

Pension watch

Briefings on social protection in older age

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The price of income security in older age:

***Cost of a universal pension in 50 low- and middle-
income countries***

Discussion paper

Charles Knox-Vydmanov

HelpAge International

HelpAge International helps older people claim their rights, challenge discrimination and overcome poverty, so that they can lead dignified, secure, active and healthy lives.

Abstract

This paper estimates the cost of a universal social pension in 50 low- and middle-income countries, both now and into the future. It finds that a universal pension appears to be an affordable option in all of the countries surveyed, relative to the economy and to government spending. In all 50 countries a universal pension for everyone over 65 would cost less than 1.8 per cent of GDP. In no country would these costs constitute more than 8 per cent of current government expenditure. Developing countries also have a number of low-cost options for gradually expanding a universal pension: for example, by starting with a higher eligibility age and gradually decreasing this. In the long term, the cost of a universal pension can be kept stable over time even while keeping pace with price inflation.

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The price of income security in older age: Cost of a universal pension in 50 low- and middle-income countries

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Introduction

Pension systems have proven to be one of the most effective approaches for reducing the poverty of older people, their families and communities. In OECD countries, basic pensions were usually the first significant cash benefits to be put in place, and they remain the central pillar of most social protection systems. More recently, less-developed countries, from Brazil to Bolivia, and from South Africa to Nepal, have put in place similar but homegrown approaches to reaching poor older people. These have had transformative impacts not just on direct recipients, but also on the wider economy and society.

Partly as a result of these experiences, social protection has gained significant attention in recent years as a way that governments can complement economic development. As countries consider how to build an effective “minimum package” or “floor” of social protection¹, pensions often come to the fore. Old age is one of the fundamental vulnerabilities that individuals encounter during their lives. Meanwhile, social issues, such as migration and HIV and AIDS, have highlighted the increasing active role of older people as carers and breadwinners in a globalised world – a world that is ageing. Politically, pensions designed to reach the majority of people tend to be a popular first step to investing in social protection, largely because getting old is something that everyone expects to experience at some point.

Of particular relevance in low- and middle-income countries are “social” or non-contributory pensions. The high levels of informal employment and poverty in developing countries mean that social security systems based on payroll contributions – which have been effective at reducing poverty in some developed countries – will have limited reach in the foreseeable future.

In this context, universal pensions – which are given to everyone over a certain age, regardless of income – have important advantages. From a poverty-reduction perspective, their simple eligibility criteria mean they are more effective in reaching the poor than poverty-targeted pensions, which the poorest often find difficult to access.² Meanwhile, in the context of a wider pension system, universal pensions also have the advantage of not creating disincentives to participate in other pension schemes, or to continue working after retirement age.

Despite the potential of universal pensions, one of the biggest fears of governments considering them is their cost – both now and into the future – as populations age. This paper therefore asks the question: How much is it likely to cost for a country to take a first step to building a social protection floor? In order to do this, the paper estimates the cost under different scenarios in 50 low- and middle-income countries, puts them into perspective against other expenditure, and considers how the cost of a universal pension will change over time. The paper builds on previous costings by organisations such as the International Labour Office, by looking at a greater number of countries, and by focusing on social pensions.³

Costing a universal pension

The cost of a universal pension depends on two key variables: the size of the population receiving the benefit (determined by demographics and the age of eligibility), and the level of the pension. In both cases, the optimal option will be affected by a degree of subjectivity and political negotiation; nevertheless, some benchmarks can be established for the purpose of costing.

1. For the purpose of this paper, “social protection” is considered to refer to a set of cash transfers put in place by governments.

2. This is for a range of reasons, including the chosen eligibility criteria, incomplete information about the existence of such schemes, and the challenges that the poorest people face in navigating administrative systems.

3. See, for example, International Labour Office (ILO), *Can low-income countries afford basic social security?*, Geneva, ILO, 2008

Age of eligibility

The age at which one becomes eligible for a universal pension is likely to vary from country to country on the basis of life expectancy, but also as a result of political and economic factors. In many poorer countries where people do not live as long, there is a strong logic that the age of eligibility should be lower. For example, it is understandable that the eligibility age for the social pension in Canada is higher (at 65 years) than that of Swaziland (60 years).⁴

On the other hand, a poorer country may decide to start with a higher eligibility age with the aim of gradually expand a pension as financial resources become available. Two examples of this approach are Nepal and Bolivia, both of which began their schemes with higher eligibility ages (75 and 65 respectively) and have been lowering them gradually (to 70 and 60 in recent years).⁵ HelpAge International takes the position that higher eligibility ages (such as 70 or 75) may not be ideal in the long term where life expectancy is shorter; however, they can act as a pragmatic initial step, before progressively extending coverage.

In order to give a range of options, the costing in this paper uses the eligibility ages of 60, 65 and 70 years.

Pension level

As with the age of eligibility, the optimal level for a social pension in a given country is likely to be decided by a government on the basis of a number of technical, economic and political factors. This costing does not aim to dictate what would be the ideal transfer level in any of the countries, but rather to cost a universal pension that we can safely assume would be a meaningful basic minimum.

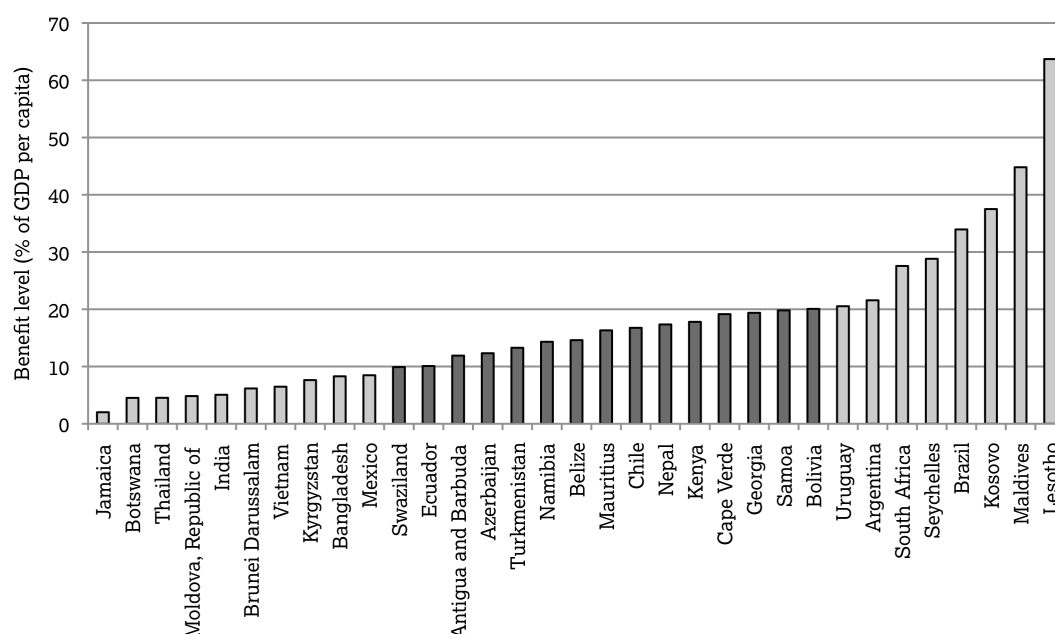
Two scenarios are used in order to do this: the first relates to average income, and the second to absolute poverty. Scenario 1 costs a pension equivalent to 20 per cent of average income (GDP per capita).⁶ This level was reached by making a comparison of universal pensions in low- and middle-income countries. As shown in Figure 1, a large number of pensions (highlighted in dark grey) have levels between 10 and 20 per cent of GDP per capita. Therefore, 20 per cent of GDP per capita can be considered a reasonable level by these standards, if not as generous as the pensions of countries such as Brazil, the Maldives and Lesotho.

4. See the HelpAge International Pension watch database at www.pension-watch.net/about-social-pensions/about-social-pensions/social-pensions-database/ (23 May 2011) for eligibility ages for over 65 social pensions around the world.

5. Müller K, 'Contested universalism: from Bonosol to Renta Dignidad in Bolivia', *International Journal of Social Welfare*, 2009, 18, pp.163-172; Willmore L and Kidd S, *Tackling poverty in old age: a universal pension for Sri Lanka*, Social Science Research Network, 2008

6. While it is recognised that GDP per capita is not always equivalent to average income, it is used throughout this paper as a rough proxy for average income.

Figure 1: Benefit levels of social pensions in low- and middle-income countries (percentage of GDP per capita)



Source: HelpAge International, Social pensions database

Scenario 2 simulates a pension level according to the international poverty line as defined by the World Bank (\$1.25 PPP per day).⁷ This level would, in theory, assure that every older person had enough money to keep them at least at the international poverty line. Although, the fact that most older people live as part of wider households (and would be likely to share income) means that this would be far from the reality in most cases.

While both levels are costed below, it could be argued that the level relative to average income (Scenario 1) provides a more useful benchmark for what would be feasible and acceptable at a country level. This is because this level inherently takes account of the economic situation of each country.

The challenge of adopting a level of \$1.25 PPP is that, in very poor countries, it may well be higher than the average earnings of a younger person of working age; this would then raise questions as to its political acceptability. In wealthier countries, where poverty-reduction efforts are more likely to be linked to issues of relative poverty and inequality, a benefit of \$1.25 PPP per day may be considered too little. For example, in Trinidad and Tobago, the level would constitute just 3 per cent of GDP per capita.

The potential criticism of using a level relative to GDP per capita is that, in the very poorest countries, it could be considered to be too low to make a difference to the lives of older people and their families. In Niger and Sierra Leone, for example, the benefit would equal just one third of the international poverty line (\$1.25 PPP per day) and it might be questionable as to what impact this would have on the lives of the recipients.

It appears, however, that a level of 20 per cent of GDP per capita would make a difference even in some of the poorest countries. For example, the KwaWazee cash transfer in northern Tanzania gave benefits to older people equal to just 11 per cent of GDP per capita or 34 per cent of the international poverty line. Benefits were also given to each child cared for by an older person equal to half of this amount. Despite the seemingly low values, the

7. The use of \$PPP (purchasing power parity dollars) at a rate of \$1.25 PPP per day is based on discussion in Ravallion M, Chen S and Sangraula P, *Dollar a day revisited*, Policy Research Working Paper 4620, Washington, World Bank, 2008

cash transfer generated a wide range of impacts including improved nutrition and a reduction in the rate of begging among recipients. A study into the cash transfer also found that it “more than doubles the cash available to the average older person”.⁸

Similar observations have been made in the poverty-targeted pensions in Bangladesh and India, both of which have a benefit that is around half of the international poverty line.⁹ Meanwhile, it is worth highlighting that the impact of cash transfers not only relates to the size of benefit, but also to the regularity and predictability of cash flow: even a small amount of money can help a household to weather a crisis.

On this basis, the level of 20 per cent of GDP per capita appears to provide a better benchmark for a meaningful and politically realistic minimum.

Administrative costs

In addition to the two variables of age and benefit level, the costing takes account of administrative costs. These are set at 5 per cent of the total cost of transfers. This is in line with international evidence on the cost of implementing universal pensions.¹⁰ Indeed, in many countries the cost is lower. The administrative costs would not take account of start-up costs, as these are likely to vary significantly, depending on the country context and the delivery mechanism chosen. Nevertheless, experience of universal pensions in a number of low- and middle-income countries shows that it may take a few years for a universal pension to reach full coverage due to a range of broader issues, such as identity registration. This means that the total cost of transfers would likely be smaller in the first years, leaving funds available to cover start-up costs.

Methodology

The methodology used is that outlined in Willmore, 2007. Where p is the recipient population (as a proportion of the total population of the country), and s is the size of the grant (as a proportion of GDP per capita), the formula to find c (the total cost as a per cent of GDP) is:

$$c = ps$$

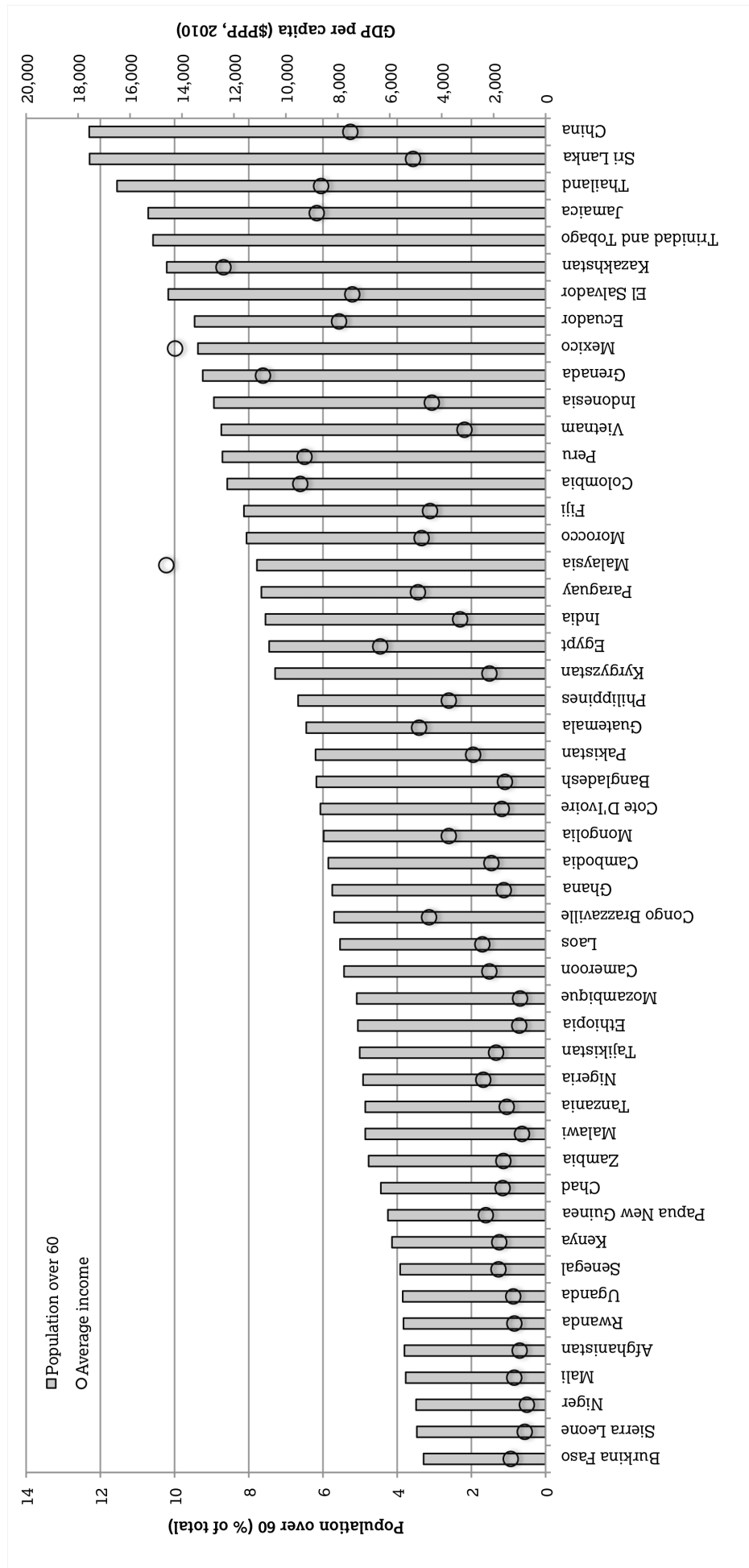
The figures for p (the proportion of the population receiving the pension) are calculated using age-disaggregated data from the United Nations Population Division's *World population prospects: the 2008 revision*. While these may not be considered as the most up-to-date figures in terms of recent country-level census data, they are widely seen as credible and provide a good basis to estimate the scale of cost in different countries. The pension level in local currency or in \$PPP is calculated using estimations of current GDP from the International Monetary Fund (IMF) World Economic Outlook database (April 2010 edition). The data used is for 2010.

8. Hofmann S, Heslop M, Clacherty G and Kessy F, *Salt, soap and shoes for school: the impact of pensions on the lives of older people and grandchildren in the KwaWazee project in Tanzania's Kagera region*, Evaluation report and summary, HelpAge International, REPSSI, SDC Swiss Agency for Development and Cooperation and World Vision International, 2008

9. See, for example, BRAC, *Small scale old age and widow allowance for the poor in rural Bangladesh: targeting, selection, and distribution of benefits and its association with different socio-economic and health indicators*, Research and Evaluation Division (mimeo), BRAC, 2008; see also Paul-Majumder P and Begum S, *The Old Age Allowance Programme for the poor elderly in Bangladesh*, Research Report No.182, Dhaka, Bangladesh Institute of Development Studies, 2008

10. See Willmore L, 'Universal Pensions for Developing Countries', *World Development*, 2007, 35:1, pp.24-51

Figure 2: Economic status and size of older population in selected countries (2010)



Sources: UN Population Division, 2009; IMF World Economic Outlook database, October 2010
Note: the IMF has no figure for GDP per capita (\$PPP) for Trinidad and Tobago

Countries selected

The 50 countries surveyed were selected to give a geographic spread and a range of different levels of economic development. They were also chosen as countries which currently do not have large-scale social pensions. Figure 2 outlines some of the characteristics of these countries. The size of the older population (60+) ranges from less than 3 per cent of the total population in Burkina Faso to over 12 per cent in China. The economic situation also varies significantly, with the highest GDP per capita in Malaysia and the lowest in Niger.

Some interesting observations can be made from this selection of countries. The correlation between the per capita income of the countries and the proportion of older people is strong for the poorer countries. Those with smaller older populations seem to have correspondingly low levels of economic development. This fits with the notion that demographic ageing is strongly tied to economic development. To the right of the figure, the picture is much less clear. The wealthiest country – Malaysia – has a smaller older population than many countries that are poorer, such as Indonesia or Sri Lanka. A number of factors are likely to be at play here, including cultural issues. However, we can guess that the less-wealthy countries with larger older populations have been better at redistributing wealth to the benefit of large sections of the population. The speed of development is also key: many of the “Asian Tigers” have experienced a speed of development that may not yet be fully reflected in the demographic profile. Another key observation is that China, which has the largest population of older people for the selected countries, is far from being the wealthiest. The one-child policy is a clear contributory factor here, along with relatively high life expectancy.

Results of costings

The results of the costings for 2010 are shown in Figures 3 and 4. Figure 3 shows the cost of a universal pension under Scenario 1 (20 per cent of average income) and Figure 4 shows the same breakdown for Scenario 2 (a benefit of \$1.25 PPP per day). Both figures show the cost of the three age thresholds (60, 65 and 70) for each country.

In the first scenario, the cost of a pension correlates directly with the relative size of the older population in Figure 2, as this is the only variable that changes between countries. For countries such as Mali, Afghanistan and Burkina Faso (where the population of older people is small) the cost of a pension would be lower, while in China, Sri Lanka and Thailand (developing countries with significant older populations) the cost would be higher. There are more nuances in the results for the \$1.25 PPP benefit. Here, the cost depends on both the population of older people and the wealth of the country, which – as seen in Figure 2 – do not correlate directly. The general trend here, however, is that for the wealthier countries (where older populations tend to be larger) the pension would cost less, with the \$PPP value being far smaller in relation to average income.

In terms of the range of costs, with Scenario 1, the cost would not exceed much more than 2.5 per cent of GDP in any of the countries considered. Most of the countries could put a pension in place for everybody over 65 for less than 1.5 per cent of GDP. This higher eligibility age is likely to be more acceptable for the wealthier countries such as Sri Lanka and Thailand, where life expectancy is greater. Meanwhile, in the poorer countries with lower life expectancy, where an age eligibility of 60 may be more reasonable, the cost is correspondingly lower: around 1 per cent of GDP or less in most African countries. Pensions with an age eligibility of 70 are inevitably the lowest in cost, ranging from 0.3 per cent to just over 1 per cent of GDP.

Figure 3: Cost of a universal pension with a benefit level of 20 per cent of average income

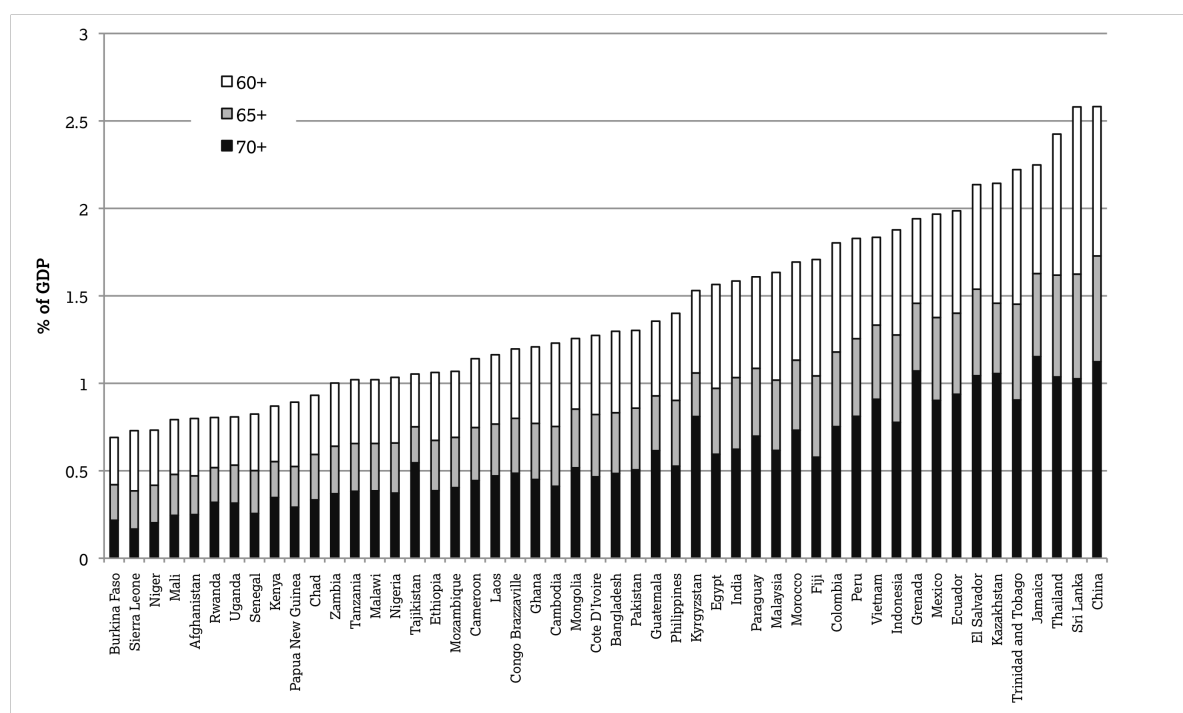
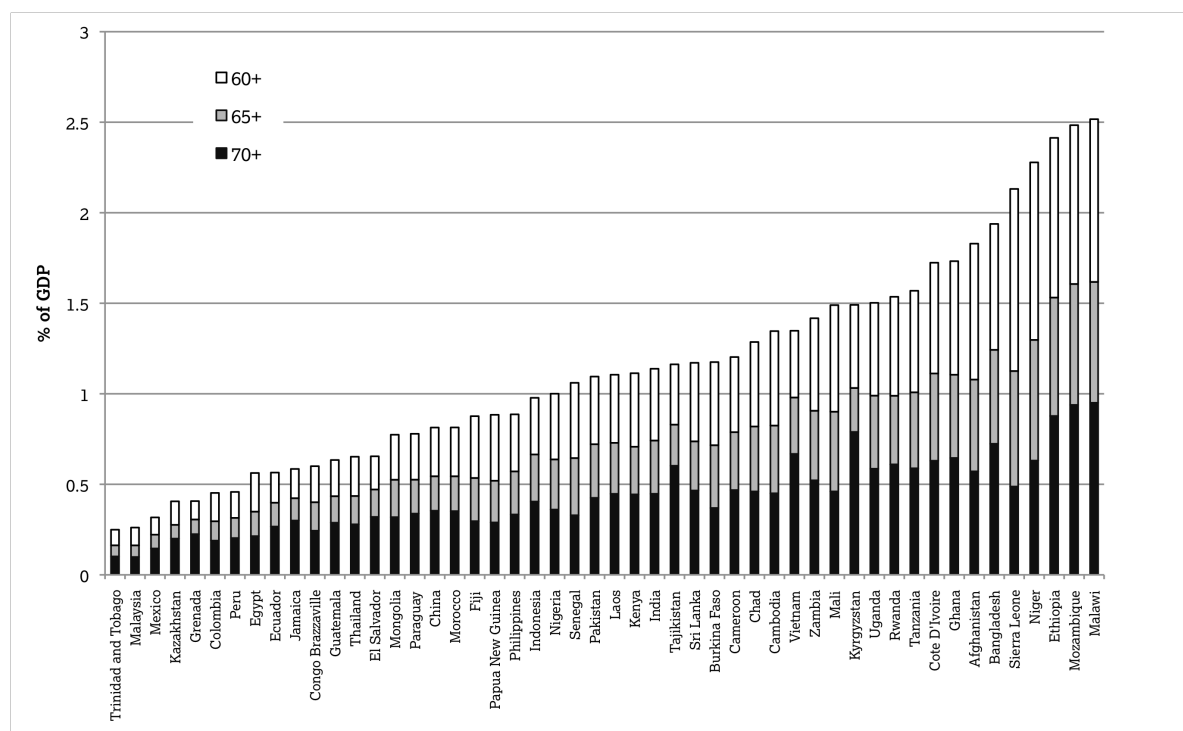


Figure 4: Cost of a universal pension with a benefit level of \$1.25 PPP per day (\$38.02 PPP per month)



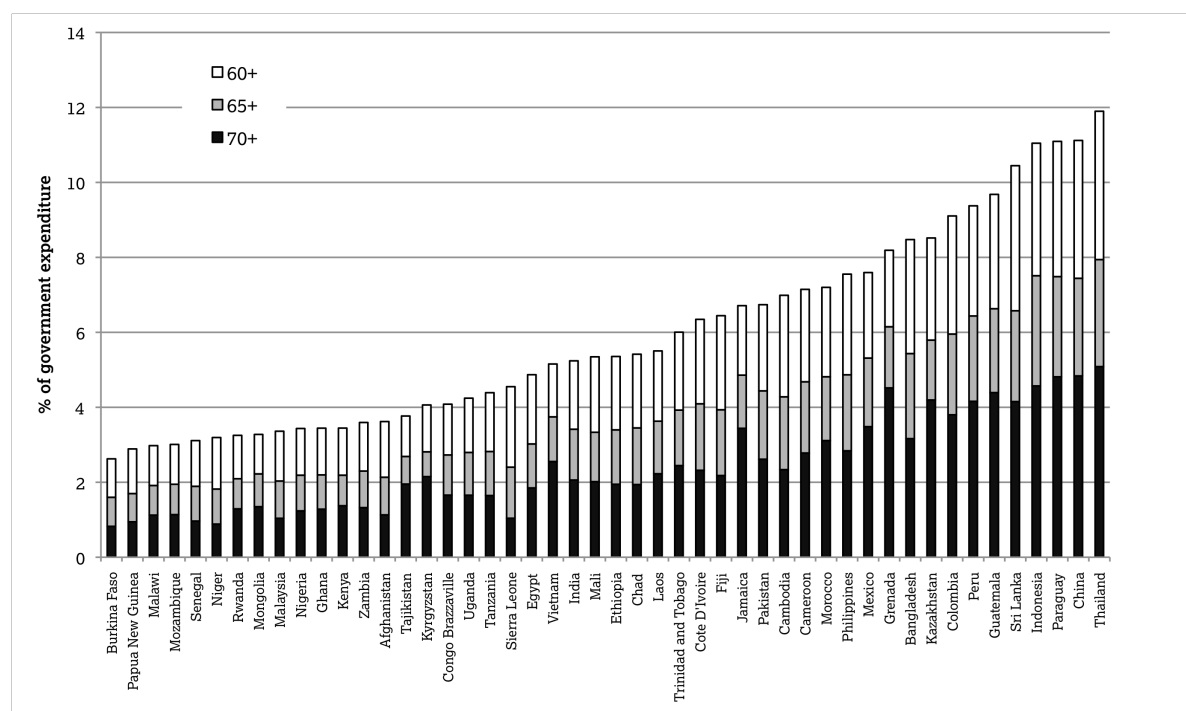
With Scenario 2, the costs are generally even lower overall. The cost of a pension for the over 60s would exceed 1.5 per cent of GDP in only one in five of the countries. In some of the wealthiest countries, such as Trinidad and Tobago, the cost would make up a fraction of 1 per cent of GDP. On the other hand, in some of the poorest countries, such as Malawi, Mozambique and Ethiopia, the cost would be significantly higher than if using the benefit level of 20 per cent in Scenario 1.

Costs in context

While the costs relative to GDP are useful for international comparison, they tell us little about how the costs compare to other government spending. Figure 5, shows the costs of the pensions compared to total government expenditure using the cost from scenario Scenario 1.¹¹ The general trend is that over half of the countries could provide a universal pension for everyone over 60 for less than 6 per cent of current government expenditure.

Interestingly, the trend in African countries is that pensions would make up an even smaller portion of expenditure than other regions. The argument is often made that small costs would be a greater burden in these countries due to lower government revenue. However, the reduced proportion of people over the age of 60 appears to outweigh the smaller government budgets, at least for this scenario. For pensions for everyone aged 65 and over, it would be hard to argue that 2 per cent of government expenditure or less in countries such as Zambia and Ghana would be unaffordable. At the more expensive end of the scale, a pension for the over 60s in countries like Thailand and China would cost up to 12 per cent of government expenditure (although for the over 65s the cost would be below 8 per cent).

Figure 5: Cost of a universal pension relative to government expenditure (with a benefit level of 20 per cent of average income)



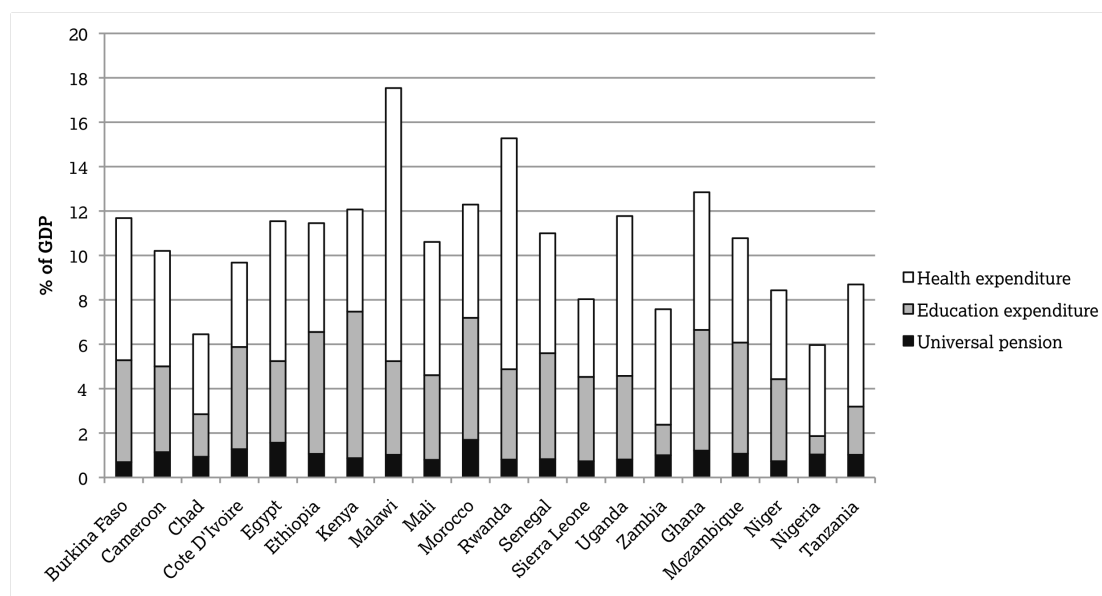
Sources: African Economic Outlook website; Asian Development Bank, Key indicators for Asia and the Pacific; International Monetary Fund Article IV consultation documents
Note: for government expenditure, the latest available year of data is used

11. Results for Scenario 2 can be found in Appendix 2.

While the comparison to government expenditure gives a useful indication of costs in different contexts, there are some limitations. One issue is that government expenditure is not directly comparable: for example, “tax expenditure” – where a government gives exemptions to certain groups – will not show up on a budget, while a cash transfer will. The different ways that governments organise their tax and spending can therefore mean very different spending figures, even if the effect is similar. Another issue that is open to interpretation is that in countries where government expenditure is very low, the cost of a social pension will appear much greater. Paradoxically, countries such as these may have greater scope to increase government expenditure than those that are already exploiting their tax base more effectively (where the cost of a social pension will seem smaller). A full understanding of fiscal space naturally demands a country-level analysis. That said, the impression given in Figure 4 is that a social pension would take up a relatively modest proportion of the government budget.

Another angle to contextualise the cost of a universal pension is to compare it to other areas of social spending. Figure 6 does this for health and education spending in a selection of African countries. The relative costs of a universal pension appear to be low in almost all cases.

Figure 6: Cost of a universal pension compared to current expenditure on health and education in selected African countries



Source: United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute for Statistics. Accessed through World Bank, World Development Indicators
Note: for health and education expenditure the latest available year of data is used

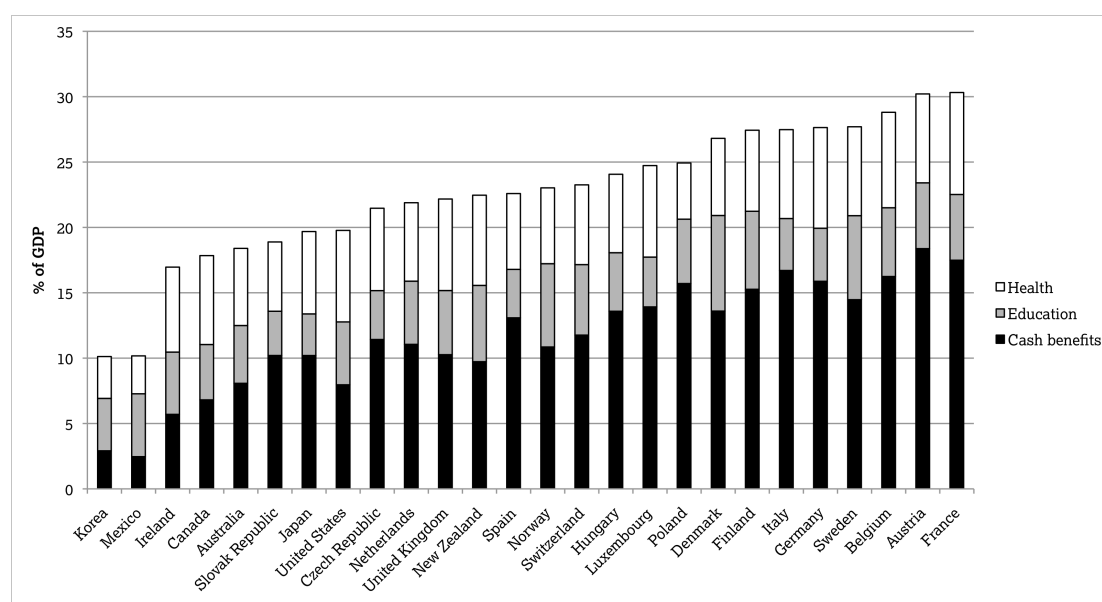
In spite of this, one fear might be that social pensions could crowd out other essential spending areas. In practice, however, there is little reason to see health, education and social protection as competitors. There is a strong case that services such as health and education (no matter how good they are) will not reach their full potential while issues of poverty create significant barriers to access. Cash transfers add value to services in a way that cannot be achieved by the service itself. For example, while it is possible to abolish school fees, this will not deal with the potential income a child will lose by not being able to use the same hours to earn income for the family. A cash transfer can help to reduce the need for children to work, as has been seen in countries such as Zambia and Tanzania.¹²

12. See HelpAge International, 2008 and Hofmann et al, 2008

Ultimately, balancing of spending on these key areas should not be a case of “either-or”. An important lesson from countries where social policy has been successful is that they invest in health, education *and* social protection. This is certainly the case in OECD countries, as shown in Figure 6, where the three areas of spending tend to share a significant part of the budget. It has also been one of the lessons in low and middle-income countries with large social transfer programmes, such as South Africa and Brazil, where there has been a significant impact on school attendance and on access to healthcare.¹³

For the majority of developing countries where investment in social protection is still low, the question of how to increase spending should be considered carefully. Nevertheless, it appears that putting a universal pension in place would be a relatively low-cost step in this direction.

Figure 7: Spending on cash benefits, education and health in OECD countries (2005)



Source: OECD Social Expenditure Database

Beyond social expenditure, there are various comparisons with government spending that can help to put the cost of a universal pension in context, including what could be seen as questionable spends. This is where discussion of government expenditure become much more political. The highly subjective nature of these issues – and their country specificity – means that this paper does not aim to provide a comprehensive overview. However, some interesting trends can be observed.

For example, a simple comparison using international data reveals that over half (27) of the 50 countries spend more on military expenditure than it would cost to provide a universal pension to everyone over 60.¹⁴ Another area that merits further investigation is the cost of other forms of pension to the government budget. In Bolivia, the impact of fraud in the contributory pension system that covers just one tenth of the workforce is estimated to cost

13. See, for example, Carvalho Filho I, *Household income as a determinant of child labour and school enrollment in Brazil: evidence from a social security reform*, International Monetary Fund, 2008; see also Samson M, Lee U, Ndlebe A, Mac Quene K, van Niekerk I, Gandhi V, Harigaya T and Abrahams C, *The social and economic impact of South Africa's social security system*, Cape Town, Economic Policy Research Institute, 2004

14. Military spending data from Stockholm International Peace Research Institute (SIPRI), *Yearbook 2010: armaments, disarmament and international security*, Stockholm, SIPRI, 2010. The level of the pension is 20 per cent of GDP per capita.

the government more annually than the cost of the universal pension.¹⁵ Meanwhile, the annual cost of the public service pension in Kenya – covering fewer than one in ten older people – is slightly higher than what it would cost to provide a universal pension to everyone over 60.¹⁶

The lessons from these areas of spending are complex, country-specific, and cannot be generalised. Military spending in one country may be considered excessive, but in another could be crucial to keeping the peace. Likewise, considering what can be done about the high costs of other pensions is a complex issue. However, these examples make it clear that current budgets need to be considered critically before assuming that a shift in priority towards social protection is impossible.

Sustainability of cost over time

While the costs of a universal pension today may look reasonable, one common concern is that ageing populations will result in spiralling and unsustainable expenditure on pension systems. This section projects the long-term costs of some of a universal under a number of scenarios, in order to understand how these costs are likely to change over time.

As with the static costing above, the level of transfer, and the size of the recipient population, will determine the cost of a pension over time. Both factors can be influenced by external forces, as well as by the policy decisions of governments.

In terms of external factors, the number of older people receiving a benefit will be influenced by demographic trends: specifically, how many people reach old age each year and their life expectancy. There is little a government can do in the short term to influence this. Costs may also be influenced by economic factors: for example, in a recession, the cost of a pension may rise relative to GDP and to government expenditure.

On the flip side, governments can influence the cost of universal pensions in two key ways. Firstly, the eligibility age can be adjusted. As a country gets richer, and life expectancy increases, there is a strong argument for a higher eligibility age for a pension, although such processes tend to be politically sensitive. Second, a government can influence the cost depending on how it adjusts benefit levels over time. Discounting the option of cutting benefits, there are three principle ways to do this:

- Do nothing – keep the benefit the same in monetary terms
- Index the benefit to price inflation
- Index the benefit to wages/average income

Doing nothing is evidently an inadequate approach. Year by year, the benefit will decrease in value in *real terms* as a result of inflation, lowering the purchasing power of the pension. The cost of this to recipients should not be underestimated, especially in poorer countries where inflation is often high. For example, the Cash Transfer for Orphans and Vulnerable Children in Kenya was found to have decreased to around two-thirds of its original value in just three years.¹⁷

Indexing to price inflation is a clear way to resolve this, and assures that the real value of a pension will remain the same. The key questions here relate to which methodology is appropriate for doing this and which data a government should use to determine the annual rate of price inflation.

15. Willmore L, *Non-contributory pensions: Bolivia and Antigua in an international context*, Financiamiento del Desarrollo series, Santiago, ECLAC, 2006

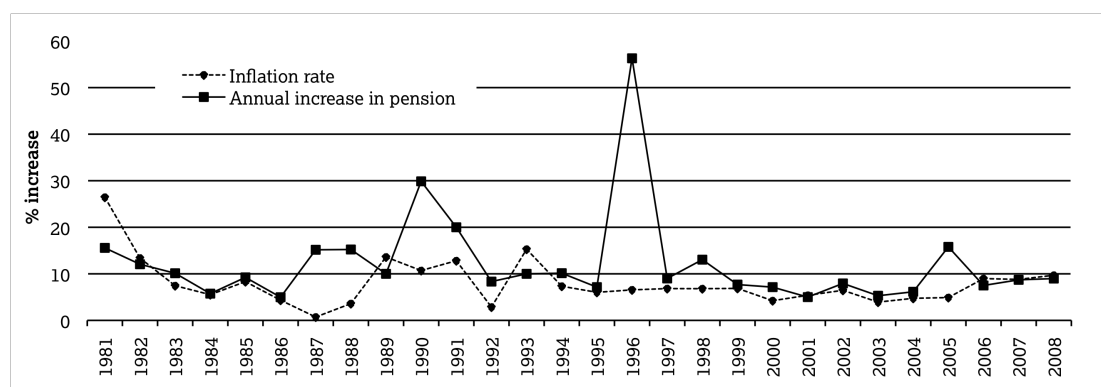
16. International Labour Office (ILO), *Kenya: Developing an integrated national social protection policy*, Geneva, ILO, 2010. The universal pension scenarios referred to for Kenya and in relation to military expenditure are those at a benefit level of 20 per cent of GDP per capita.

17. Ward P, Hurrell A, Visram A, Riemenschneider N, Pellerano L, O'Brien C, MacAuslan I and Willis J, *Kenya: Cash Transfer Programme for Orphans and Vulnerable Children (CT-OVC): operational and impact evaluation, 2007-2009*, Oxford, Oxford Policy Management, 2010

While indexing a benefit to inflation helps to maintain the real value of a transfer, assuming that a country experiences growth, a benefit will decrease in relation to average income over time. So, for example, if a country starts at a benefit of 20 per cent of GDP per capita, this will decrease gradually to 19, 18 then 17 per cent of GDP per capita as the country's economy grows. Such a benefit will therefore retain its impact on absolute poverty, but lose its potential to reduce relative poverty and inequality. A way to rectify this is by somehow indexing the benefit to average wages or average income in order to take account of the increases in wealth.

In reality, countries tend to use a combination of these two approaches. Many countries have no formal indexing process at all, but tend to do it on an *ad hoc* basis, often linked to political processes. Others – especially more developed countries – have a formalised system of indexing benefits either to inflation or to wages, or a mix of the two. The case of Mauritius, which has had a universal pension since the 1950s, illustrates some of the issues at stake. Figure 8 compares the average increase in the pension amount (in current prices) with annual inflation rates (consumer prices). Over time, the pension increase has largely been in line with the increases in inflation, especially from around 1997 onwards. However, there were also some exceptional years where the pension level was increased well above inflation, notably in election years such as 2005, and after the election in 1996. The particularly large increase in 1996 was the result of an election promise made by the leader of the opposition party during the 1995 election, which was implemented after the party was elected to government.¹⁸

Figure 8: Annual inflation rates compared to annual increase in pension (current prices) in Mauritius (1981-2008)

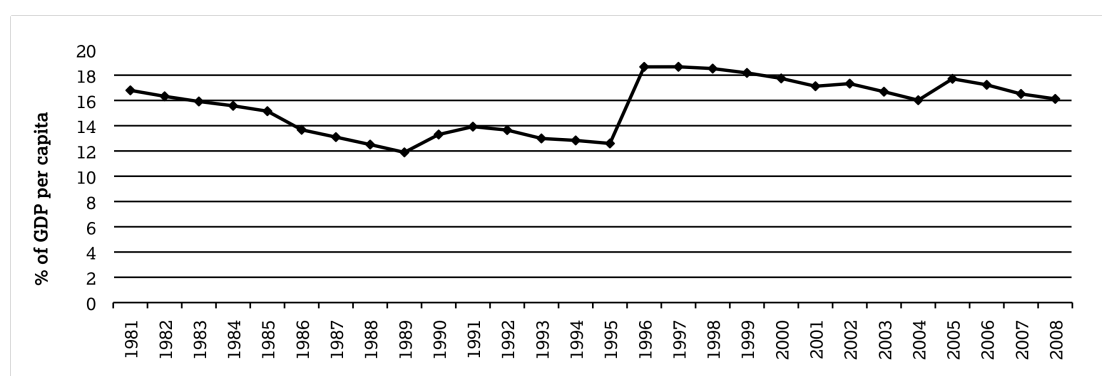


Sources: Pension levels from Central Statistics Office, Mauritius; Consumer Price Index from IMF, World Economic Outlook database, April 2010

Figure 9 considers the impact of these increases on the benefit level relative to average income (GDP per capita). When compared to Figure 8, the chart shows that, during periods where the benefit was more closely linked to inflation, the level decreased relative to average income. This is because average income was growing in real terms, while the real value of the pension remained almost the same. Nevertheless, through the *ad hoc* increases in benefit level (particularly in 1996) the benefit level has managed to remain stable relative to average income. This case study shows how a country can retain the real value of a pension over time by increasing it in line with price inflation, while boosting it to keep up with broader increases in wealth when it is economically and politically appropriate to do so.

18. Correspondence with Nunkoomar Deerpalsing at the Ministry of Social Security, National Solidarity and Reform Institutions in Mauritius.

Figure 9: Pension benefit as a percentage of average income (GDP per capita) in Mauritius (1981-2008)



Source: Author's calculations

The decision of whether to index benefits to inflation or average income is one that will largely be political; however, HelpAge International takes the position that doing nothing – ie, retaining the value in monetary terms – is not a positive approach as it effectively devalues the pension.

Costing universal pensions over time

In order to understand how costs will change over time, the cost of a universal pension was forecasted up to 2040 in three countries: Rwanda, Paraguay and Thailand. The examples aim to show the varying prospects according to different demographics. Table 1 outlines the characteristics of these countries. Rwanda has a relatively small proportion of people over 60, and this is likely to increase by about 70 per cent over the next 30 years. Thailand is at the other end of the scale and its population is one of the most rapidly ageing in the world. The population of older people in Thailand is high for a country of its income level and this is expected to more than double before 2040. The characteristics in Paraguay reflect a situation somewhere between these two cases.

Table 1: Demographics and economic status of case study countries

	% population 60+		% increase	GDP per capita, \$PPP (2010)
	2010	2040		
Rwanda	3.83	6.42	67.6	1,195
Paraguay	7.66	14.15	89.3	4,533
Thailand	11.55	24.66	113.5	8,478

Sources: UN-DESA Population Division, 2009; IMF, World Economic Outlook database, April 2010

The costing uses the same method as above, incorporating population projections by the UN-DESA Population Division. The benefit level is assumed to change according to two key scenarios:

- **Indexed to price inflation:** This scenario assumes that a benefit would be indexed to inflation, retaining its real value but decreasing as a proportion of GDP per capita. This is calculated by applying an assumed growth rate to the GDP per capita benefit level. Two growth assumptions are applied: a high-growth scenario assumes a growth rate (GDP per capita) in line with IMF predictions from 2011 to 2015, while a medium-growth scenario assumes growth equal to half of this figure.¹⁹
- **Indexed to wages:** This scenario assumes that the pension would retain its value relative to average income. It would therefore remain at 20 per cent of GDP per capita from 2010 to 2040. Assuming that a country experienced a growth in GDP (per capita), this would constitute an increase in the real value of the benefit. These assumptions also replicate a situation where the benefit is indexed to price inflation, but the country experiences zero growth in GDP per capita.

The results of the costing are shown in Figures 10, 11 and 12. All three examples consider the cost of a pension for everyone over 60 years at 20 per cent of GDP per capita. Looking at the option of indexing benefits to wages (which are assumed to track per capita GDP), the cost of the pension in all three countries would rise over time directly in line with the growth of the population over the eligibility age. As a result, the cost of the pension as a percentage of GDP would have risen to 1.4 in Rwanda, 3.0 in Paraguay and 5.2 in Thailand.

However, if indexing benefits to inflation (medium growth), the costs would remain stable over time. In Paraguay and Thailand, the costs would rise by 22 per cent and 13 per cent respectively; in Rwanda, the cost would fall by 12 per cent. While these benefits would retain their real value, they would fall relative to average income. This would mean that, by 2040, the benefits as a proportion of average income would constitute 10.5 per cent in Rwanda, 13.2 per cent in Paraguay and 10.7 per cent in Thailand. The future costs would be even lower in a high-growth scenario.

The first lesson that can be drawn from these projections is that, where a pension retains the same benefit relative to average income – and the eligibility age is constant – the cost will increase in accordance with the speed of population ageing. Essentially, this is the process of countries moving from left to right in Figure 3 on page 10. Whether this is considered problematic or not is a matter of debate. In Rwanda, the costs by 2040 (at 1.4 per cent of GDP) would remain low by international standards, and it is hard to argue that the increased cost would be unaffordable. The future costs in Thailand seem more alarming; however, it is worth considering that, by 2040, a quarter of the population of Thailand will be over 60. These demographics would be comparable to the current situation in Europe and North America. Meanwhile, Thailand's wealth would be likely to be somewhere between that of Russia today (assuming medium growth) and Italy and Spain (assuming high growth). To put this in context, most OECD countries currently spend more than 5 per cent of GDP on cash benefits to older people.²⁰

Another key point is that as a country such as Thailand gets richer, it is likely to develop a more sophisticated tax system. This creates the potential for clawing back some of the universal pension from richer older people. New Zealand does this by taxing pension income as normal income. The result is that “income tax lowers the fiscal cost of universal pensions from 4.3 per cent of GDP to 3.6 per cent”.²¹

19. The growth assumptions used for each country can be found in Appendix 3, along with the data used in Figures 10, 11 and 12.

20. OECD, Social Expenditure Database (SOCX), www.oecd.org/els/social/expenditure (23 May 2011)

21. Willmore, 2007, pp.24-51

Figure 10: Rwanda

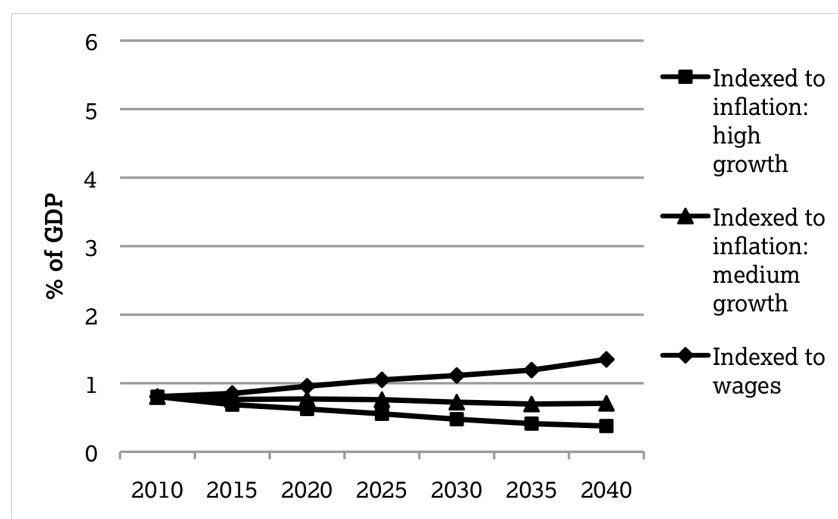


Figure 11: Paraguay

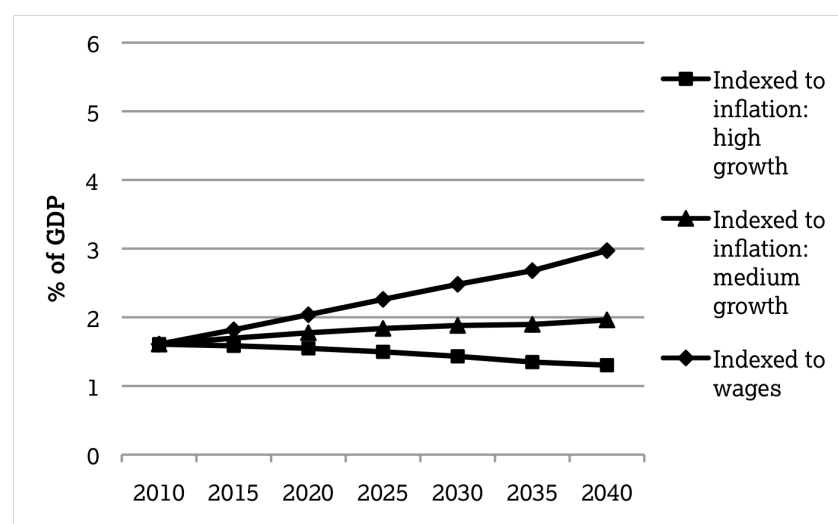
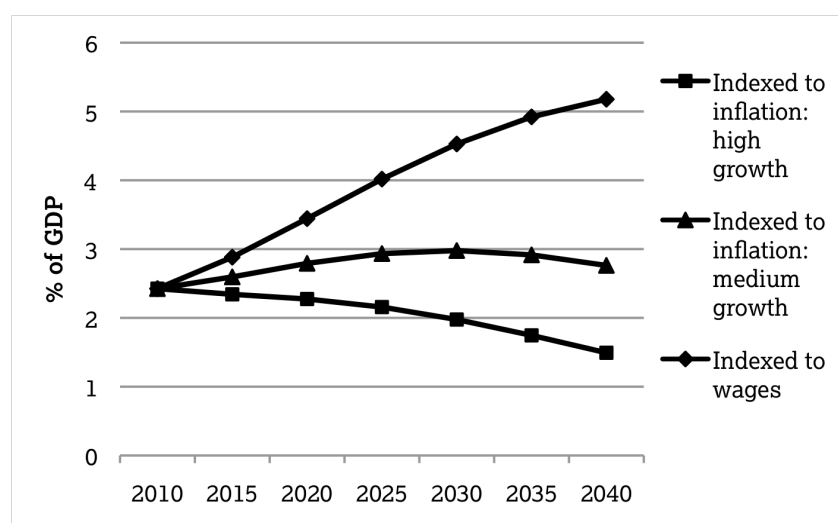


Figure 12: Thailand



The second lesson from these projections is that all of the countries could employ a range of approaches to keep costs down. By indexing benefits to inflation, the cost of a social pension could be kept stable in all three countries while the benefit would retain its real value. This would be a reasonable strategy for a country wanting to maintain the universal pension, but not yet in the position to find additional fiscal space to increase the real value of transfers. Another option for a country such as Thailand may be to consider increasing the eligibility age for the pension over time. By 2050, Thailand is forecast to have a life expectancy of 77 (compared to 69 today).²² An increase in the eligibility age would significantly reduce the cost: for example, to 3.9 per cent of GDP for the over 65s in 2040.

Conclusion

This paper has reviewed the cost of universal pensions both statically – in 2010 – and up to 2040. The broad picture is that the cost of universal pensions in developing countries today appears to be affordable. In no country would the cost of a pension for everyone over 60 greatly exceed 2.5 per cent of GDP and, in most countries, the cost would be less than 1.5 per cent of GDP. All countries could afford a universal pension for the over 65s for less than 1.8 per cent of GDP.

Perhaps more significantly, the cost of getting started would be even lower. Most African countries could set up a pension for the over 70s for less than 0.5 per cent of GDP. Putting these costs in context, they would only constitute a modest amount of government expenditure, and emerge as relatively small compared to existing spending on health and education. There is therefore little rationale for dismissing universal pensions on the basis of their cost.

Looking to the future, assuming that the eligibility is the same and that the benefit is linked to average income, the costs of a pension *will* rise over time as populations age. This is not surprising, nor is it necessarily a bad thing. A country with a greater number of older people is likely to want to spend more money on them, and it is worth noting that such countries may well be spending less elsewhere as the number of children decrease. It should also be emphasised that social pensions are a vehicle for reducing the poverty of the population as a whole. Most OECD countries would have significantly higher poverty rates across the board if it weren't for cash transfers to older people.²³

Moreover, a key lesson is that the cost of a universal pension is something that can be controlled and contained by government. By indexing the benefit to price inflation, the costs can be kept stable while the real value is maintained. This means that increases in costs can be made when it is economically and politically appropriate. Equally, as countries age, and healthy life expectancy increases, there is a strong case for increasing the age of eligibility. Finally, as countries develop more sophisticated tax systems there is potential to claw back pension income from richer older people. This is a way of making a universal pension more progressive without the perverse incentives of pensions testing or the significant errors and increased bureaucracy of means testing.

22. United Nations, Department of Economic and Social Affairs (UN-DESA), Population Division, *World population prospects: the 2008 revision*, New York, 2009

23. See, for example, Eurostat, EU-SILC community statistics on income and living conditions, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home> (23 May 2011)

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Appendix 1: Cost of a universal pension in 50 low- and middle-income countries (percentage of GDP)

	Scenario 1: transfer of 20% of GDP per capita			Scenario 2: transfer of \$1.25 PPP per day		
	60+	65+	70+	60+	65+	70+
Afghanistan	0.80	0.47	0.25	1.83	1.08	0.57
Bangladesh	1.30	0.83	0.48	1.94	1.24	0.72
Burkina Faso	0.69	0.42	0.22	1.17	0.72	0.37
Cambodia	1.23	0.75	0.41	1.35	0.82	0.45
Cameroon	1.14	0.75	0.44	1.20	0.79	0.47
Chad	0.93	0.59	0.33	1.29	0.82	0.46
China	2.58	1.73	1.12	0.81	0.54	0.35
Colombia	1.80	1.18	0.75	0.45	0.30	0.19
Congo Brazzaville	1.20	0.80	0.49	0.60	0.40	0.24
Côte D'Ivoire	1.27	0.82	0.47	1.72	1.11	0.63
Ecuador	1.99	1.40	0.94	0.56	0.40	0.27
Egypt	1.56	0.97	0.59	0.56	0.35	0.21
El Salvador	2.14	1.54	1.04	0.65	0.47	0.32
Ethiopia	1.06	0.67	0.39	2.41	1.53	0.88
Fiji	1.71	1.04	0.58	0.88	0.53	0.30
Ghana	1.21	0.77	0.45	1.73	1.11	0.65
Grenada	1.94	1.46	1.07	0.41	0.31	0.22
Guatemala	1.36	0.93	0.61	0.63	0.43	0.29
India	1.58	1.03	0.62	1.14	0.74	0.45
Indonesia	1.88	1.28	0.78	0.98	0.66	0.40
Jamaica	2.25	1.63	1.15	0.58	0.42	0.30
Kazakhstan	2.14	1.46	1.06	0.41	0.28	0.20
Kenya	0.87	0.55	0.35	1.11	0.71	0.44
Kyrgyzstan	1.53	1.06	0.81	1.49	1.03	0.79
Laos	1.16	0.77	0.47	1.11	0.73	0.45
Malawi	1.02	0.66	0.39	2.52	1.62	0.95
Malaysia	1.63	1.02	0.62	0.26	0.16	0.10
Mali	0.79	0.48	0.25	1.49	0.90	0.46
Mexico	1.97	1.38	0.90	0.32	0.22	0.15
Mongolia	1.26	0.85	0.52	0.77	0.53	0.32
Morocco	1.69	1.13	0.73	0.81	0.54	0.35
Mozambique	1.07	0.69	0.40	2.48	1.61	0.94
Niger	0.73	0.42	0.20	2.28	1.30	0.63
Nigeria	1.03	0.66	0.37	1.00	0.64	0.36
Pakistan	1.30	0.86	0.51	1.10	0.72	0.43
Papua New Guinea	0.89	0.52	0.29	0.88	0.52	0.29
Paraguay	1.61	1.09	0.70	0.78	0.53	0.34
Peru	1.83	1.26	0.81	0.46	0.31	0.20
Philippines	1.40	0.90	0.53	0.89	0.57	0.33
Rwanda	0.80	0.52	0.32	1.54	0.99	0.61
Senegal	0.82	0.50	0.26	1.06	0.64	0.33
Sierra Leone	0.73	0.39	0.17	2.13	1.13	0.49
Sri Lanka	2.58	1.62	1.03	1.17	0.74	0.47
Tajikistan	1.05	0.75	0.55	1.16	0.83	0.60
Tanzania	1.02	0.66	0.38	1.57	1.01	0.59
Thailand	2.42	1.62	1.04	0.65	0.44	0.28
Trinidad and Tobago	2.22	1.45	0.90	0.25	0.16	0.10
Uganda	0.81	0.53	0.32	1.50	0.99	0.59
Vietnam	1.83	1.33	0.91	1.35	0.98	0.67
Zambia	1.00	0.64	0.37	1.42	0.91	0.52

Appendix 2: Cost of a universal pension as a percentage of government expenditure

	Scenario 1: transfer of 20% of GDP per capita			Scenario 2: transfer of \$1.25 PPP per day		
	60+	65+	70+	60+	65+	70+
Afghanistan	3.62	2.13	1.13	8.29	4.89	2.59
Bangladesh	8.47	5.43	3.16	12.66	8.12	4.73
Burkina Faso	2.63	1.60	0.82	4.47	2.72	1.40
Cambodia	6.99	4.28	2.34	7.65	4.68	2.56
Cameroon	7.15	4.68	2.78	7.54	4.94	2.93
Chad	5.42	3.45	1.94	7.48	4.76	2.68
China	11.12	7.44	4.84	3.50	2.34	1.52
Colombia	9.10	5.95	3.80	2.28	1.49	0.95
Congo Brazzaville	4.08	2.73	1.66	2.05	1.37	0.83
Côte D'Ivoire	6.35	4.09	2.32	8.59	5.54	3.14
Ecuador	<i>no data</i>	<i>no data</i>	<i>no data</i>	<i>no data</i>	<i>no data</i>	<i>no data</i>
Egypt	4.87	3.02	1.85	1.75	1.09	0.66
El Salvador	<i>no data</i>	<i>no data</i>	<i>no data</i>	<i>no data</i>	<i>no data</i>	<i>no data</i>
Ethiopia	5.36	3.40	1.95	12.17	7.72	4.42
Fiji	6.44	3.93	2.18	3.31	2.02	1.12
Ghana	3.44	2.20	1.28	4.94	3.15	1.84
Grenada	8.19	6.15	4.52	1.72	1.29	0.95
Guatemala	9.68	6.63	4.39	4.53	3.10	2.06
India	5.24	3.42	2.06	3.76	2.45	1.48
Indonesia	11.05	7.51	4.57	5.75	3.91	2.38
Jamaica	6.71	4.86	3.44	1.75	1.26	0.89
Kazakhstan	8.52	5.79	4.20	1.61	1.10	0.79
Kenya	3.45	2.19	1.37	4.41	2.80	1.76
Kyrgyzstan	4.06	2.81	2.15	3.96	2.74	2.10
Laos	5.50	3.63	2.23	5.23	3.45	2.12
Malawi	2.98	1.91	1.12	7.34	4.72	2.77
Malaysia	5.35	3.33	2.02	0.85	0.53	0.32
Mali	3.36	2.03	1.04	6.32	3.82	1.95
Mexico	7.59	5.31	3.48	1.22	0.86	0.56
Mongolia	3.28	2.22	1.35	2.02	1.37	0.83
Morocco	7.20	4.82	3.11	3.46	2.31	1.50
Mozambique	3.01	1.95	1.14	7.00	4.52	2.64
Niger	3.19	1.82	0.88	9.94	5.66	2.75
Nigeria	3.43	2.19	1.24	3.32	2.12	1.20
Pakistan	6.74	4.44	2.62	5.66	3.73	2.20
Papua New Guinea	2.89	1.70	0.95	2.86	1.68	0.94
Paraguay	11.09	7.49	4.81	5.37	3.63	2.33
Peru	9.38	6.44	4.16	2.35	1.61	1.04
Philippines	7.55	4.87	2.84	4.78	3.08	1.80
Rwanda	3.25	2.09	1.29	6.21	4.00	2.47
Senegal	3.11	1.89	0.97	4.00	2.43	1.24
Sierra Leone	4.55	2.40	1.04	13.30	7.02	3.04
Sri Lanka	10.45	6.58	4.15	4.74	2.98	1.89
Tajikistan	3.77	2.69	1.95	4.16	2.97	2.15
Tanzania	4.39	2.82	1.65	6.75	4.34	2.53
Thailand	11.90	7.94	5.09	3.20	2.14	1.37
Trinidad and Tobago	6.00	3.93	2.44	0.67	0.44	0.27
Uganda	4.24	2.80	1.66	7.89	5.20	3.08
Vietnam	5.16	3.75	2.55	3.79	2.75	1.88
Zambia	3.60	2.30	1.32	5.09	3.25	1.87

Appendix 3: Long-term cost of a universal pension in Rwanda, Paraguay and Thailand

	Assumed annual % of GDP per capita growth rate	Annual cost of a universal pension (20% of GDP per capita to the population 60+)						
		2010	2015	2020	2025	2030	2035	2040
Rwanda								
High growth	4.35	0.80	0.69	0.62	0.55	0.48	0.41	0.38
Medium growth	2.17	0.80	0.76	0.77	0.76	0.72	0.70	0.71
None	0.00	0.80	0.85	0.96	1.05	1.11	1.19	1.35
Paraguay								
High growth	2.79	1.61	1.58	1.55	1.50	1.43	1.35	1.30
Medium growth	1.39	1.61	1.70	1.77	1.84	1.88	1.90	1.96
None	0.00	1.61	1.82	2.04	2.26	2.48	2.68	2.97
Thailand								
High growth	4.23	2.42	2.34	2.27	2.16	1.98	1.75	1.49
Medium growth	2.12	2.42	2.60	2.79	2.93	2.98	2.92	2.76
None	0.00	2.42	2.88	3.44	4.02	4.53	4.92	5.18