

Policy-making by Understanding the Generational Economy¹

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The current population age structure of Pakistan provides the country an opportunity to reap the demographic dividend but there is no concrete evidence on its magnitude. The National Transfer Accounts (NTA) can fill this gap by quantifying the wealth flows taking place in a population through an improved understanding of the generational economy.² The NTA provides estimates of people's income and their consumption at every age. What is more important, however, is that the NTA helps to understand how do people, especially the young and the old who consume more than they produce, support themselves. It sheds light on whether it is through the private or public sources that the existing deficit—the difference between income and consumption—if any is filled. The estimation of the NTA for Pakistan, therefore, would strengthen our understanding of the linkages between population dynamics and development. The NTA for Pakistan provides the opportunity to look at the economic indicators through the perspective of age. It can help design public policies ranging from healthcare, education, gender equality, reproductive health and social protection to economic, social and political implications of population ageing and generational equity.

The Economic Life-Cycle³ and Life-Cycle Deficit in Pakistan

Life-cycle accounts incorporate consumption and labour income, where consumption is subdivided into public and private consumption. The NTA is helpful in investigating the age pattern of income and consumption by quantifying the economic life-cycle. Generally, young and old age groups consume more than what they produce, hence, their economic life-cycle is in deficit.⁴ Contrariwise, the working-age group produces more than their consumption and have a life-cycle surplus. The youth not only require resources for their basic needs but also for investment in their human capital, while older, apart from basic needs, require significant resources for their declining health. The consumption not only varies by age but also according to the population structure of a country. Developed economies' elderly population is increasing and thus have different age-specific consumption patterns from developing countries, which have a high proportion of the young population. Besides, in developing economies like

¹This brief is based on a detailed study, Nayab, D., and Siddique, O. (2019) "National Transfer Accounts for Pakistan: Understanding the Generational Economy". Islamabad: PIDE and UNFPA.

²The social institutions and economic mechanisms used by each generation or age group to produce, consume, share and save resources (UN, 2013).

³The economic life-cycle is age pattern of consumption and labour income.

⁴The life-cycle deficit is calculated as consumption minus labour income.

Pakistan, consumption decisions are not individual but also depend on the collective decision within the family.

Life-cycle deficit profiles are at the core of the NTA estimates and form the bases for other NTA profiles. Since life-cycle deficit is calculated as consumption minus income, Figures 1 and 2 present the per capita and aggregate life-cycle deficits in terms of consumption and income. Consumption is the sum of private and public consumptions on education, health, and other consumption. Labour income is composed of labour earnings and self-employed income.

Fig. 1. The Life-Cycle Deficit: Per Capita Labour Income and Consumption
(thousand rupees)

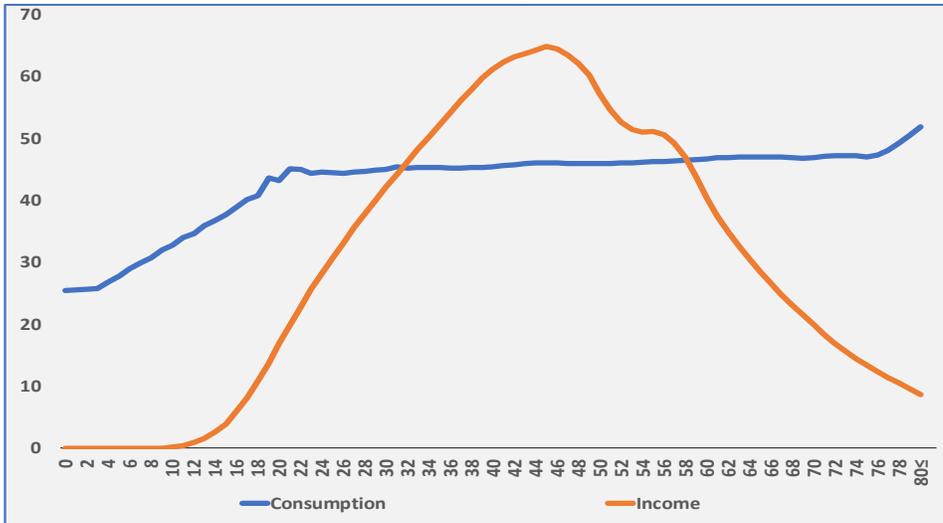
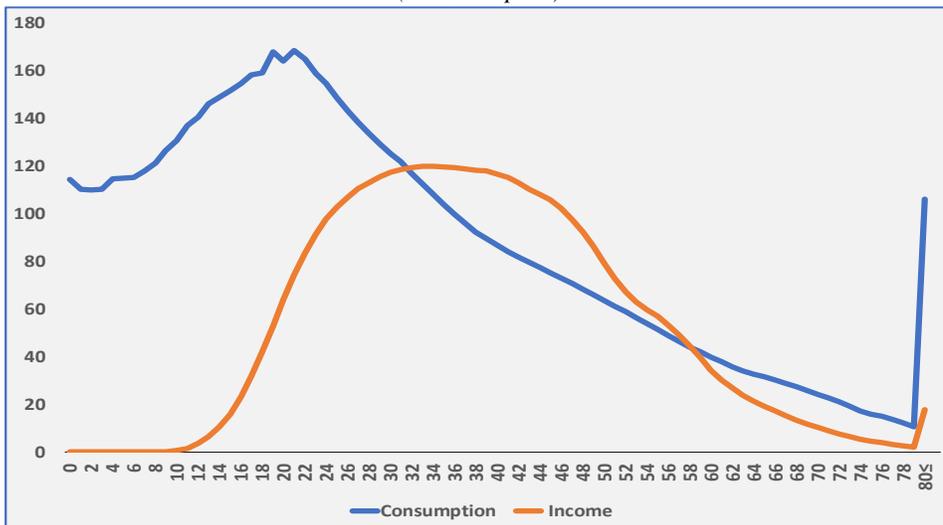


Fig. 2. The Life-Cycle Deficit: Aggregate Labour Income and Consumption
(billion rupees)



As Figure 1 shows, the younger population consumes more than they produce but this gap is even wider for the older population. For the young, the consumption-income gap is due to the education consumption while for the old, the gap is driven mainly by expenditures on health. Figure 2 shows the impact of Pakistan's age structure on the life-cycle deficit. Since the proportion of the population in younger cohorts is higher in Pakistan, the aggregate consumption is also higher for this age group. Consumption shows a declining trend for the older population. The figure further reveals that 25-45 is the most productive age group, in terms of generating income.

Generational Economy in Pakistan

Box 1 provides a snapshot of the magnitude of the life cycle deficit in Pakistan and the sources of its funding. The NTA estimates show that a large life-cycle deficit exists in Pakistan. A detailed look at the NTA profiles reveals that the life-cycle deficit exists for the young and an even bigger one for the elderly, on per capita basis (Figure 1). There are two mechanisms to fund the life-cycle deficit, which are private and public age reallocations (discussed below). However, for Pakistan, as summarised in Box 1, the life-cycle deficit is mainly funded through private asset-based reallocations and private transfers. Although public sources also contribute to bridging the life-cycle deficit, the role of the private sector is greater. It can be seen that private asset reallocation is the primary source of fulfilling the life-cycle deficit. Transfers, public or private, play a smaller role.

Private Age Reallocations

Private age reallocations are made through two mechanisms, namely, transfers and asset income. Transfers are cash and in-kind flows to (transfer inflows) and from (transfer outflows) individuals or age groups that do not require any explicit return. Transfers are further subdivided into inter- and intra-household transfers. Similarly, private asset income is composed of capital and property income. The private age reallocations are mediated by households, families, and other private institutions. As shown in Box 1, private transfers are a significant source of funding the life-cycle deficit and asset-based reallocation also play a major part in funding the life-cycle deficit.

Box 1: Summary of Pakistan NTA			
$C - y^l$	=	$y^A - S$	+ $\tau_g^+ - \tau_g^-$ + $\tau_f^+ - \tau_f^-$
$\frac{7,114,713.62 - 4,258,371.02}{2,856,342.60}$		$\frac{4,153,992.63 - 1,599,033.63}{2,554,958.99}$	$\frac{4,020,705.35 - 4,200,849.87}{-180,144.53}$ + $\frac{622,901.00 - 141,372.87}{481,528.13}$
		$2,856,342.60$	$301,383.6$
<p>C (total consumption) = 7,114,713.62 y^l (labour income) = 4,258,371.02 $C - y^l$ (life-cycle deficit) = 2,856,342.60 y^A (total asset income) = 4,153,922.63 S (total savings) = 1,599,033.63 $y^A - S$ (asset reallocations) = 2,554,958.99</p>			
<p>τ_g^+ (public transfer inflows) = 4,020,705.35 τ_g^- (public transfer outflows) = 4,200,849.87 $\tau_g^+ - \tau_g^-$ (net public transfers) = -180,144.53 τ_f^+ (private transfer inflows) = 622,901.00 τ_f^- (private transfer outflows) = 141,372.87 $\tau_f^+ - \tau_f^-$ (net private transfers) = 481,528.13</p>			
<p>$(\tau_g^+ - \tau_g^-) + (\tau_f^+ - \tau_f^-)$ (net transfers) = 301,383.6</p>			
<p>Note: The figures are in million rupees.</p>			

Public Age Reallocations

Public age reallocations are the flow of current resources across age that is mediated by the government. Public age reallocations are composed of two economic mechanisms—public transfers and public asset-based reallocations—that can be used to shift resources across age. Public transfers are ones between the public and the private sector, or transfers between the public sector and the rest of the world. These are the transfers that flow from working-age adults, who pay taxes, to the ages in which beneficiaries are concentrated, often children and the elderly, to fund the life-cycle deficit. Public asset-based reallocations arise because the government owns assets and debt. Inflows occur when government earns public asset income or borrow. Outflows occur when the government have property income outflows, paying interest on public debt, or when governments save. As Box 1 shows, estimates of net public transfers⁵ are small, especially when compared to private transfers. The detailed account reveals that the public transfers flow from the population in their early 30s onward to the younger population. The public asset-based reallocations are positive or zero, for all the ages.

Salient Findings of the Pakistan NTA Estimate

- The prime productive ages are the 40s in Pakistan as their income is substantially more than their consumption. The trend is in line with the idea of the demographic dividend.
- As suggested by the demographic dividend thesis, the aggregate estimates (Figure 2) show that the younger ages consume the most resources, both private and public, because of the age structure effect.
- The life-cycle deficit is funded primarily by asset-based reallocations, instead of transfers, and these reallocations are more in the private domain than public.
- Education consumption relies more on private sources than public ones. This is true for all educational levels.
- Health consumption is highest for the elderly and, irrespective of age, private financing of healthcare exceeds public.

Policy Implications

NTA estimates for Pakistan has serious policy implications for various key areas. Some of the more important ones are given below.

- *Employment of the Young:* The estimates clearly show that outflows from the working ages are meeting the life-cycle deficit faced by the young and the elderly. To reap the potential benefits of the demographic dividend, it is imperative that the young are provided gainful employment opportunities. As these young workers progress they not only provide for their own living but also for those who are dependent upon them.
- *Education Spending:* The NTA estimates show that the expenditure on education, especially public expenditure, is quite low to produce the quality needed to compete in the modern global economy. The analysis, therefore,

⁵Net public transfers are estimated as public transfer inflows minus public transfer outflows.

reinforces the need to increase investment in education, with emphasis on the quality.

- *Public health consumption:* Since according to the NTA estimates private health consumption far exceeds public health consumption, there is a dire need to increase public spending on health. Literature suggests that health expenditures are a major source of pushing households into poverty.
- *Fertility decline:* The idea of demographic dividend stems from fertility decline and dividend cannot be reaped if the fertility rates are not brought down. Unfortunately, in Pakistan fertility rates have been stagnant for some time now. The experience of East Asian countries clearly shows that they realised the demographic dividend because of rapid fertility decline. Large-scale holistically designed programmes are needed that encourage the idea of small family size and lower fertility rates on a voluntary basis.
- *Caring for the elderly:* Although the proportion of the elderly is not high in Pakistan, nor is projected to be so in the coming few decades, the numbers are fast increasing. It, therefore, is about time we start planning for the elderly because, according to the NTA estimates, the elderly have the largest life-cycle deficit and the highest health expenditure. The absence of universal public social security system makes the elderly extra-vulnerable due to changes in the family living arrangements, such as the trend towards the nuclear family system