Pensions in Asia/Pacific

Ageing Asia must face its pension problems

Many of Asia's retirement-income systems are ill prepared for the rapid population ageing that will occur over the next two decades. The demographic transition – to fewer babies and longer lives – took a century in Europe and North America. In Asia, this transition will often occur in a single generation. Asia's pension systems need modernising urgently to ensure that they are financially sustainable and provide adequate retirement incomes.

In some countries – China, Vietnam, Pakistan, Chinese Taipei – pension levels are high relative to earnings. Early retirement ages, especially for women, provide additional financial pressure. These systems are unlikely to be sustainable as populations age and retirement-income provision matures.

Yet many Asia/Pacific countries also face a problem of adequacy of retirement incomes. There are four reasons why current pension systems are unlikely to deliver a secure income in old age.

- Coverage of formal pension systems is relatively low.
- Withdrawal of savings before retirement is very common.
- Pension savings are often taken as lump sums with the risk that people outlive their resources.
- Pensions in payment are not automatically adjusted to reflect changes in the cost of living.

Ageing Asia must face these pension problems to deliver secure, sustainable and adequate retirement incomes for today's workers.

Asia's ageing will be at its most rapid between 2010 and 2030. Given the long lag in pension-policy planning, there is now a narrow window for many Asian countries to avoid future pension problems and repeating many of the mistakes made in Europe and North America. But it will soon be too late.

Pensions in Asia/Pacific

National pension provision in Asia/Pacific is very diverse. Nine countries have public schemes that pay earnings-related pensions. They are called 'defined-benefit' (DB) schemes because the value of the pension is defined relative to individual earnings.

Table 1. Pensions in Asia/Pacific

Country	Type of pension scheme		
	Public		Private
	DB	DC	DC
East Asia/Pacific			
China		●	
Hong Kong, China			●
Indonesia		●	
Malaysia		●	
Philippines	●		
Singapore		●	
Chinese Taipei	●		
Thailand	●		
Vietnam	●		
South Asia			
India	●	●	
Pakistan	●		
Sri Lanka		●	
OECD Asia/Pacific			
Australia			●
Canada	●		
Japan	●		
Korea	●		
Mexico			●
New Zealand			
United States	●		

Source: *Pensions at a Glance: Asia/Pacific Edition*, OECD, 2008

The next most common kind of scheme is again publicly managed, but benefits depend on the amount contributed and the investment returns earned. These are known as 'defined-contribution' (DC) schemes. Three countries also have defined-contribution pensions, but managed by the private sector. Finally, New Zealand does not have compulsory pension contributions, but instead pays a flat-rate benefit to all retirees.

This diversity makes it hard to compare pension systems between countries and evaluate their performance. Nevertheless, there are valuable lessons to be learned from different countries' pension-system design and their experience with reforming retirement-income regimes.

A key indicator of pension systems is the 'replacement rate'. This shows the value of the pension for specific individuals as a percentage of their earnings when working. The calculations are shown for a worker entering the labour market today and spending a full career under the set of pension parameters and rules that includes all legislated changes.

Figure I shows the calculated replacement rates for average earners. The OECD Asia/Pacific countries all have very similar replacement rates, bunched around 40%. However, this is well below the average for the 30 OECD countries as whole, which is 60%.

For men, replacement rates in most other Asia/Pacific countries are substantially above the levels in the OECD. They are around two-thirds or more in China, Pakistan, the Philippines, Chinese Taipei and Vietnam, for example.

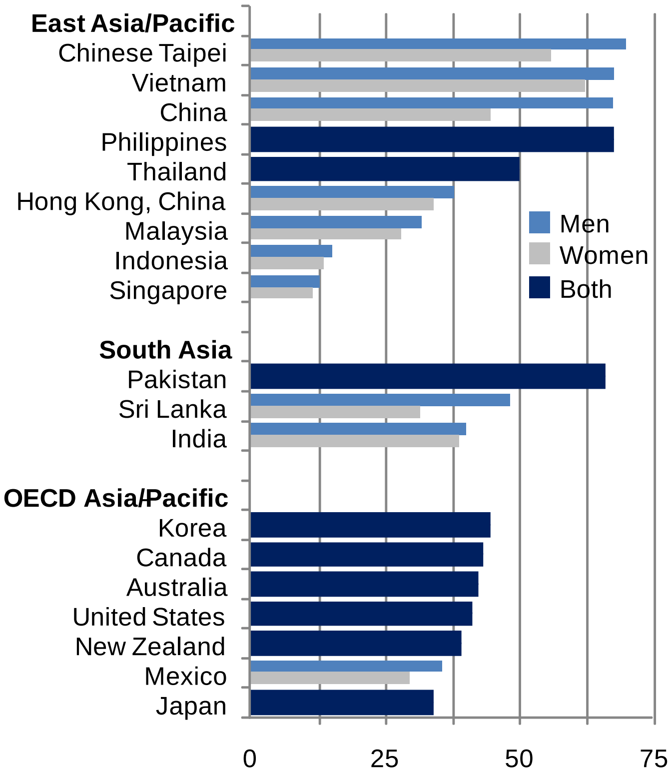
On the other hand, there are also countries in Asia/Pacific with very low replacement rates. In Singapore, for example, only a small part of the contribution to the provident fund is ring-fenced to provide retirement income. In practice, people might not spend the maximum allowed on other things, such as housing and healthcare meaning that retirement incomes in practice may well be higher than those shown.

The low replacement rate for Indonesia reflects the small size of the mandatory contribution.

The average replacement rate is 47% in East Asia/Pacific, 52% in South Asia and 40% in the OECD countries of the region.

Replacement rates for women tend to be lower than men's in Asia/Pacific, which, as we shall see, is primarily a result of women having earlier pension ages than men. In OECD countries, in contrast, pension ages for men and women are (or will be) the same.

Figure I. Replacement rates



Source: *Pensions at a Glance: Asia/Pacific Edition*, OECD, 2008

Pension ages and retirement

The most common pension age in OECD countries is 65, although Germany, the United Kingdom and the United States will all increase pension age to 67 in the future. In contrast, the average pension age for men in Asia/Pacific countries outside the OECD is around 59 while for women it is just 57. However, countries outside of the OECD are projected to have somewhat shorter life expectancies and so it might be reasonable for them to have earlier pension ages.

Combining information on national pension ages and life expectancy, it is possible to calculate the expected amount of time that people will spend in retirement. Figure 2 shows that this averages 19.4 years for men across the countries studied. However, in OECD countries the average is just 18.3 years, compared with 20.3 years in the Asia/Pacific countries outside the OECD. The average pension age for men is six years earlier in non-OECD countries than in OECD members shown. Shorter life expectancy cuts the difference in retirement duration between the two groups of countries, but does not eliminate it.

For women, the differences are starker: pension age is seven years younger on average for women in countries outside the OECD. Expected retirement duration is 22.5 years for women in the OECD countries, compared with 18.3 years for men.

This mainly reflects differences in life expectancy between the sexes. But for the other Asia/Pacific countries, expected retirement duration for women is 25.6 years, a full three years longer than in the OECD countries shown. This reflects both women's longer life expectancy and earlier pension age in a number of countries.

Figure 2 shows that pension eligibility ages are exceptionally low for both men and women in Malaysia and Sri Lanka. Indeed, women in Sri Lanka, who can retire at age 50, can expect 33 years of retirement, most likely a longer period than they were working and contributing. In addition, women's pension ages are conspicuously low in China, Thailand and Chinese Taipei.

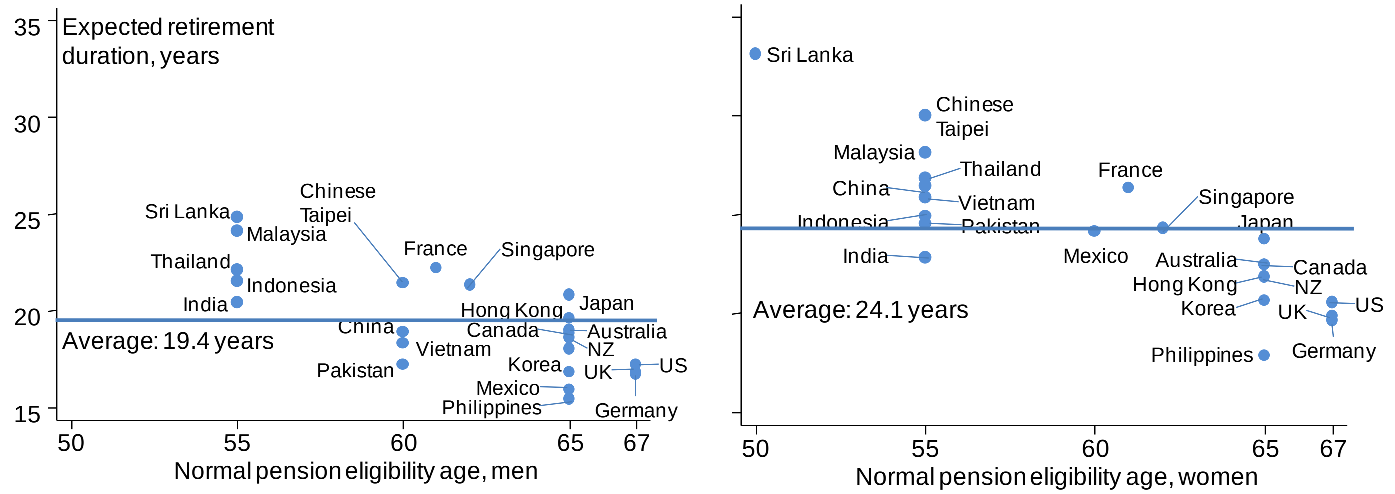
Furthermore, these results almost certainly understate the differences in retirement durations between countries. In the OECD countries, an average of 70% of the working-age population is a member of the pension system, equivalent to more than 90% of people who are economically active (see discussion below).

In South Asia, coverage of the pension system is just 7.5% of the working-age population or 13% of the economically active. Coverage is higher on average in East/Asia Pacific than in South Asia: 18% of people of working age or 35% of labour-market participants. But this is still well short of the experience in OECD countries.

Figure 2. Expected time in retirement

Men

Women



Source: OECD analysis of World Bank/UN population database

The results in Figure 2 are based on population mortality data. This is not a problem when analysing OECD countries that have near-universal coverage. However, the groups that are covered by the pension system outside the OECD are a minority, and a privileged one. Their life expectancy is therefore higher than that of the population as a whole. Figure 2 therefore understates the differences in expected retirement duration between OECD and non-OECD countries: in practice, they will be larger than the two years for men and three years for women calculated.

Financial sustainability

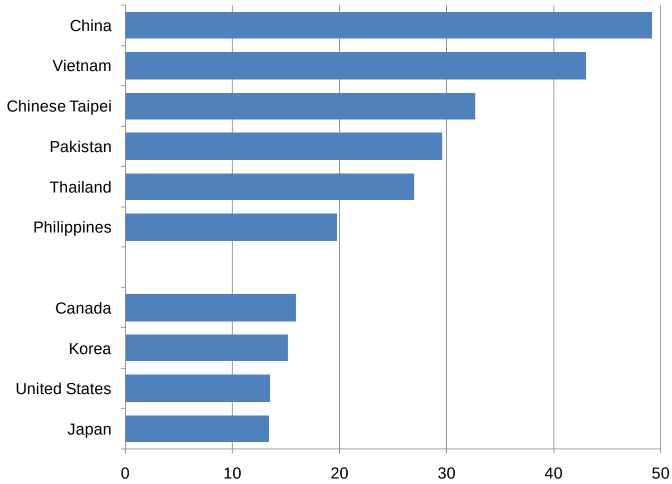
A simple indicator of long-term costs of providing retirement incomes is the steady-state rate of contributions that would be needed to pay for pensions.

Figure 3 demonstrates that many of the Asia/Pacific pension systems are unlikely to prove sustainable in the long term. For example, China currently aims to pay a replacement rate of 68% for men and 45% for women from age 60 and 55 respectively. Allowing for the costs of mixed price/earnings indexation of pensions in payment, the cost of providing such a benefit is nearly 50% of earnings (assuming contributions from age 20 to the normal pension age of 55 or 60). This measure of the steady-state contribution rate is also high in other Asia/Pacific countries.

In many cases – China, Vietnam, Pakistan and Chinese Taipei – this is due to high target replacement rates. However, early pension ages – especially for women – also have an important effect. Also, indexation of pensions in payment to a mix of wages and prices rather than prices alone in China and the Philippines adds to costs.

Furthermore, this simple measure of financial sustainability tends to understate the costs of retirement incomes. First, pension entitlements are calculated for a single person, and so the cost of paying couples' and survivors' benefits is not taken into account. Secondly, the analysis does not allow for differences between countries in the evolution of the size of the working-age population. The necessary contribution rates will tend to be higher than those shown because of declines in workforce size.

Figure 3. Required contribution rates



Source: OECD pension models

Modernising pensions

There are a number of features of Asia/Pacific pension schemes that fall short of international standards and best practice. Three issues stand out.

First, nearly all defined-benefit schemes are based on final salaries.

Secondly, people can and do withdraw benefits early, leaving little money for retirement. This begs the question whether these are really pension plans at all. Similarly, many systems pay lump-sum benefits rather than a regular retirement income, exposing pensioners to the risk of outliving their retirement savings.

Thirdly, the adjustment of pensions in payment to reflect changes in costs of living is discretionary or *ad hoc*, leading to the risk that inflation erodes retirement income over time, leaving the very old in poverty.

Earnings measures

Calculating retirement benefits in earnings-related pension plans on the basis of 'final' salary is readily understandable and used to be common practice around the world. It is much more difficult to maintain lifetime salary records and to do the requisite pension calculations than to base benefits on the last salary. Moreover, basing pensions on final pay offers an easy way of dealing with the effect of inflation on pension entitlements earned earlier on in the career. Of the Asia/Pacific countries, only Vietnam will in future base pensions on average salary. India, Pakistan, the Philippines, Chinese Taipei and Thailand use final salaries.

Most OECD countries have now shifted to calculating pension entitlements using lifetime average earnings. Some 18 of them use the full lifetime, and a further three – including Canada and the United States – use 30-35 years of earnings. The main exceptions are Greece and Spain, which still use the final 5 and 15 years' salaries respectively.

The motivation for this change was the undesirable effects of final-salary plans. The higher paid tend to have earnings that rise more rapidly with age, while age-earnings profiles for lower paid manual workers tend to be flat. There is thus redistribution from low to high earners with final salary plans.

Having lifetime earnings as the contribution base and final earnings as the benefit base also discourages compliance in earlier years with large incentives to under-report earnings. It encourages strategic manipulation, with employees and employers artificially boosting pay in the final years to secure higher pensions. These effects both reduce contribution revenues and lead to higher expenditures.

Furthermore, record-keeping has improved through the adoption of information technology, allowing files covering longer periods to be maintained rather than relying on final salary. Secondly, computerisation allows 'valorisation' or indexation of earlier years' earnings to be calculated easily to protect pensions from inflation during the time from when rights are earned to when benefits are received. This means that pension formulae based on final salary are no longer needed as a way of protecting against inflation.

Withdrawals

The word 'pension' to most people means a regular payment. In this sense, many Asian countries do not provide pensions.

In Malaysia and Sri Lanka, benefits are paid as a lump sum at the time of retirement. Workers in Indonesia receive a mix of a single lump sum or an annual payment over five years. A certain minimum amount has to be taken as annual payments over 20 years in Singapore, but the rest can be taken as a lump sum. Workers in Hong Kong also have a lump-sum option.

Most countries around the world, however, pay out pensions in the form of 'annuities': regular payments until the death of individual members or of their survivors. Economists believe that annuities make people better off. The intuition is straightforward. Individual life expectancy is uncertain. So people would have to spend accumulated wealth slowly after retirement to ensure an adequate income should they live a long time. But this kind of self-insurance is costly because it increases the chances that people will consume less than they could have if they knew when they were going to die. This cost can be reduced with annuities, which pool risk across individuals.

An annuity is a kind of insurance against the risk of exhausting savings in old age. The benefit of this 'longevity insurance' depends on how risk-averse people are. The more cautious would spend less of their savings in the early years of retirement if there were no annuities to avoid running out of money toward the end of their lives. The benefit of an annuity also depends on interest rates, life expectancy and how much people plan for the long term. Under reasonable assumptions, access to an annuity has been shown to improve welfare at age 65 by 50-100% compared with a world of pure lump-sum pension payments.

There are some good reasons why people might not want to convert their retirement savings into an annuity. The first is bequests. Annuities are, by definition, exhausted when people die. Yet people often want to leave some of their wealth to their family. Bequests can also be used to encourage relatives to look after them in their old age in exchange for the promise of the inheritance. The desire for bequests, whether 'strategic' or 'altruistic', reduces the value of annuities to individuals.

A second motive is precautionary savings. A sudden medical emergency requires liquidity and flexibility that is impossible if wealth is fully annuitised.

Nonetheless, some degree of annuitisation of retirement savings is desirable, from both the individual's and the policy-maker's perspective. Developing a means of achieving this is challenging: for example, annuity markets perform poorly even in some countries with sophisticated financial markets, such as Australia. But the resulting pooling of risks across individuals could improve everyone's welfare in retirement.

Some schemes do not even require people to reach retirement before withdrawing money from their accounts. In India, for example, members can withdraw their balances when they change jobs, up to three years' of earnings for housing (after five years' contributions) and 50% of the employee's share for marriage, education healthcare *etc.* (after seven years' contributions). Historically, around 8.5% of balances were withdrawn annually, of which less than one fifth was for retirement at the normal age.

Saving for the short term is obviously of value to individuals, meeting important needs and risks that are not insured by a welfare system. They were particularly important in the past, when India lacked secure financial institutions able to guarantee individuals' savings and a positive real interest rate. If Indians did not make early withdrawals from their accounts, then the replacement rate for a full-career worker would be virtually 100%.

Singapore's provident fund also provides savings for different purposes, with three different accounts: one earmarked for retirement, one for healthcare expenses and the other with broader uses, most notably housing. The retirement account receives a share of the total contribution – which is 34.5% for people under age 50 – that varies with age. This is just under 15% for under 35s, rising to 25% for 50-55 year olds. However, there are no additional earmarked contributions after 55. The healthcare account also receives a contribution that increases with age: from less than 20% for under 35s to 30% for 50-55 year olds and higher still after age 55.

The relatively low replacement rate for Singapore shown in Figure 1 of 13% is because the calculations only consider the earmarked retirement account. If an individual were to put the general account towards retirement-income provision as well, then the replacement rate would be 82%. It would, of course, be foolish to say that one Singaporean who withdrew the account balance to buy a house is worse off than another who built up a larger retirement income but then had to use some of it to pay rent. Nonetheless, there is a risk that older people find themselves asset-rich and income-poor in retirement and facing difficulty in unlocking the value of their housing assets to pay for essentials.

Some Asia/Pacific countries' rules for early withdrawals are therefore likely to lead to low retirement incomes. Improved protection or 'ring-fencing' of savings for retirement might be appropriate. Also, greater transparency in the rules for early withdrawals – perhaps through the designation of earmarked accounts as in Singapore – is needed.

Inflation and indexation

Indexation refers to the automatic adjustment of pensions in payment to reflect changes in costs of living or standards of living. Without adjustment, the purchasing power of the pension can decline quickly and, over a period of retirement of 20 years or more, by a large amount.

Few countries around the world had automatic adjustments until the 1970s. High inflation following the oil-price shocks led virtually all industrialised countries to adopt automatic indexation. The effect of such a policy is to protect pension values and produce greater certainty in retirement incomes.

In Asia/Pacific, only China and the Philippines have automatic indexation of pensions, in both cases to a mix of price inflation and wage growth. In Vietnam, pensions increase in line with the minimum wage.

In contrast, adjustments to pensions in India, Pakistan and Thailand are purely discretionary. In Chinese Taipei, there must be regular reviews of benefits but there is no fixed index to calculate the adjustments.

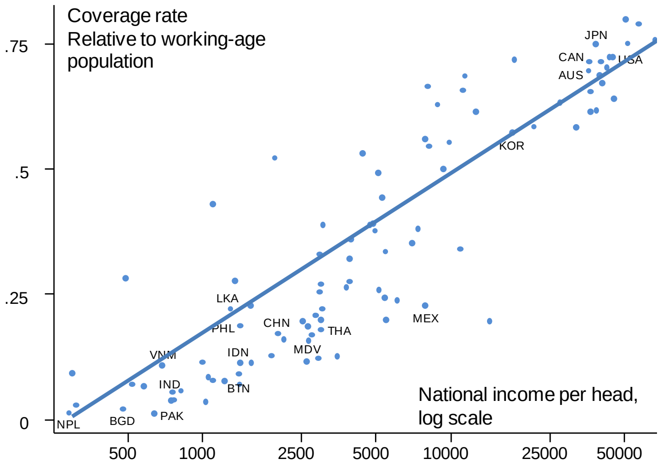
Asia's coverage gap

Coverage of formal pension systems in Asia/Pacific is much lower than in OECD countries. This is unsurprising given the different way the economies work. Countries with large rural populations predominantly engaged in small-scale agriculture and high degrees of absolute poverty are unlikely to have high coverage. Moreover, networks of family support obviate the need for formal pension systems.

Figure 4 therefore compares coverage of formal pension systems – defined as the percentage of people of working age who are members – with the level of national income per head. The chart shows data for well over 100 countries, with the Asia/Pacific countries highlighted. There is obviously a strong relationship between coverage of formal pension schemes and national income.

However, the chart shows that some countries – Sri Lanka, the Philippines and Vietnam – have higher coverage than most countries with similar national income per head. Others – such as China, India, Pakistan and Thailand – have low coverage, given their level of economic development.

Figure 4. Pension coverage



Source: OECD analysis of World Bank pension database

Furthermore, few countries in Asia/Pacific have social pensions to provide safety-net retirement incomes for people who were not members of formal schemes. Such schemes cover only around 5% of retirees in Hong Kong and less than 1% in Singapore. Other countries do not have such programmes (or they have very low coverage). Only in India are social pensions significant: around 10-15% of older people are beneficiaries.

As networks of family support weaken and coverage of formal pension systems remains low, stronger systems of social pensions will be an important way of avoiding high and growing levels of old-age poverty.

Ageing Asia

Around 14% of the total population is currently aged over 65 in the OECD Asia/Pacific and other major developed economies. This ranges from 5% in Mexico, through 12% in Australia, New Zealand and the United States to 20% in Italy and Japan. Outside the OECD, the Asia/Pacific countries are much younger, with an average of

6% of people aged over 65. This share is less than 4% in Pakistan and the Philippines, around 8% in China and Singapore and 12% in Hong Kong.

Between now and mid-century, the population over age 65 will increase from 14 to 26% in the 11 OECD countries under study. But the increase in other Asia/Pacific economies will be twice as fast: from 6% to 17% on average.

Meeting challenges, making changes

Ageing Asia needs to face up to its pension problems and needs to do so soon. Early retirement ages and relatively high pension levels threaten financial sustainability. Yet, at the same time, low coverage, early withdrawals and lump-sum payments mean that adequacy will also be a challenge.

Follow-up

A new report – *Pensions at a Glance: Asia/Pacific Edition* – examines the retirement-income systems of 18 countries in the region. The report, issued jointly by the OECD, the World Bank and the OECD Korea Policy Centre, provides new data for comparing pension systems of different countries.

This new report combines the OECD's expertise in modelling pension entitlements with a network of national pension experts who provided detailed information at the country level, verified key results and provided feedback and input to improve the analysis.

The report comprises data on dozens of different indicators of retirement-income systems along with detailed descriptions of the parameters and rules of national pension plans.

The report is available from
www.oecd.org/els/social/ageing

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About *Pensions at a Glance*

"Pensions at a Glance deserves much more than a glance. It is a compendium of facts and analyses that should inform policymaking and public debate around the world for years to come. By providing in clear and easy-to-understand form a wealth of information about pension systems, it will make it much harder for even the most insular to ignore the valuable lessons to be learned from the pension experience of other nations."

Henry J. Aaron
The Brookings Institution