

# Pension watch

*Briefings on social protection in older age*



Briefing no. 2

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## The price of income security in older age:

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

#### Key lessons

- The cost of a universal pension appears to be affordable in all of the 50 countries surveyed, both relative to the economy and to government spending.
- For example, 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 make up more than 8 per cent of current government expenditure.
- A number of low-cost options are available to developing countries for gradually expanding a universal pension, for example, by starting with a higher eligibility age and decreasing this over time.
- In the long term, the cost of a universal pension can be kept stable over time even whilst keeping pace with inflation.

#### Introduction

The lack of a secure income in older age is one of the biggest problems facing people in developing countries. Few people in poverty can afford to save for older age and family support for older people is under pressure. Around the world, the majority of older people lack a secure income, and fewer than one in five people over 60 receive a pension.<sup>1</sup> The best way to tackle this problem is for governments to provide non-contributory ('social') pensions, as more than 80 governments around the world have done including Nepal, Bolivia, South Africa and Brazil.

Universal social pensions have a number of benefits as a foundation to any pension system. They are the most effective way to reach poor older men and women, are relatively simple to implement, and avoid many of the challenges associated with means-tested programmes. Existing universal pensions have not only contributed to the income security of older people, but also the wellbeing of their families and

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communities, especially that of grandchildren in the household. In this sense, they have proven to be an effective step towards providing a minimum 'floor' of social protection across the life course.<sup>2</sup>

In spite of these benefits, one of the biggest concerns about universal pensions is their cost. Can developing countries really afford them, and are costs sustainable in the long term?

This briefing addresses part of this question by looking at the costs of universal pensions in 50 low- and middle-income countries. The aim is to contribute to the growing debate on social protection and pensions by providing figures for a range of scenarios in a variety of contexts. The paper aims to build on previous costings by organisations such as the International Labour Office by looking at a greater number of countries, and focusing in more detail on social pensions.<sup>3</sup>

## Costing a universal pension

The 50 countries in this survey were selected to give a geographic spread and a range of different levels of economic development. They were also chosen as countries that currently do not have large-scale social pensions. The costings used population data from the United Nations Population Division and economic data from the International Monetary Fund's (IMF) World Economic Outlook Database.<sup>4</sup>

The cost of a universal pension is dependent on two key variables: the size of the population receiving the pension (determined by the age of eligibility) and the transfer level of the pension.<sup>5</sup> These variables are likely to vary according to country context and political norms; nevertheless, some benchmarks can be established for the purpose of costing.

### Age eligibility

The age at which an individual would become eligible for a universal pension is likely to vary from country to country not only on the basis of life expectancy but also political and economic factors. In many poorer countries where individuals live shorter lives, there is a strong logic that the age of eligibility should be lower. For example, it is quite understandable that the eligibility age for the social pension in Canada is higher (at 65 years) than that of Swaziland (60 years).<sup>6</sup>

On the other hand, a poorer country may decide to start with a higher eligibility age in order to lower the initial cost of a social pension, with the intention to gradually reduce the eligibility age as political support and financial resources grow. Both Nepal and Bolivia followed this example, beginning their schemes with higher eligibility ages (75 and 65 respectively) and have been lowering them gradually ever since (to 70 and 60 respectively in recent years).<sup>7</sup> HelpAge takes the position that higher eligibility ages (such as 70 or 75) may not be ideal where life expectancy is shorter; nevertheless, they can act as a pragmatic first step for putting in place a universal pension.

In order to reflect a range of options, the costings used the eligibility ages of 60, 65 and 70 years.

### Pension level

The costing aimed to use a transfer level which could be considered a basic minimum. These calculations assume a transfer level of 20 per cent of average income (GDP per capita). This is similar to transfer levels of universal pensions in Bolivia, Mauritius and Nepal – all of which have been found to have a significant impact on older people and their families.<sup>8</sup>

A possible criticism of this pension level is that in some of the poorest countries it would be low in relation to absolute poverty. In Niger and Sierra Leone, for example, the transfer of 20 per cent of GDP per capita would equal just one-third of the international poverty line (\$1.25 PPP per day<sup>9</sup>). Nevertheless, there is significant evidence that even seemingly small transfers can have a significant impact on older people and their families. As one example, the KwaWazee cash transfer to older people in northern Tanzania, giving a benefit of 34 per cent of the international poverty line, was found to more than double the cash available to the average older person.<sup>10</sup>

Meanwhile, even where Tanzania levels are low, having a regular and predictable income – be it small – can help households to plan and manage risk. On this basis, one can tentatively conclude that the scenario chosen – while not necessarily lifting an older person out of poverty – would constitute a meaningful regular income.

1. UN-DESA (2007) *World Economic and Social Survey 2007*, UN-DESA, New York, p. xiv

2. HelpAge's approach to social pensions is part of a broader agenda on social protection which recognises that the best way to tackle chronic poverty and vulnerability across the life course is to provide a minimum 'floor' of social protection based on entitlements, embedded in national law and funded through national resources. These social protection measures can include cash transfers such as family benefits, child allowances, social pensions and disability grants, as well as in-kind transfers: school feeding programmes, fee waivers and exemptions. For information on the United Nations' "Social Protection Floor" initiative see [www.socialsecurityextension.org/gimi/gess/ShowTheme.do?tid=1321](http://www.socialsecurityextension.org/gimi/gess/ShowTheme.do?tid=1321)

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

4. United Nations DESA (UN-DESA), Population Division (2009) *World Population Prospects: The 2008 Revision*, New York (advanced Excel tables); International Monetary Fund (IMF), World Economic Outlook Database, April 2010

5. The costings use the methodology described in L. Willmore (2007) "Universal Pensions for Developing Countries" *World Development* 35(1) 24-51. 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/capita), the formula to find  $c$  (the total cost as a per cent of GDP) is  $c = ps$

6. See the HelpAge *Pension-watch database* at [www.pension-watch.net/about-social-pensions/about-social-pensions/social-pensions-database/](http://www.pension-watch.net/about-social-pensions/about-social-pensions/social-pensions-database/) for eligibility ages for more than 65 social pensions around the world

7. K. Müller, (2009), "Contested universalism: from Bonosol to Renta Dignidad in Bolivia", *International Journal of Social Welfare*, 18: 163-172; Willmore, L and S Kidd (2008) *Tackling Poverty in Old Age: A Universal Pension for Sri Lanka*, HelpAge International, London

8. As an example L. Willmore (2003) *Universal Pensions in Mauritius: Lessons for the Rest of Us*, United Nations DESA Discussion Paper No. 32; S. Martinez (2005) *Pensions, Poverty and Household Investments in Bolivia*; L. P. Uprety (2010) *The Effectiveness of Non-contributory Social Pension in Nepal – Participatory Research Report*, Nepal Participatory Action Network (NEPAN) and HelpAge International, Kathmandu and London

9. The PPP\$ 1.25 per day is based on discussion in M. Ravallion, S. Chen and P. Sangraula (2008) *Dollar a day revisited*, Policy Research Working Paper Series 4620, World Bank, Washington

10. S. Hofmann, M. Heslop, G. Clacherty and F. Kessy (2008) *Salt, Soap and Shoes for School; Impact evaluation of pensions on the lives of older people and grandchildren in the KwaWazee project in Tanzania's Kagera region*, HelpAge International, REPSSI, SDC Swiss Agency for Development and Cooperation and World Vision International

11. See Willmore, "Universal Pensions for Developing Countries"

### Administrative costs

In addition to the two variables of age and transfer level, the costing took account of administrative costs. These costs were set as 5 per cent of the total cost of transfers. This is in line with international evidence on the cost of implementing universal pensions.<sup>11</sup> Indeed, in many countries the administrative costs are lower.

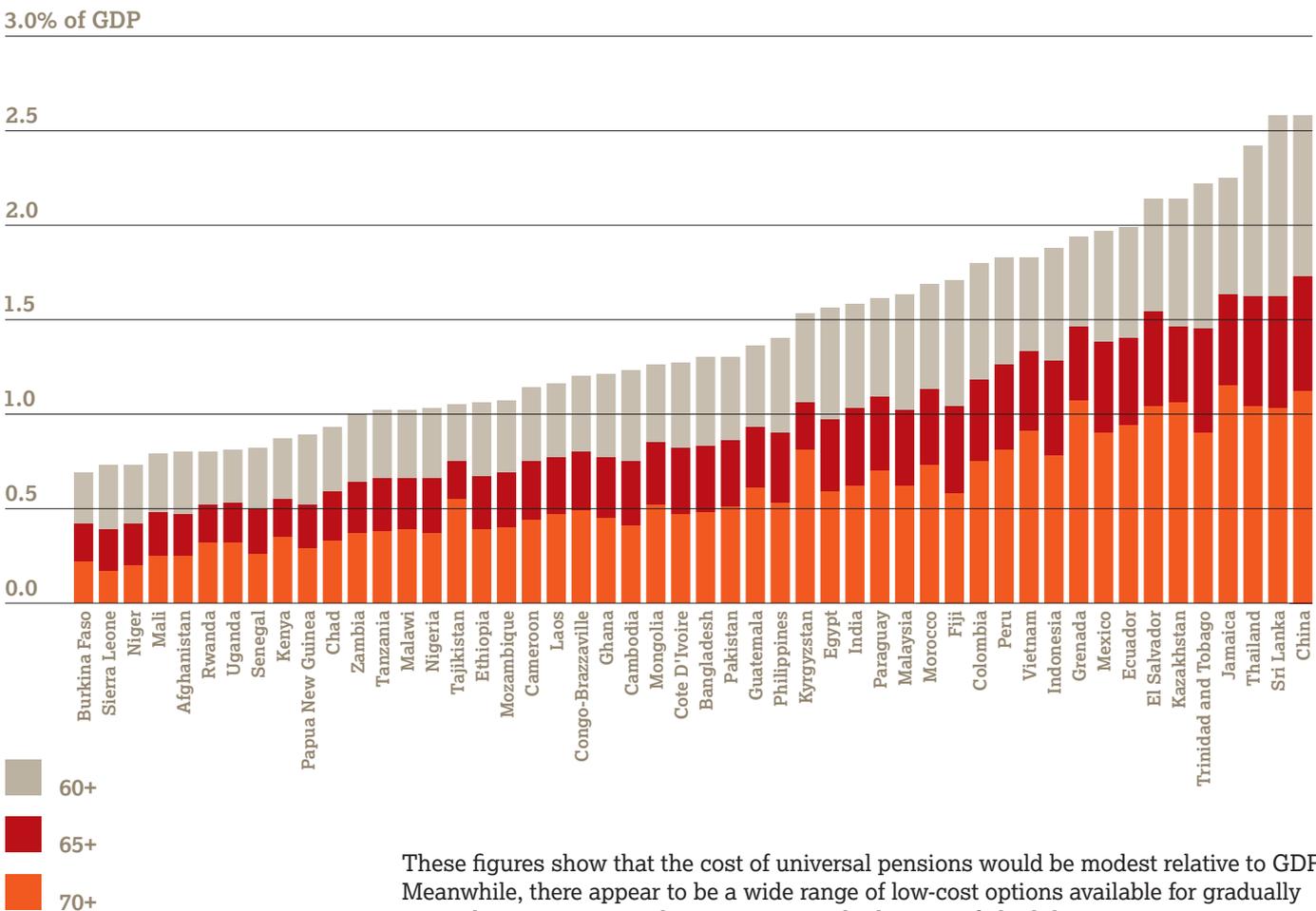
### Results of costings

Figure 1 shows the cost of a universal pension relative to the size of each country's economy, measured in gross domestic product (GDP). The costs of the pensions correlate directly with the relative size of the older population, so the cost of a pension would be lower for countries such as Mali, Afghanistan and Burkina Faso (where the population of older people is small), while in China, Sri Lanka and Thailand (developing countries with significant older populations) the cost would be higher.

In terms of the range of costs, in only two countries (China and Sri Lanka) would a universal pension cost more than 2.5 per cent of GDP. With an eligibility age of 65 years, in only five countries would the cost exceed 1.5 per cent of GDP, while for over 70s all countries could put in a universal pension for 1 per cent of GDP or less.

Costs are far lower in the poorest countries. A universal pension for everyone over 60 could be put in place for 1 per cent in GDP in most African countries, while at age 70 the costs would be less than 0.5 per cent of GDP.

**Figure 1: Cost of a universal pension in 50 low- and middle-income countries**



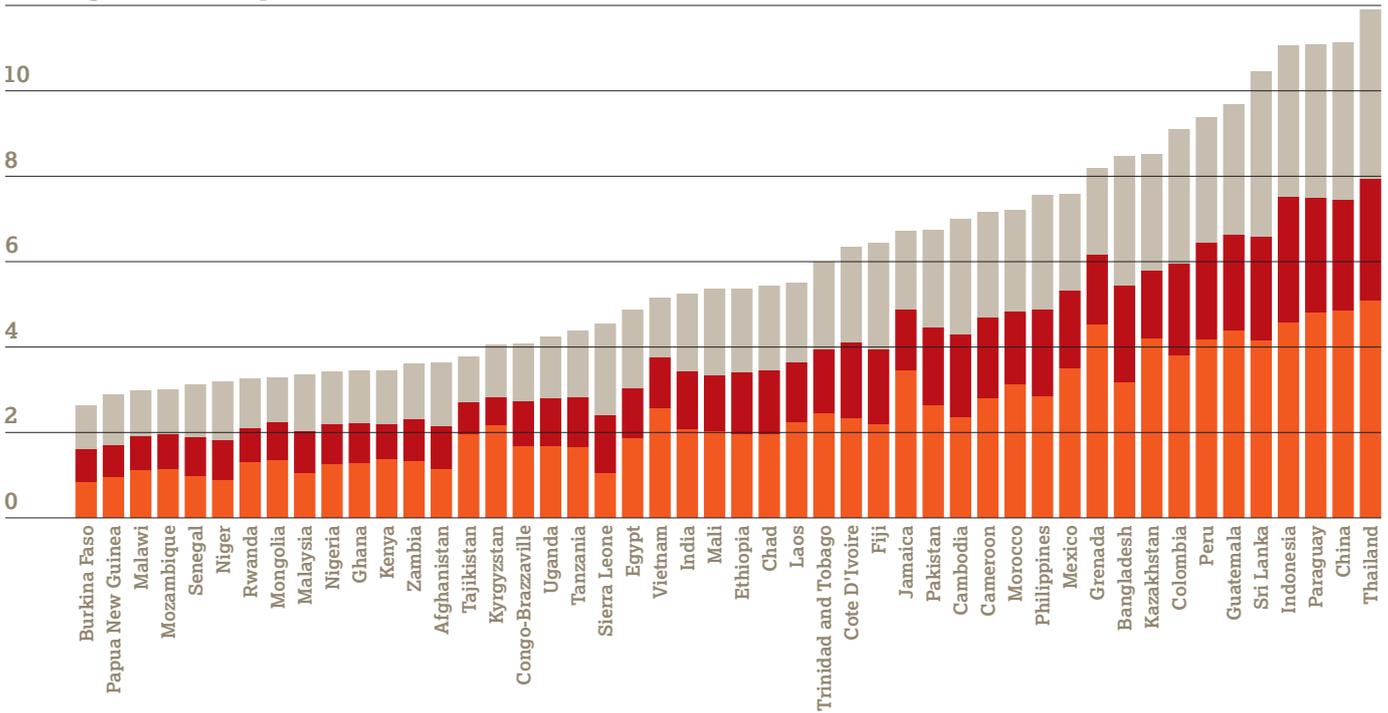
These figures show that the cost of universal pensions would be modest relative to GDP. Meanwhile, there appear to be a wide range of low-cost options available for gradually expanding coverage, such as starting at a higher age of eligibility.

### Costs in context

The costs can also be compared to other government spending. Figure 2 shows the cost of a pension relative to government budgets in the 50 countries. While the comparability of government spending can be problematic across countries, the figures give a useful impression of the scale of spending needed for a universal pension.

**Figure 2: Cost of a universal pension relative to government expenditure**

12% of government expenditure



Source: African Economic Outlook ([www.africaneconomicoutlook.org/](http://www.africaneconomicoutlook.org/))  
Asian Development Bank ([www.adb.org/documents/books/key\\_indicators/](http://www.adb.org/documents/books/key_indicators/))  
and IMF article IV consultation documents

Over half of the countries surveyed could put a universal pension for everyone over 60 for less than 6 per cent of current government expenditure. At the more expensive end of the scale, a pension for over 60s in countries like Thailand and China would cost up to 12 per cent of government expenditure, although for over 65s the cost would be below 8 per cent.

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. For pensions for everyone 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.

Another angle to contextualise the cost of a universal pension is to compare it to other areas of social spending. The fear is that a social pension might crowd out these other important areas of spending.

In practice, there is little reason to see such spending as competing. Most OECD countries have shown that successful social policy demands a mix of social services (particularly health and education) and social protection in the form of cash transfers. Indeed, the existing situation in the global south could be characterised as one of very low spending on social protection.

Meanwhile, as shown in Figure 3 for the case of Africa, the costs of a universal pension would be small compared to health and education spending. Of course, such a spend should be seen as part of a broader social protection floor, nevertheless, it appears that making this first step would be a feasible compliment to existing social spending.

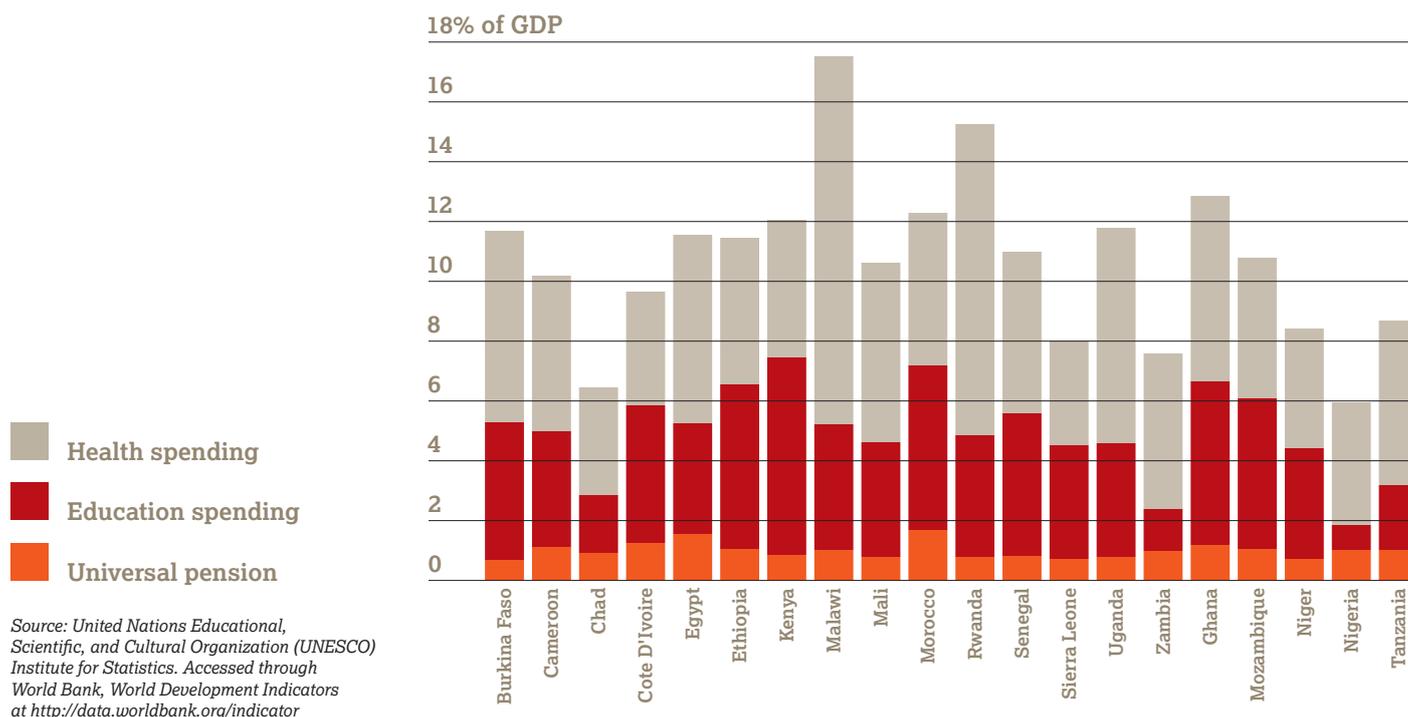
Beyond social expenditure, there are various comparisons with government spending which put the cost of a social pension in context. While a detailed analysis goes beyond the scope of this briefing, international evidence provides some illuminating comparisons.

A simple comparison using international data reveals that more than half (27) of the 50 countries spend more on military expenditure than it would cost to provide a universal pension to everyone over 60.<sup>12</sup> Another area which merits further investigation is the cost of other forms of pension to the government budget. In Bolivia, the impact of historic cases of fraud in the contributory system – that covers just one-tenth of the workforce –

is estimated to cost the government more per year than the total cost of the country's universal pension.<sup>13</sup> Meanwhile, the annual cost of the public service pension in Kenya – covering fewer than one in ten older people – is more than it would cost to provide a universal social pension to everyone over 60.<sup>14</sup>

The lessons from such other areas of spending are nuanced and cannot be generalised. Military spending in one country may be considered excessive but in another it could be crucial to keeping the peace. Likewise, what to do about high costs of other pensions is a complex question. However, these lessons make clear that current budgets need to be looked at in detail – and with a critical eye – before assuming that a shift in priority is impossible.

**Figure 3: Cost of a universal pension compared to current expenditure on health and education in selected African countries**



## Sustainability of cost over time

While the costs of a universal pension today may look reasonable, one common concern is that ageing populations will lead to spiralling and unsustainable costs. This section projects the long-term costs of universal pensions 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 cost of a pension over time will be determined by the level of transfer, and the size of the recipient population. Both variables are subject to a number of factors both within and external to government control.

In terms of external factors, the number of older people receiving a pension will be influenced by demographic trends, specifically, how many people are reaching older age each year and their life expectancy. More people reaching older age with a higher life expectancy will lead to an increase in the number of people over a given age. There is little a government can do in the short term to influence these forces. Costs may also be influenced by economic factors so that in a recession the cost of a pension may rise relative to GDP and government expenditure.

On the other side, governments can influence the cost of social 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. Secondly, a government can influence the cost depending on how it adjusts transfer levels over time.

12. Military spending data from Stockholm International Peace Research Institute (SIPRI), *Yearbook: Armaments, Disarmament and International Security*. Accessed through World Bank, World Development Indicators at <http://data.worldbank.org/indicator>

13. L. Willmore (2006) *Non-contributory pensions: Bolivia and Antigua in an international context*, Financiamiento del Desarrollo No. 167, CEPAL, Santiago de Chile

14. ILO (2010) *Kenya: Developing an integrated national social protection policy*, ILO, Geneva

Discounting the option of reducing the value of the transfer, there are three principle ways to do this:

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

**Doing nothing** is evidently an inadequate approach. Year by year the pension will decrease in value in *real terms* as a result of price inflation, lowering the purchasing power of the pension. The cost of this to recipients should not be underestimated, especially in the poorer countries where inflation is often high. As just one example, the benefit of the Orphans and Vulnerable Children cash transfer in Kenya was found to have decreased to around two-thirds of its original value in just three years.<sup>15</sup>

**Indexing the value 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 question here is around the methodology for doing this and which data a government should use to determine inflation rates.

While indexing to inflation helps to keep the real value of a transfer, assuming that a country experiences growth the transfer will decrease in relation to average income over time. So, if a country starts at a transfer level of 20 per cent of GDP per capita, this will decrease gradually to 19, 18, 17 per cent of GDP per capita as a country's economy grows.

Such a transfer 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 value to average wages or average income** in order to take account of the increases in wealth.

In reality, countries tend to use a mix of these 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 either to inflation or wages, or a mix of the two.

Deciding which approach is appropriate will likely be part of a broader political discussion, but some key observations can be made. On one hand, indexing to inflation seems to provide a reasonable approach from year-to-year. It is also much more practical than indexing to wages or average income where data tends to be scarcer. Nevertheless, in the long run as the pension value decreases more questions are likely to be asked of the value of the transfer relative to average income. This suggests that topping up to fit with such benchmarks would be necessary.

### Costing universal pensions into the future

In order to understand the future sustainability of a universal pension, the costs were forecast up to 2040 in three countries: Rwanda, Paraguay and Thailand. The example countries were chosen to show the varying outlook according to different demographics. Table 1 outlines the characteristics of these countries.

Rwanda is a country with 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 is one of the countries experiencing the most rapid population ageing. 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. Paraguay provides a situation somewhere between the two cases.

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

**Table 1: Demographics and economic status of case study countries**

	Percentage of population 60+		Percentage 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

Source: UN-DESA, Population Division, *World Population Prospects: The 2008 Revision*; IMF, *World Economic Outlook Database*, April 2010

As above, the costings incorporate population projections by the UN Population Division. The transfer level is assumed to change according to two scenarios:

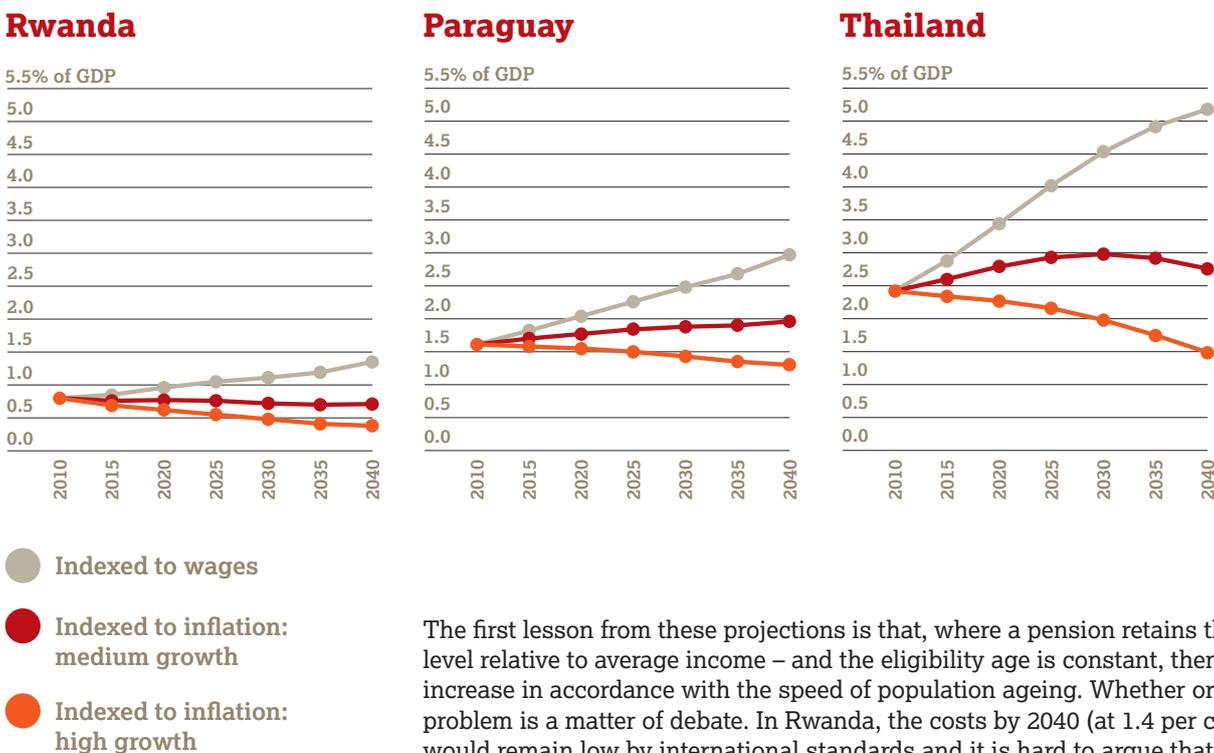
- **Indexed to inflation:** This scenario assumes that the pension would be indexed to inflation, retaining its real value but decreasing as a proportion of GDP per capita. This is calculated by applying an assumed real GDP per capita growth rate to the transfer level. Two growth assumptions are applied: a **high-growth** scenario assumes a growth rate (of real GDP per capita) in line with IMF predictions from 2011-2015 while a **medium-growth** scenario assumes growth equal to half of this figure.
- **Indexed to average income:** This scenario assumes that the pension would retain its value relative to average income. So it would 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 transfer. These assumptions also replicate a situation where the transfer is tagged to inflation but the country experiences zero growth in real GDP per capita.

The results of the costing are shown in Figure 4. All three examples forecast a pension for everyone over 60 years.

Looking at the option of indexing to average income, in all three countries the cost of the pension 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 per cent of GDP would have risen to 1.4 in Rwanda, 3.0 in Paraguay and 5.2 in Thailand.

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

**Figure 4: Projected cost of a universal pension**



The first lesson from these projections is that, where a pension retains the same transfer level relative to average income – and the eligibility age is constant, then the cost will increase in accordance with the speed of population ageing. Whether or not this is a problem 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; nevertheless, it is worth considering that by 2040 a quarter of the population of Thailand will be over 60. These demographics would be comparable with the current situation in Europe and North America.

16. See the OECD *Social expenditure database* at [www.oecd.org/els/social/expenditure](http://www.oecd.org/els/social/expenditure)

17. Willmore, "Universal Pensions for Developing Countries"

18. United Nations DESA, Population Division, *World Population Prospects: The 2008 Revision*

19. See, for example *Community statistics on income and living conditions (EU-SILC)* at Eurostat (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>)

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Meanwhile, Thailand's wealth would likely 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 over 5 per cent of GDP on cash benefits to older people.<sup>16</sup>

Another key point is that as a country like Thailand gets richer it will likely develop a more sophisticated tax system. This creates potential for clawing back some of the universal pension from wealthier older people. New Zealand does this by taxing pension income as normal income, a process which lowers the fiscal cost of the universal pension from 4.3 per cent of GDP to 3.6 per cent.<sup>17</sup>

The second lesson is that all of the countries could employ approaches to keeping costs down while at least retaining the real value of the transfer. By indexing the pension level to inflation, the cost of a social pension could be kept stable while the transfer 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 look to increase the eligibility age for the pension over time. By 2050, Thailand is forecast to have a life expectancy of 77 (compared to 69 today).<sup>18</sup> An increase in the eligibility age would significantly reduce the cost, for example, to 3.9 per cent of GDP for over 65s in 2040.

## Conclusion

This paper has reviewed the cost of universal pensions both statically – in 2010 – and up to 2040. The general picture is that the cost of universal pensions in developing countries today is 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 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 put in place a pension for over 70s for less than 0.5 per cent of GDP. Putting these costs in context, they would also only make up a modest amount of government expenditure, and would emerge as a relatively small addition to existing spending on health and education. The general lesson is therefore that there is little rationale for dismissing universal pensions on the basis of their cost.

Looking to the future, assuming the eligibility is the same and the transfer linked to wages, the costs of a pension will rise over time as populations age. This is unsurprising, but whether it is considered a problem will depend on government priorities. A country with more older people may want to spend more money on them, and it is worth noting that such countries would possibly 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 countries in the European Union, for example, would have significantly higher poverty rates across the board if it weren't for cash transfers to older people.<sup>19</sup>

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 value of the transfer to 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 eligibility age.

Finally, as countries develop there is greater potential to use the tax system to claw back universal pension income from wealthier 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.

**This briefing is based on a longer paper of the same name available at [www.pension-watch.net/knowledge-centre](http://www.pension-watch.net/knowledge-centre)**

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