The redistributive effect of public and private social programmes: A cross-country empirical analysis

Kees Goudswaard and Koen Caminada

Leiden University, The Netherlands

Abstract A function of many national social protection systems is to substantially redistribute income. However, the size and nature of social protection programmes are changing. In a number of countries there has been a shift from public towards private social protection arrangements, with the latter substituting for, or complementing, public programmes. Developing earlier work, this present article analyses the redistributive impact on income of public versus private social protection programmes. Using recent data from the Organisation for Economic Co-operation and Development, we find a strong positive relationship between public social expenditures and income redistribution across countries. For private social expenditures, we find a weak, but statistically significant, negative relationship with the level of redistribution. In countries where a larger share of total social expenditure is accorded to private arrangements there is less income redistribution. We conclude that the choice between the relative weight of public and private provision of social protection affects the redistributive impact of the welfare state.

Keywords social protection, welfare state, public private mix, income redistribution, OECD

Address for correspondence: Kees Goudswaard, Leiden Law School, Economics Department, Leiden University, P.O. Box 9520, 2300 RA, The Netherlands; Email: k.p.goudswaard@law.leidenuniv.nl. Koen Caminada, Leiden Law School, Economics Department, Leiden University, P.O. Box 9520, 2300 RA, The Netherlands; Email: c.l.j.caminada@law.leidenuniv.nl.

This is a revised version of a paper presented at the Research Day SIG, Amsterdam, 1 December 2008, and at a seminar at the University of Fribourg, Switzerland, 13 May 2008. The authors wish to thank two anonymous referees for their helpful comments and suggestions. This study is part of the research programme "Reforming Social Security": www.hsz.leidenuniv.nl. Financial support of Stichting Instituut GAK is gratefully acknowledged. The usual disclaimer applies.
The welfare state aims to reduce income inequality among individuals. In the first instance, income inequality may arise as a result of differences in individual capacities, socio-economic background and “opportunities”. With regard to the latter, the market process allocates varying levels of rewards for different activities and skill sets which, again, can result in large differences in levels of income. To varying degrees, governments achieve interpersonal redistribution of market incomes through the tax system and through social protection (cash and in-kind benefits) systems. In recent years, empirical research has made considerable progress in analyzing the impacts of social protection systems on levels of income inequality. But most analyses of social protection focus on the role of public programmes. However, social effort to reduce income inequality is not restricted to public social protection programmes; numerous private arrangements can substitute for, or complement, public programmes. The Organisation for Economic Co-operation and Development (OECD) has produced comprehensive measurements of public and private expenditure within national social protection systems (Adema, 2001; Adema and Ladaique, 2005). The OECD defines private programmes as “social” when they serve a social purpose and contain an element of interpersonal redistribution (which is often accomplished through government intervention). The data gathered by the OECD show that spending on private social programmes is considerable in many countries. In fact, in several countries, welfare-state reforms have resulted in a shift in the relative balance of social expenditure away from “public” towards “private” provision.

In earlier work, we have shown that accounting for private social benefits has an equalizing effect on levels of social protection (Caminada and Goudswaard, 2005). In the same work, we discussed the relationship between public and private expenditure and income inequality. In this article, we analyse “redistribution” through public and private social spending. Specifically, to what extent do social transfers involve a reduction of income inequality among households? And how different is the redistributive impact of private social spending from the impact of public social spending? It is likely that (most) private social protection programmes generate less redistribution from the rich to the poor, because these programmes usually do not contain measures of income solidarity that are typical of public programmes (including means testing, benefit ceilings, and flat-rate benefits financed through general taxation).

Using recently published OECD data, we will empirically investigate the relationship, if any, between cross-country differences in public and private social expenditure and the level of income redistribution in 25 OECD countries. In addition, we will also pay attention to different areas of social spending. For example, expenditures on health care may have a different redistributive impact in compari-
son with expenditures on cash transfers. Our purpose is to present a simple and intuitive analysis which builds on previous work.\footnote{The aim of the paper is not to explain household-income distribution across countries, nor will we discuss the direction of the causality of the relationship between cross-country differences in income redistribution and the levels of social spending. Such an analysis should be based on a theory that would have to address several cross-national differences explaining household-income distribution (see, Gottschalk and Smeeding, 1997). Such a comprehensive approach is far beyond the scope of this paper.}

The article is structured as follows. The next section summarizes empirical evidence on income redistribution through the welfare state across countries. A discussion of the nature of private social expenditures then follows, and we present recent data on these expenditures. We then present our findings of several empirical analyses conducted on public versus private social expenditures and the redistribution of income. A final section presents our conclusions.

### Empirical evidence on income redistribution

One reason why many nations have designed comprehensive systems of social protection is to shield their citizens against the risk of economic insecurity as a result of unemployment, divorce, disability, retirement, or the death of a spouse. Social protection systems also aim to reduce levels of income inequality among individuals and households. When evaluating the redistributive impact of social protection systems, important factors to consider are the scale and scope of benefit programmes, the nature of different sorts of social spending, and programme design. It is highly likely that the income redistribution effects of cash transfers are weaker in countries where social programmes rely mostly on earnings-related or flat-rate benefit schemes compared to countries that rely mostly on (public) means-tested transfers. A means-tested programme with benefits provided to the poorest involves more redistribution for a given amount of spending than a universal programme. As part of a universal programme, flat-rate benefits (financed through progressive taxation) achieve more redistribution than earnings-related programmes, because average benefits in the latter will be higher than minimum benefits. But earnings-related programmes may also involve redistribution from the rich to the poor, because of design features such as thresholds for contributions and ceilings for benefits.

Substantial differences in levels of income inequality across “welfare democracies” are well documented (for example, Förster, 2000; Atkinson, Rainwater and Smeeding, 1995; Gottschalk and Smeeding, 1997; Förster and Mira d’Ercole, 2005; OECD, 2008a). These differences are often attributed to the relative impacts of national social policies. The OECD’s empirical analyses (2008a, pp. 115-117) show that, in most developed countries, between nine and 42 per cent of all public
transfers go to the poorest 20 per cent of the population. Generally, tax/transfer systems are deemed to reduce market-income inequality in all OECD countries (Brandolini and Smeeding, 2006). But there are large differences among countries in the overall level of income redistribution directed towards low-income households. Korpi and Palme (1998), for example, show that welfare states with generous social insurance programmes redistribute economic resources more effectively and have a more equal distribution of incomes than welfare states with less generous social insurance programmes.

It should be noted that social protection systems not only redistribute between the rich and the poor, but also redistribute individual income across the life cycle to provide support during periods when expenditure needs are greater or income is reduced, such as when families have young children or when individuals retire. Estimates suggest that more than half of the redistributive impact of the welfare state concerns intrapersonal reallocation of income over the life cycle, rather than redistribution between the rich and the poor (de Mooij, 2006).

Generally, the impact of social policy on the distribution of income is calculated in line with the work of Musgrave, Case and Leonard (1974) on statutory or budget incidence analysis. On this basis, in many studies the important issues of tax/transfer shifting and behavioural responses are ignored. The measure of the redistributive impact of social protection on inequality is straightforwardly based on formulas developed by Kakwani (1986) and Ringen (1991): redistribution by government is equal to market income minus disposable income.

Levels of inequality can be shown in several ways, including by means of Lorenz curves, specific points on the percentile distribution (P10 or P90), decile ratios (P90/P10), and/or summary statistics of inequality. Summary statistics of inequality can be used to rank countries with regard to levels of income inequality. The most often used summary measure of income distribution is the Gini coefficient of equivalized disposable household income. Equivalized household income is income adjusted to reflect differences in household needs through an equivalence scale (the square root elasticity). The Gini coefficient lies between 0 (no inequality) and 1 (maximum inequality). The Gini coefficient can be calculated on the basis of micro-income data. The best cross-nationally comparable collection of income data is the

2. The countries where public cash transfers are most targeted towards the poorest 20 per cent of the population are Australia, Denmark, New Zealand, Finland, the Netherlands, Ireland and the United Kingdom, where they receive more than 30 per cent of all transfers (greater than 40 per cent in Australia). In Canada, the United States and Sweden the poorest 20 per cent receive 25 per cent of all transfers. Public cash transfers are least targeted towards the poorest 20 per cent in Poland, where they receive less than 10 per cent of all transfers.

3. For a critical survey of efforts to measure budget incidence, see Smolensky, Hoyt and Danziger (1985). However, models that include, for example, behavioral links are beyond the scope of existing empirical work (Gottschalk and Smeeding, 2000, p. 263). Therefore, researchers have restricted themselves largely to accounting exercises that decompose changes in overall inequality into a set of components.
Luxembourg Income Study (2008). The Luxembourg Income Study (LIS) was created specifically to improve consistency in undertaking cross-country comparisons (Smeeding, 2002). However, the LIS data of both the Gini coefficient of market income and the Gini coefficient of disposable income are not yet available for the most recent data years. Therefore, we use data from the OECD study “Growing unequal?” (2008a).

Table 1 shows the Gini coefficients in 25 OECD countries, based on the most recent income data. Column (1) shows the Gini coefficient of market income, which includes income from wages and salaries, self-employment, property, and occupational and private pensions. Column (2) shows the Gini coefficient of adjusted disposable income, which is defined as market income plus public and private transfers, as well as other types of cash income, minus personal income taxes and individual social security contributions. The table indicates that a wide range of inequality of disposable income exists across the countries under study, with the highest Gini coefficient in the United States and the lowest Gini coefficient in Denmark. In earlier studies (Caminada and Goudswaard, 2001 and 2002), we have shown that income inequality has risen since the early 1980s in the majority of the OECD countries, although it is wrong to think in terms of a worldwide trend (Atkinson, 2000; OECD, 2008a). But what is the impact of welfare states on income inequality? Smeeding (2002) showed that social policies, wage distribution, the length of the period in work, social and labour market institutions, and demographic profiles all have some influence on why there are large differences in income inequality among rich nations at any point in time. In this paper we focus on social protection systems only.

Columns (3) and (4) in Table 1 show the reduction in income inequality through taxes and social transfers. This is income redistribution achieved through the welfare state. Taxes and transfers reduce the Gini by on average 15 points or 33 per cent. For example Sweden, Denmark, and Belgium achieve a greater redistribution of economic resources (more than 44 per cent) compared to the Republic of Korea and the United States.

Table 1 does not show the redistributive impact of separate parts of the welfare state. Recent literature suggests that the determination of the relationship between social expenditures and inequality should be carried out on a disaggregated basis (see Swabisch, Smeeding and Osberg, 2006). Ferrarini and Nelson (2003) show that only a limited number of studies have attempted to identify the link between specific social transfer programmes and income inequality in a comparative setting. As a result, knowledge about the institutional structures that produce certain distributive outcomes is limited. To gain a deeper understanding of the redistributive mechanisms of the welfare state, it is necessary to disaggregate the social transfer system into programme-specific components. The LIS data (Mahler and Jesuit, 2006) show a rough disaggregation for a small number of countries. These data
### Table 1. Gini coefficients before and after taxes and transfers, mid-2000s

<table>
<thead>
<tr>
<th>Country</th>
<th>Gini Coefficient Market Income (1)</th>
<th>Gini Coefficient Disposable Income (2)</th>
<th>Income Redistribution (3) = (1) − (2)</th>
<th>Redistribution (percentage) (4) = (3) / (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>0.458</td>
<td>0.301</td>
<td>0.157</td>
<td>0.34</td>
</tr>
<tr>
<td>Austria</td>
<td>0.433</td>
<td>0.265</td>
<td>0.168</td>
<td>0.39</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.494</td>
<td>0.271</td>
<td>0.223</td>
<td>0.45</td>
</tr>
<tr>
<td>Canada</td>
<td>0.436</td>
<td>0.317</td>
<td>0.119</td>
<td>0.27</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.474</td>
<td>0.268</td>
<td>0.206</td>
<td>0.43</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.417</td>
<td>0.232</td>
<td>0.184</td>
<td>0.44</td>
</tr>
<tr>
<td>Finland</td>
<td>0.386</td>
<td>0.269</td>
<td>0.117</td>
<td>0.30</td>
</tr>
<tr>
<td>France</td>
<td>0.482</td>
<td>0.281</td>
<td>0.201</td>
<td>0.42</td>
</tr>
<tr>
<td>Germany</td>
<td>0.507</td>
<td>0.298</td>
<td>0.209</td>
<td>0.41</td>
</tr>
<tr>
<td>Iceland</td>
<td>0.368</td>
<td>0.280</td>
<td>0.089</td>
<td>0.24</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.416</td>
<td>0.328</td>
<td>0.088</td>
<td>0.21</td>
</tr>
<tr>
<td>Italy</td>
<td>0.557</td>
<td>0.352</td>
<td>0.205</td>
<td>0.37</td>
</tr>
<tr>
<td>Japan</td>
<td>0.443</td>
<td>0.321</td>
<td>0.123</td>
<td>0.28</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>0.339</td>
<td>0.312</td>
<td>0.026</td>
<td>0.08</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.454</td>
<td>0.258</td>
<td>0.196</td>
<td>0.43</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.423</td>
<td>0.271</td>
<td>0.152</td>
<td>0.36</td>
</tr>
<tr>
<td>New Zealand</td>
<td>0.473</td>
<td>0.335</td>
<td>0.138</td>
<td>0.29</td>
</tr>
<tr>
<td>Norway</td>
<td>0.433</td>
<td>0.276</td>
<td>0.157</td>
<td>0.36</td>
</tr>
<tr>
<td>Poland</td>
<td>0.568</td>
<td>0.372</td>
<td>0.196</td>
<td>0.34</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.540</td>
<td>0.380</td>
<td>0.160</td>
<td>0.30</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.459</td>
<td>0.268</td>
<td>0.191</td>
<td>0.42</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.432</td>
<td>0.234</td>
<td>0.198</td>
<td>0.46</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0.352</td>
<td>0.276</td>
<td>0.077</td>
<td>0.22</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.460</td>
<td>0.335</td>
<td>0.125</td>
<td>0.27</td>
</tr>
<tr>
<td>United States</td>
<td>0.457</td>
<td>0.381</td>
<td>0.076</td>
<td>0.17</td>
</tr>
<tr>
<td>Mean OECD-25</td>
<td>0.450</td>
<td>0.299</td>
<td>0.151</td>
<td>0.33</td>
</tr>
</tbody>
</table>

**Note:** The data refer to Gini coefficients of equivalized household income, i.e. income adjusted to reflect differences in household needs through an equivalence scale (square root elasticity). Market income: income from wages and salaries, self-employment and property plus occupational and private pensions. Disposable income: market income plus public and private transfers, as well as other types of cash income, minus personal income taxes and individual social security contributions. Sources: OECD (2008a); own calculations.
indicate that, on average, 24 per cent of the redistributive impact of the welfare state can be attributed to taxes and 76 per cent to transfers. However, the differences between countries are quite large: in the United States 40 per cent of redistribution comes from taxes, while in Switzerland and France taxes account for less than 10 per cent of total redistribution. The OECD (2008a, p. 112) uses a different inequality measure (the concentration index) and concludes that redistribution achieved by public cash transfers is on average twice as large as that achieved through household taxes in 21 OECD countries. Again, the United States is an exception, achieving greater redistribution through the tax system than through cash transfers. The inequality reducing effect of public cash transfers is highest in Sweden, Belgium, and Denmark and lowest in the Republic of Korea, the United States, and Japan.

The LIS study of Mahler and Jesuit (2006) provides a breakdown of the redistributive impact of social transfers at the programme level for 13 OECD countries. Pensions have, by far, the strongest redistributive impact. More than half of the redistributive impact of social transfers comes from pensions. Especially in Switzerland and, to a smaller extent, in France and Germany, pensions have a relatively strong inequality-reducing effect. In contrast, unemployment programmes account for slightly less than 10 per cent of total redistribution through social transfers.

Public services (in-kind benefits) such as health care may also reduce inequality (OECD 2008a, pp. 223-251). One of the reasons given for this is that some health-care provisions are limited to elderly people or to individuals with fewer resources, as is the case in the United States. The OECD study concludes that health-care expenditure reduces inequalities in all OECD countries, but the redistributive effects are not very large. In general, the inequality reduction due to in-kind transfers (including health care, education, and social housing) is, on average, substantially lower than that achieved by cash transfers and taxes.

Public and private social expenditures

The OECD (2007, p. 6) defines social expenditures as:

the provision by public and private institutions of benefits to, and financial contributions targeted at, households and individuals in order to provide support during circumstances which adversely affect their welfare, provided that the provision of the benefits and financial contributions constitutes neither a direct payment for a particular good or service nor an individual contract or transfer.

Since only benefits provided by institutions are included in the social expenditure definition, other transfers to households — albeit of a social nature — are not

4. It should be noted that there are several conceptual and methodological problems with measuring the redistributive impact of health-care and other public services.
deemed to rest in the social domain. Social benefits, therefore, include cash benefits (e.g. pensions, support during periods of incapacity or maternity leave, and social assistance payments), social services (e.g. childcare and care for the elderly and disabled), and tax breaks with a social purpose (e.g. tax expenditures directed towards families with children or the favourable tax treatment of contributions made to private health-care or pension plans).

There are two main criteria that have to be simultaneously satisfied for an expenditure item to be classified as social: 1) the benefits have to be intended to address one or more social purposes; and 2) programmes regulating the provision of benefits have to involve either interpersonal redistribution or compulsory participation.

The distinction between public and private social protection is made on the basis of whoever controls the relevant financial flows: public institutions or private bodies.

Within the group of private social benefits, two broad categories can be distinguished: mandatory and voluntary private social expenditure. Mandatory private social expenditure is social support stipulated by legislation, but operated through the private sector; for example, direct sickness payments by employers to their absent employees as legislated by public authorities, or benefits accruing from mandatory contributions to private insurance funds. In some countries public disability benefits (and sometimes unemployment benefits) can be supplemented by private benefits with mandatory contributions, agreed upon in collective negotiations between employers and employees.

Voluntary private social expenditure concerns benefits accruing from privately-operated programmes that involve the redistribution of resources across households. These may include benefits provided by non-governmental organizations and benefits accruing from tax-advantaged individual plans and collective-support arrangements (that are often employment-related); for example, pensions, and, in the United States, employment-related health plans.

Table 2 summarizes which expenditures are deemed “social” and which are not.

Table 3 shows public and private social expenditure as a percentage of GDP, for the most recent data year 2005. Most social support is publicly-provided. In a majority of countries, the share of public social benefits in total social expenditures exceeds 90 per cent. However, the role of various private arrangements in substituting for public social protection expenditure is considerable in some OECD countries. In Canada, the Republic of Korea, the Netherlands, Switzerland, and the United Kingdom, the share of private social expenditure is more than 25 per cent, while in the United States the share is almost 40 per cent. In most cases, private expenditures are most commonly voluntary, but there are exceptions. In Switzerland, for example, mandatory private expenditures are very high. Figure 1 shows that, in a number of countries, private social expenditures have risen quite
rapidly over the years. 5 Belgium, Canada, Japan, the Netherlands, Switzerland, and the United States show the highest increase in private social expenditure from 1985 to 2005.

There may be various explanations for these increases in private social expenditure. Lower public protection may induce a growth in private social arrangements. But a shift from the public to private provision of social protection can also be an explicit policy objective to alleviate public budgets or to strengthen incentives in the system. For example, the privatization of the Netherlands’ sickness benefit programme was to increase incentives for employers to reduce the number of beneficiaries. Policy-makers may also want to realize efficiency gains through a shift from public to private provision, because private providers are assumed to have stronger incentives to reduce costs. Regardless, accounting fully for private social expenditures is important in order to judge a country’s overall social effort and to evaluate the level of social protection provided.

But what about the redistributive effect of private social arrangements? Private insurance plans are normally “actuarially fair”. This means that each individual is provided with benefits whose actuarial value is equal to his or her contributions, given the chance of the insured event occurring. Most private insurance plans are not earnings-related. Individual private pension plans, for example, are increasingly

---

Table 3. Public and private social expenditure (% of GDP), 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Public social expenditure (1)</th>
<th>Private social expenditure (2)</th>
<th>Total social expenditure (3) = (1) + (2)</th>
<th>Share private (2)/(3) *100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>17.1</td>
<td>3.7</td>
<td>20.8</td>
<td>18</td>
</tr>
<tr>
<td>Austria</td>
<td>27.2</td>
<td>1.9</td>
<td>29.1</td>
<td>7</td>
</tr>
<tr>
<td>Belgium</td>
<td>26.4</td>
<td>4.5</td>
<td>30.9</td>
<td>15</td>
</tr>
<tr>
<td>Canada</td>
<td>16.5</td>
<td>5.5</td>
<td>22.0</td>
<td>25</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>19.5</td>
<td>0.3</td>
<td>19.8</td>
<td>2</td>
</tr>
<tr>
<td>Denmark</td>
<td>26.9</td>
<td>2.6</td>
<td>29.5</td>
<td>9</td>
</tr>
<tr>
<td>Finland</td>
<td>26.1</td>
<td>1.1</td>
<td>27.2</td>
<td>4</td>
</tr>
<tr>
<td>France</td>
<td>29.2</td>
<td>3.0</td>
<td>32.2</td>
<td>9</td>
</tr>
<tr>
<td>Germany</td>
<td>26.7</td>
<td>3.0</td>
<td>29.7</td>
<td>10</td>
</tr>
<tr>
<td>Iceland</td>
<td>16.9</td>
<td>4.9</td>
<td>21.8</td>
<td>22</td>
</tr>
<tr>
<td>Ireland</td>
<td>16.7</td>
<td>1.3</td>
<td>18.0</td>
<td>7</td>
</tr>
<tr>
<td>Italy</td>
<td>25.0</td>
<td>2.1</td>
<td>27.1</td>
<td>8</td>
</tr>
<tr>
<td>Japan</td>
<td>18.6</td>
<td>3.8</td>
<td>22.4</td>
<td>17</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>6.9</td>
<td>2.4</td>
<td>9.3</td>
<td>26</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>23.2</td>
<td>1.1</td>
<td>24.3</td>
<td>5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>20.9</td>
<td>8.3</td>
<td>29.2</td>
<td>28</td>
</tr>
<tr>
<td>New Zealand</td>
<td>18.5</td>
<td>0.4</td>
<td>18.9</td>
<td>2</td>
</tr>
<tr>
<td>Norway</td>
<td>21.6</td>
<td>2.1</td>
<td>23.7</td>
<td>9</td>
</tr>
<tr>
<td>Poland</td>
<td>21.0</td>
<td>0.0</td>
<td>21.0</td>
<td>0</td>
</tr>
<tr>
<td>Portugal</td>
<td>23.1</td>
<td>1.9</td>
<td>25.0</td>
<td>8</td>
</tr>
<tr>
<td>Slovakia</td>
<td>16.6</td>
<td>1.0</td>
<td>17.6</td>
<td>6</td>
</tr>
<tr>
<td>Sweden</td>
<td>29.4</td>
<td>2.8</td>
<td>32.2</td>
<td>9</td>
</tr>
<tr>
<td>Switzerland</td>
<td>20.3</td>
<td>8.4</td>
<td>28.7</td>
<td>29</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>21.3</td>
<td>7.1</td>
<td>28.4</td>
<td>25</td>
</tr>
<tr>
<td>United States</td>
<td>15.9</td>
<td>10.1</td>
<td>26.0</td>
<td>39</td>
</tr>
<tr>
<td>Mean OECD-25</td>
<td>21.3</td>
<td>3.3</td>
<td>24.6</td>
<td>14</td>
</tr>
</tbody>
</table>

Sources: OECD (2008b); own calculations.
defined-contribution in character and, therefore, do not contain any elements of (ex ante) income redistribution. However, some private plans may provide earnings-related benefits. It is sometimes argued that earnings-related social insurance benefits only reproduce inequalities in market income since they do not redistribute economic resources across different income groups. This might be expected to be especially so for benefits provided by private earnings-related plans. However, private earnings-related plans may not be actuarially fair and may contain elements of solidarity. This is often the case when (supplementary) private, but mandatory, schemes are negotiated by the social partners in collective labour contracts for (a group of) workers. Defined-benefit pension schemes, for example, generally redistribute resources both within generations (for instance through redistributive mechanisms such as thresholds for contributions or ceilings for benefits) and across generations (as the younger and future generations partly absorb negative financial shocks to protect the pensions of older generations). Defined-benefit schemes for early retirement tend to redistribute income to scheme members who leave work before the official retirement age from those who work until the official retirement age. In fact, as mentioned in the previous section, private social programmes, by definition, contain elements of interpersonal redistribution.

Tax advantages (to households or to employers) can also be used to stimulate the provision of private benefits. This is often the case in supplementary pension programmes, where contributions are tax exempt. The fiscal advantages related to, for example, supplementary private pension plans are positively related to income.
levels in most countries. Yet, on the whole, as Ferrarini and Nelson (2003, pp. 14-15) show, social programmes are less income equalizing after taxation in all countries.

In general, it is expected that private schemes will generate less income redistribution than public programmes, although at this stage the distributional impact when private social schemes are taken into account in cross-country analyses is not fully clear. It is reasonable to suggest that mainly higher-income groups will make use of private social schemes (Casey and Yamada, 2002). Research by Swabisch, Smeeding and Osberg (2006) suggests that as income differences between higher-income groups and those with lower incomes widen, the former find it easier to opt out of public programmes and to buy substitutes for social insurance in the private market. Bearing in mind that private schemes often have favourable tax treatment (deductibility of contributions), which will predominately benefit those with higher incomes, it can be suggested that private social expenditure has a positive effect on income inequality. In other words, we expect income redistribution to be relatively high (low) in countries where the share of private arrangement in the total social benefits is relatively low (high).

The link between public and private social protection and income redistribution

We performed various cross-country analyses of the relationship between public and private social expenditures and the reduction in income inequality resulting from income transfers (income redistribution from taxes and social benefits as defined above). We include 25 OECD countries for which we have recent data (around 2005) for both income redistribution through the welfare state and for private social expenditures; see Tables 1 and 3. In Figure 2 (panel a), we have plotted the level of public social expenditure as a percentage of GDP and the reduction of income inequality as a result of the welfare state (the points difference between the Gini coefficients of market income and of disposable income). The expected relationship is found: a relatively high level of public social expenditure results in relatively more income redistribution across countries. We find a pretty good fit of an OLS-regression; see Table 4. Obviously, public social transfers are well-targeted towards lower-income groups. For private social expenditure, we find a negative relationship with income redistribution. This relationship is statistically significant \( p = 0.038 \). Countries with higher private social expenditure have less income redistribution. This may reflect that higher-income groups find it easier to “opt in” to private social programmes. For total social expenditure, we still find a positive and significant linkage with income redistribution, but this linkage is weaker than for public expenditure only. These findings are confirmed by an OLS-regression

6. Ordinary least squares regression.
between the share of private expenditure in total social expenditure and income redistribution, shown in the lowest part of Figure 2. We find a statistically significant negative relationship between the share of private expenditures and income redistribution (\(R^2 = 0.38\) and \(p = 0.001\)). This implies that countries that rely more heavily on private social arrangements achieve less income redistribution.

Earlier in this article, we argued that in-kind transfers (public services) may also have a redistributive impact, but one that is usually smaller than for cash transfers. Moreover, in-kind transfers are not taken into account as a component of the difference between market income and disposable income, which was the basis used to calculate the redistributive impact of taxes and transfers. So, to control for this, we performed a similar analysis with social expenditure excluding health programmes (by far the largest in-kind transfer included in the social expenditure data). This is reported in panel (b) of Figure 2 and in panel (b) of Table 4. The results are essentially the same as the results of the regressions with total social expenditures including expenditures on health care. Thus, we conclude that spending on services does not have a big influence on our results.
We also analysed the redistributive impact of separate social protection programmes, both public and private, in order to gain a better understanding of the different redistributive elements of the welfare state. The results are reported in Table 5. Public old-age programmes have, by far, the strongest redistributive impact; this confirms the findings of an earlier LIS study, reported above (Mahler and Jesuit, 2006). Also, active labour market programmes and unemployment programmes have a statistically significant positive relationship with the level of income redistribution. Health-care programmes, family programmes, and survivor programmes have only a statistically significant positive relationship with redistribution at the 10 per cent level. For private social programmes, we only find a statistically significant linkage between private pensions and redistribution at the 10 per cent level ($p = 0.081$). In this case, however, the relationship is negative: more private pension expenditure coincides with less income redistribution. Private pension systems, which are contributory, appear to benefit those with relatively higher incomes. For other private social programmes, we do not find a statistically significant relationship with income redistribution. But this may be due, in part, to a problem of data

Figure 2. Continued

Panel (a): Social expenditure including health programmes

Panel (b): Social expenditure excluding health programmes

Source: OECD (2008a), OECD (2008b), and own calculations.
availability (small N-problem): not all of the countries included in our analysis have private social programmes in all the relevant categories. As reported above, for all private social expenditure taken together, we find a statistically significant negative relationship with income redistribution.

It is well understood that empirical analyses of social protection are rather sensitive to the data used. To test the robustness of our results, we performed a sensitivity analysis with net rather than gross social expenditures. Differences in the

7. Only a small number of countries operate private survivors or family programmes. Private social unemployment programmes, active labor market programmes, and housing programmes are rare (at least in the OECD data base).
The redistributive effect of public and private social programmes: A cross-country empirical analysis

Table 5. Impact of public and private social programmes on income redistribution, around 2005

<table>
<thead>
<tr>
<th>Public social expenditures, % of GDP</th>
<th>Private social expenditures, % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>X1 Adj. R²</td>
</tr>
<tr>
<td>Old-age programmes</td>
<td></td>
</tr>
<tr>
<td>0.070***</td>
<td>0.011***</td>
</tr>
<tr>
<td>(3.28)</td>
<td>(4.06)</td>
</tr>
<tr>
<td>0.393</td>
<td></td>
</tr>
<tr>
<td>0.170***</td>
<td></td>
</tr>
<tr>
<td>(11.82)</td>
<td></td>
</tr>
<tr>
<td>–0.011*</td>
<td></td>
</tr>
<tr>
<td>(–1.82)</td>
<td></td>
</tr>
<tr>
<td>Capacity-related programmes</td>
<td></td>
</tr>
<tr>
<td>0.117***</td>
<td>0.013</td>
</tr>
<tr>
<td>(4.91)</td>
<td>(1.57)</td>
</tr>
<tr>
<td>0.058</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>–0.008</td>
<td></td>
</tr>
<tr>
<td>(–1.34)</td>
<td></td>
</tr>
<tr>
<td>Family programmes</td>
<td></td>
</tr>
<tr>
<td>0.106***</td>
<td>0.021*</td>
</tr>
<tr>
<td>(4.39)</td>
<td>(2.02)</td>
</tr>
<tr>
<td>0.114</td>
<td></td>
</tr>
<tr>
<td>(8.50)</td>
<td></td>
</tr>
<tr>
<td>0.059**</td>
<td></td>
</tr>
<tr>
<td>(2.54)</td>
<td></td>
</tr>
<tr>
<td>Unemployment programmes</td>
<td></td>
</tr>
<tr>
<td>0.123***</td>
<td>0.028**</td>
</tr>
<tr>
<td>(8.10)</td>
<td>(2.35)</td>
</tr>
<tr>
<td>0.159</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing programmes</td>
<td></td>
</tr>
<tr>
<td>0.149***</td>
<td>0.008</td>
</tr>
<tr>
<td>(10.34)</td>
<td>(0.25)</td>
</tr>
<tr>
<td>–0.018</td>
<td></td>
</tr>
<tr>
<td>(–0.84)</td>
<td></td>
</tr>
<tr>
<td>Other social policy areas</td>
<td></td>
</tr>
<tr>
<td>0.166***</td>
<td>–0.031</td>
</tr>
<tr>
<td>(10.35)</td>
<td>(–1.23)</td>
</tr>
<tr>
<td>0.021</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Total social expenditure</td>
<td></td>
</tr>
<tr>
<td>–0.001</td>
<td>0.007***</td>
</tr>
<tr>
<td>(–0.03)</td>
<td>(4.94)</td>
</tr>
<tr>
<td>0.494</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
— Dependent variable: income redistribution: (Gini<sub>pre</sub> — Gini<sub>post</sub>). N = 25. OLS-regression; standard regression coefficients are reported; t-statistics are shown in parentheses. * p < 0.10; ** p < 0.05; *** p < 0.01.
— Selected countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Japan, Republic of Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Sweden, Switzerland, United Kingdom, and the United States.
— Gini index of market (pre-government private sector) income: Gini<sub>pre</sub> Gini index net disposable (post-government) income: Gini<sub>post</sub> Redistribution: (Gini<sub>pre</sub> — Gini<sub>post</sub>)
Sources: OECD (2008), SOCX (2008), and own calculations.

tax treatment of social benefits make international comparisons of social protection systems difficult. We use data from the OECD study on social expenditure in which the impact of the tax system on social expenditure is accounted for (based on Adema and Ladaique, 2005). In all regressions, we find similar results (not reported): a statistically significant positive relationship between (net) public social expenditures and income redistribution, and a weaker but also statistically significant negative relationship between (net) private social expenditures and income redistribution. Consequently, the results reported here seem to be quite robust.
Finally, we would like to mention that, ideally, the outcomes of the public and private mix in the provision of social protection should also be analysed longitudinally. It would be important to know whether changes in the public and private mix have reduced the redistributive impact of welfare states over time. Unfortunately, this type of analysis cannot yet be done because of a lack of data. The number of countries for which we have the relevant data is too small for a cross-country time-series analysis. More detailed case studies would be required. So, this is a topic for further research.

Conclusions

Most analyses of social protection focus on public arrangements. But social effort is not restricted to the public domain; all kinds of private arrangements can substitute for, or complement, public programmes. Private arrangements are considered to be “social” when they serve a social purpose and when there is some kind of government involvement. Examples are supplementary employment-based and tax-advantaged pension plans and private health-insurance plans with legal stipulations. OECD data indicate that in several countries there has been a relative shift from public towards private social arrangements.

In this paper, we have analysed the redistributive effects of public and private social arrangements. Effecting income redistribution from the rich to the poor is one of the important objectives of the welfare state. In all OECD countries, the social protection system results in a more equal distribution of incomes. Taxes and transfers reduce the Gini coefficient by 8 to 46 per cent in OECD countries. Based on cross-country regressions, we find a positive relationship between public social expenditures and income redistribution. Welfare states with higher public social expenditure achieve more income redistribution. Also, the composition of public social spending matters: public old-age programmes have the strongest redistributive impact.

For private schemes, we find a weak, but statistically significant, negative relationship with income redistribution. At the programme level, this effect is found for private pensions. Private pension systems seem to favour those with higher incomes. In general, taking fully into account private social arrangements is necessary when seeking to evaluate the distributional impact of national social protection systems. Countries that rely more heavily on private social arrangements achieve less income redistribution.

Bibliography


The redistributive effect of public and private social programmes: A cross-country empirical analysis


The public pension system in Taiwan: Equity issues within and between systems

Ai Ju Shao

Ming Chung University, Taiwan, China

Abstract This article analyses the challenges facing the New Public Service Pension Fund System in Taiwan, China. After less than two decades of operation, this young system is facing financial imbalance and is embroiled in controversy regarding the generosity of its benefits provisions. The article first introduces Taiwan’s different systems for old-age security, with a focus on that for general public-sector employees. It then addresses the financial challenges facing the general public-sector pension system, including the rising cost of its benefits for all taxpayers. Finally, a number of possible reform directions are suggested, including lowering benefit levels, making qualifying criteria more stringent, or establishing a new system. With regards to the latter, any proposed new system must seek to satisfy the goal of longer-term financial soundness while realizing optimal fairness among all stakeholders including taxpayers.

Keywords pension scheme, public expenditure, actuarial valuation, earnings replacement rate, Taiwan, China

Introduction

Overview of the old-age security system in Taiwan

The old-age security system in Taiwan, China, (hereafter, Taiwan) is segmented according to occupational categories. Characteristically, each segment has its
As a consequence, there are five main old-age security systems in Taiwan, including those for employees working in government agencies, in public schools, in the military, in private business units, and in private schools (Shao, 2004). In each segment, coverage is mandatory (see Table 1).

Among the five, the Labor Insurance system covering private business employees is the largest in term of the number of covered affiliates. In addition to the old-age benefits provided under the programme, private-sector employees also receive an occupational pension if they satisfy the qualifying criteria regulated by either the Labor Standard Law or New Pension Act. The smallest system in terms of covered affiliates provides coverage to private school employees as well as to kindergarten assistants and university professors. These workers receive periodic old-age benefits from the Civil Servants and Teachers Social Insurance System and also a lump-sum retirement benefit from the Private School Pension Fund System. The other three occupational categories, comprising 0.6 million employees of government agencies, public schools, and the military, are collectively referred to as the general public sector. Of all social security systems in Taiwan, the general public-sector system is deemed the most controversial, not least because of the generosity of its benefits provisions.

Taiwan introduced a retirement programme for general public-sector employees in the 1940s, much earlier than that for the general population (Hsu, 2007). Currently, a first tier of social security coverage is provided to public servants and employees in public schools under the Civil Servants and Teachers Social Insur-

---

**Table 1. Old-age security systems in Taiwan**

<table>
<thead>
<tr>
<th>Covered participants</th>
<th>Public servants</th>
<th>Public school personnel</th>
<th>Military personnel</th>
<th>Private school personnel</th>
<th>Private business employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Insurance System</td>
<td>Civil Servants and Teachers Social Insurance (CSTSI)</td>
<td>Military Personnel Insurance</td>
<td>CSTSI</td>
<td>Labor Insurance</td>
<td></td>
</tr>
</tbody>
</table>


---

1. Employees hired by private business units up to 1 July 2005 were allowed to choose retirement benefits regulated by the Labor Standard Law; those hired after 1 July 2005 are required to participate in the Labor Pension Plan regulated by the New Pension Act.
nance (CSTSI); this is the same coverage as that offered to private school employees. With regard to military personnel, they are covered by the Military Personnel Insurance (MPI). The second (occupational) tier which provides coverage to public servants, employees in public schools as well as military personnel is the New Public Service Pension Fund System (NPSPFS). Both tiers are mandatory and contributory, with contributions paid by both employers and employees. In contrast to the lump-sum benefit offered by the first tier CSTSI, the NPSPFS offers periodic and lump-sum benefits. Under the NPSPFS, benefit levels and benefit qualifying conditions are deemed more generous than those of private occupational pension systems; a situation that has led to what Mitchell has termed “pension envy” (Mitchell, 2008).

**Design of the NPSPFS**

The NPSPFS was implemented in July 1995, superseding the “old” non-contributory PSPFS. The essential background for the introduction of the new system was a rapidly increasing ratio of pension expenses to government budget expenditure, which froze out other government expenditure and reduced the government’s ability to pay salary adjustments for public servants. In order to reduce the increasing budgetary pressure, the NPSPFS was established with the goal of being financially self-supporting. In the same year, the Supervisory Board of the Public Service Pension Fund (SBPSPF) and the Management Board of the Public Service Pension Fund (MBPSPF) were established under the Ministry of Civil Service. These two bodies are responsible for fund supervision and management, respectively. Pursuant to the laws, the MBPSPF pays pension benefits for years of service completed since the new system was established; pension benefits calculated on the basis of years of service years prior to the creation of the NPSPFS are financed out of the government budget. Due to its contributory nature, but also to build support for the system among affiliates, the NPSPFS offers much higher levels of benefits than the old PSPFS.

The NPSPFS is a defined-benefit plan providing death benefits, disability benefits, survivor benefits as well as retirement benefits to eligible participants. Retirement benefits are provided either as a life-time annuity, a lump-sum payment or a flexible combination of these two methods. To receive old-age benefits, the insured must have at least 25 years of service or have attained age 60 with at least 5 years of service. To be eligible for a periodic life-time annuity, the insured must be at least age 50 with at least 15 years of service. Retirement benefits are calculated on an earnings base equal to twice the final base salary, which is usually between 110

---

2. The old PSPFS was established in the 1940s and was financed entirely through the government budget.
and 130 per cent of actual wages depending on the employee’s seniority and grade. As regards the life-time annuity, monthly payments are calculated as two per cent of the annual replacement rate (on a base of twice the final base salary), plus a supplementary annuity to compensate for the year-end bonus. The lump-sum benefit is calculated as 1.5 times the number of years of service times twice the base salary. Thus, a retiree with 30 years of service covered by the NPSPFS will receive a periodic benefit with a replacement ratio of between 71 and 83 per cent adjusted annually for inflation, or a lump sum equal to at least 90 times his or her final base salary. Moreover, if the retiree was first employed prior to the establishment of the new system, a “system-transit” compensatory transitional annuity is also paid. Moreover, the lump-sum old-age benefit from the first tier social insurance (the CSTSI for public servants and employees in public schools, and the MPI for military personnel) may be deposited in a state-run bank paying an 18 per cent monthly interest income from the old-age benefits of Civil Servants and Teachers Social Insurance.

Table 2. Estimated replacement ratios of public servants by professional grade and years of service (NT$)

<table>
<thead>
<tr>
<th>Employee Rank</th>
<th>SY pre-NPSFPS</th>
<th>SY NPSFPS</th>
<th>actual wage (1)</th>
<th>personal tax rate (%) (2)</th>
<th>net wage (3) = (1)(1-(2))</th>
<th>monthly annuity* (4)</th>
<th>replacement ratio (%) (5) = (4)/(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher grade</td>
<td>20</td>
<td>15</td>
<td>104,125</td>
<td>20</td>
<td>83,300</td>
<td>98,919</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>15</td>
<td>104,125</td>
<td>20</td>
<td>83,300</td>
<td>93,713</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>30</td>
<td>104,125</td>
<td>20</td>
<td>83,300</td>
<td>68,498</td>
<td>82</td>
</tr>
<tr>
<td>Lower grade</td>
<td>20</td>
<td>15</td>
<td>81,809</td>
<td>17</td>
<td>67,901</td>
<td>77,719</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>15</td>
<td>81,809</td>
<td>17</td>
<td>67,901</td>
<td>73,629</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>30</td>
<td>81,809</td>
<td>17</td>
<td>67,901</td>
<td>67,716</td>
<td>100</td>
</tr>
</tbody>
</table>

SY = years of service.  
Source: Author’s calculation.  
* monthly annuity includes annuity payment from old PSPFS (if any) and NPSFPS, system-transit compensating bonus (if any), year-end compensating bonus and 18 per cent monthly interest income from the old-age benefits of Civil Servants and Teachers Social Insurance.

Table 2 reports the estimated replacement ratio for public servants according to various combinations of years of service in the old and new systems and professional grades, which highlights the generosity of the system’s benefits. As regards survivor benefit entitlements, when a retiree who had chosen to receive monthly payments dies, the eligible survivors receive either the balance of

3. The actual wage is mainly composed of the base salary and professional year-end bonus.  
4. 60 per cent adjusted by between 110 per cent and 130 per cent, plus 5 per cent for the year-end bonus annuity, to arrive at the replacement ratio based on the gross actual wage.
lump-sum benefits and the accumulated annuity amount\(^5\) or a pension equal to 50 per cent of the deceased’s monthly pension. To finance these benefits, the legal maximum contribution rate is set at 12 per cent of monthly earnings, of which 35 per cent is paid by general public-sector employees and 65 per cent by the employing government agencies.

It is worth noting that according to the Public Servants Pension Fund Management Statutes of the MBPSPF, the goal of fund management is to maintain long-term solvency, which means that financial self-sufficiency is the final goal of fund management. Despite this, the Public Servant Pension Act states that if system financial insolvency occurs, the shortfall will be made up from the national budget. This lack of clarity with regard to final financial responsibility has impacted on decision-making and the financial health of the system.

The NPSPFS has been operational only since 1995 and concern is growing as more information about benefit entitlements and the system’s financial health becomes available to the general public. The two issues of most concern are, first, that current entitlements will undermine intergenerational equity within the system and, second, it will undermine equity more generally because of the disparities in wealth distribution between the public and private sectors.

The equity implications of the NPSPFS

Challenges for equity within the system

Pursuant to the laws, the NPSPFS shall conduct an actuarial valuation once every three years to assess its financial health and may adjust the contribution rate accordingly. To date, three actuarial valuations have been performed: the first actuarial report was based on data as of June 30, 1999; the second as of December 31, 2002; and the third as of December 31, 2005. The three actuarial valuation reports all point to one fact: the NPSPFS is burdening itself with foreseeable financial difficulties and the pension rights of younger generations within the system will be endangered if the problem is not addressed.

According to the report of the first actuarial valuation, which was performed only four years after the fund was established, with 7 per cent as the assumed liability discount rate (i.e. the rate of return required on all present and future assets to fund

\[ \text{Balance} = \text{Max}\{1.5 \times \text{service years} \times 2 \times \frac{\text{final base salary} - \sum_{\text{monthly}} \text{monthly}}{\text{penion benefit received}}, 0\} \]

\(^5\) This may presented as:

\[ \text{Balance} = \text{Max}\{1.5 \times \text{service years} \times 2 \times \frac{\text{final base salary} - \sum_{\text{monthly}} \text{monthly}}{\text{penion benefit received}}, 0\} \]
the present and future liabilities), the actuarial liability totalled US$ 11.8 billion and the unfunded liability amounted to US$ 5.6 billion after netting fund assets of US$ 6.2 billion. Furthermore, the normal cost by aggregate level cost method for civil servants, public school teachers, and military personnel was 15.5 per cent, 17.9 per cent, and 21.9 per cent, respectively, while the then prevailing contribution rate was only 8.8 per cent. The valuation results pinpoint that the NPSPFS erred initially by providing generous benefits financed on the basis of a low contribution rate. While this may have been done in order to gain support from participants in the system it strongly contradicted its founding goal which was to replace the old PSPFS with a system that would be financially sound in the long term.

Due to a declining trend in the interest rate, the second actuarial report was based on an assumed liability discount rate and an investment yield of 3.65 per cent. The fund value was US$ 6.2 billion, but the actuarial liability increased to US$ 23.9 billion, which meant that the unfunded liability had increased to US$ 17.7 billion in the intervening three-year period. The normal cost by aggregate level cost method, which included the amortized amount for the unfunded liability for prior years of service, amounted to 26.4 per cent, 28.6 per cent, and 32 per cent for civil servants, public school teachers, and military personnel, respectively. Following the disclosure of these results, the authority responded by raising the contribution rate from 8.8 to 9.8 per cent in 2004, which is only about one third of the equilibrium rate.

The third actuarial valuation adopted 4 per cent as the liability discount rate and the fund investment yield rate, the unfunded liability was US$ 30.8 billion while accumulated fund assets were US$ 11.8 billion. Although the contribution rate was adjusted again to 10.8 per cent in 2005, the equilibrium rate was 31.1 per cent, 33.1 per cent and 36.3 per cent for civil servants, public school teachers, and military personnel, respectively. During the first nine years, the accrued liability increased at an annual rate of 15.3 per cent, while the fund assets only grew annually at 7.3 per cent. As a result, the unfunded liability grew to 21 per cent as of December 2005 dropped to 27.6 per cent. Figure 1 shows the evolution of the NPSPFS’ fund liability and asset values.

The deterioration of the NPSPFS’ funding status can be explained in relation to three factors:

6. Unfunded liability is calculated according to entry age actuarial cost method.
7. This is the actuarial method of calculating benefits and their costs for all the employees as a group rather than for each individual employee. The costs of the benefits are measured in the form of a percentage of the total payroll for the employee group.
8. The equilibrium rate is calculated based on the methodology that allocates the actuarial present value of future pension benefits to the various times of valuation in a participant’s active life.
9. In other words, the level of payroll required to amortize the unfunded liability was determined to be 21 per cent.
10. Funding ratio is the ratio of fund assets over the accrued liability.
First, the investment environment has become more challenging. The NPSPFS has placed more than 50 per cent of its assets in interest-bearing tools since 1996, but the yield, taking the average two-year deposit rate of Taiwanese banks as an example, declined from 6.93 per cent in 1996 to 1.812 per cent in 2005. Moreover, the nominal yield realized by the NPSPFS dropped from 7.8 per cent in 1996 to 3.7 per cent in 2005, albeit that it rebounded slightly to 5.62 per cent in 2007 (see Table 3). Without a more sophisticated investment strategy with which to better cope with volatile financial markets, fund size growth will remain sluggish and the NPSPFS will remain vulnerable to the risk of severe capital loss in times of global financial turmoil.

Second, there has been a rise in the system’s obligation burden. Due to the absence of actuarially-reduced benefits for early retirement, participants choose to retire with generous benefits once they satisfy the minimum retirement benefit criteria (Shao, 2007). Lack of actuarial equivalence between lump-sum benefits and the annuity amount is another challenge. Taking those retiring at age 55 as an example, the actuarial present value of a female life annuity is estimated to be equivalent to 3.3 times the value of the lump-sum payment. The greater the numbers of retirees who choose to take an annuity payment, the higher the cost of benefit obligations for the system. For instance, among public servants in 2005, 93 per cent of retirees chose an annuity payment. This contrasts with 60 per cent when the plan started (as shown in Figure 2).

Third, indecision on the part of the authorities to undertake improvements to the system has led to a rapid accumulation of unfunded liabilities and interest costs.
Table 3. *The average 2-year deposit rates and yields of the NPSPFS (percentage)*

<table>
<thead>
<tr>
<th>Year</th>
<th>2-year deposit rate (A)</th>
<th>NPSPFS realized annual nominal yield (B)</th>
<th>(C) = (B) − (A)</th>
<th>Inflation rate (D)</th>
<th>NPSPFS realized annual real yield (E) = (B) − (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>6.93</td>
<td>7.784</td>
<td>0.854</td>
<td>3.07</td>
<td>4.71</td>
</tr>
<tr>
<td>1997</td>
<td>6.292</td>
<td>12.42</td>
<td>6.128</td>
<td>0.90</td>
<td>11.52</td>
</tr>
<tr>
<td>1998</td>
<td>6.313</td>
<td>9.119</td>
<td>2.806</td>
<td>1.68</td>
<td>7.44</td>
</tr>
<tr>
<td>1999</td>
<td>5.846</td>
<td>8.181</td>
<td>2.335</td>
<td>0.18</td>
<td>8.00</td>
</tr>
<tr>
<td>2000</td>
<td>5.142</td>
<td>9.973</td>
<td>4.831</td>
<td>1.25</td>
<td>8.72</td>
</tr>
<tr>
<td>2001</td>
<td>4.016</td>
<td>4.72</td>
<td>0.704</td>
<td>−0.01</td>
<td>4.73</td>
</tr>
<tr>
<td>2002</td>
<td>2.246</td>
<td>2.594</td>
<td>0.348</td>
<td>−0.20</td>
<td>2.79</td>
</tr>
<tr>
<td>2003</td>
<td>1.567</td>
<td>1.946</td>
<td>0.379</td>
<td>−0.28</td>
<td>2.23</td>
</tr>
<tr>
<td>2004</td>
<td>1.496</td>
<td>2.628</td>
<td>1.132</td>
<td>1.61</td>
<td>1.02</td>
</tr>
<tr>
<td>2005</td>
<td>1.812</td>
<td>3.661</td>
<td>1.849</td>
<td>2.31</td>
<td>1.35</td>
</tr>
<tr>
<td>2006</td>
<td>2.419</td>
<td>4.446</td>
<td>2.027</td>
<td>0.6</td>
<td>3.85</td>
</tr>
<tr>
<td>2007</td>
<td>2.439</td>
<td>5.617</td>
<td>3.178</td>
<td>1.8</td>
<td>3.82</td>
</tr>
</tbody>
</table>


Figure 2. *Percentage choosing an annuity, by type of participant*
Since 1996, Taiwan has witnessed two changes in the ruling governing party. However, and as a result of the need to attract voters, neither of the ruling parties has dared to reform the system. Accordingly, the fund’s longer-term financial burden has been left unaddressed in the interest of shorter-term political considerations.

The actuarial valuation in December 2005 indicated that if no remedial plan was implemented a cash-flow shortage would occur in less than ten years, while insolvency would arise in two decades. Based on the information disclosed, participants younger than age 40 face a major risk with regards to their future economic security since current contributions will be exhausted paying benefits for retirees in the next 20 years. Thus if action is not taken to address the worsening financial situation, the current generation of public servants, teachers and military personnel who are close to retirement will exhaust the contributions of the next generation, with obvious resultant implications for intergenerational solidarity within the system (Lund, 2006).

Challenges for intra-system equity

To solve the problem of what may be termed the economic injustice of the public-sector system one solution would be to move to full pre-funding. This raises two questions. First, who would be responsible to provide the finance? Second, who is capable of providing the finance? Financing the actuarial equilibrium rate means that on top of 12.25 per cent of monthly earnings, which would have to be paid by the participants, the employers (government agencies) would have to budget for another 22.75 per cent of regular monthly wages. This would provide for the financial sustainability of the pension system, which is estimated to require about US$ 3.3 billion annually. Adding contribution costs to the cost of benefits for years of service under the old PSPFS, the total cost of retirement benefits (leaving aside the expenses for social insurance old-age benefits and the 18 per cent interest income subsidy paid to deposited lump sums) would be equivalent to 8.3 per cent of national tax revenue while those in the general public sector only account for 3.0 per cent of the Taiwanese population.

The use of the national budget in such a way raises serious questions about social justice and equity between population groups, especially when the benefits paid by the NPSPFS are deemed generous compared to the retirement benefits provided to the general population. This situation is compounded by the fact that the system is supposed to be self-sustaining.

11. Based on a 35 per cent equilibrium rate of which 65 per cent is borne by government employers while 35 per cent is borne by employees.
12. The annual salary expenses for public servants, military force and public education workers, according to the third valuation report, totals US$ 14.5 billion.
According to Ministry of Civil Service statistics (2008), the percentage of active public servants older than age 60 is 3 per cent, while those between ages 18 and 50 represent 76 per cent. The percentage of employees in education and military personnel who are older than age 60 is lower still. There are two explanatory factors for the low activity rates of older general public-sector employees. First, the retirement benefit is too generous. There is a clear disincentive to continue in employment if the monthly retirement benefit is more than the net monthly salary. Second, the lack of reduced benefits for early retirement and of an earning test for pensioners creates an arbitrage opportunity for retirees. In contrast to the global trend to raise the normal retirement age to mitigate the rising costs of old-age benefits (see Table 4), the average retirement age of general public-sector employees, taking the specific example of public servants, has decreased significantly from age 62.2 in 1996 to age 55.8 in 2005 (see Figure 3). If a professor starts teaching at age 30 and retires at age 55, according to Taiwan Life Insurance Annuity Mortality Table, her life expectancy at age 55 is 28 years. This implies she will receive an annuity for a period longer than that for which she paid contributions, and her survivor will be entitled to receive a benefit equivalent to 50 per cent of her annuity when she dies. Moreover, due to the lack of an earning test, many “young” retirees begin new salaried employment either in private schools or business units and thus have generous pension benefits on the one hand and private income on the other. All these facts indicate that the development of the system has deviated from its fundamental founding principle to provide basic financial security for salaried public employees who had paid contributions throughout their extended working careers.

Furthermore, it is unjust that the public-sector retirement system be designed to be so much more generous than the other systems for the general population. The

---

**Table 4. Selected retirement age changes**

<table>
<thead>
<tr>
<th>Country</th>
<th>Changes to pension age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Phased rise in pension age for women from 60 to 65 by 2013</td>
</tr>
<tr>
<td>Germany(^1)</td>
<td>Women’s pension age rising from age 60 to 65 by 2014. Actuarial reductions being introduced for retirement before age 65.</td>
</tr>
<tr>
<td>Japan</td>
<td>Age for first receipt of the basic pension rising from age 60 to 65 between 2001 and 2013.</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Women’s pension age to rise from age 60 to 65 between 2010 and 2020.</td>
</tr>
<tr>
<td>United States</td>
<td>Rising from age 65 to 66 in 2009 and to age 67 by 2027.</td>
</tr>
</tbody>
</table>

\(^1\) Germany will raise the normal pension age from age 65 to 67 between 2012 and 2029 (SSA and ISSA, 2008). Source: Disney and Johnson (2001).
huge difference in benefit levels found between the public system and that for private-sector employees is unjustified.

In July 2005, Taiwan promulgated the New Pension Act to replace the old mandatory occupational defined-benefit (DB) plans\(^\text{14}\) for employees working for private business units with mandatory defined-contribution plans. Though the old DB system provides possibly higher benefits than the new DC system, relatively few employees have been able to meet the qualifying conditions to apply for the retirement benefit: the criteria requires 25 years of continuous service with the same company, while the average life span for small- and medium-sized business units in Taiwan is only 13 years. The new DC plans aim to be more appropriate to the realities of a labour market where workers often switch jobs.

The New Pension Act requires all employers to make a mandatory monthly contribution of at least 6 per cent of the employee’s salary. The monthly contribution is placed in the employee’s personal account. Employees can make additional voluntary contributions up to a ceiling of 6 per cent of their monthly salary. According to Council of Labor Affairs’ statistics (Bureau of Labor Insurance, 2007), the average contributions made by employers and employees are 6.01 per cent and 5.05 per cent,\(^\text{15}\) respectively. When participants qualify to receive retirement benefits

\(^{14}\) The pension regulations are stipulated by the Labor Standards Act.

at age 60, there are two possible payment methods. If the employee has been a member of the system for more than 15 years, the accrued value of the funds in his or her personal account will be converted to a life annuity. Alternatively, with 15 years or less of affiliation, the employee will receive a lump-sum payment. Under this system the retirement payment fully depends on the final value of the employee's account, which relies on investment performance during the accumulation period. An employee retiring at age 60 with 30 years of service who has received an average yield of 5 per cent on investments and taking into account a 1 per cent rate of salary increase will be entitled to a 14 per cent replacement ratio based on a 20-year guaranteed life annuity. If he or she pays additional voluntary contributions equivalent to 53.8 per cent of the employer’s contribution, which is 3.2 per cent of the monthly salary, the aggregate replacement ratio would be 21 per cent. However, this rate is still far lower than that paid by the public-sector system for the same number of years of service.

Despite the fact the protests have become louder about the inequity between the different pension systems, policy-makers — who are also beneficiaries of the policy — have yet to take any active steps to reduce the generosity of the general public-sector pension system vis-à-vis that for private-sector workers. This lack of policy movement ignores the fact that the pension costs for employees in the general public sector is actually borne by all taxpayers.

Reforming the NPSPFS

Since maintaining current benefit levels and raising contributions to a level required to finance these benefits in a sustainable manner is neither workable nor generally acceptable, the other solution is to review the rationality of the pension system and to revise the benefits and qualifying conditions accordingly. Only on this basis may it be possible to restore the confidence of participants inside the system and of the general population outside the system. To this end, several policy directions can be considered.

First, if a DB system is still the best choice for most participants, then one approach would be to reduce the annual replacement rate from 2 per cent to 1 per cent for future years of service and base the benefit calculation on the value of the actual wage rather than twice the final base salary. In addition, the lump-sum old-age benefit from the first tier social insurance (the CSTSI and the MPI), which can earn 18 per cent interest, could be removed. In the meantime, imposing stricter criteria for receiving the full monthly annuity and also including new actuarially-

16. This is the matching ratio of public-sector employees, which is derived from 35 per cent divided by 65 per cent.
17. The annuity pricing rate is assumed to be 2.5 per cent.
reduced benefits for early retirement is a must. As to the unfunded liability accumulated up to the valuation year, this could be amortized separately over a period of 20 to 30 years and shared proportionately by government employers\(^{18}\) and participants. In order to ensure that the revised system operates on an on-going basis, the fair rate\(^ {19}\) must be established from the outset and adjusted whenever necessary. Under such a system, the retirement benefit would be reduced in a reasonable manner, an incentive would be provided for workers to remain in employment, and the benefits paid would be more closely linked to the level of contributions paid.

Second, if participants are willing to take more responsibility for their own old-age security (Mitchell, 2002) and wish to retain the certainty of a guaranteed retirement plan, a hybrid plan such as the United States’ three-tiered Federal Employees Retirement System (FERS) could be considered. In addition to the basic social security benefit, the other two components are the Basic Benefit Plan (BBP), a defined benefit plan, and the Thrift Savings Plan (TSP), a defined contribution plan (GAO, 1998).

Though a hybrid plan would involve more administration work and cost, under such an arrangement participants would eventually take more responsibility for their old-age security, while a basic floor of security would be maintained by the defined-benefit plan. However, if there is a requirement to stay with the current 12 per cent contribution rate, and if a portion of the contributions are to be allocated to the DC plan, the annual replacement rate for future years of service under the DB basic plan would need to be reduced to less than 1 per cent.

Third, if participants are ready to accept major change, then the current DB system could be replaced by a cash-balance DC system. Under a DC plan, and if the current 12 per cent contribution rate is maintained, with an average 5 per cent investment yield and 30 years of service the estimated replacement ratio at age 60 would be 30 per cent — which is 30 per cent more compared to that paid to the general population under the New Pension Act. Not only would this reduce the difference in benefits between systems but it should remove the current need for cross-subsidization as each generation should be financially self-supporting. Greater equity between segments and generations would be achieved, and the well-being of the broader groups including general taxpayers will be enhanced (Mitchell 2002).

Finally, if Taiwan’s policy-makers are committed to creating a degree of equity between the pension systems then the approach of the Government of Japan is

---

18. If the unfunded liability is amortized over 30 years, government agencies need to contribute another 7 to 8 per cent of annual salary.
19. The fair rate is about the current 12 per cent contribution rate, since the equilibrium rate excluding the unfunded liability up to the third valuation report is about 2.0 to 2.3 times the current contribution rate.
another possibility. The Japanese Government has submitted a pension reform bill to integrate the pension system for civil servants into the general pension scheme for private-sector employees. If the objective is the pursuit of equity between professions and generations, creating a unitary old-age security system for all may offer the best solution.

Conclusions

With less than 20 years of operation, the NPSPFS is a young plan. However, and according to the latest actuarial valuation, from 31 December 2005, the funding ratio is just 28 per cent — in other words, the actuarial accrued liability was only 28 per cent covered by the actuarial value of assets. The financial disequilibrium of the system and its over-generous benefit provisions are now the focus of national attention.

Inappropriate plan design is the major reason for the deterioration of the financial health of the fund. Specifically, benefits that are overly generous provide an incentive for participants to leave employment at the first opportunity. The absence of an actuarially-reduced benefit for early retirement burdens the system with more financial pressure as the average retirement age drops and life expectancy gradually increases. The absence of an earnings test encourages young retirees to return to salaried employment while in receipt of pension benefits. And government employers have to allocate continuously increasing amounts for pension expenses, but still the system is under-financed. As a result, the younger generations of public-sector workers are losing confidence that they will receive benefits at retirement, since the fund will be exhausted by the time they retire. The Taiwanese population believes the system is inequitable since the pension costs for the general public sector, which comprises 3 per cent of the workforce, takes up more than 8 per cent of national tax revenue while the levels of pension benefits between the public sector and other segments are far from comparable.

There are two possible responses to this scenario. The first is to raise the contribution rate up to the actuarial fair rate, in order that the present value of lifetime contributions equals the present value of lifetime benefits. The other is to cut the value of benefits or structurally reform the pension system. Let us consider the first of these. To raise the contribution rate up to the fair rate still implies that a 65 per cent share of the total cost is borne by “government as employer”. In terms of its impact on the national budget allocation, this would not conform to the equity principle on which the system was founded. Moreover, it would not address the existing differentiation between public-sector and private-sector benefits. Thus the only real response is either to cut benefits in a significant manner or structurally reform the pension system. With either of these approaches, the pension system should be sustainable thus permitting the younger generation in the public sector to
receive a benefit at retirement. Regardless, the generosity of the benefits allocated to workers in the public-sector segment should be reduced and a minimum degree of equity between segments achieved.

In this article four reform suggestions have been made. One is to cut the annual replacement rate for future new service years. A second is to adopt a hybrid plan, such as that of the United States’ FERS. The third is to replace the current DB plan with a cash-balance DC plan. For the fourth, Taiwan may consider integrating the private and public pension systems, as Japan plans to do. Further research should investigate alternative plan types and benefit levels that better link the contribution rate to the benefit design and which provide general public employees with equitable old-age security.

Looking to international experience, at all times, pension systems never satisfy all stakeholders: since the design of the system is about the allocation of resources it is unlikely to satisfy all interests. Pragmatically, therefore, in the process of system review, the authorities should at least insist upon better realizing the principles of maximum equity and optimal fairness.

Bibliography


The public pension system in Taiwan: Equity issues within and between systems


SSA; ISSA. 2008. Social security programs throughout the world: Europe. Washington, DC, Social Security Administration.
The ratification of ILO Conventions and the provision of unemployment benefits: An empirical analysis

Wonik Kim

Department of Political Science, Louisiana State University, United States

Abstract This article tests the relationship between the ratification of International Labour Organization (ILO) Conventions and the provision of unemployment benefits. Statistical tests focus on two related issues: why countries ratify ILO Conventions on unemployment benefits, and whether ratification influences government spending on unemployment benefits. The main findings are that democracy, region, income, and globalization are the main factors influencing why countries ratify ILO Conventions on unemployment benefits. In turn, the ratification of ILO Conventions is systematically associated with higher spending if countries have ratified more than two Conventions.

Keywords unemployment benefit, ILO Convention, welfare state, statistical analysis, international

Introduction

The current global economic downturn is generally accepted as being the worst since the Great Depression. As a result, since 2008, unemployment rates have soared dramatically and government policy toward the unemployed has risen in importance. Moreover, the current juncture underlines that social risks do not respect national frontiers, an observation that has bolstered calls for a greater degree of international policy coordination.

Address for correspondence: Wonik Kim, Assistant Professor, Department of Political Science, 229 Stubbs Hall, Louisiana State University, Baton Rouge, LA 70803-5433, United States; Email: wkim@lsu.edu. The author thanks the anonymous reviewers for their useful comments on an earlier draft.
In the social policy literature, social protection issues often focus narrowly on
domestic factors and largely neglect the broader international dimensions of the
welfare state. Of course, the development of national social security policy depends
greatly on domestic factors, but policy decisions may also be shaped by external
factors, including the influence of international organizations. By highlighting the
potential importance of external factors alongside domestic factors, this perspective
brings into question the validity of three predominant theories of the welfare state
that concentrate heavily on domestic factors: power-resources theory, logic of
industrialism, and variety of capitalism.1

The purpose of this article is to empirically assess the international dimension
vis-à-vis the ratification of International Labour Organization (ILO) Conventions
on unemployment benefits. Unemployment benefits are broadly defined here as
government programmes, including unemployment assistance and unemploy-
ment insurance, targeted towards those defined as unemployed. The question to
be tackled is whether there is a systematic relationship between the ratification of
ILO Conventions that, at least in part, address the provision of unemployment
benefits and the level of unemployment benefits? To answer this question, we
need to ask why countries ratify ILO Conventions on unemployment benefits.
However, this would suggest a requirement, first, to disentangle the effects attrib-
utable to the ratification of a Convention on unemployment benefits from the
conditions that influence the very ratification. To achieve this, a series of statistical
tests has been undertaken on two related issues: the motivating factors underlying
the ratification of specific ILO Conventions dealing with unemployment benefits
and the effects of such ratification on the nature of unemployment benefits pro-
vision. This study examines a time-series, cross-section sample of a large number
of countries over a 90-year period (1919 to 2009) for which the necessary data is
available (unit of analysis is a country-year). Although it is acknowledged that
regression analysis cannot trace detailed causal processes about the motivating
factors for, and effects of, the ratification of ILO Conventions, it is hoped that,
given the paucity of studies on this topic, this present article takes a small step
toward establishing a degree of statistical regularity2 between ratification and
unemployment benefits.

1. Power-resources theory is based on studies on advanced capitalist countries, emphasizing govern-
ment’s partisanship and organized labour as a significant mechanism for the development of the welfare
state (e.g. Hicks, 1999; Huber and Stephens, 2001; Korpi, 1983; Stephens, 1979). The logic of industri-
alism posits that the welfare state is a product of the needs generated by the development of industrial
societies (Wilensky, 1975). The theory of variety of capitalism is largely a continuation of the logic of
industrialism, but advances the idea of social risks, institutional features of the welfare state, and the role
of firms (Hall and Soskice, 2001; Iversen, 2005).
2. Statistical regularity infers that random samples taken from a large test group tend to reflect the
characteristics of the group. The larger the sample in relation to the size of the whole group, the more
accurately the sample is thought to reflect the group’s characteristics.
This article is organized as follows. The next section explores the effects of the ratification of ILO Conventions on unemployment benefits provision and presents a brief overview of trends in the ratification of ILO Conventions on unemployment benefits. After presenting the existing empirical evidence and introducing the estimation models, the statistical analysis follows. Finally, conclusions are presented.

### ILO Conventions and unemployment benefits

#### Ratification effects on national unemployment benefits

The ILO is one of the oldest and largest international organizations. It was established in 1919 as part of the Treaty of Versailles and currently has 182 member states. The ILO Constitution of 1919 enshrined the achievement of “social justice” as a core general objective of the organization. The International Labour Conference (ILC) of the ILO is the major forum for promoting this objective. In turn, the active pursuit of this objective is framed by international labour standards: ILO Conventions and Recommendations. According to the ILO, a main task of the ILC is the crafting and adoption of international labour standards in the form of Conventions and Recommendations. Conventions are international treaties that, once adopted by the Conference, are open to ratification by member States. Ratification creates a legal obligation to apply provisions of the Convention in question. ILO Conventions cover many areas of legislation, including employment rights, social regulation, and social security. The ILC also supervises the application of Conventions and examines reports on compliance by countries that have ratified the same. As of 2009, 188 Conventions have been adopted by the International Labour Conference. Recommendations are intended to guide national action, but are not open to ratification, and are not legally binding. The focus of this article lies firmly on ILO Conventions, and no further reference will be accorded to the international role of Recommendations.

Empirical studies suggest that the ratification of ILO Conventions has a positive and significant impact on labour costs (Rodrik, 1997), social spending (Strang and Chang, 1993), and social legislation (Usui, 1996). Strang and Chang (1993) suggest two reasons why ratification is effective. First, ratification offers a script that national actors can draw on to design policy in that they provide “skeleton legislation” (1993, p. 242). Second, ILO Conventions serve as “the frame of reference” with which organized labour, one of the tripartite ILO’s main constituencies (alongside governments and employers), can set its goals in terms of internationally-
recognized “human rights”. Although it is not directly concerned with the question of ratification, Usui’s study (1996) examines the global diffusion of social security programmes and demonstrates a positive relationship between countries’ participation at the annual ILC and the provision social security programmes.

These different empirical analyses, however, fall into what is sometimes called the aggregation pitfall. By testing the impact of only one index that comprises all the distinct Conventions, these studies do not differentiate the characteristics of each Convention. Indeed, governments are quite selective about which Conventions they ratify, because they are keenly aware of the political implications of their actions. And countries may denounce ratification, withdrawing from certain Conventions after they have signed. The requirements of some Conventions are very specific in that they indicate actual levels of benefits and who should provide and receive benefits, so countries find it easier to abide by the Conventions, and their compliance with each article can be monitored. Thus, countries that have ratified one or more Conventions are at least nominally conditioned by their concrete requirements.

A more serious problem with existing empirical studies is that the countries that ratify ILO Conventions may be systematically different from those countries that do not ratify any. Obviously, governments do not ratify ILO Conventions randomly; they do so only under certain conditions. Compared to dictatorships, democratically-elected governments may find the ratification of ILO Conventions a useful commitment device. Democratically elected governments may wish to commit themselves to providing consistent unemployment benefits by declaring their ratification. They may also wish future administrations to maintain the level of unemployment benefits and to make it more difficult to retrench the level of benefits.

From another perspective, richer countries with relatively solid social-spending capacity may be more likely to ratify Conventions addressing social security programmes than poorer countries. As is the case for the diffusion of social policies more generally (Strang and Chang, 1993; Usui, 1996), the diffusion of the ratification of Conventions may be regionally clustered. Finally, globalization matters as well. Countries that are more integrated with the world economy and more exposed to global culture, international flows of information, and global politics, may be more likely to enter into ratification than other countries. Therefore, to answer the question about the possible effects of the ratification of ILO Conventions, we must be able to identify what part of the ratification effects should be attributed to existing national conditions, and what part should be attributed to the inherent effects of the ratification itself.

Previous studies that have estimated the effects of the ratification of ILO Conventions on the expansion of the welfare state have taken the ratification of Conventions as a given (Rodrik, 1997; Strang and Chang, 1993; Usui, 1996). These studies do not address the possibility of the selection problem: that the circum-
stances under which countries ratify Conventions in the first place are systematically related to the level of unemployment benefits.

Accordingly, this paper examines two related questions: Why do countries ratify ILO Conventions on unemployment insurance? What are the consequences for the level of unemployment benefits? These two questions should be examined simultaneously. To date, there remain large gaps in the empirical analysis of the origins of the ratification of ILO Conventions. Haas’ (1962) early work and Boockmann’s (2001) statistical analysis are two of only a handful of systematic studies that deal directly with this topic. While this research has enhanced knowledge about the processes underlying the ratification of ILO Conventions, neither deals directly with unemployment benefits nor do they raise the issue of the resulting effects of ratification. Thus, there is need for an alternative approach. Before presenting the statistical analysis, a brief historical overview of ILO Conventions on unemployment benefits is in order.

An overview of ILO Conventions on unemployment benefits

Among the 188 Conventions that have been adopted by the ILC as of 2009, four are related to unemployment benefits: the Unemployment Convention of 1919 (No. 2), the Unemployment Provision Convention of 1934 (No. 44), the Social Security (Minimum Standards) Convention of 1952 (No. 102), and the Employment Promotion and Protection against Unemployment Convention of 1988 (No. 168). Historically, unemployment benefits programmes have been the last social programme adopted in most countries among other major social security programmes (i.e. work injury benefits, pensions, health care, and family allowances) (see Pierson, 1998; Alber, 1981). Globally, unemployment benefits programmes are the least common type of social security programme. According to Social Security Programs Throughout the World (SSPTW) (SSA and ISSA, various years), as of 2008, 81 countries provided unemployment benefits programmes. Among these countries, the international distribution of unemployment benefits programmes is regionally skewed. Out of the 81 countries, 23 are in Asia and the Pacific, 11 are in the Americas, and four are in Africa. In contrast, all reported European countries (43 countries) either provide unemployment benefits programmes directly or address the needs of the unemployed through social assistance or another social programme.5

As Table 1 indicates, the Unemployment Convention (No. 2) of 1919 enjoys the highest number of ratifications, followed by the Social Security Convention (No. 102) of 1952. The attractiveness of the Convention of 1919 is perhaps due to its

The ratification of ILO Conventions and the provision of unemployment benefits: An empirical analysis

Table 1. Number and status of ratifications of the four Conventions

<table>
<thead>
<tr>
<th>Convention Number</th>
<th>Year adopted</th>
<th>Number of ratifications</th>
<th>Number of ratified conventions</th>
<th>Number of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 002</td>
<td>1919</td>
<td>56(^a)</td>
<td>0</td>
<td>92 (65.8 per cent)</td>
</tr>
<tr>
<td>No. 044</td>
<td>1934</td>
<td>14(^b)</td>
<td>1</td>
<td>58 (23.3 per cent)</td>
</tr>
<tr>
<td>No. 102</td>
<td>1952</td>
<td>22(^c)</td>
<td>2</td>
<td>26 (7.9 per cent)</td>
</tr>
<tr>
<td>No. 168</td>
<td>1988</td>
<td>6</td>
<td>3</td>
<td>6 (3.0 per cent)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>98</strong></td>
<td><strong>6</strong></td>
<td><strong>182 (100 per cent)</strong></td>
</tr>
</tbody>
</table>

Note: \(^a\) three countries denounced (Bulgaria, India, and Uruguay); \(^b\) two countries denounced (Norway and Switzerland); \(^c\) is the number of ratifications covering Part IV of Convention No. 102 which deals with unemployment benefits, while the total number of ratifications is 44 (in 2009, Brazil became the 45th country to ratify, including Part IV); entries in the parentheses in the last row are the percentages of the total country-year observations from 1919 to 2009 \((N = 10,757)\).


foundational, symbolic declaration on unemployment, and its less-strict requirements in which countries find little difficulty in ratifying if they agree with the Convention’s programmatic principle; Article 3 of this Convention is the only clause that discusses possible unemployment insurance. A degree of care is required when addressing Convention No. 102 of 1952, because it covers a broad range of programmes, and countries may selectively ratify parts of the Convention. For example, only 22 out of the 44 countries (by early 2009) that have ratified No. 102 included Part IV of the Convention, which provides for prescribed categories of protected workers and for a level of unemployment benefits.

Three countries, Bulgaria, India and Uruguay, have denounced Convention No. 2 of 1919. Norway and Switzerland denounced Convention No. 44 of 1934 in 1990, but then ratified Convention No. 168 of 1988, which revises the 1934 Convention. The most recent Convention, No. 168 of 1988, is crafted to focus more on employment strategies with flexible requirements regarding the level and duration of benefits (Chapman and Russell, 2002, pp. 109-110). To date, it has been ratified by Albania, Brazil, Finland, Norway, Romania, Sweden and Switzerland.\(^6\)

The fourth and fifth rows in Table 1 show the descriptive statistics of countries participating in the four Conventions between 1919 and 2009. Across the period, a total of 90 out of 182 ILO member States have ratified at least one of the four Conventions, resulting in 34.2 per cent of the total number of country-year observations for the 90-year period (10,757). No country has ratified all four Conventions, and only six countries have ratified three Conventions (3.0 per cent of

6. In 2006, Albania became the seventh country to ratify, but this ratification was not included in the statistical analysis (see Table 1).
The ratification of ILO Conventions and the provision of unemployment benefits: An empirical analysis

Figure 1. Total ratifications of the four Conventions, 1919-2009

![Graph showing total ratifications of the four Conventions, 1919-2009](image)

Note: Own elaboration based on ILOLEX, http://www.ilo.org/ilolex/english.

The majority of countries (58 out of 90) that have ratified at least one ILO Convention have actually ratified only one of the four (23.3 per cent of the total number of observations).

Figure 1 illustrates the historical trend of the total number of ratifications of the four Conventions from 1919 to 2009. The solid line indicates the number of ratifications in a given year, and the dashed line shows the cumulative number of ratifications over time. From this figure, we see that the frequency of ratifications has been evenly distributed over time, indicating that almost every year at least one country has signed a Convention since the first Convention of 1919. Yet, this trend runs into two periods of non-ratification: the 1980s and after the early-1990s. In fact, if we omit the very immediate period after the adoption of Convention No. 168 of 1988, the ratification curves point to a “plateau” from the early 1980s onward. Since the end of the 1970s, therefore, this might suggest that the relative importance for national policy agendas of tackling unemployment has declined.

Figure 2 disaggregates the four Conventions and shows comparative time-phases of ratifications. As discussed above, Convention No. 2 of 1919 contains the largest number of ratifications and has consistently drawn countries’ ratifications over time. Adopted during the Great Depression-era, Convention No. 44 of 1934 was the first Convention that specifically stipulated the conditions of benefits that ratifying countries should abide by. Chapman and Russell suggest that Convention No. 34 was largely outdated by the 1970s, and it was replaced by Convention No. 168 in 1988 (2002, p. 108). Figure 2 clearly demonstrates the plateau of non-ratification
that developed after the early 1990s. Over the last two decades, ratifications of ILO Conventions on unemployment benefits have been rare.

Amongst others, one possible explanatory factor might be the spread of the neoliberal policy agenda since the 1980s, which has contributed to welfare state retrenchment in many countries. Whatever the reason, the point to underline is that the recent plateau of ratifications of Conventions addressing the issue of unemployment protection runs counter to the fact that, globally, unemployment has remained high and even increased in recent years (Duménil and Lévy, 2004; Harvey, 2005). Hence, it is imperative to assess why countries actually signed the Conventions, and whether ratification has brought about any substantive change toward compensating against the negative effects of unemployment. To determine this, we now turn to the statistical analysis.

**Statistical analysis**

**Estimation methods**

The preceding discussion has introduced two related questions: the origins and effects of the ratification of ILO Conventions. To answer these questions, two sets of

---

7. In addition to neoliberal globalization, Standing (2008) has recently attributed some of the challenges associated with this ‘plateau’ to the internal conflicts within the ILO bureaucracy.
statistical analysis are employed. First, to address the question about the origins of ratification, the ordered probit model is used, because from the sample we know that a country could ratify up to three of the four Conventions. The ordered probit is an appropriate model, because the dependent variable has ordinal values and there is no reason to assume equal distances between the number of ratifications. In other words, we do not know that the distance between no ratification and one ratification is the same as the distance between one ratification and two ratifications (Greene, 2003, p. 736).

A second set of statistical analysis tests whether or not ratification has a positive effect on unemployment benefits. Because ratification may not be a randomly generated phenomenon and can be systematically selected due to country-specific conditions, in the second test one should not simply put the number of ratifications as an independent variable. To properly assess the effectiveness of ratifications, one should connect the ordered probit model to this second statistical analysis, by taking “instruments” of ratifications (estimated probabilities of ratifications) from the ordered probit model, and use these as proxies for ratifications as a right-hand-side variable.8

Variables and data

The dependent variable of the ordered probit model is the number of countries’ ratifications of the four ILO Conventions on unemployment benefits (Number of Ratifications). It is coded 0 if a country does not ratify any Convention, 1 if it ratifies one Convention, 2 if it ratifies two Conventions, and 3 if it ratifies three Conventions. As discussed in the previous section, Convention No. 168 of 1988 is not directly related to unemployment benefits, so one may speculate as to whether this Convention should indeed be classified with the other three Conventions. To check the robustness of the overall findings based on the four Conventions, additional statistical tests, excluding Convention No. 168, are conducted. The results are reported in Appendix A and B.

There are two conditions for ratifications that constitute basic covariates: ILO membership and the presence of unemployment benefits programmes. These are not necessary, but sufficient conditions, for ratifications, because countries that ratify the Conventions must be members of the ILO and have the programme. ILO Membership is a dummy variable coded 1 if a country is a member of the ILO and 0 otherwise. Unemployment Programme is a dummy variable coded 1 for the

8. Specifically, it is a two-stage equation model in which the first equation is to model the origins of ratifications using the ordered probit model. This first selection equation generates an instrument (the inverse-mills ratios or “propensity score” of four predicted probabilities) to be used in the performance equation that tests a systematic relationship between ratifications and unemployment benefits. For the ordered probit selection model, see Chiburis and Lokshin (2007).
The ratification of ILO Conventions and the provision of unemployment benefits: An empirical analysis

presence of unemployment benefit programmes and 0 otherwise. The data on the adoption of the programme are taken from Social Security Programs Throughout the World (SSA and ISSA, various years).

As introduced in the previous section, the possible factors that affect a country’s decision to ratify the Conventions are type of political regime (democracy or dictatorship), region where a country is located (to test possible regional diffusion effects), income level, and globalization. I include ‘Democracy’, coded 1 for democracy and 0 for dictatorship. The data for the period from 1946 to 2000 are taken from Przeworski et al. (2000), and the data for the period from 1919 to 1945 and from 2001 to 2009 are constructed based on the Przeworski et al. (2000) coding rule for regime classification. To assess possible regional effects, three regional dummy variables are included: Africa, Asia, and Latin America (Europe/North America is omitted as a category). A country’s income level is measured by GDP per capita. Total population is included to control the size of a country. A log is taken of these two variables to smooth their values. The data on GDP per capita and population are taken from World Development Indicators (World Bank, 2008).

This study uses The KOF Index of Globalization to see the impacts of globalization. The KOF Index, constructed by Dreher, Gaston and Martens (2008), is probably the most comprehensive measure of diverse aspects of globalization going back to 1970, and covers a large number of countries. Unlike usual measures of economic globalization, The KOF index is innovative in that it contains political, social, and cultural dimensions. The measures include Economic Globalization, Political Globalization, Social Globalization, and Cultural Proximity. Economic Globalization is a composite measure of trade openness, foreign direct investment, portfolio investment, payments to foreign nationals, and legal restrictions on trade and capital mobility. Political Globalization measures the number of embassies, participations in United Nations activities, and participations in international organizations. Social Globalization captures personal contact and information flows. And Cultural Proximity is a measure of the number of McDonald’s restaurants (per capita), the number of Ikea shops (per capita), and trade in books.9

The Time variable is used to control for duration dependence.10 Following Box-Steffensmeier and Bradford (2004), the analysis includes a natural log of years that have passed from the adoption of the Conventions until ratifications to account for any duration dependence in the data.

The second statistical analysis is to test the effects of ratifications on unemployment benefits. The dependent variable, Unemployment Benefits, is government expenditure on unemployment benefits as a percentage of GDP, taken from the

---

9. For detailed descriptions of these indices, see Dreher, Gaston, and Martens (2008).
10. Duration dependence — or time dependence — implies that the probability of an event occurring is driven mainly by a cumulative time factor.
ILO’s Cost of Social Security, EUROSTAT, and the Organisation for Economic Co-operation and Development’s Social Security Database, which are complied in the ILO on-line Social Security Expenditure Database. The mean of Unemployment Benefits in the sample is 1.16 per cent (the standard deviation of 1.04), while the minimum is 0.2 per cent and the maximum is 5.19 per cent. Other covariates included in the second analysis serve as control variables.

Results

Table 2 presents the ordered probit estimates with robust standard errors.\textsuperscript{11} The base-line model is the one that constitutes sufficient conditions for ratifications: ILO Membership and Unemployment Programme. To this base-line model, we add democracy in Model I, regional dummy variables in Model II, income level and population in Model III, and globalization in Model IV. As expected, ILO Membership and Unemployment Programme are positively associated with the likelihood of ratifications. The estimate of Democracy is also positive and statistically significant at the 1 per cent level. Given the large sample, which covers 198 ILO member States from 1919 to 2009, we can conclude that this result confidently reflects the reality. Moreover, this effect of Democracy remains robust in the presence of other factors, holding its significance across all the models. These robust findings clearly suggest that democratic regimes are more likely to ratify the ILO Conventions than dictatorships.

Model II estimates the effect of regions, compared to the omitted category of Europe/North America. The estimate of Africa is not statistically different from zero, but the signs of the coefficients of Asia and Latin America are negative and significant at the five per cent level. Countries in Asia and Latin America are less likely to ratify the Conventions than countries in Europe and North America, even after accounting for the strong effects of democracy. We can infer from these findings that the ratification of ILO Conventions of unemployment benefits is very much a European phenomenon.

The positive and significant coefficient of Log(GDP per capita) in Model III indicates that the richer a country is, the more likely it is to sign ILO Conventions. Log(Population) is not statistically significant; the size of countries has little to do with ratification. Interestingly, the significant effect of ILO Membership disappears once the regional variables are added. Being a member State of the ILO is just a weak sufficient condition for ratification, easily overwhelmed by other factors. And, the coefficient of Time has a negative sign and is statistically significant. The longer the time that has passed since the adoption of the Convention, the less likely it is that a

\textsuperscript{11} In the table, \( \mu \) is the parameter of the cutpoint. There are three cutpoints, because the dependent variable has four categories (0, 1, 2, and 3). McKelvey and Zavonia’s \( R^2 \) is used, which most closely approximates the \( R^2 \) obtained by fitting in the linear regression (Long and Freese, 2006, p. 196).
This shows that, in general, countries tend to sign a Convention soon after it is adopted. In a sense, this statistical finding confirms our previous observation of a plateau of the ratification curve after the 1990s.

Do globalization pressures lead member States to participate in ILO Conventions on unemployment benefits? The results in Model IV suggest that countries that ratify are, to some extent, conditioned by globalization. Economic Globalization, Political Globalization, and Cultural Proximity are all positively associated with the likelihood of ratifications. Garrett (1998) and Rodrik (1997) argue that economic globalization in an open economy increases social risks, which, in turn, makes government more susceptible to social security policy options than would be the

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
<th>Model IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILO Membership</td>
<td>0.48(0.24)**</td>
<td>0.41(0.24)**</td>
<td>0.31(0.33)</td>
<td>−0.43(0.44)</td>
</tr>
<tr>
<td>Unemployment Programme</td>
<td>1.43(0.68)***</td>
<td>1.27(0.17)***</td>
<td>0.88(0.20)***</td>
<td>0.65(0.23)***</td>
</tr>
<tr>
<td>Democracy</td>
<td>0.35(0.14)***</td>
<td>0.40(0.15)***</td>
<td>0.38(0.19)**</td>
<td>0.46(0.22)**</td>
</tr>
<tr>
<td>Africa</td>
<td>−0.17(0.24)</td>
<td>0.16(0.32)</td>
<td>−0.09(0.38)</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>−0.60(0.30)**</td>
<td>−0.63(0.34)*</td>
<td>−0.76(0.40)*</td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>−0.47(0.24)**</td>
<td>−0.44(0.26)*</td>
<td>−0.63(0.31)**</td>
<td></td>
</tr>
<tr>
<td>Log(GDP per capita)</td>
<td>0.33(0.09)***</td>
<td>0.28(0.14)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log(Population)</td>
<td>0.08(0.07)</td>
<td>−0.09(0.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Globalization</td>
<td></td>
<td>0.013(0.008)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Globalization</td>
<td></td>
<td>0.024(0.006)***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Globalization</td>
<td>−0.03(0.01)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Proximity</td>
<td></td>
<td>0.012(0.005)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>2.71(4.11)</td>
<td>4.22(4.23)</td>
<td>−17.32(0.06)***</td>
<td>−54.9(21.0)***</td>
</tr>
<tr>
<td>μ1</td>
<td>22.15(31.15)</td>
<td>33.23(32.00)</td>
<td>−126.8(48.7)***</td>
<td>−415(158)***</td>
</tr>
<tr>
<td>μ2</td>
<td>23.32(31.14)</td>
<td>34.43(32.00)</td>
<td>−125.5(48.6)***</td>
<td>−423(159)***</td>
</tr>
<tr>
<td>μ3</td>
<td>24.34(31.14)</td>
<td>35.00(32.00)</td>
<td>−124.4(48.6)***</td>
<td>−412(158)***</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>−7,187.66</td>
<td>−7,052.31</td>
<td>−4,383.38</td>
<td>−2,922.87</td>
</tr>
<tr>
<td>McKelvey &amp; Zavoina’s R²</td>
<td>0.40</td>
<td>0.43</td>
<td>0.51</td>
<td>0.56</td>
</tr>
<tr>
<td>Number of Obs./Countries</td>
<td>10,223/198</td>
<td>10,223/198</td>
<td>6,393/177</td>
<td>3,930/121</td>
</tr>
</tbody>
</table>

Note: Standard errors are in the parenthesis; * p < 0.10, ** p < 0.05, *** p < 0.01.
case in a closed economy. This compensation theory seems to work in the case of unemployment benefits programmes, although the effect of Economic Globalization is not highly significant. Among various dimensions of globalization, however, the effect of Political Globalization is the largest and highly significant at the 1 per cent level. Actively participating in international political activities may create an environment in which the Member state has more incentive to sign ILO Conventions. The negative relationship between Social Globalization and the likelihood of ratifications is counter-intuitive, but the coefficient is significant only at the 10 per cent level, in which case we cannot confidently infer that the relationship is solid.

From the ordered probit results, we have identified positive factors that are systematically related to the ratification of the ILO Conventions. Countries participate in ILO Conventions if they are democratic, politically-internationalized, rich, and under pressure from economic globalization. Because countries do not sign ILO Conventions randomly, ratification itself should be expected to generate an observable consequence. To assess the effectiveness of ratifications, the next test takes government expenditure on unemployment benefits as the dependent variable. Standard assumptions of linear regression are usually violated due to problems that stem from time-series cross-section data of government expenditure. Following Beck and Katz's (1995) suggestion to correct for possible problems, we employ a panel-corrected standard-errors model (PCSE) with a lagged dependent variable, Unemployment Benefit _t-1_.

The sample of analysis covers 48 countries for the period 1989 to 2005 in which the data on unemployment benefits are available. As discussed above, the four predicted probabilities of ratifications from the complete specification of Model IV in the ordered probit are used as the instruments for the ratification factors. “Ratification 0” is a proxy for non-ratification, “Ratification 1” for one ratification, “Ratification 2” for two ratifications, and “Ratification 3” for three ratifications. Because the purpose is to evaluate the ratification effects on unemployment benefits, all the other independent variables used in the first analysis serve as control variables in this second analysis, except ILO Membership and Unemployment Programme (because countries in the sample are all ILO member States and they are expected to have unemployment benefits programmes).

Table 3 reports the results from the PCSE models. The estimate of Number of Ratifications in Model I has a positive sign and is statistically significant, indicating that the more countries ratify ILO Conventions, the more they spend on unemployment benefits. While this evidence itself supports a positive relationship between ratifications and unemployment benefits, it may be misleading because the model does not account for the origins of ratifications.

12. The double quotation mark (""") indicates that these variables are instruments, not observed variables.
From Model II to Model V, we include the instruments of ratification with control variables. All the coefficients of the instrument variables are highly significant. Except per capita income, the coefficients of most control variables are not statistically significant. The highly significant estimates of the instrument variables even in the presence of the control variables are remarkable, because this means that the ratification mainly determines the level of government spending on unemployment benefits. The sign of the estimates of “Ratification 0” is negative, indicating that non-ratification decreases the level of unemployment benefits. Countries that never participate in the Conventions are indeed free from ILO constraints. Interestingly, the coefficient of “Ratification 1” also shows a negative sign. To increase government spending on unemployment benefits, ratifying only one ILO Conven-

Table 3. Estimates of the PCSE models: Spending on unemployment benefits (per cent of GDP), 1989-2005 for 48 countries

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
<th>Model IV</th>
<th>Model V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.05(0.15)</td>
<td>0.31(0.19)*</td>
<td>0.15(0.17)</td>
<td>0.14(0.15)</td>
<td>0.07(0.15)</td>
</tr>
<tr>
<td>Unemployment Benefits(t-1)</td>
<td>0.94(0.03)**</td>
<td>0.95(0.02)**</td>
<td>0.94(0.03)**</td>
<td>0.95(0.03)**</td>
<td>0.93(0.03)**</td>
</tr>
<tr>
<td>Number of Ratifications</td>
<td>0.03(0.01)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 0”</td>
<td>-0.30(0.1)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 1”</td>
<td></td>
<td>-0.42(0.17)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 2”</td>
<td></td>
<td></td>
<td>0.48(0.16)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 3”</td>
<td></td>
<td></td>
<td></td>
<td>0.90(0.34)**</td>
<td></td>
</tr>
<tr>
<td>Democracy</td>
<td>-0.01(0.06)</td>
<td>-0.09(0.06)</td>
<td>0.12(0.05)**</td>
<td>-0.04(0.06)</td>
<td>0.03(0.05)</td>
</tr>
<tr>
<td>Africa</td>
<td>-0.06(0.07)</td>
<td>0.00(0.12)</td>
<td>-0.15(0.11)</td>
<td>-0.03(0.07)</td>
<td>-0.09(0.08)</td>
</tr>
<tr>
<td>Asia</td>
<td>-0.07(0.03)**</td>
<td>-0.04(0.05)</td>
<td>-0.03(0.05)</td>
<td>0.05(0.06)</td>
<td>0.03(0.06)</td>
</tr>
<tr>
<td>Latin America</td>
<td>-0.06(0.09)</td>
<td>-0.02(0.16)</td>
<td>-0.08(0.10)</td>
<td>0.04(0.13)</td>
<td>-0.01(0.08)</td>
</tr>
<tr>
<td>Log(GDP per capita)</td>
<td>0.03(0.01)**</td>
<td>0.03(0.01)**</td>
<td>0.02(0.01)**</td>
<td>0.02(0.01)**</td>
<td>0.01(0.01)</td>
</tr>
<tr>
<td>Log(Population)</td>
<td>-0.01(0.01)</td>
<td>-0.03(0.07)</td>
<td>-0.005(0.006)</td>
<td>-0.001(0.007)</td>
<td>0.006(0.006)</td>
</tr>
<tr>
<td>Economic Globalization</td>
<td>-0.002(0.012)</td>
<td>-0.003(0.012)</td>
<td>-0.006(0.001)</td>
<td>-0.007(0.001)</td>
<td>-0.001(0.001)</td>
</tr>
<tr>
<td>Political Globalization</td>
<td>0.003(0.068)</td>
<td>-0.001(0.000)</td>
<td>0.006(0.075)</td>
<td>0.002(0.001)*</td>
<td>0.001(0.002)</td>
</tr>
<tr>
<td>Social Globalization</td>
<td>-0.001(0.004)</td>
<td>-0.001(0.004)</td>
<td>-0.003(0.040)</td>
<td>-0.005(0.038)</td>
<td>0.001(0.004)</td>
</tr>
<tr>
<td>Cultural Proximity</td>
<td>-0.002(0.001)</td>
<td>-0.002(0.002)</td>
<td>-0.002(0.002)</td>
<td>-0.002(0.001)</td>
<td>-0.002(0.002)</td>
</tr>
<tr>
<td>Adjusted R(^2)</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>Number of Obs.</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
</tr>
</tbody>
</table>

Note: Standard errors are in the parenthesis; * p < 0.10, ** p < 0.05, *** p < 0.01.
tion is not enough. This is an important finding, because it clearly demonstrates there is little difference for unemployment benefits between ratifying none and just one Convention, which cannot be established in Model I.

As the positive estimates of “Ratification 2” and “Ratification 3” show, however, countries that ratify more than one Convention increase the level of spending on unemployment benefits. Ratifying two ratifications increases government expenditure by 0.48 per cent. Expenditure on unemployment benefits rises by 0.9 per cent if countries ratify three Conventions. The extent of this increase is quite high, given that the mean of Unemployment Benefits in the sample is 1.16 per cent. Hence, this finding illustrates there is a threshold level — two ratifications — at which ratification begins to generate a positive effect. These results in Tables 2 and 3 remain largely intact even if Convention No. 168 of 1988 is excluded from the sample, as shown in Appendix A and B.

Conclusions

This article has attempted to answer two related questions as to why countries ratify ILO Conventions on unemployment benefits and whether the ratification influences government spending on unemployment benefits programmes. In analyzing the time-series cross-section sample, ordered probit and PCSE models have been employed. The results show that democracy, region, income, and globalization are the main conditions under which countries ratify ILO Conventions on unemployment benefits. Regarding the effectiveness of the ratification, it is found that the more ILO Conventions countries ratify, the higher their spending on unemployment benefits is. In contrast, ratifying none of the Conventions or only one Convention has a negative impact on the level of unemployment benefits.

The presented evidence on unemployment benefits generally points to the effective role of the ILO. While the number of ratifications of ILO Conventions has not increased significantly in recent years, countries that actively participated in ILO Conventions have implemented higher unemployment benefits. A broader implication for the ILO is clear. The findings are supportive of the ILO’s recent emphasis on “decent work” and “fundamental rights” as stated in the Declaration on Fundamental Principles and Rights at Work in 1998. While these grand themes and the ILO’s efforts are commendable, the ILO as a standard-setting agency also needs to focus more on specific Conventions that could bring substantive changes in social security. In the context of the current global economic crisis, protecting people who have lost their jobs is increasingly important for all countries. In this regard, there is a current need for international organizations to play a coordinated and dynamic role to mitigate the damaging consequences of unemployment. This study concludes that the ILO can play such a role.
The ratification of ILO Conventions and the provision of unemployment benefits: An empirical analysis

Bibliography


The ratification of ILO Conventions and the provision of unemployment benefits: An empirical analysis


### Appendix A. Estimates of the ordered probit models excluding Convention No. 168

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
<th>Model IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILO Membership</td>
<td>0.56(0.28)**</td>
<td>0.49(0.27)*</td>
<td>0.32(0.33)</td>
<td>−0.36(0.45)</td>
</tr>
<tr>
<td>Unemployment Programme</td>
<td>1.22(0.16)***</td>
<td>1.08(0.17)***</td>
<td>0.86(0.21)***</td>
<td>0.63(0.24)***</td>
</tr>
<tr>
<td>Democracy</td>
<td>0.25(0.13)**</td>
<td>0.30(0.14)**</td>
<td>0.37(0.19)**</td>
<td>0.47(0.22)**</td>
</tr>
<tr>
<td>Africa</td>
<td>−0.14(0.24)</td>
<td>0.17(0.32)</td>
<td>−0.04(0.37)</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>−0.50(0.28)*</td>
<td>−0.60(0.34)*</td>
<td>−0.69(0.41)*</td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>−0.39(0.22)*</td>
<td>−0.44(0.28)*</td>
<td>−0.61(0.31)**</td>
<td></td>
</tr>
<tr>
<td>Log(GDP per capita)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log(Population)</td>
<td>0.07(0.07)</td>
<td></td>
<td>−0.08(0.11)</td>
<td></td>
</tr>
<tr>
<td>Economic Globalization</td>
<td></td>
<td></td>
<td></td>
<td>0.013(0.008)*</td>
</tr>
<tr>
<td>Political Globalization</td>
<td></td>
<td></td>
<td></td>
<td>0.022(0.006)***</td>
</tr>
<tr>
<td>Social Globalization</td>
<td>−0.02(0.02)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Proximity</td>
<td></td>
<td></td>
<td></td>
<td>0.011(0.005)**</td>
</tr>
<tr>
<td>Time</td>
<td>23.41(4.13)***</td>
<td>24.60(4.49)***</td>
<td>−21.83(6.79)***</td>
<td>−61.11(21.00)***</td>
</tr>
<tr>
<td>μ1</td>
<td>179.36(31.35)***</td>
<td>188.18(34.03)***</td>
<td>−161.13(50.7)***</td>
<td>−462.07(158)***</td>
</tr>
<tr>
<td>μ2</td>
<td>180.35(31.33)***</td>
<td>189.18(34.01)***</td>
<td>−159.88(50.7)***</td>
<td>−460.69(158)***</td>
</tr>
<tr>
<td>μ3</td>
<td>181.36(31.34)***</td>
<td>190.23(34.01)***</td>
<td>−158.69(50.6)***</td>
<td>−459.40(158)***</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>−6,797.91</td>
<td>−6,709.14</td>
<td>−4,334.25</td>
<td>−2,903.34</td>
</tr>
<tr>
<td>McKelvey &amp; Zavoina’s $R^2$</td>
<td>0.37</td>
<td>0.38</td>
<td>0.49</td>
<td>0.54</td>
</tr>
<tr>
<td>Number of Obs./Countries</td>
<td>10,223/198</td>
<td>10,223/198</td>
<td>6,393/177</td>
<td>3,930/121</td>
</tr>
</tbody>
</table>

Note: Standard errors are in the parenthesis; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. 

---

The ratification of ILO Conventions and the provision of unemployment benefits: An empirical analysis

### Appendix B. Estimates of the PCSE models excluding Convention No. 168

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
<th>Model IV</th>
<th>Model V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.06(.15)</td>
<td>0.35(0.21)*</td>
<td>0.11(0.16)</td>
<td>0.19(0.16)</td>
<td>0.09(0.16)</td>
</tr>
<tr>
<td>Unemployment Benefits(_t-1)</td>
<td>0.95(0.03)***</td>
<td>0.95(0.03)***</td>
<td>0.94(0.03)***</td>
<td>0.94(0.03)***</td>
<td>0.93(0.03)***</td>
</tr>
<tr>
<td>Number of Ratifications</td>
<td>0.02(0.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 0”</td>
<td></td>
<td>–0.31(0.12)***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 1”</td>
<td></td>
<td>–0.45(0.19)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 2”</td>
<td></td>
<td></td>
<td>0.60(0.23)***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Ratification 3”</td>
<td></td>
<td></td>
<td></td>
<td>1.26(0.50)***</td>
<td></td>
</tr>
<tr>
<td>Democracy</td>
<td>–0.01(0.06)</td>
<td>–0.10(0.07)</td>
<td>0.14(0.06)**</td>
<td>–0.04(0.06)</td>
<td>0.03(0.05)</td>
</tr>
<tr>
<td>Africa</td>
<td>–0.06(0.08)</td>
<td>–0.02(0.10)</td>
<td>–0.12(0.10)</td>
<td>–0.06(0.07)</td>
<td>–0.10(0.08)</td>
</tr>
<tr>
<td>Asia</td>
<td>–0.07(0.03)**</td>
<td>–0.05(0.05)</td>
<td>–0.05(0.04)</td>
<td>–0.05(0.07)</td>
<td>–0.02(0.05)</td>
</tr>
<tr>
<td>Latin America</td>
<td>–0.07(0.09)</td>
<td>–0.03(0.16)</td>
<td>–0.09(0.10)</td>
<td>–0.04(0.12)</td>
<td>–0.02(0.08)</td>
</tr>
<tr>
<td>Log(GDP per capita)</td>
<td>0.03(0.01)***</td>
<td>0.02(0.00)***</td>
<td>0.03(0.11)***</td>
<td>0.01(0.01)</td>
<td>0.01(0.01)</td>
</tr>
<tr>
<td>Log(Population)</td>
<td>–0.01(0.01)</td>
<td>–0.00(0.01)</td>
<td>–0.01(0.01)</td>
<td>0.00(0.01)</td>
<td>0.01(0.01)</td>
</tr>
<tr>
<td>Economic Globalization</td>
<td>0.000(0.001)</td>
<td>–0.000(0.001)</td>
<td>–0.000(0.001)</td>
<td>–0.001(0.001)</td>
<td>–0.001(0.001)</td>
</tr>
<tr>
<td>Political Globalization</td>
<td>–0.002(0.004)</td>
<td>–0.001(0.001)</td>
<td>0.000(0.001)</td>
<td>–0.002(0.001)*</td>
<td>–0.001(0.001)</td>
</tr>
<tr>
<td>Social Globalization</td>
<td>0.000(0.004)</td>
<td>–0.000(0.003)</td>
<td>–0.000(0.004)</td>
<td>–0.000(0.003)</td>
<td>0.002(0.004)</td>
</tr>
<tr>
<td>Cultural Proximity</td>
<td>–0.002(0.002)</td>
<td>–0.002(0.002)</td>
<td>–0.002(0.002)</td>
<td>–0.002(0.002)</td>
<td>–0.003(0.002)</td>
</tr>
<tr>
<td>Adjusted R(^2)</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>Number of Obs.</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
</tr>
</tbody>
</table>

*Note*: Standard errors are in the parenthesis; * p < 0.10, ** p < 0.05, *** p < 0.01.
Social security coverage extension: A review of recent evidence

Wouter van Ginneken

Independent consultant

Abstract  This article reports the findings of 13 studies undertaken as part of the International Social Security Association (ISSA) project on “Examining the existing knowledge on coverage extension”. It reviews recent evidence that highlights how cash benefits and health-care coverage, financed on the basis of contributions or tax revenue or both, can be extended and maintained in low-, middle- and high-income countries. The article also highlights a number of priority areas and issues for coverage extension, including realizing improved protection for informal-economy and migrant workers.

Keywords  social security scheme, health insurance, gaps in coverage, social security financing, social security administration, international

Introduction

The mission of the International Social Security Association (ISSA) is to promote and develop social security worldwide. In large part, this objective is achieved through supporting excellence in social security administration. In recent years, this traditional, essentially technical outlook has broadened to also address in a more systematic manner a number of policy-oriented concerns of ISSA member organizations. One of the most important among these is the challenge of realizing significant and sustainable improvements in levels of social security coverage. During the period 2001 to 2004 the ISSA completed an “Initiative on Strengthening the Security in Social Security”. One of the main themes of study of the Initiative...
was “Assessing the Coverage Gap”. The ambitions of the ISSA Initiative with regards to the question of coverage were limited, being more concerned with defining the challenge rather than seeking possible ways to address it. However, it was a vital first step towards enabling the diverse international membership of the Association to consider the possibility of developing a common position on the challenges of coverage extension.

Since the end of the Initiative in 2004, the ISSA has continued to collect data and disseminate findings about developments in coverage extension, including within the Developments and Trends reports prepared for ISSA’s General Assemblies (Levinsky and McKinnon, 2005) and World Social Security Forums (ISSA, 2007). In 2007, the International Social Security Review published a double special issue on “Extending social security to all” (ISSR, 2007). Moving beyond the Initiative’s core concern of defining the nature of the coverage challenge, the general leaning of the set of articles published in the Review was to suggest potential policy avenues to extend coverage with the goal of achieving universal coverage, especially for developing countries.

As part of the ISSA’s 2008-2010 work programme, the ISSA’s member organizations identified the extension of coverage as one of their continuing key priorities. To contribute to this objective, a project on “Examining the existing knowledge on coverage extension” was initiated to take stock of current information on good practices and lessons learnt in the extension of social security coverage. The project has two main aims. The first is to improve the capacity of ISSA member organizations to work towards the extension of social security coverage. The second is to support work to define an ISSA strategy on the extension of coverage in social security throughout the world, a strategy that is to guide ongoing and future ISSA activities in this field. The responsibility for defining this strategy lies with an appointed “ISSA Task Force” on the extension of coverage.

The purpose of this present article is to synthesize and report the key findings of the 13 studies recently undertaken as part of the project on “Examining the existing knowledge on coverage extension”. The working papers produced for this study are publicly available on the ISSA Web portal. The first part of this article will define the challenge of defining and assessing social security coverage. On the basis of the findings of regional studies, it will then review issues that are common to the regions. Next, a number of cross-cutting challenges will be examined, including “good practice” options for the administration and financing of systems to extend coverage for cash and in-kind benefits to informal-economy and migrant workers. An overview of selected issues pertaining to extending health-care and pension coverage is then given. Finally, the conclusions present some ways for social security administrations (ISSA member organizations) and the ISSA’s Secretariat to contribute further to extending social security coverage.

Before addressing the recent empirical evidence of coverage extension, it is important to first say something about the content and the relevance of the concept of “coverage”. There are various ways of measuring efforts to extend social security coverage. The so-called “beneficiary indicators” constitute the most important group of coverage indicators; they measure the extent to which people receive benefits, for which contingencies they are covered, and the level of protection offered. In the case of contributory social security (usually, social insurance) schemes, the most commonly used coverage rate — measuring potential coverage — is the number of contributing members (persons protected) as a percentage of the labour force. This indicator is generally based on social security administrative records, but for various reasons it may not always measure coverage correctly (van Ginneken, 2009b). For developing effective and efficient policies it is crucial to measure coverage and to have an accurate base-line assessment of existing coverage levels. Without such as assessment, it is difficult to measure to what degree the improvements sought as an expected outcome of policy decisions may – or may not – have been achieved. With inclusive processes of national dialogue having become a common feature of debates on proposed social security reform in many countries (ISSA, 2010) and with evidence-based policy increasingly the order of the day, there is an urgent need for improvements in the collection and quality of data.

In the context of the present ISSA study, the focus of the review of statistical data was placed chiefly on mapping the development of social insurance statistics, because these are the statistics that are the most often used and produced by ISSA member organizations. Various efforts have been made to produce social insurance statistics that are comparable over time as well as between countries (Annycke, 2009). One important contribution has been made by the International Labour Organization (ILO) that started the collection of social security coverage statistics in a number of countries using a common Social Security Inquiry (SSI) (ILO, 2005). There are also a number of other international organizations who collect information on social insurance coverage. The European Commission (EC) has developed data collection (the European System of integrated Social Protection Statistics — ESSPROSS) on social protection statistics for its 27 member States. The Organisation for Economic Co-operation and Development, in collaboration with the World Bank, has extended its work on the collection of information and statistics on mandatory pension coverage beyond OECD member States to a number of non-OECD countries (OECD and World Bank, 2009). Another information source is Social Security Programs Throughout the World (SSPTW), which is a collaborative effort between the United States’ Social Security Administration (SSA) and the ISSA. SSPTW gathers a large set of legal information from around 170 countries on eight branches of social security (old age, disability and survivors’ pensions, cash
sickness and maternity benefits, work injury benefits, unemployment benefits and family allowances). Almost all the information available in SSPTW concerns cash benefits. Major social protection programmes such as health care and social assistance mainly provide in-kind benefits and are not included in these reports.

Despite the significant resources that go into developing and maintaining social security coverage data, there is no single and comprehensive source of data to satisfy the needs of all researchers, analysts and policy-makers. Common aggregated knowledge about coverage levels is defined by, but also limited to, what is publicly available. According to what we know, it is estimated that between 70 and 80 per cent of the global population do not have access to meaningful cash benefits. They live in a state of more or less severe “social insecurity”. Within this 70 to 80 per cent, 26 per cent live in deep poverty, i.e. living on less than US$ 1.25 per person a day (in 2005 purchasing power). Between one-third and one half of the population in the developing world lacks access to effective health services (Cichon and Hagemeyer, 2007). Although these figures are estimates they do nonetheless firmly underline why social security coverage extension is a central concern for social security administrators and policy-makers in many countries in all regions of the world.

### Regional issues and challenges

This section reviews some issues and challenges common to regional groupings of countries. However, from these regional studies (sub-Saharan Africa, Asia and the Pacific, Latin America and the Caribbean, and the “high-income countries”), two major commonalities are worthy of note. First, all studies emphasize the key role of the State in the provision of social security, and in determining the success of extension efforts. The State and civil society have to muster political will, consensus and mobilization, and they also have to develop the resources and the capacity to extend coverage in an effective and sustainable fashion. Moreover, Merrien (2009), Uthoff (2009) and Zhu (2009) stress that national social security systems – based on solidarity and without too great a dependence on markets – have the best chances to extend coverage to everyone and to protect enterprises, workers and their families against the current crisis and other challenging macro-economic and macro-social circumstances. Such systems are most egalitarian and also more effective, because of economies of scale through uniformity of conditions and benefits and because of lower transaction costs through the portability of benefits (Barr, 2004).

Second, social security administrations are in the forefront of the extension process. They are responsible for maintaining and improving compliance (Thiam, 2009) and they are involved in extending coverage to difficult-to-cover groups of workers, some of whom may be already covered by community-based schemes (Samson, 2009). National social security administrations are increasingly called
upon to go beyond their traditional mandate and be involved in social assistance benefit administration, as in the case of family benefits provision in Uruguay (Lagomarsino, 2009). Social security administrations are also increasingly involved in social policy development, so that social security is well coordinated with, and supportive of, other development policies.

Sub-Saharan Africa

In the countries of sub-Saharan Africa usually not more than 5 to 10 per cent of the work force is covered by social insurance schemes — principally in the form of pensions for civil servants and employees of large (formal) private-sector enterprises. There are three main issues and trends with regard to the extension of social security in sub-Saharan Africa. The first important trend is that various governments are beginning to define national social protection and/or social security plans that aim to extend coverage and to reach universal coverage in the long run. The second trend is the development of community-based and micro-insurance schemes for health care, which have emerged since the beginning of the 1990s (van Ginneken, 2007). The third trend is the growing number of countries providing tax-financed (means-tested or universal) social pensions, especially to the elderly.

Most countries in sub-Saharan Africa have difficulties in extending pension insurance coverage for three reasons: 1) because formal economy employment is not or is hardly increasing, 2) because informal-economy workers generally consider health-care coverage as a higher priority than pension coverage (van Ginneken, 2003), and 3) because informal-economy workers have limited capacity to contribute to formal social insurance schemes.

The degree of affiliation of workers to social insurance programmes is dependent on a host of factors, such as the link between contributions and benefits, the level of trust in the social security administration, and the administrative challenges of maintaining compliance in the payment of contributions on a timely and accurate basis (Fultz and Stanovnik, 2004). Non-compliance is therefore one of the key challenges facing social security administrations, and has to be seen in the wider context of incentives and perceptions.

The Social Security Institute for Old-age Pensions of Senegal (IPRES) has moved to address the non-compliance problem. In Senegal, in 2002 only 41.5 per cent of all legally-covered private-sector salaried workers were registered with the IPRES (Thiam, 2009). Within the context of the National Programme for Social Protection, a special programme is to be set up to extend membership in all social insurance institutions by strengthening and clarifying the incentives for contribution compliance. This will involve information, communication and education activities. This programme will also strengthen mechanisms to check and monitor the affiliation of salaried workers.
Some countries are working to extend coverage for cash benefits more broadly by better integrating tax-financed pensions into a multi-tier retirement system. For example, in February 2008 Kenya’s Retirement Benefit Authority submitted to Cabinet a universal social pension package designed to provide all older Kenyans with a monthly minimum guaranteed benefit and to create a foundation pillar for a more far-reaching retirement savings system. Kenya’s initiative is particularly important, as the institution responsible for the contributory national social security fund has recognized the importance of extending coverage through a tax-financed social pension.

Access to affordable and adequate health care can be organized through user fees, social insurance or tax-financed care — and through combinations of the three. Inspired by social health-insurance systems in other continents, African countries are developing models of community health insurance and these approaches have proven increasingly successful.

For example, over the past ten years the Government of Rwanda has developed a mandatory social health-insurance scheme based on more than 400 community-based “mutual” micro-insurance schemes, each linked to a local health centre. The essential innovation of Rwanda’s approach is the development of a mandatory decentralized model that mobilizes broad-based community support. Contribution rates are kept low through subsidies in order to facilitate broad coverage, creating economies of scale for the scheme and the affiliated health-care providers (Samson, 2009). The new system has led to a surprisingly rapid increase in health-care coverage. Mutual micro-insurances were covering 7 per cent of the population in 2003, and this coverage rate rose to 44.1 per cent in 2005 and to 85 per cent in 2008 (Inyarubuga, 2007). In addition, the use of health care has increased significantly. The scheme is also reported to have enhanced the quality of local health-care facilities by increasing the number of medical staff, improving the availability of medical supplies and raising community attendance, ownership and dedication to the existing health-care institutions.

Recent figures show that household contributions were the main source of funds (70 per cent) for community-based health insurance. However, these funds represented only about 5 per cent of total health care expenditure in Rwanda in 2006, while out-of-pocket payments have been evaluated at 23 per cent of total health expenditure. Two policy issues to be addressed are the need to expand the health-care package covered by the programme and the extent to which external funding will be needed to maintain and improve Rwanda’s health-care system as a whole.

Latin America and the Caribbean

In Latin America and the Caribbean developments in social security coverage are highly unequal. In the lowest-income countries less than 30 per cent of employed
persons are affiliated to a social insurance scheme. In the middle-income countries, this figure is close to 50 per cent, while it reaches 60 per cent in the relatively high-income countries (Uthoff, 2009). A challenge for the region is to improve levels of affiliation to social security programmes.

Uruguay is a prime example of a country that has succeeded in improving affiliation to social insurance, in particular since a new government came to power in 2005 (Lagomarsino, 2009). Between 2004 and 2008 the number of workers contributing to the country’s national social security institution, the Social Insurance Bank, grew by more than 35 per cent — with particularly high increases in industry and commerce (50 per cent) and construction (123 per cent). These increases have been the result of a variety of policies, such as improving the flexibility of the retirement system and reforming the health-insurance and unemployment insurance systems.

Another noteworthy development to improve affiliation levels in the region has been the introduction of the so-called “monotributo” (single tax payment) in Argentina and Uruguay. This approach to paying contributions permits registered workers to pay a single amount on the income generated from their professional activities, which counts as their contribution to social security and to the tax system. In Uruguay, those who are eligible are self-employed workers who perform small-scale activities (defined by sales and assets) in a variety of sectors, including rural workers selling their products. Self-employed workers can affiliate either at local offices of the Social Insurance Bank, or at the Internal Revenue Service, with a single and unique form. Between July 2007 and March 2009 the number of affiliated “monotributo enterprises” more than tripled from about 4,000 to more than 12,000.

Another country that has been successful in extending coverage is Ecuador. Over the last 40 years the social security scheme for rural workers in Ecuador has gradually increased health-care coverage. Initially covering 500 families, it now covers more than 200,000 families and provides coverage for health care to about one million individuals — out of a total population of 14 million. A strong point of this scheme is that contributions are collected in cooperation with existing rural organizations.

Despite various national efforts to increase coverage through contributory arrangements, these have generally not been able to reach universal coverage. As a result, many governments are using tax revenues to finance greater access, in particular for people with low incomes or working in the informal economy. Three types of strategies have been used by the authorities to achieve this (Uthoff, 2009).

One strategy is to reinforce social solidarity by means of integrating financing sources from different social security and social protection schemes. Total integration is found in the health-insurance system of Brazil, as is the case for health-care
contributions made to, or subsidized by the State through, the Costa Rican Social Security Fund. Partial integration of public health care and health insurance is found in Chile.

Another strategy to reinforce solidarity is the better regulation and surveillance of the insurance and pension fund administration industries. Such solutions involve designing an explicit, credible and guaranteed social benefit package, and putting into place a solidarity fund to secure access to the package for all. This type of solution can be found in Chile, Colombia and, most recently, in Uruguay.

Finally, a third strategy is that of experimenting with explicit subsidies for social security schemes. Tax-financed pension schemes have been established in rural Brazil as well as in Ecuador and Bolivia. And Mexico, Chile and Peru have tax-financed schemes that target the neediest aged persons. Explicit subsidies for health-insurance contributions have been implemented in Costa Rica, Colombia and the Dominican Republic, in particular for workers with low incomes or working in the informal economy.

Asia and the Pacific

Over recent decades, many countries in Asia and the Pacific have experienced high rates of economic growth, but there remain large inequalities in income levels both between and within countries. The study conducted for the ISSA shows that the role of the State in the provision of social security has increased in the region. In particular, there is greater awareness by the State of the need to maximize the use of existing health-system infrastructure and to cooperate with other stakeholders. Ultimately, political consensus on the need to give higher priority to the extension of social security coverage is essential. But when such consensus exists, as in the People’s Republic of China (hereafter, China), Thailand, and the Republic of South Korea, rapid progress has become feasible (Asher, 2009a).

Unlike in other regions where affiliation is one of the main challenges, poor compliance is a key issue for many countries in Asia and the Pacific. Viet Nam is an example of a country that has successfully encouraged private and public enterprises to affiliate to the social health-insurance system through relatively low contributions and a generous benefit package. However, although the number of participants in the compulsory scheme has increased over time, the average compliance rate in the private sector has remained low. In 2005 the compliance rate of public-sector enterprises was almost 100 per cent, but was only 20 per cent in the private sector. The compliance rate for formal-sector salaried workers was about 50 per cent (about 5.75 million active participants out of 11 million eligible workers) in 2005. One of the main cited reasons for low compliance rates is weak labour registration and enforcement measures, especially for the private sector (Long, 2008).
China has undertaken a broad-based reform, rapidly expanding coverage in all social security branches. Such rapid increases in coverage rest on unified planning (albeit not unified modalities of implementation) for both rural and urban areas, on strong financial subsidies by the government, and a committed effort to enhance social security protection and achieve universal coverage by 2020. Remarkable advances in coverage have been achieved in health care, where protection for both the urban and rural Chinese increased five-fold between 2003 and 2008. Zhu (2009) mentions several special characteristics of China’s approach — the involvement of the social partners as well as of university departments and research centres on social security; piloting, and the gradual expansion of “good practices”; political will; the inclusion of extension in national socio-economic development plans; special campaigns for targeted groups; employment-promotion measures for less privileged groups; and other proactive policies.

Since 2001, Thailand has increased health-care coverage while providing access to good quality and affordable health care. Damrongplasit and Melnick (2009) found that the number of uninsured persons declined significantly from 16.5 million in 2001 to only 2.9 million in 2005. No less than 71 per cent of the population (45.3 million persons) were enrolled in the 30-Baht health scheme in 2005. Thailand’s success is first of all due to strong political will within the Ministry of Public Health and sustained political support, particularly from the beneficiaries. Other positive factors have been: (i) the existence of a good quality health infrastructure to meet increased demand for health care when the scheme was introduced; (ii) the low level of user payments, which made access affordable to informal-economy workers; (iii) an efficient administrative system that was capable of registering about 45 million people during the first four months following the scheme’s introduction; (iv) the direct payment of publicly-funded capitation fees to clinics and hospitals, so that these facilities have a direct incentive to treat as many patients as possible.

High-income countries

The ISSA study defined high-income countries to include all European countries (including the Russian Federation) as well as Canada, the United States, Australia, New Zealand and Japan. Among these, for those that have mature social security systems, coverage for cash benefits is high — in terms of the number of persons, the scope of contingencies, and the level of benefits. However, coverage is lower in most countries of Eastern Europe and the Balkan states, where the break-down of old social security systems and an emphasis on structural economic reform have often complicated the setting up of new and effective systems. The challenges facing high-income countries are therefore, first of all, to increase personal coverage in countries where such coverage is low; to increase coverage for certain contingencies,
in particular long-term care; and to maintain coverage in the face of lower public revenues and the informalization of the labour market (Merrien, 2009).

Health-care coverage is generally high in countries with mature health-care systems, with the exception of the United States. Financial obstacles to obtaining medical care remain important, either because items, such as dental treatment and certain medical prescriptions, are not covered or because individuals may have to pay a growing part of medical expenses out of their own pockets. A number of countries, such as France, have taken steps to ensure that persons with low incomes are helped to overcome such financial obstacles. Many of the high-income countries also have problems in finding adequate medical personnel. Since the beginning of the 1990s many countries in Eastern Europe and the Balkans have set up social health-insurance schemes financed by employers’ and workers’ contributions, while low-income groups and people outside the labour force are in principle covered directly by the State. However, health-care coverage often remains inadequate, not least because of high (legal and illegal) out-of-pocket expenditure.

There are many options for long-term care provision. First, a distinction can be made between countries, such as in Southern Europe, who rely more on the family for caring for the elderly, and those in North and Western Europe who rely more on institutional care. Some countries, such as Austria, Germany and Japan, finance part of long-term care through social insurance. Great Britain and Scandinavian countries generally finance and administer long-term care through local government budgets and services. The majority of countries have now set up care systems under which dependent persons can receive subsidies that can be used for professional care or within the family context. Costs for long-term care will grow in high-income countries, and — without compromising on the goal of achieving universal coverage — some of these costs can be contained through targeting, co-payments and different forms of care contracts.

All high-income countries have adapted their pension systems to the ageing of their populations through a variety of policies, such as raising the retirement age, increasing the number of years for obtaining a full pension, stimulating employment for older workers, basing pension benefits on average lifetime income, and indexing increases to pension benefits on inflation rather than on income trends. Moreover, a number of countries have introduced funded defined-contribution pensions and notional accounts as part of the second tier of their pension systems. All countries have witnessed a strong decline in the generosity of occupational defined-benefit pension schemes. Moreover, as a consequence of the economic crisis, pension fund assets have lost at least 20 to 30 per cent of their values. This has led — and may yet further lead — to a significant reduction in the aggregated replacement ratios of statutory contributory pensions. Accordingly, as in other regions, there is an expectation of an increasing future need for tax-financed pensions.
Cross-cutting challenges for coverage extension

In terms of addressing the needs of population groups with inadequate coverage, a key extension challenge is to extend social security coverage to informal-economy workers and their families. Migrants represent another large and growing group of workers that have no or very inadequate coverage. The situation of migrants can be improved through better access to social security in countries of origin and of destination, and through the establishment and implementation of international social security agreements. In terms of the priorities that individuals accord to the provision of specific social security benefits, access to health care is generally the first for workers in the informal economy. To this end, the role of social health insurance is identified in the study as an important means to contribute towards achieving health-care coverage extension for all. Pension coverage is a second key priority, and the study concludes that this will have to be achieved through a combination of tax-financed and contributory schemes.

Reaching out to informal-economy workers

Worldwide there is a growth in non-traditional and, in particular, informal employment, and a decline in standard forms of work. The growth in the former are usually associated with increasing job insecurity, precarious working conditions and increasing social insecurity and poverty. There are various reasons for this state of affairs. One important reason is the contraction of the formal sector in many developing countries, which historically was the leading growth sector.

Until recently, little attempt has been made to accommodate the specific needs of informal and self-employed workers within the traditional social insurance framework by way of, for example, specialized arrangements (Olivier, 2009). However, some specialized arrangements are being developed to extend coverage to a range of workers who are not employees in the strict sense of the word, but who otherwise work in a dependent of subordinate relationship. For example, in the case of some Caribbean countries, labour-dependent contractors have been included in the protective framework of labour legislation (Taylor, 2003; Barrientos and Barrientos, 2002). In his study on the scope of the employment relationship in Southern African countries, Benjamin (2008) concludes that legislative responses have expanded the scope of labour law and assisted individuals to prove the existence of an employment relationship. For these reasons, progressive extension of labour rights through statutory adjustments is the preferred vehicle to ensure the extension of social insurance coverage to largely uncovered informal-economy workers.

In situations of labour dependency, it might also be necessary to embark on a contractual tracking exercise to determine who is the real employer or provider of...
work, and to make that person or institution responsible for employer-associated social security obligations. Explicit regulation of supply chains using contract-tracking mechanisms seems, therefore, to be crucial in the attempt to widen coverage to those who work informally.

**Developing group-based approaches**

Developing specific tailor-made solutions for particular groups of workers in the informal economy is another promising option for the extension of coverage. However, successful extension requires that the targeted population group must be of sufficient number, be relatively homogenous in terms of its characteristics, and that there must be a clear need for enhanced protection. This is made evident by a number of cases cited in the ISSA study, including that of South African domestic workers (Olivier, 2009), the Indian welfare scheme arrangements, and the increasing coverage of informal-economy groups in the Tunisian social security system (Chaabane, 2002). These developments suggest that it might be necessary to develop specific contribution modalities, eligibility criteria, and benefit packages for each and every sector of the informal economy.

An explicit recognition of the right to social security, which is based on existing international human rights frameworks and also in terms of the constitutional protection available in a growing number of countries, should help improve the protection provided to informal-economy workers and their families. In addition, the recognition of the right to social security in the UN International Covenant on Economic, Social and Cultural Rights (van Ginneken, 2009c) is a strong supporting factor in extension policies. And to complement its existing social security standards, the ILO (2009) is thinking of developing new and broader instruments, especially a new Convention or Recommendation on a basic social protection “floor”.

**Migrant workers**

Many migrants, and in particular women, are not covered in either their country of employment or country of origin. Sabates-Wheeler (2009) concludes that most South-South migrants have virtually no social security coverage. In 2005 international migrants represented more than 7 per cent of the population of most high-income countries and in the Gulf States. The distribution of migrants by source of origin is more or less equally divided between three types of movements involving the North (high-income countries) and the South (low- and middle-income countries). International migration from low-income countries to high-income countries represents somewhat more than one-third of the global total. The South-South movement of migrants, mainly between low-income and middle-
income countries represents another third, while North-North movement or migration between high-income countries represents less than 30 per cent of the global total (UNPD, 2005).

Migrant workers are confronted with particular difficulties in the field of social security, as social security rights are usually related to periods of employment or contributions or residency. They may encounter restrictive conditions in the host country with regard to their coverage by the national social security system, and at the same time they may risk the loss of entitlements to social security benefits in their country of origin due to their absence (Sabates-Wheeler, 2009).

Access to formal social security in host countries is often restricted for a variety of economic and social reasons, such as informal labour market involvement, non-declaration by employers or delayed access until some months or years after arrival. Migrant workers often also face legal difficulties, because — as a result of their nationality — they may not be legally recognized as eligible for social security coverage and entitlement to benefits. Access to social security in countries of origin may be legally restricted through the principle of territoriality, which limits the scope of application of social security legislation to the territory of a country (Kulke, 2006).

The Philippines Overseas Workers Welfare Administration has been a pioneer in social protection for its overseas migrant workers. Partly inspired by this model, the example of Sri Lanka demonstrates how origin countries can take increased responsibility for their migrants’ social protection, even in the absence of receiving-country commitments. Its Overseas Workers Welfare Fund provides social insurance for migrants and families left behind (Rosario, 2008). The fund covers payments to migrants and their families in the case of death, disability or a need to cover travel expenses.

The portability of social security rights is important to migrants to avoid financial losses, but also to the actuarial fairness of social security programmes. Portability is the ability to preserve, maintain, and transfer vested social security rights or rights in the process of being vested, independent of nationality and country of residence (Cruz, 2004; Holzmann, Koettl, and Chernetsky, 2005). Portability is particularly important for long-term benefits that have an explicit (as in the case of old-age pensions) or implicit (as in the case of health care) pre-saving element.

Bilateral or multilateral social security agreements ensure that the social security rights acquired in the country of employment are maintained. They also provide for the export of benefits from the country of employment to the country of origin. Although benefits may be legally portable — in most cases benefits are paid as a lump sum — the provisions on cross-border payments seem to be poorly implemented. Hence, it is crucial to ensure the proper implementation of such provisions as a first step to improving the formal social security of migrants.
Extending health care coverage

In this article, little space will be accorded to the evidence garnered on the central issue of extending access to health care. As a priority benefit, especially for those currently with inadequate social protection, this topic has been accorded special attention in the form of a separate article in this issue (see Ron, 2010). Nonetheless, it is important to refer to a number of key issues underscored by the ISSA study.

All social health-protection systems represent a combination of different financing and delivery mechanisms. Most countries that have succeeded in reaching universal coverage spend tax revenues on the very-low income and vulnerable populations that require subsidies, while social health-insurance systems provide coverage to those in the private and public sectors with a capacity to contribute.

Efforts to extend membership in existing social health-insurance schemes to the informal-economy population are increasingly commonplace (Ron, 2009). This development is rooted in the realization that a significant proportion of informal-economy workers have regular incomes throughout the year, that many are willing to pay affordable and fair contributions, and that many belong to informal-economy associations. However, and often in parallel with the development of social health insurance, another way to extend health-care coverage is to promote the growth of community-based schemes (Schremmer et al., 2009). The example of Rwanda discussed above is a case at hand. Another trend is for governments to purchase membership in social health-insurance schemes for those who have no or little capacity to contribute. The national social health-insurance schemes of Columbia, Mexico, the Philippines and Viet Nam, for example, use social assistance funds to purchase health insurance for indigent families. And when social health insurance is voluntary for the low-income groups, government subsidies, as in China, can also help extend health-care coverage.

Extending pension coverage in low- and middle-income countries

Closing the pension coverage gap in low- and middle-income countries (LMICs) has become a central concern among national policy-makers and multilateral institutions. Mandatory contributory pension schemes cover typically less than 25 per cent of the labour force in low-income countries and between 25 and 50 per cent in middle-income countries. However, because LMICs are heterogeneous, it is impossible to formulate a single “model” appropriate for all. Large intra-country variations in pension coverage levels are also present in several LMICs, such as China, India and South Africa.
There is consensus that essential reforms are capable of improving the sustainability and equity of the existing formal-sector pension systems. However, such reforms are deemed insufficient for progressing towards near-universal coverage. Driven by the motivation to reduce poverty and achieve full pension coverage, many LMICs have set up tax-financed social pension schemes, or are considering doing so.

There are a variety of policy issues related to the design of social pensions and their linkages with other parts of the pension system, in particular with mandatory contributory pensions. The first issue is the choice between universal and means-tested social pensions (van Ginneken, 2005 and 2007). The advantage of universal pensions is that the costs are much more predictable and that administrative costs will be relatively low. The disadvantage may be that people will have fewer incentives to organize old-age income security for themselves. The overall costs of means-tested pensions will initially be lower, but may increase considerably over time when political pressures for less stringent eligibility criteria and for more expansive and generous benefits are likely to grow. In general, the study recommends examining the question of tax-financed pensions in the context of a wider perspective on old-age income security and social protection.

With regard to the design of social pensions and their linkages with contributory pensions the following policy issues (Asher, 2009b) should be considered: (i) the eligibility age for social pensions should be higher than the statutory retirement age of the contributory system, and this age should be indexed to life expectancy; (ii) the social pension benefit level will have to be adequate, but significantly lower than that obtained from mandatory contributory pensions; (iii) to minimize incentives to withdraw from the mandatory contributory system, those in the mandatory system should in principle be eligible for social pensions; and (iv) effective marginal tax rates (EMTRs) imposed by the social pension scheme should be relatively low. This has been achieved, for example, in the recent pension reform in Chile, which has created a smooth link between the Solidarity Pension and the contributory scheme.

Conclusions

This article has reviewed examples of how social security coverage can be extended and maintained in low-, middle- and high-income countries. In a number of countries, extension has taken place within social insurance schemes, such as through improving compliance, including to some difficult-to-cover groups, and through working together with community-based schemes. Extension has also taken place through tax-financed measures.

This article has also shown that various policies can be pursued to extend coverage to the large majority of world’s population that are currently inadequately
covered; namely, informal-economy workers and their families. This can be achieved through specific and tailor-made approaches that adapt benefit packages and contribution collection to the needs and capacities of individuals and groups of workers. Recognition of the right to social security is also a powerful means to support extension efforts, in particular to groups that are vulnerable to poverty (Olivier, 2009).

In providing a forum for discussion and information sharing on the practical aspects about the extension of coverage, in which both statutory and community-based schemes have the opportunity to interact and find ways to work together, the ISSA has an important role to play (Ron, 2009). Particularly useful exchanges of information could be organized not only on the administrative issues of efficient registration and contribution collection for diverse, and often widely dispersed, populations, but also on how difficult-to-cover groups and members of community-based organizations could be included in this process.

There are already many existing bi-lateral and multi-lateral social security agreements, such as in the European Union, the Caribbean (CARICOM) and South America (MERCOSUR). Some other regions in the world are in the process of establishing them, such as in the ASEAN region, or would like to do so, such as in Eastern Europe and Central Asia. Hence, it is crucial to ensure the proper design and implementation of such provisions as a first step to improving the social security of migrants. The ISSA may therefore have a future role in supporting its member organizations, including in low-income countries, to set up and monitor international social security agreements (Sabates-Wheeler, 2009).

Although high-income countries have high levels of social insurance coverage, the expansion of social insurance coverage globally has been limited. In light of this fact, a recommendation of the ISSA study “Examining the existing knowledge on coverage extension” is for two in-depth studies to be undertaken on the following:

• The possible role of social insurance institutions in the administration of tax-financed basic social security guarantees (basic income, pensions, basic health protection and child benefits), as proposed by the ILO (2009).

• The extent to which tax-financed social assistance programmes, minimum income guarantees, and contribution subsidies have encouraged or discouraged workers from seeking higher levels of protection through affiliation to contributory social insurance schemes.

Finally, as stated previously, reliable statistics are necessary for the development and implementation of effective and efficient national and international strategies to extend social security coverage. The ISSA could therefore take the initiative and conduct regular surveys to collect extension data amongst its member organizations. In such an endeavour, however, care should be taken to ensure that such ISSA efforts fit into, and contribute to, a global strategy to collect statistics on social security coverage.
Bibliography


SSA; ISSA. (various years). Social security programs throughout the world. Washington, DC, Social Security Administration.


Health care as a social security benefit: Institutional approaches to extending coverage

Aviva Ron

Abstract  Reaching universal health-care coverage requires an appropriate mix of compulsory contributory social insurance schemes, with mechanisms to include the informal-economy population, and tax-based social assistance for those whose incomes preclude their own contributions. This article urges a reversal of the trend that favours the separate development of social health insurance by separate health authorities and makes the case for the extension of health-care coverage using existing formal-sector social security schemes, not least because they have the necessary political backing and institutional structures. The article reviews reasons for the slow pace of coverage extension to date, and stresses the added value of incorporating health care as a social security benefit while also acknowledging the importance of retaining linkages between statutory and well-regulated community-based or micro health-insurance schemes.

Keywords  supply of health care, gaps in coverage, social security administration, developing countries

Introduction

The goal of extending health protection is generally to reach universal coverage of access to health care without financial barriers for all citizens or residents of a country. Here, the use of the term coverage relates to financial access, rather than the supply of health services. For the latter, coverage refers to the availability and geographic accessibility of health-care resources. Deficiencies in the supply and

Address for correspondence: Aviva Ron, 5 Mordechai Gur Street, Netanya 422000, Israel. Email: ronaviva@bezeqint.net. This article is developed from a working paper prepared for the ISSA study Examining the existing knowledge on coverage extension.
quality of health-services may indeed hamper continued enrolment in contributory social health-protection schemes. However, an integral component of the social health-insurance concept is the commitment created between the fund, members and providers to provide timely and appropriate health care. Rather than wait for a significantly improved health-care system, this article takes the approach that the financing of schemes through the creation of additional pooled funds to pay for health care will in fact stimulate the overall supply and lead to an improvement in the quality of services. Prepayment creates a commitment to ensure the quality of benefits which, in turn, may counter the risk of non-compliance or even the cessation of membership.

Universal coverage requires a combination of financing mechanisms for different population groups. These mechanisms include three basic forms:

- Compulsory social insurance schemes with a regular contributory prepayment system, usually shared between the employer and employees for, both, public- and private-sector salaried workers and affordable contributions for the non-salaried sector.
- Social assistance for those whose incomes or lack of economic activity preclude their own contributions, with funding from tax-based or other government and non-government sources.
- Government tax-based schemes for all citizens or specific groups of residents, through general or ear-marked tax revenues, from income tax or other government revenues.

In reality, all social health-protection systems are a hybrid of the basic forms. Most countries that have succeeded in reaching universal coverage allocate tax revenues to the very-low-income and vulnerable populations that require subsidies, while social health-insurance systems have extended coverage to those in the private and public sectors who are able to contribute. This article deals with social health insurance as the major mechanism for extending coverage available to formal-sector social security organizations. The article discusses the potential of realizing coverage extension through compulsory formal-sector schemes as well as through voluntary community-based or micro health insurance for the non-salaried and workers in the informal economy. Focusing on the extension of coverage in low- and middle-income countries, the article also considers the role of linkages with social assistance and tax-based systems for specific population groups.

**Issues in extending coverage**

*The impetus for coverage extension*

Four out of five people worldwide lack basic social security coverage (ILO, 2003). At the regional level, a recent study on Latin American countries (Mesa-Lago,
2007) estimated that 53 per cent of the total population of the 20 countries was covered by social insurance, while in ten of these countries coverage was only between 7 and 26 per cent. A report prepared for the Eleventh African Regional Meeting of the International Labour Organization (ILO, 2007) in Addis Ababa, in April 2007, noted that almost 90 per cent of the population of sub-Saharan Africa is not insured against the risk of illness or accident. It is more difficult to find estimates of coverage for Asia and the Pacific, but coverage in some of the largest countries, such as India, does not exceed 10 per cent. The universal coverage for health care reached in most European countries has largely been maintained (van Ginneken, 2009), although there has been a fall in coverage in some countries of Eastern Europe as a result of privatization and a growth in unregistered self-employment.

Current interest in extending health-care coverage is triggered by several factors operating in parallel, and without real linkages between them or collaboration between the stakeholders and agencies involved. Political and equity concerns are in the forefront, as it is now recognized that paying for health care is a major cause of poverty in populations that have inadequate health protection. Each year, an estimated 100 million people fall into poverty due to health care costs (WHO, 2005), implying reduced opportunities for economic growth.

In this context, key policy issues for countries aiming at extending coverage involve choosing the appropriate financing models for different parts of the population as part of an integrated strategy, identifying an essential and cost-efficient benefit package, and ensuring the necessary institutional infrastructure and human resources to enable benefits to be delivered effectively. Clearly, there is no magic formula. The trend towards the establishment of social health-insurance schemes as a means of extending coverage, however, reflects positive experiences in a number of countries.

The practical challenges for extending and securing access to affordable and quality health care differ from country to country. However, strategies must find answers to the common challenges of meeting increasing health-care costs arising from innovation in medical technology and drugs, increasing demands from patients, epidemiological developments, demographic changes, inequities in health, and the globalization of the health-care market. To cope with these challenges, the focus on financing issues has recently been complemented by increased efforts to make better use of limited resources — to increase the efficiency of the health-care system and improve the value for money in terms of health outcomes, service quality and consumer satisfaction.

Some of the most important tools and policy measures that are being discussed and implemented at present are early prevention and detection; coordination of different health-care sectors and between health care, rehabilitation and community care; health technology assessment; evidence-based guidelines; pay for perfor-
mance; empowerment of patients; quality and outcome measurement; use of e-health applications, such as electronic medical records; and specific programmes for patients with chronic and long-term conditions.

At the same time, existing social health-insurance systems are constantly trying to reach maximal pooling as health-care costs rise, life expectancy increases and the burden of disease shifts increasingly to chronic diseases, while communicable diseases continue to present challenges. To maximize pooling, several countries have moved from a vastly pluralistic approach, with a very large number of social health-insurance schemes, to merged schemes, as in Japan, or even a single national fund, as in the Republic of Korea (Ron, Bayarsaikhan and Sein, 2005), which has also taken a proactive approach to the prevention of chronic diseases.

Another impetus comes from governments that provide health services through public facilities and who are now looking for stable financing mechanisms to ensure a steady flow of revenue to these facilities. The social health-insurance mechanism becomes particularly attractive when the introduction of user charges in public health facilities has produced negative outcomes for the utilization of care, has prompted negative political reactions and failed to yield adequate revenues (Gilson and McIntyre, 2005).

In many developing countries, development partners have provided millions of dollars to prevent the spread of HIV/AIDS, malaria and tuberculosis — all communicable diseases which spread beyond borders through global activities — yet financial barriers at the family level hamper access to the primary health care that should enable timely diagnosis and thereby avoid the spread of these diseases. Prompt medical attention is a crucial factor in the effective control of communicable diseases, which may pose a national, regional or global public-health threat if they are not controlled.

Poverty eradication, the changing burden of disease and a lack of adequate funding in public health-care facilities therefore underscore the importance of providing health care for all without financial barriers.

All of these factors are now compounded by the current global economic situation, which could have profound implications for the health-spending plans of national governments. Volatile exchange rates and shrinking industrial output are likely to negatively effect the provision of health care to people in need and to reduce the flow of external aid for health to countries that still depend on this income source for a large part of their health budget. Unless countries have safety nets in place, poor and vulnerable populations will be the first to suffer and, in turn, the expected shrinking of the salaried sector could disenfranchise a significant number of salaried workers who presently have health-care coverage for themselves and their dependants (Parry and Humphreys, 2009).
Reasons for the slow pace of coverage extension

All the above elements do not explain why it is so difficult to achieve substantial improvements in health coverage. Again, we find a wide range of reasons for slow and even arrested growth in health coverage. From the point of view of the development of social security systems, it would appear that there are three major reasons, which are here referred to as “development failures”. These may be defined as:

- The failure of pension schemes and other social security schemes in developing countries to include health care as an integral benefit.
- The failure to cover a significant proportion of the informal-economy population in countries in which this sector constitutes the majority of the labour force.
- The failure of some compulsory social health-insurance schemes to extend coverage to the legal dependants of active and retired workers.

Let us review the first two of these “failures”. Statutory or compulsory formal-sector social security schemes in many countries have been reluctant to expand coverage to include health care before resolving the problem of extending coverage under existing benefits programmes to the informal-economy population (van Ginneken, 2009). Over the last two decades, macroeconomic policy in a number of countries that have made the transition towards becoming market economies, such as the People’s Republic of China (hereafter, China), Mongolia and many countries in the former Soviet Union, or which have undergone a process of structural adjustment, as in many countries of sub-Saharan Africa, has led to the streamlining of civil service employment and the privatization of state-owned enterprises. These developments have created new excluded populations among those who have lost salaried employment.

Health care as a social security branch differs from an old-age pension, in which the actual amount paid during retirement is generally linked to the amount and duration of contributions. Health-care benefits are provided according to need, both in terms of volume and type of health services, and not according to the actual contribution or premium made by the individual or family. An insured person’s contribution revenue during the qualifying period may be negligible compared to the actual expenditure by the scheme if high-cost care is required within a short period. Another important difference is that the use of the benefit by the insured person is usually unpredictable and an assessment of the appropriateness of the benefits provided requires medical expertise, which is quite different from the expertise needed for the financial management and efficient operation of other social security branches. Social security schemes may well understand the importance of health care, but the
complexity of dealing with this benefit and maintaining financial solvency may be beyond their capability.

Mature social security systems in industrialized nations have, over time, acquired the necessary inputs to deal with these challenges. Some of these systems have actually dealt with health care since their inception. The social security systems in developing countries, however, generally started with work injury programmes and then long-term benefits, such as old-age and disability pensions, but they hesitate to take on health care as a new benefit. Despite this hesitation, they have the essential institutional capacity to provide this new benefit to their current membership.

These developing-country social security schemes, and their governments, face at least four challenges in the extension of coverage. These four main challenges, described below, are not presented in any order of priority but suggested in order of the schemes’ preoccupations, with emphasis placed on countries still in economic transition and/or with a majority of workers in the informal economy.

• Improving compliance, usually with regard to salaried workers in the private sector, and doing so within the constraints of the current legislation.
• Extending coverage to public-sector workers, when the introduction of a contributory mechanism for typically low-wage earners is difficult to justify and government has shown to be slow to implement such a programme, not least due to the need pay matching contributions for its own employees. This applies to countries in which civil servants receive health care free-of-charge in public-health facilities; sometimes considered as compensation for their low wages. Particularly in countries with a high proportion of workers in the public sector, the inclusion of health care in the social security package could increase the total value of contributions required and may be opposed on economic grounds.
• Extending coverage to the self-employed and informal-economy workers and their dependants, especially when registration and contribution-collection systems are not well developed. Unless a compulsory legislative mechanism is put in place, covering the latter also means dealing with voluntary membership, which has its own challenges in terms of adverse selection and in ensuring continued and timely compliance with the payment of contributions.
• Adding health care as a benefit for those who are currently covered and also for new target populations. For the latter, an additional question will arise as to whether the social security scheme will permit self-employed and informal workers to contribute for health care only, and not for the full range of social security benefits. The reluctance to deal with the fourth challenge — adding health care as a benefit — is, to a large extent, understandable on the grounds of technical capacity. However, the basic rationale for a social security system to provide health care is rooted in an appreciation of the “added value” of this benefit. Health care is a short-term benefit, and most of the members and their dependants will use that benefit at least once each year: about 85 per cent of them are likely to visit a doctor...
or nurse as out-patients, and about 5 to 8 per cent may need hospital in-patient care, (Ron, Bayarsaikhan and Sein, 2005).

The following example addresses a first aspect of such added value. A 30-year old working mother is likely to be more concerned about having health care for her family than having a pension in 30-years time, even if she was guaranteed employment during the entire period until retirement, and even if the value of that pension was guaranteed and indexed to counter the negative impacts of inflation and decreasing purchasing power. Individuals will be particularly concerned if they have to face unpredictable financial burdens to meet health-care needs over the life-span, for which they have no control over the type, volume or cost of the service at the time of illness or incapacity. For social security administrations, introducing health-care benefits could therefore be attractive to its existing — and potential new — members, and may even enhance compliance in contribution payment, as members would want to be sure that they were continuously covered.

Another aspect of the added value of including health care in the social security benefit package is the potential positive effect on work injury programmes for salaried workers, which exist in almost all countries. Access to health care for non-work-related reasons is likely to change the burden of demand to receive health services in such schemes, and reduce the abuse of work-related benefits. So far, little attention has been accorded to the value of expanding coverage for non-work-related illness and accidents for the insured.

Perhaps the most significant added value of including health care is the positive impact on individual health, along with improvements in productivity and development that come with it. Adults who are ill reach a stage where their productivity is negatively affected — they have more sickness absenteeism, more disability claims and eventually stop working, which means that they also stop contributing. Children who die before they reach school-age will significantly deplete the workforce in the next generation. Schoolchildren who cannot concentrate on studies because of poor health are less likely to progress to higher education or receive the academic qualifications or develop the requisite skills, thus stalling the development of human capital that is so needed in developing countries. To one degree or another, all these examples will deplete the potential for the extension of social security coverage, while creating new demands on cash sickness benefits and disability allowances, as well as on unemployment benefits where these exist. If the arguments in favour of the added value of health care are recognized, the pressure to extend health-care coverage could eventually enable the introduction of legislative mechanisms for compulsory rather than voluntary affiliation of the informal-economy population, regardless of the progress made towards formalizing the labour force.

The third failure listed previously relates to the manner in which coverage under compulsory social health-insurance systems is restricted to workers, and which
excludes the legal dependants of active and retired workers. This is the case, for example, in Mongolia and Viet Nam.

Mongolia is a particularly interesting case of a country that started, essentially, with universal coverage, but now has lower coverage and fewer benefits. The Mongolian Citizens’ Health Insurance Programme was implemented by law in 1994 (Bayarsaikhan, Kwon and Ron, 2005). The scheme covered individual workers, at a time when almost all workers were active, and retired state employees. A full government subsidy covered vulnerable groups (such as children younger than age 16, pensioners, parents with children younger than age 2, and social welfare beneficiaries). Benefits were initially limited to hospital care but later expanded to a comprehensive range of health services, with cost control achieved mainly through a sound primary health-care base and referral system.

Subsequent economic crises led to difficulties in maintaining subsidies for vulnerable individuals while the concomitant growth in the informal economy that accompanied the transition to introduce private enterprise left many workers without coverage. The administration of the health-insurance scheme was ill-prepared to enable non-salaried workers to continue membership, even if these disenfranchised individuals could afford to continue without the part paid by employers. Coverage fell to around 70 per cent and it has taken another decade to reach the current 80 per cent. In 2005, about 65 per cent of those insured were subsidized by government, 20 per cent made payroll contributions, and 15 per cent made flat-rate contributions. To deal with the government’s budgetary constraints, benefits were reduced to only hospital in-patient care. The use of hospital care is again high, indicating a misuse of the system as in the early years of operation (Wagstaff et al., 2009), while the important primary health-care base, with its cost-control function, has been lost. Studies demonstrate that a relatively small increase in the employers’ and workers’ contributions could replace the government subsidy for dependant children without any negative impact on labour costs (WHO, 2001), yet subsequent amendments to the law have failed to introduce family coverage.

In Viet Nam the combination of low compliance in the private-salaried sector, the exclusion of dependants and the failure to reach the non-salaried sector has hampered a significant increase in coverage. The Health Insurance Decree of 1992 stipulated mandatory coverage for active and retired workers, while dependants were encouraged to enrol on a voluntary basis with a fairly low premium payment required for each individual. Recent legislation failed to change this component despite indications that voluntary membership was unstable, had a high drop-out rate, and a far higher expenditure per insured person due to adverse selection. If all dependants were included through an acceptable increase in contribution rates coverage would be almost tripled, given the average family size in Viet Nam, and could reach over 70 per cent for contributing members. As will be noted later, Viet Nam has already provided for the very-low-income population, through a Health
Care Fund for the Poor, which purchases regular health-insurance cards for this population (WHO, 2008).

A related issue is limiting the number of dependants who can be covered within the family unit, a measure that is sometimes introduced as a population control mechanism. The National Social Security Law passed in Indonesia in 2004 limited the number of persons covered in a family to five, which usually meant only three children, although a significant proportion of families had four or more children (Hidayat et al., 2004). Coverage of other family members requires additional contributions for each family member, which are borne in full (without any employer participation) in the case of salaried workers. Apart from the potential for adverse selection in the registration of the covered family members, the limitation is contradictory to the objectives of universal coverage.

**Mechanisms to accelerate the pace of coverage extension**

**The inclusion of health care in existing social security schemes**

The earliest social security schemes included health care from the start (Ron, Abel-Smith and Tamburi, 1990). However, the schemes in many developing countries established from around the 1960s, and particularly in the newly-independent states of Africa and Asia, were less likely to include health care. These schemes tended to set up separate institutions for work injury programmes and for income-replacement benefits, such as retirement and invalidity pensions. These formal-sector social security schemes now face a double challenge: adding health care as a benefit and extending coverage to the self-employed and to informal workers. The added value of including health-care benefits as part of a broad social security scheme was discussed above. Despite the perceived advantages, few schemes have taken on this challenge. Rather, we see more countries introducing separate schemes for health care, despite the duplication of administrative effort and the loss of opportunity to more coherently and comprehensively realize the broadest coverage of risk contingencies for all across the life span.

In some countries, the trend towards separate systems may be linked to current governmental structures and mandated responsibilities. The government agencies mandated to deal with social security and health are often separate, with the former being the responsibility of Ministries of Labour and the latter that of Ministries of Health. Ministries of Health generally developed an interest in social health insurance as a financing mechanism at a later stage, and were motivated more by financing opportunities than by the principles of social protection (Carrin and James, 2005). This interest in social health protection intensified as the Poverty
Reduction Strategy Papers requested by the international development partners over the last decade increasingly included social health insurance as a poverty reduction tool, with the responsibility for implementation accorded to Ministries of Health (Claeson et al., 2001).

The pressure placed on Ministries of Health to provide equity in access to health care increased when government budgets no longer enabled free health care and the introduction of new user charges led to revenue shortfalls. The expectation of receiving stable revenue from health insurance even led some Ministries of Health to take health care out of the social security system, as in the Philippines, and set up a separate national health insurance scheme under that Ministry. This strategy comes with a higher cost of administration, as it means two parallel agencies dealing with registration and contribution collection. There may also be a negative impact on the potential to extend coverage under all branches of social security (ILO, 2001). Once priority health-care needs are dealt with, it is unlikely that the self-employed and informal workers will seek social protection mechanisms to ensure income in old age or disability. This is especially so in the absence of employers, or the state, with whom to share the contribution burden.

**Extending health-care coverage under existing schemes to the informal-economy population**

In the short run, more effort is needed to encourage formal-sector schemes that provide health-care benefits to extend membership to the informal-economy population. There is significant progress in this direction in some countries, even in the absence of a process of the formalization of informal-economy workers. These initiatives stem from the realization that not all informal-economy workers are poor, a significant proportion have regular income throughout the year, many are willing to pay affordable and fair contributions rather than deal with high expenditures at the time of use of health care, and many belong to informal-economy associations. For example, the National Health Insurance Fund in Kenya recently launched a scheme for the 100,000 households affiliated with the Kenya Women Finance Trust, a specialized micro-finance organization (Mbogo, 2008).

In middle-income countries, such as Egypt, economic crises have sparked initiatives to cover workers in the informal economy, since the risk of poverty among this population as a result of paying for health care is significant. Economic crisis in Mexico led to a 2003 health reform that established the *Seguro Popular* universal health-insurance scheme (Parry et al., 2009). About 45 per cent of the Mexican population of 104 million people have access to health insurance through social security for the salaried sector, and by 2010 the entire population is expected to be covered for health care through the extension of health insurance to workers in the...
informal economy and through social assistance for the indigent population (Knaul and Frenk, 2005).

The national health insurance scheme in the Philippines, Philhealth, has focused on efforts to extend coverage to informal-economy workers through a network of cooperatives and civil society associations, which can register members and collects contributions on behalf of the statutory scheme, thereby reducing some of Philhealth’s administrative burden. Another important step is the accreditation of existing community-based health insurance schemes and their absorption into Philhealth, as required by the National Health Insurance Act.

Promoting the controlled and regulated growth of community-based schemes

So far, formal-sector social security schemes in most low- and middle-income countries have not been able to meet the challenge of extending health-care coverage to the self-employed or workers in the informal economy. In most of these countries, taxation systems are weak and do not allow for adequate revenue collection to ensure tax-based funding for universal coverage (Jacobs et al., 2008). Although lower-income individuals may, in absolute terms, spend less on health care (but, overall, a higher proportion of their income), most of this money usually goes to the unregulated private sector, whether for over-the-counter drugs or to private practitioners (Ekman, 2004).

An alternative policy launched in some developing countries has been to promote the extension of coverage through community-based or micro-health insurance or mutual schemes. Some countries have begun a process of the parallel development of compulsory social health insurance for the formal economy and voluntary community-based health insurance for the informal economy (Schremer et al., 2009). In this approach, the voluntary community-based schemes are seen as an interim mechanism to protect the target population, to increase awareness about an affordable prepayment for health care, and bring revenues to the providers through negotiated contractual arrangements (Ron, Bayarsaikhan, Sein, 2005). Examples of such parallel development can be found in Indonesia, Ghana, Laos, and Rwanda, among others.

The parallel development of health-care provision requires government commitment, resources and legislative tools based on a declared policy of realizing eventual linkages among all the schemes to achieve universal coverage. Voluntary non-profit community-based schemes must operate on the basis of contribution rates that are affordable for the majority of the target population and a benefit package that includes, both, often-used primary health care and rarely-used hospital-based services. These can be achieved with low administrative costs and effective cost control through regulations that enable innovative and shared systems.
to register populations and collect contributions, permit negotiated contracts with providers with payment systems that are population-based (such as capitation) rather than volume-based (such as fee-for-service), and which pursue maximal pooling through mergers at district, provincial and eventually national level.

The process can be accelerated when formal-sector social security schemes show a readiness to be involved, by sharing their administrative experience and tools and eventually incorporating the community-based schemes. In Ghana and Rwanda, the informal-economy populations constitute the majority of insured persons, yet the development of schemes for these sectors was undoubtedly prompted and assisted by the experiences of the formal-sector social security schemes. Eventual merging is important not only to expand the principle of solidarity between lower- and higher-income populations, but also to maximize the pooling of risks and strengthen the purchasing power in the provision of health-care benefits, all of which are necessary to reach universal coverage.

Without appropriate commitment to, and technical support for, all these functions, the growth in coverage by community-based health insurance is likely to be slow and sporadic, with a multitude of small schemes often competing for the same target population and lacking power to negotiate with providers for appropriate costs and quality. Criticism of community-based schemes has generally neglected to examine the existence of a regulatory framework and has focused on addressing the challenges of unstable membership and financial viability, issues that are linked to weak administrative capacity, high administrative costs and inadequate popularity due to the provision of limited benefits (Ekman, 2004). This criticism may undermine rather than support a process that can help prevent poverty among low-income populations and create grass-roots pressure for broader social health protection.

The use of social assistance funds to purchase health insurance for low-income and vulnerable populations

Previously, the common approach to enabling access to health care for the poor was to identify the poorest and exempt them from user charges in public health services. However, exemptions for charges created stigma. Moreover, patients exempted of charges were often underserved by the health-care system, as the provider received no remuneration for the care given (Bitrán, and Giedion, 2003). In recent years, the trend has been to transfer social assistance funds to the social health insurance schemes to purchase health insurance membership for the population identified as unable to contribute.

Several national social health insurance schemes, such as in Columbia, Mexico, the Philippines and Viet Nam, now use social assistance funds to purchase health insurance for indigent families. Stigma and discrimination are reduced when the poor seek health care with the same health insurance card as contributing members.
and, again, solidarity and purchasing power are increased. An additional factor in the integration of both contributing and subsidized low-income populations is related to the quality of care. Recipients of free care are less likely to express dissatisfaction with health services, while people with higher incomes and higher education tend to be more vocal in expressing both satisfaction and dissatisfaction, particularly if their sharing in the cost of services is through a prepayment mechanism.

A few countries have focused support on specific vulnerable populations, mainly the elderly. Bolivia passed legislation on health insurance for the elderly in 2006, through municipal funding and ear-marked taxes on carbon emissions (ISSA, 2010). The Maldives has state-funded health insurance for the population older than age 65 (ISSA, 2009). This development is part of a broader approach to ensuring the social protection of the population, as the government’s long-term aim is to have universal health care by 2010.

Family coverage

Perhaps the simplest and fairest mechanism to extend coverage is to ensure coverage for the legal dependants of contributors, particularly children younger than age 18. The definitions of legal dependant and household members will certainly vary from country to country, but these can be defined and contribution rates can be set to avoid discriminating against large families. As stated previously, limiting coverage to a given number of dependants in social health-insurance schemes may be an inappropriate mechanism to control population growth. What is more certain is that as long as the individual approach to coverage continues in voluntary schemes there is likely to be adverse selection, with those considered “healthy children” excluded.

Prerequisites to the extension of coverage

Policy formulation and legislation

The above mechanisms to extend coverage are essential parts of a process that can contribute towards significant increases in the number and mix of people with regular and predictable, rather than ad hoc, health protection. Yet the process will remain piecemeal unless there is policy formulation at the highest level, leading to legislative tools that clearly set out the statutory extent of coverage, eligibility, governance and financing by all the partners.

Policy formulation needs more than statements of the importance of social protection and the inclusion of social health-insurance mechanisms in Poverty Reduction Strategy Papers. Strategies or “master plans” towards universal coverage need to be developed with the broadest involvement of stakeholders and with
endorsement at the highest political level. Access to health care without financial barriers must be recognized as a national priority.

The development of such a master plan in Cambodia in 2003 led to a process of the development of social health insurance, the introduction of basic regulation for the increasing number of community-based schemes, the linkage of Equity Funds with community-based schemes and the drafting of legislation to cover salaried workers and their dependants in the public and private sectors. The plan has been the foundation for technical cooperation to develop understanding and capacity in the relevant government agencies and to establish the institutional frameworks (WHO, 2007). A second stage involves a decision on the type of legislation needed, to what extent coverage will be compulsory, whether voluntary enrolment will be encouraged in the first instance, how the non-economically active and vulnerable population will be covered, and a realistic time frame to reach universal coverage.

A similar process was crucial to the development of the National Health Insurance Plan in the Bahamas, and a law based on the document endorsed by Cabinet was passed unanimously in 2006. However, the passage of legislation per se does not guarantee full implementation within the time frame stipulated in the law. In the Bahamas, as in Kenya in 2004, new governments coming into power several months after the passage of the Law have been in no hurry to implement these. In Kenya, at least, new proposals for health insurance mechanisms are being discussed as a result of the interest generated by the parliamentary debates in the past (Mbogo, 2008; Muchuma, 2008).

**Government commitment to increased spending on health**

Government spending on health care is low in most low- and middle-income countries (WHO, 2001). In some, however, it has increased substantially in recent years. This happened in Cambodia and Viet Nam, mainly following changes in allocations for the military sector. However, the public health systems in these countries remain under-funded, as evidenced by the failure to introduce and maintain modern medical technology, staff shortages among most types of health-care professionals and low wages in the public-health sector. Social health insurance, which implies affordable contribution rates at levels that do not have a negative impact on labour costs, are not instant solutions to fill this funding gap. Successful extension of coverage will not be maintained if the newly-insured population remains dissatisfied with the services for which they have, in effect, pre-paid through insurance mechanisms. Public-sector health workers are not likely to make efforts to improve the quality of services (and, thus, increase their own credibility) if they see no direct financial benefit.

Governments will need to continue increasing expenditure on health care, with a focused allocation of resources to strengthen infrastructure and training compo-
nents, improve health-worker remuneration, and increase efficiency and accountability in the use of these resources. At the beginning of this article, it was noted that social health insurance can be started without waiting for an adequate supply of health-care resources. However, the continued operation of this financing mechanism will depend on visible improvements and increased satisfaction by an increasing proportion of the population that has paid in advance for the care they may need.

How much health insurance revenue will flow to health providers first depends on coverage and high compliance in the payment of contributions. The efficient use of these funds and the rational use of benefits are essential, as contributions cannot be increased to cover deficits emanating from inappropriate use. It is suggested that when health insurance payments reach around 40 per cent of the revenue of the public-provider system, this financing mechanism may be considered successful in developing-country environments where the Ministry of Health is the major provider of services and the cost of basic salaries for health workers is met by government sources. Providers then understand that revenue can be increased by broader coverage, and an improvement in provider behaviour and visible improvements in infrastructure are key to this increased coverage. It also becomes clear to service providers that higher revenues should be achieved through coverage for a comprehensive range of services and not by higher charges and higher utilization rates for an insured minority of patients with access to limited benefits.

**The optimal design of social health-protection schemes**

There are guidelines and manuals on the development of social health insurance, but no precise textbooks. Countries and schemes can learn from each other but cannot copy exact design — each environment needs to consider the specific demographic, labour force, cultural, health system and health care needs of the population. Nonetheless, there are basic principles and good practices that will determine the financial stability and attractiveness of compulsory and voluntary health insurance that already assist in accelerating coverage and achieving financial stability. The most pertinent among these are:

- A broad range of benefits, with a strong primary health-care base and opportunities for cost control through a referral system and appropriate health promotion and preventive services.
- Provider payment systems that are population-based rather than volume-based, do not require cash from the insured person at the time of use, and are based on provider contracts with requirements for quality assurance.
- Contribution levels that are affordable for the majority of the target population and cover all family or household members. Contributions should be increased only
according to the regulations, with increases justified by changes in benefits and not health system or scheme inefficiencies.

• Maximal pooling and unified schemes with efficient administration.

Conclusions

Universal coverage, or access to adequate health care without financial barriers for all the citizens or residents of a country, cannot be launched through statutory social health insurance alone. Some development partners claim that tax-financed health care is the optimal financing mechanism for all. A recent paper by the World Bank (Wagstaff et al., 2009) reviewed the transitions between tax-financed health care and social health insurance in the OECD countries over the period 1960-2006. The paper concludes that adopting social health insurance in preference to tax financing increases per capita health spending by 3 to 4 per cent, reduces the formal sector share of employment by 8 to 10 per cent, and reduces total employment by as much as 6 per cent.

At present, the argument in favour of a tax-based health care financing system does not apply in most low- and middle-income countries in which the tax base is weak, income tax from earners does not come from the majority of the working population and the process of employment formalization is at a standstill, either due to weak governance or repeated national and global economic crises. The findings for the OECD countries may also be biased by the changing demography in these countries.

For developing countries, the fact that the majority of workers are not in the formal economy does not mean that they should not participate in financing their health care, which all members of society need. The majority understand that health care is no longer free and will be prepared to contribute to fair, progressive, and administratively-efficient prepayment mechanisms that will protect them from unpredictable and high payments at the time of use. Their willingness to pay will be greater when the institution already has established credibility and the registration and contribution collection mechanisms are in place to ensure income replacement in times of need, as is the case for social security schemes. Several governments, such as those of Ghana, Laos and Rwanda, are addressing the health protection needs of the informal-economy population as part of national programmes, which seek linkages with the formal-sector social security schemes.

The trend for the separate development of social health insurance by government health authorities rather than through existing formal-sector social security schemes under government labour and welfare authorities was discussed above. This trend needs to be reversed, through the inclusion of health care as a benefit for those in the informal economy, and with social assistance provided for the neediest families. The continuation of the establishment of separate health insurance
schemes is likely to result in a concentration of coverage on the low-income or near-poor populations, which will not attract the higher-income populations. Social security systems are among the most powerful organizations in any country — they have the political backing and the institutional structures to add health care to the range of benefits they provide, and extend this benefit to the self-employed and informal-economy workers. Through partnership with government, which needs to confirm its commitment to health policy and to cover those requiring social assistance, these institutions have the power to make universal coverage through social health protection a reality.

Bibliography


The World Bank has released three volumes that, together, offer a comprehensive view of pension issues in the former transition countries of Central, Eastern, and Southern Europe (CESE).


Eight case studies of pension reform are presented: Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. These countries followed different paths as regards the choice between parametric and systemic reforms. They also followed different paths over the introduction of funding, focusing on sustainability rather than on benefit adequacy. This latter issue has raised concerns about the adequacy of benefits at a time when many new retirees are receiving comparatively modest benefits; a concern that extends to future retirees. Adequacy is assessed by estimating future gross and net replacement rates based on income and contribution records under steady-state conditions until 2040. The volume reviews the motivation for pension reform in each country, compares the resulting pension schemes to the World Bank’s five-pillar paradigm, and evaluates their sustainability and adequacy in the face of demographic ageing. It also suggests ways to address policy gaps and suggests areas for further reform.

The main conclusions are: (a) fiscal sustainability has significantly improved in most study countries, however, few are fully prepared for the inevitable challenges of population ageing (the old-age dependency ratio in the countries of Central, Eastern, and Southern Europe is projected to double by 2050); (b) the linkage between contributions and benefits has been strengthened and pension system designs are better suited to market conditions; (c) levels of income replacement for full career workers are generally in line with regional averages and international benchmarks; they are generally adequate for most categories of workers, including those with intermittent formal-sector employment or low lifetime wages. (This finding would appear questionable given the high incidence of both informal-sector jobs and poverty and the severe impact of the current recession. Indeed, the report acknowledges that many people currently of working age may not be eligible for a pension benefit at retirement or will receive very low benefits.) However, all countries have a tax-financed zero-pillar scheme – social assistance – to alleviate poverty in old age, and three countries provide age-related social pensions that are targeted on the elderly; (d) to cope with the impact of ageing, further reforms should increase the labour force participation of all age groups, including older workers, so as to avoid benefit cuts (which would undermine adequacy) or very high contribution rates (which would discourage formal-sector employment).

The concern over pension system sustainability predates the transition to the market economy.
This stemmed from high levels of coverage under the old systems and a large number of beneficiaries becoming eligible for benefits at a relatively young age. The retirement age is still well below age 65 in most of the countries, while there has been a sharp drop in the number of contributors as a result of a reduction in rates of labour force participation and formal employment and a rise in unemployment—an situation not reversed during the economic growth of the past decade and unlikely to improve in the current recession. In some countries, the introduction of second-pillar individual account schemes has increased rather than reduced fiscal pressures, since part of the contributions have been diverted to funded individual accounts. While transition costs could be more equitably met from general revenues (taxation), governments keen to join the euro area are reluctant to aggravate public deficits.

The report contains a number of very helpful synoptic tables for the various pensions-related parameters.


This edited collection has two parts: the first deals with 19 Central, Eastern, and Southern European (CESE) countries and investigates the extent to which their pension systems were prepared to deal with multi-pillar pension reforms, how financial systems could be developed to better support funded systems, and how ready the reformed pension systems are to cope with the payout of benefits as the first participants in the funded pensions approach retirement age. The second part looks at both developed and emerging economies, exploring the extent to which financial markets can smooth the impact of ageing on benefits in traditional pay-as-you-go pension schemes. It also looks at rates of return over past decades, transaction costs, the risks involved in investing in emerging economies and in developed capital markets. A main concern is the capacity of financial markets to deliver sufficiently high net rates of return for pension funds.

Noting that many CESE countries introduced privately-managed individual account second pillar pension schemes (or plan to do so), these schemes will assume an increasing role in providing retirement income. It is therefore crucial to ensure that they can deliver adequate income to supplement public pay-as-you-go schemes. This objective rests on the adequate development of financial services and capital markets, which has not yet been achieved despite significant progress since 1990, and the increased presence of foreign banks. However, alternative investment choices exist, particularly in European Union financial markets and in domestic bank-supplied instruments. Policy-makers need to focus on supporting the development of retirement products, institutional arrangements for the provision of annuities, and the regulation of financial products and intermediaries.

The outlook is less pessimistic than might be expected. While demographic changes are likely to affect the supply and demand for pension funds financial assets, and hence their returns, the fall in annual rates of return is unlikely to lead to a meltdown in asset prices. A
similar fall is expected in the implicit rate of return of unfunded public pension schemes as a result of slowing labour force growth and the expected decline in labour productivity of an ageing workforce. The decline in both cases is estimated at between 50 and 100 basis points. And yet the report states that unfunded schemes will be more affected because the funded schemes may benefit from investing internationally. This does not seem to take into account the volatility and meltdown of financial markets. The recommendation for the active fostering of the securitization of bank-originated assets and the more intensive use of non-traditional forms of credit instruments may be questioned after the financial tsunami of such “creative” instruments worldwide. Other recommendations seem more relevant, namely the need to provide current and future retirees in CESE countries with a clear vision and strategy for how benefits from new fully-funded pensions will be paid and to improve literacy and education regarding financial markets, in particular with regard to retirement income products, which remain weak in this region (and certainly elsewhere).


This volume includes updated papers and country statements originally prepared for an international policy forum on three interlinked areas: pension reform, labour market reform, and financial market reform. The forum brought together over 140 speakers and participants that included senior government officials from ministries of finance and ministries of labour and social affairs as well as officials from central banks in South-Eastern Europe. The volume also includes reform lessons from Denmark, the Netherlands, and Latin America. It states from the outset that without deep structural reform in the three areas, expenditures for publicly provided and financed pension schemes and health care will become unsustainable for public finances, given the rapid pace of ageing: in Central, Eastern, and Southern Europe, the old-age dependency ratio will double between 2000 and 2050 (though starting from relatively lower levels than in the EU-15, the situation is similar in Central and Eastern European Countries and the Baltic states). It highlights measures to be taken in each of the three areas and the associated constraints. It reviews a broad range of factors at play in maintaining elderly workers in employment, including incentives and unintended disincentives in pension design, labour market and human resources practices (for example, the implicit tax on remaining at work, the productivity-wage gap for elderly workers that discourages their retention, pension design that favours the last years before retirement for benefit calculation, sterile discussions about who should finance the necessary lifelong learning for remaining in employment, and the need to foster a culture of mobility between work and non-work in different life stages and between sectors and countries). More than the two other volumes reviewed above, this volume pays greater attention to the labour market reforms necessary to keep elderly workers in employment and to the requirements for financial sector reform.

Hedva Sarfati
ISSA Consultant
Labour market and welfare reforms
hsarfati@iprolink.ch
Social policy, development and the welfare state


In high-income countries, the percentage of the population covered under mandatory old-age pension programmes is typically high but in many cases far from complete; across OECD countries, it even tends to decline. And this decline occurs at a time when continued increases in life expectancy and low fertility rates have accelerated the overall ageing of the population. In low- and middle-income countries, the percentage of the population covered under mandatory schemes is typically low and has stagnated for some time, even in those countries that have enacted structural reforms strengthening the link between contributions and benefits. At the same time, due to the weakening of traditional family structures, caused by such factors as urbanization or HIV/AIDS, individuals are less and less able to rely on support from their children or communities and lack access to formal employment, resources, instruments, and incentives to prepare for their old age. These developments raise the risk of increasing poverty and marginalizing a rising share of the elderly in the world. The opinions about how to address these challenges are limited. They include increasing the coverage of contributory schemes (independently of benefit type, type of funding, or administration), increasing coverage through access to social assistance-type benefits (financed from budgetary resources), and increasing access to voluntary saving instruments for old age. This book investigates the second option and the various forms of retirement income transfers that aim to prevent poverty and guarantee a minimum level of income during old age. Well-known, and less well-known, examples of such general budget-financed income transfers include social pensions, minimum pension guarantees, and matching contributions. While the popularity of such transfers is increasing, the amount of research done to assess their performance in extending coverage and preventing poverty has been limited. The book aims to start filling the void. Its focus is on social pensions broadly defined — cash transfers, not linked to contributions, that take place after retirement or after a given eligibility age — and on their potential role as instruments for expanding access to old-age income security. The book also discusses, albeit in less depth, issues related to the design of minimum pension guarantees and matching contributions within contributory schemes, because there are important interactions when the three kinds of programme coexist: the performance of one depends on the design of the others, and they jointly affect individuals’ behaviour. Thus, when deciding about the best arrangements for securing a minimum level of income during old age for a given population group, it is necessary to carefully coordinate the design of...
the three types of programme. Finally, the book provides guidelines for the design of the administrative systems needed to operationalize the various programmes.


The chapters in this book are concerned with various social security policy measures that can address the ongoing poverty problem in East Asia. As they show, much more needs to be done to achieve this goal. The authors challenge the commonly-held belief that economic development will of itself eradicate poverty and bring prosperity for all. They also question the superlatives that have been used to characterize East Asia’s economic development and note that the countries in the region have been susceptible to global shocks and crisis events such as the 1997 financial crisis, the recession of 2001 and the current credit crisis. In particular, the current crisis, which has become a global recession of major proportions, is indicative of the need for effective social policy interventions. It is in this context that the authors believe that social security has an important contribution to make to poverty alleviation. While they recognize that economic development based on a strategy of industrialization does indeed create wage employment and raise incomes, it should be accompanied by specific social security measures that ensure that those who are excluded from well-paid jobs and the prosperity accompanying mass wage employment are guaranteed a decent standard of living. Social security should also be used to prevent poverty. This can be achieved through conventional “safety-net” social security programmes such as social insurance, social assistance and employer mandates, but innovative social security measures that are suited to the region’s particular needs and circumstances should also be tested and adopted. In addition to describing the contribution of social assistance, welfare-to-work programmes and other more conventional social security schemes in different East Asian countries, the authors also discuss the role of asset savings accounts, microinsurance, social funds and the role of housing in social security programmes designed to address the poverty problem. In conclusion, the book argues that social security should not only be given priority in times of economic difficulty but that conventional and innovative social security programmes should form an integral, ongoing component of development policies designed to raise incomes and standards of living for all.


The study is concerned with the collective consequences of social rules. The theoretical section of the volume takes as a starting point the body of ideas of “new institutionalism” that has developed recently in the social sciences. The analysis first explores the nature and societal role of institutions, in particular where they relate to social security: the “rules of relief” that are constructed by the community. The study elaborates the theoretical significance of institutions in social security before establishing whether the social security systems in the eleven European and Anglo-Saxon countries studied reveal any differences of principle. Institutions are interpreted as social rules, which, among other things, define the rights and obligations of persons and organizations. Thus, the “rules of relief” that govern social security determine people’s rights to unemployment benefit, state old-age pension, social assistance,
help with reintegration, and so on, and also spell out the obligations that must be met in order to acquire those rights. The empirical sections of the study explore some of the effects of modern social security institutions. The central question is which collective outcomes are generated by social security regulation in the countries under review. In-depth analyses assess whether institutions do actually diverge so much that the national systems can, in practice, be said to represent three different types of social security regime: the liberal, the corporatist and the social-democratic. Attention then turns to the impact of these three social security regimes. This investigation is performed on the basis of two indicators of collective output: do the regime types differ in the number of benefits they generate? And is there a relationship between the empirical models of social security and the degree of poverty that occurs in the various countries? The study concludes with a brief look at some implications for further scientific research and for socioeconomic policy in developed countries.

Work, income, family, exclusion


This volume contains selected papers from the first General Conference of the International Microsimulation Association, hosted by the European Centre Vienna in August 2007. As well as providing a useful introduction to the state of microsimulation internationally today, it contains a wide range of chapters illustrating the new applications and approaches used across the world. During the past 15 years microsimulation models have become firmly established as vital tools for analysis of the distributional impact of changes in government programmes. Across Europe, the United States, Canada and Australia, microsimulation models are used extensively to assess who are the winners and losers from proposed policy reforms. Encouraged by the ever-increasing complexity of social and economic programmes, microsimulation models have become an essential part of the policy reform process, allowing identification of the magnitude of gains and losses from policy changes in such areas as taxation, social security, pensions and social services. While the analysis of the distributional impact of tax and cash transfer changes in developed countries has for some decades been the "bread and butter" of microsimulation modelling, microsimulation is now expanding into new frontiers. These include geographic expansion (into African countries and the countries of the former Soviet Union); subject area expansion (embracing such new topics as small area analysis, health care and child care); and breakthroughs in the technology associated with microsimulation (such as in behavioural and labour supply modelling). The present volume documents the most recent developments. These include advances in spatial modelling; discrete-choice behavioural modelling; improvements in the modelling of demographic events, labour supply, life-time earnings and pensions; and endeavours to more firmly integrate microsimulation models in a broader micro-macro modelling framework. The volume concludes by outlining some likely future trends in microsimulation modelling, and considers the role that the International Microsimulation Association might have to play in helping to shape this future.

The text for book notes included here is derived from the cover and publicity material of the above-cited books. The editor and publisher gratefully acknowledge the permissions granted to reproduce this copyright material in this journal.