

**Demographic Sweet Spot and Dividend in the  
Philippines:  
The Window of Opportunity is Closing Fast**

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### **ABSTRACT**

In the last 60 years, the age structure of the population has been rapidly changing in most countries all over the world and this phenomenon, given the right economic policies in the labor market, health, governance and economy, has created a rare window of opportunity for countries to experience rapid economic growth over a relatively long period. The idea behind this link between population dynamics (or changing age structure) and economic development is the demographic transition. The demographic transition is described as a change from a situation of high fertility and high mortality to one of low fertility and low mortality. A country that enters into a demographic transition experiences sizable changes in the age distribution of the population. The changes in the age structure are foreseeable consequence of the demographic transition. These changes, coupled with the right policies, affect economic growth.

Studies that investigated the impact of the demographic transition on economic growth have shown that demographic transition accounts for a sizeable portion (about one-third) of the economic growth experienced by East Asia's economic "tigers" during the period 1965 to 1995. It is depressing to note that unlike most of its Southeast and East Asian neighbors, the Philippines failed to achieve a similar demographic transition in the past decades. In all of these countries (including the Philippines), the mortality rates broadly declined at similar pace. However, fertility rates dropped slowly in the Philippines resulting in relatively high population growth rate for the country, compared to its neighbors in Asia. Thus, the demographic window of opportunity is closing fast for the country.

This paper looks at the population structure of the country from 2010 to 2100, using actual census data from the Philippine Statistics Authority (PSA) and projections on future population from the United Nations (UN), to estimate the period when the country will experience the demographic window of opportunity. The paper will show that at current conditions (baseline scenario), there is a high probability that the country will entirely miss this rare opportunity of additional economic growth, over a long period of time, due to the demographic dividend. This is primarily so because of challenges related to the relatively high fertility rates, particularly among the poorest households, and the relatively high unemployment rate, particularly among the youth population. The paper will then provide counterfactual conditions, from the results of the econometric models, and simulate alternative scenarios resulting from fine-tuning certain policy handles.

Key Phrases: Demographic Transition, Demographic Dividend, Effective Worker, Effective Consumer, Support Ratio

# **Demographic Sweet Spot and Dividend in the Philippines: The Window of Opportunity is Closing Fast**

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## **I. Introduction**

In the last 60 years, the age structure of the population has been rapidly changing in most countries all over the world and this phenomenon, given the right policies in the labor market, health, governance and economy, has created a rare window of opportunity for countries to experience rapid economic growth over a relatively long period. The idea behind this link between population dynamics (or changing age structure) and economic development is the demographic transition. The demographic transition is described as a change from a situation of high fertility and high mortality to one of low fertility and low mortality (refer to Figure 1.1). A country that enters into a demographic transition experiences sizable changes in the age distribution of the population. The changes in the age structure are foreseeable consequence of the demographic transition. These changes, coupled with the right policies, affect economic growth.

The demographic transition has three phases, with each phase having a different impact on the economy. The first phase of the demographic transition is triggered by an initial decline in infant mortality (death rate) but fertility (birth rate) remains high, resulting in the swelling of the youth dependency group (like the Philippines in figure 1.2). This phase creates a challenge to the economy as scarce resources are channeled to consumption rather than investment, as demand for basic education, primary health care, and other population-related services increases, thereby hindering economic growth.

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The second phase of the demographic transition (like Thailand in figure 1.3) is when the proportion of working-age population (defined as those aged 15 to 64) is larger relative to the young dependents (0 to 14 years) and the older population (65 years and above). This is the phase when the number of productive working age population is the highest. The policy challenge at this stage of the demographic transition is how to absorb the growing working age-group, particularly those coming from the aged 15 to 24 group (the first group to enter the labor market). If employment opportunities expand, the second phase of the demographic transition will accelerate economic growth. The third and last phase of the transition (like Japan in figure 1.4) is when the older cohort (those aged 65 years and above) swells relative to the total population. The growing aging population during the third phase of the demographic transition can create a slowdown in the country's economic growth as the number of consumers (the older population) grows faster compared to productive workers.

Figure 1.1. Declining Mortality, Declining Fertility and the Demographic Transition

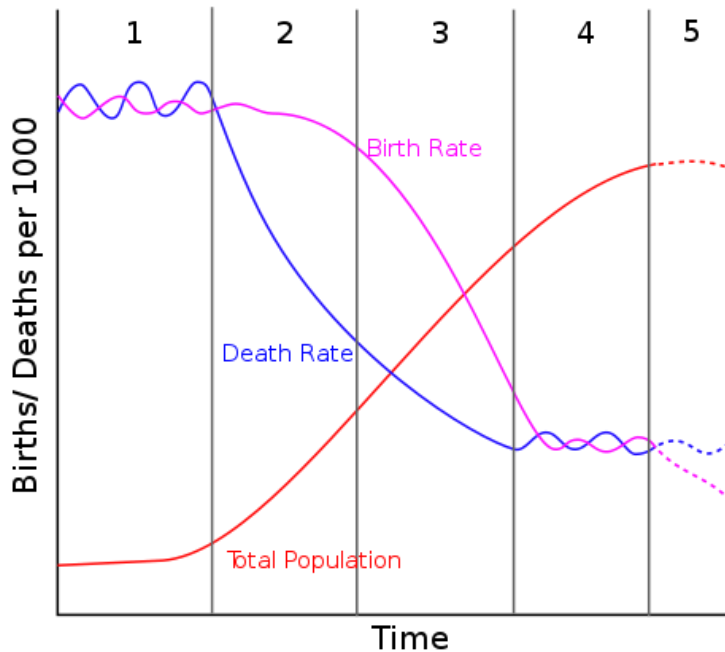


Figure 1.2. Phase One of the Demographic Transition

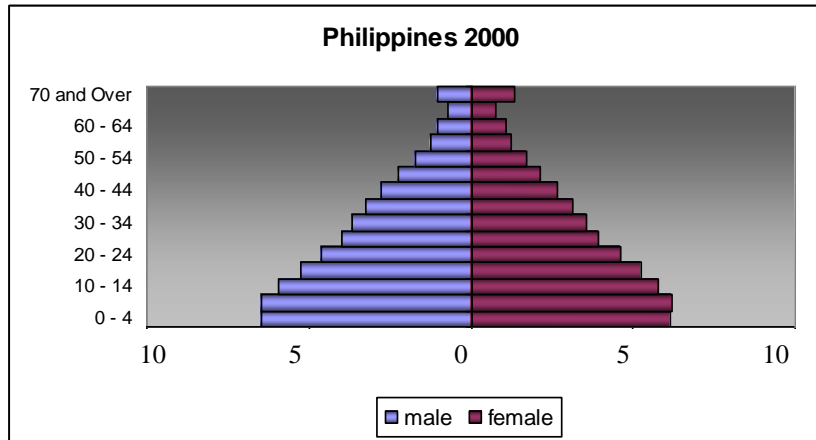


Figure 1.3. Phase Two of the Demographic Transition

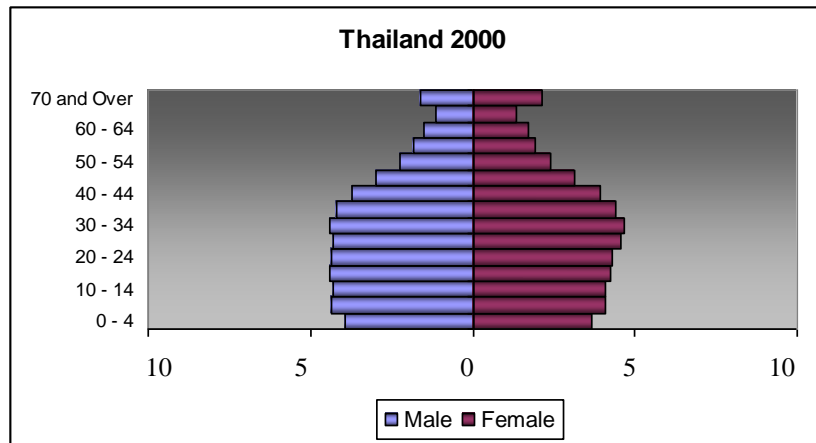
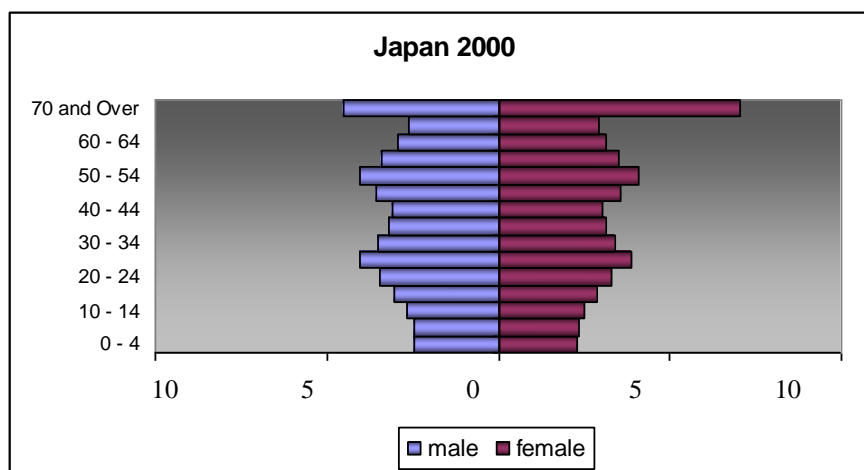


Figure 1.4. Phase Three of the Demographic Transition



## **1.1. Demographic Window of Opportunity and Demographic Dividend**

Studies [Bloom and Williamson (1997), Bloom and Canning (2001), Bloom, Canning and Sevilla (2001) and Radelet, Sachs and Lee (1997)] that investigated the impact of the demographic transition on economic growth have shown that demographic transition accounts for a sizeable portion (about one-third) of the economic growth experienced by East Asia's economic tigers during the period 1965 to 1995. It is sad to note that unlike most of its Southeast and East Asian neighbors, the Philippines failed to achieve a similar demographic transition in the past decades. In all of these countries (including the Philippines), the mortality rates broadly declined at similar pace. However, fertility rates dropped slowly in the Philippines resulting in relatively high population growth rate for the country, compared to its neighbors in Asia. Due to this slow reduction in the fertility rate, the country may not be able to benefit fully from the demographic dividend and the demographic window of opportunity is closing fast for the country.

### First Demographic Dividend

The effect of the demographic transition on income growth is referred to as the first demographic dividend. In the course of the demographic transition, countries experience an increasing share of the working age population relative to the total population and this creates a favorable effect on the per capita income. To measure the impact of the demographic transition on income growth in the Philippines, Mapa and Balisacan (2004), using cross-country data from 80 countries over the period 1975 to 2000, showed that differences in the population structure of Thailand (at that time in the second phase of the demographic transition) and the Philippines (first phase of the demographic transition) account for about 0.77 percentage point of forgone average annual growth (missed first dividend) for the Philippines from 1975 to 2000. This forgone growth accumulates to about 22 percent of the average income per person in the year 2000. This forgone growth is even more impressive when translated into monetary values. It would have meant that rather than a per capita GDP of US\$993 for the year 2000, Filipinos would have gotten US\$1,210 instead. Moreover, poverty incidence would have been reduced by about 3.6 million. Fewer Filipinos would have been counted among the poor by the year 2000.

In the follow-up study of Mapa, Balisacan and Briones (2006) to measure the missing first dividend, this time using Philippine provincial data from 1985 to 2003, the authors showed that a one-percentage point increase in the proportion of young dependents in 1985 (proxy for the demographic transition variable) results in an estimated 9 basis points decrease in the average growth rate of income per person in the provinces from 1985 to 2003, controlling for other factors. This shows that had the provincial average proportion of young dependents in 1985 been lower at 36 percent (which is the average for the lowest 10 provinces) rather than a high of 42 percent (the actual value), the average per capita income growth could have risen by 0.63 percentage-point per year, representing an increase of 7.12 percent in the average per capita income in 2003.

### Second Demographic Dividend

In addition to the commonly identified first dividend, Mason (2007) discussed another form of dividend from the demographic transition and refers to it as the second demographic dividend. The second demographic dividend is realized from the society's response to the prospect of an aging population, an outcome as the nation's age structure enters into the third phase of the demographic transition. The challenge faced by societies (and governments) when there is a substantial percentage of the older population is how to support their consumption, given a reduction in their income. There are common approaches to this problem and these include: (a) relying on public (or familial) transfer systems and (b) increasing saving rates and (c) accumulating greater physical wealth or capital.

Individuals accumulate savings in their working years and this serves as a buffer during the retirement years. While accumulation of capital can be used to deal with the life-cycle deficit

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