Policy Notes

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High Fertility Rate and High Youth Unemployment: Twin Challenges to the Demographic Dividend for the Country

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I. Demographic Transition, Demographic Dividend and Economic Growth

As countries move from large families (high fertility rate) and high poverty into small families (low fertility), high living standards and aging, they pass through what is called a ***Goldilocks period***: a generation or two in which fertility rate is neither too high nor too low (The Economist, 2009). This fertility rate consistent with stable population is about 2.1, also known as the replacement rate of fertility. The fall to replacement fertility is a unique and precious opportunity for higher economic growth. This phenomenon is known as the demographic transition, 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 structure of the population. The changes in the age structure are the foreseeable consequence of the demographic transition and coupled with the right policies, affect economic growth. This economic growth driver due to the changing age structure is known as the demographic dividend.

Studies that investigated the impact of the demographic transition on economic growth have shown that demographic dividend 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. Mapa and Balisacan (2004) showed that because of its high population growth, the country has not fully benefited from the demographic dividend. Using cross-country data from 80 countries over the period 1975 to 2000, the authors showed that population dynamics in the Philippines contributed only about 1.06

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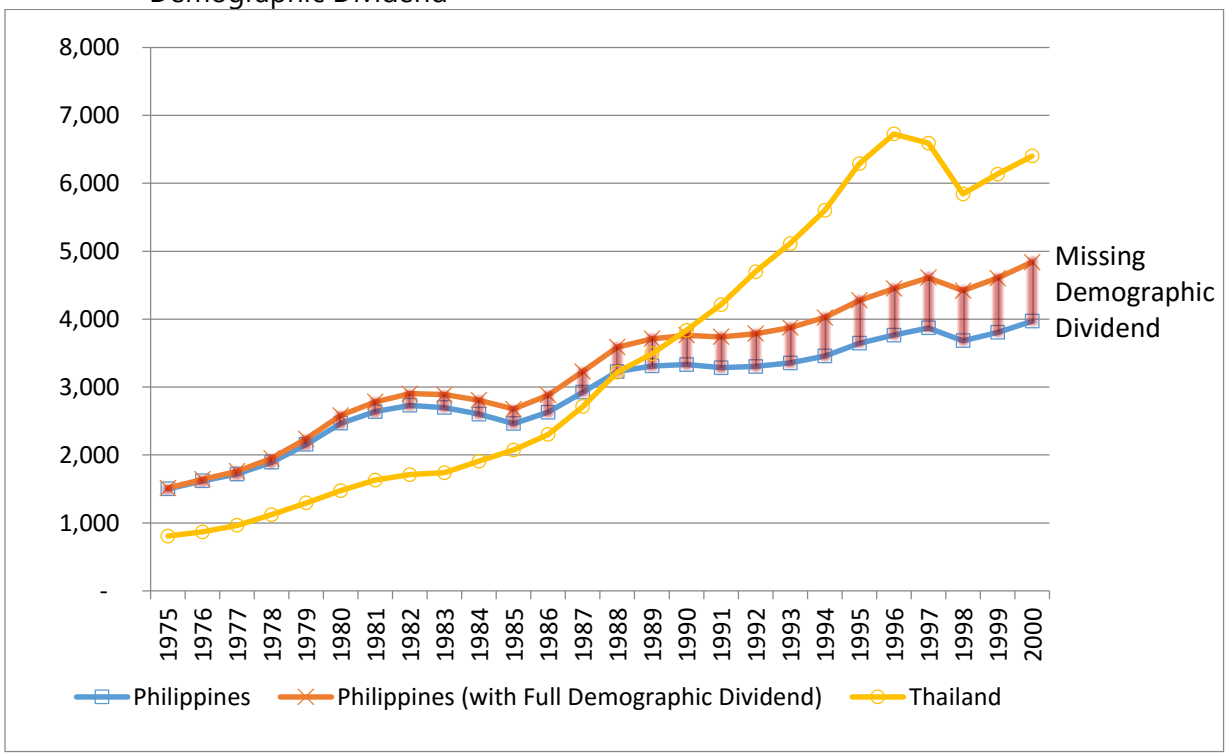
percentage points per year in the average per capita Gross Domestic Product (GDP) growth of the country during the period 1976 to 2000, much lower compared to the estimated 1.83 percentage points in per capita income growth due to the demographic dividend reaped by Thailand during the same period. **This forgone growth, due to the missed full demographic dividend, accumulates to about 22 percent of the average income per person in the year 2000 (refer to Figure 1).**The higher per capita income could have reduced poverty incidence 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) measured the "missing" demographic dividend for the country, using Philippine provincial data from 1985 to 2003. The authors' estimated that average per capita income growth could have risen by 0.63 percentage point per year (close to the cross-country estimate) had the country fully realized the demographic dividend.

Figure 1. Per Capita GDP of the Philippines and Thailand (1975 to 2000) and the Missing Demographic Dividend



II. Twin Challenges to the Demographic Dividend: High Fertility Rate and High Youth Unemployment

A. Challenge Number 1: High Fertility Rate

Lowering the country's total fertility rate is the key to earning the demographic dividend. It is the necessary condition for speeding up the process of the demographic transition. In countries where the demographic transitions occurred (e.g. Japan, South Korea, China, Singapore, Thailand, Vietnam), these have typically been accelerated and triggered by proactive government policies related to the voluntary reduction in fertility rates, particularly among poor households (Sachs, 2008). The figures in Table 1 show the Total Fertility Rates (TFR) for selected countries in East Asia from the period 1960 to 2013. The table shows rich countries that have gone through, and poor countries racing through the demographic transition and achieving the replacement fertility rate of 2.1: Singapore in the mid-1970s, South Korea in mid-1980s, Thailand in 1990, Vietnam and Myanmar in 2006. In the Philippines, reduction in the total fertility rate had been slow, from about 7.0 in 1960 to 3.0 in 2013. This can be attributed to the lack of concrete and proactive government policies on population management aimed at accelerating the demographic transition (e.g., continued low contraceptive prevalence rate).

Table 1. Total Fertility Rate (TFR) in the ASEAN and South Korea (1960-2013)

Country	Year						
	1960	1970	1980	1990	2000	2006	2013
South Korea	5.7	4.5	2.8	1.6	1.5	1.1	1.2
ASEAN 5							
Singapore	5.5	3.1	1.7	1.9	1.4	1.3	1.2
Thailand	6.4	5.3	3.2	2.1	1.9	1.9	1.4
Philippines	7.0	6.2	5.2	4.3	3.6	3.3	3.0
Malaysia	6.8	5.5	4.2	3.7	3.0	2.7	2.0
Indonesia	5.5	5.4	4.4	3.1	2.4	2.2	2.3
Rest of SouthEast Asia							
Vietnam	6.1	5.9	5.0	3.6	2.9	2.1	1.7
Myanmar	6.1	6.0	4.5	3.4	2.4	2.1	1.9
Brunei Darussalam	6.8	5.6	4.0	3.2	2.6	2.3	2.0
Cambodia	6.3	5.8	5.8	5.7	4.0	3.3	2.9
Lao PDR	6.4	6.4	6.4	6.1	4.0	3.3	3.0

Source: World Development Indicators, World Bank; TFR is the average number of children a woman would bear during her lifetime given current age-specific fertility rates

The situation is even critical when one looks at the TFR of the poorest 20 percent of the households in the country. **In 2013, the TFR for this group of households is still**

registering a high TFR of 5.2, unchanged since 2008. The TFR of the poorest households in the Philippines is almost the same as the country's average TFR in 1980. Given the strong relationship between the number of children and poverty incidence, it is not surprising these households are caught in the vicious cycle of high fertility and poverty.

Table 2. Wanted and Actual Total Fertility Rate (TFR) by Wealth Quintile in the Country (2013)

Wealth Quintile	Actual Total Fertility Rate	Wanted Total Fertility Rate	Difference
Lowest	5.2	3.3	1.9
Second	3.7	2.5	1.2
Middle	3.1	2.2	0.9
Fourth	2.4	1.9	0.5
Highest	1.7	1.4	0.3

Source: National Demographic and Health Survey (NDHS), Philippine Statistics Authority (PSA)

What is surprising from the figures in Table 2 is that **poor households do not want a bigger family size**. The tables show that, for the poorest 20 percent of the households in the country the wanted total fertility rate is only 3.3 in 2013 – lower than the actual 5.2 recorded TFR. Wanted fertility rate is the estimated total fertility rate if all unwanted births were avoided. This shows that poor households aspire for a lower family size, given a choice.

The government already has a policy lever that can help households achieve the desired or wanted level of fertility rate. This policy handle is the Republic Act No. 10354 entitled, *"An Act Providing for a National Policy on Responsible Parenthood and Reproductive Health"* (popularly known as the RH Law of 2012). Implementing the provisions of the law fully will have a significant impact in lowering the country's overall fertility rate, particularly among the poorest 20 percent of the country's population, where the TFR number is still high. One quick way is to increase the Contraceptive Prevalence Rate (CPR) from the current 55 percent. The government should target a CPR of 70 percent in the next 5 years and biased in favor of using the modern methods. This target will be in line with the CPR of other ASEAN countries that went through the demographic transitions, notably Thailand with CPR of 79 percent in 2012 and Vietnam with CPR of 78 percent in 2011.

Potential Roadblock to Demographic Dividend: Population Momentum

In addition to the country's relatively high TFR, **another constraint may lead to the further delay in harvesting the demographic dividend in the country: the population momentum.** The numbers in table 3 present the percentages of women that are of child-bearing age (overall women in the population). In 2010, this represents more than 52 percent (or about 24 million) of all women and is expected to peak in 2015 (reaching 26 million). If these women decide to have children, it will have a tremendous effect on the future population growth of the country. Herrin and Costello (1996) identified

three possible sources of future population growth (estimated at an average of 1.90 percent per year during the period 2000 to 2010): (a) unwanted fertility, (b) wanted fertility and (c) population momentum. The authors' estimates show that population momentum will contribute the largest, at 65 percent, to the future population growth; unwanted fertility will contribute about 16 percent and wanted fertility adding another 19 percent.

Table 3. Percentage of Women in the 15-49 Years Age Group

Year	Percentage of Women in the 15-49 Age Group
2010	52.16
2015	52.33
2020	51.83
2025	51.64
2030	51.53
2035	51.47
2040	51.15
2045	50.31
2050	49.58

Source: PSA, Projections using the 2010 Census

B. Challenge Number 2: High Youth Unemployment

It should be emphasized that **demographic dividend is not automatic**. While lowering the country's fertility will trigger the demographic transition, it simply creates a demographic window of opportunity that should be given the right kind of policy environment to produce a sustained period of economic growth (the demographic dividend). The growing number of adults (particularly those aged 20 to 24, the first to enter the labor force) will be productive only when there is flexibility in the labor market to allow expansion. Government policies play the vital role to guarantee the creation of this demographic dividend.

Changes in the age structure of the population affect the growth of the economy because people earn and consume at different levels over their lifetime. For example, working adults in the aggregate produce more than they consume, while young children and the older group consume more than they produce. Understanding what happens during the economic lifecycle, which varies depending on the population structure of the economy, is essential to

understanding the strength of the potential demographic opportunity for the country. Researchers (particularly Ronald D. Lee and Andrew Mason) working at the National Transfer Accounts (NTA) project of the East-West Center developed a method of quantifying the impact of the economic lifecycle of countries over a period of time through the computation of the **support ratio** of the country. The support ratio is simply the **ratio of the effective number of workers** over the **effective number of consumers** of the country at any given time. The authors defined one effective worker as *"a person earning the average income of a person in the prime working age group, at 30-49"* (NTA, 2012). Moreover, those at each age group are counted based on their labor income relative to the prime working age group. For example, a person in his 50s may earn higher compared to the average in the 30 – 49 age group and thus be counted as more than one effective worker. A person in his 20s will most likely earn less than the average in the prime-age group and thus will be counted as less than one effective worker. The effective number of consumers in a country is computed in a similar manner by weighting the population by the average consumption at each age group, using the average of the 30-49 years old as the benchmark (one effective consumer). The support ratio is then computed from the number of effective workers over the number of effective consumers.

A support ratio of 0.5 simply means that each worker, on the average, is supporting himself/herself together with one other consumer. **A higher support implies that each effective worker is supporting fewer effective consumers and frees up resources for saving and investment, thereby creating a demographic dividend for the country.** The figures in Table 4 show the labor income ratio of the workers at different age groups, relatively to the prime-age group of workers (30-49). For example, in 2010, the average wage of workers in the 20-24 years group is only about 74% of the average wage of workers in the 30-49. Thus, a worker in the 20 to 24 aged-group will be counted as 0.74 "effective worker". In computing for the number of effective workers, the labor force participation of each aged-group and the corresponding percentage of unemployed workers are also considered. As shown in Table 4, the percentage of unemployed workers is highest in the 20 to 24 aged-group. **The high percentage of unemployment among the young workers has a significant and negative impact on the economic opportunities provided for by the demographic transition.**

Table 4. Labor Income Ratios by AGE Group Relative to the 30-49 Year Old (2010)

Age Groups	LFP Rate	Unemployment Rate	Income Ratio
15-19 years old	31.30	8.62	0.41
20-24	64.80	26.26	0.74
25-29	74.20	9.86	1.00
30-49	77.30	8.14	1.00
50-54	79.10	5.84	1.07
55-64	67.90	2.08	1.17
65 & above	37.80	1.04	0.76
Total	64.10	9.90	

Source: LFS, PSA (2010); LFP – Labor Force Participation

The figures in Table 5 show the average per capita consumption by age group and the consumption ratio relative to the 30 to 49 (prime - age group). For example, a young dependent aged 0 to 14 has a consumption ratio of only 0.64 and thus will be counted as 0.64 "effective consumer". An older member of the population (aged 65 and above) has a consumption ratio of 1.07 and will be counted as more than one effective consumer. The effective number of consumers and effective number of workers can be generated by multiplying the corresponding consumption ratios and labor income ratios with the population size by age group, respectively. Then the support ratio can be computed.

Table 5. Per Capita Consumption by Age Group and Consumption Ratio (Relative to 30 to 49)

Age Group	Average Per Capita Expenditure	Consumption Ratio
0 to 14	Php 22,157.00	0.64
15 to 24	Php 36,057.00	1.04
25 to 29	Php 36,010.00	1.04
30 to 49	Php 34,776.00	1.00
50 to 64	Php 35,946.00	1.03
65+	Php 37,170.00	1.07

Source: PSA

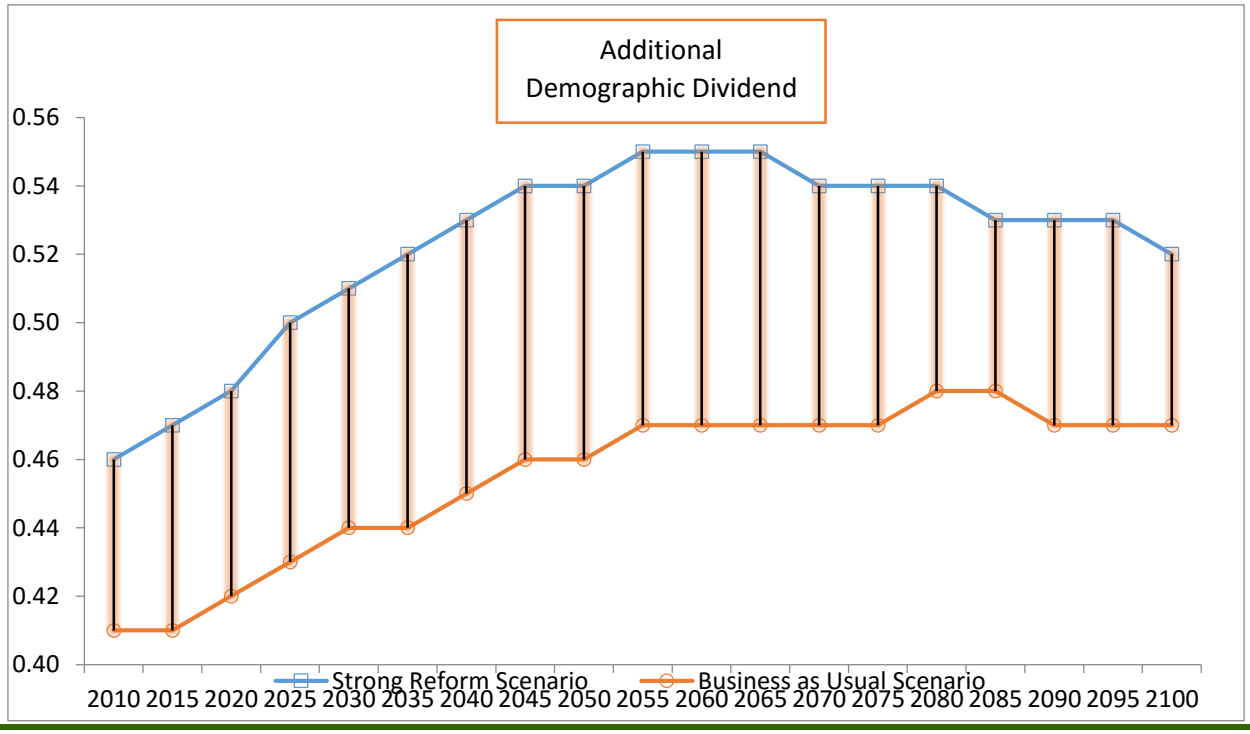
III. Simulating the Impact of the Business-as-Usual and the Strong Reform Scenario

Under the business-as-usual (BAU) scenario, figure 2 shows the support ratio for the country from 2010 to 2100. The highest support ratio the BAU scenario is 0.48 expected to occur in 2080 to 2085! This

means that at best, 48 workers will support themselves plus 52 other consumers, not enough to free resources away from consumption and into saving and investment. **Under the BAU scenario, the country will not benefit much from the demographic window of opportunity.**

What then can the country do to fully maximize the benefits of the demographic dividend? Strong reforms are needed in the areas of population management, investment in human capital and expanding opportunities in the labor market. **Reducing fertility rate is the critical element for the demographic transition.** It is a necessary condition for the creation of this rare window of demographic opportunity for continuous economic growth. Strong political will is needed in order to increase the CPR from the current number of 55 percent to 70 percent. **Continuous investment in the human capital is also important and the additional two (2) years of schooling (particularly for women), resulting from a successful implementation of the K-to-12 program, is a good way to start.** Increasing the years of schooling will also increase the wage income, particularly those of the young workers. But as pointed out in the earlier, the demographic dividend is not automatic. The changing age structure due to the reduction in the country's TFR is a necessary but not sufficient condition for harvesting the demographic dividend. It should be given the right kind of policy, particularly in the labor market to absorb the first batch of young individuals (20 to 24) who will enter the workforce. **Reforms must be made in the labor market to provide the young workers with higher employment opportunities.** The strong reform scenario simulates the case when employment rate is increase coupled with the lowering of fertility rate and increasing the years of schooling (additional two years) that will benefit the young workers. Under the strong reform scenario, the support ratio will be greater than 0.50 starting 2025 and will be highest at 0.55 from 2055 to 2065. This scenario creates a relatively much wider demographic window of opportunity.

Figure 2. Support Ratios under the Business-as-Usual and Strong Reform Scenario



IV. What Must Be Done To Fully Realize The Demographic Dividend?

The country faces a demographic window of opportunity, a rare opportunity for the country to benefit from its relatively young population. This demographic window of opportunity creates the demographic dividend that can further enhance the country's economic growth. **However, the country faces two challenges to the full realization of this demographic window of opportunity: high fertility rate and the high unemployment rate among the young workers.**

Strong reforms are needed if the country is serious about taking advantage of the benefits brought about by the changing age structure. **Lowering the fertility rate is a necessary condition for the creation of the demographic window of opportunity.** The country must strengthen public efforts in order to speed up the voluntary reduction in fertility rates as rapidly as possible. **Full implementation of the Reproductive Health (RH) Law is the key to lowering fertility rate. The government should target a Contraceptive Prevalence Rate of 70 percent in the next 5 years and biased in favor of using the modern methods.**

Lowering fertility rate is a necessary but not sufficient condition for harvesting the demographic dividend. This will further require the correct government policies, particularly in the labor market. The transition from school to the labor force has important consequences for the human well-being and economic growth. As shown by the data, the first to enter the labor market - the young adults - experience challenges associated with high unemployment and low average income. **The highest demographic dividend can be achieved only when the employment opportunities for young adults improved from the current situation.** Without government aggressive efforts to reduce the country's total fertility rate and policies geared towards creating more jobs, the window of opportunity from the demographic transition will close quickly without us even noticing it.

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