Chapter 1

The Role of Social Pensions in Closing the Coverage Gap: Overview and Preliminary Policy Guidance

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1. Introduction

Many countries have implemented or are considering the implementation of various forms of retirement income transfers that aim to guarantee a minimum level of income during old-age and prevent poverty (e.g. social pensions, minimum pension guarantees, and matching contributions). Despite the growing popularity of these programs there is only limited research assessing their performance in extending coverage and preventing poverty, and only little policy analysis informing governments on key design and implementation issues. Programs in various countries have been studied from different angles but, to our knowledge, to date there is no source that systematically analyzes international experiences and proposes an integrated policy framework to guide choices about when and how to implement these programs. This book is an effort to start feeling this void.

The 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 their potential role as instruments to expand access to old-age income security. But the book also discusses, albeit in less depth, issues related to the design of minimum pension guarantees and matching contributions within contributory systems. The main reason for including these other types of transfers is that there are important interactions between the three. When the three programs coexist, the performance of one depends on the performance of the others, and they jointly affect individuals' behaviors. Thus, when deciding about the best arrangement 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.

The book has four specific objectives. First to discuss the role of retirement income transfers in the context of a strategy to expand old-age income security and prevent poverty among the elderly. Second, to take stock of international experiences

with the design and implementation of these programs. Third, to identify key policy issues that need to receive attention during the design and implementation phases. And last but not least and to the extent possible, to offer preliminary policy recommendations and to propose next steps

The core of the book is organized in three parts that match these objectives. Part I focuses on the rationale for retirement income transfers, mainly given by the limited coverage of the mandatory pension systems (Chapter 2), the risk of poverty during old-age (Chapter 3), and the rights-based approach sponsored by the ILO (Chapter 4). Part II is about international experiences and includes Chapters 5, 6 and 7 which review selected programs in low, middle and high income countries respectively; and Chapters 8 and 9 which discuss in more depth the cases of Japan and Korea. Part III has five chapters concerned with policy issues in terms of design. Chapter 10 presents a typology of retirement income transfers and analyses the potential economic impacts of the programs. Chapter 11 deals with financing mechanisms and the problem of allocative efficiency given limited resources. Chapter 12 addresses two key issues related to institutional arrangements and targeting systems: Should countries consider separate programs to target the elderly poor instead of using the general social assistance system to target *all* poor? How can current proxy-means test systems be adapted to target the elderly poor? Chapter 13 explores in more detail the links between social pensions, minimum pensions, and matching contributions in the context of a general strategy to expand coverage. Finally, Chapter 14 provides guidelines for the design of the administrative systems needed to operationalize the various programs.

The remainder of this overview summarizes the main messages from the various chapters and outlines an agenda for future research and policy analysis. For clarity, it starts by presenting some definitions about the various retirement income transfers discussed in the book.

2. Some Definitions

This book is about cash transfers or explicit subsidies aiming to guarantee a minimum level of income during old-age and prevent poverty. We will refer to these transfers as (general revenue financed) *retirement income transfers* or *old-age subsidies*.

Such transfers can take place upon retirement, upon reaching a certain eligibility age, or during active life. We refer to the first two cases as *ex-post* interventions and to the last as *ex-ante* interventions. Among ex-post interventions the taxonomy analyzed in Chapter 10 distinguishes between two main types: (i) transfers that are not linked to contribution histories, often called *social pensions*; and (ii) transfers to guarantee a *minimum pension* within mandatory contributory pension systems, which most of the time are conditional on a given contribution history or vesting period.

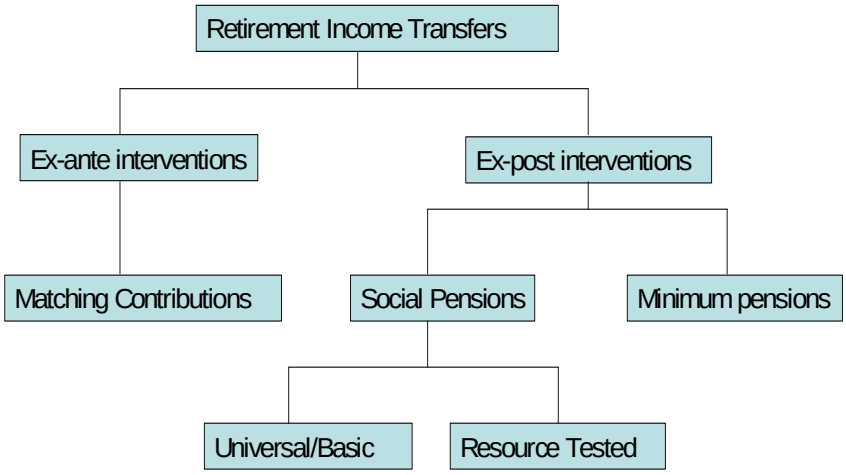
Social pensions can be *universal* or *resource tested*. Universal pensions – also referred as basic pensions – are paid to all individuals who meet an eligibility age sometimes with restrictions on residency. Resource-tested pensions, on the other hand, are also conditional on a maximum level of income (pension income or a broader definition) and/or asset holdings. Minimum pensions, on the other hand, are always tested on pension income, more precisely tested on the value of the contributory pension. In a way, minimum pensions are a form of resource tested pension differing from a social pension only to the extent that eligibility can be subject to a vesting period. In fact, Chapter 7 which deals with OECD countries treats minimum pensions as part of social pensions.[1]

Among ex-ante interventions the book discusses *matching contributions*. These are transfers that are given to individuals conditional on their contributions to a given pension plan. For instance, a government can decide to pay a 50 percent or a 100 percent match for each monetary unit deposited in a pension account, which can be funded or notional, publicly or privately managed. Matching contributions are included in the discussion because of their potential role to stimulate long term savings (and therefore expected income during old-age) and to provide incentives for formal sector work among individuals with limited savings capacity. They can therefore have a significant role in the context of an integrated strategy to expand coverage and their interactions with ex-

[1] Other forms of ex-post implicit or explicit interventions exist with the objective of preventing poverty during old-age, such as those to cover health expenditures, but these are excluded from the analysis.

post retirement income transfers need to be analyzed. There are also other ex-ante interventions such as contribution credits during periods of unemployment or maternity leave, but these fall outside the scope of the book. Figure 1.1 summarizes the relevant taxonomy of retirement income transfers that is used across chapters.

Figure 1.1: Taxonomy of Retirement Income Transfers



Source: Authors'

3. Rationale for Retirement Income Transfers

As previously mentioned the main function of social pensions and other retirement income transfers is to prevent poverty during old age. In high income countries the transfers benefit individuals who, in their majority, are also covered by contributory systems. In middle and low income countries, on the other hand, transfers are for many the only source of income during old age and therefore are often considered key instruments to expand access to old-age income security.

The coverage gap

The authors of Chapter 2 estimate that worldwide only 25 percent of the labor force is covered by a mandatory contributory pension system.[2] Even countries such as Argentina, Chile and Mexico, that during the 80s and 90s moved towards funded defined contribution (DC) pension arrangements that were expected to improve incentives to

[2] Chapter 3 also discusses several of the methodological challenges and data constraints that make it difficult to come up with precise estimates of the coverage rates.

enroll and contribute, have failed to expand coverage in a meaningful way and only around half of their labor force is covered by the mandatory pension system.

Outside of high income OECD countries the share of the labor force enrolled in the mandatory system remains quite low and in OECD countries pension coverage seems to stagnant or even decreasing (Holzmann 2005). As discussed in Chapters 8 and 9, even in countries like Japan and Korea universalizing coverage remains an important policy change. Coverage rates in Eastern Europe and the Former Soviet Union tend to be higher than average, in part, due the role that had public sector employment and collective agriculture. As these countries transit towards market economies, however, coverage rates have been declining (see Holzmann and Uguve, 2009). Today the average is close 65 percent. In East Asia the average coverage rate is 44 percent, but in China it reaches only 20 percent. In the Middle East and North Africa, and Latin America coverage rates are low to moderate averaging 34 and 32 percent of the labor force respectively. Moving to South Asia and Sub Saharan Africa coverage rates drop substantially. In South Asia the average across countries is close to 13 percent. In Sub Saharan Africa the average is 6 percent; coverage rates have been historically low and even deteriorated during the 80s. Mauritus is the country with the highest coverage rate (50 percent) followed by Cape Verde (27 percent). The majority of countries, however, have coverage rates below 5 percent with contributory systems that often reach only civil servants, and employees in public and large private enterprises.

What are the main factors that determine coverage? Not surprisingly, a country's income per capita is good predictors of coverage rates: the higher the level of income, the higher the share of the labor force enrolled in the mandatory pension system. This is to be expected as institutional and enforcement capacity increase with economic development and total output and employment become less dependent on the agricultural sector – where coverage rates are usually lower. Higher average earning and more savings capacity can contribute as well.

Chapter 2 shows, however, that at a given level of income large variations in coverage rates can still be observed. These ultimately reflect differences in the structure of the economy and the labor market, as well as in the distribution of income: large informal sectors go hand in hand with low coverage rates and the poor seldom enroll in

contributory systems. For instance, data from Latin America show that, like in the case of agriculture, coverage rates are lower in the construction sector. Coverage rates tend to be higher in the public sector, the services and manufacturing sector, although in the latter they have been declining. Another finding is that the self-employed and wage earners in small enterprises are less likely to be enrolled in the mandatory pension system. The same is true for low skilled and/or low income workers.

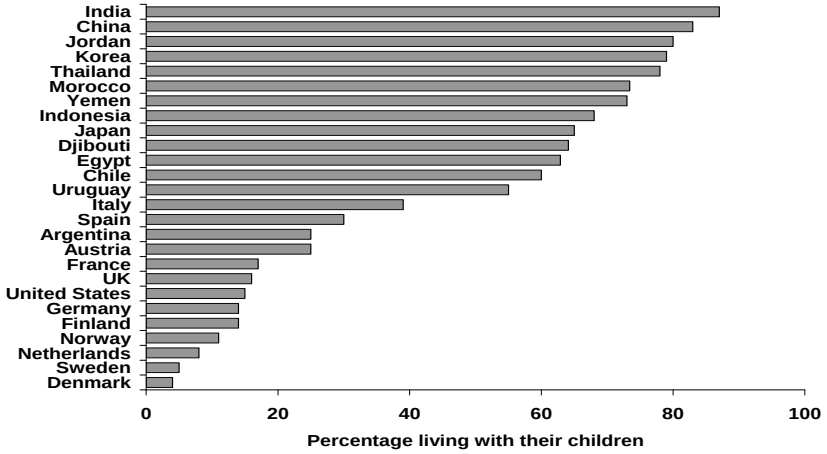
Chapter 3 develops a dynamic analysis of coverage rates that raises additional policy issues. Using social security records for Uruguay the authors show that very few individuals contribute continuously to the mandatory pension system. The majority moves in and out of the system and have sparse contribution densities. Interestingly, transition rates decline over time so that the chances of staying out of the system for individuals who do not contribute increase with time. As before, low-income workers face a higher risk of dropping out of the system than high income workers and have a lower probability of re-entry. Furthermore, economic downturns raise the risk that private workers may stop contributing and this lowers the chances of resuming contributions. As a result it is projected that, on average, only 25 percent of contributors in Uruguay will have put-in the requisite 35 years of contribution to access an ordinary pension at the normal retirement age. Only 1 percent of those belonging to the poorest quintile will do so. Similar results hold for Argentina, Brazil, and Chile (see World Bank, forthcoming). In the Chilean pension system, for instance, those who do not accumulate funds sufficient to self-finance a pension above the minimum pension guarantee will not reach the twenty years of contributions required to access benefits. Thus, about half of the retirees will not get a pension above the minimum, but only about two percent will be eligible for the guarantee.

But do low coverage rates and sparse contribution densities justify the implementation of retirement income transfers financed by general government revenues? After all, to prevent poverty during old-age individuals have access to sources of income outside the mandatory system including voluntary savings and family implicit or implicit transfers. In fact, the share of the elderly living with their children tends to be

higher in low income countries where coverage rates are expected to be lower (see Figure 1.2).

The usual justification for public intervention is that the average citizen is a not a good financial planner and might fail to set aside enough and well diversified savings while young and therefore risks falling into poverty when old. Family support, on the other hand, is not always there and tends to decline as a result of economic development itself (urbanization, migration, more mobility of the labor force). The obvious question then is what happens with the elderly who do not receive a public pension? What is their socioeconomic situation? Do they face a higher risk of poverty than the rest of the population? If not, then the rationale for retirement income transfers would be weakened; the elderly poor *could* become part of the general social assistance system which targets *all* the poor (provided of course that it exists). These questions are addressed in Chapters 3 and 12.

Figure 1.2: Share of the Elderly Living with their Children



Source: Robalino et al. 2005.

Poverty among the elderly

Chapter 3 starts by showing that the world population is aging rapidly. Today, there are around 670 million people aged over 60 or 10.4% of the population. By year 2050 this number is expected to have increased to almost 2 billion or 21.7% of the population. Consistent with the low coverage of the labor force, only a minority of the elderly, around 20 percent, has access to some form of public pension (Figure 1.3). Yet,

the authors argue, the elderly could be more exposed to the risk of poverty than the rest of the population, in part due to higher vulnerability to sickness and disability.

The international evidence is mixed. In Sub Saharan Africa, Kakwani and Subbarao (2005) show that in 9 out of the 15 countries they analyze poverty rates among the elderly are higher than in the general population (in the other six differences were not statistically significant). Similarly, in the case of Latin America, Gasparini et al. (2007) show that in 14 of the 18 countries that they study poverty rates among the elderly would be higher in the absence of pension transfers. In three of the four countries analyzed in Chapter 12 -- Kyrgyz Republic, Niger and Panama -- poverty rates among the elderly are also higher (the exception is Yemen). But other studies for Asia (Siri Lanka and India) and the Middle East and North Africa (Djibouti, Egypt, Morocco, Jordan, and Yemen) tell a different story: poverty rates among the elderly are lower or equal to those of the general population. There are cases of elderly living alone with children where poverty rates are higher but the share of these households is quite small (see also Palacios and Sluchinsky, 2006; and Robalino et al. 2006 for a review).

Clearly, one should not be surprised that the results vary by country; they should. The authors point-out, however, that some of the differences could come from different assumptions regarding economies of scale and the distribution of income/consumption within the household. For instance, most studies assume an equal distribution. Yet, there is evidence of weakened family support and cases where income/consumption is allocated disproportionally to children and individuals of working age. Some studies may thus underestimate poverty among the elderly.

There are three main messages from the review. First, one needs to be careful when interpreting the results of the studies that assess poverty among the elderly. Second, new methodologies and standards to measure poverty among household members need to be developed and applied to adequately inform policy. Third, studies need to be country specific; broad generalizations about the relative socioeconomic situation of the elderly are not enough to motivate and/or guide the design of retirement income transfers. Even within countries there can be large regional differences in relative poverty rates.

Chapter 12 discusses these issues in more detail and we will come back to them latter in this overview. Before doing so, however, it is useful to briefly review the types

of retirement income transfers that have been implemented around the world and their impact on poverty rates among the elderly.

Figure 1.3: Access to Public Pensions and Poverty Among the Elderly

[Insert two maps: coverage of the elderly and poverty among the elderly].

Source:

4. Retirement income transfers around the world

The prevalence of retirement income transfers, their mandate and design vary widely across regions. Nonetheless, from the review in chapters 5 to 7 certain patterns emerge, which are correlated with countries' level of income.

The case of OECD countries

Chapter 7 shows that in the OECD, most high-income countries have implemented social pensions and/or minimum pensions within the contributory system but, to our knowledge, no matching contributions programs. In the majority of cases, most people who receive some form of social pension or minimum pension also receive at least some benefit from the earnings-related schemes to which around 90 percent of the labor force contributes. Arrangements by country vary. Around half of them have only one kind of program. In Germany and the United States, for example, there is only a resource-tested scheme. Japan, the Netherlands and New Zealand rely on universal pensions, while Finland and Sweden have only minimum pensions. In most countries, however, we find two of the three types and, in the United Kingdom, all three. Overall, resources-tested and minimum pensions are equally prevalent and exist in 17 of the 30 countries analyzed. Universal schemes are less prevalent but still exist in 13 of the 30 countries.

But even if most countries have implemented some type of retirement income transfers, there are differences in terms of whether the programs are being expanded or contained. For instance, countries like France, Korea, Mexico, and Sweden have introduced reforms where the role of social pensions has been strengthened. As discussed in Chapters 8 and 9, Japan and Korea are also discussing reforms to review the

current structure of retirement income transfers. Countries like Finland, Hungary and Poland, on the other hand, have moved in the opposite direction. As an example, Finland moved from mixed basic/pension-tested benefits to a pure pension-tested benefit. Hungary and Poland, on the other hand, abolished the minimum pension. The main incentive in these three cases has been to strengthen the link between contributions and benefits to improve incentives.

Benefits from social pensions and minimum pensions are worth on average around 30 percent of economy wide average earnings. In 18 of 30 countries reviewed in Chapter 7 the value of these transfers ranges between 25 and 35 percent of average earnings. Some of the exceptions are Japan, Finland and Germany where the value of the transfer is lower (less than 20 percent) and New Zealand and Portugal where the transfer represents more than 40 percent of average earnings.

The coverage of retirement income transfers varies more widely across countries. For instance, while in the US the program cover less than 6 of the population of pension age in Australia it covers a little over 75 percent. In countries like Canada, Great Britain, Ireland, Italy, Finland, France, and Sweden coverage rates are within, or fall close to, the 25-50 percent range. These coverage rates ultimately depend on eligibility rules, in particular the type of income test.

The case of middle and low income countries

Social pensions (universal and resource tested pensions) are less prevalent, and also more recent, in middle and low income countries. In the Middle East and North Africa only Algeria and Egypt have non contributory or quasi non-contributory systems that could be assimilated to a social pension. In Latin America and the Caribbean only 7 percent of countries have implemented these schemes. In Sub Saharan Africa and South Asia only 3 and 5 percent respectively. However, the majority of countries that have mandatory contributory systems have implemented a minimum pension guarantee. Matching contributions, on the other hand, are only recently emerging. Countries like Dominican Republic (Law Passed), India (implemented in West Bengal), Mexico (implemented), and Vietnam (Law under consideration) are leaders in the design of this type of program.

Contrary to OECD countries, social pensions in most middle and low income countries cover a population group that, for the most part, is not covered by the contributory system. Thus, in general, individuals eligible for a minimum pension guarantee within the contributory system are not eligible for a social pension.[3]

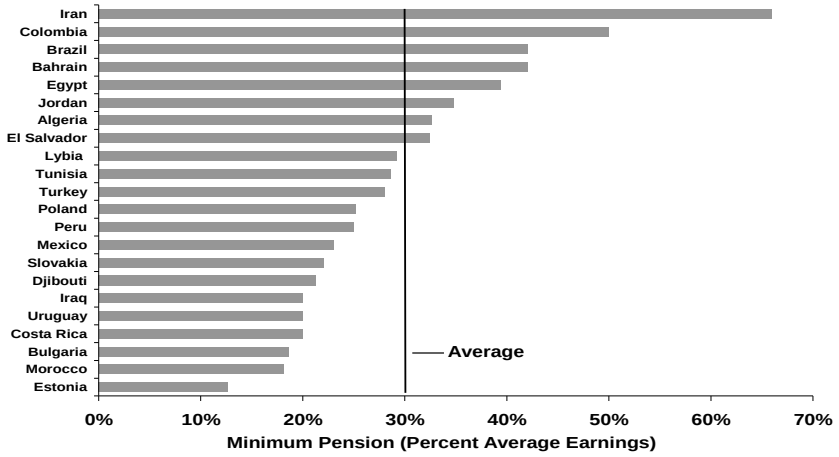
Minimum pensions within contributory systems usually take the form of a top-up: individuals who upon retirement have a contributory pension below the minimum guaranteed receive the difference from the plan or from the government. Eligibility conditions are the same as for the contributory pension. Thus, on top of a minimum retirement age there is usually also a minimum vesting period. Nonetheless, most of the time individuals who apply for early retirement are also eligible for the minimum pension guarantee.

On the issues with this type of design is the imposition of a 100 percent marginal tax on the transfer. In essence, each time that the contributory pension increases the transfer falls by the same amount. As discussed in Chapter 10, this feature can reduce incentives to contribute and increase the likelihood of informal work.

Overall, the level of benefits ranges between 25 and 35 percent of average earnings (see Figure 4). In most cases, the cost of the minimum pension is financed, implicitly, through payroll taxes and social security contributions. Also, in most of the countries that have implemented both, a social pension and a minimum pension (e.g., Algeria and Brazil), the programs have been designed with little or no coordination, as if applying to very different population groups. There are thus marked differences in terms of benefit levels and eligibility age.

[3] To stress again, this does not mean that the two types of programs should be analyzed separately – particularly in the case of middle and high income countries. As shown in Chapter 8, differences in design between the two programs can influence choices about formal vs informal sector work. In other words, coverage rates are, in part, endogenously determined by the design of the retirement income transfers.

Figure 4: Minimum Pensions in Middle and Low Income Countries



Source: Authors' calculations.

The review of *social pensions* presented in Chapters 5 and 6 shows that the decision to implement one of these programs responds to socioeconomic as much as political factors. Also, that there are important differences in terms of their scope and design.[4]

The author of Chapter 5 argues that few low income countries have implemented social pensions, in part, given that the elderly account for a relatively low proportion of the population, multigenerational households are dominant and government resources for poverty reduction are scarce. In those countries that have implemented social pensions poverty incidence is high, inequality among the poor is low, and political resistance to poverty reduction is significant. Social pensions then have a clear and transparent target group and provide widely supported life-cycle and sectoral redistribution. Middle income countries are more likely to implement social pensions but the programs tend to be smaller, in part, as a result of a larger coverage of the contributory system.

Thus, two separate groups of countries emerge when it comes to coverage. On one hand there are countries where the coverage of the programs, expressed as the ratio between the number of beneficiaries and the population over 65[5] is small – around or below 20 percent. These countries include, for instance, Algeria, Argentina, Chile and Colombia. In general, these are countries with a prominent contributory system albeit

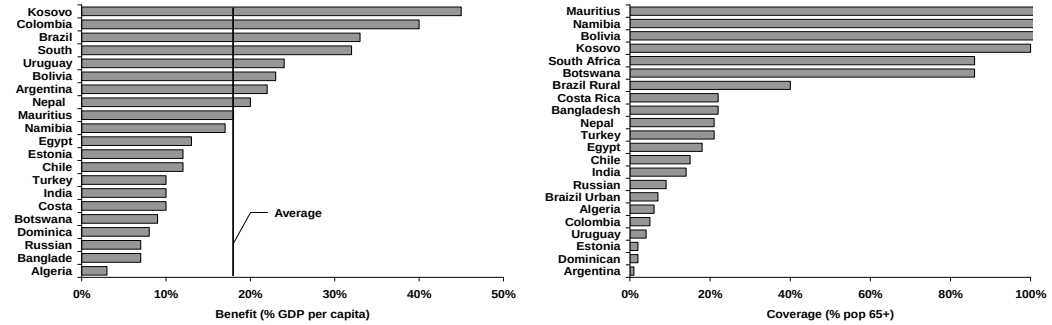
[4] See Appendix 1 for a description of the various social pension programs for which information is available.

[5] Clearly this indicator is problematic since eligibility ages vary across countries. It is used here, however, to provide a common basis for comparison.

one that covers, in the majority of cases, less than 60 percent of labor force. Social pensions in these cases are therefore targeted to low income individuals not covered by the contributory system. On the other hand there are countries such as Bolivia, Kosovo, and South Africa where coverage is universal or almost universal. These are countries where the contributory system does not exist or plays a marginal role, the only exception being Mauritius where the coverage of the contributory system is moderate and the social pension was introduced when the contributory system was in its infancy. Brazil is another special case. In urban areas there is an income tested social pension for those over age 67; it covers around 7 percent of the elderly. In rural areas, however, there is an almost universal social pension. Although workers there can make contributions to the national scheme and are eligible for contributory pensions, they are all also eligible for a non-tested *rural pension* after ages 55F/65M – the majority follows this route.

The level of the benefit, on the other hand, does not seem to be correlated with the country's GDP per capita or the region. Among the programs reviewed there is a large range of variation; benefits can be as low as 3 percent of GDP per capita (Algeria) and as high a 45 percent (Kosovo). The average benefit across countries is close to 18 percent of GDP per capita (see Figure 1.5).

Figure 1.5: Benefits and Coverage of Social Pensions in Middle and Low Income Countries



Source: Palacios and Sluchinsky (2006)

Another difference between low and middle income countries are policy priorities in terms of design. In low income countries particular attention is given to having in place some mechanism to control pension liabilities: a late age of entitlement in Lesotho, cohort restrictions in Bolivia, and a cap in the number of pension in Bangladesh (see

Chapter 5). Issues related to the direct fiscal costs of the programs thus become more important than issues related to incentives or better integration between contributory and non-contributory systems. Middle income countries such as Brazil, Chile and Mexico, on the other hand, seem to be moving towards a more integrated type of social protection system. While fiscal considerations in the design of the programs remain important, emphasis is also given to issues related to distortions in labor markets and savings decisions. This is in a way to be expected because informal and formal labor markets tend to be more integrated and workers transit between the two. Thus, they go through periods when they are covered by the contributory system (formal sector) and periods when they are *implicitly* covered by non-contributory system (informal sector).

Impact of social pensions on poverty

What has been the impact of these programs on the welfare of the elderly? Contrary to the debate about relative poverty rates among the elderly discussed in the previous section, there is a broad consensus in that retirement income transfers, and in particular social pensions, have played an important role in reducing poverty. Chapter 3 shows that in OECD countries poverty rates among the elderly would be significantly higher. In France, for instance, the poverty rate would be almost 90 percent in the absence of public pensions relative to the present 6 percent rate. Clearly, this is not the proper counterfactual given that in the absence of public pensions individuals are very likely to save more on their own. Nonetheless, the figure shows the importance that public pensions have as a source of income during old age.

More rigorous studies for developing countries also show that social pensions have had positive effects on poverty rates. In Brazil, 77 percent of older people benefit from a public pension. The old-age poverty rate in the absence of these pensions would be 47.9 percent, compared with the actual rate of 3.7 percent (see Gaspirini et al., 2007). Mauritius has had a universal social pension since 1950. The scheme, which costs 2.9 percent of GDP has had an extensive impact on old-age poverty. For example, poverty rates for older people living with more than one younger person would be 30 percent without the universal pension, compared with an actual poverty rate of 6 percent (Kaniki, 2007). The South African non-contributory social pension reaches around 85 percent of

those over 65 and provides up to US$75 per month at a cost of 1.4 of GDP. Samson (2006) shows that among households that include older people, the almost universal pension reduces the poverty gap by 54%. For older people living alone the poverty gap would almost disappear.

There are of course exceptions due, in part, to low benefit levels or narrow coverage. In Nepal, for example, the pension is just US$2 per month and is paid only to over-75s. It is also quite clear that social pensions will generally have very limited impacts on aggregate poverty rates. As discussed in Chapter 5, for instance, in the majority of the countries in Sub Saharan Africa a social pension would reach less than one third of the poor. Social pensions could be a powerful instrument for poverty reduction for households affected by HIV/AIDS or migration and in which adults of working age are missing, but these are a small fraction of households in poverty.

But even when social pensions are able to reduce poverty rates significantly, at least among the elderly, there are questions about expanding the program or designing new ones. Indeed, lower poverty rates are part of the benefits of the programs but there are costs as well that need to be taken into account.

5. Technical and Allocative Efficiency

Like in the case of any public program or investment decision, implementing a retirement income transfer involves an assessment of both technical and allocative efficiency. We mean by technical efficiency that, if a transfer program is going to be implemented, its design should ensure that it will reach its objectives at the minimum possible cost. The costs relate not only to the payment of the transfer itself but also to any economic distortion that is generated as a result of the program. For instance, a reduction in labor supply and employment levels, an increase in the share of informal employment, and/or lower savings rates. This is the subject of Chapter 10 which attempts to provide some policy relevant guidelines about design features that can minimize distortions while improving redistribution.

The existence of an efficient technical design, however, is not a sufficient condition for implementation. This is because governments have limited resources and face many competing demands, for instance, to invest in education, health or

infrastructure. Whether part of the budget should be assigned to a retirement income transfers is thus a question of allocative efficiency which is discussed in Chapter 11.[6]

Technical efficiency

Chapter 10 develops a framework to analyze the potential distortions or economic costs resulting from retirement income transfers, distinguishing between effects related to the transfer itself and those related to the financing mechanism. Regarding the effects of the transfer the chapter looks at changes in labor supply, sector choice (formal/informal), retirement ages and the savings rate. From the financing side the focus is on the potential impacts of the program on the tax burden, which then can affect investments, growth, employment levels and the size of the informal sector.

Unfortunately, the economic literature is quite thin on these aspects and the results available difficult to compare and sometimes contradictory. In the case of Brazil, for instance, there is strong evidence that the rural pension reduced labor supply in pre-retirement ages and induced retirement at early ages. On the contrary, in South Africa, the overall labor supply effect was positive: eligible individuals reduced the number of hours worked but the transfer seems to have facilitated the employment of other members in the household. On formal vs. informal sector work the evidence for Chile and Mexico suggests that badly designed non-contributory arrangements can increase informality. In essence, other things being equal, the transfers reduce the *net wage premium* in the formal sector and can induce more workers to become self-employed or wage earners in informal firms. Regarding savings rates, some of the evidence comes from the US and Spain and suggests that indeed retirement transfers can induce eligible individuals to save less.

But how important are these effects? The general message from the analysis in Chapter 10, not surprisingly, is that it all depends. The design of the program matters, but also the initial conditions, in particular individual preferences and the structure of the labor market.

[6] Notice that the problem persists even if the government is able to mobilize additional resources to finance the program, since those resources also have an opportunity cost. One question is whether there are programs worth the distortion involved in mobilizing the additional resources. Another, whether relative to all the programs that are worth the trouble the retirement income transfer brings the highest bang for the buck.

Simulations using a life cycle model estimated for Brazil show, for instance, that there is a large range of variation in the impacts that various types of retirement income transfers have some savings rates, contribution densities, retirement ages, and program costs depending on: (i) preferences regarding risk, consumption vs leisure, future vs present utility, and formal vs informal sector work; and (ii) job destruction and job finding rates, as well as the possibility of working after retirement. Many times policies can be ranked on the basis of their average impact. In some cases, however, rankings remain elusive.

The degree of integration between the formal and informal labor markets is an important factor as well. In countries where the market is fully segmented (which can be the case of low income countries) and workers do not transit from one sector to the other policymaker would not need to pay attention to the effect that transfers might have on informality. Policy makers could design different retirement schemes for individuals within and outside the contributory system without paying much attention to potential effects on workers flows between formal and informal sector. When formal and informal labor markets are integrated, however, transition rates are likely to be affected by the interplay between the non-contributory and the contributory pension system. This is an important issue to which we will come back below.

Regarding program design four aspects seem to be fundamental: the level of the benefit, restrictions on the eligibility age, and the Effective Marginal Tax Rates (EMTRs) imposed by the transfer, which depends on the type of resource test and the degree of integration between transfers within and outside the contributory system. We address each of these in turn.

The level of the benefit is obviously important as it determines not only the fiscal cost of the program but also the strength of the incentives that individuals have to change behaviors. In general, for modest transfers, negative impacts on savings and labor supply would be contained, particularly if the transfer is limited to low income individuals who are less productive and have lower savings rates. It is not easy to define what constitutes a “modest transfer” but one can spot transfers that are definitely too high; equal for instance to the average earnings of low skilled workers (like in the case of Brazil). Chapter 10 shows through simulations that transfers representing 30 percent or more of

an individual's earnings can have significant effects on his/her labor supply and savings decisions. Thus, the larger the transfer, the larger the number of individuals who are affected and the larger the distortion.

The importance of the eligibility age is also highlighted in Chapter 10. Empirical studies and simulations provide strong evidence that, most of the time, transfers generate large incentives to advance retirement by several years. Individuals who in the absence of the transfer would not retire at the minimum statutory age are more likely to do so in the presence of the transfer. The implication is that any social pension or minimum pension guarantee should be conditional on meeting a minimum retirement age, ideally closer to the upper tail of the observed distribution of retirement ages. If anything, the transfer would then bring the average retirement age up not down. At the same time, individuals who retire from the contributory system before this retirement age (through early retirement provisions) would not be eligible for the transfer.

Chapter 10 also emphasizes the need of indexing the eligibility age with life expectancy in order to contain costs and therefore reduce the additional tax burden imposed by the program. Depending on the share of taxable earnings on GDP, financing a retirement income transfer even of 1 percent of GDP can have significant effects (see Chapter 11). In fact, that authors argue that in the case of middle and, in particular, low income countries, one of the main distortions related to retirement income transfers would come from the cost of the program itself and how it grows as population ages. The recommendation is therefore to increase the eligibility age by one year every 5 to 7 years. Estimates in the case of Egypt suggest that long term savings from automatic indexation can be in the order of 1 percent of GDP per year.

The last issue addressed in Chapter 10 regarding technical efficiency has to do with program design and EMTRs. EMTRs are generated by the transfer when its value is reduced as a result of an increase in earnings or assets. A universal or basic pension at age 65 with no strings attached imposes a zero EMTR – it is a pure transfer and has a pure *income effect*. The moment the transfer is tested, however, EMTRs become positive for at least some individuals and generate a *substitution effect* between present and future consumption. Even with EMTRs equal to zero, the transfer can modify behaviors through its income effect (e.g. as is the case of the rural pension in Brazil). When

EMTRs are positive the additional concern are distortions on labor supply, or more generally, on the incentives that individuals have to increase their incomes. The case of Chile, discussed in Chapter 10, is a nice illustration of the problem. Before the reform the minimum pension guarantees were tested on income from the contributory pension at a 100 percent EMTR. Basically, the transfer was reduced one-by-one with each increase in the contributory pension. As a result, the system provided strong incentives to keep short contribution densities and promoted informal sector work– since the total payment received from the contributory system did not increase as a result of additional contributions. Social pensions designed for individuals "outside the contributory systems" generate similar problems. Individuals who join and contribute to the national pension scheme *loose* the subsidy. Depending on its level, there can be incentives to avoid enrollment and save elsewhere, or maintain low contribution densities. The simulations in Chapter 10 show that, other things being equal, adding a social pension to a contributory system may reduce contribution densities by 10 to 20 percentage points. This issue is discussed extensively in the case of Brazil, Mexico and Chile in Robalino (2008) and World Bank (2008); Levy (2007); and Valdez Prieto (2008).

These results show that there is a fundamental tradeoff between, on one hand, maintaining low EMTRs to reduce distortions and, on the other, keeping program costs at affordable levels (thus containing the tax burden). This tradeoff would indicate that universal programs (where the EMTRs is zero) are suboptimal, as their fiscal cost would be too high. Programs with a 100 percent EMTR, on the other hand, would be too distortionary, particularly if the level of the transfer is high relative to average earnings. And indeed, the literature on optimal taxation discussed in Chapter 10 suggests having a positive – albeit low – EMTR and when possible EMTRs that gradually increase with the level of income.

There are two practical implications. The first, ex-post retirement income transfers should be ideally targeted, and preferably based on broad means but with a gradual withdrawal rate. The second, transfers outside and inside the contributory system need to be carefully coordinated. Like in the case of Chile, and probably soon Egypt, one alternative is to integrate both. In essence, whether within or outside the contributory system individuals would be eligible for the same type of transfer. In other words,

minimum pension guarantees within the contributory system that in the majority of cases take the form of top-ups (100 EMTR) could be eliminated. Individuals within the contributory system would be eligible for the same resource tested pension (with a gradual EMTR) as those outside the contributory system. This recommendation is even more relevant given the problems with traditional minimum pension guarantees discussed in Section 4.

Allocative efficiency

Even with an optimal design, the question of whether countries should implement retirement income transfers or expand current ones persists. The fist problem identified in Chapter 11 is the difficulty of creating fiscal space to finance the programs, particularly in the case of low income countries. This is so even if the expected cost of the programs is relatively low (in the order of 0.5 to 2 percent of GDP according to the various cost estimates presented in the book). At the end, there are only two non-mutually exclusive alternatives that can be considered: increasing revenues and/or optimizing and reducing other public expenditures.[7]

Excluding natural resources, the main source of revenues for most governments are taxes. Chapter 11 shows, however, that tax revenues in middle and low income countries have remained flat over the past 25 years at around 12-15 percent of GDP. This is despite efforts by governments to increase collection rates and the tax base. In part this is explained by a reduction in import duties, a trend that is likely to continue as a result of trade liberalization. Governments have then recurred to indirect taxation, in particular through a VAT. Thus, one alternative to mobilize additional revenues to finance retirement income transfers would be to increase revenues from these taxes, for example, by eliminating exemptions and/or increasing the tax rate. For instance, some countries in Europe have proposed to tax product and service imports and earmark the revenues to finance growing social protection expenditures. But the potential impacts on growth and employment levels of this policy remain unclear both at the theoretical and empirical level. Plus, increasing reliance on earmarked tax-financing affects the structural and

[7] Countries could also rely on foreign grants but we do not consider this a sustainable alternative (see Chapter 9 for a discussion of some of the issues).

conceptual integrity of the budgetary process, with its basic principle of budgetary unity and fungibility among different types of resources and expenditures.

Regarding expenditures the standard recommendation would be to reduce wasteful expenditures (i.e., expenditures in projects or items with low or negative social rates of return) and to increase the productive efficiency of spending in worthwhile projects. Examples of the former are expenditures on regressive commodity subsidies, or subsidies to bankrupt SOEs, military spending, or simply the wage bill of an oversized civil service. Examples of the latter are more efficient spending in health, education and infrastructure. While such improvements in public spending allocation should take place in any case, Chapter 11 highlights that these changes are not easy to implement.

At the end, even if expenditures could be reduced and additional resources mobilized, retirement income transfers need to compete with other programs to fill the open fiscal space. In theory, a fixed public budget should be allocated in a way that equates the marginal social benefits of all interventions/programs (assuming that there are decreasing marginal returns to additional expenditures). In countries with lagging human development indicators, particularly low income countries, the highest social returns are likely to be related to investments in education, health and infrastructure. Reallocating expenditures away from these investments into retirement income transfers could be welfare decreasing – unless the transfer raises overall household income and contributes to reduce aggregate poverty rates and promote more private investments in education and health. But if this is the case, then probably a more efficient strategy would be to include the elderly in the general safety net: transfers would focus on the poorest households with or without elderly. This is one of the issues addressed in Chapter 12 and discussed in more detail in the next section.

The bottom line is that, given a fixed budget, when policymakers need to decide about the implementation of a retirement income transfer, careful attention needs to be paid to the opportunity cost of the resources involved and the contribution of the program to poverty reduction and aggregate social welfare. This is of course not easy to do. But it is a question that needs to be taken seriously, particularly in the case of low income countries that face overwhelming challenges to improve HD indicators. In these cases,

social pensions may not constitute an efficient use of public resources – given that the elderly are a minority of the population and not necessarily the poorest of the poor.

6. Institutional Arrangements and Targeting Mechanisms

Chapter12 is a critical part of the book and an important complement to the discussion initiated in Chapters 10 and 11. The chapter addresses two policy questions. The first has to do with horizontal equity: why to design specific programs for the elderly instead of including them as part of the general social assistance system? The second is about the design of the targeting system assuming that a special program is created. Indeed, we have argued so far based on first principles that universal programs are likely to be sub-optimal. Chapter 12 moves the analysis and compares the cost-effectiveness of different targeting systems using data for Kyrgyz Republic, Niger, Panama, and Yemen. In doing so the chapter also discusses some of the difficulties encountered when measuring poverty among the elderly.

Social pensions vs. social assistance

On the first question one of main conclusion of Chapter 12 is that, under ideal conditions, the most efficient strategy to prevent poverty during old-age would be to include the elderly within general social assistance program. In fact, the authors show that the best known transfer programs in Brazil, Ecuador, Jamaica and Mexico are already doing that. The concern that the elderly would not be appropriately reached or empowered by the general programs (see Chapter 3) could be addressed by reviewing the targeting system or adding further conditionalities to current programs. The main argument in favor of this strategy is horizontal equity: in all countries there are many elderly who are poor, but there also many, often more, poor who are children or individuals of working age.

There are nonetheless cases where special institutional arrangements for the elderly would be needed: (i) when the elderly face a significantly higher risk of poverty than the rest of the population or represent a significant share of the poor; (ii) when social assistance programs are not in place and considerations of political economy constraint their implementation (on this see also Chapter 5); and (iii) when informal institutions

discriminate against the elderly and a direct transfer would constitute an important tool to empower them (see Chapter 3). These three cases are obviously not mutually exclusive and would need to be analyzed on a country by country basis. When they do not constitute a binding constraint, however, the rationale for having specific transfer programs for the elderly would be considerably weakened.

Targeting systems

To answer the second question the authors of Chapter 12 simulate the cost-effectiveness of a social pension paid at age 65 under different targeting arrangements and without targeting. Five targeting systems are analyzed: a pure means test (or perfect targeting) and four types of proxy means tests that differ only on the degree of accuracy in identifying the elderly poor. The analysis is done under the assumption that countries invest a fixed budget in the transfer program (0.5 percent of GDP in Kyrgyz Republic, Niger and Yemen, and 0.1 percent in the case of Panama). The total budget is thus divided by the total number of beneficiaries and, therefore, the level of the transfer itself depends on the type of targeting. The results of the analysis are very telling and three are of particular importance. First, although a targeting system necessarily introduces exclusion errors, the elderly are not likely to be excluded more often than the rest of the population. Moreover, exclusion errors are more frequent around the eligibility line; in the bottom quintile only 10 percent of the poor elderly would be excluded.

Second, the most effective type of targeting system is the proxy-means test. In particular, with a fixed budget, PMT has a larger impact on poverty than a universal transfer. This is a very important result because it mimics a situation that is likely to be very common across countries. Given fiscal constraints the budget for social pensions is usually small and if spread too thin (which is the case of a universal pension) it would fail to have a significant impact on poverty.

Finally, there are significant reductions in exclusion errors that can be achieved by estimating separate proxy means test formulas for the elderly and the rest of the population, by introducing additional variables that are correlated with poverty among the elderly, or both. These improvements in the targeting system come at zero cost.

The overall message is that good analysis can help countries decide whether to go for universal or resource tested pensions. Given fiscal constraints, universal pensions are unlikely to be the most efficient alternative. Countries can generate important savings by instead targeting limited public resources to those who need them the most. The classical argument against this claim is that targeting itself has a cost and that a good system requires considerable institutional capacity to be implemented. The reality is, however, that the costs of a targeting system have fallen considerably through learning-by-doing and that institutional capacity can be gradually built. Countries therefore might want to consider upfront investments in PMTs, which will have a use beyond social pensions.

7. Preliminary policy guidance, and the road ahead

Our synthesis of the findings of this book is as follows. A large part of the problems behind low coverage rates in low and middle income countries are structural, cannot be resolved overnight, and fall outside the scope of social protection policy. A sustained expansion of the contributory system in the average middle or low income country requires fundamental changes in the productive structure of the economy and the functioning of its product and labor markets. To some extent a better design of the contributory system should improve incentives to enroll, thus contributing to increase coverage rates. Examples of interventions include better regulations and enforcement capacity, a stronger link between contributions and benefits, lower administrative charges, better quality of services, more transparency and accountability, and sound financial management. But these interventions are very unlikely to make a substantial difference given the structural factors discussed in Section 3.

Against this background, social pensions and other retirement transfers thus emerge as an important instrument to bridge the coverage gap, at least for the time being, focusing on individuals with no or limited savings capacity who are more likely to be outside the contributory system. But design and implementation issues are not straightforward. Take the case of social pensions. While there is a consensus in that most countries that have introduced them have been able to reduce poverty among the elderly, there are also growing concerns that the programs themselves have contributed to

"institutionalize" the informal sector – at least in the case of middle income countries like Chile, Brazil and Mexico. Other concerns relate to the opportunity cost of the resources invested, particularly in low income countries, and the perhaps unnecessary fragmentation of the social assistance system.

This book has been an attempt to analyze the main issues with the design of retirement income transfers and offer preliminary guidelines that would help policymakers and practitioners to strike a better balance between income protection/redistribution and economic efficiency. From the analysis, an integrated strategy to expand access to old-age income security would then look something like this.

The first component of the strategy would be a general social assistance system that acts as a safety net for *all* poor. This general system would thus also cover those whom for various reasons, including long term poverty, were not able to accumulate sufficient savings or contributory pensions to finance an adequate level of consumption during old-age.

When this is not possible because of particular circumstances that affect the elderly or the absence or malfunctioning of the social assistant system, social pensions that target directly the elderly would be introduced. A first decision then is whether the social pension should be universal or targeted. We argue that much of the answer will come from the fiscal situation of the country and the extent of other social demands. When only a "small" budget can be efficiently mobilized, the country would be better-off by means testing the pension. This would allow limited public resources to be concentrated on those who need them the most. As shown in Chapter 12, not doing so could spread the transfers too thin without a significant impact on poverty. Clearly, implementing a targeting system automatically introduces exclusion errors. To minimize those, PMTs with benefit formulas modified to more accurately identify the elderly would be adopted. PMT should also be considered in the case of general social assistance systems that target all poor.

The efficient design of a social pension would incorporate a few additional features. First, there would be an eligibility age that is ideally higher than the statutory retirement age of the contributory system and that would be indexed with life-expectancy in order to control program costs. Second, the level of the benefit would be low relative

to average earnings. Transfers that represent more than 15 or 20 percent of economy wide average earnings are likely to start showing noticeable negative effects on labor supply and savings. Third, in order to reduce incentives to evade the contributory system, the social pension would incorporate a gradual withdrawal (claw-back) rate. Thus, low income individuals who contribute to the mandatory system could, in principle, be also eligible for part of the transfer. This also implies that occupation or employment sector would not have any influence on eligibility for a social pension. The pension would be allocated only on the basis of age and the results of the resources test. As discussed in Chapter 10, this feature seems particularly important in the case of middle income countries with more integrated formal and informal sectors.

The second component of the strategy would involve interventions that provide incentives for individuals with some, but limited, savings capacity to save for the long term, thus reducing the cost of social assistance and/or social pensions. Matching contributions linked with a conditional minimum pension could have a role to play here. These would target individuals who cannot afford in full the mandatory contribution rates and/or cannot contribute continuously. A majority of them would be operating in the informal sector in urban or rural areas. They would be low-income self-employed or salaried workers in small informal enterprises sometimes earning less than the mandatory minimum wage. The transfer therefore, by design, would be resource tested and would incorporate a cap (a maximum accumulated capital). Cooperatives or community organization could be used to mobilize the savings that would flow either to a national plan or private pension providers, possibly including micro-finance companies. Contribution rates could take the form of flat payments. And like with the social pensions, individuals enrolled in the formal sector who meet the resource test would also be eligible for the matching. Again, the matching would not be allocated on the basis of occupation or employment sector.

Since by default individuals eligible for the match would also be eligible for the social pension there is always the question of why would they enroll and contribute, unless the present value of the matching contributions are higher than the present value of the social pension – which would be regressive since the long-term poor would not benefit from the matching. But as shown in Chapters 10 and 13, for many low income

workers it would actually be efficient to do so; even if the present value of the matching is lower. Intuitively, the reason is that by doing so individuals would be able to better allocate their consumption over time and enjoy a higher pension when old.[8] The analysis suggests, however, that choosing the right *matching level* is important. A matching level that is too low could induce individuals to join the program, reduce savings and still benefit from the conditional minimum pension. A matching level that is too high would be financially unsustainable and regressive. In general, however, there are still several questions surrounding the design of this type of program that require further analysis and thinking.

We end this overview by suggesting a few general areas where we think future research should focus. A first challenge is to compile better data for policy analysis and there are three areas that we consider important. One area is the *measurement of poverty among the elderly*. From our overview here it is clear that more needs to be done to have a better picture of the situation of the elderly around the world based on common data sources and methods, and, in particular, a better understanding of the intra-household distribution of income. A second area is the *measurement of the coverage gap*. Outside Latin America and a few countries in Asia we know little about how coverage rates vary by socioeconomic group and geographic area. While the broad patterns discussed here are likely to hold, it is important to better understand/explain idiosyncratic variations across countries. In particular, those that are explained by the social protection system itself. A third related area is the study of *labor market transitions.* We have seen that coverage is not a continuous state; workers move in and out of the informal sector. It would be important to have a better understanding of the determinants of these transitions and again, try to pin down the role played by social protection policies.

Moving into policy analysis a priority is to build evidence about the potential role of matching contributions. This is an ambitious task as it will require *designing and implementing well monitored and evaluated pilots at country or local level*. Key questions are: what is the take-up rate of the program and how it responds to changes in

[8] Some have also argued that promoting formality has a positive externality which could justify higher expenditures in matching contributions, but this is a question that is difficult to analyze and remains elusive.

the matching; and how the matching influences contribution levels and contribution densities. These pilots are also the only way to assess the main logistic, institutional, and administrative challenges related to the implementation. Last but not least, it is essential to start assessing the *interactions of the pension system with other components of the social insurance system*. Indeed, when workers decide to enroll or evade social security, the decision is not only based on the pension system. In most countries pension benefits are bundled with health insurance, unemployment insurance, and a series of transfer programs such as family allowance or child care. Ultimately, it is the cost and the perceived benefits of this bundle that matter, not only for workers but also for employers.

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