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**Two legs are better than three:  
New Zealand as a model  
for old age pensions**

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## **Two legs are better than three: New Zealand as a model for old age pensions**

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### **Abstract**

In contrast to conventional social insurance, the New Zealand retirement income system comprises a basic individual taxable flat-rate public pension supplemented by purely voluntary saving. The New Zealand system has proved remarkably durable, acceptable, and fiscally responsible. It does not conform to the World Bank's ideal of three pillars, but offers developing and mature countries a model that is worthy of careful examination. Its primary success lies in ensuring a stable and adequate retirement income for all citizens, moderating income inequality in retirement and protecting all older citizens from uncertainty in times of rapid economic and social change.

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## **Two legs are better than three: New Zealand as a model for old age pensions**

### **Introduction**

This paper<sup>1</sup> is an inquiry into optimal pension design using New Zealand as a case study. In such an exercise, it is important to keep in mind the purpose of pensions. A country's overall retirement income provisions should provide the older generation access to an adequate share of output without creating intergenerational inequity, distortions which impede economic growth, or fiscal bankruptcy. Pensions do not exist to increase national savings or to provide jobs for actuaries, tax lawyers, accountants, fund managers and regulators. Their purpose is to help the elderly and the disabled to live in retirement with dignity.

The New Zealand model, unique in the world, comes close to satisfying such goals. In doing so, its 'two legs are better than three' approach may be worthy of examination as a model for other countries. Specific advantages of the model include low administration costs, flexibility in the light of rapid social changes such as to family and marital structures, and its potential for ease of adjustment in light of accelerating economic change. By de-emphasising the link between paid work and income in retirement, women's unique life cycle experiences are less of a disadvantage, while the numerous women friendly features contribute to an environment of social inclusion and cohesion (St John and Gran, 2000).

### **The New Zealand model**

The New Zealand system for retirement income provision is remarkably simple. It consists of provision of a non-contributory, flat pension called New Zealand Superannuation to individuals who qualify by virtue of age and residency, and voluntary savings. There are no compulsory saving schemes and no tax incentives for private saving for retirement. Eligibility is based on meeting the qualifying age (65 by 2001) and simple residency requirements, ten years from age 20, of which at least five years are from age 50. Pensions are financed on a pay-as-you-go basis from general revenue, largely from a graduated income tax with marginal rates that go from 15% to 39% and from a broad sales tax (Goods and Services Tax or GST) set at 12.5%.

Home ownership is common, and 83% of New Zealand's pensioners own their own homes. Pensioners who rent homes are eligible for a means-tested housing allowance to supplement the basic pension, but few require other means-tested assistance.

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<sup>1</sup> This paper focuses on New Zealand, but it draws freely on an earlier, more general paper prepared by one of the authors (Willmore, 2000), and points out the implications of New Zealand's experience for other countries. The views and opinions expressed are personal and do not necessarily reflect the views of the United Nations.

*History*

In 1898, New Zealand was among the first countries to introduce an old age pension. This pension, like its successors to come, was tax-funded, flat rate and non-contributory. It was paid to those over 65, of non-Asiatic origin, who passed a means test and tests of 'good' character. The 'undeserving' who were disqualified included those who had been imprisoned for 4 months or more, or who had deserted a spouse or children. Pensioners were required to be 'leading a sober and reputable life' and to establish their right to a pension in open court. (Thomson, 1998, pp. 17-19)

Following the upheaval of the Great Depression, the Social Security Act of 1938 introduced two tax-funded flat-rate pensions for the aged. These were an income-tested age benefit payable from age 60, and a universal, taxable flat pension for those over the age of 65 not on the age benefit. While government discussed earnings-related schemes as well, there was no serious attempt to introduce such a scheme until 1975. The scheme was one of individual accounts, controlled by the state and pre-funded by contributions from employees and employers. A harbinger of the political volatility to come, it lasted only 9 months before it was dismantled and contributions refunded following a change of government<sup>2</sup> (Ashton and St John, 1988, p. 22; St John and Ashton, 1993, pp. 14, 162).

In 1977, the government of the National Party<sup>3</sup> replaced the income-tested age pension and universal superannuation with a single, more generous, public pension called National Superannuation. This public pension was originally set at 80% (for a married couple) of the gross average ordinary weekly wage and 48% for single pensioners. It was an individual, taxable entitlement, payable at age 60 regardless of work status. While concerns quickly emerged about the fiscal cost of generous universal pensions and the young age of entitlement, poverty among the aged virtually disappeared as a social issue.

From the late 1970s there were cost saving adjustments made to public pension including, amid much bitterness, the introduction of a surcharge on other income of pensioners in 1985 (St John, 1992, 1999). There was a sense of betrayal because the newly elected Labour government had promised not to water down the pension in any way. This was a reforming government determined to remove impediments to the working of market forces. Between 1988 and 1990 government flattened the tax scale and abolished all tax subsidies for saving without grandfathering existing schemes (St John and Ashton, 1993, pp. 21-45). The intent of removing privileges from certain classes of saving was to encourage a better allocation of resources. Life insurance companies and other tax favoured institutions were not seen as dynamic investors, and it was argued their dominance in directing savings flows explained, at least in part, New Zealand's poor returns to investment. At this time, various compulsory savings schemes were also investigated, debated and considered, but the concept of the simple and traditional basic public pension was one not easily dislodged.

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<sup>2</sup> This earnings-related mandatory funded scheme met many requirements of the World Bank's Pillar 2, but it was administered by the state, with some opt out provisions for those with comparable private arrangements.

<sup>3</sup> New Zealand had two major political parties: Labour, with support from the traditional Left and National with support from the Right.

Elimination of tax subsidies also had important equity implications. The benefits of tax incentives went mainly to white men who had high incomes and long-term careers with the same firm. Tax incentives came at the expense of general tax revenues, so everyone paid for them. Consequently, abolition of tax subsidies had the potential to reduce the average tax burden.

The surcharge remained contentious and a National government came to power in 1990 with the promise to repeal it. Instead, they announced measures in 1991 that would transform the public pension into a tightly targeted welfare benefit. A public outcry forced the government to back down and restore the original public pension, but one with a higher surcharge and a rise in the age of eligibility to 65 over 10 years. This affected many who had expected to retire in only a few years at age 60, so the government put some transitional measures in place for this cohort.

In 1991, the National government appointed the Task Force on Private Provision for Retirement “to report on policy options to encourage greater self-reliance of retired people”. The Task Force (1992) recommended an improved voluntary regime for private provision for retirement and the continued integration of public and private retirement income through the surcharge. Once again the case for compulsory contributions was carefully examined and rejected along with any idea that tax subsidies be reintroduced.

An Accord (1993) was signed by the three parliamentary parties: National Party, the Labour Party, and the Alliance Party cementing in the voluntary tax neutral arrangements for private saving. The public pension was to continue as a flat, taxable pension of between 65 to 72.5 percent of the net average wage for couples<sup>4</sup>, linked to private saving by a surcharge or by progressive taxation with similar effects.

The security offered by the Accord was challenged in 1996 with the formation of a coalition government that promised a referendum on compulsory savings and abolition of the surcharge. Amid much acrimony, the public rejected outright, by a vote of more than 12 to 1, the idea of compulsory savings (St John, 1999). In the meantime, the framework set out in the Accord was endorsed by a comprehensive review, as required by the Retirement Income Act 1993 (Periodic Report Group, 1997)

In the meantime, however, removal of the surcharge without proper Accord processes left the universal state pension vulnerable to further attack. Given the requirement of universality, the only way costs could be contained was by raising the age of entitlement or by reducing the level of the pension. In September 1998, the government unilaterally announced that the wage band floor would be lowered over time to 60% from 65%. There was no longer any secure link to wages as there was nothing to prevent further reductions to the floor once the 60% level was reached. By 1999, the multi-party Accord was over, even though the legislation endorsing its provisions remained in effect.

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<sup>4</sup> Under the wage band formula, NZS was price adjusted each year, unless the net pension fell below the floor (65%) or rose above the ceiling (72.5%). At these triggers, wage indexation would restore the relativity.

This change was in turn highly unpopular, as was the loss of the Accord and the loss of certainty for the future. The Labour government, elected in 1999, immediately reversed the change to the wage band floor which had seen the pension for a married couple fall to 62.8% of the net average wage. From April 2000 the net pension of a married couple was raised to 67.4 % of the net average wage, restoring confidence that the public pension would once again move in tandem with the average wage<sup>5</sup>. While the Labour government also raised the top marginal tax rate from 33% to 39%, there was no suggestion of a return to any kind of income-testing such as that provided indirectly by the surcharge.

In an international comparison of pension schemes and their evolution, Paul Johnson (1999) made the following judgement of New Zealand:

‘The experience of ‘reform’ in New Zealand has been especially unhappy, protracted and frankly absurd. A full description of all the reforms, proposed reforms, counter reforms and about turns read like an implausible script for a farce’ (p. 20).

While this judgement may be fair, it fails to recognise that throughout the past 15 years, the state pension, its goals and its success in preventing poverty and encouraging participation and belonging have remained intact. This suggests that it may be difficult to dislodge a universal first pillar once it is in place and an electorate recognises its advantages.

### **The model of the three pillars**

New Zealand appears to be swimming against the tide. The World Bank, in a report titled ‘Averting the Old Age Crisis’, popularised the concept of a pension system supported by three pillars. While there are numerous interpretations of what these pillars look like (Willmore, 2000), the World Bank defined the pillars in the following way

1. Non-contributory (mandatory basic pension)
2. Contributory (mandatory forced savings)
3. Contributory (voluntary savings)

The first pillar is an anti-poverty pillar that is non-contributory and guarantees a minimum income in old age. The second is a forced savings pillar that provides benefits only to contributors, and, in general, provides the most benefits to those who contribute most. 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 subsistence level), whereas the second two pillars protect them from relative poverty (a fall in consumption following retirement).

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<sup>5</sup> The actual adjustment was more than required to restore the floor; thus, the size of the pension increased significantly.

Real world countries place differing emphasis on each of these pillars, depending whether the concern is primarily with absolute or rather with relative poverty. The first pillar is invariably public, financed by government on a pay-as-you-go basis. Pillar 2 has also traditionally been public and pay-as-you-go; increasingly it is private and prefunded, in part or in whole. The World Bank encourages governments to prefund Pillar 2 and to shift its management from the public to the private sector to minimise fiscal risk. When Pillar 2 is financed on a pay-as-you-go basis and is public, the contributions of workers and their employers are sometimes described as 'payroll taxes'. However, pension schemes, whether prefunded or not, promise greater benefits to those who contribute more, so Pillar 2 contributions are best described as forced saving rather than taxation. The third pillar is identical to the second, except that it is always prefunded and is typically private because participation is voluntary. Finally, contributions to pillars two and three need not result in pensions. Benefits can be (and often are) drawn as a lump sum or as a series of withdrawals beginning at a specified age.

Some of the World Bank staff subsequently revised their definitions for two of the three pillars by reserving the term 'Pillar 2' for fully funded, privately managed schemes, and by placing all public schemes, contributory or not, in Pillar 1 (Willmore, 2000). Using this revised definition of the two World Bank pillars, Fox and Palmer (1999) reported "in 1994 most of the world had Pillar 1 systems" and "only Chile and Australia had a second pillar system." In this paper we assume that the World Bank position is that all earnings-related pensions *should* be privately managed and prefunded in Pillar 2, leaving to Pillar 1 the task of reducing poverty with flat, universal pensions financed on a pay-as-you-go basis. On this basis, New Zealand for more than a century has had only Pillar 1 and Pillar 3, except for its brief flirtation with a public Pillar 2 in 1975.

### **Does New Zealand's two-legged system make sense?**

If the purpose of pension systems is to provide adequate incomes for all older people, while minimising fiscal costs and distortions that impede growth, we can use this as an ideal, against which to assess the operation of pension systems in the real world.

Real world Pillar 1 schemes are seldom successful in achieving even the limited goal of protection against absolute poverty in old age (World Bank, 1994, pp. 239-244 and pp. 117-118). With an eye on the budget, governments frequently exclude from the benefits of Pillar 1 those who do not contribute to Pillar 2; these are typically workers with low lifetime earnings, such as domestic servants, caregivers, agricultural labourers and workers in the informal sector. Old-age pensions almost everywhere are a privilege of urban workers in the formal sector. Covered workers amount to perhaps 45 percent of the labour force in developing countries with a relatively high income, such as Chile and Mexico, 25 percent of the labour force in middle-income Colombia and Peru, and 11 percent of workers in low-income India. Governments typically use means tests and employment-tests to deny Pillar 1 pensions even to many workers who contribute to Pillar 2.

Governments often appropriate contributions to a public Pillar 2 for the purpose of redistributing income and alleviating poverty. This collapse of the first two pillars into a single public pillar has the effect of converting forced savings into payroll taxes, with all the inequities that regressive taxation can imply (World Bank, 1994, p. 119; Willmore, 1999). The World Bank in its 1994 report recommends wisely that governments shift to broader, more progressive taxes to finance the first pillar:

“Heavy reliance on a broad tax base, such as an income or consumption tax instead of a payroll tax, is the most efficient in the long run, since it reduces the tax rate needed to finance benefits. It is also most consistent with the redistributive function of the public pillar, particularly when coverage is broad” (p. 243).

It would seem therefore that New Zealand is well advanced in meeting this recommendation of the World Bank. Coverage under the first pillar is almost complete, with only a few excluded on residential grounds. The funding is from general taxation not a payroll tax. While it is true that the older population are predominantly found in the lower quintiles of the income distribution (Statistics New Zealand, 1998)<sup>6</sup>, the elderly are not a focus of public concern about poverty. New Zealand has no formal poverty line, but unofficial poverty lines do not suggest that poverty was a significant problem until the size of the universal pension began to slip relative to the average wage in 1998. Even so, the severity of poverty is far less for the elderly than for children. (Stephens et al, 2000).

One of the issues debated by the public in New Zealand is whether the pension should be means tested. The World Bank (1994, p. 240) pointed out the negative consequences of such a policy for the first pillar. First, the administrative simplicity of the programme would be lost; administrative costs would rise, as would opportunities for corrupt behaviour on the part of government officials. Secondly, means tests act as a tax on retirement income, discouraging saving for retirement as well as continued work in old age. Third, means-tested benefits become characterised as ‘welfare’, which reduces their political appeal and discourages applications from the eligible poor.

Nonetheless, many countries, especially developing countries, meet taxpayer resistance in collecting tax revenue, so finance of the first pillar can present major problems. If age of eligibility is set rather high, say at 70 years, it is important to retain disability as a sufficient test for a basic pension, for the very poor are more likely to become disabled at an early age, and are less likely to live long enough to collect a pension based on age. A second way to limit coverage is with a means test, but one that does not stigmatise the recipient as a pauper and does not discourage saving or work. This can be accomplished with an ‘ex post’ means test, by granting a universal pension based on age or disability, then ‘clawing back’ some or all of the pensions of wealthier citizens by imposing an appropriate surtax on their income. This was the approach taken in New Zealand for 15 years and was the focus of much contention and debate. Nevertheless there were advantages to the surcharge as it was called.

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<sup>6</sup> Figures on equivalised household income basis.

*The role of the surcharge in New Zealand*

As noted above, the government of New Zealand introduced in 1985 a controversial surcharge on pensioners' other income over an exempt amount. Since government reduced the tax rate for the top income bracket from 66 percent to 48 percent in 1986, and then to 33 per cent in 1988, the effect of the surcharge was to restore some tax progressivity for taxpayers over the age of 60 (St John, 1999). The initial rationale was, however, purely cost saving. Since the surcharge on recipients of pensions was a form of income testing, there is some inherent disincentive to save since individuals could consume their retirement savings during their pre-retirement years to avoid the surcharge. However the surcharge was a very mild income test, which only applied to income above a generous exemption. In 1998, the last year of its operation, it was estimated that only 16% of all pensioners were affected and fewer still lost their entire pension through the surcharge (PRG, 1997, p. 48).

The surcharge also performed a useful function in limiting or eliminating pension payments to those over the age of entitlement who were still in the workforce. There is no test of retirement in the New Zealand system. By operating through the tax system, the surcharge avoided stigmatising recipients or forcing them to fill complicated forms<sup>7</sup>. It provided an element of intergenerational equity as New Zealand reforms since the early 1990s had stressed targeting, low taxes and user fees for other groups. In particular the younger generation faced high direct costs for their tertiary education and an onerous loan system (St John and Rankin, 1998).

Regardless of the justification, the surcharge became the politician's nemesis, eventually damaging both major political parties. It was removed in 1998, leaving pensions fully universal, although some targeting is provided through the progressive tax structure. Since 2000, the top rate of tax has been 39% for total incomes over \$60,000, so the wealthiest of pensioners retain only 61% of the gross pension.

While there are numerous views concerning the role and usefulness of the surcharge, it can be argued that politicians themselves were the ones that ensured its demise. Perceptions of unfairness and unacceptability were moulded in political discourse rather than reflecting genuine outrage on the part of the older population.

*Sustainability*

The Periodic Report Group (PRG, 1997) concluded that the current pension, with the rise in the qualifying age to 65 by 2001 and the wage band formula for indexation described above was adequate, efficient and sustainable. From 2015, some well-signalled, moderate modifications could be introduced to curb costs if necessary. As a percentage of per capita gross domestic product (GDP), New Zealand's gross pension currently amounts to around 74% for a married couple and 49% for a single person. The pension is taxable as regular income, with the result that net pensions are smaller than gross pensions. For a couple with no other income, the net pension after tax amounts to 63% of GDP, and, for a

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<sup>7</sup> Which is not to say that the surcharge itself was not complex. Had it remained in effect it could have been simplified.

single person in the same situation, the net pension is 41% of GDP. PRG projections showed that, with no change in rules for eligibility or in the indexation formula, net fiscal costs would increase from 4% of GDP in 2000, to around 9% of GDP over the next 50 years. These ratios seem modest when compared to other countries. In comparisons with other countries it must be remembered that New Zealand has no hidden tax subsidies for retirement income provision, and a very low cost regulatory regime for private schemes<sup>8</sup>.

The PRG argued that society would have to address the issue of integration of public and private provision. It presented for discussion a number of options, including the possibility of returning to a surcharge type arrangement by treating New Zealand Superannuation as a negative income tax.

### **The simple analytics of flat, universal pensions**

We have seen that the projected fiscal cost of a universal Pillar 1 is relatively modest for New Zealand. What about other countries, which may want to follow the example of New Zealand? Fortunately, it is a simple matter to estimate costs, provided we know the proportion of the population that will be eligible for a pension, and the level of that pension in relation to per capita GDP.

Suppose that  $r$  represents the proportion of the population eligible for a flat pension of  $py$ , where  $y$  is per capita GDP and  $p$  is the ratio of the pension to GDP. Pensions are financed on a pay-as-you-go basis from taxes amounting to  $100t$  per cent of gross domestic product (GDP). Balancing the Pillar 1 budget requires that expenditures equal revenue or, equivalently, that expenditure per capita ( $rpy$ ) equal revenue per capita ( $ty$ ):

$$rpy = ty .$$

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

$$t = rp .$$

In words, the fiscal cost of a universal Pillar 1 (as a proportion of GDP) is equal to the proportion of the population eligible for pensions times the ratio of the pension to per capita GDP. Costs will be higher the higher the pension, and the larger the proportion of the population that is eligible to receive it. In low-income countries especially, it is advisable to set the pension in relation to per capita income rather than the average wage, since wage data refer to the formal sector of the economy, whereas much of the population toils in the informal sector. A reasonable target for a Pillar 1 pension might be one-third or one-half of per capita GDP. In countries with widespread foreign ownership or a large foreign debt, the level of gross national product (GNP) is more relevant than

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<sup>8</sup> The World Bank claims that New Zealand pensions, as a fraction of GDP, are twice those of Australia (World Bank, 1994, p. 177), but fails to account for the surcharge or the effect of taxation on the net cost of public pensions in New Zealand. The age of eligibility is also higher for men in Australia than it has been in New Zealand, and the costs of tax subsidies for private provision in Australia are not accounted for.

gross domestic product (GDP) as an indicator of both the tax base and the income of residents.

Table 1 provides calculations of  $t$ , the taxes required to finance a basic pension, as a proportion of GDP, for various values of  $r$  (the proportion of pensioners in the population) and  $p$  (the basic pension as a proportion of per capita GDP). These figures are for illustration only. The tax requirements of any particular plan can be calculated easily by solving the equation  $t = rp$ . In the first cell of table 1, for example,  $t = (0.02)(0.3) = 0.006$  or 0.6% of GDP.

It is important to remember that  $t$  represents the cost of providing a given flat pension,  $py$ . To lower net fiscal costs, authorities could gross up and tax the flat pension, leaving pensioners with no income other than the pension in the same net position as before. Higher income pensioners will pay tax on their pension at their highest marginal tax rate and receive less in net terms. Imposing a surcharge to ‘claw back’ more of the pension from wealthier recipients can lower net costs even more. Very poor countries perhaps cannot afford to provide pensions to able-bodied workers, regardless of their income or age. In these circumstances, the criterion for eligibility could be disability— inability to work at a steady job—rather than age. Or, the age of eligibility could be set rather high, say age 70. In all cases, disability alone should be sufficient grounds to receive a pension. Otherwise benefits will go disproportionately to the wealthy, who are more likely to reach the age of eligibility, rather than to the poor, who are more apt to become disabled and die early in life.

**Table 1. Taxes (as percentage of GDP) Required to Fund Flat. Universal Pensions. (hypothetical eligibility and pension size parameters)**

<b>Pension Size (% of per capita GDP)</b>	<b>Eligible Residents (% of Total Population)</b>			
	<b>2</b>	<b>10</b>	<b>20</b>	<b>30</b>
<b>30</b>	0.6	3	6	9
<b>50</b>	1	5	10	15
<b>100</b>	2	10	20	30

Source: Authors' calculations.

India provides a useful illustration of calculation of the gross costs of universal provision of a basic pension. A means-tested Pillar 1 has been in effect in that country since 1995. Approximately 2.2 million “destitute” persons aged above 65 years receive pensions of 75 rupees (less than 2 US dollars) a month (Expert Committee, 2000). A pension this size amounts to little more than 5 per cent of India’s per capita GDP, so even without means-testing would not strain the government’s budget. There are approximately 30 million persons in India today who are more than 70 years of age, and some 50 million who are 65 years of age or older. This constitutes about 3% and 5% of

the population, respectively. Therefore, the gross cost of providing all persons aged 65 or more with the current pension would be only  $(0.05)(0.05) = 0.0025$  or one quarter of one per cent of GDP. Universal provision of a more generous pension equal to one-third of the country's per capita GDP would cost around 1% of GDP with an age cut-off of 70 years, and 2% of GDP with an age cut-off of 65 years.

A key parameter in calculation of pension costs is  $r$ , the proportion of the population that is eligible to receive a basic pension. Table 2 reports United Nations 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 ageing. Fifty years ago only 5% of the population were older than 65 years. Today nearly 7% are that old, and in fifty years people this old are projected to make up anywhere from 13.7 to 19.8 per cent of the population, depending on assumptions made regarding projected fertility and life expectancy. The story is much the same for the population aged 70 years or more, which, as a proportion of total population, grew from 2.9% in 1950 to 4.4% in 2000 and is projected to reach from 9.6% to 13.9% of the total by the year 2050. The good 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 fifty years.

What is the effect of ageing on the income of taxpayers who finance a universal Pillar 1? A little-recognised fact is that, so long as productivity gains keep per capita GDP from falling (or from falling very much), and so long as the public pension is smaller than per capita GDP, taxpayers will be better off following the ageing of the population than they were before the onset of the ageing crisis. This is true regardless of the increase in the proportion of the population that is eligible for a pension, and happens because per capita GDP refers to the entire population of a country, retirees as well as workers.

This fact can be demonstrated with a hypothetical example. Suppose that a country offers a universal pension of  $py$  to all eligible residents, and recipients of these pensions pay no taxes, nor do they have any other income. We assume  $p < 1$ , i.e. the flat pension is less than per capita income. Let  $w$  denote the average income of the rest of the population. Income per capita is then a weighted average of these two average incomes, the weights being the share of pensioners ( $r$ ) and the share of non-pensioners ( $1-r$ ) in the total population:

$$y = rpy + (1 - r)w$$

**Table 2. Aged Persons (65+ and 70+ years) as a Percentage of Total Population, 1950, 2000 and 2050.**

	<u>Year</u>	<u>Growth Variant</u>	<u>World Total</u>	<u>More Developed</u>	<u>Less Developed</u>	<u>Least Developed</u>
65+	1950		5.2	7.9	3.9	3.3
	2000		6.9	14.4	5.1	3.1
	2050	(high)	13.7	22.1	12.5	6.8
	2050	(medium)	16.4	25.9	15.0	8.1
	2050	(low)	19.8	30.0	18.2	9.8
	70+	1950		2.9	4.8	2.1
2000			4.4	10.0	3.0	1.8
2050		(high)	9.6	16.7	8.5	4.1
2050		(medium)	11.5	19.6	10.2	4.9
2050		(low)	13.9	22.7	12.5	5.9

Note: More developed regions comprise North America, Japan, Europe and Australia/New Zealand. The rest of the world is defined as less developed, and includes 48 countries defined by the United Nations General Assembly to be least developed.

Source: United Nations, *World Population Prospects: The 1998 Revision. Volume II: The Sex and Age Distribution of the World Population* (United Nations, Sales No. E.99.XIII.8, New York, 1999).

Solving for  $w$  yields:

$$w = y(1 - rp) / (1 - r).$$

Suppose now that income per capita ( $y$ ) remains unchanged, as does the size of the public pension ( $py$ ), but there is an increase in  $r$ , the proportion of the population eligible for a pension. What happens to  $w$ , the average income of the population that is too young to receive a pension? The surprising answer is that  $w$  increases, so long as the public pension is less than per capita income. In other words, the income of the non-retired population increases when  $p$  is less than one, for in that case  $w$  is an increasing function of  $r$ .

In fact, even if per capita income falls, it is possible for  $w$  to increase following an increase in  $r$ . By how much can  $y$  fall before  $w$  no longer rises with an increase in  $r$ ? This is relatively easy to calculate. Initially (year 0)  $w_0$  is equal to  $y_0 (1 - r_0p) / (1 - r_0)$ . In year 1,

following a rise in  $r$ , to  $r_1$ ,  $w$  becomes  $w_1 = y_1 (1 - r_1 p) / (1 - r_1)$ . For  $w_1 > w_0$ , it is necessary that

$$y_1 / y_0 > [(1 - r_0 p) / (1 - r_0)] / [(1 - r_1 p) / (1 - r_1)] .$$

The right-hand-side (RHS) of this inequality is the most the ratio of  $y_1$  to  $y_0$  can fall before  $w$  begins to fall as well. Since  $r$  is always less than unity, and  $r_1 > r_0$ , for all  $p < 1$  the RHS of the inequality must take a value less than unity. In short, it is entirely possible for  $w$  to increase following an increase in  $r$  and a decrease in  $y$ .

These results may seem counterintuitive to some readers, so an arithmetic example might be useful. Suppose authorities set the universal public pension at 50% of per capita income ( $p = 0.5$ ) and project an 'ageing crisis' of mammoth proportions some fifty years in the future. Elderly residents eligible for a pension are projected to increase from 10% to 30% of the population ( $r$  increases from 0.1 to 0.3). The ratio of taxes to GDP is for this reason projected to triple as well, from 0.05 to 0.15. Per capita income ( $y$ ) is not expected to change. In this example, the average income of non-pensioners ( $w$ ) prior to the 'ageing crisis' is  $(1 - 0.05) / (1 - 0.1) y$  or 105.6 per cent of per capita income. After the 'crisis', without any reduction in the generosity of Pillar 1, the projected after-tax income of beleaguered taxpayers will increase to 121.4 per cent of per capita income. The income of pensioners remains stable at 50 per cent of the unchanged per capita income. How can this be? The explanation is simple. A larger proportion of the population is now consuming less than average per capita income, leaving more income for the rest of the population to enjoy.

Now, suppose that the projections are deemed optimistic. There is a danger that per capita income may fall over the next fifty years. What is the maximum amount that  $y$  can fall without resulting in a fall in  $w$ ? From the RHS of the inequality above, we can calculate that  $y$ , as a proportion of the original  $y$ , can fall to  $[(1 - 0.05) / (1 - 0.1)] / [(1 - 0.15) / (1 - 0.3)]$ , or 0.869. So long as per capita income of the entire population falls by less than 13.1%, the average income of non-pensioners, after tax, will not fall. The size of the basic pension ( $py$ ) will nonetheless fall along with per capita income, for  $p$  (the pension as a portion of per capita income) is constant but not  $y$  (per capita income itself).

### **New Zealand does not have a second pillar. Is it disadvantaged?**

The case for a first pillar is compelling: no one wants to see workers forced to toil until they die or retire with less than a subsistence level of income. If the state doesn't guarantee some minimum standard of living, families and private charities will step in, and most likely provide a social safety net that is much less even, one that misses many of the elderly. But why mandate a second, earnings-related pillar? Why should society care whether a worker has the means to consume well above a subsistence level during retirement? Governments of course would like workers to enjoy a comfortable retirement. But they also would like them to own a home, eat plenty of vegetables and exercise regularly, yet they do not mandate home ownership, purchase of vegetables, or

an exercise regime. For the most part, they leave this to individual choice. Why don't they leave pensions to individual choice as well?

Pensions are different, it is said, first because governments ought to protect taxpayers from the demands of penniless retirees, second because they ought to protect workers from their own short-sightedness, third because of adverse selection problems in the annuities market and fourth because of a belief that a funded second pillar encourages the development of capital markets and facilitates a country's growth (World Bank, 1994, pp. 26-38). We consider each of these rationales:

#### *Moral hazard and myopia*

If the guarantee of a minimum income in old age discourages people from saving for their own retirement, moral hazard is said to exist. In essence, the existence of a first pillar makes the second pillar necessary. Martin Feldstein (1998, footnote 1), for example, justifies forcing all workers "to save some fraction of their wage and salary income" on grounds that the pensions of the first pillar are means tested. This, however, only justifies forcing workers to save enough to finance a minimum pension, enough to insure that they will not become eligible for a Pillar 1 pension. High-income workers would contribute no more than low-income workers to Pillar 2, and they would receive the same basic pension. Those who prefer additional retirement income always have the option of voluntary contributions to Pillar 3.

We do not observe in any country the flat, low pensions that the 'taxpayer protection' rationale would predict for Pillar 2. Interestingly, such a system was offered to New Zealand voters in 1997 and rejected by 92.8% of them in a referendum (St John, 1999). Voters regarded as bizarre the idea of saving only enough to replace the basic pension, and even more bizarre the novel idea of a ceiling which the wealthy would reach rapidly but the poor would never reach. The mechanics of the interface between Pillar 1 and the proposed Pillar 2 meant that a dollar more of pension from Pillar 2 would effectively result in the loss of a dollar of pension from Pillar 1. The pension funds of those who were unable to reach the savings cap were to be 'topped up' by the state by enough for a capital sum sufficient to purchase an annuity equivalent to the basic state pension, which would ultimately disappear. The savings of the poor, which were supposed to promote self-responsibility, would thus have no effect on the size of their retirement pensions!

Not surprisingly then, nowhere are the pensions of Pillar 2 capped at a subsistence level. Instead, mandatory contributions and benefits increase with earnings to a point far beyond the basic pension of Pillar 1. The usual explanation for this pattern of pensions is that governments are paternalistic and seek to protect not the taxpayers but rather workers themselves. The belief is that at least some workers are so shortsighted that they would consume too much of their salary and save too little for retirement if they were free to choose their own pattern of lifetime consumption. The implicit assumption is that government knows best: without compulsion, individuals would make mistakes that they later come to regret. So government forces each worker to save enough to avoid any drastic fall in his or her standard of living in retirement.

These same arguments for mandatory saving apply equally to withdrawals during retirement. Workers do not escape from moral hazard or myopia simply because of age. In a traditional second pillar, which is defined benefit and pay-as-you-go, retirees receive a pension, which is a series of payments paid on a regular basis until the death of both the participant and any dependent spouse. These payments are often indexed, explicitly or by custom, to prices or wage levels. In a defined contribution, prefunded Pillar 2 an individual account exists in the name of each worker. There is no automatic pension. Instead, the accumulated savings must be converted into some sort of an annuity, that is, into a stream of payments extending perhaps until the death of the participant or the participant and any designated dependent. The possibility exists, then, that workers might receive all or a part of their savings as a lump sum payment on retirement. But, if saving was mandated in the first instance, the same logic surely dictates that no lump sum payments be allowed. Otherwise a myopic retiree, or one that wants to 'game' the system, would quickly spend these proceeds, suffering a consequent reduction in his or her standard of living.

This would seem to be the logic, yet the World Bank in its 1994 report (p. 331) left open the possibility of lump sum payments by declaring "In a mandatory saving scheme workers should not be required to purchase annuities with their entire retirement saving." More recently, the World Bank (2000, p. 8) has elaborated on this position, recommending that participants in a mandatory Pillar 2 be required only to purchase "a minimum, indexed annuity with adequate survivor's provision, with flexibility for any remaining retirement savings." The minimum is set at the level of Pillar 1 ("the social safety net") for both the participant and any dependent spouse, and begs the question as to why saving in excess of that necessary to purchase a minimum pension or annuity is mandated in the first instance.

As New Zealand's first pillar is universal, taxpayers would not benefit from a mandatory second pillar unless some type of means test were applied, possibly in the form of an effective surcharge. One could also argue that an effective Pillar 1 prevents the moral hazard that arises when people are left to rely on their own saving. Society would not allow penniless retirees to starve, so they should be forced to provide for a basic pension during their working lives. The tax funding of Pillar 1 extracts a compulsory contribution from all taxpayers, and in this manner overcomes the problems of moral hazard and myopia.

#### *Adverse selection and annuities*

The decision to purchase an annuity is an irreversible decision, for a very good reason. If insurance companies were to allow annuitants to reverse their decision at any time, then a person whose health becomes bad would naturally want to cash in his annuity. A poor person, especially, benefits from keeping options open. He might need cash for a medical emergency, or for a bout of hard times in the family (unemployment, crop failure). And the poor typically face very high real interest rates on borrowing, so the best investment they can make might well be in owner-occupied housing, land, tools, other family business, or in the education of their children. Even better nutrition can be seen as

investment at extremely low levels of consumption. The poor have short expected lifetimes in any event, so an annuity is less appealing to them, especially if they are pooled with wealthier people, who live longer on average.

In the case of New Zealand, the absence of Pillar 2 annuities is less significant given that Pillar 1 provides an inflation and wage linked pension sufficient to cover basic needs of consumption in retirement. Nevertheless, there are myopia and adverse selection arguments that may apply. Middle income New Zealanders are unlikely to voluntarily purchase annuities without the underpinning of some kind of government support, be it in tax, inflation adjustment or in provision of greater liquidity. The question remains, is it a good idea for them to convert their savings into an annuity? If this will be done only with the stimulus of government subsidies, one must ask whether society wants to use its fiscal resources for a programme that will disproportionately benefit those who are better off.

#### *Developmental issues*

The fourth reason often given for a funded second pillar is that pension funds promote depth of capital markets. New Zealand may be vulnerable on this score. It has a very undeveloped share market and its tax regime encourages excess investment in housing and real estate. Of course, pension funds are not the only, nor perhaps even the best, way to promote capital markets. Governments could also subsidise residents' purchases of shares in mutual funds, or even the direct purchase of stocks and bonds in the local market.

The Labour Alliance-Coalition government has proposed the creation of a fund, to be invested at arms length by an independent board so that the first pillar will be prefunded in part by new assets accumulated on the Crown balance sheet. While there are few details available, there are some ironies here for New Zealand. In the 1980s and the 1990s the government sold most of its state-owned assets and the income derived from dividends of these has steadily dropped. A fund such as the one proposed may end up buying shares in these very privatised businesses. While debt repayment technically accomplishes the same fiscal outcome as asset accumulation, the perceptions of the public regarding the ability of the state to meet its future commitments to pensions may perhaps be enhanced. The requirement to build up assets for the fund may mean that the government can resist tax cuts in the face of large projected surpluses. Given the current account deficit and overseas debt problem of New Zealand<sup>9</sup> this may be the best way to be fiscally responsible in the light of the ageing of the population. In its favour, too, the scheme would have low administration costs as there would be no individual accounts.

#### **Incentives for contributions to Pillars 2 and 3 (tax subsidies)**

Almost everywhere except New Zealand, retirement savings are taxed more lightly than savings for other purposes. It is not clear, why this is done. Perhaps governments believe that subsidisation of savings (granting a higher return to saving) might have a positive

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<sup>9</sup> The current account deficit in the year 2000 amounts to 8.2% of GDP, and the gross overseas debt exceeds 100% of GDP.

effect on private or national saving. Theoretically, the effect might be positive or negative. After all, if person earns a greater return, she might well save less, since less saving is required to reach a specific target savings. Empirically, the best evidence is that subsidies and tax incentives affect the form but not the amount of saving (Engen, Gale and Scholz, 1996). In other words, saving that flows into subsidised retirement plans is, on average, at the expense of other, non-subsidised, forms of saving. This point is so important that it merits emphasis and repetition: *subsidies, including tax incentives, have no discernible effect on private saving.*

Following Dilnot and Johnson (1993) and Dilnot (1996), we identify three points of taxation of savings: contributions to the schemes, income and capital gains generated, and benefits paid. At each of these three points, the cash flows can be taxed (T) or exempted (E). Of the eight resulting permutations of T and E, the following five are of interest. Each has an appropriate name:

- TTE      Comprehensive income tax
- ETT      Deferred income tax
- EET      Classical expenditure tax
- TEE      Pre-paid expenditure tax
- EEE      Tax haven

The simplest way to illustrate the differences in these taxation regimes is with the aid of an example. Assume that there is a proportional (flat) income tax at the rate of 20%. Savings in the amount of 100 units are invested 10 years before retirement. The rate of interest is 10 per cent per annum and we assume there is no price inflation.

	<b>TTE</b>	<b>ETT</b>	<b>EET</b>	<b>TEE</b>	<b>EEE</b>
Contribution	100	100	100	100	100
Tax	-20	--	--	-20	--
Fund	80	100	100	80	100
Return	93	116	159	127	159
Final Fund	173	216	259	207	259
Tax	--	-43	-52	--	--
Net Pension Fund	173	173	207	207	259

In the first column (TTE), which corresponds to the comprehensive income tax, saving is with after-tax income, so only 80 of the 100 units reaches the fund. The returns are also taxed, but not the benefits, so after ten years the fund grows to 173. The second column (ETT) is a deferred income tax, because contributions are exempt whereas both the

earnings and the benefits are taxed. In this example, the rate of taxation does not vary, so the first two regimes produce identical results. If a person expects to be subject to a lower rate of tax in retirement, then deferred income tax has an advantage over the comprehensive income tax. The third and fourth columns (EET and TEE) for the same reason produce the same result, a net fund of 207. These refer to expenditure taxes, which are more favourable to saving. Finally, when contributions, earnings and benefits are all exempt from tax, the fund grows to 259 at retirement.

It is sometimes said that an EET (or TEE) regime for retirement savings ‘mimics’ a consumption or expenditure tax. This is not true. An expenditure tax exempts all saving from taxation, not saving for a particular purpose. The case for an expenditure tax is that consumption today is taxed the same as consumption tomorrow. This requires all saving be exempt from taxation, as well as the earnings on saving and investment (unless, of course, they are consumed). And there would be no corporate income tax since, by definition, corporations do not consume. On the other hand, a comprehensive income tax treats citizens according to their ability to pay and this, in effect, is the system chosen by governments everywhere. Only two countries –India and Ceylon (now Sri Lanka)—have experimented with an expenditure tax, and it proved to be extremely unpopular in each country. Another argument in favour of an expenditure tax is the fact that with inflation, income taxes fall on nominal rather than real returns from investment. The expenditure tax promises to solve this by exempting all investment returns and all capital gains from the tax base. But the income tax could be reformed, and has been reformed in a number of countries with a history of high inflation, to tax only real investment earnings and real capital gains. (See Kaldor, 1955 and Pechman, 1980.)

In any event, the typical taxation of savings around the world is as follows:

- TEE For home ownership
- EET For approved retirement savings
- TIE For all other savings.

Home ownership and retirement savings are almost everywhere favoured over saving for other purposes. In the case of owner-occupied housing, tax authorities ought to impute the rental value of the home and add it to the income of the homeowner for the purposes of calculating taxable income. This is rarely done, presumably because voters dislike paying taxes in cash on imputed income that they have never seen. Norway is one of the few countries to tax imputed rent in this way, but the imputed rent is rather low (2.5% per year of the taxable value of the house), capital gains are not taxed, and young people saving to buy a home receive a special tax deduction (EIU 1999).

In the case of retirement savings, the typical treatment is EET, but treatment is sometimes even more generous. A number of countries, for example, tax benefits at a reduced rate when they are taken as a lump sum rather than as an annuity (Dilnot and Johnson, p. 7). What accounts for this generous provision of tax shelters for retirement savings? In the case of mandatory pension schemes (Pillar 2), they are said to encourage compliance. In the case of voluntary savings (Pillar 3), the motive seems to be

paternalism: tax subsidies allow governments to require that savings be 'locked in' until retirement. Governments are aware that these tax incentives are costly, and for that reason always limit the amount of income that can be sheltered in this way. Since retirement savings are not available (or available only upon payment of a large penalty) for any purpose other than retirement, this type of subsidy is more valuable to the wealthy than to the poor, who are in a lower tax bracket and have greater need to retain access to their savings in the event of an emergency such as illness or unemployment. In the United States, according to analysis prepared by the Department of Treasury (cited in Orszag and Orszag, 2000), two-thirds of all tax subsidies for retirement saving go to the wealthiest 20 percent of the population while only one-eighth go to the bottom 60 percent of the income distribution.

In sum, tax subsidies for retirement saving are common, but they are costly and they have regressive effects on income distribution. They are harmful to the poor and affect only the form, not the amount, of private saving in an economy.

The experience of New Zealand in ridding itself of tax subsidies is a salutary one. A rapid change from EET to TTE produced large windfall gains for those already drawing highly taxed pensions (as these became tax-free). There was a one-off opportunity for schemes to write down the value of pensions being paid to account for the future taxable nature of the earnings in the fund, but many funds were in actuarial surplus and did not need to do this. The government missed a chance to tax the accumulated pension funds; thus much of the retirement pool became EEE (St John and Ashton, 1993). The timing of the change was unfortunate, as it coincided with a severe downturn in property markets, a stock market crash and the 1991 recession. There was little attention paid to the overall effect of the reform on saving for retirement. Nevertheless, since that time, although various task forces have examined the case for tax subsidies, no one has seriously proposed that they be reintroduced in New Zealand. Once they were removed, their regressive, complex and unhelpful nature became transparent for all to see (Report of The Taskforce on Private Provision for Retirement, 1992).

### **Coverage of pension systems**

Approximately two-thirds of the world's formal labour force (Palacios and Pallares-Miralles, 2000), 85 percent of the its households (Holzmann et. al., 1999) and 90 percent of its working-age population (Gillion et. al., 2000) lack any form of income security in old age. With the exception of a few high-income countries in the OECD, guaranteed minimum pensions of the first pillar apply only to those who contribute to the second pillar, and coverage is very low in developing countries. The privatisation promoted by the World Bank, which favours defined contribution schemes and individual accounts, does nothing to expand coverage. On the contrary, it typically results in decreased coverage because benefits are linked more tightly to contributions, so there is less redistribution and less reason for the poor to participate.

Estelle James (1999), lead economist for the 1994 World Bank Report, acknowledges the limited pension coverage in developing countries and concludes that "contributory insurance for many of these workers, particularly for low income workers,

is neither feasible nor desirable” (p. 1). Expansion of the first pillar would then seem to be a logical way to extend coverage to these workers. However James rejects this solution on grounds that incomes are distributed very unequally in developing countries. Her reasoning is as follows:

“When income is unequal, a uniform benefit that is reasonable from the point of a poor worker would be negligible for a rich worker who would therefore be uninterested in supporting it. But a benefit that is high enough for the rich worker would exceed the wage level of a poor worker, and would be very expensive for the economy as a whole. Relatedly, when incomes are very unequal, typically only a minority of people pay general taxes, and these people would oppose financing a universal benefit... Note that the OECD countries with universal benefits all have a high degree of income equality.” (p. 3)

Ms James concludes on a rather pessimistic note. Pensions, at least in developing countries, will have to be financed with earmarked taxes, and pension benefits linked to taxes paid. She allows for the possibility of means-tested assistance for the elderly, but cautions that “to avoid negative effects on the contributory program, redistribution via social assistance to the uninsured should not be ‘too’ generous.” (p. 18)

Nonetheless, this conclusion is not very convincing, since the same reasoning would apply a fortiori to government services such as schooling. There is widespread illiteracy in developing countries, and the level of primary education that is adequate for a poor worker is not likely to interest a wealthy taxpayer. Moreover, the cost of primary education adequate for the wealthy exceeds the wage of a poor worker, and would not be affordable for the economy as a whole. Governments nonetheless attempt to provide all citizens with schooling at the primary level, even though they are not always successful. Primary education is financed from general revenue, not earmarked taxes. Some taxpayers, in countries of all levels of development, pay for private schooling because they want a higher or at least a different standard from that offered by the government. Many of these taxpayers are relatively wealthy; others have modest means. Governments do not provide rebates to childless taxpayers or to those who pay for private education, although some governments have begun to experiment with vouchers.

If universal provision of primary schooling is feasible, so is universal provision of basic pensions. Unlike public schooling, public pensions are of value to everyone, regardless of income, religion or family structure. There is never a need for taxpayers to replace public pensions with private provision, for they can supplement public pensions with their own savings. Politically, from the perspective of how citizens value the benefits, universal provision of public pensions should be even more popular than universal schooling.

**Conclusion: New Zealand as a model for other countries**

New Zealand's universal first pillar provides every resident with retirement income. It is not a just a minimal "safety net for the poor", but neither does it provide for all needs of wealthier citizens in their old age. Some pensioners receive a larger income than the average pay they received during their working years. This is certainly true, for example, of women who have a history of little or no attachment to the paid labour force. There is no harm in this and much potential for good. With a universal pension, society recognises contributions of all kind, not just contributions from paid work. As for workers who subsist on low incomes, if society for whatever reason finds it difficult to improve their lot during their working years, it can at least give them an opportunity to escape poverty in their old age.

A universal Pillar 1 is well suited to changing family structures, characterised by more divorce and separation, widowhood and living alone. The principle has been to keep the older population contributing and participating in the economy though adequate income support. There are no disincentives to continue part time or full time work, save those that arise from the progressivity of the tax system.

There is no second pillar in New Zealand, but there is a third pillar. Everyone has the option to save for retirement in whatever way is most suitable and efficient at each stage in the life cycle. Authorities do not tax retirement savings any differently than savings for any other purpose, thus do not incur any hidden 'tax expenditures' on this account.

While tax neutrality is a goal in New Zealand, it has not yet been achieved. Since 1990, the government has not provided any tax subsidies for retirement savings or for private pension plans, but owner-occupied housing is tax-favoured. Homeowners are not obliged to declare imputed rents as income, nor are there capital gains taxes for most personal real estate transactions.

New Zealand encourages private provision of pensions through an advertising campaign run by the Office of the Retirement Commissioner. It is true that removal of tax subsidies resulted in a fall in coverage of workers in occupational plans. Nonetheless, the flexibility of a voluntary Pillar 3 has many advantages provided that individuals recognise that they must take personal responsibility for accumulating savings on which they can draw to supplement the public pension. If desired, they can convert a portion of these savings into an annuity at any time, but the annuity market is thin and unattractive in New Zealand, as it is in most countries around the world.

We have demonstrated that ageing in itself does not justify a reduction in the size or scope of universal old age pensions, at least for levels of basic pensions one might expect to find in the 'real world'. Universal pensions can be criticised, however, on grounds that they do nothing to ameliorate poverty in other age groups. The World Bank (1994, pp. 76-82) argues that, since poverty rates among children in many countries are higher than poverty rates among old people, it makes little sense to target the old for special treatment. According to the World Bank, it is children, not the elderly, who merit

special treatment. There is much truth to this position. Poverty is tragic wherever it occurs, and is especially tragic when it affects the lives of the young. Nonetheless, it is not necessary to choose between helping to lift children from poverty and helping the elderly who are poor. The beauty of Pillar 1 is that it distributes the primary cost of caring for each elderly generation on an ability-to-pay basis. This removes from low-income workers much of the burden of saving for their own old age. They have the opportunity to invest this income in the nutrition, health and education of their children. More importantly, Pillar 1 frees the aged from dependence on the generosity of their adult children. These children in some cases may not exist, they may live in poverty, or they may be burdened by need to care for their own children. With a universal Pillar 1 in place, all this becomes less important. Pillar 1 is good value, for it provides the entire population with security and peace-of-mind.

With some caveats, then, New Zealand would appear to be a useful model for provision of pensions in developing countries. It is a model that offers valuable lessons as well to countries that would like to reform overgenerous and complex systems. Researchers everywhere ignore New Zealand, even as they lavish attention on Chile, a country with a system that excludes more than half the working population from pensions. We suggest that the experience of New Zealand is worthy of attention, and perhaps even of emulation.

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