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#### **Population Ageing and Social Security in Asia\***

Rafal Chomik<sup>1</sup> and John Piggott<sup>2</sup>

<sup>1</sup>Rafal Chomik is a senior Research Fellow at the ARC Centre of Excellence in Population Ageing Research, UNSW Business School, UNSW Australia. Email: [r.chomik@unsw.edu.au](mailto:r.chomik@unsw.edu.au)

<sup>2</sup>Professor John Piggott is Director of the ARC Centre of Excellence in Population Ageing Research, UNSW Business School, UNSW Australia. Email: [j.piggott@unsw.edu.au](mailto:j.piggott@unsw.edu.au)

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**POPULATION AGEING AND SOCIAL SECURITY IN ASIA\***  
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**Rafal Chomik**

Senior Research Fellow  
ARC Centre of Excellence in Population Ageing Research  
Australian School of Business  
University of New South Wales  
Sydney 2052 Australia  
[r.chomik@unsw.edu.au](mailto:r.chomik@unsw.edu.au)

**John Piggott**

Director  
ARC Centre of Excellence in Population Ageing Research  
Australian School of Business  
University of New South Wales  
Sydney 2052 Australia  
[j.piggott@unsw.edu.au](mailto:j.piggott@unsw.edu.au)

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## **POPULATION AGEING AND SOCIAL SECURITY IN ASIA**

### **Abstract**

Asian countries are at different stages of demographic transition. While Central and South Asian countries are relatively young and will remain so for some time, East and South-East Asia is expected to age at an unprecedented rate in the next few decades. Japan has reached the future first. Other nations, such as China, are still young but ageing faster than many advanced economies, including Australia and the United States. This demographic shift has considerable implications for the development of social policy. Here too, countries differ widely.

This chapter sets the context for the rest of the volume. The focus is mostly on countries in East and South-East Asia, but it includes contrasting comparisons to key regional countries such as India and Australia. Firstly, the chapter presents the context: the demographic, urbanisation and social trends facing Asia. Secondly, it tackles the allocation of resources for the elderly, in particular, by summarising approaches to two areas of social policy most pertinent to population ageing: retirement income and healthcare.

Key words: Population Ageing; Social policy; Asia; Pensions; Healthcare

Population Ageing

JEL codes: I18, I38, J1

## 1. INTRODUCTION

Asian countries are at different stages of demographic transition. While Central and South Asian countries are relatively young and will remain so for some time, East and South-East Asia is expected to age at an unprecedented rate in the next few decades. Japan, for instance, has reached the future first. Other nations, such as China, are still young but ageing faster than many advanced economies. This chapter sets the context for the rest of the volume. It focuses on East and South-East Asia, but comparisons are also made to regional countries such as India and Australia and, as needed, to US and European countries.

Section two presents the background: demographic, urbanisation and social trends. Section three and four summarise approaches to two areas of social policy most pertinent to population ageing: retirement income and healthcare. Here we compare the structure, parameters, outcomes and identify issues with respective systems. Section five concludes.

The message is clear. Well-designed social policies can address the challenges of population ageing but also represent a macro-economic opportunity to rebalance growth across Asia – allowing individuals to pool idiosyncratic risks associated with income and health shocks and reducing the need for households to accrue excessive precautionary savings (Chamon and Prasad, 2001; Baldacci et al., 2010). In rebuilding fiscal capacity following the global financial crisis, Asian countries are advised to focus on social spending to ensure inclusive growth (IMF 2013, 2014).

## 2. CONTEXT

### *2.1 Population age structure*

On median projections, many countries in Asia will by 2050 have an age structure comparable to OECD countries. Figure 1 groups Asian countries based on expected trajectories of their old-age dependency ratio. Those ageing the most include Japan, Korea and Singapore, where the ratio of the older population (65+) compared to the working-age population (15-64) will be between 58 and 70 percent by 2050. For Singapore, this means a quadrupling of the dependency ratio from 14 to 58 percent in less than two generations.

At the other extreme are countries with younger populations, including India and Philippines, which despite some ageing, are projected to have age-dependency ratios at or below the level seen in Europe, Australia and the US today. In between are countries that expected to achieve age-dependency ratios similar to those expected for Australia and the US in 2050. These consist of several South-East Asian countries and China, which is projected to see an increase from 13 to 42 percent by 2050. While uncertainty around the median projection exists, recent estimates suggest that even the bottom bound of the 95% confidence interval, dependency ratios in the region are expected to see large rises (UN, 2014). On these estimates, China's dependency ratio in 2050 is projected to range between 32 and 48 percent.

There is also substantial sub-national variation. Rural and urban populations have different fertility rates, life expectancy, and migration patterns. In 2000, life expectancy in rural China was about 6 years less than in urban areas (Wang and Mason, 2008). And fertility rates in Shanghai are less than half of the national rate. In turn, nearly a third of Shanghai's residents are expected to be over 60 in 2015 (SMPFPC, 2012).

## **2.2 Demographic dividend**

Early stages of such demographic shifts are associated with rising levels of per capita output – a phenomenon known as the 'demographic dividend'. Rising life expectancy means that a higher proportion of each cohort is living long enough to work and decreasing fertility means a greater proportion of them can participate in the labour market (Guinnane, 2011). The effect may have accounted for between one quarter to one third of the growth rates in the "East Asian miracle" (Bloom and Williamson, 1998; Lee et al., 2011; Golley and Tyers, 2012). This concentration of working-age people, before the population ages, provides a window of opportunity to set up social policies favourable in the later stages of demographic shift, when demography will result in a headwind hindering economic growth, and before the political environment entrenches constituencies and lobby groups at odds with sensible policy.

The size and change of the working-age population as a proportion of the total population illustrates the scale and timing of the demographic dividend and the window of opportunity available. Figure 2 groups countries according to when the relative size of the working-age population peaks. Most advanced economies have already experienced this peak and are seeing the relative size of the working-age population decrease. However, more women joining the labour force so most countries have seen employment ratios increase.

Many Asian countries, including most of South-East Asia, are currently at the top of this hump. For them the window of opportunity to prepare will close within the next decade. Bloom and Williamson (1998) estimated that demographics in East Asia will reduce annual GDP growth by up to 0.44 percentage points in the three decades to 2025. The Chinese government noted the effect of demography when first lowering the country's GDP growth target to a seven-year low of 7.5% (Government of PRC, 2012). By contrast, South Asia is projected to gain from demographic changes for another two decades.

A key difference between advanced countries and those in emerging Asia is that the speed of demographic transition in the latter means that many risk growing old before they become rich. Comparing GDP estimates and the age-dependency ratios of Asian countries shows that many will reach an older age structure at a given level of GDP per capita than in countries such as Australia and the US (Chomik & Piggott, 2013).

Of course, other factors influence economic growth, including the labour force participation rate (see section 3) and the effect of an increasing burden of chronic disease (see section 4).

Some also point to the ‘second demographic dividend’, where ageing leads to an accumulation of assets that spurs investment and long term productivity improvements.

### **2.3 Urbanisation & migration**

Another big demographic change – also a driver of GDP growth – has been rapid urbanisation. Many Asian countries, particularly China, have been able to take advantage of greater amounts of labour moving from farms to factories, which act as a motor for their industrial revolutions.

Past and projected trajectories are presented in Figure 3. Advanced countries, and some emerging economies such as Malaysia, already have high levels of urbanisation. China currently has just over 50% of its population living in cities and is expected to continue to urbanise for some time. It could encourage further rural migration and labour market flexibility by restructuring its system of household registration – something it has recently started to do. Given the size of Asia, the percentages translate to extremely large numbers of people. India and China are expected to add approximately half a billion to Asia’s urban population in the next 20 years.

Ageing and urbanisation are related. Urban centres not only boast higher incomes; they also allow greater access to health services, education, and social networks – factors associated with longer lives (Quinn, 2008). In advanced countries, about 80 percent of older people already live in cities. By 2050, about a quarter of urban populations in less developed countries are expected to be aged over 60 (UNFPA, 2007).

Asia’s dynamism is reflected in a high level of international labour mobility. Based on bilateral migrant stocks (people born in or nationals of another country) in 2010, East and South-East Asia countries were the source of 25 million migrants and the destination for 13 million, nine million of whom were migrants within the region (World Bank, 2012). Labour migration in the region has grown six percent annually and flows are likely to intensify ILO (2011). While migration from younger to older countries offers temporary relief from population ageing, it is has a minimal long term impact (Kippen and McDonald, 2004; UN, 2001).

### **2.4 Social changes**

Demographic changes have been accompanied by a number of social ones. For example, increasingly educated women have been prioritising a career over marriage. Many are delaying marriage or not marrying at all – perhaps unsurprising, given the enduring pressure of unpaid work. As their economic participation has increased, Japanese women still spend an average of 3.5 more hours of their day on unpaid work compared to men, well above the OECD average (OECD 2011). In turn, investment in education and higher salaries increase the opportunity cost of withdrawing from the labour force to rear children. In China, higher rates of male births means that over 10% of men born between 1980 and 2000 are expected to grow old without ever having married (Ebenstein and Sharygin, 2009).

In Asia 74 percent of people over age 60 still live in households with children or grandchildren (UN, 2005). Such cohabitation has complex interdependencies and impacts but the support structures that they provide are increasingly strained by smaller family units. Independent unmarried living, fertility declines and high levels of internal migration has meant that families and households have been getting smaller across Asia (Chomik and Piggott, 2013). This has implications on the support available to older people. Most countries' financial transfers are still from older to younger people. But as societies age and welfare systems evolve, the direction of transfers can switch, as happened in Japan and Germany (Lee and Mason, 2011).

## **2.5 Economic changes**

The most visible and often cited characteristic of transformation in East and South-East Asia has been its level of industrialisation. The relationship between economic development and social security is non-linear and different countries develop welfare systems at different rates, but it is instructive to compare the two.

Figure 4 shows the level of development over time and the stage at which selected countries introduced universal social security systems. Some have done so at an earlier stage of development than others. Japan had fragmented schemes which were reformed into a comprehensive system of social support in 1961. Singapore and Hong Kong, while maintaining insurance schemes for employees and emphasising family responsibilities, are unique in deprioritising the development of publicly funded universal support. Malaysia, Thailand, China and Indonesia are now at a stage of economic development where welfare states tend to flourish. China, for one, has recently moved to integrate different programs under one social security law, which at present acts as a guiding principle rather than a cohesive policy. We discuss the different approaches to social security next by looking at formal programs for pensions and healthcare.

## **3 RETIREMENT INCOME POLICY**

The provision of financial security at later ages, when human capital is depleted, is important for both individuals and the cohesion of society as a whole. But the evolution of retirement systems has been gradual, with different tranches of the population being covered at different levels of adequacy.

While no system delivers everything, certain criteria should be met for a policy to be considered as robust to demographic change. In what follows, we look at three commonly used criteria (e.g., OECD 2011b or Mercer 2014) of sustainability, adequacy and integrity. Fiscal sustainability refers to the capacity of the system to remain affordable despite demographic aging. Adequacy combines ideas of poverty alleviation and consumption smoothing between working life and retirement. Integrity channels the trust that individuals and community have in the system. Capricious or arbitrary changes in taxation, expropriations of asset pools

accumulated for retirement, and sudden reduction in pension benefits are all examples of challenges to the integrity of the retirement income system.

### **3.1 Fiscal sustainability**

The demographic dividend experienced by OECD countries in the late 20th century meant that many governments could and did become more generous and people were able to retire earlier than they had in the past or will in future. Asia has an opportunity to reform its retirement income provision and avoid the imbalances experienced in OECD countries. Policy should attend to the basic system structure, over-promising benefits, low benefit access ages, and impacts on labour force participation.

#### **Structure**

Pension system structures are presented in table 1. Several countries, including China, Japan, Korea, the Philippines, Thailand and Vietnam, have systems revolving around defined benefit schemes. Such designs, once popular in Europe, can result in unfunded liabilities when the ratio of pension recipients to contributors increases (OECD, 2011b). Asian countries would do well to reconsider how these function and either overhaul them or introduce stabilising features (e.g., implementation of notional accounts in Sweden and a sustainability adjustment in Germany pay less when contributions are lower).

Another structural issue is the integration between different pillars (contributory and non-contributory) and different schemes within a pillar (e.g., public and private; rural and urban). Policy announcement notwithstanding, nowhere is fragmentation more evident than in China's rural-urban system. Piggott and Lu (2012) propose using Notional Defined Contribution accounts to ensure pension entitlements for migrating workers. Separate civil service schemes are also problematic. These are often regarded as over-generous, can cause fiscal stress and particularly are difficult to reform once in place (Takayama, 2011).

#### **Sustainable benefits**

One way of gauging the fiscal sustainability of pension schemes is to look at the proportion of earnings necessary to fund the intended benefit level. For example, several Asian countries would need to have very high contribution rates to afford the intended level of benefit (OECD, 2011a). This is compounded by the relatively early availability of the pension (age 55 for women and 60 for men; see below). The current affordability of China's urban employee scheme relies on low coverage and relative immaturity. A similar situation exists in Vietnam and Thailand. Some estimate that at the aggregate level the Chinese pension system is already facing a large deficit (China Daily, 2012).

Many OECD countries, including some in Asia, have sought to curtail fiscal expense through direct or indirect benefit cuts. In the 1980s Korea set up a generous public pension plan for the

elderly only to cut benefits later (Park, 2012). Indirect cuts to the rate at which pension entitlements accrue have also been made in Japan (Whitehouse et al. 2009). But changes need to be well timed and targeted, ensuring fairness between those better and worse off; and between those retiring now and those who will retire at a time of greater national prosperity.

### ***Benefit access age***

One area of immediate policy action is encouraging longer working lives. Financial incentives to exit the labour force, specifically low pension eligibility ages, can exacerbate fiscal pressures if people retire early. The average pension and retirement age in the OECD fell between 1950 and the mid-1990s. Most OECD countries are now closing early retirement pathways, equalising pension eligibility ages between sexes and commonly increasing them to age 65. Some (e.g., US, UK, and Australia) are increasing pension ages to between 67 and 68 (Chomik and Whitehouse, 2010). Australia has announced plans to increase it to 70.

Official pension access ages are relatively low in Asian countries: on average 59 for men and 57 for women. This is low even adjusting for lower national life expectancies. For example, the life expectancy after pension age for women is on average 24 years in the OECD but 27.3 years in non-OECD Asian-Pacific countries. And even this is an under-estimate since life expectancy of those who are currently covered by pensions in Asia (i.e. formal sector workers) tends to be higher than that of the general population (OECD 2011a). While in-country differences in life expectancy (e.g. between poor and rich) mean increasing the pension age is of concern, in many cases even low-socio-economic groups have seen their longevity rise. (OECD, 2014)

### ***Labour force participation***

Early pension access can have knock-on effects on labour force participation rates at older ages. Malaysia, for instance, has a low pension age of 55 despite a higher level of income and life expectancy than many countries in Asia. Its labour force participation rates of older people have in fact been declining. Those aged 60 to 64 had a participation rate of 51 percent in 1975, which decreased to 37 percent by 2008 (Park, 2012), consistent with the incentives provided by the pension system.

Evidence from China (where government has indicated future increases in pension age) demonstrates the expected relationship between the age at which urban pensions can be accessed and the rate of employment by age (Giles et al., 2012). This is not necessarily a bad thing. Such a relationship is absent for rural employees, whose pensions are worth little and who have to toil into their later years. But as populations become healthier and live longer it would be a missed opportunity if older cohorts are relegated to early retirement and their potential overlooked. Mature-age labour force participation can offset the fiscal impacts of population ageing and there are a number of policy levers that can act as sticks and carrots to encourage people to remain in the labour force longer (Chomik and Piggott, 2012).

### **3.2 Adequacy of pension benefits**

Specific issues related to the adequacy of benefits include low coverage of the population, a lack of minimum benefits, and a poor design of the pension decumulation phase.

#### ***Coverage***

Formal pension systems in Asia cover a smaller fraction of workers than in OECD countries. Rural populations with modest incomes and high informal employment are less likely to rely on formal pensions. But as countries develop coverage tends to rise (Figure 5). Demographic change at lower levels of development means pension coverage in Asian countries will also need to expand before they are rich.

Some ought to be commended. China has doubled the number of people who are covered by public pensions since the mid-2000s. Thailand has also been enrolling informal sector workers at a considerable rate thanks to cost-sharing and aggressive marketing (Park, 2012).

Rural and migrant workers are more difficult to cover. Urban-rural and public-private sector inequality in working life is translating to inequality in retirement. Migrant workers are poorly covered under segregated systems with unequal rules such as China's or Singapore's. Additionally, ensuring adequate support for international migrants will require cooperation between countries and agreements relating to the reciprocity of benefits and avoidance of dual payment of premiums. China and Korea signed one such agreement in late 2012. But more international work on pension portability is needed (Holzmann & Koetti, 2012).

#### ***Social pensions***

Social pensions help to close the coverage gap (Holzmann et al. 2009). In Asia, such safety-nets are either non-existent, have low benefits, or have very low coverage: five percent of retirees in Hong Kong and less than one percent in Singapore (OECD 2011a; Table 1). Others, such as Laos, Malaysia, and Vietnam lack basic support. Demographic and social change means that without social pensions a cohort of workers is emerging with few resources once they are too old to work. Safety-nets are needed at least until formal schemes take over.

Despite China's expansion of pensions, over half the population can expect minimal entitlement. Social pensions can help. Lu et al. (2012) calculate the revenue costs of a universal social pension (that excludes urban workers) with benefits equal to the poverty line would cost 0.5-1.5 percent of GDP annually.

Some continue with reforms. Korea has recently upgraded its safety net for older people by significantly increasing the value of the basic benefit and means testing it against other pension income (SSA, 2014).

### ***Withdrawal options***

Where defined contribution pensions exist, they seldom deliver to provide regular retirement income. Annuities can insure the purchaser against longevity, investment and inflation risk. But in Malaysia, for example, a country with one of the oldest mandatory defined contribution schemes in the world, benefits are almost entirely paid as lump sums. In Indonesia a lump sum is accompanied by payments for only five years.

This remains a challenge for developed countries such as Hong Kong, Singapore and Australia. Annuitisation can be limited by a poorly developed market and lack of government support. Singapore recently introduced mandatory annuitisation via a government controlled process. Withdrawal before retirement can also be a problem. In India 7 percent of balances are withdrawn before pension age (OECD 2011a).

### **3.3 Integrity**

Many policy analysts see pre-funding of at least part of the retirement system as a way to retain sustainability while delivering adequate retirement benefits. Pre-funding makes considerable demands on the integrity of the financial system and consistency of government policy. How ready are Asian countries for such long term commitments?

#### ***Need for private pension markets***

Ageing and development stimulates the need for innovative financial products and markets, which can intermediate investment and insurance. A survey by Jackson et al. (2012) across Asian societies showed that in middle-income countries responsibility for retiree's income was thought to fall on government, while in developed ones the responsibility was on retirees.

Since larger, more mature and more competitive private pension systems tend to earn higher and less volatile returns (Musalem and Pasquini, 2012), the reward for a well-functioning private pension market is a higher standard of living for retirees. Total pension assets in the Asia-Pacific region (excluding Australia, New Zealand and Japan) were already worth nearly US\$500 billion in 2011 (Chomik, 2013a), and expected to grow considerably. Asia and Oceania account for 61 percent of the world population, younger though it may be, and only 12 percent of total funds under management (Investment Company Institute, 2013).

#### ***Regulation and sovereignty risks***

To function well, private pension markets require certain preconditions in addition to deep and flexible markets. These include appropriate and transparent regulations, a level of compulsion or incentives to save, pension fund competition or regulation to keep costs low, risk oversight, robust record-keeping systems, accounting standards that encourage trust, and a sophisticated funds management workforce. Piggott and Sane (2012) find that while Japan, Korea, Hong Kong and Singapore compete with the developed-world group on governance and financial

sophistication indices, most of emerging-Asia ranks poorly and some have even seen falls in governance and regulatory quality between 1996 and 2006. Continued reform and greater institutional depth within finance is needed (ADB 2011). For example, China will need to improve the governance of its voluntary pension schemes, known as ‘Enterprise Annuities’, if greater savings are to flow into these (Swiss Life, 2012).

Some progress is being made. Chinese licenses for institutional investors are being simplified (Government of People’s Republic of China, 2012) and financial services providers are preparing to enter the Chinese market (State Street, 2011). APEC countries are discussing a multilateral pilot called the Asia Region Funds Passport, which would allow approved financial products in one country to be sold in another (APEC, 2013).

The field could also benefit from a solid regional research effort to aid understanding of regulatory regimes and support systems (e.g., public sector underwriting) and risks around regional projections (e.g., longevity).

## **4 HEALTHCARE**

Richer and better-educated Asian populations will demand more from healthcare than they have previously. But changes will also be layered with demographic and epidemiological dimensions, requiring specific responses. Again, the demographic transition will dictate a level of healthcare development that is more advanced at a given level of income than was necessary in the west.

### ***4.1 Systems in transition***

Health systems in the region have diverse origins, levels of development and expected trajectories. This is apparent in the range of health outcomes, proxied by average life expectancy – from 64 in Cambodia to 84 in Japan. At the cost of some oversimplification, we can classify these systems as we might economies: developing, emerging and advanced (Kanzler and Ng, 2012). These correspond to the level of spending on healthcare as well as income per capita, which are highly correlated (see Figure 6).

Developing health systems, including those of Indonesia, the Philippines, and Vietnam, are characterised by high out-of-pocket costs, poor use of technology, low and uneven coverage of financing and service, inadequate preventative care, and inequality in health outcomes.

Emerging health systems, including those of China, Malaysia, and Thailand share some of these characteristics but to a lesser degree. In addition, they experience growing private insurance and medical tourism. Both developing and emerging systems face challenges relating to the dual burden of infectious as well as non-communicable diseases (see below). All countries, particularly those with advanced health systems, are seeing public cost pressures.

Demography plays a role. Increasing costs are being driven by greater use of costly technology, higher levels of utilisation, as well as growing elderly populations. Smaller families and declining cohabitation means more older people rely on public support.

Some countries can act as a role models. Japan has the oldest population in the world but an efficient and relatively cheap health system, while China has achieved near universal coverage at a relatively low level of development.

## **4.2 Health insurance coverage**

Healthcare coverage has three dimensions: population, benefits, and cost. Advanced countries (except for the US) and some emerging countries have reached universal coverage for all citizens. But even where the population is covered by health insurance, the depth or scope of the benefits package that is available through the system – or the proportion of costs covered – may be limited. The concept is demonstrated in Figure 7. Also, effective coverage can be poor despite the official entitlement (e.g., when clinics are far away). Malaysia achieved universal coverage in the 1980s, but in 2004 key generic medicines were only available in a quarter of public health facilities.

Table 2 summarises the main public health insurance systems in place and the extent of their coverage across selected Asian countries. Countries with emerging health systems, such as India, Indonesia, Laos, Philippines, and Vietnam still have low population coverage, though some, such as the Philippines and Vietnam are en route to achieving universal levels.

Countries with tax-financed systems, such as Malaysia, tend to have more comprehensive coverage, compared to those with social health insurance coverage, where only formal sector employees have traditionally been covered.

China's expansion of health coverage has been staggering. It has enrolled 1.2 billion people into the health insurance system within the last decade and coverage for rural citizens increased from near-zero to almost universal in just five years. It has done so by subsidising local governments and decentralising decision-making rather than by mere mandate. However, uneven benefit packages across provinces remain (Barber and Yao, 2010).

Governments that achieved universal population coverage are now looking to improve the generosity of their systems and reducing high out-of-pocket costs. In 2010, out-of-pocket spend was nearly 40 percent of total health expenditure in Indonesia compared to 14 percent in Thailand and Japan (Chomik, 2013b).

Yet, reducing private spending is not uniformly pursued. Singapore fosters personal responsibility: it offers subsidies within the public system but operates tax-deductible saving accounts from which families pay medical costs or purchase health insurance.

### **4.3 Containing costs**

Improvements in coverage, technology and ageing can result in health cost pressures. China's Ministry of Health (2012) notes that between 1978 and 2011 the average annual real growth rate of total health expenditure was over 11 percent. And the IMF estimates that within 20 years public health spending in Asia will increase between 0.5 percent of GDP in Pakistan and 5.5 percent of GDP in Korea (Soto et al. 2012), with more than half of that increase due to population ageing. In its view, emerging economies have the fiscal space to increase health expenditure. But expansion ought to be done in a "fiscally sustainable manner while avoiding the inefficiencies and high costs of the health systems of advanced economies" (Gupta et al., 2012, p7).

So how can governments restrain health costs? There are a number of macro, micro and demand-side measures that various countries have implemented with varying degrees of success (Tyson et al., 2012; Jenkner et al., 2012). These are summarised in Table 3, and range from budgetary caps to introducing co-payments.

Japan has been successful in using price controls across the entire health system to keep costs down, while Thailand has been a regional leader in moving from fee-for-service payments to location-specific caps, hospital budgets, and a Diagnosis Related Groups system of reimbursement. China follows other countries in announcing a pilot to use collective market power and negotiate pharmaceutical contracts at a provincial level (Government of People's Republic of China, 2012).

Future-proofing health systems against population ageing will require more work, however. Japan's relatively efficient health system still suffers from poor incentives and over-utilisation by the elderly. Even excluding long-term care costs, elderly Japanese (aged 65+) are responsible for per capita health expenditure four times the rest of the population (Li, 2012).

### **4.4 Role of private sector**

Based on the conceptual framework in Figure 7, private health insurance is one way to expand the breadth, depth and height of the box. It is the third wave of reforms in health system development following coverage expansion and cost containment (Cutler, 2001).

Health insurance in the region is still a niche market, worth an estimated US\$50 billion in 2010 across East, South-East and South Asia (see Table 2; excludes Australia and Japan). More than half is attributed to China, which saw private health insurance revenues approximately double each year between 2008 and 2011.

With appropriate regulations, society can gain health insurance benefits while limiting inequality. Regulations include fixed private insurance premiums for basic coverage that encourage competition on quality rather than cost, mandatory acceptance of all patients

regardless of pre-existing conditions, and the creation of risk funds that equalise risk across insurers and therefore reduce the targeting of low-risk populations (Kanzler and Ng, 2012).

But private insurer competition must be managed correctly to avoid the pitfalls seen in the dysfunctional market in the USA, where the proliferation of insurers weakens their individual market power to negotiate with providers and results in increased costs (Porter and Teisberg, 2006). In general, a greater share of private insurance across OECD countries is associated with lower non-demographic cost increases (Tyson et al., 2012)

In addition to acting as payors themselves, private companies can help with provision. Taiwan has managed to run its national health insurance with administrative costs accounting for only 1.3 percent of the budget with the help of IT providers (Cheng, 2012).

Encouraging private payors to run health facilities could improve quality and efficiency (Kanzler and Ng, 2012). China has pledged to double the patient volume at private hospitals, which is likely to involve large-scale privatisations (Government of People's Republic of China, 2012).

#### **4.5 Changing needs**

Demographic change is also related to epidemiological transition, where the burden of disease changes from infectious to non-communicable diseases (NCDs). NCDs are often those associated with lifestyle, urbanisation and ageing, and include cardiovascular disease, cancer, chronic respiratory diseases, and diabetes.

Like other parts of the world, even as overall mortality rates have decreased, Asia has experienced a rapid relative increase in the prevalence of NCDs leading to considerable human and economic costs (Abegunde, 2007; Chongsuvivatwong et al. 2011). According to the International Diabetes Federation (2012) there are already some 125 million diabetics in East Asia and the Pacific, quadrupling since the 1970s. China reports that 260 million people were diagnosed with various NCDs (China's Ministry of Health, 2012).

The region faces a double burden of disease, where NCD rates are increasing even as communicable diseases are still prevalent. And vulnerable populations are hardest hit, with NCD death rates inversely proportional to GDP (Dans et al., 2012).

Even though the age- and sex-specific burden of disease from chronic illness may be expected to decline, the demographic profile of populations will mean that total burden of non-communicable disease will likely increase (except possibly for lung cancer).

There are significant implications. It will be important to design essential benefit packages that include NCD screening and treatment. Screening and response capacity will also need to be strengthened across the region. Currently, the availability of key NCD tests in the public system and medicines at primary healthcare level are limited in many Asian countries (Figure 8).

There is also a public health imperative to focus on preventative care and managing lifestyle factors. Strategies to reduce salt intake and control tobacco in emerging countries can cost as little as US\$1-2 per person and avert millions of deaths and billions of dollars of loss in economic output (Lim et al, 2007).

Developing institutional capacity for research can be one early tactic. Thai success in tackling NCDs is partly due to investment in research and health promotion directly funded by tobacco and alcohol taxes. The field remains unexplored. For example, little is known about the health effects of urban living on an ageing population (Black et al., 2011).

## 5 CONCLUSION

This century has been characterised as the Asian Century; but even more, it is the Ageing Century. This chapter has tried to provide an overview of these demographic, social and economic developments, as well as explore the implications of policy formulation around retirement incomes and health care.

Rapid demographic transition will challenge many Asian countries; with greatest challenges arriving before economic growth and affluence have been consolidated into social support structures. Promises made when societies are young become burdensome with population ageing. These policies, once introduced, may generate not just the adverse incentive effects familiar from analysis of developed economy regimes, but may also inhibit formalisation of the labour force, with consequent impacts on economic growth.

There is no one set of policies that will apply for all countries but common themes exist. For pensions, policy should attend to the basic system structure, with careful redesign of defined benefit schemes. The retirement income system ought not to over-promise benefits that will become unaffordable when coverage expands and the population ages, but also not to ignore the fact that future generations will be more prosperous. Coverage and adequacy gaps can be filled without excessive costs, for example, via social and targeted pensions and preservation and annuitisation of existing accumulations.

Cost pressures in pensions can be tackled by use of targeting, slowly lifting the pension age to stimulate labour supply in later years, dismantling demand-side barriers (e.g. age discrimination), and by providing private saving incentives. The latter can expand in step with financial market development but will require better regulation, including appropriate and transparent standards, compulsion or incentives to save, fund competition, risk oversight, and robust accounting and record-keeping systems.

Further health system reforms will be necessary to prepare Asia for population ageing. As countries reach universal population coverage and governments rebuild fiscal space following the global financial crisis, policymakers ought to expand the other dimensions of coverage: a

greater proportion of the costs and greater range of benefits. In doing so, cost efficiency will be maintained only by continuous macro, micro and demand-side reforms, including budgetary caps and regular pricing controls, and exerting the government's market power in purchasing services and medicines. As the population ages, health system benefit packages should expand to include NCD prevention, screening and treatment programs. With appropriate public support, which avoids the types of pitfalls seen in the US, private sector insurers and providers can reduce public costs and help to extend the scope and depth of coverage. Finally, more research is needed to understand the effectiveness and trade-offs between different policy measures.

Well-designed social policies will result in inclusive growth. At the level of the macro-economy, stronger welfare provision has the potential to also rebalance growth in the region – where individuals can pool income and health risks and have less need for excessive precautionary savings.

A final remark concerns Aged Care (or Long Term Care), which has been omitted from the discussion so far. This is at the frontiers of policy even in developed countries with advanced societal ageing. Japan developed a LTC policy only in 2001; Australia consolidated its approach with major reforms initiated just a couple of years ago. It will undoubtedly challenge many Asian societies in the coming decades and is an important part of future research on population ageing in Asia.

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**Table 1. Summary of pension systems in selected countries**

	Safety Net		Compulsory income replacement			Supplemental saving	
	Universal	Targeted	Pay-As-You-Go (mostly DB)	Funded		Employment related	Other tax preferred
				Public	Private		
Australia		Age Pension: 28% of AW			Super- annuation Guarantee: 9% of earn.	Voluntary contrib.	Housing
China	Urban Resident Pension, Rural Pension		Urban Employee Pension DB+NDC			Urban Enterprise Annuity	
Hong Kong	Higher Old Age Allowance for age 70+, 5% of AW	Normal Old Age Allowance for age 65-69, 5% of AW			Mandatory Provident Fund: 10% of earn.		
India		National Old Age Pension	Employee Pension Scheme	Employee Provident Fund, 24% of earn.		Group Super- annuation, 15% of earn.	National Pension Scheme
Indonesia				PT Jamsostek: 6% of earn.		Employer Pension Funds	Financial Institution Pension Funds
Japan	National Pension 16% of AW		Employees' Pension Insurance			Various private plans are popular	
Korea		New Basic Age Pension, 31% of AW	National Pension Programme		Retirement Benefit Scheme: DB or DC		Individual Retirement Accounts
Laos			Old Age Pension				
Malaysia				Employee Provident Fund: 23- 24% of earn.		Private Retirement Scheme	
Philippines	Old Age Pension basic, 4% of AW		Old Age Pensions	Pag-IBIG Fund: 3-4% of earn.			
Singapore				Central Provident Fund: 11.5- 36% of earn.		Supplemental Retirement Scheme	
Thailand	500 Baht scheme		Old-age Pension Fund			Voluntary provident funds	Retirement Mutual Funds; Informal sect. schemes
Vietnam			Social Security Fund				

Source: OECD (2011a); Swiss Life (2012); Park and Estrada (2012). Note: For safety net schemes the percentage amount indicates benefit level in relation to Average Wage (AW), while for funded income replacement schemes the percentage amount indicates the level of total mandatory contribution. Not all contributions are for retirement savings (e.g., Malaysia and Singapore). References are to main private sector employee schemes. DC denotes Defined Contribution. DB denotes Defined Benefit. China's individual account-based urban employee pensions are unfunded in practice (i.e. Notional Defined Contribution or NDC).

**Table 2. Summary of health financing in selected countries**

	Public	Pop cover	Costs cover	Benefit cover / Access issues	Private market
Australia	<ul style="list-style-type: none"> <li>• Tax financed Medicare (1984)</li> </ul>	100%	68%	<ul style="list-style-type: none"> <li>• Hospitals and medical service free/subsidised</li> <li>• Ancillary at public hospitals</li> <li>• Medicine purchase scheme to lower costs + subsidies for poor</li> </ul>	\$11.4b
China	<ul style="list-style-type: none"> <li>• Urban Employee Basic Medical Insurance (1998;mandatory);</li> <li>• Urban Residents Basic Medical Insurance (2007; voluntary)</li> <li>• New Rural Cooperative Medical Scheme (2003; voluntary)</li> <li>• Medical Financial Assistance covers premiums/extra costs of rural poor</li> </ul>	95%	54% but varies by area	<ul style="list-style-type: none"> <li>• Mostly catastrophic and inpatient care</li> <li>• Tiered public hospitals</li> <li>• Median availability of selected generic medicines: 18% in 2006</li> <li>• Decentralised, with variable benefit packages, access and quality</li> <li>• Oversubscribed/wait periods</li> </ul>	\$29.5b
Hong Kong	<ul style="list-style-type: none"> <li>• Tax financed Dept of Health and Hospital Authority</li> </ul>	100%	29%	<ul style="list-style-type: none"> <li>• Hospitals /medical: free/subsidised</li> <li>• But long waiting periods</li> </ul>	\$1.1b
India	<ul style="list-style-type: none"> <li>• Employee State Insurance Corporation (1948)</li> </ul>	low	49%	<ul style="list-style-type: none"> <li>• Medical free/subsidised through tiered hospital system</li> <li>• Median availability of selected generic medicines: 21% in 2004</li> <li>• Oversubscribed/waiting lists</li> <li>• Variable access and quality</li> </ul>	\$6.6b
Indonesia	<ul style="list-style-type: none"> <li>• Jamsostek Medical Scheme (1992). Mandatory for employees unless they have better private cover</li> <li>• Jamkesmas (2004) tax funded for poor</li> <li>• Askes for public sector</li> </ul>	63%	83%	<ul style="list-style-type: none"> <li>• Jamkesmas medical free at public or private hospitals, and generic medicines at special pharmacies</li> <li>• Variable access and quality</li> <li>• Median availability of selected generic medicines: 47% in 2004</li> </ul>	\$2.3b
Japan	<ul style="list-style-type: none"> <li>• Employees Health Insurance (1961) for employees and families</li> <li>• National Health Insurance for others</li> <li>• Integrated aged care/healthcare for older</li> </ul>	100%	46%	<ul style="list-style-type: none"> <li>• Universal access to any facility: public and private hospitals / clinics (for-profit hospitals don't exist)</li> </ul>	\$16.3b
Korea	<ul style="list-style-type: none"> <li>• National Health Insurance (1977) for employees, subsidised by Medical Aid Programme for others</li> </ul>	100%	56%	<ul style="list-style-type: none"> <li>• Free choice of facilities, almost entirely by private providers</li> </ul>	\$6.6b
Laos	<ul style="list-style-type: none"> <li>• Health insurance for employees and family</li> </ul>	Low	35%	<ul style="list-style-type: none"> <li>• Medical through hospitals</li> <li>• Excludes vehicular road traffic accident and cosmetic treatment</li> </ul>	n/a
Malaysia	<ul style="list-style-type: none"> <li>• Tax financed system run by Ministry of Health (1957)</li> </ul>	100%	36%	<ul style="list-style-type: none"> <li>• Medical care in hospitals and clinics</li> <li>• Medicine subsidised</li> <li>• Median availability of selected generic medicines: 25% in 2004</li> </ul>	\$1.1b
Philippin.	<ul style="list-style-type: none"> <li>• National Health Insurance Programme (1995) for formal employees</li> <li>• Sponsored Programme (1996) for poor</li> <li>• Individually-Paying Programme (1999) for informal and self-employed</li> <li>• Overseas and retiree programmes</li> </ul>	82%	75%	<ul style="list-style-type: none"> <li>• Benefits on schedule up to a ceiling</li> <li>• Medical and hospitals provided at different govt levels</li> <li>• Median availability of selected generic medicines: 15% in 2005</li> </ul>	\$0.8b
Singapore	<ul style="list-style-type: none"> <li>• Medisave (1984) – mandatory savings</li> <li>• MediShield (1990) – group insurance</li> <li>• Medifund (1993) means-tested cover</li> <li>• ElderShield (2002) for aged care</li> </ul>	100%	38%	<ul style="list-style-type: none"> <li>• Heavily subsidised hospitals</li> <li>• Medisave used for basic treatment</li> <li>• Serious treatment from Medishield</li> <li>• Medifund covers deficit beyond Medisave/Medishield /own means</li> </ul>	\$0.8b
Thailand	<ul style="list-style-type: none"> <li>• Civil Servant Medical Benefit Scheme</li> <li>• Social Security Scheme (1990)</li> <li>• Universal Coverage Scheme (2001) - formerly 30-Baht Scheme for poor</li> </ul>	99%	68%	<ul style="list-style-type: none"> <li>• Basic medical and hospital</li> <li>• Median availability of selected generic medicines: 75% in 2006</li> </ul>	\$1.4b
Vietnam	<ul style="list-style-type: none"> <li>• Compulsory Health Insurance (2009) with tax financing for poor</li> <li>• Voluntary Health Insurance (2009)</li> </ul>	65%	54%	<ul style="list-style-type: none"> <li>• Basic inpatient/outpatient package</li> <li>• Variable access and quality</li> </ul>	\$0.3b

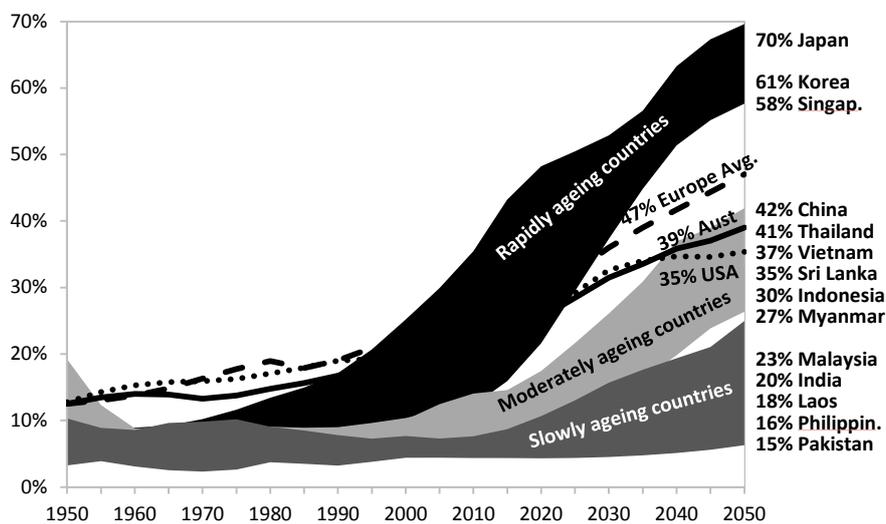
Source: Chomik (2013b). Note: Dates denote scheme inception. Private market refers to prepaid premiums in US\$ in 2010. Costs cover relates to public sector expenditure as proportion of total health expenditure – it may be different essential healthcare since above figures may reflect levels of discretionary health spending (e.g., in Japan public cover for essential treatment is 70-90%).

**Table 3. Measures for containing healthcare costs**

Macro-level controls	Budget caps	Limits on overall or subsector spending (e.g., hospital budgets or GP expenditure ceilings)
	Supply constraints	Limiting volume of inputs or outputs in healthcare (e.g., GP numbers, controlling the pharmaceuticals or benefits schedule)
	Price controls	Regulating prices (e.g., wages, reference pricing of pharmaceuticals or benefits, payment by capitation or Diagnosis Related Group (DRG))
Micro-level reforms	Public management & coordination	Organisational changes to improve accountability, incentives, or reduce overlap (e.g., fewer management levels, gate-keeping by GPs to screen out unnecessary specialist treatment)
	Contracting	Changing arrangements with physicians, hospitals and other providers (types are: salaries or budgets, capitation or DRG, fee-for-service)
	Market mechanisms	Introducing market mechanisms between supply and demand side to stimulate competition (e.g., internal market of GPs buying services from hospitals, separating financing and provision, patient choice)
Demand-side reforms		Increasing share of costs borne by patients (e.g., lump sum or co-payments, tax treatment of private health insurance)

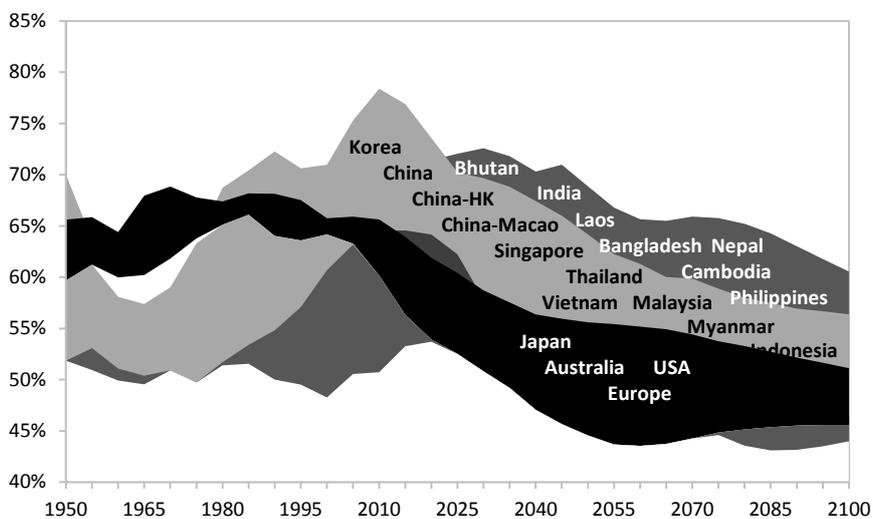
Source: Adapted from Oxley and MacFarlan (1995) and IMF (2010)

**Figure 1 Old-age dependency ratio**



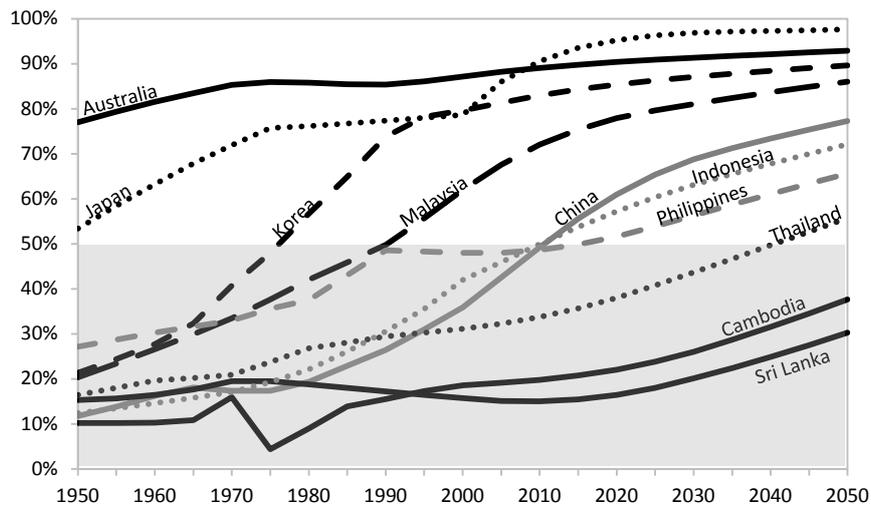
Source: UN (2011)

**Figure 2: Working-age population as proportion of total**



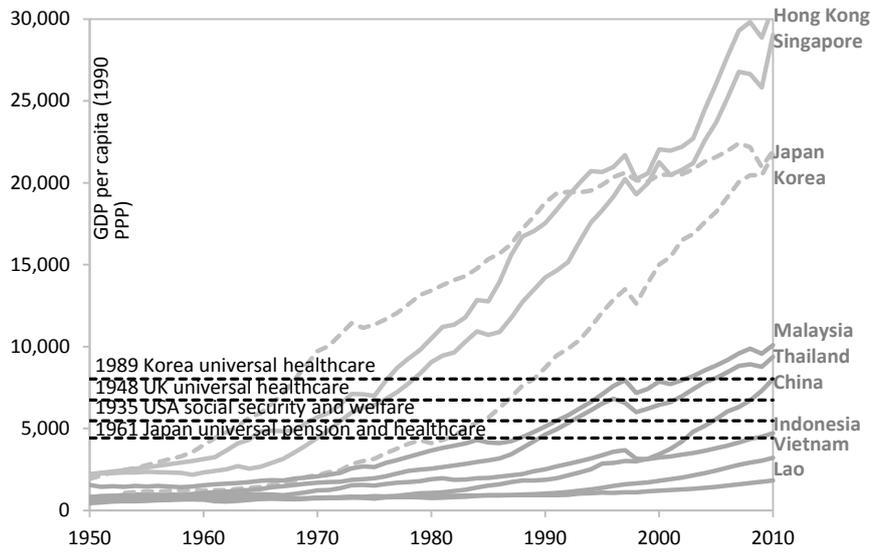
Source: UN (2011)

Figure 3. Urbanisation



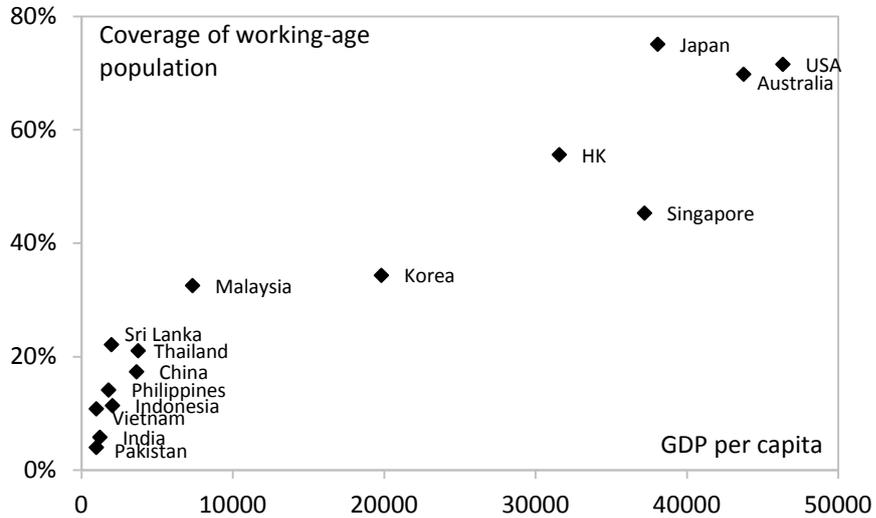
Source: UN (2012)

Figure 4. Economic development and universal social security



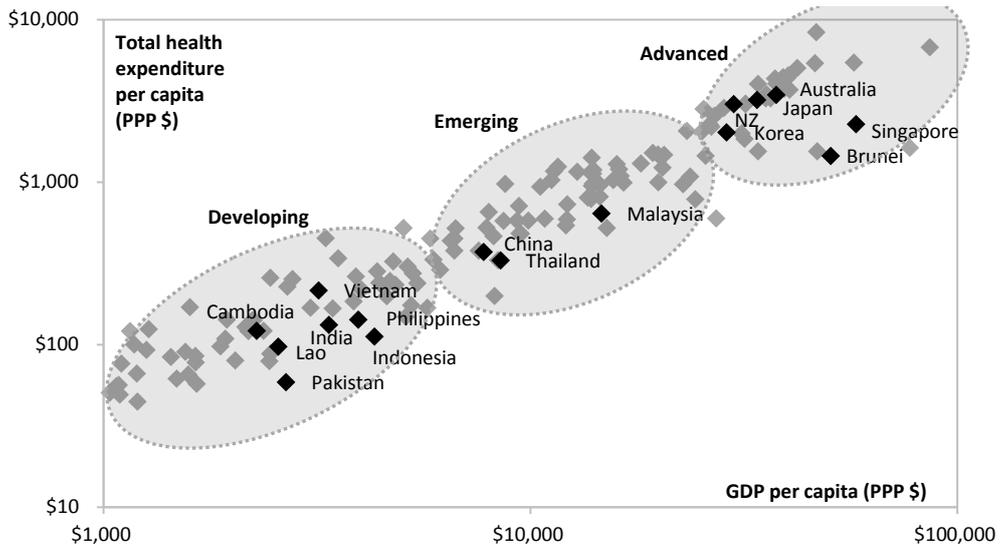
Source: Authors' compilation; Bolt and Zanden (2013)

Figure 5. Pension coverage of working-age population (mid-2000s)



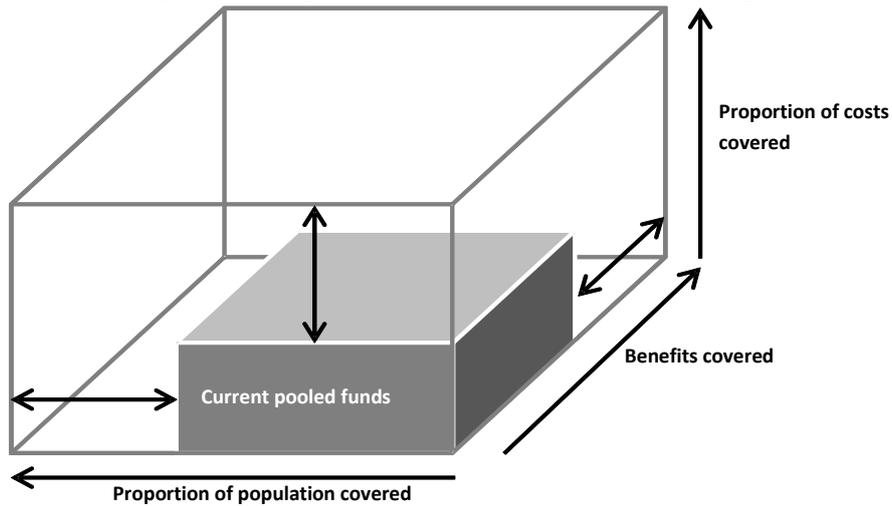
Source: OECD (2011a)

**Figure 6. Classifying health systems 2010**



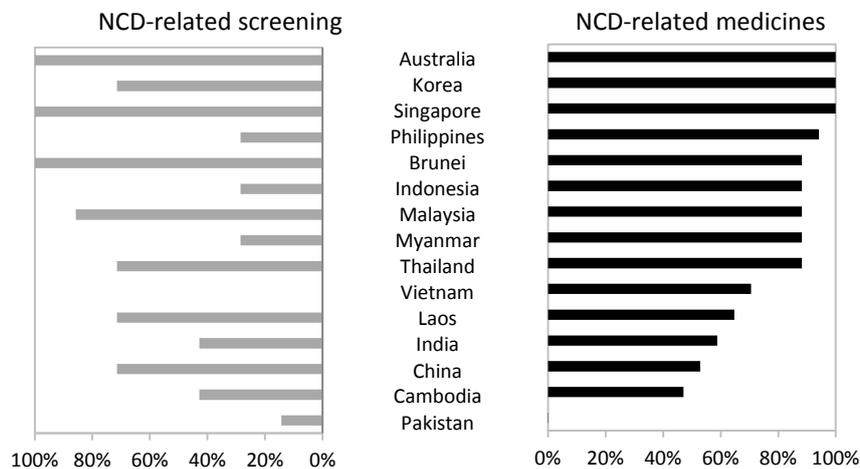
Source: WHO (2013); World Bank (2013)

**Figure 7. Conceptual model of health insurance coverage**



Source: Busse and Schlette (2007)

**Figure 8. Key NCD tests / medicines available in public health / primary healthcare, 2010**



Source: WHO (2013) Note: Based on availability of 17 medicines (e.g., insulin, beta blockers, and statins) and 7 tests (cholesterol, diabetes testing, digital or colonoscopy)