Universal Pensions for Developing Countries
(May 2006)

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Summary. – Governments of New Zealand, Mauritius, Namibia, Botswana, Bolivia, Nepal, Samoa, Brunei, Kosovo and Mexico City provide a basic pension to the elderly with no test other than citizenship, residence and age. These universal non-means-tested pensions automatically protect an entire population, in a way that contributory, earnings-related pensions never can. The author examines the value of this scheme for low-income countries and argues that an income test, if desired, is best done *ex post* through the tax system rather than *ex ante*, even though there are few examples of *ex post* recovery systems operating in the world today.

Key words – social security, citizen's pension, social pension, non-contributory pension, Chile, World Bank

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1. INTRODUCTION

Formal retirement income schemes are thought to cover fewer than 15% of the world's households (Holzmann, Packard & Cuesta, 2001) and less than 10% of the world's working-age population (Gillion, Turner, Bailey & Latulipe, 2000). Most of those without coverage live and work in developing countries. Many do not participate in available schemes because they are unpaid caregivers or are unemployed, others because they are employed in agriculture or in the informal sector of the economy. In general, the lower the per capita income of a country, the less participation there is, even where participation is mandated by law. Well-intentioned reformers are aware of this problem, but have focused on privatization of public pensions and creation of individual accounts, which does little or nothing to expand coverage to the poor and marginalized.

A non-contributory, basic pension can ensure that all residents of a country, regardless of earnings or occupation, have an income in old age. It is possible for this type of pension to automatically cover an entire population, in a way that contributory schemes never can. By de-emphasizing the link between paid, formal employment and income in retirement, non-contributory pensions are particularly helpful to women and to workers in the informal sector. This paper explores the feasibility of introducing such a pension in low-income countries, preferably as a universal non-means-tested (NMT) pension rather than a targeted 'social assistance pension'. If means testing is deemed necessary for fiscal reasons, it is best to accomplish this *ex post* through the tax system, rather than *ex ante*, even though there are few examples of *ex post* recovery systems operating in the world today.

2. BASIC PENSIONS IN THE 'MULTIPILLAR' SYSTEM OF THE WORLD BANK

The World Bank (1994), in a famous Report titled *Averting the Old Age Crisis*, proposed a "multipillar" approach to age pensions. The pillars are three in number, each with a different function:

1. Basic pension
2. Mandatory contributions to an earnings-related scheme
3. Voluntary saving

The first pillar is an anti-poverty pillar that guarantees a minimum income in old age, irrespective of a person's history of earnings. The second is a forced savings pillar that provides, in general, the most benefits to those with the most covered earnings. Pillar 3 is a voluntary savings pillar, available to anyone who wants to supplement the retirement income provided by the first two pillars. The first pillar protects the elderly from absolute poverty (consumption below a minimum level that is regarded as decent by community standards) whereas the second two pillars promise increased consumption in retirement in exchange for reduced consumption in pre-retirement years.

The 1994 Report (p.238) recommends separating basic pensions from earnings-related pensions "and placing them under different financing and managerial arrangements in two different mandatory pillars—one publicly managed and tax-financed, the other privately managed and fully funded". Pillar 1 should ideally be non-contributory and cover the entire population, for the Report (p. 243) recommends that it be financed from "a broad tax base, such as income or consumption tax instead of a payroll tax" unless coverage at first is employment-related, in which case it "should initially be financed from payroll taxes levied on covered groups". Reference to Pillar 1 as a "mandatory pillar" is confusing if it is non-contributory and financed from general taxation. In any event, the Report did not emphasize non-contributory pensions and they received little subsequent attention. Even worse, World Bank staff came to define Pillar 1 as *any* public pension, including earnings-related pensions, muting its anti-poverty function.[1]

Pillar 2 pensions almost everywhere have traditionally been public, pay-as-you-go (PAYG) and defined benefit. The World Bank has been very vocal in promoting a shift to Chilean-style private pension schemes that are both pre-funded and defined contribution.[2] This paper focuses on Pillar 1 rather than Pillar 2, but Willmore (2000) has argued that, with provision of basic pensions for all the elderly, there is no need for a second, mandatory pillar. This is the system in effect in New Zealand, where every resident receives a flat, basic pension from the Government at age 65, which he or she is free to supplement with voluntary savings or earnings. Uniquely for a developed country, New Zealand provides no subsidies or tax incentives for retirement saving. The political consensus is that "the ability to retire in a degree of personal comfort, without worry and with dignity, is the least that citizens can expect in a modern, developed economy.... [I]t is also most they can expect. They cannot expect the state to maintain in retirement the incomes people became accustomed to during their working lives" (speech of New Zealand's Deputy Prime Minister and Minister of Finance, 13 June 2003, quoted in O'Connell, 2004).

With an eye on the budget, governments of developing countries often guarantee adequate Pillar 1 benefits only to those who contribute a sufficient number of years to Pillar 2. This excludes vast numbers of persons such as domestic servants, unpaid caregivers with interrupted periods of paid employment, agricultural workers and workers in the informal sector of the economy. In Latin America, the expectation or hope was that reform of Pillar 2, by linking benefits tightly to contributions, would encourage

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[1] A typical post-1994 description of the three pillars is: "(a) a publicly managed, unfunded, defined benefit scheme; (b) a privately managed, fully funded, defined contribution plan; and (c) voluntary retirement savings in the form of housing, insurance, or other assets" (World Bank, 2001, pp. 31-32). The 1994 Report itself initiated the confusion by referring to Pillar 1 as "the public pillar", anticipating that Pillar 2 would everywhere become a private pillar with mandatory saving in individual accounts. Further confusion comes from the term "unfunded": any pension scheme has to be funded if benefits are to be paid; the choice is between pre-funding and pay-as-you-go.

[2] "Defined benefit" schemes promise retirement income based on the number of years of contributions and average earnings or, more often, on the average of the contributor's last few (or best) years of earnings. In contrast, "defined contribution" schemes set up individual accounts for participants; retirement benefits depend entirely on accumulated contributions and on the investment return credited to each account.

greater participation by workers. Consistent measures of coverage are surprisingly difficult to assemble, but most researchers report that coverage did not increase. Mesa-Lago (2004, pp. 62-65), for example, defines pension coverage as the proportion of persons in the labor force who contribute to a pension scheme in a given period and finds that pension coverage stagnated or fell in each of the region's 12 reform countries. The average coverage ratio, weighted by each country's covered population, fell from 38% of the labor force immediately prior to the reforms to 27% in December of 2002. This exaggerates the fall in coverage, however, because the pre-reform statistic "in most countries … does not take account of whether the contributor was active in the last month, as the 2002 figures do, but is based on longer periods" (Mesa-Lago, 2004, p. 64). The calculation suffers from an additional bias in the case of Chile because the 2002 statistic fails to include those who continued to contribute to the old system, but the author seems unaware of this flaw.

Arenas de Mesa (2000) has produced what appear to be consistent estimates of coverage for Chile, defining coverage more precisely as the number of contributors in December of each year as a percentage of the labor force in the same month. I qualify this judgment with 'appear to be' because although it is possible to replicate almost exactly his post-reform numbers, raw data for the pre-reform years are not available. According to Arenas de Mesa, coverage fell from 62% of the labor force in 1975 to 48% in 1980 (just prior to the reform) and still further to 42% in 1982. There was then a slow increase to 60% in 1996. It has fluctuated around this level ever since, with little tendency to increase or decrease. (See Figure 1.) These statistics include contributors who chose to remain in the old system but exclude the armed forces and police, none of whom participate in the new system of individual accounts. New workers do not have a choice; they must contribute to the new system, so the old system should disappear completely, except for the armed forces and police, by the year 2025 in terms of contributors and by the year 2050 in terms of pensioners.

/// **Figure 1 after this point** ///

The number of contributors to a pension system at a point in time is a consistent measure of coverage, provided the unit of time does not change, but the statistic has a serious defect: it does not capture changes in the population of contributors. To take two extremes, it is very different if an entire labor force contributes half the time or if half the labor force contributes all the time, yet the two cases produce the same 50% coverage statistic. There is no good solution to this problem, other than costly longitudal studies. It might seem attractive to estimate instead the proportion of elderly with retirement income above some minimum level, but this amounts to a survey of poverty in old age and provides no information on pension coverage of today's workers.

Researchers agree "it is essential to develop more accurate statistics on coverage" (Mesa-Lago, 2004, p. 64). It should not be necessary to conclude, more than two decades after Chile's pension reform, that "evidence of a change in the levels of coverage (proxied by contributors in the work force) attributable to the introduction of individual retirement accounts has been mixed" (Gill, Packard & Yermo, 2004, p. 100). One can

question whether the ratio of contributors to labor force is a meaningful measure of coverage, and whether pension reform is an important determinant of coverage compared to other influences (economic growth, recession, labor informality, unemployment, etc.), but there should be no uncertainty regarding the direction or approximate extent of change in the chosen variable. Econometric efforts (Barrientos, 1998; Schmidt-Hebbel, 1998; Edwards & Edwards, 2000; Packard, 2002; Valdés-Prieto, 2002; Arenas de Mesa, Behrman & Bravo, 2004) to account for changes in coverage over time or cross-sectional variation in coverage are meaningless unless the variable of interest is measured at least in a consistent way.[3]

Regardless of whether pension coverage has increased or decreased, there is consensus in Chile that current levels of coverage are unacceptable. The conservative candidate for president (Sebastian Piñera), in a televised debate on 4 January 2006 with his socialist opponent (Michelle Bachelet), conceded that "Chile's social security system requires deep reforms in all sectors, because half of Chileans have no pension coverage, and of those who do, 40 percent are going to find it hard to reach the minimum level" (Rohter, 2006). "Minimum level" is a reference to the minimum pension guaranteed by the State, which requires 240 months (20 years) of contributions. Ms. Bachelet, who won the election by a narrow margin, is committed to expanding coverage.

It is essential that Pillar 1 pensions be non-contributory if they are to reach everyone. Especially in developing countries, it is simply not realistic to expect the poor to qualify for a minimum pension through contributions. As Estelle James (1999, p. 9), lead economist for the 1994 World Bank Report explains, "Extending coverage by requiring low-income informal sector workers to contribute to social security would not be in the interests of these workers …, even if the government had the capacity to enforce the mandate." The World Bank (2001, p. 32) in an official publication accepted this reasoning and, despite a history of almost total neglect of Pillar 1, promised that henceforth its "work on pension reform will focus more on the provision of retirement benefits for people through public non-contributory schemes and community support". The new emphasis on poverty relief is evident in a recent report by World Bank staff that concludes, referring to the reformed pension systems of Latin America:

> "[C]overage has stagnated at low levels and has become the single most important concern of policy makers in this area. A large portion of affiliates may not qualify for the minimum pension guarantee, and together with those who are not affiliated with any system, can only expect to receive rationed social assistance benefits in old age. Hence, the real challenge for policy makers who want to cover the risk of poverty in old age will be in establishing sustainable non-contributory, minimum-benefit programs" (Holzmann *et al*., 2005, p. 150).

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[3] See Rofman (2005) for an intellectually honest, though not very successful, attempt to construct consistent measures of coverage for 17 Latin American countries, using household surveys from the years 2000 to 2003.

Moreover, the report recognizes that the New Zealand model is a viable option for developing countries: "In many low-income countries, this [pension system] may be a [non-contributory] basic (zero) pillar that can be supplemented by a voluntary third pillar" (Holzmann *et al*., 2005, p. 11).[4]

The report cited above is authored by 12 World Bank staff members, including Robert Holzmann, Director of the Social Protection Department; unlike the 1994 Report, it is not an official publication of the World Bank.[5] The 2005 report expands the three pillars of the 1994 Report to five pillars. The basic pension of Pillar 1 becomes a "zero pillar" that is *explicitly* non-contributory, financed from general government revenue and distributed to the elderly on a universal or means-tested basis. There is no allowance in this pillar for a contribution-tested minimum pension. The authors split the old Pillar 2 into two types of earnings-related pensions; the first pillar is public and the second is private:[6] private, individual accounts are allowed to supplement rather than replace public, earnings-related schemes. Pillar 3 consists of voluntary contributions to occupational or personal pension plans. A heterogeneous Pillar 4 is added for non-pension retirement savings (including homeownership), informal support from family and community, and government services such as health care.

A basic pension—Pillar 1 of the World Bank (1994)—can take any of six forms:

Contributory:
- Flat pension
- Minimum pension guarantee

Non-contributory:
- Universal non-means-tested (NMT) pension
- Residence-based pension
- Recovery-conditioned pension (*ex post* means test)
- Social assistance pension (*ex ante* means test)

The World Bank's new "zero pillar" allows only for non-contributory pensions. Contributory basic pensions—flat pensions and minimum pension guarantees—are excluded from the 5-pillar system (Holzmann *et al*., 2005).

Public contributory pension schemes often contain a flat ('solidarity') component that consists of benefits related to the number of contributions rather than the amount of contributions. In fact, the basic retirement pensions of the United Kingdom and Ireland

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[4] Holzmann *et al*. do not refer to New Zealand by name, but this is precisely the New Zealand model provided the basic pension is universal and the voluntary pillar does not receive subsidies or tax relief. See Willmore (2000), St. John & Willmore (2001) and St. John (2005).

[5] The authors explain that the report "is intended to conceptualize and explain current policy thinking within the Bank rather than to announce a new policy approach", but they acknowledge "changes to the Bank's perspective", including "enhanced focus on basic income provision for all vulnerable elderly" (Holzmann *et al*., 2005, p. 2).

[6] Another distinction between new pillars 1 and 2 is that the public pillar can be pay-as-you-go or pre-funded whereas the private pillar must be pre-funded.

contain *only* a flat component: benefits depend solely on the number of weeks of contributions, even though contributions are a percentage of covered wages. There is a strong redistributive element in this system, but benefits are generally financed by contributions on a pay-as-you-go basis; unpaid caregivers and workers in the informal sector are excluded from contributions and also from benefits, except for "approved" absences from the paid work force—such as care-giving—that might qualify for deemed periods of contribution.

Pension schemes based on mandated, personal accounts typically promise a minimum pension to everyone who completes a specified number of contributions rather than a flat pension that varies by weeks or years of contributions. Minimum pension guarantees financed by government revenue can result in perverse distribution of income from the poor to the relatively wealthy since nearly everyone pays taxes whereas the poor tend not to participate in contributory pension schemes.

The simplest non-contributory pension is a universal benefit paid at a flat rate to all who qualify by residence or citizenship once they reach a designated age. There is no income or asset test, no requirement to have participated in the paid labor force, and no requirement to actually retire from paid employment. We refer to such a pension as a *universal non-means-tested (NMT) pension*. This is an awkward term, but the adjectives are necessary because researchers have applied the term 'universal' to myriad systems, from tightly targeted social assistance (because the poor are 'universally covered') to defined contribution schemes without minimum pension guarantees (because the rules apply universally to everyone: with no contributions there is no pension). It also allows us to avoid the accurate but unappealing term 'demogrant', an abbreviation of 'demographic grant'. The term 'citizen's pension' is sometimes used, but this is misleading, since in many countries legal residents without citizenship qualify for a pension while non-resident citizens do not qualify.

Universal NMT pensions are easiest to administer, but they are fiscally expensive. The low administration cost of universality offsets only partially the expense of providing everyone with an age pension. Governments therefore seek to reduce costs, and, apart from reducing the generosity of the pension or increasing the age of entitlement, they can do so in three ways. First, they might require lengthy residence—40 or 50 years as an adult— to qualify for a full pension, reducing the pension proportionately for non-resident years. Second they can recover ('claw back') a portion or the entire pension from other income, which amounts to an *ex post* income test. Countries with residence-based flat pensions tend also to use some sort of claw-back mechanism. Finally, governments can impose an *ex ante* test of income or assets in an effort to restrict non-contributory pensions to the poor, or at least exclude the affluent.

These four non-contributory pensions make up the World Bank's new "zero pillar". They are usually—though not always—financed on a pay-as-you-go basis from general government revenue rather than earmarked taxes or revenue from a contributory pension scheme. The remainder of the paper focuses on these four types of pensions, with emphasis on universal NMT pensions.

3. THE COST OF A UNIVERSAL NON-MEANS-TESTED (NMT) PENSION

Suppose that proportion 'r' of the population is eligible for a uniform pension of py, where p is the ratio of the flat pension to per capita GDP (gross domestic product) and y is per capita GDP.[7] Ignoring costs of administration, per capita expenditure on pensions is then rpy, which is necessarily less than the size of the flat pension, since r is less than unity. Per capita taxes required to pay these pensions can be denoted as 'ty', where t is the ratio of taxes to GDP and y is per capita GDP.

Balancing the budget for universal NMT pensions requires that tax revenue equal pension expenditures or, equivalently, that tax revenue per capita (ty) equal expenditure per capita (rpy):

$$ty \ = \ rpy \ . \tag{1}$$

Solving for t (taxes as a proportion of GDP) yields:

$$t \ = \ rp \ . \tag{2}$$

In words, the tax revenue requirement of a universal pension (as a proportion of GDP) is equal to the proportion of the population eligible for pensions times the ratio of the flat pension to per capita GDP. Costs will be higher the more generous the pension, and the larger the proportion of the population that is eligible to receive it. If 5 percent of the population are eligible for a pension equal to 30% of per capita GDP, the revenue requirements for such a transfer are easily calculated: (0.05)(0.3)=0.015, or 1.5 percent of GDP. If 10 percent of the population become eligible for a pension of the same size, required taxes are (0.1)(0.3)=0.03, or 3 percent of GDP.

A key parameter for calculation of pension expenditure is r, the proportion of the population that is eligible to receive a basic pension. Using 65 as an arbitrary, though common, age of eligibility, the first three rows of table 1 report United Nations Population Division estimates of past, present and future values of this parameter for the world, as well as for the more developed and the less developed parts of our planet. The bad news (at least for pension costs) is that the population of the world is aging. 50 years ago only 5% of the population was older than 65 years. Today approximately 7% are that old, and in 50 years individuals this old are projected to make up 16 percent of the world's population, using the UN's medium variant assumptions for future fertility and life expectancy. It is worth emphasizing, however, that dependency ratios are affected not only by demographics, but also by policy decisions. The proportion of a given population that is eligible for a universal pension can be raised or lowered by decreasing or increasing the age of eligibility. With a cutoff of 70 years, the proportion of the world population that will be 'aged' in 2050 shrinks from 16% to 11%; with 75 years, to 7.4%. (See the remaining rows of table 1.)

/// **Table 1 after this point** ///

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[7] The ratio of pensioners to non-pensioners, r/(1-r), is sometimes referred to as the 'dependency ratio'.

The good demographic news for pension costs is that there are proportionally fewer aged in low-income countries, and this will continue to be the case for at least the next 50 years. From the last column of table 1, it is evident that the revenue required to provide all residents of *least* developed countries older than age 65 with pensions equal to 30 percent of their per capita GDP amounts to less than one percent of those countries' GDP today, and is projected to increase only to two percent of GDP in 50 years time. With the age of eligibility set at 75 years, the cost for the same pensions would be a much lower 0.2% of GDP today and 0.6% in 50 years.

4. REAL-WORLD EXAMPLES OF NON-CONTRIBUTORY, BASIC PENSIONS

(a) *Universal non-means-tested (NMT) pensions*

A total of nine countries and one large city provide a meaningful pension to the elderly with no test other than citizenship, residence and age: New Zealand, Mauritius, Namibia, Botswana, Bolivia, Nepal, Samoa, Brunei, Kosovo and Mexico City. This list is the product of an extensive search. There is at least one additional historical example— Australia from 1973 to 1978 (Commonwealth Treasury, 2001). Others may exist. The new Government of Antigua and Barbuda announced in March of 2004 its intent to provide all citizens over 60 years of age with a generous pension, but failed to carry out this promise (Willmore, 2006). One might expect at least some transition economies other than Kosovo to have universal NMT pensions in place, but close inspection (Müller, 2003, table 3) reveals in each instance that the basic pillar is contribution-tested (flat-rate pension) or means-tested (social assistance pension), at least for 19 countries for which information is available. The basic pensions of the Netherlands (from age 65) and Norway (from age 70) are universal except for stiff residency requirements: 50 years from age 15-64 for the Netherlands and 40 years from age 16-66 for Norway (see below). Partial pensions are available for those with fewer years of residency.

Only one of the countries with universal NMT pensions (New Zealand) is a high-income country. Bolivia is the poorest country in South America and Nepal is one of the poorest countries on the planet. The other six countries are developing economies, with modest per capita incomes, as is Mexico City. The preponderance of low-income economies in this group reflects the importance of administrative simplicity in developing countries.

Age pensions in New Zealand and in Mauritius began as social assistance pensions, becoming universal (non-means-tested) in the year 1940 in New Zealand and in 1958 in Mauritius (Preston, 2001, pp. 12-13; Willmore, 2003). Oil-rich Brunei inaugurated a universal pension system in 1984, the same year it became independent from the United Kingdom. Namibia inherited a race-based system of non-contributory pensions, which it transformed into a single, universal pension following independence in 1990. Samoa's Senior Citizen Benefit Scheme dates from November 1990. Nepal began to disburse a universal Old Age Allowance in July of 1995, retroactive to January 1995 (Palacios and Rajan, 2004, p. 7). Response to the programme was so large that Nepal in

1997 decided to abandon universality, instructing village development committees to limit payments to persons below the poverty line. The committees complained that means-testing was difficult to carry out fairly and effectively, so universality was quickly restored (Palacios and Rajan, 2004, pp. 21- 22). Botswana inaugurated universal age pensions in October of 1996, and Bolivia passed legislation for its *Bonosol* in November of the same year. The age pension scheme of the municipal government of Mexico City commenced in February of 2001 and achieved near-universal coverage by October of 2002 (Laurell, 2003). The newest system of universal pensions is that of Kosovo, which began in July of 2002 as the first pillar of the World Bank's three-pillar system.

Table 2 describes basic characteristics of each of the ten universal pension schemes. In each case pensions are paid to all who meet age, residency and (in five countries) citizenship requirements, regardless of other income they receive or assets they own. The qualifying age is 60 years in Mauritius, Namibia and Brunei, 70 years in Mexico City, 75 years in Nepal and 65 years in the other five territories. The elderly in Mexico City must have resided in the city for at least three years immediately prior to receiving the pension. New Zealand requires pensioners to have completed 10 years of residence from age 20, with at least five of those after age 50. Mauritius requires 12 years (15 if the resident is not a citizen of Mauritius). Brunei insists on 10 years of residence from age 50 for the native-born, and 30 years for non-native residents. Bolivia requires applicants to have been citizens residing in Bolivia on 31 December 1995. The other five countries require only current residency and, except for Kosovo, citizenship in addition to the age requirement.

/// **Table 2 after this point** ///

The proportion of the population in these territories that satisfy the age requirement for a pension ranges from 1.1% in Nepal to 12% in New Zealand. A surprisingly low 93% of New Zealand's elderly residents satisfy residency requirements, presumably a reflection of high levels of inward and outward migration. Pensions reach only 77% of the age-qualified population in Nepal[8], despite the supposed universality of the program. There are a number of reasons for low take-up of pensions in Nepal, including difficulties in establishing proof of age, delays in processing applications, difficulties in reaching remote areas of the country, and the fact that some of the wealthy do not bother to apply for a pension (Palacios and Rajan, 2004, pp. 10-11). At the other extreme, Mauritius and Bolivia record apparent rates of coverage of 103% and 105% respectively. There is no known fraud in the universal pensions of Mauritius (Willmore, 2003), so the high apparent coverage might result solely from underestimation of the number of elderly in the underlying demographic data. In Bolivia, however, persons younger than the qualifying age are known to obtain pensions with fraudulent documents (Willmore, 2006).

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[8] Holzmann *et al*. (2005, p. 97) report a higher figure (87%), but do not cite the source. The 77% figure is an estimate of Palacios and Rajan (2004, p. 10), who adjust the 2001 census data for potential over-reporting at age 75. Using unadjusted census data, 1.3% of the population is 75 years or older and apparent coverage is 65%.

The number of beneficiaries in Namibia and Botswana look reasonable. This was not true in the past, so it no doubt reflects improvements in administration over time. Namibia's post-independence pension program suffered in early years from low coverage *and* from fraudulent claims. It was not uncommon for children and grandchildren to collect pensions of parents and grandparents up to 10 years after the death of a pensioner (Subbarao, 1998, p. 15). Following outsourcing of cash payments to private firms in 1996, the incidence of fraud decreased, and coverage increased to what Schleberger (2002, p. 7) estimates as "above 95 per cent". Age pensioners in Botswana initially numbered 84,000, an apparent coverage of 117%. These fell to 71,000 by 1999 due to better controls on certification of age. Much of the excess coverage might have resulted from ignorance rather than intentional fraud, as many citizens of Botswana do not know their date of birth. Age assessment committees were formed to help local governments determine the approximate age of those elderly who are uncertain of their exact year of birth.

Universal pensions are an administrative challenge for developing countries, but it is important to keep in mind that *any* pension scheme requires, at a minimum, evidence of age and proof that the beneficiary is alive. Non-universal schemes require additional information, such as a record of earnings and contributions, or knowledge of current assets and income; this increases costs of administration and increases opportunities for engaging in corrupt behavior. Administrative costs are thought to be low in countries with universal NMT pensions (see, for example, Fultz and Pieris, 1999, p. 26; Kosovo Ministry of Economy and Finance, 2005, p. 158.). An exception is Namibia, where administrative costs as a proportion of pension payments increased from an already high 18%[9] to 27% when cash payments were outsourced in 1996. Costs are high in Namibia for two reasons. First, exposure to armed robbery and fraudulent claims plague the security firm, which has resolved both problems—for a fee equal to 9% of the cash transfers—by operating a fleet of mobile armored ATMs with armed guards and by installing a sophisticated system of pensioner identification with fingerprint checks and electronic ID cards. Second, administrative costs are bloated because there was no downsizing of the public pension bureaucracy following transfer of responsibility for payments to a private firm (see Schleberger, 2002, pp. 11-14).

Table 2 reports also the amount of the pension in each country, on a monthly basis, in local currency and in US dollars. Monthly figures are displayed only to facilitate comparisons. Actual payments are not necessarily monthly: in Nepal, for example, pensions are paid every four months and in Bolivia once a year. Relative to per capita GDP, universal pensions seem very generous in Kosovo (50% of per capita GDP), but the pension is actually quite modest relative to the cost of living in that post-conflict country. The next most generous pensions are those of New Zealand (46% of per capita GDP before tax for a single pensioner, 70% for an elderly couple), followed by Bolivia (26%) and Samoa (22%). Basic pensions, at 16% of per capita GDP, are less generous in Mauritius and Namibia, but are adequate to ensure that few experience extreme poverty

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[9] "Administrative costs and salaries absorbed almost 15 per cent of the budget allocated to social pensions when the system was outsourced in 1996" (Schleberger, 2002, p. 13). Note that 15% of the total budget (administration plus transfer payments) amounts to approximately 18% of transfer payments.

or deprivation in old age. Mauritius provides exceptionally generous pensions (60% and 68% of per capita GDP) to residents older than 90 or 100 years of age. The pensions in Botswana, Nepal, Brunei and Mexico City—about 10% of each nation's per capita GDP—are clearly inadequate, but can be supplemented by personal savings (often in the form of housing) or earnings. The modest size of the pension in Nepal may explain why one survey of pensioners in that country found that one in seven continued to work, even though all were 75 years of age or older (Palacios and Rajan, 2004, p. 18).[10]

Age pensioners often have entitlements other than the cash allowance. In Mexico City, pensioners receive free health services and free use of public transportation on top of the monthly "food allowance" equal to one-half the minimum wage. A unique, cost-effective feature of Mexico City's program is that pensioners are given cash cards that are replenished each month with the amount of the pension. Pensioners use these cards in the same fashion as credit or debit cards to purchase goods in major supermarkets and other participating establishments. This system allows Government to restrict use of the card to purchase of food and medicines. This is not likely to affect the consumption patterns of recipients, since the very poor would purchase little other than basic food in any case, and the non-poor can also use other income to purchase 'prohibited' products such as cigarettes or alcoholic beverages. Nonetheless, the use of cards rather than cash is important for three reasons. First, it lowers costs of administration and reduces opportunities for corrupt behavior.[11] Second, it makes the program more acceptable to taxpayers, who can be assured that tax money is not spent for alcohol, tobacco or illegal drugs. Third, it encourages pensioners living in poverty to spend the monthly amount on their own needs, rather than transfer cash to their children or grandchildren.

Mexico City's pension system is worthy of note for a number of reasons. The governor of Mexico City, Andrés Manuel López Obrador, financed the pensions by reducing other expenditure, without requesting additional taxes or debt. He kept total costs low by choosing a high age of eligibility and a modest pension equal to one-half the minimum wage (11% of Mexico's per capita GDP, but only 5.5% of Mexico City's higher per capita GDP). The total cost of the pensions is four percent of the entire municipal budget, or 0.25% of Mexico City's GDP. The governor was able to finance the program by cutting other expenditure, such as travel, automobiles, and salaries of senior officials. A number of state governors have followed the lead of the governor of Mexico City, but in each case the transfers are means-tested social assistance pensions rather than universal NMT pensions.

In 2006 Mr. López Obrador registered as candidate for president of Mexico. One of his campaign promises is to extend universal NMT pensions to the entire country. Approximately 3.4% of Mexico's population is older than 70 years of age, so with the pension set at the current level of Mexico City, the López Obrador program implies a

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[10] The same survey (Palacios and Rajan, 2004, p. 18) found that 96% of the pensioners owned their dwelling and 43% reported their health as 'good' as against 11% who described their health as 'poor'.

[11] Critics of Mexico City's universal pensions—there are many—have not uncovered a single case of corruption. Their complaint is that costs are 'too high' because the pensions are pay-as-you-go rather than pre-funded and are given to the non-poor as well as the poor. See, for example, Azuara (2005).

transfer from taxpayers to the aged of (0.034)(0.11)=0.00374 or about 0.4% of GDP. Central Government expenditure in Mexico is 16% of GDP, so expenditure at the national level on universal NMT pensions would amount to approximately 2.3% of all government expenditure. This expenditure is universal rather than targeted, so would go to all the elderly, rich and poor alike.

To place the cost of such a universal pension in perspective, the Government of Mexico currently spends almost as much to subsidize contributions to the reformed Pillar 2 of its pension system (Gill, Packard & Yermo, 2004, pp. 208-209). The subsidy, called *Cuota Social*, goes only to workers in the upper half of the income distribution because they are the ones who have formal employment in the private sector and contribute to a personal retirement income account. The subsidy is flat rate—the same for each contribution—set at 5.5% of the minimum wage when the new Pillar 2 came into effect in July of 1997, and is indexed to the consumer price index. The *Cuota Social* cost Mexican taxpayers 0.33% of GDP (2.1% of all government expenditure) at the onset of the reform. Since the flat subsidy is indexed to prices rather than wages, its fiscal cost is projected to fall to 0.2% of GDP by the year 2025. The *Cuota Social* is not the only fiscal subsidy for contributors to the reformed Pillar 2. There is a guaranteed minimum that tops up any pension that is less than the July 1997 minimum wage, indexed to prices, provided the beneficiary has a history of at least 1,250 weeks (24 years plus two weeks) of contributions. Transition workers benefit in addition from a "life switch option" that guarantees them the pension they would have qualified for under the rules of the old system, if this is larger (Gill, Packard & Yermo, 2004, p. 53).

The total transfer of income to the aged via the universal NMT pension ranges from 0.1% of GDP in Nepal and 0.2% in Mexico City to 1.7% in Mauritius and 4.3% (before tax) in New Zealand. These figures refer *only* to the universal age pension. In each country pensions are provided to those who are not old enough to qualify for an age pension. These pensions, which are typically means-tested, go to the disabled, widows, orphans and others and can dwarf universal NMT pensions, in terms of beneficiaries if not benefits. In Nepal, for example, the number of women aged 60 to 74 who receive "Helpless Widows Assistance" exceeds by far the number of age pensioners; the widow's pension is much smaller than the age pension, however, so its budgetary cost is considerably less (Palacios and Rajan, 2004, p. 9).

Researchers often fail to separate age pensions from other types of pensions. Piggott and Whitehouse (2001, p. 8), for example, in a study of Mauritius commissioned by the World Bank, analyze what they call "the basic retirement pension (BRP)" offered "to every person aged 60 or over", and find that outlays in 1998-99 amounted to three per cent of the country's GDP—nearly double that reported in table 2 for 2003. A footnote to a table (p. 12) explains the discrepancy: the BRP "includes basic retirement pension plus BWP [basic widow's pension], BIP [basic invalid's pension], BOP [basic orphan's pension] and inmates' allowance", all of which are transfers to persons younger than 60 years of age. The World Bank (2004) used this flawed estimate to advocate reducing or targeting age pensions in Mauritius, with no mention of the qualifying footnote.

Payment of universal pensions, or a basic income, to the elderly and non-elderly alike, including children, is certainly possible. This is known as a Basic Income Grant or Negative Income Tax, and is supported by numerous social scientists including, most famously, the economist Milton Friedman (1968). A group known as Basic Income Earth Network (www.basicincome.org, formerly Basic Income Europe Network) was formed in 1986 and actively promotes this policy, but no government has yet put the idea into practice. A universal NMT pension amounts to a basic income grant, albeit one that is limited to the elderly, although it is rarely thought of in this way.

Nine of the ten governments[12], finance the universal NMT pension from general revenue. Pensioners share the burden reported in the last row of table 1 because pensioners are also taxpayers: they contribute to government revenue whenever they pay taxes on income, consumption and property. Pensioners, as a group, contribute to their own pensions. An easy way to lower the *net* fiscal cost of pensions is to tax them as ordinary income, as in New Zealand, where income tax lowers the fiscal cost of universal pensions from 4.3% of GDP to 3.6%.[13] Provided the tax system is progressive, taxing benefits introduces progressivity into the system in addition to lowering net fiscal costs. In New Zealand, there are no personal deductions and the lowest bracket of income is taxed at 15%, the highest at 39%, which means that the net pension retained by the wealthiest is only 72% (= 61/85) as large as that retained by low-income pensioners.

There are other ways to reduce costs while preserving the universality of a pension system. Recall that the revenue requirement (as a proportion of GDP) of universal NMT pensions is equal to the product of two variables: the proportion of the population eligible for pensions times the ratio of the flat pension to per capita GDP. Neither variable is carved in stone. The first can be reduced by increasing the age of eligibility, the second by decreasing the generosity of the pension. New Zealand some years ago adjusted both parameters in order to reduce the cost of its universal pensions. In 1989 the Government reduced the pension floor and indexed pensions by prices rather than wages until the new, lower floor was reached. More importantly, over 10 years New Zealand increased the age of entitlement from 60 to 65, completing the process in 2001. With these adjustments, the share of public pensions in GDP fell from nearly 8 per cent to less than 5 per cent within a decade. (See Preston, 2001, pp. 16-18.)

New Zealand faces severe population aging, so its gross pension costs are expected to exceed 8% of GDP within 30 years, peaking at 8.9% in 2050.[14] This time, rather than change the parameters of the system, Government chose to set up an investment fund as a tax-smoothing device: each year it invests a portion of the fiscal surplus, largely in overseas stocks and bonds, so that taxes required for funding the net cost of pensions can be kept below 5% of GDP (St John, 2005). With this tax-smoothing, there is no pressure to reduce pensions or increase the age of entitlement, much less

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[12] Bolivia's *Bonosol* is distinct, for it is financed from dividends and sales of the retained shares of five privatised public enterprises (Willmore, 2006).
[13] The cost net of all marginal taxes paid—including New Zealand's 12.5% goods and services tax—is lower still, but this is difficult to calculate with any confidence.
[14] Pension costs net of income tax are projected to peak at around 7.3% of GDP in 2050 (Susan St. John, private communication).

abandon of the principle of universality. Critics argue that the fund is unnecessary, as the surplus could be used instead to retire public debt, but the idea of running a fiscal surplus as a tax-smoothing device is nonetheless valid.

(b) *Residence-based pensions*

Residence-based pensions are known to exist in seven countries: the five Nordic countries (Denmark, Finland, Iceland, Norway, Sweden), Canada and the Netherlands. (See table 3.) The age of eligibility is 67 in Norway and 65 in the other six countries. Six countries require 40 years of residence as an adult for a full pension; only the Netherlands has a more stringent requirement (50 years). The full pension as a percentage of per capita income varies from 9% in Iceland to 39% in the Netherlands. Five countries provide supplements for low-income pensioners that result in full pensions as high as 30% of per capita income in Norway and Canada, 35% in Iceland, 41% in Denmark and 54% in the Netherlands. In Finland, Sweden and the Netherlands, the size of the pension is reduced when the beneficiary shares accommodation with his or her spouse.

/// **Table 3 after this point** ///

Residence-based pensions are quasi-contributory pensions, each year of adult residence counting as contribution toward an age pension. A person with fewer than the required years of residency for a full pension might still qualify for a partial pension. 20 years of residency, for example, earns 40% of a basic pension in the Netherlands and 50% of a basic pension in the other six countries. Three is the minimum number of years to qualify for a partial pension in five of the countries, but Canada requires a minimum 10 years of residence while the Netherlands provides partial pensions with as little as a single year of residency. Denmark requires a minimum of 10 years residence instead of three if the beneficiary is not a Danish citizen. There are no examples of residence-based pensions in low-income countries, possibly because such a system is likely to increase administrative costs and produce little or no fiscal saving.

Six of the seven countries with residence-based pensions 'claw back' (recover) benefits from the relatively affluent and tax the net benefits as regular income. The exception is the Netherlands, which allows pensioners to retain all benefits, regardless of other income, and, in addition, provides all pensioners with a tax break. The tax break is a consequence of the fact that the Netherlands, unlike the other six countries, finances its residence-based pension primarily with an earmarked tax that is not collected from taxpayers 65 years of age or older.

The 17.9% tax earmarked by Dutch authorities for the basic pension is payable on earnings up to a maximum amount, set at €28,851 in 2003. This payment is described as a 'pension premium', but it is very much a tax, since pension entitlements are determined solely by residence, not by how much—or indeed, whether—a person pays the "pension premium". There are income taxes earmarked for health care and other social security benefits as well, but pensioners pay these at the same rate as non-pensioners. In effect,

Dutch pensioners enjoy a tax break that amounted in 2003 to 5,161 euros for those with taxable incomes higher than €28,851, and proportionately less for those with lower taxable incomes. This sum is nearly half the value of a full basic pension, and is available to everyone over the age of 65 with no residency requirement. Contributions to occupational pensions are deductible from taxable income whereas pension payments are taxable, so there is a large incentive for workers to delay receipt of wage income in this way. The availability of tax savings may well explain why more than 90% of Dutch workers contribute to occupational pensions even though they are not mandated by law.

On equity grounds, there is no justification for reduced tax rates for pensioners, and much to justify equal treatment of taxpayers of all ages. In the Netherlands, if the basic pension were increased by 26.7% and the tax break eliminated, those whose only income is a basic pension would be no worse off[15] and the net fiscal cost of pensions would be greatly reduced. The fiction that an earmarked tax is a contribution discourages reform and is an example of how an accounting convention can have policy effects.

(c) *Recovery-conditioned pensions (ex post means test)*

There are as many examples of recovery-conditioned pension systems as there are residence-based systems (7 countries), but the overlap between the two systems is large, with six countries belonging to both sets. The Netherlands is the only country offering residence-based pensions without recovery from other income, and the United Kingdom is the only one offering a pension that is universal in all respects other than its recovery provision. (See table 3 once again.)

The UK's non-contributory pension is neither well-known nor widely utilized, but it does exist with the unhelpful name "Category D State Pension". Beneficiaries must be 80 years of age or older and have resided in the United Kingdom for at least 10 years after age 60. Not all Category D pensioners receive the maximum benefit of £46.35 a week (equivalent to £200.85 a month) since the pension is reduced, pound-for-pound, for any income from a contributory basic state pension. Curiously, there is no recovery from other types of income, not even income from earnings-related pensions. In effect, Government in the UK guarantees a minimum basic pension to each person over the age of 80 who satisfies the residency requirement. Affluent elderly are not excluded provided they receive little or no income from another basic state pension. As of March 2004, 23,000 persons—fewer than 1% of the population over the age of 80—were receiving Category D pensions (United Kingdom, 2005). There is no information regarding the total amount of these payments.

Sweden, like the UK, claws back benefits from other pension income at the rate of 100%, so its scheme also functions as a minimum pension guarantee conditional on years of residency. Finland claws back benefits from other pension income at the lower rate of 50%, so pensioners in Finland can receive other pension income equal to double their

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[15] Using 2003 figures, the basic pension at the single rate could increase from €921 to €1,167; for a pensioner with no other taxable income, the pension net of taxes would remain the same: €783.

residence-based entitlement before losing all rights to a non-contributory pension. Denmark and Norway take the opposite approach, clawing back benefits from earnings of those who continue to work past the normal retirement age, but there is a large exemption in each case, so only those with high salaries or professional income are affected. In Norway, claw-back ceases at the age of 70, but the pension still is not universal from that age, for the quasi-contributory residency requirement remains. Iceland and Canada claw back benefits from all income, including pension income, but the recovery begins at a high level of income, and the rate is only 30% in Iceland and an even more modest 15% in Canada. It is important to keep in mind, though, that normal income taxes are also payable in all countries on net benefits of residence-based pensions. The Netherlands, as discussed above, not only has no claw-back of benefits, it also provides pensioners with a generous tax break.

It might appear that claw-back of benefits works best with residency-based pensions, but there is no logical connection between the two methods of reducing fiscal costs. The United Kingdom is the only example at the moment of a country with claw-back of benefits from what would otherwise be a universal pension, but examples can be cited from the past. In 1985 New Zealand introduced a taxation surcharge on other income that clawed back the entire benefit from 10% of the pensioners and a portion of the benefit from an additional 13% (Preston, 2001, p. 16). The surcharge was very unpopular, and universality was restored in 1998. Mauritius in 1965 introduced an "income tax test" that in effect was a Draconian claw-back scheme: those with taxable income lost all entitlement to a pension.[16] Few pensioners in Mauritius received sufficient income to require filing a tax return, so this measure affected no more than 5% of the relevant age group, produced little fiscal saving, and was eventually withdrawn.

(d) *Social assistance pensions (ex ante means test)*

Social assistance pensions are by far the most common type of non-contributory age pension. They exist in one form or another almost everywhere. Surprisingly, they even exist as means-tested supplements in four countries with recovery-conditioned pensions (Denmark, Iceland, Norway and Canada). In those countries, the value of the supplement could be added to the basic pension to yield a single social assistance pension (*ex ante* means test) or, for that matter, a larger recovery-conditioned pension (*ex post* means test). It is not clear what purpose is served by the dual system, other than add complexity to the system.

It is surprisingly difficult to obtain information on numbers of beneficiaries and the amount of income transferred to the aged via social assistance pensions. Those data that are available are often aggregated with transfers to younger persons, even children, and payment of deferred wages (pensions) to retired civil servants and veterans.

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[16] Spending on pensions in Mauritius actually increased because at the same time the age of eligibility for men (65 years) was lowered to that for women (60 years). There was a single old age pension at the time, equivalent to 18% of per capita GDP. (For details, see Willmore, 2003, pp. 4-5 and 11-12.)

As an illustrative beginning, table 4 reports data for social assistance pensions in six countries representative of three distinct approaches. South Africa and Australia are examples of loose targeting designed to exclude the affluent rather than restrict payments to those in poverty. Chile and Costa Rica, in theory at least, provide non-contributory pensions only to those certified as living in poverty. The United States and India are examples of systems that tightly target benefits to those living in extreme poverty; perhaps for this reason, data for these two countries are exceptionally incomplete, requiring heroic assumptions for the calculations reported in table 4. The United States does not report pension payments to disabled persons by age group; payments to elderly disabled are estimated on the assumption that the average of pensions received by disabled persons over the age of 65 is equal to the average pension for all the disabled. In the case of India, the size of the total transfer is known, but not the number of beneficiaries; this was estimated as 2.2 million persons by dividing the total transfer by the size of the pension, implicitly assuming that no one in India receives a partial pension. In both the United States and India, which have a federal structure of government, some states supplement pensions of the central government; such supplements are not included in the statistics reported in table 4.

/// Table 4 after this point ///

South Africa's basic pension, though means-tested, is generous, in terms of both its level (29% of per capita GDP) and the number of beneficiaries (87% of the covered population). There are no mandatory contributions to a second pillar. It is not clear why South Africa does not follow the example of Namibia and move to a universal NMT pension. According to Case and Deaton (1998), the purpose of the means test is to exclude wealthy members of the white minority. But this same wealthy minority receives valuable tax relief on their income once they reach retirement age. Indeed, the Taylor Committee (2002, p. 146) estimates that the budgetary cost of this tax relief is equal to the cost of providing a pension to all those currently excluded by the means test. The Taylor Committee thus recommends that South Africa make the basic pension universal, and fund the increased pension costs by "removal of the inequitable tax rebate for people over 65". If pensions also become taxable as personal income, a move from the current system of targeted pensions plus tax relief to one of universal NMT pensions would result in fiscal savings.

With South Africa's current means test, pension benefits are supposedly reduced by 50% of additional income from 100 rand a month, but the average pension is 540 rand a month.[17] This is very close to the maximum pension of 570 rand, an indication that few partial pensions are awarded. The means test, in the vast majority of cases, is a crude one: either an elderly person is eligible for a social pension or she is not.

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[17] The 540 rand figure is calculated from data from the Taylor Committee (2002, p. 144) on expenditure on age pensions (12.3 billion rand) divided by the number of pensioners (1.9 million). The Taylor Committee states that 12.3 billion rand is 1.4% of South Africa's GDP; using GDP data published by the IMF in 2005 yields the lower figure of 1.2% reported in table 4.

Abolition of the means test would very likely reduce the costs of administration of age pensions in South Africa. The present system is difficult to administer, gives considerable discretion to government bureaucrats, and lends itself to corruption. South Africa's Welfare Ministry, which administers the social pension, has not reported the costs of its administration, but Fultz and Pieris (1999, p. 26) comment on some of the administrative costs of corruption:

> "In South Africa, the Welfare Department has undertaken a project called Ghost Buster to detect dead beneficiaries. Here the problem involves not only families which fail to report a beneficiary's death, but also fraud rings within the Welfare Ministry which use deceased beneficiaries' identification details to collect multiple benefits. Project Ghost Buster involved re-registrations of the entire beneficiary caseload in several provinces."

Despite these problems, there can be no doubt that South Africa's social pension is a godsend for many families. The basic pension, given the skewed distribution of income, represents "about twice the median per capita income of African households" (Case and Deaton, 1998, p. 1330). Researchers report that social pensions are "a significant source of income, with definite redistributive effects; they are a reliable source of income, which leads to household security; they are the basis of credit facilities in local markets, further contributing to food security; they deliver cash into remote areas where no other institutions do; they are gender sensitive towards women; and they reach rural areas as few other services do" (Ardington & Lund, 1994, p. 19, cited in Case & Deaton, 1998, pp. 1331-1332).

Australia provides its elderly with a means-tested Age Pension equivalent to 29% of per capita GDP for a single person, or 48% of per capita GDP for a couple. (These amounts exclude supplements for rental assistance and health care.) The age of eligibility for women has increased gradually from 60 years beginning in July of 1995, and will reach 65 years, the same as for men, in July of 2013. As in South Africa, the intent of the means test is not to tightly target the poor, but rather to eliminate the wealthiest from benefits of the Age Pension. Prior to 1992 contributions to pension plans received tax relief, but were voluntary and never mandated. In recent years, two-thirds of the covered population has qualified for a non-contributory Age Pension, two-thirds of these for a full pension. After a generous 'free' income allowance, the means test reduces the pension at the rate of 40 cents for each additional dollar of income. The average Age Pension in fiscal 2003/2004 was A$830 a month (calculated from Tesfaghiorghis & Sermeno, 2004, table 5, p. 15), slightly higher than the couple rate of A$820 for a full pension, but less than the single rate of A$980. (See table 4 once again.)

Australia moved from social assistance to a universal NMT pension in 1973 for those older than 75 years of age, and in 1975 for those aged 70 to 74 years. The experiment was short-lived, however. Seeking to reduce expenditure, Government in 1978 imposed a partial means-test for those aged 70 and older, and in 1983 restored the full means-test (Commonwealth Treasury, 2001; Sass, 2004). There has been no

subsequent elimination of means tests, even though polls reveal that Australians of all ages prefer universal NMT pensions to means-tested or contributory schemes (Evans & Kelley, 2004). Instead, Australia moved in 1992 to the three-pillar system favored by the World Bank. Australia's second pillar consists of mandatory contributions of 9% of covered wages to occupational pensions, known as Superannuation Guarantee. More than 90% of workers participate in this scheme; only part-time workers with low earnings are allowed to opt out.

Australia's post-1992 retirement income system, according to the Commonwealth Treasury (2001, p. 66), came

> "increasingly to be viewed as a model for other countries. This is reflected not least in the World Bank's effective endorsement, in its 1994 report *Averting the Old Age Crisis*, of Australia's three pillars as the approach which offered the best prospect of simultaneously being fiscally sustainable in an environment where the population is aging, of improving national saving, ensuring intergenerational equity and providing higher incomes in retirement."

It is true that the World Bank (1994, pp. 274-276) praised the Australian system, but it is also true that the Bank gave higher marks to the Chilean model. The Bank complained, for example, that "Australia's public pillar, which pays a universal income- and asset-tested benefit to about 70 percent of the retired population, is much more generous and expensive than the minimum pension guarantee that constitutes Chile's public pillar" (p. 276). This overlooks the fact that Chile's first pillar contains social assistance pensions as well as minimum pension guarantees; nonetheless, a conclusion that the generosity of Australia's first pillar exceeds that of Chile's is inescapable. The Bank also complained that Australia, in its new Pillar 2, "permits retirees to take their pension accumulation as a lump sum rather than as an annuity or in phased withdrawals, as required in Chile. *If the lump sum is dissipated too soon, the result could be low incomes and poverty among the very old*" (p. 275 – emphasis added). The means-tested first pillar is an incentive for Australians to consume their savings, but, rather than mass poverty, a more likely result is that large numbers will continue to qualify for an Age Pension. It is surprising the Bank did not consider this possibility.

The hope of Australian policymakers is that mandated retirement saving will reduce the future costs of Age Pensions. This was, in fact, the specific reason for adding Pillar 2 to the pension retirement system. Workers are expected to save more for their own retirement, and rely less on Age Pensions. This is not likely to happen, because there is a strong incentive for workers to retire early, live for a while on the sums accumulated in occupational pension plans, and arrange their financial affairs to maximize benefits of the Age Pension. This strategy, known in Australia as 'double-dipping', is possible because Superannuation Guarantee benefits can be withdrawn as a lump sum as early as age 55 (increasing to age 60). Government could effectively end this behavior by becoming more intrusive, forcing everyone to convert their mandated retirement savings into a life annuity. This is politically unpopular, so is not likely to happen. Australians

"clearly view retirement plan balances in lump-sum terms and have insisted on their right to access these funds" (Sass, 2004, p. 11).

An alternative way to remove the incentive for early retirement is to eliminate the means test and move to a universal NMT pension. Sass (2004, p. 11) argues that this also is unlikely, since "the policy would increase benefits for the well-to-do at a significant cost to the government". The Age Pension currently requires fiscal resources equivalent to 2.3% of GDP. A precise estimate of the fiscal cost of eliminating the means test is not possible without knowing what proportion of pensioners would receive benefits at the single rate and what proportion at the couple rate, but this is unlikely to be more than one and a half percentage points, increasing total costs to about 3.8% of GDP. This is the gross cost. The *net* cost would be lower, since Age Pensions are taxable, although a tax offset (rebate) currently shields low-income seniors from payment of tax. Nonetheless, it is true that, *without other changes in policy*, transfers from taxpayers to those with high incomes will be politically unpopular.

Why, though, should other policies remain unchanged? Tax relief for the Superannuation Guarantee and voluntary retirement saving represents a drain on Australia's treasury. Yoo & de Serres (2004), using a present-value methodology, estimate the budgetary cost to Australia of contributions made in the year 2000 to tax-favored private pensions to equal 1.5% of GDP, third highest in the OECD after Ireland and the United Kingdom. By coincidence, this happens to equal the fiscal cost of moving to a universal pension in Australia. Those who benefit from these tax expenditures are those with high incomes, plus wage earners who 'double-dip', enjoying tax subsidies through the Superannuation Guarantee without sacrificing rights to the Age Pension.

In sum, in Australia as in South Africa, it is possible to finance a move to universal NMT pensions simply by reducing tax expenditure. It is not likely that the economy would be affected by ending subsidies for retirement saving, for in Australia and elsewhere "it is not clear whether tax incentives have increased aggregate saving, and most of the tax benefits have gone to high-income households, many of which would have saved in any event" (World Bank, 1994, p. 201). One might add that it seems rather pointless to provide tax subsidies for *mandated* savings, which is the case of Australia's Superannuation Guarantee.

Chile's three-pillar retirement income system has not one but *two* pensions in its first pillar. Both are financed from general government revenues, but they are targeted to different groups. The Assistance Pension created in 1975 by the Pinochet regime pays a flat amount each month set in 2001 at a level equal to about US$52, or 14% of per capita GDP. To qualify, the income of a beneficiary, and the average income of his or her household, must be less than the amount of the pension, but not all who qualify receive a pension. In order to control expenditures, Government restricts the number of pensions each year, currently to about 15% of the age-qualified population. Approved applicants go to a queue, where they must wait for a pension to be 'vacated'. Allocation is supposed to be on the basis of household income, rather than time on the list, but the targeting is not very effective. A 1994 survey "found that that 60 percent of the beneficiaries did not

belong to the poorest quintile of households" (Valdés-Prieto, 2002, p. 45). Moreover, the households of many beneficiaries had incomes in the upper two quintiles, far above the poverty line. The budgetary cost of the Assistance Pension was 0.15% of GDP in the year 2001. A universal NMT pension the same size would require funds equal to one percent of GDP.

The second pension in Chile's first pillar is the Guaranteed Minimum Pension, currently double the size of the Assistance Pension. There is no means-test for this pension, so "middle-class women who have worked part-time for money and in interrupted careers … are eligible … even if their standard of living is relatively high due to income earned by other family members" (Valdés-Prieto, 2002, p. 14). Eligibility requires a minimum of 20 years (240 months) of contributions. If the accumulated fund is not adequate to provide a pension at the minimum rate, monies are paid to the individual at the minimum rate until her individual fund is exhausted, at which time payments continue, financed by Government rather than the pension fund. There is much uncertainty surrounding the size of these unfunded pension liabilities, and there is concern in Chile regarding the fiscal consequences as well as their distributional impact. Taxes, after all, are paid by nearly everyone, but the subsidies of the Guaranteed Minimum Pension go only to those with a minimum 240 months of contributions.

Costa Rica, like Chile, has a three-pillar system and a minimum pension for contributors to the second pillar. But this minimum pension—equal to 80% of the minimum wage—is not a guarantee. Rather, it is the minimum amount that can be paid as a monthly pension. Those with insufficient contributions are required to take a lump sum settlement instead of a pension.

In 1974 the Government of Costa Rica created a tightly (and poorly) targeted non-contributory pension for citizens over the age of 65 and set its value initially at the equivalent of US$37 a month. In 1995 the agency charged with administering the program initiated a major reform to ensure that the pensions went to the poor rather than the non-poor elderly. Nonetheless, in the year 2000 it is estimated that 40% of the pensions were collected by persons classified as "non-poor" while 32% of those elderly living in extreme poverty had to make do without a social pension (Durán, 2002, table 16, p. 210). Presumably the targeting before 1995 was worse. In any event the non-contributory pension remains quite modest—equivalent in 2003 to US$35 a month (10% of per capita GDP), with supplements for pensioners with a dependent spouse or children.

There has been an attempt in recent years to increase coverage in Costa Rica and this did increase from 40 thousand at the beginning of 2000 to nearly 50 thousand (21% of the covered population) by the end of 2003. Considerable effort has also gone into improved targeting, in part by sending Social Security staff to visit homes of potential pensioners, in order to judge from the condition of the house and furnishings whether the person indeed lives in poverty, and in part by targeting the 'oldest old' (those over 70) who are not in receipt of benefits from a contributory pension.[18] The basic pension itself

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[18] This expansion of benefits to all citizens over the age of 65 living in poverty is referred to in Costa Rica as 'universalization' of non-contributory pensions. Willmore (2001) interpreted this to mean that the means

increased over this period, from the local currency equivalent of US$30 to US$35. (See Caja Costarricense de Seguro Social, 2000 and 2003, table N1.) Actual transfers to the elderly via the social pension amounted to 0.09% of GDP in 2000 and 0.12% in 2003. If means tests had been dropped, transfers would have been 0.45% of GDP in 2000 and 0.57% in 2003; government would have saved the expense of investigating the living conditions of the elderly, and those in extreme poverty would automatically have benefited from receipt of a pension.

Basic pensions of the first pillar in the United States, known as Supplemental Security Income (SSI), are typically ignored in descriptions of the US system of public pensions, which focus on contributory pensions of the second pillar, popularly known as "Social Security". SSI pensions are pensions of last resort for the needy. To be eligible for SSI, the value of all the assets (cash, real or personal property) of an individual cannot exceed $2,000, or $3000 in the case of a couple living together. "Countable" income cannot exceed the amount of the maximum pension, as of the year 2000 equal to $512 a month ($769 for a couple). The maximum pension is equivalent to 17% of per capita GDP (26% for a couple), and is reduced dollar-for-dollar by the amount of a person's countable income. All unearned income in excess of $20, such as income from a contributory pension (private or public), is countable income, as is one-half of all earned income after the first $65. In effect, individuals or couples receiving SSI are subject to a 100% marginal rate of tax on unearned income, and a 50% marginal rate of tax on earned income. The average pension received by the more than two million elderly recipients of SSI is thus only $282, much less than the maximum pension of $512, and lower even than one-half of the maximum pension awarded to couples ($385).[19] Pillar 1 is a very small pillar in the United States, amounting to less than 0.1% of GDP, and is financed from general revenue. There is no minimum pension in the contributory, earnings-related pillar known as "social security". A minimum of 10 years of contributions are necessary to qualify for *any* pension; participants with fewer contributions receive nothing from Pillar 2.

India, like the United States, offers a limited "social safety net" pension to a small percentage of its elderly population. This basic pension, known as the National Old Age Pension Scheme, began in August 1995 and is intended to aid destitute individuals who are older than 65 years and have no living relatives who are not also destitute. The pension is tiny, amounting to less than 2 US dollars a month, or 5% of per capita income, and is insufficient to lift anyone out of poverty. Five percent of India's population is older than 65 years, so universal provision of a pension of this size to everyone who lives past this age would cost only (0.05)(0.05)=0.0025 or one-quarter of one percent of GDP. Universal provision of a pension four times more generous, equivalent to 20% of per capita GDP, would cost only one percent of GDP.

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test would be phased out. This is not correct. The goal is more effective targeting, not abolition of the means test.

[19] The maximum SSI pension is adjusted annually for price inflation, so in the year 2004 was $564 a month for a single person and $846 for a couple.

Surely it is *possible* to address the problem of poverty among the elderly of India. What is lacking is political will. One report (India, 2000, p. 13) concludes: "The sheer number of the elderly is too large, and the resources of the State are too small, to make anti-poverty programs the central plank in thinking about the elderly." The same report finds it impossible to expand mandatory, contributory pensions beyond the 11% of the labor force they now reach, and recommends instead an increase in incentives and tax relief for voluntary savings of the third pillar. This is not likely to produce social benefits, for "the evidence is inconclusive on whether tax preferences stimulate people to save more— and, if so, whether these benefits exceed the costs" (World Bank, 1994, p. 183).[20] Tax relief for pension savings already represents a strain on government finance in India, and its cost must be many multiples of the cost of the modest social assistance pension. According to an IMF staff study (Gillingham & Kanda, 2001, p. 16), "it is impossible to tell exactly who benefits [from this tax relief], but it is almost certainly the highest-income workers."

5. WHY DOESN'T THE WHOLE WORLD HAVE UNIVERSAL PENSIONS?

Universal non-means-tested (NMT) pensions have many advantages over schemes that deny basic pensions to those with too high an income, too many assets, too short an employment record, or an inadequate record of contributions. More than a decade ago, the World Bank (1994, p. 240) praised universal pensions, and recently reiterated that this "is probably the best way to provide poverty relief to the elderly. Considering the difficulty of identifying who among the elderly is poor, the principal merit of the program is that its universality avoids the targeting issue" (Holzmann *et al*., 2005, p. 95). Despite this praise, the World Bank and other institutions have tended to ignore universal pensions and, in general, have paid little attention to design of the first pillar. Reformers focus instead on contributory pensions, fully aware that these "cannot cover everyone, especially the lifetime poor, those with incomplete employment history, and workers in the informal sector who may stay outside the formal sector. Even if it were possible to cover all of the categories of vulnerable individuals, an enormous data collection and record-keeping effort would be required, which is nearly impossible" (Holzmann *et al*., 2005, p. 95).

Governments of only nine countries and one city currently provide age pensions to everyone, with no test other than citizenship or residence, and age. It is possible that this list is incomplete,[21] for there has been little research on universal NMT pensions, even in New Zealand and Mauritius, where they have existed for decades. So scarce is information that policymakers in the recent and not so recent past—Mexico City and Mauritius are clear examples—have introduced universal pensions in isolation, without influence from or knowledge of similar experiments in other countries.

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[20] More than a decade later, the World Bank's assessment of subsidies for retirement saving remains much the same: "the fiscal costs of tax-favored schemes may be sizable, while the effects on saving are still unclear" (Holzmann, et al., 2005, p. 120).

[21] Kosovo was added to this list thanks to the comment of an anonymous referee.

What might explain the lack of interest in universal NMT pensions? Four arguments have been advanced as an explanation. First, universal pensions are inequitable, since the wealthy live longer on average than the poor. Second, social spending on other groups, children in particular, should have priority over spending on the elderly. Third, universal pensions discourage ("crowd out") intra-family transfers to the elderly. Fourth, no matter how useful a universal NMT pension, it is a luxury that few countries can afford. We examine each of these arguments.

(a) *The wealthy live longer than the poor.*

It is true that the wealthy have access to better health care and nutrition so, on average, live longer than the poor and benefit more from pensions. But it is equally true that they pay more taxes than the poor. This is why it is important to fund universal NMT pensions from broad income or consumption taxes rather than payroll taxes.

Life expectancy statistics are averages. There is nothing certain about the timing of death, so some who live in poverty *do* live to an advanced age just as some wealthy persons die young. Public pensions can help larger numbers of the poor to enjoy long lives. Evidence exists for South Africa (Lloyd-Sherlock, 2000; Case, 2001) and the United States (Herd, 2005) that receipt of a basic pension has a direct effect on the health and life expectancy of the elderly. In households that pool their income, as is common in developing countries, an age pension improves the well-being of all family members, who "are more likely to invest in the health of the older person in order to ensure the continuity of the pension income" (Lloyd-Sherlock, 2000, pp. 2165-2166).

Further evidence of the importance of income for the life expectancy of the elderly poor comes from 'reverse experiments' of exogenous decreases in income in Russia and Tanzania. Jensen & Richter (2003) found that loss of a public pension in households following the 1996 Russian crisis increased by 5% the probability of men in those households dying from all causes within the next two years. This dramatic result occurred despite the fact that households were able to replace, on average, 20 percent of the lost income by working longer hours, selling assets and borrowing. The affected households also reduced private transfers to other households. Miguel (2005) analyzed 11 years of data for a rural district of Tanzania and found that extreme rainfall, resulting in drought or floods, hence poor harvests and near-famine, is associated with large increases in the murder of "witches". Nearly all the Tanzanian "witches" were elderly women, killed by relatives. This study captures only the most outrageous aggression against the elderly: murder. Death is more often hastened short of outright murder by withholding food or care, but such acts are never reported. Miguel concludes that a "potentially attractive policy option is to provide elderly women … with regular pensions, which would transform them from a net household economic liability into an asset" but judges Tanzania to be "too poor to afford [such] a pension scheme … without considerable external donor assistance".

(b) Younger generations should have priority in the social budget.

At first glance, this is a compelling argument. No-one wants to sacrifice children to support the aged. But it is a false choice, for three reasons. First, budgets are seldom fixed. It is almost always possible to increase revenue, through taxation or other means, for a worthy purpose. Second, low-priority expenditures can be cut to make room in a fixed budget for age pensions. In Mexico City, the governor had limited control of the budget, but was able to finance a modest program of universal pensions by reducing salaries of top bureaucrats, purchasing fewer automobiles, and restricting official travel. Finally, it is often possible to finance universal pensions from amounts currently spent on subsidies for the pensions of a privileged few. Many governments spend large sums on subsidies (including tax relief) for the contributory second pillar and voluntary savings of the third pillar. These expenditures can be re-directed to flat, subsistence pensions without sacrificing basic education or other programs directed to children. This shift in expenditure could easily finance in South Africa and Australia the transition from social assistance to universal NMT pensions, and it is no doubt a possibility in other countries. Calculation of subsidies (including tax expenditure) that governments provide for retirement saving would be very useful and should be a high-priority area of research for those interested in pension reform.

Bolivia is an extreme example of large fiscal subsidies for contributory pensions, and they benefit only 11% of the country's labor force (Willmore, 2006). Government is spending an amount equal to 4.8% of GDP to benefit a privileged minority: employees in the public and formal private sectors with relatively high incomes. Fiscal costs of the contributory scheme are high because Government, on World Bank advice, took responsibility for all the transition costs of moving from pay-as-you-go to a pre-funded second pillar. Transition costs are twice those projected at the beginning of the reform in 1997 and have increased rather than decreased over time because of corruption, fraud and overly optimistic demographic projections, but also because of increased generosity. The minimum pension, for example, was lifted in the year 2000 from 335 bolivianos to 550 bolivianos a month, and again in 2002 to 850 bolivianos—equivalent to US$1,500 a year or 150% of per capita GDP—following a reduction in 1998 of the annual US$248 *Bonosol* to a US$60 "*Bolivida*". The government of the day argued that the country could not afford a *Bonosol*, while simultaneously increasing subsidies for the contributory pillar. A new government reinstated the *Bonosol* in 2003. The *Bonosol* requires only 1.2% of GDP—25% of what the government spends on subsidies for contributory pensions—and it benefits the entire population.

Another response to this concern is to point out that where the elderly live with their extended family, as is often the case in developing countries, pensioners almost always share their income with the rest of the household by helping with the health care or education of grandchildren, for example, or by purchasing domestic animals and planting vegetable gardens (Case & Deaton, 1998; Duflo, 2003; Martinez, 2005). This behavior is not entirely altruistic. Sharing an age pension increases the status of an elderly person within the household, and it is possible for a grandparent to receive better care in exchange for his or her contribution to the family income (Lloyd-Sherlock, 2000;

Gomes da Conceição & Montes de Oca, 2004). In the case of Bolivia, because of this widespread intra-family sharing, the World Bank and the Inter-American Development Bank (2004, vol. 2, p. 99) recommended in a joint report that "[t]he *Bonosol* should be maintained, as it represents strong distributive policy with minimal fiscal impact". For the World Bank, this marks a reversal of an earlier position that questioned the worth or necessity of the *Bonosol* (World Bank, 1999, p. ii).

(c) Universal pensions "crowd out" private transfers.

Researchers have expressed concern that government provision of age pensions might "crowd out" private transfers to the elderly. There have been a number of attempts to measure the extent to which this happens in developing countries (World Bank, 1994, pp. 66-67; Jensen, 2003; Cox, Galasso & Jimenez, 2006). Each dollar of public pension has been found to reduce private transfers to the elderly on average by as much as 37 cents, so the elderly do not benefit by the full amount of the pension. Pensioners are known also to share their income with adult children and, especially, grandchildren; researchers studying upstream transfers *to* the elderly have ignored these downstream transfers *from* the elderly.

Let us accept that pensions prompt reductions in private transfers to the elderly, so that public provision of pensions boosts the income of the elderly, but not dollar for dollar. It is not clear what the policy implications are. One way of looking at this is to conclude that basic pensions must be increased, to compensate for the reduction in intra-family transfers. An alternative approach is to conclude that pensions are a powerful anti-poverty device precisely because they crowd out private transfers. Suppose, for example, that an adult living in poverty is supporting a parent, also living in poverty. An old age pension, which allows the adult child to cut back on transfers to the aged parent, can improve the lives of both parent and child.

This area of research is of curiosity value with no practical use except, perhaps, to an intrusive government that wants to force adult children to care for their parents, reducing the public pension accordingly.[22] In any event that would be a difficult rule to enforce. As Lloyd-Sherlock (2000) reminds us, the fact that an elderly person lives in a household with income above the poverty level is no guarantee that the elderly person herself is living at or above the poverty level. Household income is not distributed equally: children and productive adults have priority over the old and unproductive.

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[22] If advocacy of such government intrusion seems far-fetched, consider the following statement of a Senior Economist for Social Protection at the World Bank: "One unsolved debate on this issue is whether or not one could expect social security [pension] systems to totally replace intrafamily transfers, or whether intrafamily transfers should continue playing a central role, complemented by governmental approaches. Such a question is key for interpreting the results presented in this document: If the existence of intrafamily mechanisms is to be expected and represents an adequate approach for the protection of income during old age, then the *coverage of the social system is only important for those individuals who do not have access to such family support*" (Rofman, 2005, p. 5 – emphasis added).

(d) The universal NMT pension is a costly luxury.

This is the fourth and most common complaint lodged against universal NMT pensions. Holzmann *et al*. (2005, p. 96) praise the scheme but warn that "its principal merit [universality] is also the principal problem: fiscal affordability, especially in low-income countries. Consequently, many countries where a universal pension program is currently in operation are considering ways to target the program or reduce the benefit levels …." Holzmann *et al*. do not list countries with universal pensions, nor do they indicate which are attempting to target or reduce benefits.[23] It is true, though, that few countries have introduced universal pensions. In contrast, governments spend large sums on minimum pensions for contributory systems and provide generous tax relief for retirement saving, policies that do nothing for the poor and benefit those who are relatively well-off. Since these budgeted amounts could be used instead to finance a basic pension for *all* elderly citizens, they are evidence that what often is missing is political will rather than resources.

If resources cannot be found for universal pensions, governments can reduce their fiscal cost in a number of ways. Maintaining the principle of universality, costs can be reduced by decreasing the size of the pension or increasing the age of eligibility. Another possibility is to provide a modest pension for the 'youngest old' and a larger pension for the 'oldest old' who are less apt to receive family support or continue working, even on a part-time basis.

Abandoning the principle of universality, costs can be reduced by *ex ante* or *ex post* means tests. The second method of cutting costs is clearly superior to the first.

Ex ante means tests, embodied in social assistance pensions, are very common. Social assistance pensions are supposed to target the poor, so that benefits are not 'wasted' on the non-poor, but, despite their attraction for policymakers, they are neither efficient nor effective. First, administrative costs are high, since each potential beneficiary must be screened by a public employee, who determines whether or not the applicant qualifies. Second, even with competent, honest and dedicated bureaucrats, as appears to be the case in Chile and in Costa Rica, targeting is crude, with large errors of exclusion and inclusion. Third, precisely because targeting is so crude, it is difficult to justify partial pensions. This discourages those close to the poverty line from saving, improving their home, or continuing to work in paid employment, out of fear of losing their entitlement to a pension.

Ex post means tests perform all the functions of *ex ante* tests, but do so more effectively, at lower cost, with fewer demands on public administration. These schemes 'claw back' or recover non-contributory benefits from other income of pensioners.

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[23] Mauritius introduced an income test in August of 2004, but Government lost the general elections of July 2005. A new government moved quickly to "end the humiliation previously imposed on pensioners by abolishing the targeted approach and reinstating [the] universal pension to all pensioners" (Mauritius, 2005, p. 26).

Recovery-conditioned pensions are not widely used, but the concept merits consideration by governments that prefer targeted to universal pensions.

The overwhelming preference of governments for social assistance pensions (*ex ante* means tests) over recovery-conditioned pensions (*ex post* means tests) is an anomaly. When governments collect taxes, they subject returns to random audits, and expect taxpayers to comply voluntarily with the law of the land. Fraud and mistakes are punished, at the discretion of the State. So, why is disbursement of cash benefits to the elderly treated differently from collection of taxes? There is no obvious explanation.

Recovery-conditioned pensions work very much like a negative income tax, except that the net tax collected is at most zero, and never positive. Each resident or citizen of a country is entitled to a flat pension upon reaching the age of eligibility, but she is also required to return part or all of it out of other income she receives during the year. The rate of recovery from other income can be set anywhere between 0% and 100%. There is a trade-off between fiscal savings and disincentives: high rates of recovery produce large cost savings but discourage saving for retirement or continuing to work past the age of eligibility for a basic pension. The 'other income' subject to recovery can be defined in any way: other pension income, employment earnings, income from savings and investment, or any combination of these. A broader definition of income allows recovery of the same amount of benefit with a lower rate of recovery.

Recovery-conditioned pensions require a special income tax regime for those who elect to receive a non-contributory pension from the State. This, in effect, is a voluntary tax, one that can be legally avoided simply by not requesting a non-contributory age pension. Those who take advantage of their entitlement to a non-contributory pension have to reveal all the chargeable income they receive and include net pension benefits in the income they declare for payment of normal income tax. If only mild targeting is desired, no special tax regime is necessary: simply make the universal pension taxable as ordinary income. This is done successfully in New Zealand, which has a long history of flat, universal pensions.

Like everything in government policy, "the devil is in the detail". What happens if a person accepts the pension, then files an income statement at the end of the year showing that he has income that was unanticipated, or at least not declared, at the beginning of the year? This type of behavior can be discouraged by judicious use of penalties, much in the same way that taxpayers who have paid too little in monthly or quarterly tax payments have to make up the difference with penalties at the end of the year. If it is politically difficult to ask a pensioner to return benefits received, then payment of *each year's pension* could be conditioned on *the previous year's income*, and any penalty for misreporting income could be deducted from future benefits. Control of recovery of pension benefits is actually easier than control of tax payments, for tax liabilities continue to grow, year in and year out, whereas pension benefits can be suspended at any time.

6. CONCLUSION

A universal NMT pension holds great promise in ensuring that no worker face poverty in old age. This paper has demonstrated that such a scheme can be affordable. It can also be politically attractive.

For purely selfish reasons, citizens might be expected to be attracted to the idea of universal pensions. They are good value, for they provide peace of mind regarding one's own fate, or the fate of a grandparent, aunt, friend or neighbor, in old age. Provided the pension is not set at too high a level, this peace of mind comes at an affordable price.

How might the goal of a universal basic pension be reached? More research is needed on this 'political economy' aspect of pension systems, but I suspect that it is best to proceed with universality and a modest pension, in terms of both benefits and age of eligibility, rather than with a means test and a generous pension. With universality, there will undoubtedly be pressure from citizens to increase the size of the pension, and to prevent wage and price inflation from eroding its value, by formal or informal indexing of the benefit level. This has been the experience in New Zealand, which indexes its pension to average wages and in Mauritius, without any formal indexing at all. Means tests promise fiscal savings, but tightly targeted benefits lack political appeal, so a means-tested benefit runs the risk of becoming smaller and smaller relative to wages and per capita GDP.

Another reason for avoiding means tests is that they send the wrong signals to workers. They discourage low income workers from saving for their old age and from continuing to work, even on a part-time basis, beyond normal retirement age. If, for some reason, it is important to deny a basic pension to the affluent, it is far better to do this through the tax system, collecting a surcharge on a pensioner's income above a given threshold. Or, a portion of the pension can be retrieved from pensioners with other income simply by making the citizen's pension taxable as ordinary income. It is important that all taxpayers—old and young—contribute to and benefit from a universal pension system.

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Table 1. *Aged as a percentage of the total population (1950, 2000, 2050)*

Year	Age group	World	More developed	Less developed	Least developed
1950	65+	5.2	7.9	3.9	3.3
2000	65+	6.9	14.3	5.1	3.0
2050	65+	15.9	25.9	15.4	6.4
1950	70+	3.0	4.9	2.1	1.8
2000	70+	4.4	10.0	3.0	1.7
2050	70+	11.2	19.8	10.6	3.9
1950	75+	1.4	2.5	0.9	0.8
2000	75+	2.4	6.0	1.6	0.8
2050	75+	7.4	14.2	6.8	2.1

Source: United Nations (2003).

Notes: The projection to the year 2050 is the United Nations medium variant. More developed regions comprise Europe plus Northern America, Australia/New Zealand and Japan. The rest of the world is defined as less developed, and includes 49 countries defined by the United Nations General Assembly as least developed. These 49 countries are included in the "less developed" column, but are also shown separately in the "least developed" column.

Table 2. *Universal pensions around the world, circa 2003*

Country	New Zealand	Mauritius	Namibia[a]	Botswana	Bolivia
Qualifying age	65	60	60	65	65
Population older than qualifying age (% of total)	12.0%	9.2%	6.0%	5.0%	4.5%
Residency requirement	10 years from age 20, including 5 from age 50	12 years (citizens); 15 years (non-citizens)	Resident citizen	Resident citizen	Citizen 21 years of age or older, residing in Bolivia on 31 December 1995
Beneficiaries (number)	446,000	116,324	97,767	85,000	411,063
Beneficiaries (% of age-qualified population)	93%	103%	93%	96%	105%
Monthly pension (local currency)	NZ$ 1,253 (single) NZ$ 951 (couple)	Rs 1,700 (60-89 yrs) Rs 6,400 (90-99 yrs) Rs 7,300 (100+ yrs)	N$ 200	P 151	Bs 150
Monthly pension (US dollars)	$737 (single) $554 (couple)	$61 (60-89 yrs) $229 (90-99 yrs) $262 (100+ yrs)	$23	$30	$19
Basic pension as % of per capita GDP	46% (single) 35% (couple)	16% (60-89 yrs) 60% (90-99 yrs) 68% (100+ yrs)	16%	10%	26%
Transfer to aged (% of GDP)	4.3% (gross) 3.6% (net)	1.7%	0.9%	0.5%	1.2%

Source: Author's estimates, based on data from St. John (2005), New Zealand (2004), Mauritius Central Statistical Office (2002/2003), Schleberger (2002), Botswana Daily News Online (1999-2005),Willmore (2006), Palacios & Rajan (2004), Social Security Administration & ISSA (2005), IMF (2005), RadioTelevisyen Brunei (2003), U.S. Census Bureau (2005), UNESCAP (2005), Azuara (2005), Kosovo Ministry of Economy and Finance (2005) and Moalla-Fetini *et al.* (2005).

a) Figures for Namibia are for the year 2001.

Table 2 -- continued

Country	Nepal	Samoa[b]	Brunei	Kosovo[c]	Mexico City[d]
Qualifying age	75	65	60	**65**	70
Population older than qualifying age (% of total)	1.1%	6.4%	4.5%	5.3%	4.6%
Residency requirement	Resident citizen	Resident citizen	10 years from age 50 (native-born); 30 years (other residents)	Resident	3 years prior to receiving pension
Beneficiaries (number)	211,343	11,400 (assumed)	14,000	105,000	370,000
Beneficiaries (% of age-qualified population)	77%	100%	87%	100%	94%
Monthly pension (local currency)	Rs 150	100 tala	B$ 200	€ 40	MN$ 709
Monthly pension (US dollars)	$2	$33	$120	$50	$65
Basic pension as % of per capita GDP	10%	22%	10%	50%	5.5%[e]
Transfer to aged (% of GDP)	0.1%	1.4%	0.4%	2.7%	0.2%

Source: as above.

b) The number of beneficiaries in Samoa is not known, but is assumed to equal the estimated number of elderly (100% coverage).

c) Figures for Kosovo are for the year 2004. Demographic data are not reliable, so it is assumed that the number of elderly in the population is equal to the number of beneficiaries.

d) Figures for Mexico City are for the year 2005.

e) The basic pension is equivalent to 11% of Mexico's per capita GDP, but only 5.5% of the capital city's higher per capita GDP.

Table 3. *Residence-based and recovery-conditioned pensions, circa 2003*

Country	Denmark	Finland	Iceland	Norway	Sweden
Qualifying age	65	65	65	67	65
Residency test for full pension	40 years, age 15-65	40 years, age 15-65	40 years, age 16-67	40 years, age 16-66	40 years from age 25
Residency test for partial pension	3 years (10 yrs for non-citizens)	3 years	3 years	3 years	3 years
Monthly pension (local currency)	DKK 4,648	€496 (single max) €424 (couple min)	IKr 21,249	Kr 4,738	Kr 6,976 (single) Kr 6,223 (couple)
Monthly pension (US dollars)	$705	$557 (single max) $476 (couple min)	$277	$669	$862 (single) $769 (couple)
Basic pension as % of per capita GDP	21%	22% (single max) 18% (couple min)	9%	17%	30% (single) 27% (couple)
Recovery from other income	31% of professional earnings in excess of DKK 19,750 a month (4.25x basic pension)	50% of all other pension income	30% of income in excess of IKr 143,00 a month (6.7x basic pension)	40% of earnings in excess of Kr 9,476 a month (2x basic pension); no claw-back from age 70	100% of all other pension income
Means-tested supplement (% of basic pension)	97% (single) 47% (others)	None	293%	79.33%	None

Source: Author's calculations from Social Security Association & ISSA (2004a, 2004b) and United Kingdom (2005).

Table 3 – continued

Country	Canada	Netherlands	United Kingdom
Qualifying age	65	65	80
Residency test for full pension	40 years from age 18	50 years, age 15-64	10 years in any 20 year period after age 60
Residency test for partial pension	10 years (20 years for payment abroad)	1 year	No partial pension
Monthly pension (local currency)	C$ 461.55	€ 921.28 (single) € 631.76 (couple)	£ 200.85
Monthly pension (US dollars)	$330	$1,035 (single) $ 710 (couple)	$327
Basic pension as % of per capita GDP	14%	39% (single) 27% (couple)	13%
Recovery from other income	15% of income over C$ 4823 a month (10x basic pension)	None	100% of income from another basic state pension
Means-tested supplement (% of basic pension)	119% (single) 77% (couple)	100% of couple rate if partner is under age 65	None

Source: as above

Table 4. *Social Assistance Pensions in Selected Countries, 2000-2004*[a]

Country	South Africa	Australia	Chile	Costa Rica	United States	India
Qualifying age	65(M) 60(F)	65(M) 62.5(F)[b]	65	65	65	65
Population older than qualifying age (% of total)	4.9%	13.9%	7.2%	5.6%	12.3%	5.0%
Residency requirement	Resident citizen	10 years continuous	Legal Resident	Resident citizen	Legal Resident	Resident citizen
Beneficiaries (number)	1,900,000	1,866,000	165,373	49,725	2,011,000	2,200,000
Beneficiaries (% of age-qualified population)	87%	67%	15%	21%	6%	4%
Monthly pension (local currency)	570 rand	A$980 (single rate) A$820 (couple rate)	Ch$3,589	¢13,800 (basic rate) ¢17,700 (3 dependents)	$512 (single rate) $385 (couple rate)	75 rupees
Monthly pension (US dollars)	$60	$680 (single) $570 (couple)	$52	$35 (basic) $44 (family)	$512 (single) $385 (couple)	$ 2
Basic pension as % of per capita GDP	29%	29% (single) 24% (couple)	14%	10% (basic) 13% (family)	17% (single) 13% (couple)	5%
Transfer to aged (% of GDP)	1.2%	2.3%	0.15%	0.12%	0.07%	0.01%

Source: Author's estimates, based on data from Taylor Committee (2002), Tesfaghiorghis & Sermeno (2004), Australian Bureau of Statistics (2005), Bertranou (2002), Caja Costarricense de Seguro Social (2003), Brooks (2001), India (2000) and United Nations (2003).

a) South Africa fiscal 2000/2001; Australia fiscal 2003/2004; Chile 2001; Costa Rica 2003, India and USA 2000.
b) The qualifying age for females in Australia was 60 years, but is increasing gradually to 65 by 2013.
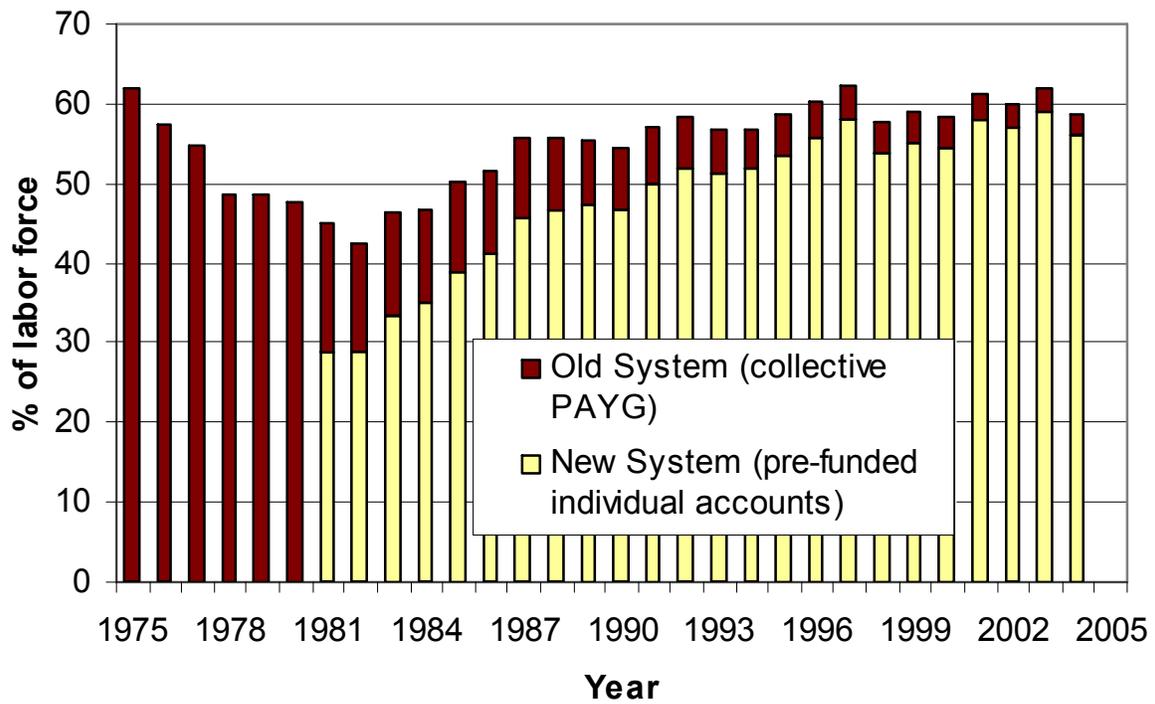
Figure 1. *Second pillar pension coverage in Chile, 1975-2004.*

Note: Coverage is defined as contributors to a pension scheme in December of each year as a percentage of the labor force. The armed forces and police retained their old system, and are excluded. The number of contributors to the new system in 1981 is not known, so was calculated as a residual, assuming total coverage in 1981 to be the average of total coverage in 1980 and 1982.

Source: Arenas de Mesa (2000) for 1975-1999; author's calculations for 2000-2004, based on INP (2004) and AFP (n.d.). The labor force data are end-year estimates from INE (National Institute of Statistics).