# Demographic Sweet Spot and Demographic Dividend: Are we there yet? 

Dr. Dennis S. Mapa<br>Professor and Dean, School of Statistics<br>University of the Philippines Diliman

# THE 'DEMOGRAPHIC SWEET SPOT' IN THE RISE OF THE PHILIPPINE ECONOMY: IS IT FOR REAL? <br> NAST Roundtable Discussion 

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## The Goldilock Period: Demographic Transition and Demographic Dividend

The idea behind the population-and-development orthodoxy is the demographic transition.

As countries move from large families (high fertility rate) into small families (low fertility rate), they pass through what is called a Goldilock period described as a generation or two in which fertility rate is neither too high nor too low.

This fertility rate that is consistent with stable population is about 2.1 (the replacement rate of fertility).
$\square$ The fall to replacement fertility is a unique and precious opportunity for higher economic growth - demographic gift or dividend.

## Demographic Factors and Economic Growth

First dividend - demographic transition results in higher per capita income due to higher productivity as large percentage of population joins the labor force; shifting of government expenditures from education and health services into investment that promotes growth (Mason and Lee; (2006), Mapa and Balisacan (2004), Mapa, Balicasan and Briones (2006, 2008)).
$\square$ Second dividend - individuals accumulate saving in their working years to serve as buffer during their retirement years; when society increases its saving rate this results in rapid economic growth, creating the second demographic dividend (Mason; 2007), (Mapa and Bersales,2008)).

## Policy Lessons from the East Asia Demographic Transition

$\square$ McNicoll (2006) identified some key policy lessons of the demographic transition that played a crucial role in the "East Asian Economic Miracle" (countries studied: China, Indonesia, Malaysia, South Korea, Taiwan, Thailand and Vietnam)

Three relevant government policies that had major influences in accelerating the demographic transition: (a) health services, (b) family planning and (c) education (particularly the secondary education).

In addition, the rising female age of marriage as a major factor in reducing the fertility rate in the East Asian region.

## How to harvest the demographic dividend?

$\square$ Advocates of speeding the demographic transition placed emphasis on the need of public efforts to speed up the voluntary reduction in fertility rates as rapidly as possible.
$\square$ Sachs (2008) pointed out that "demographic transitions, where they have occurred, have typically been accelerated and even triggered, by proactive government policies."

There is a need to influence public policies that play an important role in assisting, particularly the poor households, the achievement of voluntary reduction of fertility rates.

## Demographic Dividend is NOT Automatic

Demographic dividend, while essential to economic growth, is not automatic!
$\square$ It should be given the right kind of policy environment to produce a sustained period of economic growth.

The growing number of adults (particularly those aged 15 to 24 ) during the second phase of the transition will be productive only when there is flexibility in the labor market to allow expansion.

Government plays a vital role to guarantee the creation of this demographic dividend.

Two Challenges in Harvesting the Demographic Dividend for the Country

1. High Fertility Rate in Households (particularly the poor households)
2. High Unemployment Rate and Poor Quality of Jobs among the Youth Population

## Challenge Number 1: High Fertility Rate

| Region | Fertility Rate (2013) |
| :---: | :---: |
| NCR | 2.3 |
| CAR | 2.9 |
| Ilocos | 2.8 |
| Cagayan Valley | 3.2 |
| Central Luzon | 2.8 |
| CALABARZON | 2.7 |
| MIMAROPA | $\mathbf{3 . 7}$ |
| Bicol | $\mathbf{4 . 1}$ |
| Western Visayas | $\mathbf{3 . 8}$ |
| Central Visayas | 3.2 |
| Eastern Visayas | $\mathbf{3 . 5}$ |
| Zamboanga Peninsula | $\mathbf{3 . 5}$ |
| Northern Mindanao | $\mathbf{3 . 5}$ |
| Davao | 2.9 |
| SOCCSKSARGEN | 3.2 |
| CARAGA | $\mathbf{3 . 6}$ |
| ARMM | $\mathbf{4 . 2}$ |
| Philippines | $\mathbf{3 . 0}$ |

## Contraceptive Prevalence Rate

$\square$ Very slow increase in the use of family planning, with CPR of 55 percent in 2013 (only four percentage point higher compared to the 2008 figure of 51 percent).
$\square$ Only 38 percent CPR using modern methods
$\square$ Lagged effect of CPR (modern methods) on Fertility Rate

| Econometric Model for Total Children Ever Born; <br> Panel Estimation using Fixed Effects Model |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Variable | Estimated <br> Coefficient |  | Robust SE | t-stat |
| Per capita income | -0.424 | $* * *$ | 0.144 | -2.95 |
| Women's education | -0.217 | $* * *$ | 0.045 | -4.86 |
| Women's employment rate | -1.011 | $*$ | 0.707 | -1.44 |
| Mortality rate | 0.002 | $*$ | 0.0017 | 1.21 |
| CPR (modern; lag 5 years) | $\mathbf{- 1 . 8 4 1}$ | $* * *$ | $\mathbf{0 . 5 8 9}$ | $\mathbf{- 3 . 1 2}$ |
| Constant | 9.219 | $* * *$ | 1.651 | 6.58 |

*** significant at the 1 percent level (two-sided alternative) $; *$ significant at the 10 percent level (one-sided alternative); Over-all R-squared is 50 percent.

## Total Fertility Rates under 2 Scenarios for All Households

 (business as usual and with government intervention)

## Total Fertility Rates under 2 Scenarios for the Poorest 20\%

 (business as usual and with government intervention)

## Growth Rate of Total Population by AGE GROUP

|  | Growth Rate by AGE GROUP |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE Group | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
| 0 to 14 | 1.02 | 0.60 | 0.63 | 0.36 | $(0.16)$ | $(0.51)$ | $(0.77)$ | $(0.99)$ |
| 15 to 24 | 1.88 | 1.71 | 0.47 | 0.38 | 0.83 | 0.64 | 0.02 | $(0.41)$ |
| 25 to 29 | 2.06 | 2.27 | 2.74 | 0.83 | 0.15 | 0.62 | 1.04 | 0.25 |
| 30 to 49 | 2.52 | 1.91 | 1.93 | 2.28 | 1.90 | 1.47 | 1.07 | 0.69 |
| 50 to 64 | 4.03 | 3.77 | 3.32 | 2.49 | 2.29 | 1.98 | 2.25 | 2.52 |
| 65 and above | 3.22 | 3.90 | 4.47 | 4.81 | 4.50 | 4.11 | 3.45 | 3.20 |
| Total | 1.99 | 1.75 | 1.60 | 1.42 | 1.22 | 1.03 | 0.84 | 0.65 |

## Total Population by AGE GROUP

|  | Population by AGE GROUP |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE GROUP | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
|  |  |  |  |  |  |  |  |
| 0 to 14 | $32,282,200$ | $33,311,200$ | $33,908,600$ | $33,629,800$ | $32,777,800$ | $31,534,200$ | $30,008,500$ |
| 15 to 24 | $19,780,300$ | $20,253,900$ | $20,642,200$ | $21,512,900$ | $22,211,400$ | $22,234,000$ | $21,785,600$ |
|  |  |  |  |  |  |  |  |
| 25 to 29 | $8,332,500$ | $9,540,100$ | $9,944,300$ | $10,017,200$ | $10,329,300$ | $10,878,000$ | $11,015,900$ |
| 30 to 49 | $25,294,900$ | $27,828,900$ | $31,146,300$ | $34,214,800$ | $36,797,000$ | $38,804,500$ | $40,164,700$ |
| 50 to 64 | $10,998,600$ | $12,949,600$ | $14,646,600$ | $16,402,000$ | $18,093,400$ | $20,226,000$ | $22,902,900$ |
|  |  |  |  |  |  |  |  |
| 65 and above | $4,873,800$ | $6,064,200$ | $7,671,400$ | $9,560,800$ | $11,695,000$ | $13,855,500$ | $16,217,500$ |
|  |  |  |  |  |  |  |  |
| Total | $101,562,300$ | $109,947,900$ | $117,959,400$ | $125,337,500$ | $131,903,900$ | $137,532,200$ | $142,095,100$ |

## Percentage of Total Population by AGE GROUP

|  | Percentage of Total Population |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE Group | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |  |
| $\mathbf{0}$ to 14 | $\mathbf{3 3 . 6 5}$ | $\mathbf{3 1 . 7 9}$ | $\mathbf{3 0 . 3 0}$ | $\mathbf{2 8 . 7 5}$ | $\mathbf{2 6 . 8 3}$ | $\mathbf{2 4 . 8 5}$ | $\mathbf{2 2 . 9 3}$ | $\mathbf{2 1 . 1 2}$ |  |
| $\mathbf{1 5}$ to 24 | $\mathbf{1 9 . 5 1}$ | $\mathbf{1 9 . 4 8}$ | $\mathbf{1 8 . 4 2}$ | $\mathbf{1 7 . 5 0}$ | $\mathbf{1 7 . 1 6}$ | $\mathbf{1 6 . 8 4}$ | $\mathbf{1 6 . 1 7}$ | $\mathbf{1 5 . 3 3}$ |  |
| 25 to 29 | 8.00 | 8.20 | 8.68 | 8.43 | 7.99 | 7.83 | 7.91 | 7.75 |  |
| 30 to 49 | 24.71 | 24.91 | 25.31 | 26.40 | 27.30 | 27.90 | 28.21 | 28.27 |  |
| 50 to 64 | 9.81 | 10.83 | 11.78 | 12.42 | 13.09 | 13.72 | 14.71 | 16.12 |  |
| 65 and above | 4.32 | 4.80 | 5.52 | 6.50 | 7.63 | 8.87 | 10.07 | 11.41 |  |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |  |

By 2030, percentage of 0 to 14 and 15 to 24 comprise about 44 percent of the total population, while those in 25 to 64 will constitute 48 percent of the total population.

# Challenge Number 2: High Unemployment Rate and Poor Quality of Jobs among the Youth Population (15 to 24) 

Income Ratio by AGE Group Relative to the 30-49 Year Old (2010 and 2013)

| Income Ratios |  |  |
| :---: | :--- | ---: |
| 2010 | Ages 15-24 | 0.62 |
|  | Ages 25-29 | 1.00 |
|  | Ages 15-29 | 0.78 |
|  | Ages 30-49 | 1.00 |
|  | Ages 50-64 | 1.12 |
|  | Ages 15-24 | 0.62 |
|  | Ages 25-29 | 0.92 |
|  | Ages 15-29 | 0.74 |
|  | Ages 30-49 | 1.00 |
|  | Ages 50-64 | 1.14 |


| Unemployed Workers (2010 \& 2013), in Thousand |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Age Group | 2010 |  | 2013 |  |
|  | Count | $\%$ | Count | $\%$ |
| Total | $2,858.5$ | 100 | $2,904.5$ | 100 |
| $15-24$ | $1,460.7$ | 51.1 | $1,408.7$ | 48.5 |
| $25-34$ | 846.8 | 29.6 | 883.7 | 30.4 |
| $35-44$ | 265.1 | 9.3 | 305.7 | 10.5 |
| $45-54$ | 180.1 | 6.3 | 186.6 | 6.4 |
| $55-64$ | 87.2 | 3.1 | 100.2 | 3.5 |
| 65 and Over | 18.6 | 0.7 | 19.6 | 0.7 |

Source: Labor Force Survey (2010 and 2013), PSA

Dependency Ratio and Support (Workers) Ratio, 2000 to 2045
(unadjusted for employment rate)


Dependency Ratio and Support (Workers) Ratio, 2000 to 2045
(Adjusted for Employment Rate)


## What if half of the unemployed 15 to 24 workers are employed?

Dependency Ratio and Support (Workers) Ratio under Actual Ratio (Support Ratio1) and Simulated Ratio (Support Ratio2)


Thank you and good morning!

