

# Accelerated demographic and economic transition calls for resolute socioeconomic policies

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## ABSTRACT

Population management seemed to have gotten underway quite well in 1970. But no sooner had the program gained traction than the Roman Catholic hierarchy and conservative groups voiced their strong opposition to family planning, which President Marcos, Sr. accommodated for political expediency. Thus, with a failed family planning program, declining fertility – a necessary condition for demographic transition towards faster economic growth, higher employment, and poverty reduction could not be achieved. A hugely missed opportunity graphically illustrated when comparing the Philippines and Thailand in particular, which had virtually identical key demographic-economic indicators in 1970 but drastically diverged by 2020. Apparently, the former ‘sowed the wind and is reaping the whirlwind’ – a cogent motivation moving forward for overcoming failures and balancing population and the economy better by adopting judiciously chosen policy options.

## I. Delayed Transition Leads to Elusive Demographic Dividend: A Reprise

### *Background*

The elder generation is familiar with the Philippines having been a leading nation in Asia next only to Japan in the 1950s-60s. Yet, in over half a century later, it had fallen steeply in the context of the Association of Southeast Asian Nations (ASEAN). Latest data from the World Bank (2022) and the IMF (2023) show that the Philippines ranks 7th, i.e., in the lower half of the 11 ASEAN countries just above Cambodia, Laos, Timor Leste, and Myanmar. So, what explains such a drastic drop in the Philippines’ economic standing?

There may be several factors but a major one has to do with failed population policy-cum-family planning that has clearly set the Philippines apart from the rest of ASEAN, let alone the other progressive Asian economies. As late as 2015-2020, the Philippines continued to have the fastest population growth (2015-20), largest population size (vis-a-vis land area), lowest median age, highest poverty rate except for Laos, and Myanmar, and highest inequality (Table 1).

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## KEYWORDS

population management, family planning, demographic transition, demographic dividend, fertility rate, contraceptive prevalence rate, human capital development, social infrastructure, physical infrastructure, public-private partnership (PPP)

**Table 1:** ASEAN-8: Key Population-Economic Statistics

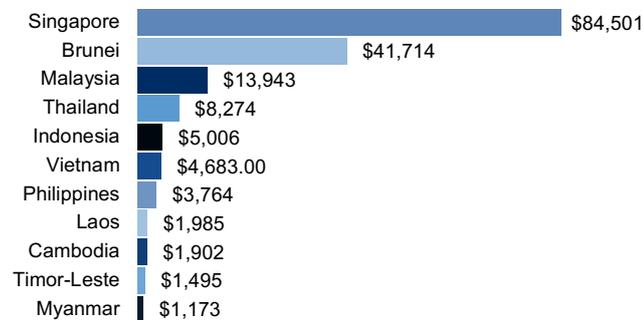
	Annual growth	Population (million)	Median Age	Poverty (2021,%)	Inequality GINI index*
Cambodia	1.41	17	26.2	16.6	—
Indonesia	1.07	279	29.7	10.1	38.4
Lao PDR	1.43	7.4	28.5	18.3	38.8
Malaysia	1.3	33	30.3	8.4	41.2
Myanmar	0.67	55	29.6	24.8	—
Philippines	1.63	110	25.7	18.1	42.3
Thailand	0.25	70	40.1	6.8	36.4
Vietnam	1.0	99	32.5	4.4	35.7

Source: World Bank, 2021; Statista, 2023.

\* GINI index, 2018, World Bank, 2019; 0 = perfect equality, 100 = perfect inequality. (Note: Table 1 excludes *sui generis* states Brunei Darussalam and Singapore.)

Echoing the data in Table 1, Table 2 shows the Philippines ranking 7th in ASEAN-11 in terms of income per capita after Vietnam passed it in 2020.

**Table 2:** Southeast Asia: Richest to Poorest Countries, IMF Projection of Income per Capita in US\$, 2023



Undoubtedly, the Philippine situation has posed a huge challenge to its economy and society-at-large—“the elephant in the room”—such that there has hardly been a serious social debate about it, or the issue sidestepped and swept under the rug for expediency.

### Tale of Diverging Twins

In 1970, the Philippines’ population was 36.6 million and Thailand’s was 36.9 million, and both their family planning (FP) programs were officially introduced that year. Moreover, the Philippines had a gross national income (GNI) per capita of US\$ 220 compared with Thailand’s at US\$ 210, and both countries had identical poverty rates at 13 percent.

Fast forward to 2020, the foregoing indicators had dramatically diverged. Philippine population skyrocketed to around 110 million while Thailand’s stood at about 70 million. GNI per capita was US\$3,430 in 2020 (US\$3,850 in 2019) for the Philippines, and US\$7,050 (US\$7,407 in 2019) for Thailand. On the other hand, poverty rate was estimated at 18.1 percent (16.7% in 2018) for the former, and 8.8 percent in 2020 (6.2% in 2019) for the latter. Evidently, the drop in GNIs and the increase in poverty rates were due to the COVID-19 pandemic.

The narrative on the Philippines and Thailand – that began practically as “identical twins” in 1970 – is particularly telling as regards the stark contrast in their respective progressions in the course of half a century. It seemed quite apropos to refer to this story as “a tale of diverging twins” (Pernia 2008). So the questions to be taken up, inter alia, are: (i) what explains the very

pronounced disparities in the progression of the Philippines vis-à-vis Thailand’s; (ii) how or where did the Philippines go wrong; and (iii) has the FP program – or lack of it – failed to prevent population from breaching the country’s carrying capacity, or the economy failed to help moderate population growth?

At the onset of the 1970s, the Philippines had quite promising initial conditions at par or comparable with those of its ASEAN neighbors. Its population policy-cum-FP program had made a good start, inspired earlier by then Executive Secretary Rafael M. Salas, who viewed the program – not in terms of sex, contraceptives, and abortion – but within a broad perspective of people and development cum quality of life, regardless of culture and belief. The imposition of martial law in 1972 further facilitated the implementation of the government’s population program, which was gaining traction, despite the opposition from the Roman Catholic hierarchy and conservative “pro-life” groups. However, the leadership of the National Economic and Development Authority (NEDA), which was in charge of the population program, changed from Minister Gerardo P. Sicat to Minister Placido L. Mapa, Jr., a deeply religious Catholic. The change made it easier for President Marcos to accede for political expediency to the adamant wishes of the Catholic hierarchy to jettison the program – prompting this author to characterize the situation as “hard church and soft state,” that seems to have held on – with some respite during the Ramos and partly Estrada administrations in the 1990s, as well as during two-thirds of the Duterte administration (2016-2022).

### Demographic Transition

Meanwhile the Philippines’ ASEAN neighbors sustained their population management programs centered on family planning they had initiated around 1970 and had begun to undergo a demographic transition, from a situation of high fertility (birth rate) and high mortality (death rate) to one of low fertility and low mortality. This transition resulted in significant changes in the age structure of the population that, in turn, positively impacted economic growth<sup>1</sup>, more robustly when complemented by the right socioeconomic policies. Demographic transition has three phases as graphically illustrated by the population pyramids by age group in Figures 1-3 (see Mapa, Pernia and Bersales 2022).

In the first phase, infant mortality rate declines while fertility stays high, expanding the youth segment of the population, as was the situation in the Philippines in 2000 (Figure 1). The country had a high youth dependency ratio (population aged 0-14 to total population) – a major challenge as much of scarce resources had to be spent on increased needs for primary health

<sup>1</sup> Several studies show that family planning is among the most cost-effective development policy options (e.g., DaVanzo and Adamson 1999); Starbird, Norton, and Marcus 2016).

care, nutrition, education, and other related services rather than on spending for economic growth.

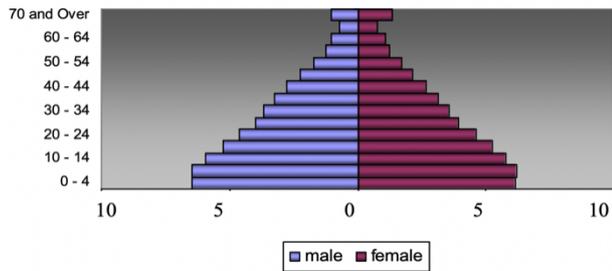


Figure 1: Philippines 2000

In the second stage of the transition, as in Thailand in 2000 (Figure 2), the proportion of the working-age population (aged 15-64) expands vis-à-vis the young dependents (aged 0-14) and the older population (aged 65 and over). At this stage, the challenge is generating jobs for the larger labor force, particularly those aged 15-24. With employment opportunities available, it is during this phase when a country's economic growth sharply accelerates.

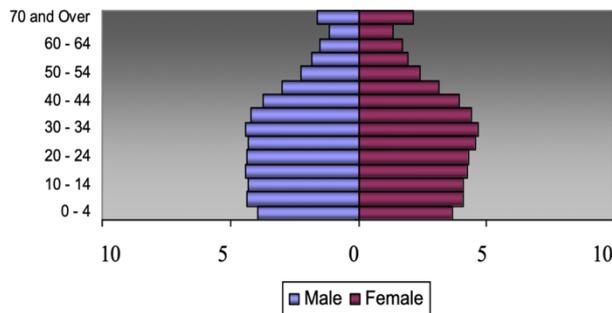


Figure 2: Thailand 2000

In the third phase, the older population (aged 65+) markedly expands relative to the total population, as in Japan in 2000 (Figure 3). This phase poses a different challenge as the share of the older population requiring healthcare and other services grows faster than the working-age population.

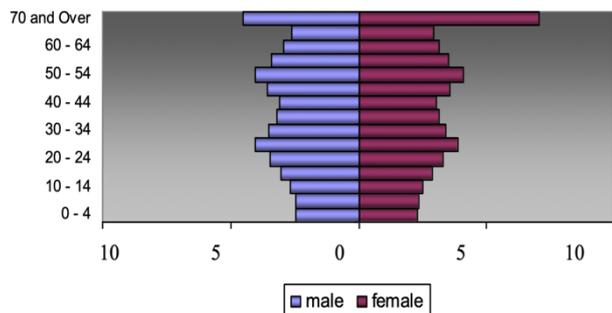


Figure 3: Japan 2000

What is particularly noteworthy from the foregoing presentation is the pronounced divergence by 2000 of the Philippines (Figure 1) vis-à-vis Thailand (Figure 2), with the latter having demographically transformed after three decades from the near-identical initial conditions with the former in 1970. Philippine population had risen to 77 million in 2000 (from 36.6 million in 1970) while Thailand's was already appreciably lower at 63 million (from 37 million in 1970). Evidently, population growth had significantly slowed in Thailand, which achieved replacement fertility as early as 1990<sup>2</sup>, a milestone not expected in the Philippines until 2030, or more optimistically, perhaps five years earlier<sup>3</sup>. Relatedly, more striking are the differences in GNI per capita – \$3,760 for Thailand and \$1,790 for the Philippines in 2009 (from \$210 and \$220, respectively, in 1970). Likewise, poverty incidence was at 8.1 percent for Thailand and 26.5 percent for the Philippines in 2009 from 13 percent for both countries in 1970 (Asian Development Bank 2009)<sup>4</sup>.

Population program centered on FP is regarded as among the most cost-effective development policy options – ‘big bang per small buck’ – along with free or unbridled international trade and unfettered international migration. The big difference, though, is that the population program is within a country's direct control while international trade and migration are not as they entail cross-national agreements.

Key to the demographic transition critical for the economy was the reduction in fertility (Pernia 2007). Studies show that demographic transition accounts for a sizeable portion – about one-third of economic growth – as estimated by various authors [Bloom and Williamson (1997), Bloom and Canning (2001), Radelet, Sachs and Lee (1997)] with reference to the experience of the East Asian economic tigers over the period 1965 to 1995. Unlike most of its Southeast and East Asian neighbors, the Philippines failed to undergo demographic transition during that period. In all these countries, including the Philippines, mortality rates dropped at broadly similar rates.

However, with the country's FP program stalled in the 1980s, the glacial decline in its fertility rate resulted in persistently rapid population growth, thereby making it an outlier in the region's demographic transition.

This is demonstrated in the following Figures 4a-b to 7a-b where PH is still in Stage 1 in 2000 as in Figure 1 above, moving to Stage 2 by 2020-21 while Vietnam, Malaysia and Thailand have already transited from Stage 2 in 2000 to Stage 3 by 2020-21<sup>5</sup>.

<sup>2</sup> Replacement fertility, set at the global average of 2.1 children per couple, will be discussed further below.

<sup>3</sup> In 2008 Thailand's TFR was already below replacement fertility at 1.8 while the Philippines was still at 3.3. The rapid deceleration in Thailand's population growth was also partly due to the government's resolute policy to stem the rise and spread of HIV-AIDS, given the country's vibrant tourist industry (a very relevant comment offered by my eye specialist Dr. Carlos G. Naval which I acknowledge with thanks).

<sup>4</sup> The data show that the larger the family size (or number of children) the higher the poverty rate and this relationship is robust and monotonic (Pernia and Orbeta 2010). Orbeta (2005) through econometric analysis finds that an additional child adversely impacts family welfare and this negative effect is regressive, i.e., the poorer the household the bigger the impact. Likewise, Reyes (2002) shows that family size is directly related to vulnerability to poverty or the likelihood of falling into poverty owing to exogenous shocks, e.g., typhoons, droughts, and inflation.

<sup>5</sup> Population pyramids are from <https://www.populationpyramid.net>

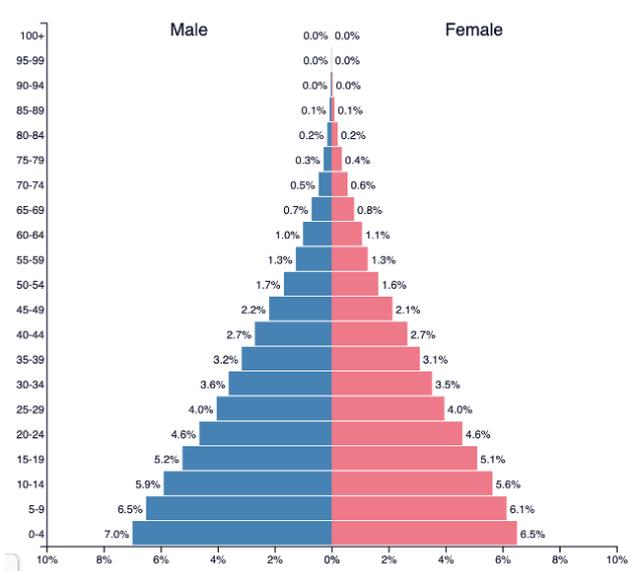


Figure 4a: Philippines in 2000, stage 1

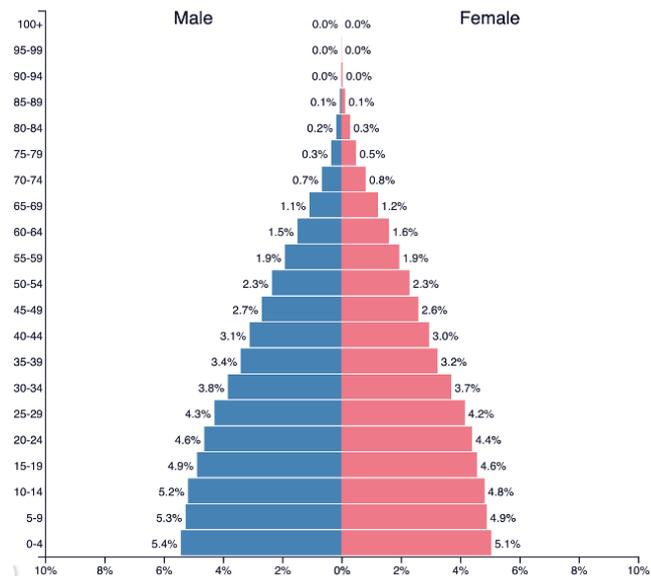


Figure 4b: Philippines in 2000-21, stage 2

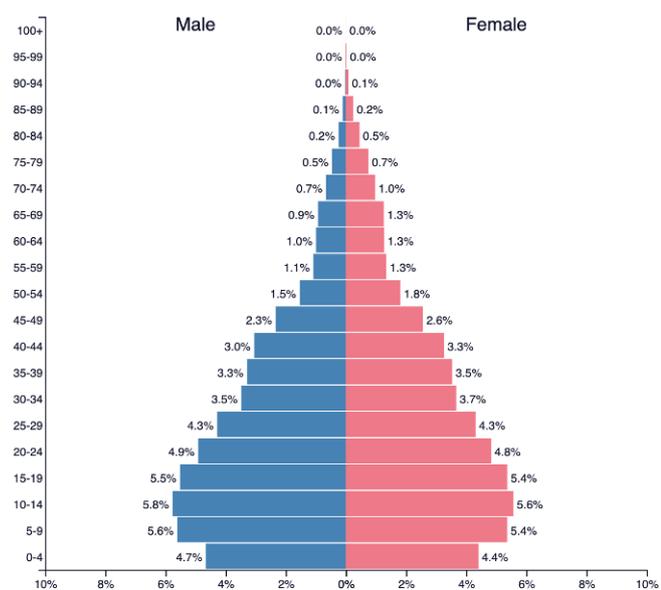


Figure 5a: Vietnam in 2000, stage 2

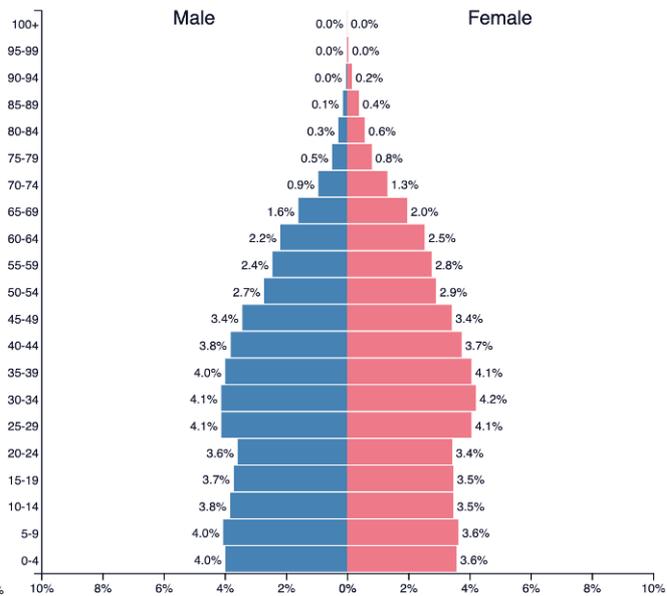


Figure 5b: Vietnam in 2020-21, stage 3

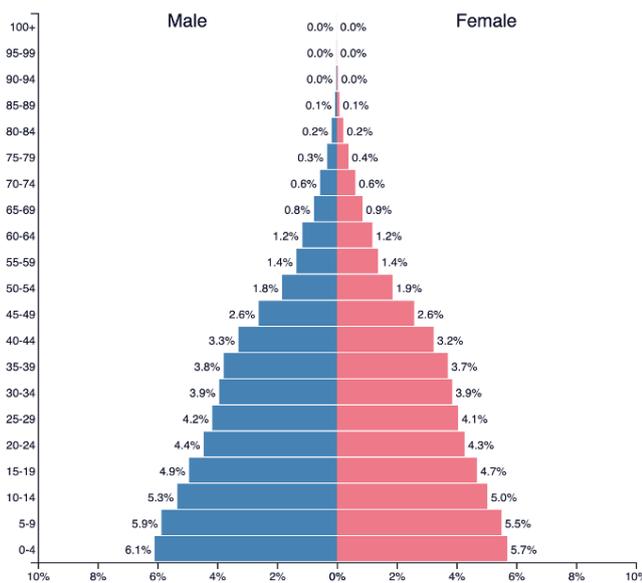


Figure 6a: Malaysia in 2000, stage 2

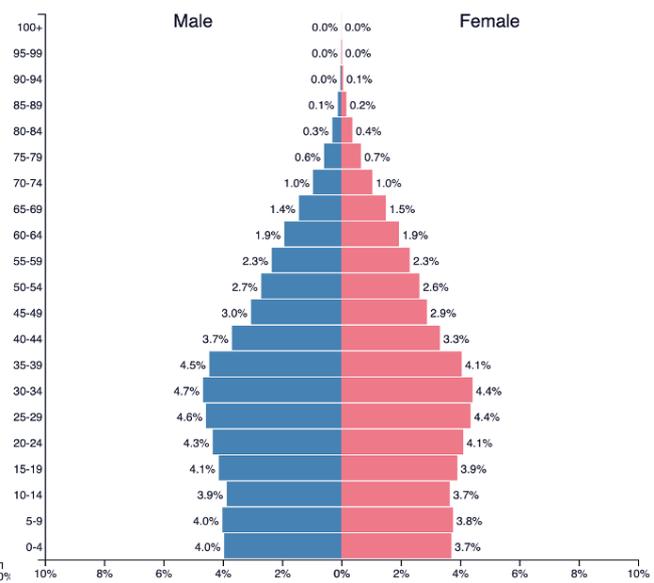


Figure 6b: Malaysia in 2020-21, stage 3

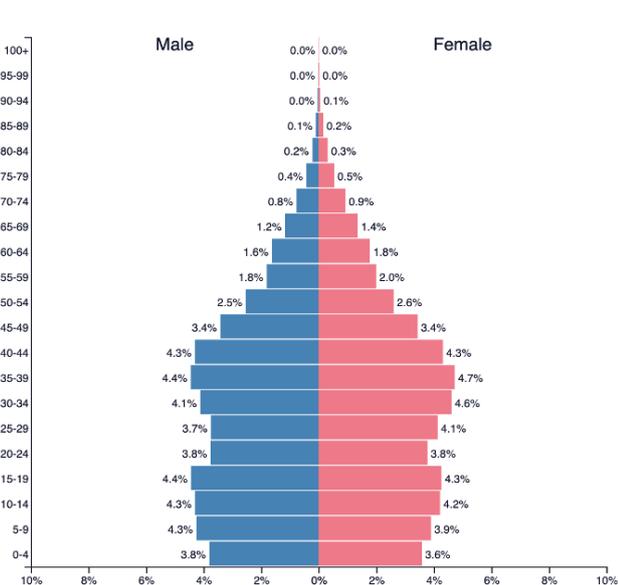


Figure 7a: Thailand in 2000, stage 2

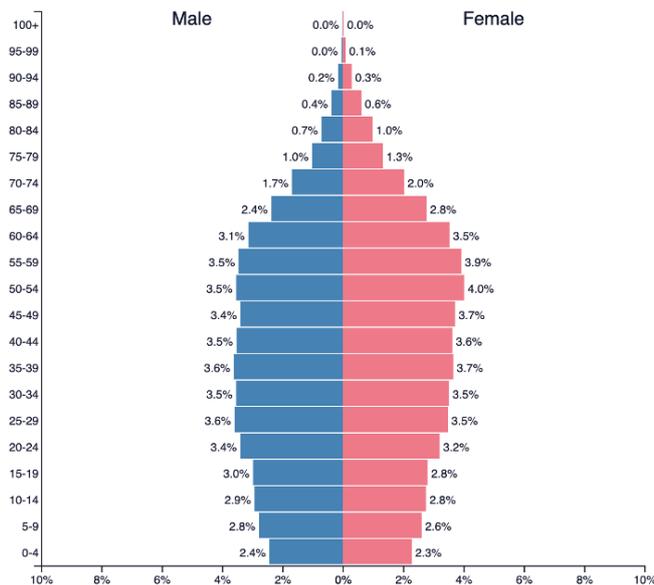


Figure 7b: Thailand in 2020-21, stage 3

### Demographic Dividend

Demographic transition positively influences economic growth and saving rate as a country increases its work force while reducing its dependency burden. Using cross-country data from 80 countries over the period 1975-2000 to gauge the effect of the demographic dividend on income growth in the Philippines reveals that differences in the population age structure of Thailand (phase 2 of the transition) and of the Philippines (phase 1 of the transition) accounted for about 0.77 percentage points of forgone average income growth for the Philippines from 1975 to 2000, *ceteris paribus* (Mapa and Balisacan, 2004). This forgone growth accounts for about 22 percent of the average income per person by 2000. Such forgone growth is even more appreciable when translated into monetary values; the country could have achieved a GDP per capita of US\$1,210 instead of just US\$993 in 2000 – a nontrivial difference. Moreover,

poverty could have been reduced by about 3.6 million persons, resulting in a palpably lower poverty incidence in 2000<sup>6</sup>.

It should be stressed that demographic dividend is not necessarily automatic. Demographic transition simply affords a demographic window of opportunity that has to be complemented with the right kind of policy environment leading to self-sustaining economic growth. The growing number of young adults (particularly those aged 15 to 24) during the second phase of the transition can be productive, provided the labor market is flexible and allows expansion. That is to say, government policies are critical to fostering not only the demographic transition but also the consequential demographic dividend.

Since fertility reduction is critical to accelerating demographic transition, what factors other than family planning matter to

<sup>6</sup> Research on poverty using multivariate analysis tells us that bad governance, weak economic growth, and high wealth and income inequality are important causes but rapid population growth (or high fertility rates especially among the poor) directly exacerbates poverty and makes it harder for the government and society to deal with it. While governance is an exogenous factor, economic growth, income inequality, and population growth are endogenous

and interactive in affecting poverty. As cited by studies above [e.g., Bloom and Williamson (1997)], demographic transition resulting from fertility reduction accounts for around one-third of economic growth, as experienced by the Asian economic tigers in the period 1965-1995.

lowering fertility. An econometric model employing intra-country provincial panel data, covering the years 1993, 1998, 2003, 2008, and 2013<sup>7</sup>, looks into the determinants of total fertility rate (TFR), i.e., the average number of children women aged 15-49 can have during their reproductive years (Mapa, Pernia and Bersales 2022). The regression model is of the form:

$$\text{TFR}_{it} = \alpha + \beta_1 \text{Ypc}_{it} + \beta_2 \text{Educ}_{it} + \beta_3 \text{LFPR}_{it} + \beta_4 \text{U5MR}_{it} + \beta_5 \text{CPR}_{it} + \varepsilon_{it}, \varepsilon_{it} \sim (0, \sigma^2)$$

where: TFR is total fertility rate (as defined above), and the explanatory variables are: Ypc is income per capita, Educ is women's education (average years of schooling), LFPR is labor force participation rate of women (aged 15 to 49), U5MR is under-5 mortality rate (proxy for healthcare services), and contraceptive prevalence rate (proxy for FP using both modern and natural methods) – with these variables referring to the *i*th province in year *t*,  $\varepsilon_{it}$  signifying the residual,  $\alpha$  is a constant, and  $\beta$ 's are the estimated coefficients.

The econometric analysis results show that, controlling for other factors, education of women has the strongest negative impact on TFR. To illustrate, increasing the years of schooling of a married woman by one year will reduce TFR by about 0.25 children (as in the fixed effects Model 2). As well, women's labor force participation is negatively and significantly related to TFR while, as expected, contraceptive prevalence rate (CPR, proxy for family planning services) effectively reduces TFR, *ceteris paribus* (cf. Mc Nicoll 2006 as regards other Asian countries). Unfortunately, our country's CPR appears to have been stuck at around 50 percent – a far cry from our ASEAN neighbors' and even Bangladesh's at 70 percent CPR. Note that, based on the above regression analysis, level of income per capita does not appear to be a critical factor in bringing down TFR which has also been demonstrated in Bangladesh's case.

The general objective is for TFR to go down to replacement fertility normatively set at 2.1 children per couple (the global average) – the inflection point for demographic dividend to rise sharply, as exemplified by the Philippines' more dynamic and progressive neighbors in the region. In ASEAN, excepting Singapore which achieved it in the mid-1970s, Thailand was the first to reach this norm in 1990, followed by Vietnam in 2006, Brunei Darussalam and Malaysia in 2013. On the other hand, the others had TFRs above 2.1 in 2017, namely, Myanmar (2.2), Indonesia (2.3), Cambodia (2.5), and Lao PDR and the Philippines (2.7).

In the Philippines, TFR was much higher still among the poorest quintile at 4.3, equivalent to the national average in 1990. Likewise, Zamboanga Peninsula and Bicol, two of the poorest regions, had respective TFRs of 3.6 and 3.2 compared with Metro Manila's 1.9 in 2017. This explains why the close link between the number of children and poverty incidence often leads to a vicious circle of high fertility and poverty. Bringing TFR down to replacement fertility is critical as it enables higher economic growth and inclusivity (Pernia, E. M., and Pernia, E. E. 2015). Under a business as usual scenario, the Philippines can expect to achieve the 2.1 replacement fertility only in 2030. The Philippines could have reached this goal in 2020 with a more resolute and vigorous effort at population management via full implementation of the Responsible Parenthood and Reproductive Health (RPRH) law, which was passed a decade prior to the martial law's 50th anniversary!

## II. Moving On: Development Policy Priorities

Clearly, the Philippines' failed family planning program at the core of population management – owing to the "hard church-state" stance – made a big difference in the country's capability for socioeconomic advancement vis-a-vis its ASEAN original neighbors including Vietnam.

Public-private partnership in physical infrastructure is talked about more often and resonates more widely in policy or social discourse than are human and social infrastructures. And the budget allocation for physical infrastructure often visibly dwarfs those for social and human development. Yet in terms of priority of nature (*prioritas naturae*) and of order (*prioritas ordinis*) human capital and social infrastructure take precedence.

Overall, the Philippines' three principal types of infrastructure – human, social, and physical -- sorely need major enhancements to be in step with its ASEAN neighbors. Which calls for resolute attention from the government, private sector, and society-at-large along with the requisite budgetary support. A veritably huge challenge, given the government's binding fiscal constraints, recently with debt-to-GDP ratio at around 61 percent and budget deficit hovering at 6.5 percent.

### Human Infrastructure

A child's human capital development begins in the early stage of a mother's pregnancy and becomes more manifest at 0-5 years of age. At birth the size of a baby's brain is said to be a quarter that of an adult's brain. Subsequent growth is so fast that by age 5 a kid's brain is already 90 percent of the adult's brain.

However, it is reported that in the Philippines one-third (1/3) of 0-5 aged children are stunted or underweight owing to malnutrition (even in pregnancy); hence, unable to reach their full potential in later years. Nothing new but it remains a serious problem plaguing especially the poor, calling for urgent attention and adequate budgetary support. Fr. Bienvenido F. Nebres, SJ reports (in Mangahas 2023a) that 95 children die due to malnutrition each day – tantamount to 34,675 yearly. Just recently the government decided to borrow Php 10 billion from the World Bank to fund the Philippine multi-sectoral nutrition project (PMNP) to address the malnutrition issue. Which raises the question: why not fund it from the national budget given its priority and vital importance?

Self-rated poverty surveys (138 in all) conducted by the Social Weather Stations reveal that while overall poverty was at 54 percent of households in 1983, it was down to only 51 percent in 2022, a measly reduction of four points for all of four decades (Mangahas 2023b). Moreover, the food-poor are 34 percent of households (as of December 2022), and 41 percent do not have the education and skills needed to earn sufficient wage. This reflects economic duality, i.e., the nation divided into the relatively well-off and the rest, 30-40% of households, in deep and grinding deprivation, which is double the recent official national poverty incidence of 18.1%.

An earlier World Bank (2022) pandemic-related report reveals that 91 percent of children at 10 years of age are unable to read and understand a short and simple text, putting the Philippines at the bottom of 10 Asian countries on learning poverty. Singapore is at the top followed by South Korea, Japan, Vietnam, China, Thailand, Malaysia, Indonesia, and India, in that order. The Philippines also ranks last in learning deprivation and third

<sup>7</sup> The panel data set covers the period 1993, 1998, 2003, 2008, and 2013 – years that coincide with the National Demographic and Health Survey (NDHS) conducted by the Philippine Statistics Authority (PSA). These are

supplemented by provincial averages of other variables using the Labor Force Survey (LFS) and the Family Income and Expenditure Survey (FIES) also carried out by the PSA.

to the last in schooling deprivation (5 percent), just preceding Indonesia and India (both at 6.8 percent). Prior to the COVID-19 pandemic, the proportion of children at age 10 beset by such learning deficiencies was not much lower at 70-80 percent.

The Department of Education recorded about 29 million enrollees for basic education (K-12) in school-year (SY) 2021-2022, a 4 percent increase from the previous SY, accounting for over a quarter of the country's total population, suggesting that public spending per student is a mere fraction of corresponding spending in its ASEAN peers. Spending per student, compared with Indonesia, for example, is only 60 to 72 percent for primary and secondary levels, respectively. Compared with Malaysia and Thailand, Philippine spending is a smaller fraction still, not to mention the competency levels of teachers, appropriateness of curricula and learning materials. With subpar resources for schooling quality and outcomes, the country has performed poorly in international standardized student assessments (such as PISA). Relevant to the issue is the quantity-quality trade-off, i.e., the larger the student population, the lower the learning capacity given budget constraints on teachers and learning materials, not to mention child nutrition — which is a unique problem of the Philippines in the ASEAN context. (Cf. "Accelerating Human Capital Development," Chapter 10, Philippine Development Plan (PDP) 2017-2022, pp.137-160).

### **Social Infrastructure**

Schools, hospitals, specialized medical facilities (e.g., Virology), and clinics, manned by well-trained teachers, equipped with appropriate paraphernalia, and a large enough cadre of medical doctors and properly compensated health care workers (HCWs) — are indispensable for human capital development. Social infrastructure needs to be adequately and equitably distributed nationwide with specialized hospitals, science high schools, and higher education institutions (HEIs) based in the main city(ies) of the regions. This will be a major contribution to redressing the stark inequality and poverty across the regions (Pernia, 2022). Over the past six administrations, there were five (5) projects in education and one in health under the PNoy Aquino administration, and three (3) in health under the Duterte administration. This shows that social infrastructure projects via PPPs tend to be scarce as they are not as financially lucrative to private sector partners as are projects in physical infrastructure.

A serious and well-studied consideration of the state of human capital development in the country, as cited above, would suggest it entails massive and smartly allocated investments in social infrastructure with well-suited trained personnel. This will enable the provision of quality education and healthcare services to both young and older people across the country.

### **Physical Infrastructure**

This completes the infrastructure triad. It is also a costly undertaking but the advantage is that investment in physical infrastructure is more feasible via public-private partnerships (PPPs). It is crucial, though, that the conditions and guarantees imposed by the public sector on private sector partners are fair and sufficiently attractive for them to recover their investment cost and with reasonable returns. For instance, the record of PPP projects under the PNoy Aquino administration, a few of which were completed under the Duterte administration, has been given the thumbs up by expert observers and the general public.

The current administration seems keen on undertaking PPP projects, especially given the economy's tight fiscal constraints. In fact, 194 so-called flagship projects have already been announced by the President (c/o NEDA), 71 of which are carryovers from the previous administration, and 45 are PPPs. Additional funding source is to be tapped from official development assistance (ODA) involving Japan, the United

States, South Korea, Australia, and the EU to a limited extent. The announcement on the 194 projects was accompanied by a putative budgetary support of Php 9 trillion through the end of the current administration.

The PPP modality has been adopted by a number of ADB developing member countries. A considerable advantage of the PPP mode for physical infrastructure is that it frees up government funds for human capital development and social infrastructure — allowing them to get much more needed funding — a quantum improvement from the traditional budget allocation. Thus, prioritization should follow the infrastructure triad of human, social, and physical, in that order, with the first buttressed by the second that, in turn, is facilitated by the third. This would make it possible — given the Philippines' serious health and education crises with its largest population (vis-à-vis land area) and also fastest growing in ASEAN — for the infrastructure triad to vigorously advance the country's economic and inclusive development. (Cf. "Reaching for the Demographic Dividend," PDP 2017-2022, Chapter 13, pp.197-2011).

### **PDP 2023-2028**

The current PDP appropriately cites key strategies and approaches for sustained economic development. First, *maintaining robust macroeconomic fundamentals for rapid economic recovery*. Secondly, and this ought to be underscored, *the vitality of the economy is only as good as the country's health and educational systems*. And, third, *the whole-of-government and whole-of-society approach is fundamental to policy efficacy*.

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