Universal age pensions in developing countries: The example of Mauritius

Larry Willmore

International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria

Mauritius, a small developing country located in the Indian Ocean east of Madagascar, has provided older residents with non-contributory age pensions since 1950. The scheme became universal in 1958. Mild income tests were reintroduced in 1965 and again in 2004. Targeting proved to be unpopular, and universality each time was restored. Government added a mandatory, contributory tier in 1978 that does not replace the flat, non-contributory pension. Instead, it promises participants (approximately half the labour force) an income-related benefit to top up the universal pension. The author examines Mauritius's long experience, drawing lessons from it for other developing countries.

The British colony of Mauritius was increasingly self-governing from 1947, but democracy and universal suffrage did not bring prosperity. At the time of its independence in 1968, Mauritius was very poor. The young country suffered from excess population, high unemployment and an extremely low standard of living. A single crop — sugar — accounted for 90 per cent of export earnings. Sugar continues to dominate the economy but its importance dropped markedly after 1980 because of an inflow of foreign exchange from exports of light manufactures (primarily garments) and from tourism.

Growth since 1980 has been persistent and strong, so strong that some label it a "Mauritian miracle" (Subramanian and Roy, 2001). Life expectancy at birth has reached 72 years; 84 per cent of the adult population is literate; income per capita, measured on a purchasing power parity (PPP) basis, is

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30 per cent of that of the United States. Mauritius's 1.2 million residents have attained the standard of living of a middle-income developing country, ranking 65th (just after Brazil and Romania) out of 177 countries in the *Human Development Report* of the UNDP (2005). A consequence of this successful development has been a decrease in the birth rate and an increase in the number of older persons in the population: on reaching age 60, each Mauritian male can now expect to live another 16 years, each female an additional 20 years (United Nations, 2005, Table 3a).

The real miracle of Mauritius is that the country did not wait for per capita income to grow before attending to the basic needs of the elderly population; nor did universal age pensions prevent the economy from growing. Each older resident of Mauritius receives a non-contributory pension from a scheme that began in 1950 and became universal in 1958.[1] The transfer payment is known as a Basic Retirement Pension, but the term is a misnomer since pensioners are not required to retire from work. "Basic age pension" is a better description.

Subject only to some minimum residence requirements (12 years from age 18 for citizens, 15 years from age 40 for non-citizens), each resident of Mauritius aged 60 or over is eligible for a monthly pension that amounts in 2005/06 to the following:[2]

- age 60-74: Rs 2,200 (US$ 72)
- age 75-89: Rs 2,259 (US$ 73)
- age 90-99: Rs 6,900 (US$ 225)
- age 100 plus: Rs 7,850 (US$ 256)

Nearly three-quarters of pensioners are younger than 75; fewer than 2 per cent are 90 years of age or older. Pensioners with severe disabilities receive an additional allowance of Rs 1,415 a month.[3] There is an allowance for dependent children as well, but few pensioners qualify.[4] At the government's discretion, each pensioner is typically given a 13th month bonus at the end of the year. The average age pension, including all allowances and bonuses, is about 20 per cent of per capita GDP.

1. Willmore (2001) was unaware of this long history, so erroneously reported that the universal pension scheme of Mauritius began with passage of the National Pensions Act of 1976.

2. The US dollar equivalents shown are calculated at the market exchange rate. The US dollar of course has more purchasing power in Mauritius than in the United States or other high-income countries. In May 2006, US$ 1 = Mau Rs 32; €1 = Mau Rs 41 approx.

3. In June 2004, 14 per cent of all pensioners (8 per cent of those aged 60-74, 26 per cent of those aged 75-89 and 68 per cent of those older than 90 years) qualified for an enhanced basic retirement pension because of severe disability.

4. The child's allowance is Rs 655 a month for children under the age of 10, and Rs 705 for those aged 10 or more, up to a maximum of three children. A total of 178 pensioners, with 219 qualifying children, received the allowance in June 2004.

Widows, orphaned children and people with disabilities also receive monthly pensions, without an income test, subject to residency requirements. This system of universal payments to non-aged residents seems to be unique to Mauritius and merits study. The present paper ignores these payments in order to concentrate on age pensions, which account for more than two-thirds of all expenditure on non-contributory pensions. As of June 2004, 119,448 residents were receiving an age pension, 22,757 a widow's pension, 25,035 a disability pension and 529 an orphan's pension. Upon reaching age 60, widows and people with disabilities automatically become eligible for the age pension.

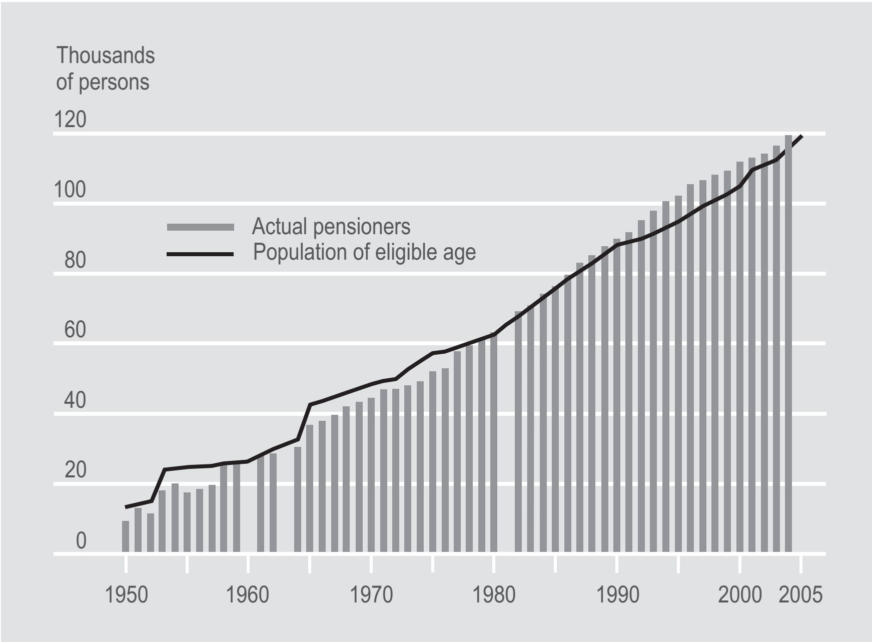
Non-contributory, basic pensions (from 1950)

The British Governor of Mauritius, concerned that workers in the colony were relying on government for relief in their old age, in January 1940 appointed a Social Insurance Committee to look into the possibility of implementing a system of old age pensions. In January 1941, the Committee concluded that it was "inequitable that the full responsibility of providing for the aged should be transferred entirely from the family to the taxpayer. The breakdown of the old system demands that it should be replaced by a new one based on the principle of 'self-help' and the most practicable means of ensuring this is a contributory pension scheme" (unpublished report of the Social Insurance Committee, quoted in Titmuss and Abel-Smith, 1961, p. 85).

The Social Insurance Committee recommended a compulsory system of flat daily contributions, with benefits strictly proportional to contributions paid. One member (Dr. E. Millien, who represented the "coloured community")[5] wrote a lengthy dissenting report, accusing his colleagues of trying to shift the cost of old age relief from the taxpayer to workers, who were desperately poor and could not afford to pay contributions (Titmuss and Abel-Smith, 1961, p. 86). The Government Actuary of Great Britain in 1943 questioned many details of the Committee's proposal, even whether the colony could afford social insurance, but agreed that any scheme adopted should be "not a scheme of non-contributory pensions subject to a means test . . . but a scheme of pensions payable as of right and financed . . . by insurance contributions" (Government of Mauritius, 1948, p. 7).

5. "Coloured community" at the time referred to descendants of African slaves, the vast majority of whom were living in poverty. The Social Insurance Committee included also a representative of Indian labour, who did not support Dr. Millien. The remaining six members of the Committee represented the interests of employers, insurance companies, and government (Government of Mauritius, 1948, p. 3).

Figure 1. *Age pensioners in Mauritius (thousands of persons, 1950-2004)*



Source: Central Statistical Office and Ministry of Social Security. Data are end-year through to 1971, mid-year from 1972. Pension data are missing for the years 1960, 1963 and 1981.

Targeted benefits (1950-57)

By 1950, there was still no system of contributory pensions in place, so on 21 March of that year government tabled legislation for a non-contributory system, intending it as a stopgap measure to be used until a "proper" system of social insurance could be set up. Payment of age pensions began in September, with arrears paid from 1 July 1950. The qualifying age was set at 65, and the maximum monthly pension of Rs 15 (Rs 5 more than "outdoor relief" provided to unemployed and destitute persons) was reduced by the full amount of income from other sources. This strict income test caused much resentment, so in December 1950 the income ceiling was raised to Rs 30 a month (the first Rs 15 of income was disregarded).

In 1953 the Old Age Pensions Bill was amended to reduce the qualifying age for women from 65 to 60 years, increase the maximum pension to Rs 20 a month, change the income test from a monthly to an annual basis, and raise the income ceiling to Rs 35 (Rs 420 a year). Pensioners at the end of 1953 numbered 19,000, with 5,000 of those who would otherwise qualify excluded because of income (see Figure 1).

The non-contributory, basic pensions were popular and functioned smoothly, yet government never abandoned its dream of replacing them with a contributory system. The Governor appointed a Committee of Ministers that recommended, in September 1957, implementation of a system that would be flat-rate, contributory and compulsory. This was a system identical to the one proposed by the Social Insurance Committee in 1941, except that contributions would be payable weekly rather than daily (Titmuss and Abel-Smith, 1961, pp. 89-90).

Government failed to follow up on these recommendations. Instead, the Minister of Health and Social Services made a surprising announcement on 13 December 1957 that government had decided to abolish the means test for age pensions. The Minister also announced that the monthly pension would increase from Rs 20 to Rs 22, to be paid retroactively from July 1957.

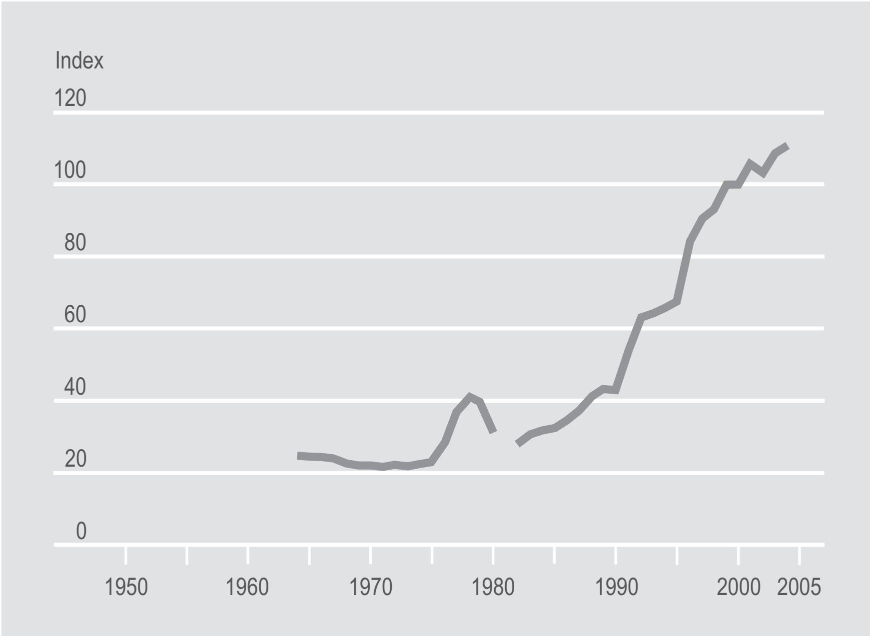
Universal benefits (1958)

Abolition of the income test in 1958 added approximately 6,000 to the number of old age pensioners, who came to total 25,783 at the end of 1958. Universal, basic pensions cost government 1 per cent of GDP in that year. The Minister responsible for administering old age pensions alleged that a portion of the increased costs were offset by reduced costs of administration, but he was unable to quantify the savings. Pensions were taxable as income, so a portion was recovered, or "clawed back", from the wealthy. A pensioner in the highest tax bracket retained, in 1958, only Rs 4 of a pension of Rs 22. Government did not quantify these savings, either.

At the historic moment of extending old age pensions to everyone, government Ministers were apologetic, insisting that the measure was temporary, and that it would be dismantled once a proper system of contributory pensions was in place. The Minister of Health and Social Services confidently informed the legislature that "in less than two years' time, there would be established in this country a complete and comprehensive social security scheme, contributory this time, by which the amount of old age benefit is going to be higher". He added: "There will be of course no burden placed on the coming generations as soon as this contributory scheme is introduced. This present measure, I repeat, is but temporary so far as it is non-contributory and also as far as the amount of Rs 22 is concerned" (recorded in Mauritius Legislative Council, *Debates,* 8 April 1958).

Contributory pensions were introduced, not in 1960, but much later, in 1978. To date, they have not replaced universal, non-contributory pensions. I postpone discussion of this parallel system of pensions to focus first on non-contributory pensions.

Figure 2. *Average real age pension in Mauritius, 1964-2004 (index, 2000 = 100)*



Source: Author's calculations from publications of the Central Statistical Office, the Ministry of Social Security and the IMF (consumer price index only). Calendar years through to 1971; fiscal years ending in June from 1972. Price data are missing for 1950-62; pension data are missing for the years 1960, 1963 and 1981.

In 1965 government lowered the qualifying age to 60 years for everyone and, at the same time, reintroduced a mild form of means testing: older persons with sufficient income to be subject to payment of tax — approximately 5 per cent of the covered population — were disqualified. The basic pension remained at Rs 22 a month for more than 14 years, until it was increased to Rs 25 in November 1971. It was increased again on several occasions, beginning in 1973, but its value in real terms, adjusted for changes in consumer prices, remained low through to 1975 (see Figure 2).

Increased benefits (from 1976)

In 1976, as part of the National Pensions Act (which introduced mandatory, contributory pensions), government increased sharply the size of the non-contributory pension and eliminated the means test. The real, price-adjusted value of the pension increased and, following a 1979-82 fall, it has generally followed an upward trend (again see Figure 2).

The next major change in non-contributory pensions was announced by the Minister of Finance in his budget speech of 11 October 1983, and implemented the following month. For the first time, higher pensions were provided for the very old, namely Rs 200 for those aged 75-89 and Rs 300 for those aged 90 and over, compared with Rs 174 for younger pensioners. From a reading of the parliamentary debates of 1983, it is not clear why government chose to favour the very old in this way. What is clear is that increased pensions for the very old were popular, and easier to finance than a similar increase in generosity toward old age pensioners of all ages. By July of 1998 (possibly sooner) those with severe disabilities were given a supplement. This discrimination in favour of pensioners with disabilities and the "oldest old" continues to this day.

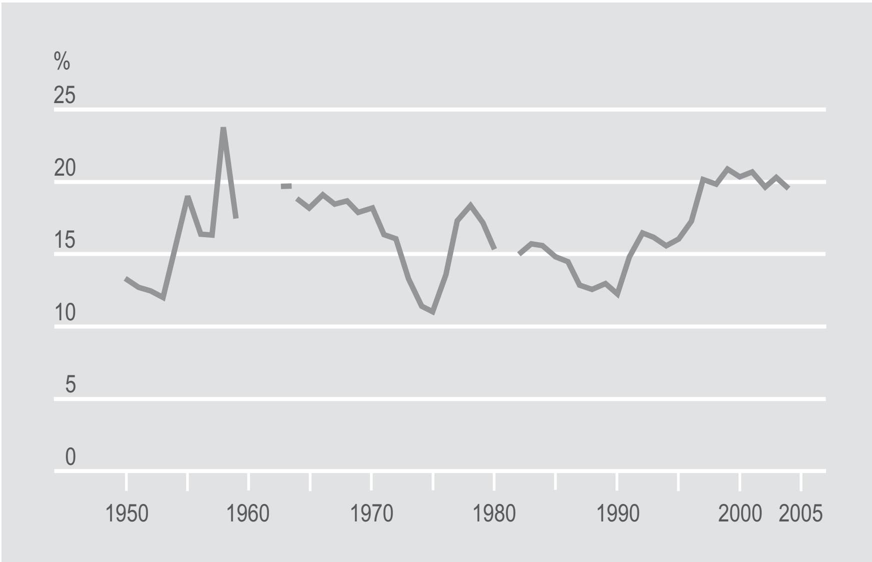
Pension coverage in Mauritius has been truly universal since 1977. In fact, since 1986 coverage has been more than universal, reaching 102 to 108 per cent of the apparent population older than 60 years of age (see Figure 1).

Some of this apparent overcoverage may reflect underestimation of the elderly population by the Central Statistical Office. The population census for the year 2000 did enumerate a total of 107,462 persons over the age of 60, which is more than the 105,234 estimated by the Central Statistical Office, but this still leaves 4,423 of the 111,885 pensioners unaccounted for. Unless the population census is wildly inaccurate, 4,000 or so old age pensioners are underaged or deceased, or no longer reside in the country. Mauritius has a reputation for accurate registration of births, so, if there is fraud, it more likely stems from failure to report deaths and emigration than from false claims of old age. It is worth noting that moving to a means-tested or contributory system does not reduce this type of fraud, except as a by-product of reducing the number of pensioners.

The Basic Retirement Pension is not indexed, but is adjusted by government in each year's budget. As Figure 2 shows, the purchasing power of the old age pension in Mauritius has increased steadily since the mid-1980s, and by 2004 was 2.7 times higher than its previous peak of 1978. The record of pensions in relation to per capita income, which is a measure of the *relative* standard of living of those who rely on a basic pension for income, is more mixed.

It is true that the pension has tended over half a century to retain its value as a percentage of per capita GDP but, as can be seen in Figure 3, there has been enormous fluctuation in this statistic. The ratio of the average pension to per capita GDP increased from 12 per cent in 1990 to 20 per cent in recent years, but remains below the 24 per cent recorded in 1958. The lowest ratio was 11 per cent, in 1975.

Figure 3. *Average basic age pension as a percentage of per capita GDP, Mauritius, 1950-2004*



Source: Author's calculations from various publications of the Central Statistical Office and the Ministry of Social Security. Estimates are for calendar years for 1950-71, and fiscal years ending in June from 1972, so the "1972" entry refers to fiscal 1971/72, "1973" to fiscal 1972/73, etc. Data are missing for the years 1960, 1961, 1963 and 1981.

The cost of universal pensions in an ageing population (1970-2040)

Mauritius has a population that is ageing. Birth rates have fallen and people are living longer, so the ratio of the population of working age to the population of pension age — the pensioner support ratio — is falling. With these demographics, some question whether the country can afford to retain its system of universal pensions, at least with the present level of benefits. The purpose of this section is to argue that such fears, while understandable, are exaggerated. So long as per capita GDP continues to grow (or does not fall), there is no cause for alarm. The denominator of per capita GDP, after all, includes both workers and non-workers. If there is a crisis because of demographics despite economic growth, it will be a crisis of politics (distribution), not a crisis of production.

The scenario that is alleged to be so alarming for Mauritius is shown in the table. All figures are either taken directly from or calculated from those reported on pages 8-9 and 20-24 of National Pensions Fund, 2001, with some exceptions. The main exceptions are the addition of the year 1970 (for

The cost of universal age pensions in Mauritius, 1970-2040

	1970	2000	2010	2020	2030	2040
GDP (millions of rupees, constant prices)[a]	23,369	119,085	152,191	178,151	214,710	258,176
Total population (thousands)	**829**	**1,186**	**1,292**	**1,379**	**1,440**	**1,465**
Children (0-14)	351	305	292	285	280	272
Working age (15-59)	430	776	859	879	870	855
Working age (15-64)			911	953	948	949
Pension age (60 plus)	48	105	140	215	290	338
Pension age (65 plus)			88	141	212	244
Pensioner support ratio (15-59/60 plus)	9.0	7.4	6.1	4.1	3.0	2.5
Pensioner support ratio (15-64/65 plus)			10.4	6.8	4.5	3.9
GDP per capita (thousands of rupees) [a]	28	100	118	129	149	176
Average pension (thousands of rupees, constant prices)[a]						
Past years	5	21				
Adjusted by per capita GDP (forecast)			25	27	31	37
Adjusted by prices (forecast)			21	21	21	21
Cost of universal pensions from age 60 (% of GDP)[b]						
Past years	1.1	1.9				
Adjusted by per capita GDP (forecast)			2.3	3.3	4.2	4.8
Adjusted by prices (forecast)			1.9	2.5	2.8	2.8
Cost of universal pensions from age 65 (% of GDP)[b]						
Adjusted by per capita GDP (forecast)			1.4	2.1	3.1	3.5
Adjusted by prices (forecast)			1.2	1.7	2.1	2.0

[a] In constant prices of fiscal year 1999/2000. Pensions include disability and child's allowances for pensioners.

[b] Assumes pensioners are 100% of population of pension age. Actual pensioners were 90% of the age-qualified population in 1970 and 106% in the year 2000.

Memorandum: annual growth of	GDP	GDP per capita
1970-2000	5.6%	4.3%
2000-2040	2.0%	1.4%

Source: Author's calculations, based on projections of Mauritius National Pensions Fund (2001) and population estimates of the Central Statistical Office of Mauritius.

comparison with the past) and the addition of an older pension age (to see how this affects costs). The actuaries used the demographic projections of the Central Statistical Office, as does this table, for the projections of population. Also, the actuaries include disability and survivors' pensions in their projections. The table ignores these pensions because ageing increases the costs only of old age pensions; in fact, there will be *fewer* young widows and orphans as people live longer and healthier lives.

Assuming everyone begins paid work at age 15 and retires at age 60, the number of workers per retiree is projected to fall from 7.4 in the year 2000 to 2.5 by the year 2040 (see table). In other words, in less than 40 years there will be only 2.5 workers to support each pensioner. Three comments can be made regarding this projection. First, the trend is not a new one: the ratio has fallen since 1970, yet the pension programme is stronger today than it was 30 years ago. Second, it assumes that the population can be divided by age into two distinct groups: workers and non-workers. In reality, many non-workers, such as students, unpaid caregivers and unemployed people, are aged 15 to 59 years, and many of those older than 60 receive pensions but continue to pay taxes and work for pay. Third, 60 as an age for pension eligibility is arbitrary. With increased life expectancy, it should be possible to phase in a later retirement age, such as 65. If this were done, the pensioner support ratio would fall by the year 2040 to only 3.9, instead of 2.5 (again see table).

A major shortcoming of the pensioner support ratio is that changes in it do not necessarily correlate with changes in the affordability of old age pensions. To calculate affordability, three statistics are required: per capita GDP, the average pension, and the proportion of pensioners in the overall population of the country. As shown elsewhere (Willmore, 2001), the cost of pensions (as a proportion of GDP) is equal to the proportion of pensioners in the population times the ratio of the pension to per capita GDP.

GDP per capita is a crucial variable; with larger incomes, many things become affordable, including generous pensions for large numbers of retirees. The actuaries (on the advice of government) assumed that per capita GDP will increase more slowly in the future than it did in the past. In the 30 years from 1970 to 2000, per capita GDP increased more than threefold, from Rs 28,000 to Rs 100,000, in constant prices of 1999/2000. In the 30 years to 2030, it is projected to increase by less than 50 per cent. Nonetheless, real incomes *are* projected to rise, albeit at a slower pace. Mauritians in the year 2040 are likely to enjoy a higher standard of living than those of the year 2000: 76 per cent higher, on the assumptions that lie behind the figures in the table.

For average pension, the actuaries worked with two different projections: (1) pensions adjusted by per capita GDP, and (2) pensions adjusted by consumer prices. In the past, with much fluctuation, basic pensions have adjusted in line with per capita GDP. If we assume this holds for the future, pensions will increase 76 per cent by the year 2040, to an annual pension of Rs 37,000 (Rs 2,850 a month)[6] in prices of 1999/2000. The pension as a proportion of GDP remains the same (0.21), but the proportion of pensioners in the population increases from (105/1,186 = 0.09) to (338/1,465 = 0.23), so pension costs as a proportion of GDP increase from (0.21)(0.09) to (0.21)(0.23); that is, from 1.9 to 4.8 per cent. Is this affordable? Well, per capita GDP will be 76 per cent higher. Even if workers sacrifice 3 per cent of their 2040 income in higher taxes, they will be much better off than workers are today, so can easily allow their retired parents and grandparents to share in this prosperity.

If, despite increased prosperity, political will is lacking, there are numerous ways to reduce the cost of basic pensions. One method, shown by the actuaries, is to adjust pensions by prices rather than per capita GDP. This results in a constant pension of Rs 21,000 (Rs 1,600 a month), in year 2000 prices, for a cost in 2030 and 2040 of 2.8 per cent of GDP. Another way to reduce costs is to increase from 60 to 65 the qualifying age for a pension. This calculation was not shown by the actuaries, but is shown in the table. With this option, pension costs increase to 3.5 per cent of GDP when adjusted by per capita GDP, and to 2 per cent of GDP when adjusted by prices. A third way to reduce costs is to subject applicants to a means test rather than grant old age pensions on a universal basis. This type of cost-cutting measure is examined in some detail in the next section of this paper.

In conclusion, the universal age pensions of Mauritius are affordable, even with no change in the qualifying age for an old age pension, and even if pensions increase with per capita GDP to accompany changes in the standard of living of the country. If the qualifying age were to increase from 60 to 65 years, which could be justified because of increased life expectancy, the pensions would become even more affordable. It comes down to political will, collectively deciding whether universal pensions represent good value for taxpayers' money.

The attraction of targeted benefits

Policymakers in Mauritius from 1950 to 1958 sought to reduce the fiscal cost of old age pensions by subjecting applicants to a test of individual income or, if married, to a test of the combined income of the applicant and his or her spouse. They succeeded in reducing the number of old age pensioners

6. Division of the Rs 37,000 is by 13 rather than 12, allowing for a "13th month" bonus.

by about 20 or 25 per cent compared with what might have been expected with a universal programme. Some members of the Legislative Council favoured a harsher test, one that takes into account not only income of a spouse, but also potential support from sons or daughters. Government, they argued, should force children to care for their aged parents; it should provide a pension to someone in poverty only if the person has no adult children, or if those children also live in poverty. A motion to tighten the means test in this way was introduced in course of debate of the Old Age Pensions (Amendment) Bill, and narrowly defeated by a vote of 13 to 12, with two abstentions (Mauritius Legislative Council, *Debates*, 30 June 1953).

As Mauritius gained experience with non-contributory pensions, calls to tighten rules of eligibility subsided, and discontent with means testing grew. Honest citizens who reported their earnings were shocked to see their pensions reduced by the full amount of other income. They quickly learned to hide their true income. In the words of one member of the Legislative Council, it became “difficult to assess the true position of those poor people and furthermore it does not profit the Government to such a large amount of money” (*Debates*, 4 December 1951). In 1958, government abolished the income test and began to award pensions to all who qualified by age, subject only to a residency requirement. Mauritian policymakers learned that even though means tests promise great benefits by targeting benefits, they have costs that offset their budgetary appeal.

A major complaint was the power that an income test gives bureaucrats, and the corruption that sometimes accompanies this power. A government Minister explained that this was a key reason that government decided to table legislation in 1958 to abolish the income test:

> We know that if an unfortunate person applies for old age pension and does not have any support, it would take months [to] obtain the old age pension. I can very well understand why certain elements in the country are against the doing away of the means test. Once this is got rid of, every person who is entitled to receive old age pension would be able to apply for it and, as a matter of law, as a matter of right, will be entitled to it. It will not be a question of whether one Member of the House or some of his friends happen to be *persona grata* with certain officers . . . This is one way in which up to now political power has been obtained in certain quarters in this country. This is a fact, . . . and this is one of the things which this Government has decided to stop (Mr. Rault, *Debates*, 1 April 1958).

When an applicant has right to a pension simply by submitting proof of age, the government official has little power. But an official who is asked to certify the income of an applicant obtains power, which provides opportunity for corruption and abusive invasion of privacy.

The mild income test that was in effect from around 1965 through to 1976 avoided these administrative and invasive costs because the test was simple: filing and paying income tax disqualifies you for an age pension. This rule gave no discretionary power to bureaucrats, and was not intrusive. Nonetheless, the test provided citizens with yet another reason to distort information, to hide their income, to avoid filing an income tax return. Those who filed a return lost their entire pension, equivalent to a tax of at least 100 per cent on the pension, even higher in the case of incomes that were only borderline taxable, since the age pension itself was no longer taxable.

In August 2004, for the third time in history, government imposed an income test on basic retirement pensions. Pensioners under 90 years of age, with annual income greater than Rs 208,000 (US$ 7,500, €6,100), found their monthly pensions reduced by 50 per cent of one-twelfth of the amount of income exceeding this threshold. This time the income test was short-lived, for the ruling political coalition lost the national 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" (Government of Mauritius, 2005).

Mauritius provides pensioners with exceptionally generous income tax breaks. To begin with, the Basic Retirement Pension itself is not taxable. Moreover, all taxpayers are allowed tax relief on Rs 125,000 or 15 per cent of gross income, whichever is smaller, and a personal deduction of Rs 80,000 and another of Rs 65,000 for a dependent spouse, but pensioners are given an *additional* deduction of up to Rs 75,000 on income from any occupational or contributory pension. Tax rates are 10 per cent of the first Rs 25,000 of chargeable income, 20 per cent of the next Rs 25,000, 25 per cent of the next Rs 450,000 and 30 per cent of any remainder.[7]

The World Bank (2004, p. 72), in a major report on pensions in Mauritius, concludes that "the income tax treatment of the elderly should be aligned with that of the working population", but buries this sound advice in appendix VIII. The body of the report concentrates on expenditure and ignores tax reform, concluding that "fiscal pressures from the basic pension are likely to rise dramatically", the solution to which requires "curtailing expenditures by increasing the retirement age, curtailing eligibility (by means testing or affluence testing), or by reducing the benefit level" (p. 15).

Reform of the income tax regime — applying the same rules to pensioners and non-pensioners alike — would reduce the "fiscal pressure" of age pensions in the same way as income tests or benefit reductions. It is a pity that neither the World Bank nor government considered this option in the context of pension reform, for policymakers could have appealed to the

7. For details on income taxation, see Government of Mauritius, 2004.

electorate on grounds of intergenerational equity and fairness. On equity grounds, there is no justification for tax preferences for pensioners, and much to justify equal treatment of taxpayers of all ages.

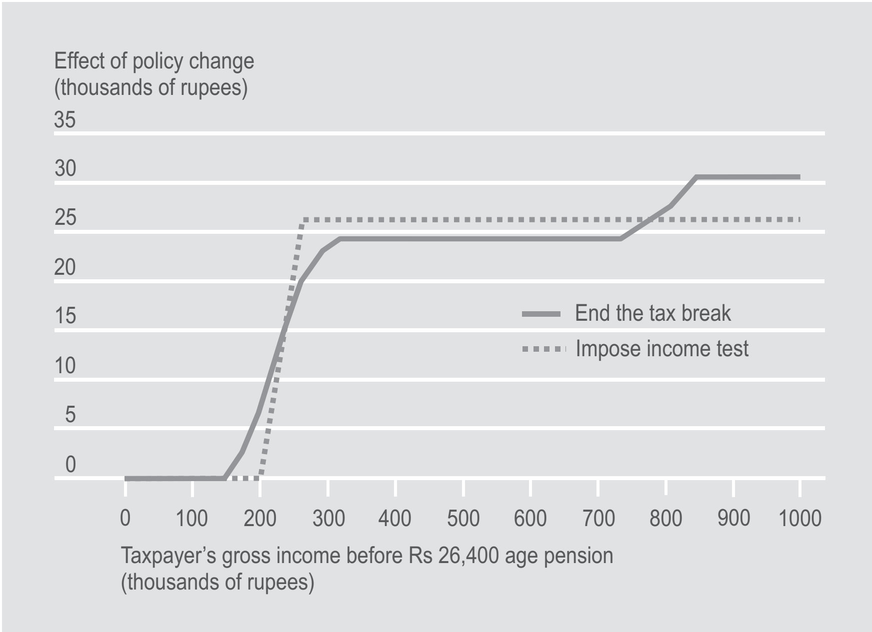
Without access to personal income data, it is impossible to determine precisely whether elimination of tax breaks for older people would have produced as large a fiscal impact as the 2004 income tests did, but it is possible that its effect would have been as large, and perhaps larger. Consider, as an illustration, a pensioner with a dependent spouse and at least Rs 75,000 in income from a personal pension, but no deductions other than personal deductions, i.e. no deductions for interest payments, life insurance premiums, medical expenses, etc. Assume as well that this person is eligible for an age pension of Rs 26,400 (Rs 2,200 a month). With the existing tax rules, this pensioner would pay no taxes on the first Rs 259,000 of income. After reform of the tax system — removal of the tax breaks for pensioners — incomes of Rs 145,000 and higher would incur taxes. The effect of the tax reform on government revenue, for each level of reported income, is plotted by the solid line in Figure 4. Taxes go up steadily, reaching Rs 24,360 at about Rs 320,000 of income, then increase again where reported income is Rs 735,000, levelling off once more when they reach Rs 30,420, at reported income in excess of Rs 840,000. Note that this curve measures only the *additional* taxes payable as a result of tax reform, not the total taxes payable.

The dotted line of Figure 4 plots the reduced government expenditure resulting from the 2004 income test for a basic pension to be given to an individual with the same characteristics. In this case, there is no effect (the taxpayer is entitled to the full pension) just so long as income is less than Rs 208,000. After this point, the basic pension is reduced by Rs 500 for each Rs 1,000 of additional income. When income reaches Rs 260,800, the basic pension is reduced to zero, so, for higher incomes, the reduction in government expenditure is constant and equal to the value of the flat pension (Rs 26,400).

The two curves of Figure 4 are remarkably similar. This does not *prove* that elimination of tax breaks would produce results comparable to the chosen income test — actual results depend on the reported income of taxpayers and allowable deductions — but it does show that such a result is possible.

Ending tax breaks for pensioners is an excellent way to reduce the "fiscal pressure" of ageing, but it may not be sufficient if taxpayers resist paying the taxes required for transfers to an increasing number of older residents. Expenditure on age pensions can be reduced in ways that preserve the universality of benefits, a principle that voters in Mauritius seem to value. One possibility is to increase the age of eligibility from 60 to, say, 65 years. This is

Figure 4. *Tax reform versus the income test: Effect of each on the income of a hypothetical pensioner*



justifiable given the increases in health and longevity that current generations enjoy compared with those of the recent past. Any change should be gradual, over ten or 20 years, so that residents have an opportunity to adapt to new expectations regarding the age at which they begin to receive a pension. Another way to accomplish the same end is to create a category of pension for the "youngest old", say from 60 to 65 years, and freeze the nominal pension at the current level. Gradually, over time, the effects of price and wage inflation will erode the value of the pension for this age group.

Contributory, income-related pensions (from 1978)

Government's long-awaited contributory pension scheme was approved by the National Pensions Act of 1976 and began to operate in July 1978. Contrary to the desires of proponents, the new scheme does not replace non-contributory pensions; rather, it adds to the non-contributory, flat pension a contributory, income-related one. Contributions are fixed at 9 per cent of covered earnings (13.5 per cent for workers in large sugar estates). Participation is mandatory for workers over 18 years of age, with the exception of public sector employees, employees with very low earnings and self-employed persons. Self-employed workers and unpaid caregivers are offered incentives (two-thirds contribution for the same benefit) to participate voluntarily, but few do. Workers in the public sector are not required to participate, because government meets their retirement income needs with generous pensions that are income-related and non-contributory. The scheme is far from universal: it covers only half the labour force and no one outside the labour force, and not every participant contributes on a regular basis.

The contributory pension scheme in Mauritius is an early example of what has come to be known as a "notional defined contribution" system. It is "defined contribution" because benefits depend strictly on contributions, not on final or even the average lifetime income of participants. It is "notional" because participants do not purchase portfolios of stocks and bonds, or shares in an investment fund; instead, they purchase points, the values of which do not depend in any way on how, where or whether their contributions are invested. Instead, the Minister of Social Security adjusts the value of the points every year or so at his or her discretion. So far, these adjustments have been sufficient only to compensate for increases in consumer prices, giving participants a poor return on contributions.[8] The promised replacement of 33.3 per cent of a lifetime average salary requires the value of points to increase with the average wage level. "With the current poor indexation practices, an individual [with 40 years of contributions] that earns average wages retiring in 2018/19 would get a replacement rate of about 12.5 per cent", or 7.5 per cent if we factor in the underindexation of the pensions themselves (World Bank, 2004, p. 18).[9]

When a prefunded system of pensions is set up, at first there are many contributors and few beneficiaries, so there is a lot of revenue and little expenditure. Pensioners steadily increase in number, but the first to reach pension age have a short history of contributions, so are eligible only for very small pensions. The surplus of receipts over expenditures continues until the scheme matures, which might be after 40 or 50 years. This cash surplus is one of the great attractions of a prefunded, contributory scheme. Non-contributory pensions make demands on the public purse. Contribu-

8. Countries such as Germany use a very different points system as a way of indexing contributions to average wages in a defined benefit system. The system in Mauritius is defined contribution, with individual accounts for participants; retirement benefits depend entirely on accumulated contributions (purchased points) and any increase in the value of these points.

9. Those who retired before July 1999 received a better return on contributions, because participants over 40 years of age in July 1978 were given double points for their contributions. For this favoured cohort, "the doubling of the contributions promised at entry has been eroded by the poor indexation . . . so that in the end, beneficiaries are getting a pension commensurate to their contributions (but not double, which was promised at entry)" (World Bank, 2004, p. 54).

tory schemes make no financial demands on government and, if prefunded, can even help out by lending funds to the government treasury.

Policymakers everywhere face the decision of what to do with surpluses that a prefunded pension scheme generates. In Mauritius, they decided "to build up a fund for national development" (Abel-Smith and Lynes, 1976, p.1) and named it the National Pensions Fund. At first the Fund invested only in government paper. This drew criticism from the political opposition, which complained that government was using "workers' contributions to guarantee the wastage and dissipation of public funds by Government" (*Debates*, 22 April 1981). Just as beauty is in the eye of the beholder, one person's national development is another's government waste. Government reacted to this criticism by instructing the Fund to finance a low-interest Housing Loan Scheme for the benefit of contributors. Eventually, the Fund began also to purchase shares and debentures of private companies. As of 30 June 2002, nearly 10 per cent of the Fund's total portfolio of Rs 22,422 million (US$ 747 million, €754 million) was invested in housing loans and another 10 per cent in shares and debentures of private companies. The remaining 80 per cent was held almost entirely in government paper and bank deposits (Government of Mauritius, 2002).[10]

With most of its investments in treasury bills and government bonds, the main effect of the National Pensions Fund has been to ease the budget constraint of government. Government has been able to increase its spending, without the necessity of collecting additional taxes, because it has access to the contributions of workers who are forced to save for their own retirement. Revenue can be spent in many ways, and we will never know what the spending (or the tax revenue) of government might have been without the pension fund. But it is not unreasonable to assume that at least part of the spending was to improve the lot of pensioners. That was, after all, the stated purpose of the National Pensions Act of 1976. Was it coincidence that government decided that very year to increase the generosity of the basic, non-contributory pension? If not, then it is possible that the contributory pension scheme, far from replacing the non-contributory scheme, gave it new life by easing the budget constraint of government.

The attraction of contributory pensions

Once non-contributory and basic pensions ensure that no older person suffers absolute poverty, why should government compel citizens to save for

10. Information on the composition of assets of the National Pensions Fund is no longer available online.

their own retirement? Tastes, preferences and circumstances differ from person to person, so why not leave retirement savings decisions to individual choice? Governments rarely do this. They prefer to force their citizens to save for their old age, and they are not behaving capriciously. They are attracted to contributory pensions as a tool to advance any or all of the following goals:

- increase national saving;
- avoid redistribution of income and wealth;
- ensure that living standards of workers do not fall in retirement;
- build up a fund for government use.

Both the first and especially the second goal are furthered if contributory pensions replace universal, basic pensions. The other two goals can accommodate more easily a contributory pension scheme without cutting entitlements to non-contributory, basic pensions.

Increase national saving

At various times in Mauritius, proponents of prefunded, contributory pensions have stressed the need for each person to save for his or her own retirement, in order to relieve future generations from this burden. As stated, the argument is incomplete, for it fails to explain how *personal* savings are to be transformed into *national* savings.

National saving can easily fall if government borrows from the pension fund to finance current consumption, and contributors adjust their own portfolios by reducing other saving. Anything can happen to national saving in theory; what actually happens must be measured, which turns out to be quite a difficult task. Barr (2002) summarizes "a large, complex and controversial literature" in the following way:

> The magnitude of the impact of funding on growth is controversial. Though there is some empirical evidence that funding contributes to higher savings in the United States, there is no robust evidence of a similar effect elsewhere.

Avoid redistribution of income and wealth

From the beginning, avoidance of income redistribution was a major force behind contributory pensions in Mauritius, and central to the report of the Social Insurance Committee in 1941. The aim is to spare the taxpayer by forcing each worker to save for his or her own retirement, i.e. to substitute workers' contributions for taxes paid disproportionately by the wealthy. To pursue this goal, a pension plan will ideally exclude those who are not poor, since they make no demands on government in their old age, and will mandate flat contributions in return for flat benefits at a subsistence level. Dr. Millien, the only member of the Social Insurance Committee to express a dissenting view, saw this clearly. His analysis was correct. The scheme proposed in 1941, and the similar one proposed by a Committee of Ministers in 1957, would have reduced the income and living standards of the working poor in Mauritius.

Ensure that living standards of workers do not fall in retirement

The third goal is paternalistic because it represents an attempt to protect not taxpayers, but workers themselves. The belief is that at least some workers are so short-sighted that they would consume too much of their wages and save too little for retirement if they were allowed to choose their own pattern of lifetime consumption. The implicit assumption is that government knows best: without compulsion, individuals make mistakes that they later come to regret. So government forces each worker to save enough to avoid a drastic fall in his or her standard of living in retirement.

Paternalism underlies the Titmuss Report (Titmuss and Abel-Smith, 1961, pp. 107-111) and, to a lesser extent, the recommendations of Abel-Smith and Lynes (1976). With paternalism as the underlying motivation, it is important that pensions be adequate to allow a retiree to maintain the standard of living to which he or she has become accustomed, even if this standard is higher than minimum standards of the community. Prefunding is of no consequence; the scheme might be financed on a pay-as-you-go basis, with each generation of workers paying for the pensions of the previous generation.

In essence, the social planner observes that citizens face a drop in their income on retirement, so forces them to save more (reduce consumption) during their working years in order to enjoy more consumption in retirement.

The paternalistic motive for contributory pensions is strikingly evident in the following passage of the Titmuss Report (Titmuss and Abel-Smith, 1961, p. 108):

> There are various groups of employed persons who have become accustomed to a somewhat better standard of living but who, in their old age, have to rely on the present basic pension. Many no doubt get generous help from their families but this pension alone is inadequate to maintain a reasonable standard . . . These workers are among the most deserving sections of the community; teachers in private schools, clerks, skilled workers, and certain categories of employees of hotels, shops, and various industries.

The Report clearly states (p. 111) that the objective should be "to maintain the whole social insurance scheme broadly on a 'pay-as-you-go' basis, bearing in mind the need to build up . . . a moderate working balance in the Fund". Titmuss and Abel-Smith wanted to use current contributions to aid current pensioners rather than build up national savings or finance other government expenditure.

Build up a fund for government use

The fourth and final rationale for compelling workers to participate in a contributory scheme is to build up a fund that can be used for purposes to be decided by government. Abel-Smith and Lynes (1976, p. 22), in a report commissioned by the Government of Mauritius, explicitly state that it is "Government's wish to build up a fund to promote national development". The term "national development" essentially means purchase by the pension fund of government bonds, allowing government to decrease taxes or increase spending. In Mauritius, this loosening of the budget constraint allowed government after 1976 to increase spending on non-contributory, basic pensions. It is interesting to note that in 1958, another year in which the generosity of the basic pension increased sharply, government also announced its intention of introducing a contributory pension scheme within two years. The expected inflow of cash from contributions may have played a role in 1958 and in 1976, even though expectations were never fulfilled in 1958.

Conclusion

The World Bank, in its 1994 report, *Averting the old age crisis*, praised schemes that provide benefits

> to everyone of pensionable age, regardless of income, wealth or employment history, as in New Zealand and the basic pensions paid by the Nordic countries. Administratively, this is the simplest structure, with the lowest transaction costs, for the public pillar — an important advantage in developing countries with limited institutional capacities and incomplete record-keeping systems. It avoids the disincentive to work and save inherent in means-tested plans. Its universal coverage helps ensure that the poverty reduction objectives are met, [and] provides a basic income for all old people (p. 240).

A recent World Bank report reiterates that a universal age pension "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". The authors warn, though, that “its principal merit is also the principal problem: fiscal affordability, especially in low-income countries” (Holzmann et al., 2005, pp. 95, 96). The two reports briefly mention the existence of a non-contributory pension scheme in Mauritius,[11] but provide few details and fail to analyse its fiscal affordability. This is a pity, for Mauritius provides clear evidence that universal basic pensions can be affordable in a low-income country.

Mauritius ended up with a system of universal age pensions by accident, not by design. Basic, flat pensions from the very beginning in 1950 were regarded as temporary, something to take care of the needs of the elderly population until the day a contributory, income-related system of pensions could be put into place. Nonetheless, once the non-contributory system was in place, it proved to be both popular and durable. The long-awaited arrival of contributory pensions in 1978 was followed not by such replacement, but rather by the strengthening of a system of basic, flat pensions for all older residents.

Despite their obvious advantages for low-income countries, there are few examples of universal pensions in the world today. They are known to exist only in six other developing countries: Namibia, Botswana, Bolivia, Nepal, Samoa and Brunei (Willmore, 2006). Mauritius is nowadays a prosperous middle-income country, but it was a poverty-stricken colony of Great Britain when it introduced universal age pensions in the 1950s. The experience of Mauritius shows that universal, flat pensions are feasible in low-income countries. Only New Zealand, a much wealthier nation, has a longer history of universal pensions (St. John and Willmore, 2001).

11. The 1994 World Bank report mentions Mauritius’s non-contributory pension scheme in two sentences: “With few exceptions (Mauritius and Trinidad and Tobago), little of this [pension] money is going to poverty alleviation” (pp. 106-107) and “a flat benefit is the mainstay of the public pension plans in Canada, Iceland, Mauritius, the Netherlands, New Zealand, and South Africa” (p. 114). The latest report (Holzmann et al., 2005) also mentions it twice: “a few countries in Southern Africa (Botswana, Mauritius, Namibia, South Africa) and some Latin American countries (Brazil, Costa Rica) . . . have basic pension provisions” (p. 93) and, referring to sub-Saharan Africa, “non-contributory schemes . . . are found only in Southern Africa (Botswana, Mauritius, Namibia, and South Africa)” (p. 162). The 2005 report (pp. 16, 131) refers also to Mauritius as one of several countries “starting pension reforms that include development of a funded pillar”. It is not clear what this means, as Mauritius’s funded tier dates from 1978.

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