Evolución del Bono Demográfico en Argentina (1950-2040)

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Introduction

The most widely used theory in demographic science to describe demographic change in populations is the so-called "demographic transition theory" (DTT). It explains population variations over time based on the evolution of crude birth and death rates, i.e. in the framework of a closed population (Thompson, 1929; Landry, 1934; Glass, et al., 1965; Notestein, 1945; Tabutin, 1980). It states that societies undergoing a process of modernisation evolve from a pre-modern regime of high birth and high mortality to a post-modern state in which both demographic indicators are low (Kirk, 1999; Torrado, 1990; ECLAC-CELADE, 1993).

This theory originated to define and describe population change in Europe and the United States. The United Nations Division of Economic and Social Affairs considered that "as it stands, the theory of demographic transition is an interpretation of turning points of changes in demographic evolution, rather than a system of logically coherent and explicit relationships providing a basis for relevant deductions and predictions of future developments" (Arango, 1980:172). Furthermore, empirical analysis, using historical population data, shows that demographic changes in many countries are far from being able to adapt to the regularity proposed by TTD. It is important to highlight that the strongest assumption on which TTD is based is that it is a closed population, i.e. it does not take into account migratory dynamics[2].

This represents a clear limitation of its explanatory power, especially in the case of Latin American and Caribbean countries, where the migration factor plays an important role in interpreting the differences between countries in the region with respect to population

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[2] The methodological framework of TTD is restricted to considering only the evolution of vegetative growth - fertility and mortality. Migratory behaviour, which is key to understanding part of the demographic dynamics, is left out of the analysis (Demeny, 1968).

growth and changes in the age structures of populations (Manzano, 2015a). Linked to the latter is the concept of "demographic bonus" or "demographic dividend" -the subject of this article-, first presented in 1998 (UNFPA, 1998). The demographic dividend refers to a relative increase in the working population compared to the elderly and young dependents. The time period of the demographic bonus represents a historic opportunity to invest in health and education, accumulate human capital and generate further economic growth[3]. The more the stage of the demographic bonus period - a significant increase in the share of the potentially active population (PET) - can be harnessed for economic benefit, the more the burden of a growing elderly population will be alleviated in the years after the bonus disappears.

Heterogeneities of the demographic bonus in Latin America. The Argentinean case.

In this section we will focus on highlighting the heterogeneity in age structures across countries in the region - we differentiate between the three age groups: under 15, between 15 and 64, over 65 and over. To compare countries in the same stage of demographic transition, we will use the classification generated by ECLAC (2008), which divides Latin American countries into four different stages in terms of progress in the DTC: very advanced, advanced, full and moderate. In this way, the 20 countries that make up the Latin American region will be distributed in each of the categories as follows:
- T. Very advanced: Cuba
- T. Advanced: Argentina, Brazil, Chile, Colombia, Mexico, Uruguay and Costa Rica.
-T. Full: Peru, Venezuela, Dominican Republic, Ecuador, El Salvador, Honduras, Nicaragua, Panama, Paraguay.
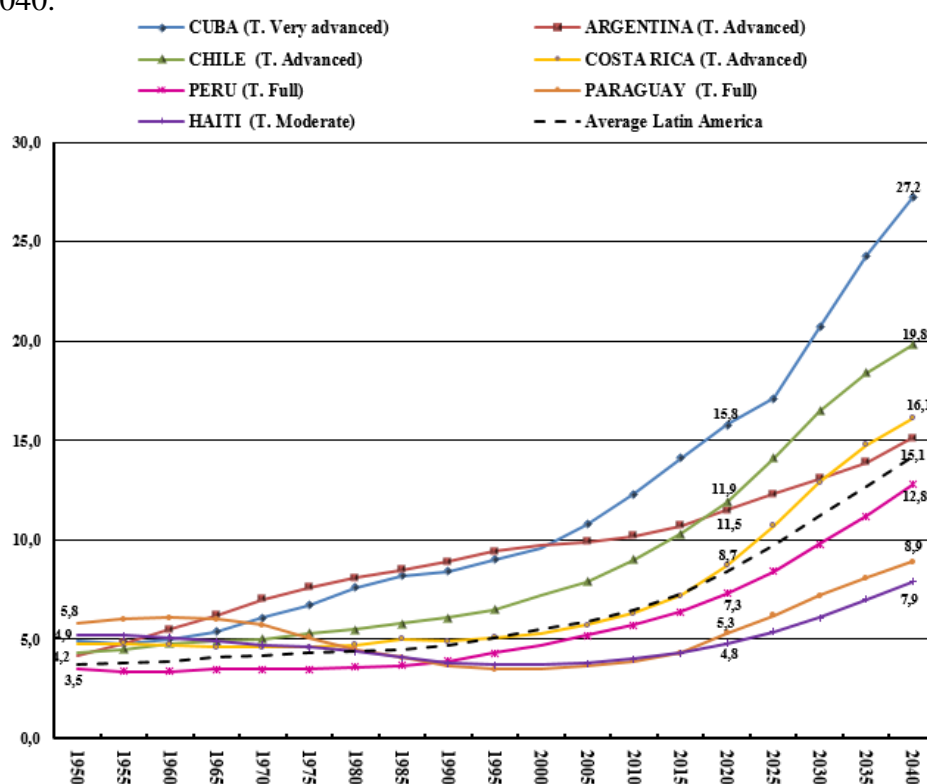- Moderate T: Bolivia, Guatemala and Haiti.

Considering the large age group of young people under 15 years of age, **Graph N°1** shows that during the period 1950-2020, a convergence trend in the share of the under-15 age group in the total population in Latin American countries was far from predominant. The gap in the percentage of children under 15 years of age between the

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[3] According to Pinto Aguirre (2011:107): "The demographic bonus is defined as the economic benefit derived from a demographic change.

countries of the region increased between 1950 and 2020 by 11.1 percentage points (p.p.) to 16.3 percentage points (p.p.).

Argentina, unlike the rest of the countries, shows a slight increase in the percentage of the population under 15 years of age during the periods 1950-1960 and 1980-1990. In 1950, it had the lowest percentage of population under 15 years of age in the region - only 30.5 per cent - and in 2020 it reaches a value of 23.3 per cent. These divergences between Argentina and Uruguay are due to the strong weight of the international migratory component in the demographic dynamics of both countries.

Graph N°1. Percentage of children under 15. Selected Latin American countries. Period 1950-2040.
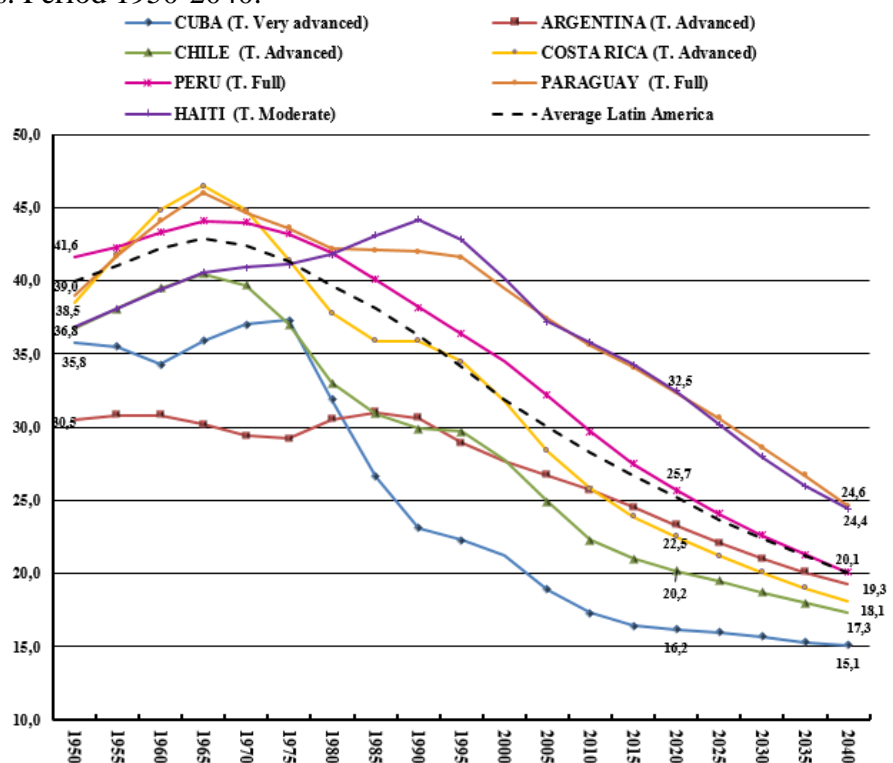

Source: Prepared by staff based on population projections[4] (ECLAC, 2016).

In addition, there is no trend towards convergence over time in the levels of ageing among the countries of the region. In 1950, the difference between the most aged country (Paraguay) and the least aged (Peru) was 2.3 p.p., while in 2020 the gap will be 9.2 p.p., with Haiti and Cuba being the least and most aged, respectively (see **Graph N°2**).

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[4] Comisión Económica para América Latina y el Caribe (CEPAL) (2016), Observatorio Demográfico, (LC/PUB.2017/3-P), Santiago.

In Argentina, the population over 64 years of age represented 4.2% in 1950. This group has increased steadily in all five-year periods, reaching 11.2% in 2020, with a relative increase of 173.8% for this age group.

Graph N°2. Percentage of the population aged 65 and over. Selected Latin American countries. Period 1950-2040.

It remains to analyse the intermediate population group, between 14 and 65 years of age - the potentially active population (PET) - which is the most relevant because the demographic bonus implies a positive relationship between this percentage and the potential economic growth of a country. **Table 1** shows the level of heterogeneity in the percentage of the TAP among Latin American countries, according to five-year periods, during the period 1950-2040. The highest average PET percentage during this period in the region corresponds to Argentina and Uruguay -both in an advanced transition stage-, which also stand out for the low variability in this indicator. This allows us to affirm that the remaining countries during the period 1950-2040, regardless of their transit through the demographic bonus period, present higher average values of demographic dependency burden than Argentina and Uruguay. This result contradicts one of the premises of the theorists of the demographic bonus, who consider that there is a trend

towards convergence in the percentage of the PET among the countries of the region - therefore, the equalisation of GDP per capita as a result of the demographic dividend would not be fulfilled either- (Manzano, 2016).

Table N°1. Extent and Structure of the Demographic Bonus, according to ECLAC classification (2008). Selected Latin American countries. Period 1950-2040.

Years	Percentage of population between 15 and 64 years old							
	CUBA (T. Very advanced)	ARGENTINA (T. Advanced)	CHILE (T. Advanced)	COSTA RICA (T. Advanced)	PERU (T. Full)	PARAGUAY (T. Full)	HAITI (T. Moderate)	Average Latin America
1950	59,3	65,3	59,0	56,7	54,9	55,2	58,0	56,3
1955	59,7	64,4	57,4	53,4	54,3	52,3	56,7	55,2
1960	60,7	63,7	55,7	50,5	53,3	49,8	55,5	53,9
1965	58,7	63,6	54,6	48,9	52,4	48,0	54,5	53,0
1970	56,9	63,6	55,3	50,6	52,5	49,6	54,4	53,4
1975	56,0	63,2	57,7	54,0	53,3	51,3	54,3	54,4
1980	60,5	61,4	61,5	57,5	54,5	53,3	53,8	55,9
1985	65,2	60,5	63,3	59,1	56,2	53,8	52,8	57,4
1990	68,5	60,5	64,0	59,2	57,9	54,3	52,0	59,0
1995	68,7	61,7	63,8	60,4	59,3	54,9	53,5	60,8
2000	69,2	62,6	65,0	62,9	60,8	57,0	56,1	62,6
2005	70,3	63,4	67,2	65,9	62,6	58,9	59,0	64,1
2010	70,4	64,1	68,7	67,9	64,6	60,5	60,2	65,2
2015	69,5	64,8	68,7	68,9	66,1	61,6	61,4	66,0
2020	68,0	65,2	67,9	68,8	67,0	62,3	62,7	66,4
2025	66,9	65,6	66,4	68,1	67,5	63,2	64,4	66,6
2030	63,6	65,9	64,8	67,0	67,6	64,2	65,9	66,4
2035	60,4	66,0	63,6	66,2	67,5	65,2	67,0	66,1
2040	57,7	65,6	62,9	65,8	67,1	66,5	67,7	65,7

Bonus 1	Bonus 2	Bonus 3

Source: Prepared by staff based on population projections (ECLAC, 2016).

An additional problem arises from the above, which is the lack of an exact measure of the start and end boundaries of the demographic bonus period. **Table 1** considers a division into three phases: in the first (bonus 1) the PET percentage increases, but remains below 60% -two dependents for every three persons of working age-; in the second (bonus 2), the PET percentage continues to rise, values are above 60% -less than two dependents for every three persons of working age-; in the third (bonus 3) the PET percentage starts to decrease due to the proportional increase of older persons, but still remains at values above 60% (ECLAC, 2008; Manzano, 2016).

We see that, for example, in the period 1950-1965 the selected countries, including the average of Latin American countries -with the exception of Cuba and Argentina-, would not be included in any of the phases of the demographic bonus.

In the particular case of Argentina, it starts from an advantageous situation, with a PET percentage of over 60%. In 1950 it starts in stage 3, then falls back to stage 2, and from 2035 onwards it would return to stage 3. At no time in the period 1950-2040 does it reach

a PET percentage lower than 60% - the dependency ratio would always be higher than two dependents for every three people of working age. Despite this demographic advantage, Argentina stood out in the region for its fall in GDP per capita between 1950 and 2020.

The incidence of migration flows in Argentina

The geographical areas are affected to different extents by the migratory component - from predominantly expelling areas to others with a high attraction of population previously resident in another destination-. This produces changes in the age composition over time, not only due to the declining effect of mortality and fertility -the vegetative component highlighted by the TTD-, but mainly due to the more erratic and unpredictable behaviour of migratory flows (Delaunay et al., 1990).

To summarise the evolution of Argentina's population growth. In the first place, the period between 1869 and 1914 of accelerated population growth stands out, due to the good results of the policy of encouraging immigration from overseas. In 1914, Argentina was the country in America with the highest percentage of foreign immigration (Lattes et al., 1986). The international scenario following the world crisis of 1929 led to a decline in immigration from overseas. After the Second World War, there was a change in the international migration pattern, where immigrants of regional origin gained more weight (Manzano and Velázquez, 2017).

Conclusions

We have observed that, in the case of Latin America, the situations are quite diverse with respect to the patterns affirmed by the TTD. The behaviours of Argentina, Haiti and Paraguay stand out, countries that have a very significant weight of the migratory component in their population growth.

In contrast to the TTD assumptions, the gap in the levels of ageing and in the percentage of children under 15 years of age increased, and as a consequence, the gaps in terms of dependency burden increased - regardless of the occurrence of the demographic bonus in each of the countries of the region - with Argentina standing out for its lower demographic burden, as a result of the strong weight of the international migratory component.

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