

# Demographic Changes in Indonesia and the Demand for a New Social Policy

Nazamuddin \*

## Abstract

This article describes the demographic changes and their social and economic implications and challenges that will confront Indonesia in the future. I calculate trends in the proportion of old age population and review the relevant literature to make some observations about the implications of such changes. The conclusions I make are important for further conceptual elaboration and empirical analysis. Based on the population data and projections from the Indonesian Central Agency of Statistics, National Planning Agency, other relevant sources, I find that Indonesia is now entering the important phase of demographic transition in which a window of opportunity prevails and where saving rate can be increased. I conclude that it is now time for Indonesia to prepare a new social policy in the form of overall welfare provision that should include healthcare and pension for every Indonesian citizen.

Key words : demographic changes; social security; new social policy

## 1. Introduction

Demographic change, mainly characterized by a decreasing long-term trend in the proportion of productive aged population and increasing proportion of aging population, is becoming increasingly more important in public decision making. A continuing fall in the birth and mortality rates changes the age structure of the population. Its effects are wide-ranging, from changes in national saving rates and current account balances, as seen in major advanced countries (Kim and Lee, 2008) to a shift from land-based production and stagnant standards of living to sustained income growth as birth rates become low (Bar and Leukhina, 2010).

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\* Syiah Kuala University, Indonesia

The demographic transition also contributes to cross-country differences in economic growth (Bloom and Finlay, 2009) and there will, therefore, be a need for a new policy to offset its potential negative effects. Demographic changes, accompanied by a decline in the labor force, will also have a major impact on voting structures, savings rates, and social security systems (Komine and Kabe, 2009). There are also social and political implications such as inequalities, migration, social policy, and international security (Inoguchi, 2009) .

Komine and Kabe, 2009 show that the demographic structure of Asia is expected to change rapidly from around 2020 up to around 2050, at different stages in different countries. Japan is already at an advanced stage, followed by China, South Korea, Thailand, and Singapore, and also ASEAN countries. Indonesia without exception is in the midst of a demographic transition, which will have social and economic effects in the future. One very important consequence of it is a necessity for a social as well as economic policy change. Thus far, there have been few discussions about how the demographic change is linked with the need for a new social policy, especially in the Indonesian context.

This article reviews the development of demographic changes in Indonesia and their related issues as described in the literature and the ongoing discussions about new initiatives for setting up a new welfare system for the Indonesian people.

## **2. Indonesian Demographic changes and their consequences**

### **2.1. Demographic changes**

In 2010, the Indonesian population has reached 234 million, with the average growth rate of 1.2 percent per year. As is the case in other developing countries, Indonesia is entering the second wave of demographic transition towards a lower fertility rate and a lower mortality rate. Indonesians are now living longer, as indicated by a rise in life expectancy at birth from 67.1 in 2000 to an estimate of 70.8 in 2010 and 73.3 in 2025 (BPS, BAPPENAS, UNFPA). In addition, the percentage of working-age population shows an increasing trend, and at the same time the dependency ratio is declining, especially due to a lower percentage of young population aged 0-14. Both of these trends imply the changing age structure of the population, but on the other hand provide windows of opportunity for Indonesia, in which the decline in the share of the young aged population and

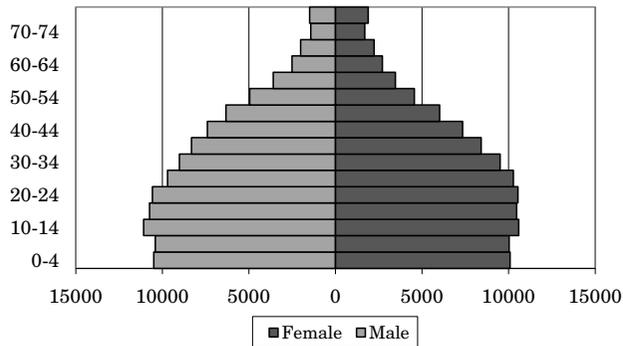
the increase in the share of the productive prime working aged population (15-64) <sup>1)</sup> provide opportunities for a high rate of economic growth and preparation for future consequences of demographic changes. Based on cross-country analysis, the study by Lindh and Malmberg (1999) has shown that age share of the income and consumption variables have substantial effects on per-worker GDP growth rates. Many other studies, e.g. Andersson (2001) and Bloom and Finlay (2009) have also observed a positive impact on economic growth by the share of middle- or working aged adult population.

The demographic changes in Indonesia are occurring at a fast rate (Ananta and Arifin, 2008) and, therefore, would require adjustments to national policies, including a new social policy. Thus far little attempt has been made to push for such a policy. As demographic changes will shape the future of Indonesia, there is a need for a shift from business as usual to a new policy. The fertility rate in Indonesia is currently below replacement level <sup>2)</sup>, hence, population aging. One of the effects has been the change in behavior toward a higher degree of individualism and increasing demand for a more democratic society. The changed age structure of the Indonesian population is also one important factor that may cause lower potential saving.

The experience of many countries suggests that substantial demographic changes have occurred in the past few decades. In OECD countries, improvements in life standards, health care, and nutrition have increased life expectancy (Navaneetham, 2002). For Asian countries, Bloom and Finlay (2008) have calculated the contribution of demographic change to economic growth over the period 1965-2005. They show that 41.73 percent of the economic growth of Indonesia during the period 1965-2005 is explained by the growth of working-age share of population.

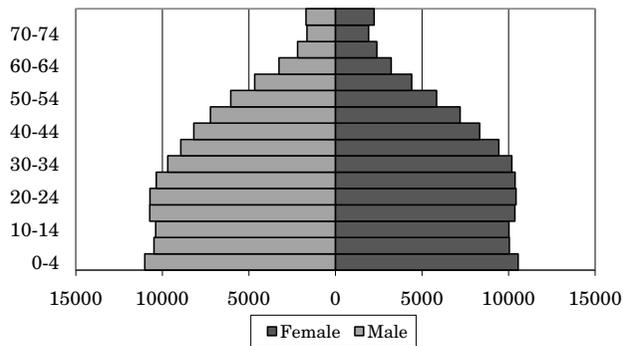
Figures 1 and 2 show how demographic transition in Indonesia has occurred from 2005 to 2010 and Figures 3 to 5 show how further transition will take place in the future. In 2005, Indonesian population was relatively young; with a dominant proportion of economically-productive population aged between 15 and 64, whereas the old-age population was small in proportion. Although the young aged population group (0-9) is getting smaller as compared with the situation in 1971 (see Ananta and Arifin, 2008), the burden to the working-aged population is still high. Nevertheless, due to still high mortality rate at each group the pyramid becomes skewed towards its summit.

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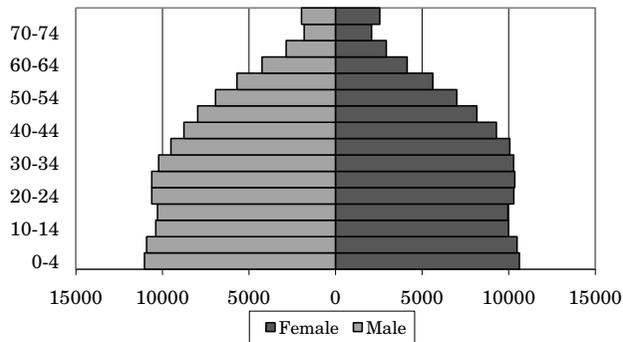
**Figure 1. Indonesian Population Pyramid 2005 (in thousand)**

Source : Calculation based on BPS, Bappenas, UNFPA Indonesian population projection 2000-2025



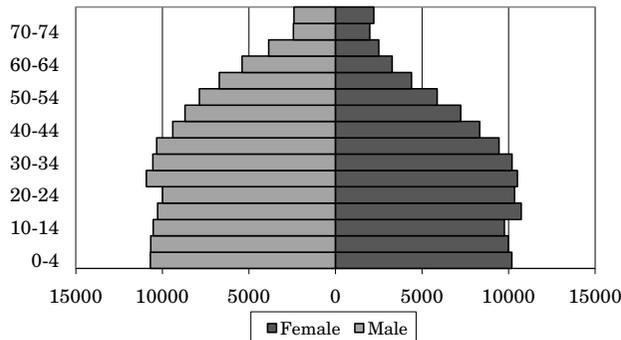
**Figure 2. Indonesian Population Pyramid 2010 (in thousand)**

Source : Calculation based on BPS, Bappenas, UNFPA Indonesian population projection 2000-2025



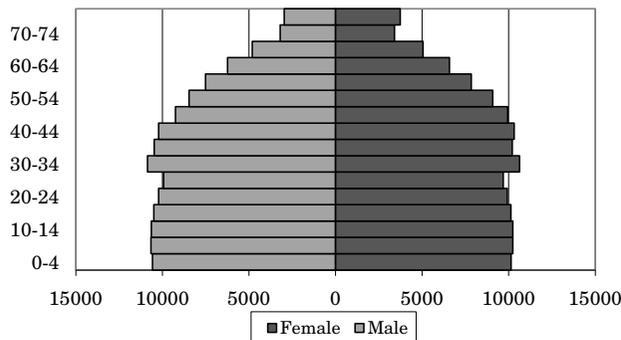
**Figure 3. Indonesian Population Pyramid 2015 (in thousand)**

Source : Calculation based on BPS, Bappenas, UNFPA Indonesian population projection 2000-2025



**Figure 4. Indonesian Population Pyramid 2020 (in thousand)**

Source : Calculation based on BPS, Bappenas, UNFPA Indonesian population projection 2000-2025



**Figure 5. Indonesian Population Pyramid 2025 (in thousand)**

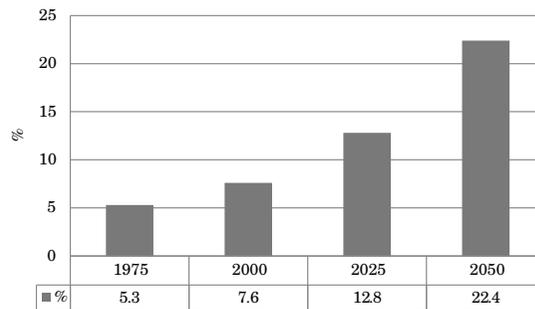
Source : Calculation based on BPS, Bappenas, UNFPA Indonesian population projection 2000-2025

One important implication of this is a high dependency ratio. The population pyramid in Figures 2 through 5 show that from 2010 to 2025 the population pyramid is changing and takes a shape where the middle-age working population becomes dominant, and hence lowering the dependency ratio. In this period, the percentage of young population is lower and that of old-age begins rising. This is a period in which saving rate can be increased from the working age population. Therefore, this period begins to provide a demographic window of opportunity (this will be discussed further below). However, this will not last very long. At this stage of demographic transition, the proportion of old age (60 and above) population becomes greater. Because of a further decline in the fertility rate and longer life expectancy at birth the old age population rises in proportion. An increasingly aging population in 2025 will lead to higher dependency ratio again,

or precisely higher old-age dependency ratio. Figure 6 further shows an increasingly greater proportion of old age population. Consequently, Indonesia would have around 25 years of window of opportunity left that is only one long-term planning cycle.

Figure 6 shows that by 2025 the proportion of older people aged 60 and above in Indonesia will become 12.8 percent and will rise to 22.4 percent in 2050, which resembles more or less the condition in the developed countries in 1950 (see Mohan, 2004). Meanwhile, Figure 7 shows that the proportion of young people will decline to 23 percent in 2025 and around 20 percent in 2050; more or less the condition in developed countries in 2000 (see Mohan, 2004). The rising old-age population share will override the declining young-age share, and as a result the overall dependency ratio (see Figure 8) will rise, and more old-age population will depend on working-age population.

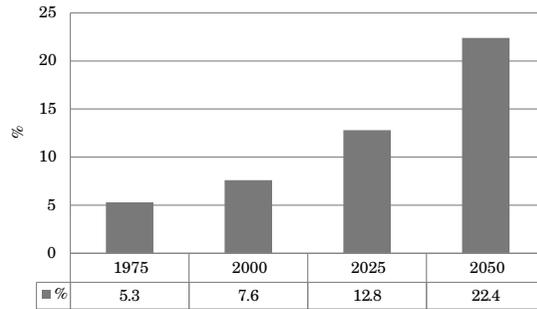
However, in 2025 around a quarter of total population will still be young-aged, with an increasingly large proportion of old age prevailing. The old-age dependency ratio <sup>3)</sup> will, as Figure 9 shows, rise from 7.5 in 2000 to 12.2 percent in 2025 to almost 26 percent in 2050.



**Figure 6. Trends in proportion of older population**

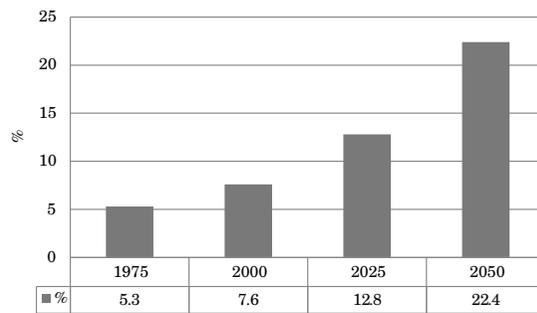
Source : Converted to graph based on data from Mohan (2002)

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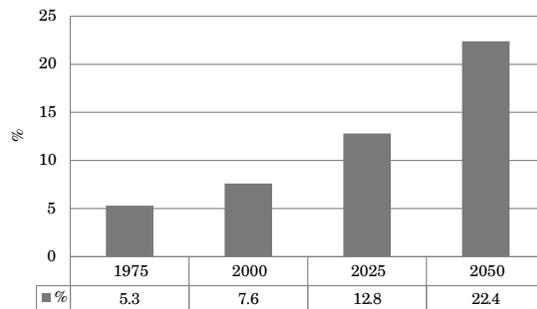
**Figure 7. Trends in proportion of young population of Indonesia**

Source : Converted to graph based on data from Mohan (2002)



**Figure 8. Trends in dependency ratio of Indonesian population**

Source : (National Agency for Family Planning Coordination, 2009)



**Figure 9. Trends in dependency ratio of Indonesian old population**

Source : Converted to graph based on data from Mohan (2002)

## 2.2. Window of opportunity

According to Ananta; Arifin and Bakhtiar, 2005, Indonesia reached replacement level of fertility in 2000-2005, finishing the first demographic transition. They predict that Indonesia will enter the era of low potential saving again after around 2035. In between, from 2005-2035, Indonesia will experience a favorable age structure of population, with a relatively small total dependency ratio—the young dependency ratio is declining fast and yet the old dependency ratio has not been rising rapidly. This favorable era is often called as the “demographic window of opportunity”. The period of 2005-2035 is the demographic window of opportunity in Indonesia, because this is the time when Indonesia will not be severely burdened with financing the dependent population.

The periods during which the window of opportunity occurs vary across countries, depending on the pace at which fertility and mortality decline. Table 1 shows Indonesia’s window of opportunity as compared with other neighboring countries.<sup>4)</sup> Some countries have benefited from windows of opportunities, while some others have not. Navaneetham (2002) indicates that countries that have had open economies and had excellent human capital benefited more from the “window of opportunity”. Unfortunately, Indonesia is not yet at this stage.

**Table 1. Period of window of opportunity in selected countries**

<b>Country</b>	<b>Window of opportunity</b>
Indonesia	1975-2025
Malaysia	1970-2020
Philippines	1970-2030
Singapore	1970-2015
Thailand	1975-2015

Source: (Navaneetham, 2002)

Indonesia has not invested enough in human capital, especially education and health. This, at least, is shown by the fact that Indonesia’s education public expenditure as a percentage of GDP is only 3.8, as compared with Malaysia (8.1) and Thailand (4.6), although a little higher than the Philippines. Also, Indonesia has a relatively small share of the government spending as measured by a relative small percentage of total expenditures of GDP (Granado, Fengler, Ragatz, and Yavuz, 2007). World Bank (2008) has also shown that Indonesia still spends comparatively little on health. In total, Indonesia spends less than 3 percent of

GDP on the health sector. In contrast, Vietnam, the Philippines, Malaysia and most of Indonesia's other neighboring countries spend more and score better on most conventional measures of health outcomes, such as DPT and measles vaccinations, as well as on child and maternal mortality rates.

Moreover, more than half of public health spending in Indonesia was carried out by provinces and districts. Despite substantial increases in public spending, private health spending still comprises the bulk of total health expenditures. About 65 percent of all spending on health is private and, of that, 75 percent is direct out-of-pocket spending. The remaining private spending from companies and insurance funds is limited.

### **2.3. The implications**

The high dependency ratios of both old-age and young-age have significant impacts on the government expenditures as well as the macroeconomy of Indonesia. First, the government will have to spend more on social security, health care and other welfare programs for the elderly. To finance these expenditures, the government will have to raise higher tax revenues from the working-age population, thereby creating contractionary effects on the economy. Saving rate may decline and the capacity to grow becomes less. As more income is taken from young working generation and given to the old generation, this will be one of the principal challenges confronting the Indonesian government in the future, particularly, in the context of intergenerational equity as is faced by many developed nations today.<sup>5)</sup>

Second, even if the Indonesia government is not paying for the old people nor does it have social security system in place, the young generation will pay for their parents' health as in most cases in Asia in which the government involvement in the pension system is very much limited.<sup>6)</sup> In such a situation, as the old aged people (65+) are mostly retired, they depend on their children for their consumption needs, including health. The working age group also spends a high percentage of their income on bearing and rearing their children.<sup>7)</sup> Therefore, high private spending reduces the capacity to save, and thereby reducing growth capacity.<sup>8)</sup> When the burden is increasing, there will a demand for a shift from private to public provision of healthcare in the future. There will be an increasing demand for state-managed healthcare and pensions. Higher government expenditure will also be required as the effect of the aging population if the government will respond to this by expanding medical care insurance and pension coverage.

Third, the rise in dependency ratios combined with falling fertility rate may also have an impact on female participation in the workforce. Declining sex ratio indicates that, in general, more women enter the labor market, thereby increasing the supply of labor. On the one hand, this would result in higher economic growth, but on the other hand, it would require a different working condition conducive to working women. Besides, the demand for higher women rights in the workplace and society in general will be stronger.

Fourth, as in most of the developing countries in Asia, Indonesia is in the middle path of demographic transition, with a still large portion of working-age population. But this demographic dividend will not last very long because the Indonesian population will become older. However, with still high rates of unemployment and poverty (low income of most working age population) and stressed budget, it will be least likely that the government will, in the short future, have the policy to take care for the elderly until unemployment and poverty rates are reduced to substantially low level.

Fifth, as a result of better education and healthcare, life expectancy at birth rises and it is higher for females. In 2010 it is estimated at 70.8<sup>9)</sup> and by 2025-30 it will rise to around 74 and becomes 77 in 2045-50.<sup>10)</sup> Consequently, the longer life would again require better education and healthcare, and therefore, the demand for higher provision for these two public services will be high.

Sixth, because the level of benefit that can be gained from the “window of opportunity” is very closely related to human capital, Indonesia will be confronted with the challenge of providing better human capital as opposed to physical capital. There will be a high demand for quality education and healthcare, for which a greater role of government involvement will be needed.

#### **2.4. The need for a new social policy**

As Indonesia is gradually entering the third stage in the demographic transition, a new social policy to provide better social services and welfare to its people is increasingly demanded. A new policy and administration of social services and welfare should include policies for education, health, pensions, and social security. Other related policies would also include the provision of public facilities and services for the elderly people. In an even broader perspective, a new social policy is also needed to address issues of ways to promote welfare, and means to improve the general social and economic conditions of the nation.

“The 2009 Healthcare Law and the 2004 National Social Security System Law stipulate that the government shall plan, regulate and organize healthcare

programs for all citizens, including the poor and the unemployed, particularly for service in public facilities. The passing of these laws, however, have not yet secured healthcare protection for Indonesian citizens. Healthcare insurance for the poor does not cover all poor people.” (Wisnu, 2010). At present, only about 27 percent of the population is covered by one of the current schemes, according to Susenas data. The social health insurance scheme for private sector workers, *Jamsostek*<sup>11)</sup>, suffers from its opt-out policy and covers only a small fraction of the intended target population (World Bank, 2008). Despite the advent of *Askeskin*<sup>12)</sup>, health insurance participation remains low, but has started to rise significantly. By mid-2005 as many as 85.9 million individuals (approx. 41 % of population) are covered by insurance, based on full coverage of 60 million people through *Askeskin* (World Bank, 2008). At the regional level, there has not been a health insurance system<sup>13)</sup> that covers all individuals. In fact, the revenues appropriated, for example, from local government-provided health services are not spent back on health services. “Fees from health center services made a significant contribution to local government revenues, but the expenditures that they financed went mainly to other activities such as public works “ (Achmad, 1999). However, there has recently been the advent of a new system by which a public services agency, BLU<sup>14)</sup>, is established to enable a public service provider like a hospital to generate their own revenues and spend them at their discretion. In that way it is expected public services will be improved. However, it will take a few years until such system proves to be a better one.

The employer-based insurance system like *Jamsostek* is limited to the formal sector only<sup>15)</sup>, whereas most low-income workers earn their living in the informal sector. There is still a worry that the new system will be a burden to the already stressed government budget if a major portion of its financing has to be incurred by the government, while a large contribution by workers can not be expected and perhaps not yet politically accepted. This may be because it would mean higher taxes (payroll taxes), and thereby reducing consumption level. Furthermore, the budget is competed against other programs such as overcoming unemployment and eradicating poverty. If it is managed as a separate fund rather than in the government budget, the challenge would be the complexity of administering it.

There is certainly an increasing demand for a new and across-the-board healthcare system. The risk of exposure to illness is rising due to the wider spread of communicable diseases, and the costs of healthcare are increasing due to the prevalence of expensive-to-cure illness. The government should have a plan and

system to provide healthcare to all Indonesians (formal, informal, and self-employed), including the medically-indigent sector of society. There is now a need for an inclusive and universal social security system. The universal social security system should include the need for an inclusive pension system, mandatory to both employers and employees. This is a real need because the vast majority of Indonesians has no pension provisions at all, and relies on the extended family for support in old age. There is no unified program that provides pension for Indonesian citizens<sup>16)</sup>. The new system's coverage needs to be expanded so that it provides protection to everybody, not limited to formal sector workers only.

Labor unions, NGOs, student groups and mass organizations have expressed a strong demand for the implementation of the wide-covering national social security system<sup>17)</sup>. However, the implementing body of the social security system is not yet created. PT Askes and PT Jamsostek have debated over who deserves to be the social security agency for a national program.<sup>18)</sup> The implementation of the 2004 Law on the Social Security System (SJSN), which stipulates the need to create a regulating institute called the Social Insurance Management Agency (BPJS), is long overdue and there does not seem to be a big step or breakthrough in solving this problem.

In spite of the difficulties, a national security system must, sooner or later, be set up before it is too late. Significant steps have to be taken to provide social protection for all citizens, particularly those who are now at their working age and who will become old and dependent in the future. It is now time for the Indonesian nation to build up social solidarity through a universal social security system.<sup>19)</sup>

### **3. Concluding remarks**

Whether Indonesia will succeed to take full benefit from the windows of opportunity will depend on whether the Indonesian government is making efforts to shift to a new social policy. In the future, there will be a greater challenge for a big country like Indonesia to become a welfare state. A universal social security system will certainly be one most important part of it. Big steps have yet to be made.

The government should make progressive efforts to campaign and build up

social solidarity. In addition, a strong political will from lawmakers is required. Politicians and policy makers in the government should seriously develop a plan for a long term strategy for an overall welfare provision and for that purpose a timeline should be provided.

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## Endnotes

- 1 ) Lindh and Malmberg (1999 in K. Navaneetham, 2002) have classified the age distribution as 0-14 (young), 15-24 (youth), 25-49 (prime working), 50-64 (middle) and 65+ (old age) for studying the impact on economic growth.
- 2 ) Replacement level of fertility is usually reached when TFR (total fertility rate) is about 2.2 and IMR (infant mortality rate) is less than 30 per 1,000 live births.

- 3) The old age dependency ratio is defined as the number of persons 65 years and over per 100 persons 15 to 64 years (see Mohan, 2004).
- 4) Please note that the window of opportunity period for Indonesia here is different from Ananta and Arifin's prediction due to different methodologies.
- 5) "In the Asian context, this issue is of great relevance as ageing is occurring at lower income levels. The redistribution of resources from younger to older generations has to be concerned with the incentive for savings, keeping in view the need for higher investment in sustaining the growth process." (Mohan, 2004).
- 6) Pension systems are usually restricted to large enterprises in the formal sector, most managed by public enterprises (e.g. Jamsostek) and in the form of provident funds. There is no share from the central government budget. The overall public pension coverage of the labor force is limited. The provision of pensions and care for the old was essentially privately provided and usually within the family. In the informal sector, there is essentially no retirement age.
- 7) The productive age share 25-49 contributed negatively to the per capita GDP growth rate in Indonesia. The earnings of this age group are mostly consumed in bearing and rearing children, and therefore the effect on the economic growth by this population would be minimal (Navaneetham, 2002).
- 8) This argument by Feldstein (1977) that the provision of social security, particularly public pensions, reduces the inducement to save thereby having a damaging impact on a country's long-term growth prospects has been countered by Barro (1978) with his theory of multigenerational planning horizon in which he assumes that people make bequests and derive some benefit from the well being of future generations. Therefore, they would save more in order to increase their bequest sufficiently to compensate successive generations for their tax liabilities. These two effects should cancel each other leaving the savings rate unchanged. However, for the case of a country with low to medium income and high average propensity to consume, saving rate will remain low.
- 9) Proyeksi Penduduk 2000-2025, <http://www.datastatistik-indonesia.com>, downloaded on 28 May 2010.
- 10) Mohan (2004)
- 11) Workforce and Social Insurance (Jaminan Sosial dan Tenaga Kerja)
- 12) Indonesia Health Insurance for the Poor
- 13) Except in Aceh province where the provincial government recently introduced a province-wide health security scheme called Jaminan Kesehatan Aceh (JKA).
- 14) *Badan Layanan Umum* (Public Service Agency). See Government Regulation of the Republic of Indonesia Number 23 /2005 on the Financial Management of Public Service Agencies.
- 15) Since 1993 Indonesia has gradually developed an extensive medical insurance system. A compulsory health insurance scheme is introduced for all workers, with contribution paid entirely by employers. However, the coverage is restricted to civil servants and formal sector workers. Most private sector employees rely on private insurance schemes paid for by employers or themselves. Jamsostek, a state-owned company, which operates based on the Labor Social Protection Law, only provides health insurance for formal private sector workers (World Bank, 2008).
- 16) See Wiener, Mitchell, Siti Budi Wardhani, and Michiel Van der Auwera (2007)
- 17) Dinna Wisnu, "Are we ready for a national social security system?", *The Jakarta Post*, May 4, 2010.
- 18) Dinna Wisnu, "Hoping for social security in Indonesia", *The Jakarta Post*, Saturday, May 22, 2010.
- 19) One way of building social security is through taxes (see Dina Indrasafitri, "RI a welfare state? It's still a long way to go" *The Jakarta Post*, Jakarta May 22, 2010).