

Current situation of the demographic bonus in the Plurinational State of Bolivia

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Abstract

The present article aims to present the current demographic situation in Bolivia, determining at what stage of the demographic transition and how advanced the demographic bonus is. For the development of the subject, socio-demographic concepts such as demographic bonus, demographic transition, aging, savings, labor supply, labor insertion, age structure, public policies and others were taken. As for the methodological framework, a bibliographical review was made based on the main authors who discuss the demographic transition in Europe and Latin America. A descriptive approach of the phenomenon was used, taking as base of data the population and housing CENSO of Bolivia of the 2012, realized by the National Institute of Statistics; and the Statistical Database and Publications of the Economic Commission for Latin America and the Caribbean. Finally, a referential review was carried out on the main public policies that are being implemented within the country regarding the use of the demographic bonus.

Demographic bonus, demographic transition, public policies, human capital, savings, labor supply, labor insertion and age structure

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Introduction

The decline in mortality and fertility is constituted by the so-called demographic transition, but in some cases these phenomena do not always act synchronously (Bloom 2002: 22), especially in Latin American countries that experienced changes demographic differences, by the regional context that surrounds them, in this sense states like Bolivia lived a slower process than the average of the rest of the countries; the purpose of this article is to make known the main characteristics of the current demographic moment that the country is going through and in order to determine the situation of the demographic bonus of the country.

For that purpose, a quantitative research was carried out with a descriptive approach to the phenomenon, using as main data bases the population CENSO of 2012 carried out by the National Institute of Statistics (INE) and the Database and Statistics Publications of the Economic Commission for America Latin America and the Caribbean (CEPALSTAT); with that a contrast of the data and the proposed theory of the demographic transition and of the demographic dividend or bonus was realized, as well as referring like the National Plan of Development "To Live Well", the Patriotic Agenda 2025 and the Political Constitution of the State, thus determining the main state actions for the use of the demographic bonus.

This article is divided into 3 parts; on the one hand, a bibliographical review of the subject was made, starting from the demographic transition, the concept of the demographic dividend or bonus and the structure by age; later a description of the sociodemographic panorama of the country was made and finally the main public policies related to the use of the bond in the Plurinational State of Bolivia.

Theoretical aspects of the demographic transition

Demographic transition

The process of the demographic transition (TD), as Notestein asserts, is the transition from agrarian societies to industrial societies, which moved from a primitive regime (characterized by the non existence of some form of birth limitation, marriage, or by abstention or delay of marriage) to an intermediate regime (celibacy and delay of marriage) ending in a contemporary regime (which are concerned with improving the standard of living). (Tapinos, 1990).

Livi - Bacci, adds that T.D. is characterized by the passage from a disordered population to an orderly one, that is, that demographic growth "was inefficient and disorderly, since biological continuity (grandfather, father, grandson) disappeared because of the high rate of infant mortality; the demographic transition, refers to the passage of disorder to order, as mortality and fertility rates decline and the demographic order is restored" (Livi-Bacci, 1998, p.14), to this is also added the reason for the high fertility rate, since the number of children who were born replaced the number of children who died; while modern societies began with the decline of mortality in the first place and subsequently the decline of fertility (it can be inferred that this generated the phenomenon known as the Baby Boom) to have a low degree of fertility and mortality is generated a balance population, it should be noted that the gap between the decline in mortality and fertility is explained by socio-cultural processes in different regions.

To this process Adolphe Landry called it demographic revolution, in which concept it incorporates the notion of demographic regime that was defined in terms of the level of life that the individuals propose by means of demographic regulation (to those who resort to that goal). Thus, it distinguishes three types of demographic regime:

- Primitive regime: Characterized by the lack of forms of limitation of births, marriages and abstention or delay of marriage; high mortality rates and therefore high birthrates.
- Intermediate regime: Fertility rates remain high, but lower than in the previous regime; a decline in mortality is generated, which causes an imbalance. In turn, methods of maintenance of the standard of living are generated, such as celibacy and delay of marriage
- Contemporary Regime: the main concern is to improve the standard of living, a generalized practice of restricting births, a decline in birth rates and mortality, and a demographic balance (Reher, 2011).

Caldwell to the above process incorporates the concept of modes of production or basic models of production, each with a model of society and level of well-being, which were analyzed by different sociologists, such as Max Weber, Emile Durkheim and Karl Marx, among the main modes of production, are:

- Collecting and hunting: It is characterized by a low development of material well-being, weak family ties, as far as religion is based on nature, sacred and spiritual sites that favor hunting, while at the same time reinforcing the family and creating societies that are more united.

- Sedentary agriculture, Based on the family nucleus, on the production of the land, where the family works within the property and the moral rules are fundamental for this society, the marriage was arranged, it suppresses the sexual activity of the women before or outside the marriage; it should be noted that family ties are rooted in immobility. In turn within this process was developed one in parallel "commercial activities" by which the invention was derived from writing and income growth, capital concentration, industry development and universal research that brought with new inventions.
- Industrial production, at this stage it can be observed that family ties, moral ethics diminish in their importance, religion takes a secondary point in the forming role of society, women enter the labor market and the complex industrial system based on global trade. As for the demographic changes, it can be analyzed that after the scientific processes, a decrease in the infant mortality was generated; this in turn produced a reduction of the size of the family provoking a sexual revolution, linked more with the modern societies. (Caldwell, 2004, pp. 300-303)

Taking over Landry, the American author F.W Notestein calls the process described above as a "demographic transition", becoming one of the most important paradigms of demographic history, distinguishing three phases, through which this transition:

- Phase 1 Pre-transition, characterized by high rates of mortality and fertility
- Phase 2 Transition, characterized by a decline in mortality and still high fertility rates

- Phase 3 Post transition, finally this phase is characterized by low rates of mortality and fertility. (Chesnais, 2001)

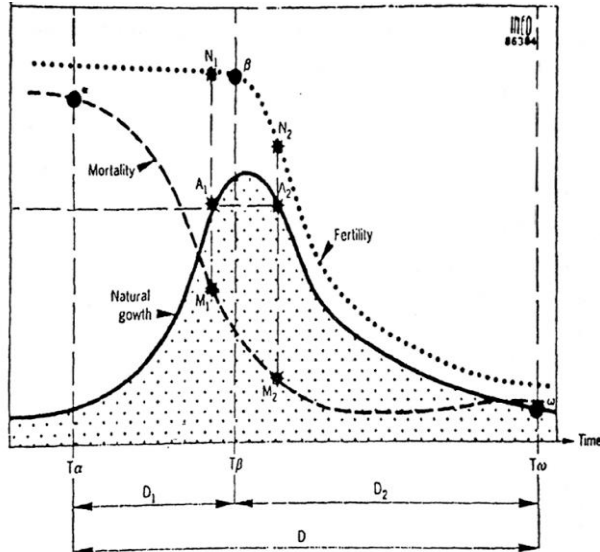


Figure 1 Stages of the Demographic Transition

Source: J.C. Chesnais in *The Demographic Transition, stages, patterns, and economic implications: a longitudinal study of sixty-seven countries covering the period 1720-1984* (1992) pag. 27

During the second half of the nineteenth century, growth slowed down and was called "Ski Jump effect". Increased control along with increased time between one pregnancy and another (Reher, 2011). The second wave of transition in fertility takes place first in countries close to Europe, but later it would eventually spread to the rest of the world.

The process of the demographic transition raises the fact that to a greater social economic development the population change takes place, however, as it is the case of Latin America with GDP inferior to the European one obtains a demographic transition to more accelerated levels, it is probable that this is a phase of development during which the impact of non-material factors is important in determining the level of fertility, reflecting the role of cultural and institutional factors, as well as demographic systems prevailing in different populations. (Livi - Bacci, 1998, p.21)

According to Livi - Bacci "The transition in less developed countries in general and in Latin America occurred two or three generations later than in Europe, in a completely different world (...) (however, Latin America) has benefited from important transformations of technology (coming from more developed countries) thus accelerating the transition" (Livi - Bacci, 1998, p.22).

As far as the transition from fertility to the development of the Latin American regions was concerned, until the 1960s the average was 6 to 7 children per woman, which in the 1980s was reduced to 3.5 children per woman. In turn there is a phenomenon of population increase, due to the advance of technology, the decline of the diseases that produced sterilization and marriages at a young age, producing the phenomenon called "baby boom", which shows how marriages at an early age are influenced by the postwar reconstruction, the implementation of Keynesian policies and high employment rates, it is in this context that some theorists at this stage call it the "second demographic transition".

Demographic bonus and age structure

As for the Demographic Bonus phenomenon, the contradiction between global (even high) population growth and the decline in fertility in developing cities is analyzed; this phenomenon has a close relationship with age structure, since high fertility rates in the reproductive period increase in most developing countries and this factor acts to maintain high gross birth rates, even in the context of fall in rates per woman (Cleland, 1994, p.269).

As shown in the image below, each age group involves different behaviors with different economic consequences; given that they require or provide certain goods and services, for example by observing the demands of young people, the need to improve health services, education and labor inclusion, older people provide and generate greater economic growth; not only demand health and services, but also a pension; observing the relationship between population growth and age structure is generated around the consumption that each age group performs and its contribution to economic growth. (Bloom, 2002) and (Lee & Andrew, 2003)

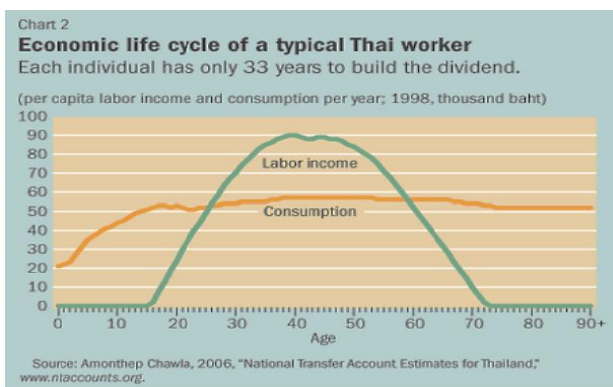


Figure 2 Economic life cycle of a typical Thai worker
 Source: Ronald Lee and Andrew Mason in *What Is the Demographic Dividend?* (2003); p. 6

While the age structure remains constant, the effect of population growth is neutral, but when the proportion of the working-age population increases or decreases, so do economic growth opportunities. To take advantage of the demographic dividend in the field of public policies that must be realized, public health has been taken into account; family planning, education, and economic policies that promote labor market flexibility, trade openness, and savings.

- 1) Labor supply, the demographic transition affects the labor supply in two ways: a) the aging of the baby boom generation and b) greater participation of women in the labor market and a decrease in family size.
- 2) Saving (voluntary and compulsory), the demographic transition encourages savings as health conditions improve and longevity increases.
- 3) Human capital, higher expectations of life cause changes in the way people live, experience profound cultural changes. (Bloom, 2002, pp. 33-34)

The demographic changes discussed above initiated processes that directly or indirectly led to economic and social changes, with implications that are reflected in the age structure.

The immediate effect of the decline in fertility is reflected in the age structure, with the base of the pyramid being the first to be affected by these changes, the initial decline in the population at younger ages is not compensated by the population of the size of the working age population tends to increase and this occurs as the birth cohort continues to increase, this was the case for the first countries that went through the demographic transition between 1950 and 1980, as is observed in the image # 3, from this last year the size of the cohort began to decline, so the cohort decline in births / decrease in the working-age population and reproductive age, providing a window of opportunity with economic effects, where a growing working-age population pays for the pension of a still relatively small population. As the very structure of the population grows older, it will pose challenges to that system based on the intergenerational transfer of income. (Bloom, 2002)

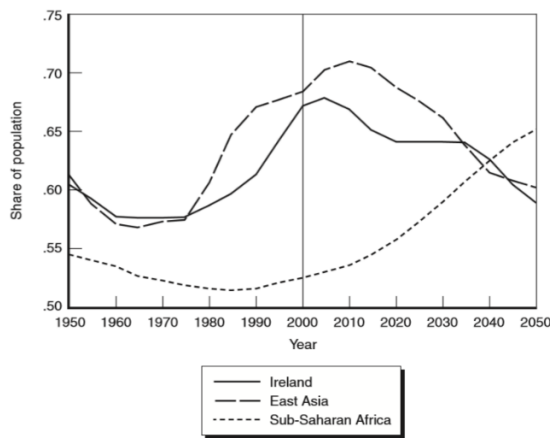
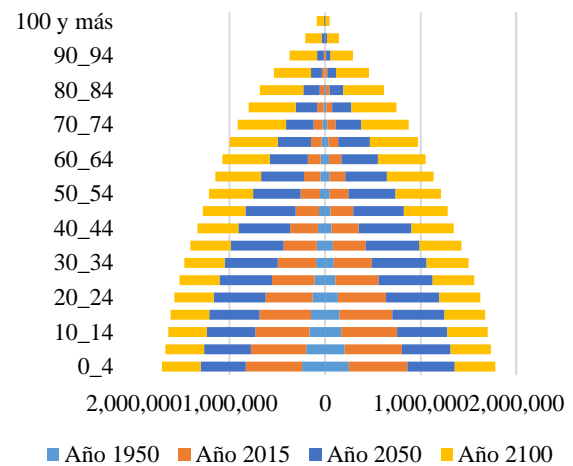


Figure 3 percentage of the population of working age
 Source: Bloom, D., Canning, D., & Sevilla, J in "The Demographic Dividend" (2002); p. 38

Bolivia: Partner demographic picture

The Plurinational State of Bolivia is located in the center-west of South America, has a population, according to the latest population census of 2012 carried out by the National Institute of Statistics, 10,290,003 inhabitants (approximately) and an index of masculinity of 99.67%, with a territorial area of 1,098,581 square kilometers, has a demographic density of about 9 inhabitants per square kilometer, being the country with the lowest population density of the region. In the last fifty years, the Bolivian population has tripled, reaching an annual growth rate of 2.25%.

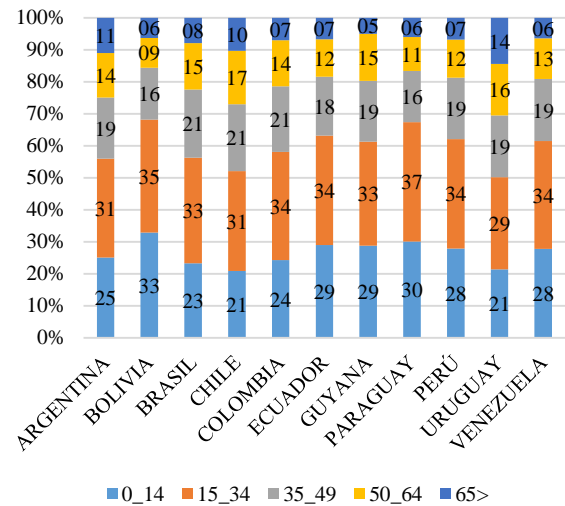
As can be seen in the graphic of the population pyramid, built on projections of the Economic Commission for Latin America and the Caribbean (ECLAC), Bolivia is a country with a young population structure which will continue to rapidly increase its population of 10.3 million that is currently at a projection of 40 million by the year 2100.



Graphic 1 Population pyramid projections years 1950 - 2015 - 2050 - 2100
 Source: own elaboration based on ECLAC: Economic Commission for Latin America and the Caribbean - Population database. 2016 Revision. - http://www.eclac.cl/celade/proyecciones/basedatos_BD.htm

A report prepared by the United Nations Development Program (UNDP) states that Bolivia is the youngest country in South America with a population of 60.7% of the population aged 15-65 and 45.3% of those under 15 (UNDP, 2016); by downloading the ECLAC database it can be ensured that the report of the P.N.U.D is correct in considering the country as the youngest in South America; however we observed certain differences in the population of 0 to 4 years and the population of advanced ages.

It should be noted that these variations do not alter the category of Bolivia as the youngest country in the region when compared to countries such as Chile or Uruguay, whose population from 0 to 4 years of age is around 20.9 and 21.4 per cent of its population, the child population of Bolivia is 10% larger than that of these countries. As for the productive ages, ie the economically active population (PEA), both Uruguay and Chile have a higher percentage than Bolivia, this is due to the demographic bonus process, which in these countries is more developed than the Bolivian case, which still has a high degree of underage population. Finally, in the case of the elderly population, Uruguay has the oldest population followed by Chile, with an average of 14.4 and 10.3 percent, respectively, but Bolivia only 6.3% of its population is within this range.



Graphic 2 Structure of the population by sex and by age group

Source: own elaboration based on: ECLAC: Economic Commission for Latin America and the Caribbean - Population database. 2016 Revision. - http://www.eclac.cl/celade/proyecciones/basedatos_BD.htm <http://esa.un.org/unpd/wpp/index.htm>

This situation of relative advantage in the use of the demographic bonus, turns out to be and as mentioned by the UNDP, a great asset but at the same time presents a great challenge since, according to investigations of the Center of Studies of Population of the Greater University of San Simón (Cochabamba - Bolivia), even though Bolivia is at an earlier stage of the demographic bond, this transition will be very rapid and the demographic bond will age in 50 years, during which time the government must invest in social policies and programs, all in issues of labor inclusion, education, retirement system, etc. in order to take full advantage of this stage and in the aging the country does not have to live times of economic crisis.

“Bolivia dignified and productive ”, main public policies of labor inclusion

As Bloon states, the most important thing to consider is that the demographic dividend or demographic bond has a limited time, and must be driven by a series of mechanisms, such as labor supply, savings and human capital. In this sense, the government has a complicated mission regarding the use of the demographic bonus, since, apart from the fact that Bolivia is the youngest country in the region, it is also among the countries with the greatest economic backwardness, high rates of unemployment and informal work, factors which negatively influence the country (in the matter of accumulation and saving of resources for the stage of aging).

Regarding the informal market, ECLAC affirms that there is a total of 70% of informal workers in Bolivia, although at present this means an economic cushion for the State, since it does not have to ensure the labor insertion of this group of people, once demographic bonus stage ends the government will be surrounded by older adults, without pensions that will require the state public services of health and welfare, in this sense it is necessary to examine the main contributions to mitigate these unfavorable aspects .

Bolivia in recent years underwent an important ideological and political change since, since the arrival of President Evo Morales to power, in 2005, with a process of cultural reevaluation, the Andean worldview of Living Well was implemented as a state ideology. , begins its management with the modification of the Constitution of the State and launches the "National Plan of Development: Bolivia Digna, Soberana, Productiva y Democrática para Vivir Bien", in which it provides the main strategic guidelines to address the country's command. As for the issue we address the main axis is that of the dignification of employment that affirms:

“The dignification of employment; During the validity of the neoliberal model in our country, the employment issue has been neglected, due to the fact that a set of economic measures of structural adjustment, expressed in D.S. 21060, which liberates labor markets, goods and services, and capital markets. In this sense, the labor market lost dynamism, which translates into an open unemployment rate, which for 2006 represented 8.15 percent; the most affected being young people aged 18 to 24 years. Jobs have been concentrated in micro and small economic initiatives, low productivity, income and social security. Similarly, workers 'organizations weakened because of the application of neoliberal norms, whose direct impact was felt in the Ministry of Labor, which reduced their ability to speak in the defense of workers' rights. On the other hand, the low dynamism of the productive apparatus, and particularly of the business sector of the economy, failed to generate enough jobs, which forced the social agents to join informal activities, family type and small enterprises, a context in which wage labor was not the first option for labor insertion. To improve employment conditions, a drastic change in the orientation of the State is required, transforming employment into the pivot of economic policy, making the dignity of work the engine of Living Well. To this end, it is necessary to strengthen the institutions of the Ministry of Labor, as responsible for articulating and coordinating employment policy "(Official Gazette of Bolivia, 2007).

In the framework of what has been proposed to date, various changes were made in favor of the inclusion of young people in the labor market, such as the creation of the National Youth Law, which obliges municipalities to generate a youth, with the aim of technifying youth and collaborating in labor insertion, in turn the Ministry of Labor, Employment and Social Security launches its plan to:

My first decent job within the framework of the employment support program, which aims to "provide intermediation, orientation, job training and self-employment management to job bidders, employers and priority groups, thus facilitating the young boys. We distinguish ourselves as a personalized, comprehensive, free and national service "(Ministry of Labor, 2016).

On the other hand already in the context of the planning towards the end of the administration of the government of turn a "Patriotic Agenda 2025 To Live Well" was generated; which points out 13 fundamental pillars for the constitution of a dignified and sovereign Bolivia, in which the pillar number 6 of productive sovereignty with diversification and integral development, refers to the labor insertion of the young people affirming that a "Productive Sovereignty with diversification and integral development without the dictatorship of the capitalist market in Bolivia will have increased the formal employment, the income of the workers, and will be generated permanently and sustainably numerous and diverse sources of labor, mainly for the young, guaranteeing a decent life, through the strengthening of micro, small and medium-sized enterprises and massive and sustained financial investments in the productive sector "(Official Gazette of the Nation, 2013).

PILAR 6			
PRODUCTIVE SOVEREIGNTY DIVERSIFICATION AND INTEGRAL DEVELOPMENT			
DIMENSIONS	MINISTRY	ATRIBUTIONS	
		ARTICLE	SUBMIT
11. To increase the formal employment, the income of the workers and will generate permanent and sustainable numerous and diverse labor sources, mainly for young people, guaranteeing a decent life, through the strengthening of the micro, small and medium enterprise and investments in the productive sector	MINISTRY OF PRODUCTIVE DEVELOPMENT AND PLURAL ECONOMY	64	E
	VICEMINISTERIO OF INDUSTRIAL PRODUCTION IN THE MEDIUM AND LARGE SCALE	66	b, c, g, k, l
	MINISTRY OF LABOR EMPLOYMENT AND SOCIAL SECURITY	86	b, c
	VICEMINISTERIO OF WORK AND SOCIAL FORECAST	87	b
	VICEMINISTERIO DE EMPLEO, CIVIL SERVICE AND COOPERATIVES	88	c

Figure 4 Pillar 6: Patriotic Agenda 2025

In its eagerness to generate sources of work, the government created different state-owned enterprises, such as: BOLTUR (Tourism Company), CARTONBOL (Bolivia's Productive Public Company of Cartons), EASBA (Empresa Azucarera San Buenaventura), EBA (Empresa Boliviana de Almendras), EBIH (Bolivian Company of Hydrocarbons Industrialization), EBOCOCA (Bolivian Community Company of Coca), EBT (Bolivian Tourism Company), ECEBOL (Productive Public Company of Cement of Bolivia), ECOBOL, EEPS (Strategic Company for the Production of Fertilizers), EMAPA (Empresa de Apoyo a la Producción de Alimentos), ENATEX (National Public Textile Company) SUPPLIES BOLIVIA LACTEOSBOL (Dairy of Bolivia), PAPELBOL (Empresa Papeles de Bolivia), PROMIEL (Empresa Productiva Apicola), QUIPUS (Computer Assembly Company Quipus), YACANA (production complex of camelids), ENAVI (Ministry of Development Planning, 2016).

In the legal and constitutional framework the labor insertion does not seem to have obstacles since new laws of labor inclusion and respect to the young people were implemented and even the above companies were created; however, many of these companies went bankrupt in recent years and even had to close, creating a concern for the labor sector, and regardless of having a number of laws should be an analysis and evaluation of these state policies and laws, what their real contribution is and if they are reaching the youth sector that requires it.

If these actions are not followed up, alternative strategies will not be implemented to take advantage of the demographic bonus and the creation of public policies for the management of retirement will be obstructed; the State will not be able to sustain the burden of demographic aging, entering into economic crises, which can lead to a setback in the social and economic development of the country.

Conclusions

The present essay emphasized the importance of the structure by age in the social economic development, for which it emphasizes the demographic bond. As for the demographic characteristics of Bolivia, as compared with other countries in the region, Bolivia is only entering the first demographic bond, which implies that it is the right moment for the government to carry out different actions in Bolivia. However, it is of vital importance not only to launch public policies for the inclusion of young people in the labor market, but also to improve and improve the income or retirement system in the country. determine the real impact that is being generated.

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