increase to over 9 billion in a few other decades if the rhythm of economic growth is preserved. Apparently this is the adequate scenario. With a few conditions fulfilled, the demographic increase will not represent a problem: a demographic structure balanced between the three age segments, food and energy safety, the reduction of environment pollution, the reduction of impact on climate modifications, the rising of the standard of life and of the life expectancy, everywhere in the world, the meeting of development objectives at a global level, the guaranteeing of workplaces for the continually increasing population.

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