Brazilian Demographic Transition and the Strategic Role of Youth

Transition démographique brésilienne et le rôle stratégique de la jeunesse

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Introduction

1 Brazil has recently appeared internationally as one of the emerging economies that comprises a new bloc of countries (the BRICS, formed by Brazil, Russia, India, China and South Africa) whose most outstanding feature is being nations that have populations relatively younger than those of developed countries, particularly in Europe and North America, besides Japan. Accordingly, the demographic variable gained prominence among scholars and planners as one of the elements that can lead these countries to new levels of development.

2 This article aims to present Brazil’s latest demographics and to examine some features of its demographic transition underway. Despite Brazil being still a nation with a young population structure, recent indicators reveal an incipient change in its demographic profile, especially for some regions as the South, and particular social groups, such as young people who live in rural areas.

3 Wong and Carvalho (2006, p. 5) note that demographic transition involves both the changes produced by fertility decline and its effects on the absolute and relative sizes of different age groups in the population pyramid of a country. Its main result is population ageing and the consequent decline of working age people.

4 Yet, during such transition, countries enjoy a demographic period in which working age population is significantly higher than the dependent population, formed by children and the elderly. This is considered a strategic period in terms of medium and long term planning, for it offers the country an opportunity for producing wealth levels higher than the demand of its population, producing the so-called demographic bonus.
According to the Brazilian Institute of Geography and Statistics (IBGE), Brazil has shown a steady decline in fertility rates, while life expectancy has grown constantly, a process that is occurring at an even faster pace in the State of Rio Grande do Sul.

The Brazilian ongoing process of demographic transition is without doubt directly related to processes of industrialization and urbanization. However, it is worth recalling that this is not a phenomenon peculiar to Brazil, but rather a characteristic of capitalist globalization, since urbanization constitutes an immanent feature of this mode of production.

The demographic transition in Brazil is not homogeneous across the country. Thus, our analysis is not restricted to the general population dynamics observed in the country, but further includes the case of Rio Grande do Sul, the southernmost Brazilian state, where demographic transition is more advanced.

Likewise, we must take into account that the Brazilian society experienced important changes over the past decade, notably with regard to the upward dynamics of social mobility in the low and medium income population groups. Recently published data indicate that upward social mobility has been proportionally greater in the rural population. So, we will focus particularly on the movements observed in that space, with special regard to the expanded opportunities available to young.

The paper is divided into four sections besides this introduction and the final remarks. In the first section, we examine the characteristics and repercussions of the changing age structure that has taken place in Brazil. The second section comprises the case analysis of Rio Grande do Sul, where this process is at an advanced stage. In the third part of the article, the emphasis is on the recent dynamics of poverty reduction and social mobility taking place recently in Brazil and on their effects on demographic dynamics of the country. Finally, in the last section, we seek to explain the impacts of this phenomenon on the Brazilian rural environment, especially on youth, highlighting the urgency of taking a significant and strategic segment of Brazilian youth out of the social inertia they find themselves.

1. Characteristics of Brazilian demographic transition

Brazil is arising on the international stage in recent years as one of a group of emerging economies that form a new bloc (the BRICS countries, formed by Brazil, Russia, India, China and South Africa). Among the most remarkable characteristics shared by these countries is the fact of being nations with populations relatively younger than those of the developed countries, especially Europe, North America and Japan.

This article aims to present the recent demographic profile of Brazil and analyze some characteristics of the demographic transition process that is starting in this country. Although still showing a predominantly young population, recent indicators presented here show that a process of change in the age profile of the country has already begun, especially in some regions as the South and among particular social groups such as young people who live in rural areas.

The Brazilian demographic transition began in the mid-1950s. Even so, it was only during the last two decades that the issue gained a more prominent place in the agenda of both researchers and the Brazilian state.
The reason for this greater concern over the Brazilian demographic phenomenon in recent years is the accelerated decline in population growth rates, notably resulting from a constant decrease of fertility rates, from 6.3 children per woman, in 1960, to 1.9 children per woman, in 2010, already below the replacement level, set as 2.1 children per woman. The evolution of the Brazilian population growth rates can be seen in the following chart:

Chart 1. Brazilian population growth rates: 1940-2040

The chart clearly shows that the declining trend of population growth rates remained constant during the whole period since 1950-1960, accelerating in recent decades. Not coincidentally, it is also during this period, concomitant with Brazilian industrialization, that the decrease of rural population started, with the growth of urban population.
A further crucial factor affecting age structure change in Brazil is the transformation of agriculture by the process known as "agricultural modernization" [Martine and Garcia, 1987; Delgado, 2012]. The adoption of this model had a major impact on the demographic dynamics by continuously compelling agricultural workers to leave the countryside towards the cities. This brought some negative social consequences, particularly because urban centers were not sufficiently structured to receive this population group.

The path of industrialization and the adoption of an agricultural production model marked by wealth concentration and low demand of labor force were key factors for the urbanization of the country, a phenomenon directly related to the demographic transition in Brazil [Cardoso de Mello and Novais, 2009].

Thus, a first question to be raised concerns the cultural transformations occurred in this period, such as the separation between sexuality and fertility, made possible by the popularization of contraceptive pills since the 1960s and the increasing participation of women in the labor market. As to this latter aspect, it is worth noting that it both contributed to expand the available workforce in the country, thereby improving the capacity for wealth generation, and to bring about changes in family structures, as the need to balance professional life and motherhood. Jardim (2010, p. 4) adds that the social and economic aspirations of families enhanced, with direct impacts on family planning.

Moreover, soon after the beginning of the urbanization process, an overall improvement of public health and quality of life was observed, especially due to the significant advances of the medical science. Such improvements allowed both to reduce infant mortality rates and to raise life expectancy. However, as evidenced by recent report published by IBGE (2013), results are still inadequate, since more than half of Brazilian population has no access to sewage yet and show birth rates and life expectancy indicators that are very far from those of developed countries.
Two other elements are crucial to explain the demographic transition in Brazil: the increase of both per capita income and education levels of the population. Several studies [Barufi 2012; Alves and Cavenaghi, 2013; IBGE, 2013] point out that birth rates are inversely related to both income and education, two indicators that have shown significant progress in the country, especially more recently. With regard to the increase of income, the following chart shows its evolution:

Chart 3. Brazil: evolution of per capita income and income inequality rates (1960 = 100)

As to education indicators, data from the National Households Sample Survey (Pesquisa Nacional por Amostra de Domicílios - PNAD) indicate that between 1992 and 2009 the average schooling levels among Brazilian population raised from 5.8 years to 8.2 years of study. The data range presented in the PNAD 2012 report [IBGE, 2013] does not allow observing the recent evolution of this particular indicator. Nevertheless, it points to a significant increase in school access, although revealing that universal access is only referred to primary education.

In considering the change in age structure in Brazil, researchers of IBGE (2013) point out that, if current trends persist, the historical pyramid that have invariably represented the Brazilian age structure will gradually be converted into a rectangle and, according to the prognosis, may become an inverted pyramid by 2060.

This referred IBGE study brings also other important indicators for the acceleration of Brazilian population ageing over the past decade between 2002 and 2012 the population aged under 25 decreased from 47.4% to 39.6%, while the population group aged over 45 increased from 23% to 29%. Furthermore, data from PNAD 2012 Report show that the
average fertility rate for the country is already 1.8 children per woman and that 38.2% of Brazilian women aged between 15 and 49 had had no child.

Chart 4. Percentage distribution of the resident population by sex and age groups - Brazil - 2002/2012


In the context of this process of changing age structure that Brazil is undergoing, a scenario is being set up in which the economically active population is higher than the dependent one formed by children and the elderly. Thus, there would be a favorable environment for economic development in the country. However, in order to benefit from this so-called “demographic bonus”, this advantage must be strategically taken to make this greater supply of workforce to be translated into wealth creation. Such strategic approach would lay the foundations for the future development of the country, preparing it for the time when the dependent population will be growing and working age population will be declining.

Several prognoses [IBGE, 2013; Wong and Carvalho, 2006; Zuanazzi and Bandeira, 2013] converge to a common conclusion: the Brazilian demographic bonus will last until the year 2025. From this time on, the population growth trend will be reversed and population ageing will accelerate, reaching its peak by 2050. This means that within one hundred years Brazil will have ceased to be a young population country to become a country of elderly people. According to IBGE estimates (2013), the demographic profile of Brazil by 2060 will be similar to that of Japan by 2015.

Taking these aspects into account, it is urgent to regard youth as a strategic segment of the population for the future, since this population group will be responsible for the generation of resources that will support the increasingly ageing population. However,
considering the continental dimensions of the country, we must recall that the Brazilian demographic transition presents regional specificities.

2. Rio Grande Do Sul: an exemplary case of the Brazilian process of demographic change

26 Rio Grande do Sul is the southernmost Brazilian state and the most populous in the southern region, with 10,693,929 inhabitants. This state, whose capital is Porto Alegre, is bordered by the Atlantic Ocean, by the state of Santa Catarina, and by Uruguay and Argentina.

27 We chose Rio Grande do Sul to illustrate the demographic transition underway in Brazil for observing that this is the state where the change in age structure is most advanced. Cargnin et al. (2013, p. 5) bring evidence of the speed of such process in the state, remarking that, between 1950 and 1960, the population growth rate was 2.57% per year; between 1991 and 2000, it had declined to 1.21% per year, dropping to less than half of this – 0.49% per year – between 2000 and 2010, the lowest rate among all Brazilian states. According to Genro (2013, p. 229), in 2013 the annual growth rate was 0.39 and it would become negative between 2020 and 2030 if this trend continues, as Zuanazzi and Flag (2013, p. 16) have forecasted. It is worth remembering that a similar process also occurred in Europe over a period of about 150 years [Cargnin et al., 2013, p 8.].

Chart 5. Population growth rates in Brazil and RS between 1950 and 2010

![Chart 5](chart5.png)

**Source:** Cargnin et al. (2013, p. 6) based on data from IBGE.

28 Among the reasons that could explain it, we may point: both fertility and infant mortality rates in the state are among the lowest nationally; life expectancy is one of the highest in the country; young population, aged between 15 and 29, is among the smallest in the country; and the state underwent significant population losses due to internal migration.
Data from the 2010 Demographic Census reveal that 85.1% of the population of Rio Grande do Sul live in urban areas, indicating continuous urbanization of its society – in 2000, the population living in urban areas of the state was 81.4%. This percentage is significantly higher than that observed in the state in 1970, when 53.8% out of the 6.7 million inhabitants of Rio Grande do Sul lived in urban areas, i.e., the urbanization occurred in Brazil in the last decades is reflected in the state, with similar repercussions.

The Census data also reveal a process of continuous population growth in Rio Grande do Sul, similar to that observed in the country, since Brazilian population increased from about 90 million in 1970 to a total of 190,755,799 in 2010. Although at first it might seem contradictory that a society with decreasing fertility rates undergoes population growth, as Jardim (2010, p. 5) notes, it represents the outcome of higher birth rates in previous periods. Thus, at the same time that the number of children per woman was reducing, the number of women was increasing.

By analyzing the age structure of the state’s population, we may note that, in 2010, 69.9% out of total population were at working age, i.e., were aged between 15 and 64 years old. As to the 30.1% of dependent population, it was formed by 20.8% of children under 14 and 9.3% of seniors over 65. The following information, brought by Governor Tarso Genro (2013, p. 230) in his message to the State’s Legislative Assembly, better illustrates the phenomenon of population ageing accompanied by the current rise of working age people in the state.

Table 1. Resident population by age groups (%), Rio Grande do Sul, 1980-2010

<table>
<thead>
<tr>
<th>Age groups</th>
<th>1980</th>
<th>1991</th>
<th>2000</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>32,4%</td>
<td>30,1%</td>
<td>26,1%</td>
<td>20,8%</td>
</tr>
<tr>
<td>15-64</td>
<td>62,9%</td>
<td>64,1%</td>
<td>66,7%</td>
<td>69,9%</td>
</tr>
<tr>
<td>65 and over</td>
<td>4,7%</td>
<td>5,8%</td>
<td>7,2%</td>
<td>9,3%</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Genro (2013, p. 230), based on IBGE, 1980 to 2010 censuses.

For a better analysis of Rio Grande do Sul data, it will be useful to compare them with the ongoing Brazilian scenario. Thus, data for the country accounts for 68.5% of working age population; so, 31.5% are dependent, 24.1% of which are children and 7.4% elderly. Based on these data, it is possible to infer that Rio Grande do Sul, rather than simply concentrating the highest percentage of seniors in the country, has a proportion of children lower than the national average and enjoys a percentage of working age population slightly higher than that of the country, that is, its age structure change is a little ahead than that observed in Brazil.

The phenomena related to the changing age structure in Rio Grande do Sul were concomitant to that observed in the country, i.e., impacts of industrialization and urbanization on the state were similar to those on Brazil. However, it is also possible to impute the higher intensity of population ageing in Rio Grande do Sul in relation to other Brazilian states to the repercussions of the green revolution, particularly since the beginning of the expansion of agricultural frontiers, as in this period significant migration movements were observed in the state, especially by young people, towards
the new Brazilian agricultural frontiers. According to Cargnin et al. (2013, p. 9) the state of Rio Grande do Sul continues to lose people to other states – while population loss due to migration was of 39,495 inhabitants between 1995 and 2000, in the period between 2005 and 2010 it almost doubled, reaching 74,650 inhabitants.

There is yet another fact contributing to the demographic transition to happen at a faster pace in the state. It is the trend, identified by Jardim and Barcellos (2011, p. 136), towards migrants being mostly young people, what can be observed in the following chart:

**Chart 6. Number of immigrants, emigrants and net migration of male population in RS - 2005-2010**

![Chart](image)

**SOURCE: ZUANAZZI AND BANDEIRA (2013, P.13) BASED ON 2010 CENSUS.**

This is considered one of the main factors to explain the continuous decline in youth population in Rio Grande do Sul, as pointed by Zuanazzi and Bandeira (2013, p. 14). It also explains the fact, revealed by PNAD 2012 (IBGE, 2013), that this is the second Brazilian state, only behind Rio de Janeiro, with the lowest number of young people aged 15-29.

At the same time as its young population is declining, the prospects of their replacement is low, because, along with Rio de Janeiro, Sao Paulo, Santa Catarina and the Federal District, Rio Grande do Sul has also the lowest fertility rate of the country, 1.6 children per woman. This in itself proves that demographic transition is faster in this state than in the rest of the country, whose average rate is 1.8 children per woman.

Being the Brazilian state that exhibits the most advanced rates of changing age structure, Rio Grande do Sul also stands out among those with the greatest working age population – 69.9% of its residents are between 15 and 65 years old. This is crucial, considering that fertility is increasingly lower and that young population decreases quickly, for it means that the state is enjoying a peak in workforce. In this respect, as noted by Castro (2012), its highest proportion of seniors in relation to the rest of the country places Rio Grande do Sul as the first in the rank of states by elderly dependency ratio, with 17.8% in comparison to the 15.3% Brazilian average rate.
This becomes even more significant when we take into account that the life expectancy of the state's population, as the Brazilian generally, has increased over the last decade, from an average of 72.39 years, in 2000, to 77.21 years in 2014, with prospects of reaching 80.84 years in 2030. It is worth noting that life expectancy at birth in Brazil is 74.5 years.

This period, when working age population is higher than the dependent population is favorable for the economic development. A deed that has not been accomplished in Rio Grande do Sul, since from 1995 to 2008 the GDP of the state grew at mere 1.10 per cent, the second worst performance among the country's federal units. Despite this poor performance, during this period the state has benefited from the good phase of Brazilian economy and investments made by the country and, therefore, got to reduce unemployment rates, increase workers' income and enhance schooling levels of the population, factors that are crucial for taking advantage of the demographic bonus.

It is also worth noting that the State has expressed concern with the consequences of the demographic transition, so that it has already devised guidelines to deal with the issue [CDES 2013, p. 27-28], such as the need to provide care services for the elderly, and to handle the differentiated demands. Similarly, in 2013 there was in the state a reversal in the process of low economic growth, which until then had been lower than the average of the country, and now reached a 5.8% annual rate, much higher than that of 2.5% presented by the country.

3. The new profile of Brazilian social mobility: main factors for change

Data analyzed so far show that the demographic transition is in course in both the country and in the state of RS since the mid-50s of last century. So, by virtue of this change in population composition in this period, the country is enjoying a demographic bonus, a period that in theory may provide the country with economic growth rates above the average, especially for existing a surplus workforce supply. However, for this to become reality some conditions are required such as significant rates of economic growth, low unemployment, enhanced levels of educational attainment, and adequate infrastructure.

In analyzing the Brazilian society during the second half of the last century, period when demographic transition started to develop, Ribeiro (2007) points out that, except for the years 1980-1990, Brazil enjoyed a phase of economic growth that nonetheless has not resulted in benefit to the population. Conversely, what was observed in this period was a great concentration of income and high inflation and unemployment rates, especially in the post "Brazilian miracle", hindering the country's development. The author presents a further aspect that limited the effective use of the potential offered by the demographic transition: the lack of investment in education attainment. Although the country has made some investments in higher and graduate education at that time, responding to pressures by the elites, it is well-known that basic education was completely disregarded, keeping the vast majority of the population with poor or no access to school.

This inefficient use of the Brazilian demographic bonus is also identified by Turra and Queiroz (2009, p. 144), who argue that although, on the one hand, the growth of Gross Domestic Product (GDP) was related to consumption expansion due to population growth, on the other hand, if the demographic changing age structure had been properly
exploited, this growth could have been much higher. The authors illustrate this perspective by analyzing the period 1995-2000, and concluding that, during this, the actual GDP growth amounted to only one third of what it could have been considering the demographic dividend.

43 In a seminal study on social mobility in Brazil, Ribeiro (2007, p. 63) points out that, during much of the twentieth century, about 70% of the Brazilian population was excluded from the consumer market. This information both confirms considerations that the country did not fully benefit from the demographic bonus and leads to the conclusion that even in a context of decreasing population growth there was significant room for increased consumption through economic inclusion of people of the lower classes.

44 Brazil, which was undergoing a severe economic recession since the late 1970s – to a great extent due to national debts left in prior periods, could only resume economic growth at the beginning of the twenty-first century. This was impelled mainly by the appreciation of its agricultural commodities and by primary production [Araújo, 2011; Squeef et al., 2012].

45 But, in contrast to the policies of previous periods, this time there was a concern for translating the economic performance of the country into reduction of social inequality. To this end, a number of measures to promote income redistribution were taken by the government, among which it is worth mentioning the raise of the minimum wage above inflation rates and the policies for direct income redistribution, such as the Family Allowance Program (Programa Bolsa família - PBF). Regarding this policy, which transfers money directly to the poorest families, it is important to mention the conditions imposed to its beneficiaries, such as keeping children in school, periodic health examinations and the encouragement to attend vocational training courses.

46 This is a key issue when it comes to a strategic approach to the Brazilian demographic bonus, since without a proper social structure the potential of future generations would be jeopardized. Thus, on the one hand, it is recognized that a crucial condition for taking advantage of the demographic dividend is keeping unemployment rates low, as this is an indispensable condition for more adequately using society’s productive potential. On the other hand, channeling efforts to eradicate poverty is also considered strategic, because the existence of people under such social condition brings several hindrances to development. Besides rendering difficult the proper utilization of their production capacity by the society, and being the main applicants for social services, these people also compromise future development, as children in extreme poverty are obviously malnourished and, therefore, can hardly have a satisfactory performance at school, tending thus to reproduce the extreme poverty of their parents. So, investment in eradicating poverty comprises a strategic dimension to the definition of future opportunity costs. In this respect, the country seems to have been extremely successful. Castro et al. (2010, p 13.) support this assertion by predicting that, if current rates of reduction are kept, the condition of absolute poverty in Brazil shall be overcome in 2016.

47 Still with regard to PBF, the amount of money transferred by the program is proportional to the number of children in the family, what raises critiques that it encourages new births among the poorest. This claim, however, was not confirmed in a study by Alves and Cavenaghi (2013). According to these researchers, the birth rate fell among the beneficiaries of PBF as it did among the population generally, since the relationship is, in fact, inverse, i.e., in so far as the household income increases the number of children...
tends to decrease. Moreover, the conditions imposed on the allowance enhance social 
inclusion, which also contributes to the reduction of fertility rates.

In their study, Castro et al. (2011) point that the resources invested in Brazilian social 
programs, which are not limited to the PBF, contributed 1% to GDP growth, since it 
increased the amount of money circulating in the domestic market, thus heating up the 
economy by means of increased consumption.

However, the resources of social programs are not the only factors behind the heating up 
of the domestic market; also the appreciation of the minimum wage, which is linked to 
most social benefits such as retirement pensions, played a role. Thus, by encouraging 
domestic consumption, a virtuous cycle was created that, besides taking some families 
out of extreme poverty, has contributed to the growth of the economy.

The main consequence of this measure was the creation of significant dynamics of 
upward social mobility in the country, especially of the poorest towards middle income 
strata, as it can be seen in the following chart:

Chart 7. Variation in the number of people by social class between Jan., 2004 and Feb., 2012 (in 
millions)

Legend:

class E: families whose income is lower than R$ 771,00 (US$ 348,86);
class D: families with incomes between R$ 771,00 (US$ 348,86) and R$ 1,276,00 (US$ 577,37);
class C: families with incomes between R$ 1,276,00 (US$ 577,37) and R$ 5,104,00 (US$ 2,309,50);
class B: families with incomes between R$ 5,104,00 (US$ 2,309,50) and R$ 7,715,00 (US$ 3,490,95);
class A: families with incomes above R$ 7,115,00 (US$ 3,490,95).

Source: Barufi (201, p. 3), based on PME, PNAD/IBGE. Elaboration: BRADESCO.

This economic growth, combined with a better income distribution, had also impact on 
another important indicator related to the best use of the demographic bonus – the 
unemployment rate. Thus, within a flourishing economy, unemployment rate have 
remained at its lowest historical levels during this century, always below 10% and 
reaching, in December 2012, the rate of 4.6%, a situation of full employment if we take
into account the workforce turnover\textsuperscript{14}. However, it is important to underline that, despite the increased formal employment during the studied period, informal labor still prevails in the country, a fact that raises worries, especially regarding the opportunity of taking advantage of age structure transition, since these workers neither access the benefits of formal labor nor contribute to the pension system\textsuperscript{12} \cite{Sachett, Calixtre, 2011; Lameiras et al., 2012; Araújo et al., 2010}.

The global economic crisis of 2008 stirred up a number of measures by the Brazilian government, which both reduced the effects of the crisis upon the country and contributed to its economic growth. The core guideline of Brazilian strategy to handle the crisis and keep the economy heated up was investing, once again, to expand its domestic market. In this sense, the main measures were the reduction of the basic interest rate and tax cuts, what was evaluated by Bruno et al. (2010) as a successful maneuver in relation to its initial goal. However it is worth noting that some taxes that had been reduced during the crisis are gradually getting back, as well as the interest rate, which in the face of an annual inflation around 6% has been raising again, although not at rates experienced in previous periods.

Considering a declining productive population and a growing unproductive population, it becomes necessary to increase productivity. To this end, investments in infrastructure, in the modernization of industry and, primarily, in education are critical.

Some scholars, in examining the ways the country has made use of the demographic bonus, indicate that the main losses lie in the low productivity of industry and the inadequate infrastructure \cite{Squeff et al., 2012}. In fact, there have been some investments in industry, particularly the naval industry since the discovery of the pre-salt geological layer. Generally, however, it can be said that the productivity of Brazilian industry is still low.

Investments in the construction of a productive infrastructure during the period of demographic dividend are strategic, not only because they are necessary for future economic development, but mainly because in a context of workforce scarcity, post demographic transition, it will become increasingly difficult and costly to provide resources and labor to work in this sphere of society. We may note that investments in infrastructure have been substantial, both public and those resulting from privatization and from public-private partnerships. Their outcomes, however, have not been felt yet, what raises too much the so called “Brazil cost”.

In a context where the workforce is scarce, it is essential to count on skilled and specialized workers, and thus on good education levels. Considering this, we can follow Kerstenetzki (2009, p, 76) and name it as opportunity costs, that is, understand that future returns from current investments in the society, mainly in education and qualification of the population, outweigh the present costs.

Data recently released by IBGE (2013) show that Brazil has advanced, at least in part, when it comes to education, since the country reduced illiteracy rates, provided universal access to primary education and broadened the access to higher education making it more democratic. However, with respect to preschool education and to secondary school, the outcomes are still inadequate.

Nevertheless, the own process of demographic transition points to good prospects for the issue of education, as it implies, in the medium and long terms, reduction of school-age population, meaning that there will be a decreasing number of pupils in the schools,
allowing to improve the quality of education by just keeping investment levels \(^{13}\). This means, as highlighted by Wong and Carvalho (2006, p. 18), that soon the country will have a school structure and resources available per student that will exceed the current demand, an opportunity that must be translated into improved quality of education in the country.

A final aspect that is not directly related to the use of demographic bonus, but rather to the handling of its implications, concerns the elaboration of strategies for the care of an increasingly ageing population. Although the purposes of this article do not comprise the discussion of this dimension, it is important to note that despite some advances, such as the law of the elderly (Estatuto do Idoso), the country still lacks investments in this area.

The demographic bonus may constitute an opportunity for the countries that experience it. Yet, in order to take advantage of this, a country must meet some fundamental requirements, especially with regard to the organization of its structure and preparation of its people to cope with the new situation in the future. Youth, therefore, plays a central role in it.

### 4. Demographic change and its effects on rural youth

The demographic transition is a long-term process that started in Brazil in the mid-1950s, and shall extend to the year 2050, according to most forecasts. However, despite presenting common features throughout the country, it bears some regional specificities as in the case of Rio Grande do Sul, where it happens at a faster pace.

However, the specificities of the process are not exclusively regional, but are also manifested in the distinct characteristics it acquires depending on the examined population group. In this perspective, this section will analyze some of the consequences of the demographic transition on the rural areas, especially on young people who live in this particular environment.

The modernization of agriculture has changed the profile of the Brazilian society, which stopped being predominantly rural to have most of its population living in urban areas (see chart 2). The rural exodus resulting from this process is widely acknowledged. Furthermore, combined with rural exodus, the demographic profile of Brazilian countryside acquires new features, namely the continuous population ageing and the predominance of male population [Abramovay et al., 2001].

This phenomenon is not new nor a singularity of the Brazilian case. By analyzing the household production in France, Champagne (1986) has also identified processes of male predominance and aging among the countryside population, caused by the migration of young people. Moreover, as highlighted by Dasre et al. (2009), youth migration is commonplace in contemporary societies, and may be connected with education, job placement following graduation, family starting or job search generally. Thus, the authors suggest that the selectivity in internal migration flows have effects on both the age pyramid and the demographic configuration of territories, as observed in France and Brazil.

In this sense, besides being a massive and extensive phenomenon, the migration flows from the countryside to the cities were also selective, especially in southern Brazil\(^{14}\), where migrants has always been predominantly youth and women, as demonstrated by Camarano and Abramovay (1999) and by Ferreira and Alves (2009).
Yet, while a set of issues related to the internal logic of family organization and dynamics contributes to establish a scenario of male predominance and ageing among rural population, some elements that are external to the family also play a role in moving youth away towards urban centers. These include increasing difficulties of access to basic services such as health and education.

Likewise, poverty, a condition that characterizes the majority of rural population in Brazil, also operates as a major factor for rural exodus, notably among young people. A study conducted by Neri et al. (2012) point that 8.5% of rural population in Brazil is still extremely poor. In this context, especially in view of limited opportunities and low remuneration received by rural workers, young people choose seeking a better life in the cities.

Albeit the persistence of this reality among Brazilian rural population, which still exhibit the worst poverty indicators, Neri et al. (2012, p. 44) recorded a decrease of about 50% in rural poverty in the country. The rates decreased from 62.8% of the total rural population in 1992, to 31.9% in 2009, a still high figure, though. The researchers still point to an increase of 71.8% of rural population in the economic class C in the country in the period 2003-2009, comprising annual growing rates of 13.6% in the first year, and of 35.4% in the last reference year [NERI et al., 2012, p. 80].

These figures suggest that the dynamics of poverty reduction and promotion of social mobility for the poorest towards the medium income strata in Brazil were deeper in rural areas. Such outcome has also impacted rural-urban migration flows, which, despite continuance, slowed down during 2000-2010 when compared to prior periods (see chart 2).

One of the main consequences of poverty reduction and upward social mobility for a significant number of Brazilian rural families, as identified by Neves (2013), is related to their impacts on rural youth. The reason is that young people end up being the main beneficiaries of both the increase in households’ income and the expansion and democratization of access to education, since insofar as the families count on additional resources – both economic and educational – their opportunities for the future are also broadened.

Furthermore, the consequences of demographic transition themselves have a positive impact on the improved prospects for young people, since in addition to higher income and access to school, their families are increasingly having fewer children, which means more resources available to invest in youth.

Even so, the migration of the youngest persists in rural areas. Available data accounts for a reduction of more than 3 million people in the 0-29 age group in rural areas between 1996 and 2006, whereas the number of adult people increased at 0.3% in the age group of 30-59, and at 7.2% among the rural population over 60 [Ferreira and Alves, 2009, p. 246].

In view of this, we may infer that the Brazilian transition of age structure is occurring at a faster pace in rural areas, which can be largely explained by its connection to the industrialization and urbanization processes. Such was the case that, since the 1990s, due to the processes of both the increasing ratio of males to females and the ageing of rural population, some studies [Carneiro, 1998; Castro, 2006; Stropasolas, 2011] have shown that there is a growing concern regarding the very feasibility of family farming and the availability of labor force in rural Brazil, especially in the South.
This is a justified concern, since the reproduction of family farming is predominantly endogenous, so that the decrease of the young population reduces the prospects of reproduction of this economic activity as such. However, while a concern exists that the feasibility of farming will be compromised for lack of young people in the future, the prospects for the Brazilian reality show that, after a continuous decline of the population in this age group, the number of youth in the country shall reach a plateau.

Yet, at the same time as the young population is shrinking, the older population will continue to grow until a new demographic scenario, expected for 2050, will be configured in the country, in which the dependent population will outnumber that at working age. The alternatives that have been identified for this scenario range from social security reform to proposals such as the creation of better infrastructure in the countryside (widespread electrification, improved access to water, etc.) and the industrial modernization in the country.

Without going into this discussion, we intend to focus on the strategic role played by youth in this process, since they comprise the available workforce during this period of demographic transition, bearing the task of preparing the country for the approaching demographic scenario. The adequate preparation of this population group is a process that requires time and, according to Mostafa et al. (2009, p. 4), can be understood as a social moratorium to which youth are entitled in contemporary societies, and which postpones their entry into the labor market.

But, before they get ready, young people must be prepared, that is, must have access to the essential resources for attaining a good education. Some progress has been observed in this direction, such as reduction of poverty and its consequent hardships, the expansion and improvement of school infrastructure and legislation reform in order to regulate the entry of young people into the labor market. However, recent data released by IBGE (2013) reveal a worrying reality involving youth, as there is a significant population of young people who is neither working nor studying. This means that there is a population group that runs the risk of having its productive potential completely wasted.

The presence of these young people, also known as "neither-nor" (neither study nor work) have remained constant over the years, being currently 19.6% of youngsters aged between 15-29, the age range that defines youth under Brazilian law. The data show that this group, in which women with children comprise the most part, is characterized by low levels of education and low income.

Given this reality, it seems that among the different challenges faced by Brazil with regard to the demographic transition process, taking this significant group of young people out of its inertia is a mostly important measure, or else they will probably become adults with low production capability and will tend to remain under vulnerable conditions and depend on social assistance. On the contrary, if they get to enter the labor market, and mainly the educational system, they may be prepared to perform the strategic role expected from youth in an emerging country.

Final remarks

Population ageing and the inversion of the age pyramid already comprise a consolidated process in developed countries. In developing countries, however, it is still a dynamic
phenomenon, especially because fertility rates being directly related to income and education levels, the demographic transition ends up being translated into a consequence of the country’s development process itself.

Nevertheless, such phenomenon has shown a specificity in developing countries that is the much faster pace of the demographic transition if compared with what happened in other countries. This means that these countries count on much less time to both enjoy the demographic bonus and to prepare the country for the approaching new scenario.

This is the case of Brazil, which within a hundred years will have ceased to be a young country to become country of elderly people. Besides this being quite a short time interval, when considering the demographic dynamics, the analysis of the Brazilian context also allows to imply that the country has wasted some decades, since little progress was achieved during the twentieth century regarding optimal use of the demographic dividend. Such waste is primarily due to low investments in building the population capabilities.

Thus, despite the growth of the country in this period, a significant part of the population was kept in poverty and without access to education, thereby undermining the present and future opportunities of millions of Brazilians. At the same time, the country relied upon external resources either to invest in projects of questionable social interest such as the construction of Brasilia, the Federal District, or to support dictatorial regimes. The practical consequence of this policy was compromising two decades of development, especially because of recession, high inflation rates and unemployment that continued through the years 1980-1990.

So, we may observe that it is just at the dawn of the 2000s that the country starts to take advantage of its demographic dividend, based on a new economic boost and, fundamentally, according to a perspective that focused on social issues. In this sense, a concern is observed in this period about conveying economic growth into building the population capabilities and widening their opportunities.

Therefore, a significant reduction in poverty is observed in Brazil, as well as the consequent induction of upward social mobility among the poorest people. At the same time, with inflation already controlled since the 1990s, the labor market remained heated, and, most importantly, there was a promotion of the access to education and qualification.

By raising income of its population, avoiding unemployment that causes the waste of productive potential and providing opportunities for qualification, Brazil, although belatedly, has undertaken adequate measures to take advantage of the demographic dividend. Their effects was also felt in Rio Grande do Sul, though in a lower degree, despite this state being at a more advanced stage of age structure change if compared to Brazil. According to the analyzed data, it seems that in Rio Grande do Sul the concern with the demographic transition has only recently become part of the state's agenda.

Yet, it is in the Brazilian countryside that the results of the demographic transition have been more latent, particularly because this social space comprises a significant part of Brazilian poverty and, therefore, provides few opportunities to the youth living there. These latter, in turn, leave the rural areas searching better opportunities in the cities. Thus, despite the identified improvements in the conditions of this population, the rural areas are still undergoing a process of population ageing and male predominance.
At the same time as rural youth have increasingly moved away to cities in search of better opportunities, a disturbing reality is noted as to their entry into the labor market and the educational system. It was found that a considerable proportion of young people, either from rural areas or not, are living in a condition of social inertia, since they are neither working nor studying, thus wasting a lot of their productive potential.

Considering that the Brazilian population ageing is an impending process, one cannot deny that youth play a strategic role. Besides being necessary to expand both their capabilities and the opportunities for this social stratum, it is indispensable to pay special attention to the young people that "neither work nor study", given that, more than undermine the current development of the country and the proper use of the demographic bonus, this fact puts future generations at risk, either because of a possible workforce shortage or because they may be unable to recover the lost time. Thus, considering the strategic role of youth in the process of demographic transition, taking young people out of social inertia seems to be the major current challenge to Brazil in the near future.

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NOTES

1. Gini index.
2. This rate was estimated at 1.9 children per woman by the demographic census of 2010. This difference, however, does not necessarily mean a further reduction in fertility in the two years meantime between surveys, since we must take into account that they are based on distinct methodologies.
3. The perspective of the demographic transition as a "demographic bonus" is just one of several theoretical approaches that deal with this subject. Nevertheless, considering the central purpose of this article – namely, to examine the implications of the demographic transition in Brazil and in Rio Grande do Sul, this theoretical debate will not be dealt with here.
4. These rates are drawn from PNAD 2012, conducted by IBGE (2013).
5. According to a study by Cargnin et al. (2013, p. 9-10) the aging rate of the population of RS has virtually doubled between 1991 and 2010, rising from 19.4 to 40.7 in the period.
6. It is worth emphasizing that the demographic transition is only one among a number of factors that may contribute to the development. Hence, it shall be associated to other elements in order to meet its potential as development promoter.
7. The so-called "Brazilian miracle" occurred during period of military governments, in the 1970s, when, supported by substantial foreign loans, the governments maintained an "artificial" economic growth in the country, although having invested in road infrastructure with the consequent dilapidation of railways.
8. According to this author, given the absolute size of the Brazilian population, the internal market was able to develop based just on the consumption of the higher classes – the nearly 30% of the population that comprised the so-called “Brazilian Belgium” (BACHA, 1979)
9. A calculation was set, which adds the annual inflation rate to half of the growth rate for Gross Domestic Product (GDP), for establishing the annual factor of adjustment to the minimum wage.
10. For this conversion, it was used the exchange rate of 4 July 2014, when US$ 1.00 was equal to R$2,21.
11. At the end of 2013, the unemployment rate was 7.3%, although any comparison with recent periods should be made carefully, for a change has been introduced in the calculation method.
12. For a more in-depth debate on the implications of age structure transition on social security, see Turra and Queiroz (2009).
13. The creation of good educational prospects for the country is also helped by a recently approved law that earmarks a proportion of the pre-salt layer royalties for education and for health – 75% for education and 25% for health.
14. The selectivity of migration flows has also some regional specificities, as in the Northeast, for instance, where migrants are largely men who leave in search of work, while women remain on farms. Since one of the objectives of this work is to analyze the demographic transition focusing on Rio Grande do Sul, we chose to emphasize the analysis of the specificities of this region of the country.
15. According to Brazilian legislation, youth can now enter the labor market at the age of 14 as apprentices and, at 16 as regular workers. Likewise, legislation provides incentives to companies willing to open entry level jobs for young people, and specific benefits for interns.
16. Because the publication of these data is quite new, it was not possible yet to undertake their analysis according to the place of residence.
17. The foreign debt is certainly not the only cause to explain the difficulties faced by the country in that period; there were other adopted guidelines that lie beyond the scope of this paper.

ABSTRACTS

Although later than other countries, Brazil is experiencing a demographic transition. While urbanization reaches its apex in the country, with 84.3% of its population living in urban areas, ongoing demographic changes are reflected in both birth rates and the age pyramid. Studies show that Brazil is enjoying a demographic “bonus”, i.e., the proportion of working age population has grown at higher rates than the decrease in dependency rates, thus creating a favorable scenario for economic development that should last until 2050. However, in recent years, a significant drop in total fertility rates was observed. It is now at 1.8 children per woman, hence below replacement level, although this average bears notable regional disparities. In this paper, we examine demographic transition in Brazil, based on the case of Rio Grande do Sul, the Brazilian state that undergoes a faster change in age structure, exhibiting the country’s lowest fertility rate – 1.6 children per woman – and the highest proportion of elderly, 9.3%. The approach based on youth is justified for the strategic role they play in the development process, since they will be responsible, in the future, for sustaining this aged population. Recent evaluations of social mobility in Brazil revealed that it has impacted chiefly the rural areas, and also that young people have been its main beneficiaries, since their families have more resources for investing in their education and qualification. The paper is organized into four sections, besides introduction and final remarks. In the first one, we analyze the distinct aspects of demographic transition in Brazil. Secondly, we feature the case of Rio Grande do Sul, where this process is more advanced. The third section, in turn, focuses on Brazilian social mobility and its repercussions on demographic transition. At last, the effects of this phenomenon on rural areas are examined, notably on youth, which have a strategic role in taking advantage of demographic transition and, nevertheless, have a significant segment affected by social inertia.
que les jeunes gens ont été les principaux bénéficiaires, car leurs familles ont plus de ressources pour investir dans leur formation et leur qualification. Le document est divisé en quatre sections, en plus de l'introduction et des remarques finales. Dans la première, nous analysons les aspects distincts de la transition démographique au Brésil. Ensuite, nous présentons le cas de Rio Grande do Sul, où ce processus est plus avancé. La troisième section, à son tour, met l'accent sur la mobilité sociale brésilienne et ses répercussions sur la transition démographique. Enfin, les effets de ce phénomène sur les zones rurales sont examinés, notamment pour les jeunes, qui jouent un rôle important dans la transition démographique malgré un segment important touché par l'inertie sociale.

INDEX

**Keywords:** demographic transition, economic growth, social mobility, youth, Rio Grande do Sul

**Mots-clés:** transition démographique, croissance économique, mobilité sociale, jeunesse, Rio Grande do Sul

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