Social pensions
Part I: Their role in the overall pension system

Robert Palacios and Oleksiy Sluchynsky
Abstract
Cash transfers for the elderly with little or no link to previous contribution or work history are employed in many countries to provide income support for the elderly. In the context of the larger debate over pension reform, some argue that these ‘social pensions’ are an effective way to deal with chronically low coverage of contributory schemes and to alleviate poverty among the elderly. This paper reviews the global experience with social pensions. We find that coverage and cost of these programs varies widely and that the appropriate role for social pensions should take into account several country-specific conditions. The extent of coverage of the contributory scheme, the extent of other social assistance programs and the relative poverty status of the elderly are among the factors that should be considered. Design and implementation issues will be reviewed in Part II.
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May 2006
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1. **Social pensions and the evolution of pension systems**

Cash transfer programs aimed specifically at the elderly can be traced to the late 19th century. In 1891, Denmark introduced a locally administered means-tested scheme for needy citizens over age 60. By 1897, almost one fourth of the elderly received a pension worth around 20 per cent of income per capita at the time. Financing was split between central and local governments and Copenhagen benefit levels were almost twice those in the countryside. Over the next two decades, New Zealand (1898), Australia (1908) and Sweden (1913) would follow with their own variants.

Just two years earlier, another type of pension program had been introduced in Germany. Otto von Bismarck was interested in tying workers’ interests to the new German state. He proposed a small flat pension that would be paid to workers that managed to reach age 65, a condition almost synonymous with disability for the working classes at that time. The program was to be financed by a tax on the tobacco monopoly. Instead, conservative elements in the Reichstag demanded that benefits be tied to contributions so that in this way workers would help finance the scheme. This new type of pension scheme – labeled ‘Bismarckian’ – would spread across the globe over the next century.

Pensions linked to contribution histories are now the dominant element of old age income security policy in most of the OECD countries, although the relationship between earnings and benefit levels varies hugely. That is not to say that non-contributory schemes are rare. To the contrary, most rich countries supplement their main schemes with a safety net targeted at the poorest elderly and in a few, such as Australia, it is a major element of the system. With few exceptions however, reliance is mainly on contributory pensions.

The same pattern is observed in developing countries. The ‘policy transfer’ in the area of pensions influenced through bilateral contacts and international agencies led to the

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2. UK House of Commons (1899).
3. OECD (2005) compares the degree of redistribution versus earnings replacement implied by the parameters of public pension schemes in thirty countries.
4. New Zealand is a notable exception having opted not to mandate any contributory pension plan. In fact, this option was recently and decisively rejected in a referendum. Other examples are Denmark and UK, where universal flat pension is earnings and residency tested (People’s Pension in Denmark) or prorated for service periods (Basic State Retirement Pension, in UK); both countries, however, have special supplementary schemed targeting elderly poor that otherwise do not meet criteria of the main schemes.
introduction of mandated contributory schemes of the social insurance type throughout Latin America, Africa, the Middle East and, most recently Asia. The latest examples include
the introduction of social insurance pension schemes in Korea and Thailand in 1988 and 1997, respectively. Meanwhile, a few dozen countries persisted with the contribution-based
‘provident fund’ model adapted from the colonial British period in places like India and Sri Lanka. Only a few countries rely primarily on non-contributory pension schemes.

While the contributory pension model is now pervasive, the reliance on this approach in developing countries is now being seriously questioned. The reason is the failure to extend the mandate to a large part of the population. In rich countries, coverage is practically universal. In contrast, only one in ten workers contribute in the poorer regions such as sub-Saharan Africa and South Asia. Even in middle income countries, coverage rates rarely exceed half of the work force. Not surprisingly, the workers that do participate tend to be found in the upper half of the income distribution, are predominantly urban residents or have a secure career within a public sector. After operating for decades and despite many attempts to expand formal systems, coverage rates have remained stubbornly low in most of the world.

This reality forced international organizations like the World Bank, ILO and UNDP, academics and advocacy groups to focus on non-contributory or ‘social pensions’ as a way to address the coverage gap in an ageing world. A growing number of studies analyzed the effects of the more significant social pension programs such as Brazil and South Africa. Recently, a few low income countries, such as Bangladesh (2001) and Bolivia (1997) have introduced new social pension schemes.

The appeal of social pensions as a public policy solution to low coverage is clear. Nevertheless, the merits of this approach must be weighed against the fiscal costs and

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5 The arcane term ‘provident fund’ refers to centrally managed, defined contribution schemes with administered rates of return paying lump sum benefits at retirement.
6 South Africa is notable in this regard, not only because of the importance of its non-contributory pension, but also because, as in New Zealand, no mandatory contribution-based scheme was ever introduced.
7 Coverage here is a general reference to participation in contributory schemes that produces some pension during old age. The actual concept is more complex especially for cross-country comparisons. See “Coverage”, Pension Primer note on and Rofman (2005) at www.worldbank.org/pensions.
8 See Palacios and Pallares (2000).
9 See McKinnon and Sigg (2003).
potentially negative incentive effects that must be considered in any type of redistributive program. Proposals to introduce or expand these programs should also take into account the administrative capacity to implement them in a cost-effective manner and with adequate financial control\textsuperscript{10}. Bearing these questions in mind, this paper will argue that the appropriate role for and design of social pension programs is highly dependent on initial country conditions. These include the nature and coverage of the contributory scheme, the overall state of social assistance, the efficiency of categorical targeting focused on the elderly and of course, whether social pension schemes already exist. The paper will also propose some criteria and indicators for assessing social pensions. The discussion of policy options is found in Section 4, which builds upon the review of international experience found in the previous two sections.

The paper consciously avoids one area of pension policy, namely, redistribution in the context of contributory pension schemes. Most contributory schemes provide for minimum pensions tied to contribution history with the objective of replacing a greater proportion of income for low income workers\textsuperscript{11}. This practice is even found in privately-managed, fully funded schemes in the form of minimum pension guarantees. In countries with high coverage, the comparison between social pensions and minima in contributory schemes is relevant as the same population is affected by the redistribution\textsuperscript{12}. This is not the case in most developing countries where coverage rates tend to be low, especially for workers at the bottom of the income distribution. Minimum pensions in low coverage environments do not address the coverage gap or poverty in old age.

Social pensions on the other hand, have the potential to do both and the rest of this paper discusses their possible role, especially in poor countries where the coverage gap is widest. The next section distinguishes between large (core) and small (supplementary) social pension arrangements and presents comparative data for developing countries. Section 3

\textsuperscript{10} Reportedly, the post-eligibility verification may prove to be a serious challenge. Furthermore, some developing countries may have no reliable system of civil records to validate age. See Willmore (2001).

\textsuperscript{11} See OECD (2005).

\textsuperscript{12} Our priors are that, as in World Bank (1994), the clear separation and financing of the redistributive component of the scheme through the most efficient tax available is superior to combining it with the consumption smoothing component of the scheme and financing it with a distortionary payroll tax. This discussion is beyond the scope of this paper, however.
reviews the limited empirical evidence of the effects of the different programs. This is followed by a discussion of the key considerations in the formulation of social pension policy. The last section suggests future research and the issues to be covered in Part II.

2. **Assessing the role of social pensions**

The main feature that distinguishes social pensions from other types of pensions is that the eligibility criteria do not include a history of earmarked contributions having been made by the individual in question or his employer. They are pure cash transfers rather than savings or insurance schemes.13

This narrow definition tells us little about the role of social pensions in a particular country, however. In practice some SPs serve to backstop contributory schemes that have widespread coverage and often, their own internal redistribution through minimum pensions. This supplementary or safety net role is observed in the United States, Uruguay and Germany, for example. These are programs designed to assist the lifetime poor or those individuals that for whatever reason slipped through the cracks of the contributory mandate.

In another set of countries, SPs are paid to most or even all citizens above a specific age. These are more likely to be found in countries with no mandated contributory system as in the cases of New Zealand or South Africa. These countries have chosen to use SP as a core element rather than a supplement to the contributory scheme. There are a few exceptions, that is countries that have chosen to use SPs as a core element alongside mandated contributory schemes that are otherwise devoid of redistribution. Australia, Bolivia, and Kosovo are examples.

The intended audience for this paper is the majority of developing countries that have still not determined the role of social pensions. Almost all of these countries have a contributory scheme, but coverage is typically quite limited. Should these countries choose

13 It should be noted that there are many non-contributory civil service schemes (see Palacios and Whitehouse 2006). In the latter case, there is a presumption that wage levels somehow reflect an implicit contribution, although empirically this is not verifiable.
to use SPs as a core element of their systems to address the coverage gap. Alternatively, should the role of SPs be to supplement the contributory schemes and focus on the poor elderly, by incorporating some benefit programs targeted to the needy retirees?

We begin by looking at SPs in a cross-section of developing countries where data were available. Table 1 shows relative coverage and benefit levels for SPs in 21 developing countries. A wide dispersion is observed. The coverage variable is normalized by dividing the number of old-age recipients by the population aged 65 and over. This is necessarily an arbitrary measure since eligibility ages vary across the countries, but it allows for a common base for comparison. Benefit levels are normalized by average income per capita.

Focusing first on coverage, we note that for fourteen of the countries surveyed, the SP plays a supplementary role, with the beneficiary to elderly ratio at around or below 20 percent. In the other seven countries, this ratio is above 40 per cent and in some cases there is universal coverage. In at least six of these countries, the SP plays a central role in old age income security. In all but two of them, Brazil and Mauritius, coverage in the contributory scheme is either low or there is no mandate at all. In the case of Brazil, that operates three separate SP programs, the contributory coverage is concentrated in the urban areas where a small means-tested SP program also operates, while the major SP is essentially a rural program. Viewed as two countries – rural and urban Brazil – the case fits the pattern.

Returning to the supplementary SPs, there are several instances of low contributory coverage. In Bangladesh, the Dominican Republic and India, coverage of SPs is low but so is contributory scheme coverage. Moreover, as noted by Coady, Grosh and Hoddinott (2002) there are several examples of general social assistance programs that also use old age as a categorical criterion. Among the countries including the elderly as a preferred target

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14 An alternative, discussed in a separate paper by Palacios (forthcoming), is to channel resources to subsidize voluntary coverage of informal sector workers.
15 In some cases the same programs provide benefits to the disabled individuals in younger ages. We did exclude recipients of those benefits for the purpose of our cross-country comparison.
16 Missing from this table are the following island nations known to provide social pensions but are not included in this table: Antigua, Bahamas, Barbados, Cape Verde, Samoa, St. Kitts and Trinidad.
17 Brazil and Egypt are included in the table as social pensions despite the fact that there is some link with work history in both cases. In the case of Brazil, there are no contributions from rural workers, but years of service are considered while in Egypt, a symbolic contribution is made by casual workers. A similar case may be made for ‘pseudo-contributory’ schemes of farmers in Albania and Poland.
group are Iran, Jamaica, Thailand, Trinidad and Vietnam. All of these countries have contributory schemes that cover less than half of the labor force. It should also be noted that many countries provide cash transfers to households with elderly members as part of a general social assistance program without categorical bias but simply because they belong to a poor household (e.g., Sri Lanka). Finally, that there are countries that have neither type of program, including much of sub-Saharan Africa.

Table 1: Key indicators for social pension programs in selected developing countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of data</th>
<th>Recipients as % of 65+ pop</th>
<th>Benefit as % of income per capita</th>
<th>Impact Index</th>
<th>Eligibility age, M/F</th>
<th>Degree of targeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>1998</td>
<td>6%</td>
<td>3%</td>
<td>0.2%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Argentina</td>
<td>2000</td>
<td>1%</td>
<td>22%</td>
<td>0.3%</td>
<td>70</td>
<td>98%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2003/04</td>
<td>22%</td>
<td>7%</td>
<td>1.6%</td>
<td>57</td>
<td>89%</td>
</tr>
<tr>
<td>Bolivia *</td>
<td>2004</td>
<td>110%</td>
<td>23%</td>
<td>25.3%</td>
<td>65</td>
<td>0%</td>
</tr>
<tr>
<td>Botswana *</td>
<td>1999/00</td>
<td>86%</td>
<td>9%</td>
<td>7.7%</td>
<td>65</td>
<td>14%</td>
</tr>
<tr>
<td>Brazil</td>
<td>2003</td>
<td>40% and 7%</td>
<td>33%</td>
<td>15.5%</td>
<td>60/55 and 67</td>
<td>0% and 91%</td>
</tr>
<tr>
<td>Chile</td>
<td>2001</td>
<td>15%</td>
<td>12%</td>
<td>1.9%</td>
<td>65</td>
<td>85%</td>
</tr>
<tr>
<td>Colombia</td>
<td>1998</td>
<td>5%</td>
<td>40%</td>
<td>1.9%</td>
<td>65</td>
<td>95%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>2000</td>
<td>22%</td>
<td>10%</td>
<td>2.1%</td>
<td>65</td>
<td>78%</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>2000</td>
<td>2%</td>
<td>8%</td>
<td>0.1%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Egypt, Arab Rep.</td>
<td>2004</td>
<td>18%</td>
<td>13%</td>
<td>2.3%</td>
<td>65</td>
<td>82%</td>
</tr>
<tr>
<td>Estonia</td>
<td>2003</td>
<td>2%</td>
<td>12%</td>
<td>0.2%</td>
<td>63</td>
<td>99%</td>
</tr>
<tr>
<td>India</td>
<td>1999</td>
<td>14%</td>
<td>10%</td>
<td>1.4%</td>
<td>65</td>
<td>86%</td>
</tr>
<tr>
<td>Kosovo *</td>
<td>2004</td>
<td>100%</td>
<td>45%</td>
<td>45.0%</td>
<td>65</td>
<td>0%</td>
</tr>
<tr>
<td>Mauritius *</td>
<td>1999/00</td>
<td>153%</td>
<td>18%</td>
<td>27.1%</td>
<td>60</td>
<td>0%</td>
</tr>
<tr>
<td>Namibia *</td>
<td>1999/00</td>
<td>115%</td>
<td>17%</td>
<td>19.8%</td>
<td>60</td>
<td>24%</td>
</tr>
<tr>
<td>Nepal *</td>
<td>2001/02</td>
<td>21% and 25%</td>
<td>10%</td>
<td>4.7%</td>
<td>75 and 60</td>
<td>27% and 84%</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>2004</td>
<td>9%</td>
<td>7%</td>
<td>0.6%</td>
<td>65/60</td>
<td>93%</td>
</tr>
<tr>
<td>South Africa</td>
<td>2003</td>
<td>86%</td>
<td>32%</td>
<td>27.3%</td>
<td>65/60</td>
<td>32%</td>
</tr>
<tr>
<td>Turkey</td>
<td>2005</td>
<td>21%</td>
<td>10%</td>
<td>2.1%</td>
<td>65</td>
<td>79%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>2001</td>
<td>4%</td>
<td>24%</td>
<td>1.1%</td>
<td>70</td>
<td>94%</td>
</tr>
</tbody>
</table>

* Countries that operate universal flat schemes.

(3) Where means tests apply (e.g., South Africa) or different amounts are payable to the couples (e.g., Turkey), the value of maximum allotment to an individual is indicated; Other than old age beneficiaries excluded; Income per capita in current prices used; (4) Index equals value in (2) multiplied by value in (3); (6) The targeting measure equals 1 minus percentage coverage of the age eligible population. For estimated coverage exceeding 100 percent, zero targeting was indicated.

For sources and country specific notes, see Table A1 in Annex.
Benefit levels range from 3 to 45 per cent of income per capita and are not correlated with coverage. Brazil, Kosovo and South Africa have high coverage rates as well as high benefit levels while Botswana, Mauritius, and Namibia have relatively low benefits with high coverage. Colombia has low coverage and high benefit levels.

The final column of Table 1 refers to coverage of the potential population of beneficiaries taking into account the eligibility age. Universal schemes do not involve any targeting and should therefore have a minimum of zero in the column. Universal SP recipients may outnumber potential recipients due to weak death registration systems or even fraud. At the same time, universal schemes may not reach everyone that is eligible, as in the case of Nepal. Schemes with stricter (not necessarily more accurate) means testing would show a low share of the eligible population in receipt of the social pension. The table shows that even within the means-tested programs there is wide variation across countries as to the degree of implied targeting.

By definition, the larger or ‘core’ programs apply less targeting than the supplementary schemes. Also, the larger the program, the bigger the incentive effects and tradeoffs (see next section). It is therefore useful to have a measure that compares the relative size of SPs across countries. Spending on social pensions as a share of GDP would be a useful indicator if countries were at a similar stage in their demographic transition. In light of differences in the proportion of elderly however, a better indicator would take both coverage and benefit levels into account in the form of an index as follows:

\[(\text{SPB/POP65+}) \times (\text{SPLEV/YCAP}),\]

The first term is the number of social pension beneficiaries divided by the population aged 65 and over and the second term is the level of the benefit as a share of income per capita. The index is the product of the two terms and would be equal to 1 if all elderly were covered and received a benefit equivalent to income per capita of the country in question.19

18 See Palacios and Rajan (2004).
19 Since in the very long run (75+ years), demographic projections typically show the convergence of the share of elderly across countries, the index multiplied by the steady state share of 65+ population gives a rough sense of the long run cost of the social pension if the policy remains unchanged.
Figure 1 below illustrates the index as applied to 20 developing country schemes.\textsuperscript{20} Not surprisingly, the core schemes are ranked highest. Nevertheless, among them, there is significant variation with South Africa with more than twice the potential impact of Botswana due mainly to differences in the benefit level. Nepal also stands out because, despite its universal flat benefit, its high eligibility age (75) and low benefit level result in a low score\textsuperscript{21}.

**Figure 1: Social Pension Impact Index, selected countries**

![Graph showing the Social Pension Impact Index for selected countries](image)

Source: authors’ calculations.

Normally, it would seem inconsistent to have a large SP alongside a large contributory scheme. Indeed, the index is highest in countries that either do not have any

\textsuperscript{20} Kosovo, although not an independent country, has the highest score on this index at 45 per cent due to a combination of universal coverage and a very high benefit equivalent to 45 per cent of income per capita.
mandated coverage for the private sector (South Africa, Namibia, and Botswana) or low coverage in the contributory scheme (Bolivia and rural Brazil). Mauritius stands out as a case of moderate contributory coverage levels with a high score, perhaps partly because of the relative immaturity and low replacement rates of the contributory scheme. Meanwhile, former socialist countries along with moderate to high coverage countries in Latin America and the Middle East have lower scores as might be expected. The outliers are in South Asia, where low coverage and low index scores coincide. It is notable that two of the three schemes arose only in the 1990s and have continued to expand. Should they be expanded further given the low coverage of contributory schemes? And what about countries that do not already have a social pension in place, as is the case for most of sub-Saharan Africa.

This section has demonstrated that the term ‘social pension’ does not tell us much about the role of this program in providing old age income support. For that matter, neither does the differentiation between means-tested schemes and universal benefits. It is better instead to look at key indicators of the size of benefits and coverage in order to assess the role of SPs in a given country.

Keeping this in mind, the next section distinguishes between large and small (core and supplementary) programs when reviewing the empirical evidence of the impact of SPs. Not surprisingly, more research has been applied to core SPs. The fourth section attempts to provide some criteria for policymakers, especially in countries facing a large ‘coverage gap’. Are social pensions desirable and if so, what should be their role in the overall system?

3. Impact of social pensions – potential and observed effects

In theory, social pensions can have a variety of direct and indirect effects on poverty, labor supply, savings and even unlikely areas such as education. Moreover, if they are large programs, it is also important to consider the fiscal tradeoffs involved. This section begins with a general description of the possible impact of SPs. This is followed by a review of the empirical evidence of the impact of specific programs in a number of countries.

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21 The index for both Nepal and Brazil captures coverage of multiple programs: in Nepal, both universal and means tested programs included; in Brazil, rural, urban, and new means-tested programs included.
3.1 The potential effects of social pension programs

Social pensions are aimed at providing an income floor and therefore at reducing poverty among the elderly population. To the extent that they are successful, they would also reduce the overall poverty rate. However, the efficacy of this kind of categorical targeting depends on the relative poverty rates of the elderly. For example, social pensions may have more relevance in countries where households with elderly members tend to be disproportionately poor. On the other hand, low poverty rates among the elderly would suggest that funds directed at SPs might be more effectively used in general social assistance programs or targeted to other categories of individuals.

The empirical evidence on relative poverty rates of households with elderly members is mixed. Schwarzer and Querino (2002) find that in Brazil the elderly have significantly lower rates of poverty than the general population (a fact partly attributed to high coverage of social pensions by the same study). Martinez (2004) finds Bolivian poverty rates similar for elderly and non-elderly households. Lucia Acosta (2005) finds poverty rates lower than other population sub-groups among the elderly in Colombia. Rivera-Marquez et. al., (2003) find that poverty among the elderly is not higher in Mexico City. In a survey of various studies covering 44 countries, mostly in Europe and Latin America, Whitehouse (2000) concludes that generally, the situation of the elderly is representative of the population. For example, out of fourteen Latin American countries, poverty rates among the elderly were lower in ten. Grootaert (1997) finds that poverty rates are slightly higher among elderly headed households compared to the average but lower than households with young household heads. Lanjouw et. al. (1998), cite a number of studies for transition socialist countries showing lower poverty rates among the elderly. Both of these studies however, point out the sensitivity of the results to assumed equivalence scales.

In Africa, Kakwani and Subbarao (2005) find that households with elderly members are more likely to be poor in 9 out of 15 countries and that specific categories of elderly, such as ‘skipped generation’ households that include grandparents and children only are much more likely to be poor. In Sri Lanka, Rannan-Eliya (2002) finds that households with elderly members were found to have lower poverty rates than other households. In an analysis of 8 Indian states, Deaton (1995) found that households with elderly were generally
less likely to be poor. A more recent study by Pal and Palacios (2005) reinforced these findings in an analysis of 15 Indian states. Finally, a recent World Bank study of the Middle East and North Africa found ‘little evidence’ that the elderly ‘are poorer than the rest of the population’.22

Part of the explanation for the varied results may stem from methodological issues. Deaton and Paxson (1997) observe that results, particularly the relative poverty rates of elderly versus children, are sensitive to assumptions as to economies of scale. Lanjouw et. al. (1998) even show that the ranking of elderly households and households with children is reversed under plausible assumptions about economies of size and adult equivalence. Whitehouse (2000) also shows how changes in the standard OECD equivalence assumptions can affect household rankings.

Although a thorough discussion of equivalence scales is beyond the scope of this paper, the issue merits a few more observations given its importance in establishing the rationale for categorical transfers to the elderly, i.e., social pensions. First, the appropriate equivalence scales will vary across regions. This is because the relative cost of children is generally calculated in terms of minimum nutritional needs and therefore food consumption in low income countries while other expenditures will represent a larger share of costs in middle income countries (e.g., education-related expenses). Also, certain expenses that involve shared goods such as energy and heating costs may represent a higher proportion of the consumption basket in some countries than in others. Finally, no equivalence scale exists that can take into account intra-household allocation behaviour. This is important in poor countries where rates of co-residence are high. All of this suggests that sensitivity tests should be performed before drawing strong conclusions.

In sum, the available evidence on poverty rates among the elderly is mixed and does not clearly support targeting this group on a categorical basis for social assistance. Moreover, the data suggest that if there is to be categorical targeting among the elderly, it

22 See Robalino et. al., (2005). Data are presented for Jordan, Iran and Yemen.
should be focused on certain types of elderly households, such as widows or households where the elderly individual is the sole source of support for grandchildren.\textsuperscript{23}

These results may be partially due to the observed link between longevity and income levels. Data from several OECD countries finds that adults with higher incomes tend to have life expectancies from 5-15 per cent higher than low income adults.\textsuperscript{24} There are at least two counter-arguments however.

First, in poor countries, co-residence rates are very high and multiple generation households are the norm. Those who favor targeting the elderly point out that intra-household allocation of resources is very difficult to observe based on standard surveys and that assuming an equitable distribution among household members may not be realistic. The old may be discriminated against within the household. However, we would note that there is limited evidence of this phenomenon, as in the case of health spending on the elderly relative to working age adults in Pakistan (Kochar 1999).\textsuperscript{25}

A second argument in support of targeting the old is that the behavioural effects of such transfers would be less likely to lead to the kind of moral hazard that could result in persistent poverty (Mulligan and Salai-i-Martin 1999) and that it is easily verifiable and therefore less susceptible to fraud (Atkinson 1985). From this perspective, old age is viewed as a kind of permanent and worsening state of disability. This argument is weakened however, to the extent that co-resident households share resources and working age members reduce their work effort.

This last point highlights the difficulty – inherent in all programs that aim to redistribute to the poor – of separating the ultimate poverty impact from incentives. There are at least three types of incentives that could potentially be affected by SPs.

\textsuperscript{23} Kakwani and Subbarao (2005).
\textsuperscript{24} This relationship has been observed in rich countries and there is little reason to think that it would not be at least as strong in low and middle income countries. To the extent that poverty is higher in rural than in urban areas, documented higher mortality rates in the former provide some evidence in countries such as India.
\textsuperscript{25} Conversely, evidence from South Africa suggests that in cases of large transfers, there may be a reallocation of household expenditures in favor of things such as children’s education. See discussion below.
From the earliest debates, policymakers expressed concern that social pensions would distort work and savings behavior:

“…it has been held that the prospect of a pension for their closing years will disincline the poor to make or continue the exertions that many of them make at present for their own support, and that the considerations which induce to industry and thrift will cease to operate in future.” (UK Parliament 1899).

The potential for such an effect is positively related to the size of the benefit in question; larger social pensions are more likely to lead to a reduction in work effort and savings than smaller transfers. It is also a function of the eligibility age chosen and the typical earnings and savings rates of that age group in a particular country. In general then, a low benefit (relative to income levels in the country) paid to individuals with few years left to live will create fewer negative incentive effects than an SP with high benefit levels at an eligibility age that implies a significant remaining productive life. In both cases, the effects would be complicated by co-residence and intergenerational contracts that might also lead other members of the household to reduce work or thrift.

Related to this last point is a third potential effect, the reduction of intergenerational transfers – i.e., family support. Cox and Jimenez (1992) for example, document a reduction in private informal transfers to the elderly of 37 per every 100 received in public social assistance in the case of Peru. Jensen (2004) found a reduction on the order of 20-30 per cent of each Rand of pension income in South Africa. Once again, the concern over these effects increases along with the size of the benefit and the scope of the coverage. More subtly, this raises the question as to how such programs affect traditional family structures.

In addition to poverty and incentive effects, scarce fiscal resources imply opportunity costs or tradeoffs. Lower budget deficits or higher spending on other social programs may be sacrificed in order to finance SPs (of course, the counterfactual may also have been less desirable expenditures). Naturally, this is a more important issue in the case of core SP programs, but even in some of the smaller programs, the tradeoffs may not be trivial. Again, larger schemes will generally involve larger tradeoffs.
Table 2 and Table 3 below provide a sense of the magnitudes involved.

Table 2 shows the fiscal cost as a share of GDP of a universal benefit at ages 60 and 65 for a benefit equivalent to 15 per cent of per capita income over the next three decades by regional averages. The figures are driven by the underlying aging of the population. As a result, expenditures relative to GDP rise most quickly in East Asia and most gradually in Africa.26

Table 2: Estimated cost of universal pension by region through 2040 (% GDP for benefit equal to 15 per cent of GDP per capita)

<table>
<thead>
<tr>
<th>Year</th>
<th>Eligibility Age</th>
<th>OECD</th>
<th>Latin America &amp; The Caribbean</th>
<th>Europe &amp; Central Asia</th>
<th>Middle East &amp; North Africa</th>
<th>Sub-Saharan Africa</th>
<th>East Asia &amp; Pacific</th>
<th>South Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60</td>
<td>65</td>
<td>2005</td>
<td>2010</td>
<td>2025</td>
<td>2040</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>65</td>
<td>2005</td>
<td>2010</td>
<td>2025</td>
<td>2040</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources for Tables 2 and 3: Authors calculations; WB demographic data; GFS and IFS databases, IMF data on government expenditures. Notes: Government spending is for central government only.

However, the fiscal tradeoffs are better measured by expressing social pension costs as a share of government spending. Table 3 does this for a sample of nine countries. The results suggest that a large scale social pension program would come at significant cost in terms of other programs foregone or additional debt.

To our knowledge, a comprehensive analysis that simultaneously considers each of these three key areas – poverty, incentives and fiscal tradeoffs – has not been produced for any single country where such programs exist or are being considered. Many studies focus on one or two of the three elements and, admittedly it is difficult to measure the fiscal tradeoffs (what, for example, would the money have been spent on if not on SPs?). Nevertheless, all three elements should be considered by policymakers. They will be the

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26 Pal et al. (2005) finds similar costs for sub-Saharan Africa based on a US0.5$ per day universal pension for persons 65 and over.
basis for the discussion of evaluating policy options in Section 4. First, however, we review the existing empirical evidence on SPs.

Table 3: Estimated cost of universal pension for selected countries, 2004-2005 (% Government spending for benefit equal to 15 per cent of GDP per capita)

<table>
<thead>
<tr>
<th>Country</th>
<th>Elderly / Population</th>
<th>SP Spending / GDP</th>
<th>SP / Total Gov Spending</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60+</td>
<td>65+</td>
<td>60+</td>
<td>65+</td>
</tr>
<tr>
<td>Egypt, Arab Rep.</td>
<td>7.0%</td>
<td>4.7%</td>
<td>1.1%</td>
<td>0.7%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>6.4%</td>
<td>5.3%</td>
<td>1.0%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Kenya</td>
<td>3.7%</td>
<td>2.8%</td>
<td>0.6%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Kyrgyz Rep.</td>
<td>7.8%</td>
<td>6.1%</td>
<td>1.2%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>5.3%</td>
<td>3.8%</td>
<td>0.8%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Senegal</td>
<td>4.1%</td>
<td>3.1%</td>
<td>0.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Thailand</td>
<td>8.9%</td>
<td>6.9%</td>
<td>1.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Tunisia</td>
<td>7.5%</td>
<td>6.2%</td>
<td>1.1%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>7.2%</td>
<td>4.9%</td>
<td>1.1%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>6.9%</td>
<td>5.5%</td>
<td>1.0%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

3.2 Empirical evidence of the impact of selected social pension programs

3.2.1. ‘Core’ social pension schemes

Most of the empirical research on social pensions in developing countries focuses on the larger schemes. These were classified above as core SP pensions and along with the large rural scheme in Brazil, are examples of SPs that are likely to result in significant changes in areas such as poverty, incentives and fiscal tradeoffs.

The most studied case is that of South Africa. Dating back to the 1920s, the scheme was extended to non-whites in the 1940s although benefit levels remained lower for ‘coloreds’ and blacks until the end of the apartheid period. At this time, equalization of benefits was achieved by raising the pensions of blacks to the white levels as shown in Figure 2 below. Combined with a highly skewed income distribution, this resulted in a benefit level twice the median income of the black population (Case and Deaton 1998) that remains today
(Willard 2003). In principle, the scheme is means-tested, but in practice, it is practically universal among blacks (Jensen 2004).

Various impacts of the scheme have been researched. Case and Deaton (1998) estimate that the poverty headcount would be five percentage points higher without the program. Jensen (2004) found a reduction in the poverty rate among elderly households in Venda (a region of South Africa) of 26-33 per cent depending on whether offsetting reductions in private transfers are taken into account. Woolard (2003) cites a recent government study showing a reduction in the poverty rate among households with elderly from 55.9 to 22.9 per cent and from 38.2 to 2.5 per cent for the concept of ultra-poverty. In contrast, Barrientos (2004) finds only a slight reduction in head count poverty rates, from 43 to 40 per cent among the recipient households (comparing pre and post transfer poverty).

**Figure 2: South Africa’s Old Age Pension by Race of Recipient, 1965-2003**

![Graph of South Africa's Old Age Pension by Race of Recipient, 1965-2003](source: Woolard, 2003)

Other welfare indicators also support the conclusion that the program has had a positive social impact. Case (2001) finds that the elderly who received a pension had a higher self-reported health status than those who did not receive a pension holding other
factors such as age and gender constant. Furthermore, health status for South African women improves dramatically when they became eligible for a pension.

Behavioral effects induced by the South African scheme have also been studied. Labor supply of other members of the household, for example, fell with pension income in one study (Bertrand 2001) but was not affected in another (Jensen 2004). Pension income was also found to positively influence enrolment rates of children in pensioner households (Duflo 2000). The positive effect of better nutrition on child welfare has been studied through the proxies of weight and height. Case (2001) found that the presence of a South African pensioner in the household was associated with an additional 3 to 4 centimeters in the height of the children in the household. In her study, Duflo (2000) also found positive impact of pension income on weight given height and height for children of a given age.

Of course, it would be surprising if the studies did not show a significant reduction in poverty rates for the elderly given the high coverage and large relative benefit levels. Strangely, however, there does not seem to be any research on the tradeoffs that the program entails. For example, there is also a means-tested cash transfer program for children in South Africa but we are not aware of any analysis comparing the poverty reduction efficacy of the two programs. Van der Berg (2002) suggests that poverty would be reduced more by focusing transfers on the unemployed, but does not present quantitative evidence. The implicit assumption is that there is no tradeoff.

The social pension programs in Brazil have also been studied. They include three separate programs. The Prêvidencia Rural (PR) instituted in 1991, supports rural laborers. The Renda Mensual Vitalícia (RMV) – a program for urban elderly – is partly contributory as potential elderly and disabled beneficiaries must have made contributions for at least twelve months and be at least 70 years old in order to receive a benefit of half the minimum wage. In 1996, a separate social assistance scheme was introduced, replacing a previous regime. The ‘Beneficio de Prestacao Continuada’ or BPC is means-tested and applies to individuals that are age 67 or above or invalid in both rural and urban communities. It pays a minimum wage per month and had more than 700,000 elderly recipients by 2001.

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27 For historical development, see Barrientos (2004).
The rural pension program is by far the most significant. Tracing its origin to 1971, the program’s benefits were increased to a full minimum wage and the number of beneficiaries rose dramatically in the early 1990s (Schwarzer and Querino (2001)). By the late 1990s, the benefit represented as much as half of household income for recipients. Studies showed that very few households receiving these pensions could be said to be in extreme poverty. Schwarzer and Querino (2001) note behavioural effects ranging from a reversal of migration from rural to urban areas to the changing role of the elderly in the households. The induced changes in household composition are confirmed in Beltrao et. al. (2002). While the same paper shows significantly lower poverty rates for elderly than for other groups, unfortunately, they are not able to assess the direct impact of social pensions as separate from other pension income. Meanwhile, Barrientos (2004) finds a drop in poverty rates from 61 to 54 per cent in households receiving social pensions.

Aside from the poverty impact, there are many purported indirect impacts. Robalino et. al. (2006) point to similarity in effects of social pension on children living with the pensioners in South Africa and Brazil. When pension benefits in Brazil increased, there was an observed increase in the number of children living with pension-recipient grandparents especially in rural areas (Camarano, 2002). The increased school enrolment of girls aged 12 to 14 can possibly be also attributed to expansion in the rural non-contributory program (De Carvalho Filho, 2000). The infusion of liquidity has even been found lead to investment (see Bolivia case below). Analysis by Delgado and Cardoso (2000) points to the fact that the regularity, certainty and liquidity of pension benefits played a key role in shifting households from subsistence to surplus agriculture.

As in the case of South Africa, counterfactual uses of these large budget allocations are not compared with these outcomes. So, for example, the potential impact on enrolment ratios through direct spending on education or conditional cash transfer programs rather than the indirect effect that relies on intergenerational transfers has not been explored. Paes de Barros and Carvalho (2004) argue that the poverty reduction impact would be greater if funds were diverted from pensions to families with children, but do not quantify their claim.

In Bolivia, a core SP called the BONOSOL (or BOLIVIDA, as it later became known) was initiated in 1997 and continues to operate today despite a suspension from 1998
to 2000. The original plan envisioned an annuity of US$248 for those aged 65 and older which amounted to 27% of the per-capita income and 50% of the income of the poor. In practice however, the scheme did not pay the anticipated benefits. No payments were made between 1998 and 2000. Then in 2001 and 2002, retroactive payments for 1998-1999 and 2000-2001 correspondingly were only US$120 a year, which basically translates into UD$60 on accrual basis for each of the years with no payments. Coverage according to administrative data is nearly universal. However, household survey results put the figure closer to three-fourths (Rofman, 2005). The actual rate is probably somewhere in between given potential fraud and survey errors. Despite the reduced amount, this still represented a sizeable transfer, especially in the countryside. Consumption increased significantly among recipient households, although the impact on poverty has not, to our knowledge, been measured.

Evidence of an indirect impact includes Martinez (2005) findings that the transfers allowed for investment rural home production thus increasing consumption by an amount greater than the transfer itself. The program was also found to have a positive effect on school enrolment. By analyzing school attendance of children before and after the implementation of the BONOSOL program, Martinez (2005) found some evidence of an increase in rural school enrolment ratios.

In Namibia, the social pension scheme can be traced to 1965 with blacks becoming eligible only in 1973. The program in Namibia pays N$160/month for any citizen aged 60 or more. The amount is estimated to be enough to feed three adults, though cost of living varies greatly by region. Subbarao (1998) found take up rates to be less than 50 per cent and even lower in outlying regions, mostly due to the long distances involved in obtaining the transfer. After the administration was privatized in Namibia, coverage rose dramatically, although it is still not universal and administrative costs rose from about 8 to 15 per cent.

In a national survey, 11.3% of the respondents said that the SP was their main source of income, while in general coming in third in importance after ‘subsistence farming’ and

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28 Financing came from part of the proceeds from the privatization of five large state owned enterprises.
29 The best account is Deveraux (2001)
‘wages in cash’. While pension-recipient households are slightly less well-off than the general population, the majority of them live above the poverty line due to pension income. 42% of pension-recipient households are ‘moderately or severely poor’, higher than the figure for the general population of 37.8%. Pension-recipient households are highly dependent on pension income. In households with at least one recipient, an average of 81% of total household income is pension income. We are not aware of any incidence analysis.

Pensions may also affect household structure by providing flexibility to work-seeking adults who seek better employment opportunities further away. One study notes that migration of working-aged adults from rural areas increased due to the implementation of the pension program (Adamchak, 1995). In southern communal areas, it is common to have skipped generation households where the elderly and children live in rural areas while the parents of the children live away in more urban areas to work and earn wages.

Researchers found that only 28% of pension income is spent on pensioners themselves, the remainder going to the household or relatives. Grandchildren received half of the remaining income, adult children received 25% and the spouse received 9%. Child education expenses are also an important use of pension income as 15.5% of the pension income diverted to grandchildren is spent on it. In the north, due to higher income levels and value on education, the percent of pension income going to education is 28.6%. Other uses of pension income include food for the family (27%), pensioner health expenses (13.8%) and food for the pensioner (10.6%) (Devereux, 2001). The pension system also appears to be invigorating the local economy through investment. About one in four pension-recipient households had invested in agricultural technology, livestock or business.

The small island nation of Mauritius has a universal scheme with close to 100 percent of individuals over age 60 receiving the flat pension benefit equivalent to almost one fifth of income per capita.\(^{30}\) It is the highest income country among those covered in this

\(^{30}\) Increasingly large payments are made to 80, 90 and 100 year olds, respectively.
section. The latter came first by about two decades in the 1950s\(^{31}\) and even now, the social pension is more important in terms of annual spending.

A World Bank report found that certain categories of households with elderly in Mauritius, such as single elderly, were more likely to be poor. A simulation in the same report showed that the social pension significantly reduced poverty among households with elderly members, especially for the most vulnerable groups. Table 4 below shows a reduction in the poverty rate for single elderly and elderly couples of more than 40 percentage points.

**Table 4: Impact of social pension on poverty rates in Mauritius**

| No elderly adults in household | 9.5 | 72.8 | 2.1 | 9.5 |
| Single elderly adults         | 33.7 | 2.5  | 9.1 | 51.7 |
| Elderly couple                | 18.6 | 1.7  | 2.9 | 47.8 |
| Elderly with single non-elderly | 16.3 | 5.9  | 4.0 | 27.0 |
| Elderly with non-elderly couple | 8.0 | 6.7  | 1.7 | 12.1 |
| Elderly with multiple non-elderly | 6.4 | 10.5 | 1.5 | 10.8 |
| ALL                          | 9.4 | 100  | 2.1 | 11.8 |

Note: Poverty line at 50% of median equivalized income.

High co-residence rates prevail in Mauritius. This, along with the fact that only one of ten Mauritians is over the age of 60, explains why the last line of the table shows an overall drop in the poverty rate of only 2.4 percentage points. The report did not simulate the poverty impact of using the same budget allocation for different categorical groups or other types of targeting.\(^{32}\)

The potential tradeoffs are significant as the social pension costs around two percent of GDP and is the largest single cash transfer scheme in the country. Willmore (2003) points out that this ratio could be held roughly constant even in the face of rapid population ageing by raising the eligibility age to 65 and indexing benefits to prices. However, the

\(^{31}\) According to Willmore (2003), the original social pension scheme started as a means-tested scheme in 1950 and was made universal in 1958. He also notes that the move to universality was originally supposed to be temporary and only until a comprehensive social insurance scheme had been introduced.

\(^{32}\) Mauritius does have a small general social assistance program which is dwarfed by the social pension.
recent history of the scheme suggests that there is little political support for these measures. A continuation of recent policies would result in a doubling of the ratio of spending to GDP for the program. The World Bank report also explores the impact of means-testing the scheme. It reports that excluding the top quintile of recipients (and therefore reducing spending by one-fifth) would not result in increased poverty. Savings would be lower in a more sophisticated approach that minimized the incentive problems of such a discrete cutoff by using a taper.

With the highest eligibility age of 75 for an SP program among the countries covered\textsuperscript{33}, Nepal just barely qualifies as a core program, although it’s benefit levels are low at around one tenth of income per capita. According to Palacios and Rajan (2004), coverage of those at the eligible age is around three fourths. There are large disparities in geographic coverage (by districts) that are not clearly correlated to differences in income levels or other variables. Administration takes place at the local level (Village Development Committees) and there appears to be little evidence of corruption.

We are not aware of any analyses of the remaining core schemes, Botswana and Kosovo. The Kosovo scheme was introduced in 2001 as part of a package that replaced the collapsed scheme that had prevailed during the Yugoslav period. As reported in Gubbels et.al. (2006), the system involved a new social pension payable at age 65 and a defined contribution scheme financed through contributions of ten per cent of wages. Notably, coverage is practically universal for the target population and the ratio of benefit level to income per capita is the highest among all of the countries covered here at 45 per cent. Almost by definition it will sharply reduce poverty among households with elderly members\textsuperscript{34}. Its current cost, at around 2.5 percent of GDP however, implies important tradeoffs in a country with low social indicators in other areas.

\textsuperscript{33} This is tempered somewhat by the widow’s pension which is a means-tested benefit paid to widows age 60 and above.

\textsuperscript{34} In fact, by design, the benefit rate is linked to the cost of minimum food basket.
3.2.2. Supplementary or safety net social pensions

These schemes are more common in countries with moderate to large contributory schemes. Most OECD countries have some version as do middle income Latin American, Middle Eastern and East European countries. South Asia appears exceptional in this regard with Bangladesh and India using Supplementary SPs despite very low contributory scheme coverage (below 10 per cent and mostly public sector workers). Nepal, although classified earlier as a core scheme has the lowest coverage among that category and is in some ways closer to its South Asian neighbors in terms of impact (see below).

Four of the supplementary schemes – Argentina, Costa Rica, Chile and Uruguay – were the subject of an in-depth review by the ILO in a book on social pensions (ILO 2002).

In Argentina, Bertranou and Gruschka (2004) find that social pensions reduced poverty rates among elderly recipients by about 30 per cent and by more than two thirds for extreme poverty. In terms of overall poverty among households with elderly however, the effect is minimal given the ratio of recipients to elderly (see Table 1 above). The cost of the scheme, around 0.2 per cent of GDP, is marginal relative to the overall budget and when compared to other social expenditures. Coverage in the contributory scheme results in more than half of the elderly receiving contribution based pensions. The social pension therefore, clearly operates as a safety net for the uncovered population.

Uruguay spends about three times as much as a share of GDP on social pensions and covers about three times the share of the elderly. It also has higher coverage from the contributory scheme and a significantly older population. Like Argentina however, the role of the scheme is to act as a safety net for the uncovered or partially covered labor force. Its impact on poverty among the recipients or among elderly households in general has not been measured, but as in Argentina will be small given the percentage of elderly that receive it. The tradeoff in terms of spending on other programs is also negligible.

Chile is well known for its pioneering private pension scheme, which includes redistribution through a minimum pension guarantee. Coverage of this contributory scheme is one of the highest in the region at around two thirds of the labor force. Less well known however, is the fact that the social pension scheme, a separate program, is larger than those
in Argentina or Uruguay where contributory scheme coverage is also high. The ratio of social pension recipients to the population over age 65 is close to 15 per cent compared to 1 and 4 per cent respectively for its Southern Cone neighbors.\textsuperscript{35} Despite the broader coverage, spending as a share of GDP is actually lower in Chile than in Uruguay due to the fact that the benefit relative to income per capita is half as much in Chile and because Uruguay has a proportionally larger elderly population.

Targeting in Chile appears to have improved significantly during the 1990s with the ratio of beneficiaries in the bottom two quintiles rising to 73 per cent according to Grosh (1994). ILO (2002) also shows targeting improvement and finds that among recipients, extreme poverty rates fell by 69 per cent in 2000 compared to 37 per cent in 1990. While poverty rates among recipients fell by more in Argentina and Uruguay, the higher coverage of the Chilean scheme resulted in a larger overall decline in poverty among the elderly.

Coverage was even higher in Costa Rica’s social pension scheme at around 22 per cent of the over 65 population. Costa Rica also spent more than the other three countries. However, the percentage reduction in poverty among beneficiaries was the lowest among the four studied, suggesting problems in targeting.\textsuperscript{36} Despite its high coverage, the extreme poverty reduction among the overall elderly population was higher in Chile than in Costa Rica as shown below in Table 5. The first column shows the SP index from Table 1 is about the same for the two countries.

| Table 5: Evidence of SP program impact on poverty in Chile and Costa Rica |
|-----------------|-----|-----|-----|
|                  | SP Index | Poverty | Extreme poverty |
| Chile            | 1.9  | 18.7 | 69 |
| Costa Rica       | 2.1  | 24.3 | 21.4 |

Source: ILO (2002); Figure 1

\textsuperscript{35} The figure in Table 1 is based on 2001 data shown in ILO (2002) and is consistent with household survey data for 2003 cited in Roffman (2005).

\textsuperscript{36} Coady, Grosh and Hoddinott (2002) report that this program was well targeted relative to others based on the proportion of beneficiaries falling into the bottom decile or bottom two quintiles.
In one of the most thorough case studies of its kind, Rivera-Marquez et al. (2003) found evidence of poor targeting of Mexico City’s PRAAPAM, a cash transfer program targeted to low income persons 70 years and older. The cash transfer program paid about US$60 per month to around 300,000 beneficiaries in 2001-02. The analysis showed that take-up rates were only marginally higher in the lower income deciles with many recipients in the highest deciles. Moreover, the impact on indicators such as nutritional status of the elderly was weak or non-existent. The results were based on a survey specifically designed that allowed for a control group and impact analysis.

In the first quarter of 2006, the Mexican Government announced a massive new social pension initiative. The program would pay one million elderly in the poorest communities a social pension equivalent to around 15 per cent of the average income per capita. Notably, the SP would build on an existing social assistance program, Oportunidades, targeting the same poor households, but adding the SP to the total transfer when the elderly member was present.

The SP in the Dominican Republic is almost symbolic, both in terms of coverage and in terms of benefit levels. However, the Social Security Law of 2001 included provisions for a new social pension benefit that would potentially cover as much as one quarter of the elderly population. The new SP would result in benefit of 60 per cent of minimum wage indexed to prices. Spending is projected to double from around 0.5 to more than 1 percent of GDP in the next two decades and to 1.5 per cent by 2050. In fact, the 2001 legislation is being implemented gradually and the social pension is only at a pilot stage.

Although Table 1 presents data only for Russia and Estonia, Supplementary social pension programs also exist in several other Eastern European countries. As in these two countries, the SPs are a last resort program for those that were not covered by a contributory scheme that once boasted universal coverage. Despite the decline in employment coverage during the transition from socialist to market economies, social pension schemes have generally remained small in the region, as the impact of the reduced compliance has not fully phased in yet to have considerable impact on the old age contributory coverage. Russia and

37 The information on Dominican Republic is based on Palacios (2003).
Estonia pay small benefits to a small fraction of the elderly population. They also have significant general social assistance programs alongside the SPs.

With the exception of Egypt, the Middle East also tends to use SPs as safety nets for those that do not manage to obtain contributory pensions. Only Algeria is listed in Table 1 and is clearly an insignificant program, but it is typical of the region. Another example is a special program in Iran that provides benefits to needy families with elderly in rural communities, with benefit linked to family size (World Bank. 2005). Egypt’s program, with its symbolic flat contributions from casual workers, has managed to increase its overall coverage figures through what is, for our purposes, a social pension scheme. We are not aware of any incidence analysis related to this scheme.

In South Asia, there are SPs in Bangladesh and almost all states in India. Interestingly, these supplementary schemes have been introduced in conditions of very low coverage in both countries. Barrientos (2004) finds that the rapidly growing Bangladeshi scheme is relatively well targeted with more than three fourths of beneficiaries found in the lowest two quintiles of the distribution. These results were based on survey data from 2000, only two years after the initiation of the scheme. According to Khan and Gorman (2005), the number of beneficiaries more than tripled over the next five years. Benefits also increased in real terms. Thus, the results based on data from 2000 will underestimate the impact of the program and may not be an accurate reflection of the current targeting efficiency.

In India, each state uses different eligibility criteria and pays different benefit levels in their SPs. The central government supplements the state level benefits with a transfer based on a formula that takes into account the poverty rate and the number of persons over 65 in each state. Benefits vary widely across states mostly falling in the range of 10-15 per cent of income per capita. There were close to an estimated seven million recipients in 2001,

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39 In addition to the quasi-contributory program, Egypt until very recently had maintained some small and targeted assistance pension for those not covered by any of its contributory schemes. It also has a general welfare program that uses old age as a targeting criteria – that program seems to be gradually acquiring importance as the targeted assistance pension is being phased out. See World Bank (2006).

40 The quintile assignment of households is based on a wealth index using assets rather than expenditure or income data for each household.

41 See Table A2 in Annex.

42 The National Old Age Pension is part of a package of transfers to state governments and many state governments pay benefits to widows, disabled and other specific groups. See Rajan (2001).
roughly one tenth of the population age 65 and above. These figures are similar to those found in the more modest Latin American schemes. Expenditures were estimated at less than 0.1 per cent of GDP, a level that makes the question of tradeoffs less important.

There are large differences across states in implementation. For example, Rajan (2001) reports that a number of states do not disburse the available funds transferred by the central government. Coverage also varies, with states such as Kerala paying benefits to a much larger share of the elderly than what was observed in other states. A study by Helpage International, an NGO, found that many recipients in India’s largest state, Uttar Pradesh, were required to pay bribes and incurred high transaction costs in order to receive the pension (HelpAge 1999). Saxena (2005) reports long delays in disbursement of pensions, cumbersome procedures for establishing eligibility and poor recordkeeping across several states.

The incidence of these programs is also likely to vary across states, although information is not readily available. Preliminary results from a special survey commissioned by the World Bank for the SP administered by the state of Karnataka confirm that about half of the elderly in the poorest quartile (based on an index of assets) receive the benefit, while only about four per cent of the richest quartile do. Overall, one in five elderly received the benefit. On the other hand, a significant share of beneficiaries – 19 per cent – could not be located by the survey team and others had not received benefits regularly during the previous three months.43

3.2.3. **Summary**

The general concept of ‘social pensions’, defined as cash transfers to the elderly unrelated to previous contribution history, provides little insight with regard to the implications within the broader public pension policy. Although in principle social pensions could be found at any point along the spectrum in terms of coverage and benefit levels, in practice they tend to cluster into two, very distinct categories. The first category includes expansive schemes that either pay pensions to all citizens above a certain age or apply

43 World Bank (forthcoming).
income tests that exclude only a minority of the elderly. The second are safety net programs that are meant to reach the elderly poor.

Not surprisingly, the former tend to be found in countries where contributory pension play a negligible role, often as a matter of conscious policy. The decision to rely on core social pensions rather than mandated contributory schemes can be observed in Scandinavia until the 1960s, Australia until 1993 and several South African countries and New Zealand even today. Supplementary social pensions, in contrast, generally reflect an implicit assumption that the contributory pension scheme will reach all but the poorest. The important exceptions to this pattern were in South Asia where limited SPs co-exist with low coverage of the contributory scheme.

In every core SP studied, the impact on poverty among the old and overall poverty rates appeared to be significant. Results to the contrary would have been surprising given the size of the programs involved. Supplementary schemes varied in terms of targeting performance and the impact of poverty among the elderly. Almost by definition, these small schemes cannot have a major impact on overall poverty rates, especially in young countries. It is also worth noting that the results from the various studies rely on different indicators and are not completely comparable.

Core SPs are expensive, especially for poor countries with limited sources of revenues and therefore imply potentially important tradeoffs. Generally, the literature has not investigated these tradeoffs. Supplementary programs tend to be marginal and relatively low cost, so arguably there is less need for such an analysis in these cases. This is an important distinction that will influence the discussion in the next section.

The potential behavioral and incentive effects of the different kinds of schemes were evident in some of the core cases such as Bolivia, Brazil and South Africa. These effects include reduction in private transfers, spillover positive health and education effects within multiple generation households, greater investment in food production and reduced labor supply. Little attention was paid to the potential ‘poverty trap’ issues that might arise from means-testing either because the schemes were universal or the means-test was relatively lax. In contrast, these issues should be more important in supplementary schemes
where they tend to exist alongside contributory schemes. This could discourage participation in the latter since the means-test would imply a tax on any savings including pension contributions. The literature does not provide much evidence on whether this effect is important. Interestingly, this is less of an issue in countries where low coverage co-exists with supplementary SPs as in India and Bangladesh where recipients are highly unlikely to be formal sector workers in any case.

Finally, this review reveals large gaps in our knowledge of social pensions. What, for example, are the administrative costs of these programs? What institutional arrangements work best and under what circumstances? What determines take up rates? How does the expansion or contraction of contributory scheme coverage affect the long run costs of social pensions? More broadly, how realistic is it to expect contributory schemes to eventually cover the majority of the population in a particular country? These are topics for future research. In the meantime, the next section attempts to lay out an operationally oriented approach to assessing social pension issues across countries with different initial conditions.

4. Formulating social pension policy

The last two sections reviewed existing social pension programs in a number of developing countries and evidence as to their impact. Seven of these countries have decided, at least for the moment, to rely heavily on large SP schemes in the absence of mandated contributory schemes or low coverage. For most countries however, the role of social pensions in addressing the ‘coverage gap’ is still open to debate. What then, should be the criteria for determining policy in this area?

1. Should a social pension program be introduced or expanded?

In our view, the answer to this question should take into consideration at least three criteria – (i) the role of social assistance, (ii) the relative poverty rates of the elderly, (iii) coverage of mandated schemes.

In a country where a broad social assistance scheme is already operating and where the elderly poor are already receiving benefits through that program, the argument for a
social pension is generally weaker. If poverty rates among the elderly are lower than those of other groups, then the case for social pensions is weakened. Finally, the higher the coverage of mandated schemes, the weaker the argument for core social pensions, although supplementary programs may still be justified.

There are several important caveats however. First, to the extent that social assistance programs aim to ‘graduate’ working age recipients after a temporary period of financial support, it can be argued that these transitory benefits are fundamentally different from social pensions. The latter involves a permanent (and worsening) state, analogous to permanent disability. In this case, eligibility rules and other features of the schemes may differ between transitory and permanent benefits. For example, eligibility may not have to be re-established periodically and only death registry information would be required for removal from the list of beneficiaries in the social pension program.

In general however, we would not expect that the arguments for introducing new SPs or expanding existing ones would be as strong in countries with large social assistance programs. For example, Uruguay, which is among the highest spending countries on social assistance scores low on the SP index. This reflects a well developed safety net that already does much of the work of an expanded social pension scheme. Rather, such countries may focus on fine-tuning of the targeting provisions and other implementation issues not covered in this paper. Meanwhile, the Dominican Republic scores very low on both indicators but has recently decided that the SP should be expanded. As part of a multi-pronged program to rationalize the contributory scheme and gradually expand coverage, this approach appears fairly coherent (although it has proven difficult to implement to date.)

Second, as mentioned earlier, in societies with high rates of co-residence, relative poverty rates may hide discrimination in the intra-household allocation of resources that affect the elderly. There is very limited empirical evidence of this phenomenon, however. Moreover, as mentioned above, the relative poverty rates are quite sensitive to methodology

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44 See Grosh (2005) for data on social assistance spending across countries.
and especially, equivalence scales. There may also be significant heterogeneity within the elderly population that would allow some more precise categorical targeting to be justified.\footnote{Perhaps the most thorough analyses of these alternatives can be found in Kakwani and Subbarao (2005). The analysis covered 15 sub-Saharan African countries using household surveys.}

Third, coverage patterns may change over time. In Eastern Europe, they fell along with the transition to market economies and privatization of state owned enterprises and collective farms. In some countries, this will eventually translate into lower coverage of the elderly and may lead policymakers to reconsider the role of social pensions. In fast growing countries such as Thailand and Vietnam, coverage should gradually increase, offsetting the need for social pensions. Finally, being covered by a mandated scheme leads to very different pension levels due to implied or actual targets embedded in the schemes of different countries. Where there is no minimum pension within the mandated scheme or vesting period is too long, high coverage may not be enough to provide the desired income floor for the elderly. This interface between contributory and non-contributory schemes requires detailed treatment and is reserved for Part II.

\#2 What role should social pensions play in the overall system?

The criteria for introducing an SP do not necessarily imply how large or small the program should be. The main criteria for determining whether it should be a core part of the pension system or a supplement and to what degree it should be targeted include (i) fiscal space and tradeoffs (ii) impact on savings and work incentives (iii) size of the coverage gap and (iv) ability to efficiently apply means-testing (including categorical/spatial targeting).

While a holistic approach is often recommended\footnote{Holzmann and Hinz (2005), p. 96.}, actually quantifying tradeoffs is an intractable problem. Normally, the assessment of social pensions will not be cast as a trade-off between say, more primary school teachers and more transfers to the elderly. In fact, research on the secondary impact of the much-studied South African scheme has tended to focus on positive indirect impacts in areas such as education and health of members of beneficiary households without directly asking the question ‘what if instead the same money was directly allocated to those programs?’
We propose an intermediate approach that recognizes that these tradeoffs exist but does not attempt to quantify them with any precision. The approach is based on the notion that the marginal impact of a dollar spent is higher where certain indicators suggest a need for more resources for programs known to be progressive and/or have other long term benefits. These include, for example, spending on public health programs such as immunization or spending on primary education. This is not to say that all such spending will always be preferred to social pensions, but rather that certain indicators would at the very least suggest that alternatives be considered. This is particularly true for proposals for the introduction of core social pension programs that, as we have seen, can cost 1-2 percentage points of GDP even in demographically young countries. Examples of indicators that could signal important potential tradeoffs include primary school enrolment ratios, literacy rates, immunization ratios, mortality rates for children under 5 and maternal mortality ratios. Lower scores on these indicators would be indicative of the need to perform an in-depth analysis of alternative uses of funds. This is especially true when the spending is clearly an incremental one.

Table 6: Initial conditions for policy analysis of social pensions

<table>
<thead>
<tr>
<th>Initial condition</th>
<th>Indicator</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the coverage of the elderly in contributory pension schemes? What are sectoral or geographic gaps?</td>
<td>Percentage of 65+ population receiving contributory pension income</td>
<td>Household survey data; administrative data.</td>
</tr>
<tr>
<td>What is the degree of benefit differentiation within the contributory scheme?</td>
<td>Variance of distribution of individual benefits.</td>
<td>Statistics on individual benefits</td>
</tr>
<tr>
<td>Does a social pension already exist? If so, what is its role and impact?</td>
<td>Social pension impact index (see below). Implicit tax imposed by the means-testing, if any.</td>
<td>Calculated w/administrative and budget data. Constructed based on program rules.</td>
</tr>
<tr>
<td>What is the scope of the social assistance program?</td>
<td>Social assistance spending to GDP ratio</td>
<td>Budget figures.</td>
</tr>
<tr>
<td>How does elderly poverty compare to poverty among the rest of the population?</td>
<td>Ratio of poverty among households with elderly to other households</td>
<td>Household survey analysis.</td>
</tr>
<tr>
<td>Other social indicators</td>
<td>E.g., school enrolment ratios or child mortality rates</td>
<td>Administrative and census data.</td>
</tr>
</tbody>
</table>

Source: authors.

47 These may include residents of rural communities or mountainous regions as well as self-employed and employees of small businesses.
The evidence on incentive effects to date is mixed. Larger programs will generally lead to greater distortions and lower savings (beginning with public savings). Nevertheless, the same amount of spending spread out over the entire elderly population through a universal benefit may allow some higher income households to dissave while concentrating the same resources on a targeted scheme may not lead to dissavings, as the poor are illiquid.

The case for a core scheme is greater where there is little prospect of raising coverage rates beyond a minimal level in the near future. On the other hand, there is a strong correlation between coverage and income per capita levels. Since some of the poorest countries have the lowest coverage, it is likely that the earlier point about tradeoffs and social priorities will loom large.

Finally, the ability to administer an SP will vary across countries and over time. The cost and leakages involved with the application of a means-test in some countries may exceed the benefits of the program or may make the universal pension more practical.

The implication of these criteria is that social pension policy should take into account initial conditions and that recommendations will vary across countries. The following table summarizes the various factors and whether they support or detract from arguments to introduce or expand social pensions.

**Table 7: Factors to consider when formulating social pension policy**

<table>
<thead>
<tr>
<th>Introduction or expansion of SPs</th>
<th>Contributory scheme coverage</th>
<th>Social Assistance</th>
<th>Poverty ratio elderly/non-elderly HH</th>
<th>Other social indicators*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting</td>
<td>Low</td>
<td>Limited or non-existent</td>
<td>High</td>
<td>Better</td>
</tr>
<tr>
<td>Detracting</td>
<td>High</td>
<td>Broad; high spending ratio</td>
<td>Low</td>
<td>Worse</td>
</tr>
</tbody>
</table>

Notes: * ‘better’ refers to better indicators such as higher enrolment ratios or lower child mortality rates.
5. Directions for future work

The objective of this paper was to take stock of what we know about social pensions in order to inform the current debate over whether they represent a viable solution to the coverage gap in developing countries. We suggested that proposals to introduce or expand social pensions be measured against a set of criteria and that the answer in each case will depend on the country specific circumstances. This assessment is fundamentally different and more important for the case of core SPs where income security of the elderly will depend heavily on transfers and where costs will be significant relative to the budget.

The discussion also highlighted the gaps in our knowledge in this area. Further research on relative poverty of the elderly, the relationship between income and longevity, intrahousehold allocation of resources in multi-generational households are all areas where little is known. We also noted that the studies of indirect effects of the larger programs on health and education of other members of the household neglected analysis of a counterfactual direct expenditure in those areas. More attention should, in our opinion, be given to the potential tradeoffs involved with the introduction of core social pension schemes in poor countries.

Once the decision is made to introduce a social pension, a number of challenges emerge for design and implementation. These include:

◊ What is the appropriate eligibility age and how is it adjusted over time?
◊ What is the appropriate benefit level and how is it adjusted over time?
◊ What targeting approach should be used?
◊ How can incentive problems be minimized?
◊ Who should administer the program?
◊ What should be the mode and periodicity of payments?

A thorough analysis of these issues is beyond the scope of this paper but is the logical next step towards contributing to the policy discussion.
 References


17. De Carvalho Filho, Irineu Evangelista. 2000. Household income as a determinant of child labour and school enrollment in Brazil: evidence from a social security reform” mimeo, MIT.


Annex

Table A1: Social pension programs in selected developing countries

(Notes for Table 1)

<table>
<thead>
<tr>
<th>Sources</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>World Bank, Social Protection Strategy Note (2000)</td>
</tr>
<tr>
<td>Argentina</td>
<td>ILO (2002)</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Barrientos (2004)</td>
</tr>
<tr>
<td>Brazil</td>
<td>ILO (2002), Robalino et al. (2006) Brazil operates three separate programs (See Section 3.2); (2) year 2000 estimates; (2), (5), and (6) provide separate estimates for (a) the rural scheme and (b) scheme covering urban retirees (RMV) plus new means-tested scheme (BPC); (4) incorporates combined coverage for all three programs; (5) RMV uses 70 and BPC uses 67 as eligibility age; (6) for the rural program, rural age-eligible population was used as proxy for the target group; while eligibility age 67 was used for both RMV and BPC.</td>
</tr>
<tr>
<td>Chile</td>
<td>ILO (2002)</td>
</tr>
<tr>
<td>Colombia</td>
<td>Lucia Acosta</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>ILO (2002)</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>Palacios (2004)</td>
</tr>
<tr>
<td>Egypt, Arab Rep.</td>
<td>Robalino et al. (2006)</td>
</tr>
<tr>
<td>Estonia</td>
<td>Robalino et al. (2006)</td>
</tr>
<tr>
<td>India</td>
<td>World Bank (2001) Federal supplementary grants are provided to the states who administer the program independently. Federal funding assumes eligibility age of 65, while in practice eligibility age may vary by state. See detailed description of the program below.</td>
</tr>
<tr>
<td>Kosovo</td>
<td>Robalino et al. (2006)</td>
</tr>
<tr>
<td>Mauritius</td>
<td>Willmore (2003)</td>
</tr>
<tr>
<td>Namibia</td>
<td>Willmore (2001)</td>
</tr>
<tr>
<td>Nepal</td>
<td>Palacios and Rajan (2004) (2), (5), and (6) provide separate estimates for the universal Old Age Allowance program and for the program for needy elderly widows. (6) Targeting estimate for the widows program uses all age-eligible females as proxy for the target group.</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Robalino et al. (2006) Estimates in (2) and (6) may include survivors and disabled.</td>
</tr>
<tr>
<td>South Africa</td>
<td>Robalino et al. (2006)</td>
</tr>
<tr>
<td>Turkey</td>
<td></td>
</tr>
<tr>
<td>Uruguay</td>
<td>ILO (2002)</td>
</tr>
</tbody>
</table>
Table A2: Old Age Pension amounts and eligibility age for different Indian States in addition to the 75 per month NOAPS from federal government for age 65+

<table>
<thead>
<tr>
<th>States</th>
<th>Per Capita Pension Amount by States (Rs)</th>
<th>Minimum Age of Eligibility Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>0</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Assam</td>
<td>0</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Bihar</td>
<td>25</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Gujarat</td>
<td>200</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Haryana</td>
<td>125</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Karnataka</td>
<td>25</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Kerala</td>
<td>35</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>75</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>175</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Orissa</td>
<td>25</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Punjab</td>
<td>125</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Rajasthan*</td>
<td>125</td>
<td>58</td>
<td>55</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>125</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>50</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>West Bengal</td>
<td>25</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>NCT Delhi</td>
<td>125</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

*Note: *Rajasthan is contributing Rs 150 towards pension to women.

*Source: Rajya Sabha Starred Question Number 422, dated August 22, 2001.*

Cash transfers for the elderly with little or no link to previous contribution or work history are employed in many countries to provide income support for the elderly. In the context of the larger debate over pension reform, some argue that these ‘social pensions’ are an effective way to deal with chronically low coverage of contributory schemes and to alleviate poverty among the elderly. This paper reviews the global experience with social pensions. We find that coverage and cost of these programs varies widely and that the appropriate role for social pensions should take into account several country-specific conditions. The extent of coverage of the contributory scheme, the extent of other social assistance programs and the relative poverty status of the elderly are among the factors that should be considered. Design and implementation issues will be reviewed in Part II.