



The Portability of Pension Rights: General Principles and the Caribbean Case

Alvaro Forteza

May 2008

THE PORTABILITY OF PENSION RIGHTS

GENERAL PRINCIPLES AND THE CARIBBEAN CASE

Alvaro Forteza¹
May 2008

Abstract

The portability of pension rights is an increasingly important issue in the Caribbean. The large and increasing flows of migrant workers, including both permanent and temporary migrants, the small size of the domestic economies and the process of regional integration and economic openness call for effective means to make pensions portable. This document presents a select survey of the literature on pension portability and reviews the progress made by the Caribbean countries as well as some remaining challenges in the light of the international experience.

JEL Classification: H55, J14, J26

Keywords: public pensions, portability, labor market fragmentation



¹ I want to thank Mark Dorfman, Johannes Koettl, David Robalino and Rafael Rofman for valuable comments on a previous version of this paper. The usual disclaimer applies.

Table of Contents

1	INTRODUCTION	3
2	DEFINITIONS AND THE PORTABILITY ISSUE	4
3	PENSION PORTABILITY LOSSES	6
4	PENSION PORTABILITY AND LABOR MOBILITY	12
4.1	Is reduced labor mobility (always) detrimental to labor market efficiency?	12
4.2	What is the impact of pension arrangements on labor mobility?	13
5	MIGRANT WORKERS AND THE PORTABILITY OF PENSION RIGHTS	15
5.1	Portability in a regional context: the case of the European Union	15
5.2	Portability and international labor migration	19
6	BILATERAL AND REGIONAL AGREEMENTS ON SOCIAL SECURITY AND LABOR MOBILITY IN THE CARIBBEAN.....	21
6.1	The CARICOM Agreement on Social Security	22
6.2	The OECS Convention on Social Security	26
6.3	Bilateral Agreements in the Caribbean	26
7	POLICY ISSUES AND OPTIONS TO ENHANCE PENSION RIGHTS PORTABILITY IN THE CARIBBEAN .	27
8	REFERENCES	29
9	GLOSSARY	31

1 Introduction

1. There is a growing concern in the Caribbean about the “portability” of pensions, i.e. the preservation of pension rights of workers who switch jobs. Many pension schemes impose significant losses on workers who change jobs. These losses have been a motive for concern by themselves, but also because of the alleged negative impact on labor mobility. The issue seems to be particularly relevant for the Caribbean countries, given their small size and the growing number of moving workers.

2. Pension portability is receiving increasing attention as the region strives to integrate. As early as in 1996, CARICOM member countries signed an agreement on the portability of social security entitlements that included provisions to facilitate the movement of workers in the region. However, recent assessments of the systems suggest that there are still some important limitations. One obvious limitation is that the agreement only applies in countries in which workers have not completed the vesting period. Hendrikx (2006) mentions that the process of pension harmonization has been partial so far, and hence the recognition of rights can take time. She also points out that because of the differences in the plans, there is room for adverse selection in the sense that CARICOM nationals might choose to retire in a country where conditions are more convenient.

3. Occupational plans also have limited portability both between companies and between countries. As a result, workers changing jobs cash in the funds accumulated in the plans and spend them on consumption, so the funds might not be available to support income when the workers retire (See Petinatto and Diaz, 2005; and Rudden, 2005, p 108-9). The utilization of accumulations for severance is relatively common in the region. Aware of the problem, some countries are beginning to introduce policy changes geared to facilitate the portability of pension rights. For example, the reform enacted in Barbados in 2003 tried to facilitate the portability of occupational plans reducing the vesting period to 3 years. Before that, ordinary vesting periods in pension plans in Barbados were 10 to 13 years, so many workers who changed jobs lost their pension rights (Brough, 2004).

4. This note reviews the literature on pension portability, most of which was written for the

OECD countries, and discusses its relevance for the Caribbean. The short non-technical and selective survey of the literature presented here should basically be instrumental to (i) the identification of portability issues that could be particularly relevant in the Caribbean, and (ii) the identification of policy options in the region. After this brief introduction, the note proceeds as follows. Section 2 presents some basic definitions that are useful to better understand the issue, assess its relevance and grasp policy challenges and options. Section 3 presents the nature of pension portability losses and some simple examples. Section 4 deals with labor mobility and considers two related but separate issues. One is whether the lack of pension portability has actually had a significant impact on labor mobility. The other is whether diminished labor mobility is necessarily detrimental to efficiency. Portability across frontiers raises some specific issues and challenges –like harmonization and coordination– that seem to be particularly relevant for the Caribbean. Section 5 analyzes the issue of migration and portability of pension rights. In Section 6, we present and briefly discuss the bilateral and multilateral agreements that the Caribbean countries have signed to improve portability. Finally, some policy issues and options to move forward are analyzed in section 7.

2 Definitions and the portability issue

5. Pension portability is the capacity to preserve the actuarial value of accrued pension rights when switching jobs. A pension scheme lacking full portability imposes a portability loss on workers who change to another scheme. The portability loss is the shortfall of retirement benefits from those that would have been paid if there had been no change in the pension scheme membership due to a change in jobs (Andrietti, 2001; Blake and Orszag, 1997).

6. In defined contribution (DC) pension schemes, contributions are accumulated in an individual savings account that is eventually used to buy an annuity or to pay programmed withdrawals to the worker when he retires. Usually, defined contribution schemes have full or almost full portability: after a short vesting period, workers assume ownership of their accounts and can take their savings with them when they change to another pension scheme (Andrietti, 2001; Blake and Orszag, 1997 p 10). In defined benefit (DB) pension schemes, the sponsor of the plan promises a pension that usually depends on final wages and the number of years of service. Workers who leave the scheme earlier receive a pension based on the salary and years of service at the moment of leaving. Early leavers tend to suffer a portability loss in defined benefit

schemes. In some cases, the pension rights in DB schemes can be transferred to the new pension scheme when the worker switches jobs. The worker will eventually receive one pension that will account for the service in both plans, but most DB schemes are designed in such a way that workers that switch jobs suffer a loss of pension rights.²

7. It is more difficult to provide full portability of pension rights in unfunded or partially funded pension plans than in fully funded pension plans. It is simple to transfer pension rights of a moving worker in a fully funded scheme because there are assets that back those rights. Things are less easy in an unfunded scheme. The resources that will be used to pay the pension are not yet available when the active worker switches jobs. If the pension scheme that receives a switching worker recognizes the pension rights accrued in the previous scheme, it assumes a liability which will have to be backed by a promise from the sponsor of the previous pension scheme. This promise is a financial asset, but a peculiar one. It is not a diversified basket of well rated assets or a money transfer that the receiving pension plan can immediately invest in the portfolio it prefers best, but just an illiquid long run promise from the sponsor of the pension plan the worker is leaving. A way out of this problem is to have the pension schemes provide independent pensions to workers who have served for a limited period in different plans. This solution however compounds some portability losses -notably the so called vesting losses- (see more on this below) and increases administrative costs.

8. Non-financial or notional defined contribution (NDC) schemes seem to be better equipped than defined benefit schemes, but less equipped than fully funded defined contribution schemes to provide fully portable pensions. However, Holzmann et. al. (2005 p.32, 36) argues that public NDC schemes can provide full portability as well. The social security institution of the country of origin of a migrant worker can transfer money to its counterpart in the destination country either when the worker migrates or when the benefit is due upon retirement.

9. Multi-pillar pension systems face different portability challenges across pillars. In principle, it should not be difficult to get full portability on pensions based on savings accounts, but the pensions provided by unfunded defined benefit pillars as well as zero pillars are not likely to be fully portable.

² I analyze the specific nature and provide some examples of these losses in the next section.

10. Occupational or supplementary pension schemes tend to provide less portability than statutory or social security schemes. *Occupational schemes* are organized and sponsored by the firms in which workers work and typically provide supplementary pensions. *Statutory schemes* are organized by governments and usually provide the basic pension. While occupational schemes cover workers in a firm or at most in a branch of the industry, statutory pension schemes usually provide nationwide coverage. Therefore, the worker is more likely to have to change an occupational than a statutory plan when he switches jobs. Nevertheless, portability losses may also take place in nationwide statutory schemes when workers migrate across international borders.

11. The portability losses of migrating workers have been addressed in some regions through processes of harmonization and/or coordination of pension policies. *Harmonization* refers to a process of reform of national schemes aimed at reducing differences between schemes. *Coordination* refers to a set of regulations that adapt the effects of national schemes without changing the parameters of the national schemes. Different countries may have different views about what are the main goals of the pension schemes and how to pursue those goals better. Hence the harmonization of pension schemes might be resisted by local authorities on a sovereignty basis. Also, the harmonization of national schemes may not eliminate the portability losses of migrant workers. Indeed, as the examples in the next section show, even schemes with identical characteristics might impose portability losses to workers that switch schemes. Conversely, Schmahl (1993, p.320) argues that coordination was sufficient in Europe to guarantee that migration did not lead to pension right losses.

12. In OECD countries, the portability problem seems to be mostly linked to occupational schemes. Public pension programs do not impose pension losses on workers who switch jobs within a given country. Workers who cross national frontiers might suffer portability losses, but according to several analysts the existing agreements between public pension schemes prevent migrant workers from incurring significant pension right losses (Schmahl, 1993, p.320; Whiteford 1996; Andrietti, 2001, p.59).

3 Pension portability losses

13. The literature distinguishes at least four sources of portability losses:

- Vesting losses. If a worker leaves a job before completing the vesting period (i.e. the minimum years of service in the scheme required to receive the benefit) he gets nothing from this period.
- Final wage losses. Most defined benefit pension plans base the pension on the last salaries. According to this rule, an early leaver will have a pension computed on the salary he earned when he left the job, which is going to be smaller than the salary at the end of his working career, if wages are growing with experience, or if there is inflation and wages used to compute the benefit are not “valorized”, i.e. adjusted by inflation.
- Backloading losses. Some defined benefit pension schemes have increasing accrual rates: pension rights grow slowly during the first years in the scheme and start growing faster with seniority. Therefore, workers who switch jobs accumulate lower pension rights.
- Penalties losses. Some pension schemes accept rights accrued in other schemes but with a penalty. Also some programs penalize pensions paid abroad, i.e. apply reductions to pensions paid to retirees who left the country.³

14. These different sources of portability losses can be better explained with the help of some simple examples. Suppose a worker begins to work and contribute to a national pension scheme at age 20, works and contributes continuously until retiring at age 60. Suppose his initial annual wage was 100. His wage increased 1 unit per year, so his final wage was 140. There are two firms (A and B) with independent but identical pension schemes. The pension schemes provide a pension $P = 0.02 * T * W$, where P is the amount of the pension, T is the number of years of service and W is the final wage in the job. The accrual rate is thus 0.02 per year. The pension rights begin to be recognized immediately but are only secured once a member is fully vested after five years.

Case A: A worker who spends his entire career in a job covered by the same pension scheme will receive a pension equal to $P = 0.02 * 40 * 140 = 112$.

³ Holzmann et al (2005) report, for example, that Germany applies a 30 per cent reduction to pensions paid to non nationals if they decide to move to a country with which Germany does not have a social security agreement. The US does not pay pensions to individuals who settle down in some countries. The UK does not adjust pensions that are paid abroad.

Case B: A worker who spends his first three years in one job and then switches to another job covered by a different pension scheme where he remains until retirement will have a pension equal to $P = 0.02 * 37 * 140 = 103.6$. This worker suffers a *vesting portability loss* of $8.4 = 112 - 103.6$ because three years are not recognized.

Case C: A worker spends the first 20 years with firm A and the last 20 years with firm B. At retirement, the worker will have two pensions: $P_A = 0.02 * 20 * 120 = 48$ and $P_B = 0.02 * 20 * 140 = 56$. There are no vesting losses in this case, but the sum of the two pensions is only 104, i.e. 8 less than what the worker would have earned had he spent his entire career in the same job (*final wage loss*). So there is also a portability loss in this case stemming from the fact that wages grow and the pension from firm A is computed based on the last wage in that job, 20 years prior to actual retirement.

Case D: Suppose now that the accrual rate is only 0.01 for the first twenty years and 0.03 for the second twenty, so that someone who has worked 40 years with the same firm gets a pension equal to 0.8 of his final wage ($0.8 = (0.01 * 20) + (0.03 * 20)$). But if the worker spends his first 20 years with firm A and his last 20 with firm B, he will receive two pensions both equal to only 0.2 of the final wage in each job ($0.2 = (0.01 * 20)$). So there is a pension loss stemming from the backloading of pension rights (*backloading loss*).

15. The two firms considered in these examples could also be thought of as two countries that have no agreements to coordinate their social security systems. Hence these examples show that *harmonization* of the pension plans is not sufficient to guarantee the portability of pension rights.

16. These simplified examples presented so far have been designed to illustrate the various potential sources of portability losses, but are not tailored to the specific rules of any particular pension scheme. Also, to simplify the presentation, we did not compute the present value of the gains and losses that are associated with job switching in a more realistic environment. We present in Table 1 several simulations that provide a sense of the orders of magnitude of the losses that would arise from moving within the Caribbean *in the absence of the CARICOM*

Agreement on Social Security (CASS).⁴ The main goal of the CASS agreement is precisely to avoid portability losses for workers moving within the region, but the number of workers who have actually claimed benefits according to the provisions of this agreement apparently is small.⁵ Therefore, the figures we present here provide an idea of the *portability losses* that many workers moving in the region may experience. At the same time, these estimations could help to gauge what it is a stake in the CASS.

17. In order to estimate the portability losses, we compute the pension wealth as the present value of the flow of pensions minus contributions. Let PW_A and PW_B be the pension wealth that a given worker would get in countries A and B if he worked his entire career in each of these two countries. Suppose now that the worker spends a fraction α of his career in country A and $(1 - \alpha)$ in country B. In the absence of pension portability losses or gains, his combined pension wealth would be $PW_{AB} = \alpha PW_A + (1 - \alpha)PW_B$. The estimations of portability losses we present in Table 1 are the shortfalls of his actual combined pension wealth with respect to PW_{AB} in terms of (annual) pensions lost. A minus sign in this table represents the portability gain that arises when the actual combined pension is larger than PW_{AB} .

Table 1: NIS Pension wealth losses and gains of a Dominican worker moving to Antigua & Barbuda

(Change in pension wealth discounted at retirement age as a proportion of the initial annual pension -(annual, in %))

Real rate of wage growth	Age at which the worker moves from Dominica to Antigua & Barbuda				
	35	40	45	50	55
1	1.7	-0.5	-0.4	-1.3	2.5
2	1.7	0.2	0.3	0.0	2.9
3	1.7	0.7	0.9	0.5	3.3

Notes: The simulated worker enrolls at age 30, retires at age 60 and dies at age 73 (=20 + life expectancy at 20 in Dominica). He moves from Dominica to Antigua at ages 35, 40, 45, 50 or 55. His real wage grows at 1, 2 or 3 percent per year and is on average equal to the average of the insurable wage in the Dominican NIS. The (real) interest rate is 2 percent and inflation is 2.7 percent per year. Source: author's computations based on SSA (2007b) and Osborne (2004)

18. Table 1 shows that a typical Dominican worker moving to Antigua & Barbuda may suffer significant portability losses, but also gains, depending on how he splits his working career between the two countries and on his age earnings profile. In these simulations, a worker with a

⁴ We describe and analyze this agreement in section 6.1.

⁵ We were not able to identify publicly available official statistics, but the general feeling among experts in the region is that the number of workers who have benefited from the agreement is very small so far.

relatively steep earnings profile (real wage growing at 3 percent per year) suffer losses that range from half to more than three years of his initial pension, depending on the age at which he moves. The larger losses take place if he moves too early or too late because of the vesting period losses. If he moves before the 500 weeks of enrolling in Dominica, he loses the Dominican pension. If he moves at an age such that he is unable to complete 500 weeks in Antigua & Barbuda he loses the Antigua's pension. The losses tend to be larger the steeper the age earnings profile due to the *final wage losses* because such workers have a relatively large change between the wage basis used to determine the pensions in the two different countries. Indeed, the wages used to compute the Dominican pension in these examples are smaller the steeper the age earnings profile. Due to the lack of valorization, i.e. the lack of adjustment of the wages that are used to compute benefits for inflation, the final wage losses can be substantially larger than the ones reported in this table if inflation is significantly higher than the assumed 2.7 percent per year.

19. The first row in the table shows that there may be portability *gains* between these two countries as well. This rather unexpected result is due to a peculiarity of the benefit formulas in several pension schemes in the Caribbean (including Dominican and Antigua/Barbuda public pension schemes): the accrual rates are higher during the first years than later in the working career. This front-loaded design characteristic is common to public pension schemes in the region suggesting that migratory workers may be entitled to *frontloading* portability gains as opposed to the more common *backloading* portability losses that take place in much of the rest of the world.⁶

20. Is there a positive rationale behind such portability losses? Why are pension schemes designed in ways that impose portability losses on moving workers? In the case of occupational schemes, one rationale is that firms can provide pensions as an incentive for long-tenure of workers to stay with a firm to maximize their pension benefits. A prize that comes at the end of the working career could provide incentives for workers to remain with a firm throughout their working lives. Also by strengthening the ties of the worker to the firm, the pension scheme provides incentives for the firm to invest in training workers. In this view, portability losses are engineered in the design of pension schemes to influence the employment incentives which are

⁶ The choice of Dominican workers moving to Antigua & Barbuda to illustrate portability losses in the Caribbean is based on that this is one of the largest regional migration flows measured as a percentage of the source country population.

not directly related to the goal of the occupational pension plan to provide income security in old age.

21. Some portability losses can simply respond to the administrative costs involved in checking in and out of pension schemes. Switching does impose administrative costs which need to be incurred by someone, which in this case would be the workers though lower pension benefits from switching. However, data from the literature on administrative costs suggest that these costs are unlikely to be of a significant magnitude, so only a minor part of the portability losses could be explained on these grounds.

22. Final wage losses result from computing the pension based on the final wages a worker received during service under a particular scheme. It is sometimes argued that pension schemes use final wages because they do not keep full records of contribution wages, due to the cost of record keeping. In these conditions, the argument goes, it is not possible to base the pension on the full working career.

23. A related argument is that workers do not want to have their pensions based on the lifetime wage contributions if these are not “valorized”, i.e. adjusted according to wage growth, and in turn the sponsors of the schemes do not want to commit to valorization. Under these conditions, the simple solution applied is to base the pension on the last wages. However, even with pensions computed on the basis of a few final wages, final wage losses could be circumvented by agreeing to provide the pension on the basis of a unified career. Indeed, rights accrued for service at different firms could be totalized and the benefits computed on the final wages prior to retirement. A simple example could be useful to illustrate. Suppose a worker spends 20 years in firm A and 20 years in firm B. There would be no final wage portability losses if a single pension were computed on the basis of a 40 year career; the costs split among the two schemes according to rights accrued for each one. This solution however, requires a considerable degree of coordination between the pension schemes. In the case of occupational schemes, it poses the greatest challenges given the large number of plans and plan designs involved.

4 Pension portability and labor mobility

24. Lack of pension portability often raises concerns not only because of the portability losses that workers moving between jobs are subject to, but also because of its possible negative impact on labor mobility. Workers might move less because of the portability losses contributing to increase labor rigidity. Some early literature showed indeed that firms that provide occupational pension schemes tend to have lower worker turnover rates. However, more recent literature challenged those initial findings on two grounds: First, it might not be the case that reduced labor mobility is necessarily detrimental to labor market efficiency. Second, the fact that firms that provide pension schemes have lower turnover of workers does not necessarily mean that the pension schemes caused the reduction in labor mobility. It might be something else that caused both the pension schemes and the reduced labor mobility.

4.1 IS REDUCED LABOR MOBILITY (ALWAYS) DETRIMENTAL TO LABOR MARKET EFFICIENCY?

25. According to contract theory, workers and firms engage in long-lasting relationships that involve multiple mutually beneficial intertemporal exchanges. On the job training is a leading example. Firms will be more willing to incur training costs if they expect that the trainees will stay with them for a sufficiently long period so that firms can recoup the money they spent on such training. Excessive turnover would deter these types of productivity enhancing activities.

26. Long lasting labor relationships could also be beneficial when monitoring workers' effort is costly and imperfect. Incentive mechanisms typically involve the promise of a reward and the threat of a punishment linked to performance. Short-term labor contracting (labor markets without long-lasting relationships) would leave little room for these types of incentives.⁷

27. The idea that limited labor mobility could be optimal was at the heart of some early literature aiming at explaining why so many occupational schemes imposed pension portability losses. In this view, firms might be using pension schemes designed in this way to induce workers to remain in their jobs, thus generating the right incentives for firms to provide training and for workers to put in a great effort (Becker 1964).

⁷ This hypothesis has a strong reminiscence of the efficiency wage theory, by which firms might provide wages above those that clear labor markets to induce workers to work hard (Stiglitz, 1984).

28. A pension scheme can also be used to induce old workers to retire. The rewards for additional work beyond certain age can be made sufficiently low to induce workers that have become less productive because of old age to voluntarily leave the firm (Fabel, 1994; Lazear, 1979).

29. Black and Orszag (1997, p19) criticize the idea that not-fully-portable pensions can serve as an efficiency enhancing device arguing that pensions are a blunt instrument to influence labor market behavior. “There are other more flexible ways of influencing worker behaviour at different points in their careers, such as employee stock options, training subsidies, performance-related pay, team compensation, and more variable compensation profiles for older employees.” The idea that lack of pension portability might enhance efficiency looks even less compelling in the case of pensions provided by statutory national schemes such as social security schemes. Even though imperfect portability of pension rights might deter emigration reducing the brain drain, governments have more effective tools to deal with this issue than with public pension rights.

30. The empirical literature that analyzes the impact of the reallocation of inputs on aggregate productivity shows a pretty complex picture. Analyzing the US manufacturing sector, Foster, Haltiwanger, and Krizan (1998) report (i) high rates of reallocation of inputs across establishments and (ii) much heterogeneity in terms of the level and rate of growth of productivity across establishments. They argue that these facts are necessary ingredients for the pace of reallocation to play a significant role in aggregate productivity growth. Nevertheless, different studies have come with significantly different estimations of the contribution of reallocation to aggregate productivity growth. According to Foster, Haltiwanger and Krizan, the measured contribution of reallocation to productivity varies over time and across sectors and is sensitive to the measurement methodology. In their view, this explains the diversity of results that can be found in the literature.

4.2 WHAT IS THE IMPACT OF PENSION ARRANGEMENTS ON LABOR MOBILITY?

31. There is empirical evidence suggesting that jobs with occupational pension plans have lower turnover. The early literature interpreted this finding as a signal that portability losses deterred mobility. However, some recent empirical literature has challenged this view arguing

that there is no evidence of pensions causing less labor mobility. The main message is that good jobs provide both pensions and stability. The main findings in this recent literature could be summarized as follows:

- Turnover is higher in jobs without occupational pension plans than in jobs covered by occupational pensions.
- Defined contribution plans are just as negatively correlated with job mobility as defined benefit plans. Hence, portability losses do not seem to explain the correlation.
- Jobs offering pension benefits also offer higher compensation than jobs not offering pension benefits and this compensation premium reduces mobility (Gustman and Steinmeier, 1995). Workers simply do not quit from good jobs.
- Those workers that prefer to move less between jobs tend to self-select into jobs that offer backloaded pension benefits (Allen, Clark and Mc Dermid, 1993 and Ippolito, 1997).

32. Gustman and Steinmeier (1993) hypothesized that low mobility is correlated with occupational plans not because pension plans deter mobility but because implicit labor contracts cause both occupational plans and low mobility. According to this theory, firms and workers would engage in implicit contracts that would reduce mobility because of monitoring and training issues. As a counterpart of the reduced mobility, workers receive a “compensation premium”. In the words of Gustman and Steinmeier (1993) “...pension covered jobs offer higher levels of compensation than workers can obtain elsewhere, and it is this compensation premium, rather than non-portability, that accounts for lower turnover among workers covered by pensions.”

33. Andrietti and Hildebrand (2001) found that workers covered by occupational pension plans are less likely to change jobs than uncovered workers in the US, but they found no evidence that the potential pension portability losses deter mobility. Defined contribution plans, despite of their full portability, negatively correlate to labor mobility as much as defined benefit plans. They also present evidence of “compensation premiums” in jobs covered by pension and health insurance, which they interpret as further evidence that workers simply do not leave “good

jobs.” They conclude that portability losses matter by themselves, i.e. by the wealth loss they impose on “job changers”, rather than by the possible impact on labor mobility and the related efficiency effects. In 1986, the US enacted a tax reform that reduced in as much as 46% the average portability losses of the affected workers without showing clear signs of effects on labor mobility.

34. Similarly, Andrietti (2001 and 2003) could not find evidence that portability losses caused lower labor mobility in Europe. Occupational plans do not seem to deter job mobility in the sample of European countries analyzed in Andrietti’s studies, regardless of the significant differences in portability among these countries (high portability in the Netherlands and Denmark and low in UK and Ireland).

35. Econometric studies of the impact of pensions on labor mobility have focused on occupational pension schemes, probably because it is in these schemes that there is enough statistical variation, i.e. there are many firms that provide pension schemes and many firms that do not provide pension schemes. While it would be important to verify whether these results also apply in the case of statutory schemes and international migration, it seems difficult to find the appropriate data to perform this type of analysis.

5 Migrant workers and the portability of pension rights

36. International labor mobility has been growing in recent years. The portability of pension rights across frontiers has thus increasingly become an issue, particularly in regions in which labor mobility is more prominent and regions that seek economic, social, and political integration.

5.1 PORTABILITY IN A REGIONAL CONTEXT: THE CASE OF THE EUROPEAN UNION

37. There has been a debate in the European Union about how far it should go in terms of the *harmonization* of its national social security systems. The debate covers several economic and political issues, one of which is labor mobility across national frontiers. There seems to be a consensus that statutory national pension schemes do not impose significant portability losses within the European Union thanks to regulations that enhance portability (Schmahl, 1993;

Andrietti, 2001) although occupational plans do impose such portability losses. According to Schmahl (1993) and Whiteford (1996), the portability of statutory pension rights seems to have been facilitated in Europe mostly through coordination rather than harmonization of the pension policies. Harmonization is neither necessary nor sufficient to eliminate portability losses. It is not sufficient, because even identical –i.e. perfectly harmonized– pension schemes can impose losses of pension rights on workers who switch jobs. The examples presented in section 3 are illustrative of this point. Harmonization is not necessary either, since pension plans that differ in parameters and organization can still coordinate to avoid portability losses.

38. The main characteristics of the European system of coordination can be summarized as follows:⁸

- The norms protect workers of the European Union and their families and third-country migrant workers;
- Migrant workers will be subject to the legislation of only one member state, usually the one in which he or she works, even if he or she lives in another state;
- An individual should not suffer discrimination on grounds of his or her nationality;
- Pension benefits generated in one member state can be received in any other member state;
- Workers accumulate rights from periods of service in all EU states in which they have worked. They are entitled to receive pension benefits no lower than they would have received if they had completed their working career in the states in which they have worked. For example, a worker who has spent 10 years in Spain and 30 years in UK would accumulate 40 years of total service. This aggregation rule spells out the cumulative years of service used to determine a pension benefit entitlement. This is complemented by the so-called apportionment rule that sets the amount and funding of the benefit. According to the apportionment rule, the benefit in this example would be computed based on 40 years of service under the norms of both Spain and UK. The Spanish social security administration would pay 10/40ths of a Spanish pension computed with 40 years of contributions and the British social security administration would pay 30/40ths of a British pension computed with 40 years of contributions (EC 2004). The principle here is that workers should not lose as a result of migration. Thanks to these rules, migrant workers within the European Union do not

⁸ The main norms about the EU system of coordination are the regulations 1408/71, 574/72, 118/97, 859/2003 and 883/2004 and the EU Directive 109/2003. See Whiteford (1996, pp 238-251) and Holzmann et al (2005, p 24) for a detailed presentation and analysis of the norms.

suffer from *vesting* or *back-loading losses* in statutory pensions. [They might still suffer final wage losses, though. These losses have been reducing as the period of covered wages considered in the computation of pensions has been rising in most countries. Nevertheless, early leavers would still suffer final wage losses due to the lack of valorization of wages after the date of departure.

- There are also rules against *overlapping of benefits*. Member states can withdraw a benefit if another member state is already providing the same benefit. The norms about overlapping cannot be applied to “regulation” pensions, i.e. those that are generated accumulating periods of work in two or more states, or to reduce the benefit of a program for which the level of benefit depends on the periods of service. The general principle behind the rules against overlapping is that workers should not receive additional benefits from migrating over and above what they would receive if they had not migrated.
- The coordinating rules have some exceptions and exclusions, one of the most important ones being that they do not apply to occupational schemes. Also some special schemes that favor civil servants are not included. The coordinating provisions do not determine what groups of individuals are covered by social security in each country, they merely coordinate existing schemes. So the coordinating rules will not provide coverage to groups of individuals that are left uncovered by national social security plans.

39. It should be noted that the application of the coordination procedures in the EU has required an active and efficient Court of Justice. The norms set the general principles, but the individual application does require an institution like the European Court of Justice to solve individual cases. Developing countries should probably evaluate carefully whether they are able to implement coordinating provisions before passing legislation.

40. Occupational plans are much less portable than statutory plans in the EU (Andrietti, 2001; Whiteford, 1996; Kalogeropoulou, 2006). Over the years, some governments have legislated increases in the portability of occupational plans (Whiteford, 1996), including the reduction in vesting periods, the indexation of “short service benefits”⁹ and provisions to allow for the transfer of pension rights. But these norms vary from country to country and only partially reduce portability losses. Taxation of pensions can also impose losses on workers

⁹ Short service benefits (SSB) are the pensions generated with short periods of contribution. The occupational pension scheme may pay a benefit to a worker who left the firm early in his career, the SSB. But if the benefit is not indexed, the worker may lose much of its purchasing power.

moving between jobs between states. If a worker receives a pension from one state but lives in another, he runs the risk of being taxed twice. There are Double Taxation treaties that generally allow occupational pensions to be taxed in the state of residence, and hence avoid double taxation, but the taxation of transfers can indirectly impose double taxation. For example, someone moving from the UK to the Netherlands would have the right to transfer reserves of his or her occupational plan, but the transferred sum would be taxed in the UK and the pension in the Netherlands (Whiteford, 1996, p 295).

41. The relatively little progress that the EU has made so far in making occupational pensions portable has been attributed to several causes. According to Kalogeropoulou (2006), the complexity and diversity of these schemes could be one of those causes. While in some countries occupational schemes have provided a significant part of pension income for a long time, in other countries these schemes are only now beginning to gain relevance. Also the type of benefits they provide (annuities or lump sum transfers) and the ways risk is shared vary considerably among schemes and countries. Another factor that has limited the intervention of the EU in this field is the lack of direct legislative competence. The EU does not have competence in the formation of social security systems. Finally, Whiteford (1996, p 306) points out that governments face the challenge of not discouraging employers to provide pension schemes. Legislation that increases the portability of the schemes might impose a new burden on the sponsors of the schemes. Since the provision of occupational pension plans is not mandatory, firms might simply stop providing these benefits.

42. Despite of the difficulties, the EU is currently very active in promoting the portability of occupational pensions. Kalogeropoulou (2006) mentions a recently proposed Directive (European Commission 2005e) that, if approved, would enhance portability by facilitating the acquisition of pension rights, enhancing transferability and preserving dormant pension rights. However, the Directive does not deal with some taxation issues that limit the transferability of pensions.

43. The EU has often adopted recommendations that are not legally binding but that impose political burdens on Member States that do not abide by those rules. This strategy, called “soft law” is regarded by some analysts and politicians as a flexible tool to pursue the EU goals without affecting the States sovereignty too much. Kalogeropoulou (2006) reports that in the last

fifteen years the EU has in fact used this tool approving some recommendations to enhance the portability of occupational pensions.

44. A related strategy that the European Union has used to deal with sensitive issues is the so-called Open Method of Coordination (OMC), introduced in 2000 at the Lisbon European Council. The OMC provisions are “soft laws” and as such are not legally binding, but in the view of Kalogeropoulou (2006) the OMC establishes a review system that puts political pressure on Member States that can eventually lead to the adoption of new laws. According to Somer (2003), “the key ingredient of the OMC approach is the use of a decentralized method of co-ordination in which various groupings of different interests play an active role.” The OMC can be seen as a way to overcome the obstacles that national differences pose in the process of integration, particularly in sensitive areas like social security. Nevertheless, critics of the OMC question the legitimacy of the EU activities in areas of limited competence. Other criticism is that the OMC threatens the classic method of coordination based on agreements that provide enforceable rights.

5.2 PORTABILITY AND INTERNATIONAL LABOR MIGRATION

45. Holzmann et al (2005) distinguish four regimes of social protection for international migrants:

- Regime 1: There is a bilateral agreement between the countries that facilitates the access of migrant workers to social security and eases portability.
- Regime 2: There is no bilateral agreement, but immigrants have access to social security. Usually there are significant portability losses in these cases.
- Regime 3: No access to portable social security and in particular no access to long-term benefits like pensions.
- Regime 4: Migrants who participate in the informal sector of the host country.

46. According to Holzmann et al (2005), in 2000 only 3.7% of Latin American emigrants were protected by a bilateral agreement (regime 1), 64% of Latin American emigrants migrated to countries with no bilateral agreement, but in which immigrants had access to social security (regime 2) and 32 % were informal (regime 4).

47. The Caribbean is a region having significant emigration. In 2000, the population born in the Caribbean and living out of their original countries represented as much as 19 percent of total

Caribbean population (Table 2).¹⁰ This percentage of emigrants climbs to more than 80 percent of population in Antigua & Barbuda and Saint Kitts & Nevis. A small part of these migrants remained in other Caribbean countries, but the vast majority migrated out of the region. The United States was the preferred destiny for more than half of the Caribbean migrants. As we show in the next section, most of these migrants are not protected by social security agreements.

Table 2: Migration from the Caribbean countries as a percentage of the population, 2000

Country of origin	Country or region of destiny				Total
	Caribbean	United States	United Kingdom	Rest of the World	
Antigua & Barbuda	1.3	24.9	5.1	54.8	86.0
Bahamas	0.1	10.1	0.6	1.8	12.5
Barbados	1.4	20.3	8.1	10.2	40.1
Belize	0.1	16.8	0.5	3.5	20.9
Dominica	5.2	22.8	9.5	21.4	59.0
Dominican Republic	0.1	8.5	0.0	2.4	11.0
Grenada	12.7	29.6	9.7	15.8	68.0
Guyana	1.9	28.9	2.8	17.7	51.3
Haiti	1.4	5.4	0.0	2.7	9.0
Jamaica	0.3	22.0	5.7	8.7	36.6
Saint Kitts and Nevis	1.7	25.9	14.8	42.4	84.8
Saint Lucia	4.1	9.0	5.3	14.4	32.7
Saint Vincent & the Grenadines	11.9	17.7	6.1	13.2	49.0
Trinidad & Tobago	0.5	15.9	1.7	7.8	25.8
Caribbean	0.9	10.7	1.2	5.9	19.0

Source: Author's computations based on data from the World Bank and the Development Research Centre on Migration, Globalisation and Poverty (http://www.migrationdrc.org/research/typesofmigration/global_migrant_origin_database.html)

48. The main problem with the portability of pensions is usually the lack of *aggregation* or *totalization* rules. The bilateral agreements that some countries have signed to deal with these issues allow migrant workers to access pensions by adding periods of contributions in different jurisdictions. These agreements usually have clauses similar to the apportionment rule of the European Union regulations (see for example SSA, 2007a; UK, 2007).

49. In 1982, the ILO passed Convention 157 for the Establishment of an International System for the Maintenance of Rights in Social Security. This norm sets the principles for the protection of pension rights of migrant workers. However, few countries have ratified the Convention.

¹⁰ See Parsons, Skeldon et al. (2007) for a detailed explanation of the migration data.

50. Rules that constraint the exportability of pensions limit the portability of pension rights as well. Germany and New Zealand for example allow their pensioners to receive the benefit abroad, but with a penalty (Koettl, 2006). The US limits the countries where US pensions can be received (SSA, 2007b). Also, the fees and official exchange rates that many countries impose on international transfers of money negatively impact on the pension that migrant workers receive when they retire and return to their home country.

51. Koettl (2006) argues that agreements that increase the portability of pension rights might contribute to the return of migrants to their home countries. The portability of pensions might be particularly important for temporary migration. In turn, while permanent migration is more beneficial for the receiving country, temporary migration is more beneficial to source countries, because temporary migration facilitates the transfer of skills acquired in the host country to the source country. Also temporary migrants are more likely to send remittances to their home countries. Policies that facilitate the return of migrants are thus particularly important for the source countries. Among those policies are the agreements that increase the portability of pension rights. Enhanced portability of pensions and health benefits could also benefit the destination countries, if it disincentives informal employment and facilitates the integration of immigrants.

6 Bilateral and Regional Agreements on Social Security and Labor Mobility in the Caribbean

52. There are two regional and a few bilateral agreements on social security in the Caribbean. The regional agreements are the Caribbean Community (CARICOM) Agreement on Social Security (CASS) and the Convention on Social Security in the OECS (Organization of Eastern Caribbean States). Table 3 summarizes the agreements.

Table 3: Social Security Agreements in the Caribbean

Country	Agreement		
	CASS	OECS	Other
Antigua and Barbuda	√		Canada
Bahamas	√		
Barbados	√		Canada Quebec UK
Belize	√		
Dominica	√		Canada
Grenada	√	√	Canada
Guyana	√		
Jamaica	√		Canada UK
St. Kitts-Nevis	√		Canada
St. Lucia	√		Canada Quebec
St. Vincent & The Grenadines	√		Canada
Trinidad & Tobago	√		Canada

Source: Osborne (2004)

6.1 THE CARICOM AGREEMENT ON SOCIAL SECURITY

53. The CARICOM Agreement on Social Security was signed by the member states in Georgetown, Guyana, on March 1, 1996 (CARICOM, 1996). Suriname has not signed because it does not have a security system similar in nature to that of other member states and cannot start the required legislative process. The agreement protects pension rights and provides equal treatment for select pension rights for workers moving between CARICOM member states. The benefits covered include contributory pensions for invalidity, disablement, old age, survivors and death benefits. Short-term benefits (like maternity allowances or sickness benefits) are not covered.

54. Covered individuals are entitled to benefits paid by the Social Security Schemes in the countries in which they have contributed, but with some limitations. The agreement includes totalization and apportionment rules (articles 17 to 19) similar to those in the EU coordination

norms. But unlike the EU coordination norms, the CARICOM agreement has no provisions to avoid the overlap of benefits and some pensioners might end up with benefits above the maximum of any single state. The problem arises because, first, the agreement only applies in countries in which the worker has not made enough contributions to get an independent pension from that country’s social security system and, second, the accrual rate in most of the Caribbean schemes is higher during the initial years of contribution than in later periods.¹¹

55. The following example can illustrate the problem. Consider three countries with identical qualifying conditions and benefit formula. The three require 10 years of contribution and the accrual rate is 3% during the first 10 years and 1% thereafter. A worker who has contributed 16 years in country A and 7 years in countries B and C directly qualifies for a pension only in country A. But thanks to the agreement, he will be able to totalize contributions in countries B and C. Contributions made in country A will not be incorporated in the totalization computations in this case. Assuming for the sake of simplicity that the worker contributed the same amount in each and every year, the total accrued rights would be computed as in Table 4.¹²

Table 4: Totalization, example 1

Country	Contributions made	Accrued rights
A	16	$(3*10 + 1*6)$
B	7	$(7/10) * (3*10)$
C	7	$(7/10) * (3*10)$
Total	30	78%

56. Consider now a worker who has also contributed 30 years, but with a different distribution among countries. Suppose this second worker contributed 10 years in each country. The contributions wages are the same as in the previous example. The CASS would not apply, since the worker has enough contributions to get an independent pension in each country. The total benefit would then be as in Table 5. Hence even if the total number of contributions as well as contribution wages were the same, the pension could be different depending on *where* the

¹¹ This “frontloading” of pension benefits is the opposite of the “backloading” discussed before as a potential source of portability losses.

¹² In the more realistic case of labor income increasing with age, the accrued pension would also vary across these examples because of different wage basis. The total accrued rights presented in these examples as a percentage of wages would not be strictly comparable, because they would apply to different wage bases.

worker made the contributions. The difference can be quite substantial as this simple example shows.

Table 5: Totalization, example 2

Country	Contributions made	Accrued rights
A	10	(3*10)
B	10	(3*10)
C	10	(3*10)
Total	30	90%

57. Vesting periods in the Caribbean are relatively short (Table 6) which suggests that it must be relatively likely to find cases like the one represented in Table 5 in which totalization does not apply because the worker has met the vesting requirement in one or more countries.

Table 6: Vesting periods in the Caribbean National Insurance Schemes (2005)

Country	Contribution requirement (in weeks)
Antigua & Barbuda	500
Bahamas	150
Barbados	500
Belize	500
Dominica	500
Grenada	500
Guyana	750
Jamaica a/	546
St. Kitts-Nevis	500
St. Lucia	676
St. Vincent & The Grenadines	350
Trinidad & Tobago	750
<i>a/ The Jamaican NIS requires 13 weeks of contribution per year elapsed between the worker is 18 and the age of retirement. The minimum retirement age for men is 60 so the required number of weeks for a man retiring at the minimum retirement age is $546 = (60-18)*13$.</i>	
<i>Source: own computations based on SSA(2006)</i>	

58. The examples considered in Table 4 and Table 5 do not represent any specific case and the assumptions made are very simple, but the point translates entirely to more realistic examples

like the ones considered in Table 1 for Dominican workers who move to Antigua & Barbuda. In none of the 15 cases depicted in that table the CASS applies and hence the portability losses and gains presented there are not avoided by this agreement.

59. There have been different interpretations about the totalization and apportionment rules within the CASS. Table 4 was prepared using one of these interpretations. According to the other interpretation, the rules would work very much like in the European Union case. The example presented in Table 4 would then have to be modified as follows. The worker would sum 14 years in countries B and C and his pension replacement rate would be $(3*10) + (1*4) = 34$. Each country would pay half ($=7/14$) of this pension.¹³ The issue has been discussed in the meetings of the heads of social security of CARICOM and the discrepancies seem to have been recently settled in favor of the (more generous) interpretation presented in Table 4.

60. Notice that the interpretation of the totalization rule that has prevailed in CARICOM implies that there could be “portability gains” even if, as it has recently been recommended by CARICOM heads of social security, the agreement is amended to include in the totalization rule all the countries in which workers have contributed. With this amendment, the agreement would also apply to a worker with a work history like the one represented in Table 5, but the benefit would be exactly the same as the one presented in this table. Therefore, the worker of the example 2 would still get better treatment than the worker of example 1, despite of both having contributed the same number of years.

61. The agreement seems to have had limited impact so far. Although there is no published official data, we were informed that the number of applications submitted to benefit from the CASS has been small so far, which suggests that some of the general public has not been made aware of this agreement. Based on this assessment, the CARICOM social security heads have taken measures to organize national campaigns to inform people about the agreement.

62. Another factor that may have impacted on the limited application of the CASS in the past is the fact that the agreement only applies in the countries and territories in which the worker does not complete the vesting period. The agreement does not apply for a worker with a work history as the one represented in Table 5, because there is no totalization once vesting has been

¹³ See Osborne (2004) for examples based on this interpretation.

met. If the above mentioned proposal to amend the CASS to include all the countries in which the person has worked is passed, someone who worked in two countries, completed the vesting period in one country and did not complete in the other, will still be able to totalize. Therefore, if this proposal is passed there will be some cases that are currently uncovered that will be covered.

63. Other factors that according to Hendrikx (2006) have hindered the implementation of the agreement on social security are the different requirements of age and periods of contributions to access to the benefits in member states.

6.2 THE OECS CONVENTION ON SOCIAL SECURITY

64. This convention has a broader scope than the CASS, because it covers both short-term and long-term benefits. Under this agreement, contributions ruled by the OECS convention on social security are always totalized, including cases in which the worker qualifies in one or more OECS member states. So the inequities mentioned in the previous section do not arise under this convention. But the OECS convention is more limited in terms of the countries that it can potentially cover as it only includes the nine countries that belong to the OECS. Moreover, most OECS have yet to sign and ratify the convention (Osborne, 2004, p 45).

6.3 BILATERAL AGREEMENTS IN THE CARIBBEAN

65. As shown in Table 3, some Caribbean countries have signed bilateral agreements with the UK, Canada and Quebec. The Barbados-UK and Jamaica-UK bilateral agreements on social security follow a standard format and include the basic provisions for totalization and apportionment (UK, 2007). There is no agreement between the US and any Caribbean country (SSA, 2007a), which is particularly significant since the US is by far the main destiny of Caribbean migrants (Table 2).

7 Policy issues and options to enhance pension rights portability in the Caribbean

66. Caribbean countries have made significant progress to enhance the portability of pension rights, but some challenges remain. The governments in the region might consider whether they can (i) improve the design of the CARICOM agreement on social security; (ii) negotiate new bilateral agreements; and (iii) develop a common framework to facilitate the portability of occupational pension rights and common treatment with respect to taxation.

67. An area in which the CASS could be improved is the design of rules against overlapping. The basic idea is that workers should not profit from their decision to migrate by accruing multiple entitlements.¹⁴ The agreement's main goal is to avoid portability losses, but avoiding "portability gains" looks as a natural ingredient of a sound policy as well. In the context of the Caribbean, provisions to prevent these gains are particularly important given the "frontloading" of pension rights in most of the benefit formulas in the region.

68. Probably because of the limited number of cases processed so far, CARICOM countries have not faced significant challenges to settle disputes in the application of the CASS. The experience of the EU suggests that this might no longer be the case if the CASS gains practical relevance though. The European Court of Justice seems to have played a significant role in the application of the coordination rules that facilitate portability in Europe. Looking at the European experience, CARICOM member states should probably assess sooner rather than later whether the region has the institutions of justice that are needed to make this agreement work in practice.

69. Additional bilateral agreements are needed to protect the rights of the large number of emigrants from the Caribbean to countries such as the US, which is the main recipient of migrant workers from the region. These agreements are important to facilitate the preservation of the pension rights generated in the region when the worker moves abroad and also to preserve the pension rights generated abroad if the worker decides to return to his home country.

70. National regulation of occupational schemes can provide some protection of accrued rights by: (i) limiting the extension of the vesting period; (ii) mandating the sponsor of the

¹⁴ This issue has received considerable attention in the context of the European Union (Whiteford, 1996, p 246).

scheme to reimburse the contributions made by a worker who leaves the job before completing the vesting period; (iii) mandating the sponsor to transfer the accrued pension rights and the necessary funds to the pension scheme of the new job, if the worker has completed the vesting period and the new job does offer an occupational pension, and reimbursing otherwise; and (iv) mandating the pension schemes to have a high degree of funding that facilitate the payments needed to make portability effective. The Jamaican Pensions Act enacted in 2004 and the regulations passed in 2006 provide examples of how countries in the Caribbean can legislate to enhance the portability of occupational pensions.¹⁵

71. The portability of occupational pensions across countries in the Caribbean can be enhanced through the harmonization of regulation norms. In the medium to long run, Caribbean countries could seek to have a unified regulatory framework and could even consider supervisory measures which delegate to third parties, including the supervisory authorities of other Caricom member states. In the meanwhile, special consideration should be given to the case of firms that has activities in several Caribbean states.

72. The current constraints that exist in several Caribbean countries for international capital movements and operations with foreign exchange represent another obstacle to the portability of occupational pensions. Providing for select exclusions to foreign exchange provisions for mandatory and occupational pension schemes could indeed be considered.

73. This report has not dealt with taxation issues in the Caribbean in detail, but the international experience suggests that this could be an important area to analyze in order to enhance portability of pension rights. For example, differences in tax treatment between EU member states have been a considerable obstacle to portability of pension rights in Europe. While there are agreements that prevent double taxation of pensions, a migrant worker might end up paying taxes on the pension and on the fund that is transferred from his home country to the host country to finance the part that is apportioned to the home country.

¹⁵ The implementation of these norms is currently underway and represents a significant challenge for the Financial Services Commission which is in charge of the regulation and supervision of private pension schemes in Jamaica.

8 References

Andrietti, Vincenzo (2001): Portability of supplementary pension rights in the European Union, *International Social Security Review*, Vol 54, 1/2001, pp 59-83.

Andrietti, V. and V. Hildebrant (2001). Pension Portability and Labour Mobility in the United States. New Evidence from SIPP Data. SEDAP Research Paper No 42.

Becker, Gary (1964). *Human Capital: A Theoretical and Empirical Analysis*. New York: Columbia University Press.

Black, D. and M. Orszag (1997). Portability and Preservation of Pension Rights in the United Kingdom, Office of Fair Trading, UK: 121.

CARICOM (1996). CARICOM Agreement on Social Security. <http://www.sice.oas.org/>

CARICOM (nd). The Free Movement of Skills and Social Security. http://www.caricom.org/jsp/single_market/freemovementskills_socialsecurity.pdf

Escobar, Maria-Luisa; Gladys Lopez-Acevedo; Andrew D. Mason; Marcela Rubio Sanchez; and Jaime Saavedra (2006): Strengthening social protection in Mexico. Recent progress, future challenges. Chapter 11 in:

EC (2004). The Community provisions on social security. Your rights when moving within the European Union. European Commission: 53.

Fabel, O. (1994). *The Economics of Pensions and Variable Retirement Schemes*. Chichester: Wiley.

Foster, Lucia, John Haltiwanger, and C.J. Krizan (1998). Aggregate Productivity Growth: Lessons from Microeconomic Evidence. NBER 6803.

Gustman, A. I. and T. L. Steinmeier (1993). "Pension portability and labor mobility. Evidence from the survey of income and program participation." *Journal of Public Economics* 50: 299-323.

Hendrikx, M. (2006). Appropriate Social Security for Migrant Workers. Implementation of Agreements on Social Security. International Social Security Association, Regional Conference for the Americas, Belize, May.

Holzmann, R., J. Koettl, and T. Chernetsky (2005). Portability regimes of pension and health care benefits for international migrants: an analysis of issues and good practices: 80.

Kalogeropoulou, K. (2006). "European Governance after Lisbon and Portability of Supplementary Pensions Rights." *Journal of Contemporary European Research* 2(1): 75-91.

Koettl, J. (2006). The Relative Merits of Skilled and Unskilled Migration, Temporary and Permanent Labor Migration, and Portability of Social Security Benefits. SP Discussion Paper No

0614: 37.

IMF-WB (2006). Financial Sector Assessment. Jamaica. June

Ippolito, R. A. (1985). "The Labor Contract and True Economic Pension Liabilities." *American Economic Review* 75(5): 1031-1043.

Lazear, E. (1979). Why is there mandatory retirement? *Journal of Political Economy* 87, 1261–1284.

Osborne, D. (2004). Social Security in the CARICOM Single Market & Economy, CARICOM: 178.

Paddison, O. (2006). Social Security in the English-speaking Caribbean. *Financiamiento del Desarrollo*, No.178. E. CEPAL.

Parsons, C. R.; R. Skeldon; T. Walmsley; and L.A. Winters (2007). Quantifying International Migration: A Database of Bilateral Migrant Stocks, World Bank Policy Research Working Paper 4165.

Schmahl, W. (1993). Harmonization of Pension Schemes in Europe? A Controversial Issue in the Light of Economics. Age, Work and Social Security. A. B. Atkinson and M. Rein, St. Martin's Press: 308-340.

Shapiro, Carl, and J. Stiglitz (1984). Equilibrium Unemployment as a Worker Discipline Device. *American Economic Review* v74, n3 (June 1984): 433-44

Sommer, J. (2003). The Open Method of Co-ordination: some remarks regarding old-age security within an enlarged European Union. Bremen.

SSA (2007a). U.S. International Social Security Agreements. USA
http://www.socialsecurity.gov/international/agreements_overview.html

SSA (2007b). Social Security Programs Throughout the World, USA
<http://www.ssa.gov/policy/docs/progdsc/ssptw/>

Shapiro, C. and J.E. Stiglitz (1984). Equilibrium Unemployment as a Worker Discipline Device. *American Economic Review*, v. 74, iss. 3, June, pp. 433-44.

UK (2007). Social security agreements between the United Kingdom (UK) and other countries. Department for Work and Pensions.
http://www.dwp.gov.uk/lifeevent/benefits/social_security_agreements.asp

Whiteford, E. A. (1996). *Adapting to Change: Occupational Pension Schemes, Women and Migrant Workers*, Kluwer Law International.

9 Glossary

Apportionment is the rule that distributes the funding of a totalized pension among the participating schemes.

Backloading losses are the losses a moving worker incurs if the pension schemes have increasing accrual rates, i.e. if pension rights grow slowly during the first years in the scheme and start growing faster with seniority. Therefore, workers who switch jobs accumulate lower pension rights.

Coordination refers to a set of regulations that adapt the effects of national schemes without changing the parameters of the national schemes.

Defined benefit pension schemes are schemes in which the sponsor of the plan promises a pension that usually depends on final wages and the number of years of service.

Defined contribution pension schemes are schemes in which contributions are accumulated in an individual savings account that is eventually used to buy an annuity or to pay programmed withdrawals to the worker when he retires.

Final wage losses are the losses a moving worker incurs when the benefit is computed as a percentage of the salary he earned when he left the job. This salary is going to be smaller than the salary at the end of his working career, if wages are growing with experience, or if there is inflation and wages used to compute the benefit are not “valorized”, i.e. adjusted by inflation.

Harmonization refers to a process of reform of national schemes aimed at reducing differences between schemes.

Notional defined contribution pension schemes are schemes in which contributions are not accumulated, but still the accrual of pension rights is based on records of contributions and interest earnings like in conventional defined contribution schemes.

Occupational schemes are pension schemes organized and sponsored by the firms in which workers work and typically provide supplementary pensions.

Penalties losses are deductions imposed by some pension schemes on rights accrued in other schemes. Also some programs penalize pensions paid abroad, i.e. apply reductions to pensions paid to retirees who left the country.

Pension portability is the capacity to preserve the actuarial value of accrued pension rights when switching jobs.

Portability loss is the shortfall of retirement benefits from those that would have been paid if there had been no change in the pension scheme membership due to a change in jobs.

Statutory schemes are pension schemes organized by governments and usually provide the basic pension.

Totalization or aggregation is the rule by which years of service in different pension schemes are accumulated to determine a pension benefit entitlement.

Vesting losses are the losses a worker incurs if he leaves a job before completing the vesting period, i.e. the minimum years of service in the scheme required to receive the benefit.

Social Protection Discussion Paper Series Titles

<u>No.</u>	<u>Title</u>
0825	The Portability of Pension Rights: General Principles and the Caribbean Case by Alvaro Forteza, May 2008 (online only)
0824	Pension Systems and Reform Conceptual Framework by Robert Holzmann, Richard Paul Hinz and Mark Dorfman, September 2008 (online only)
0823	Mandated Benefits, Employment, and Inequality in a Dual Economy by Rita Almeida and Pedro Carneiro, August 2008 (online only)
0822	The Return to Firm Investments in Human Capital by Rita Almeida and Pedro Carneiro, June 2008 (online only)
0821	Population Aging and the Labor Market: The Case of Sri Lanka by Milan Vodopivec and Nisha Arunatilake, August 2008 (online only)
0820	China: Improving Unemployment Insurance by Milan Vodopivec and Minna Hahn Tong, July 2008 (online only)
0819	Management Information Systems in Social Safety Net Programs: A Look at Accountability and Control Mechanisms by Cesar Baldeon and Maria D. Arribas-Baños, August 2008 (online only)
0818	Guidance for Responses from the Human Development Sectors to Rising Food Prices by Margaret Grosh, Carlo del Ninno and Emil Daniel Tesliuc, June 2008 (Revised as stand-alone publication)
0817	Levels and Patterns of Safety Net Spending in Developing and Transition Countries by Christine Weigand and Margaret Grosh, June 2008 (online only)
0816	Labor Regulation and Employment in India's Retail Stores by Mohammad Amin, June 2008 (online only)
0815	Beyond DALYs: Developing Indicators to Assess the Impact of Public Health Interventions on the Lives of People with Disabilities by Daniel Mont and Mitchell Loeb, May 2008
0814	Enforcement of Labor Regulation and Firm Size by Rita Almeida and Pedro Carneiro, May 2008 (online only)

- 0813 Labor Markets Lending and Analytical Work at the World Bank: FY2002-2007
by Milan Vodopivec, Jean Fares and Michael Justesen, May 2008
- 0812 Risk and Vulnerability Analysis in the World Bank Analytic Work: FY2000-2007
by Valerie Kozel, Pierre Fallavier and Reena Badiani, May 2008
- 0811 Pension Lending and Analytical Work at the World Bank: FY2002-2007
by Richard Hinz, Melike Egelmezer and Sergei Biletsky, May 2008 (online only)
- 0810 Social Safety Nets Lending and Analytical Work at the World Bank: FY2002-2007
by Margaret Grosh and Annamaria Milazzo, May 2008
- 0809 Social Funds as an Instrument of Social Protection: An Analysis of Lending Trends - FY2000-2007
by Samantha De Silva and June Wei Sum, July 2008
- 0808 Disability & Development in the World Bank: FY2000-2007
by Jeanine Braithwaite, Richard Carroll, and Karen Peffley, May 2008
- 0807 Migration, Labor Markets, and Integration of Migrants: An Overview for Europe
by Rainer Münz, April 2008 (online only)
- 0806 Is the Window of Opportunity Closing for Brazilian Youth? Labor Market Trends and Business Cycle Effects
by Michael Justesen, April 2008
- 0805 Disability and Poverty: A Survey of World Bank Poverty Assessments and Implications
by Jeanine Braithwaite and Daniel Mont, February 2008
- 0804 Poverty Traps and Social Protection
by Christopher B. Barrett, Michael R. Carter and Munenobu Ikegami, February 2008
- 0803 Live Longer, Work Longer: Making It Happen in the Labor Market
by Milan Vodopivec and Primož Dolenc, February 2008 (online only)
- 0802 Disability in Kazakhstan: An Evaluation of Official Data
by Ai-Gul S. Seitenova and Charles M. Becker, February 2008 (online only)

- 0801 Disability Insurance with Pre-funding and Private Participation: The Chilean Model
by Estelle James, Augusto Iglesias and Alejandra Cox Edwards, January 2008
- 0719 The Life-Course Perspective and Social Policies: An Issues Note
by A.L. Bovenberg, November 2007
- 0718 Social Safety Nets and Targeted Social Assistance: Lessons from the European Experience
by Chris de Neubourg, Julie Castonguay and Keetie Roelen, November 2007 (online only)
- 0717 Informality and Social Protection: Preliminary Results from Pilot Surveys in Bulgaria and Colombia
by Franco Peracchi, Valeria Perotti and Stefano Scarpetta, October 2007 (online only)
- 0716 How Labor Market Policies can Combine Workers' Protection with Job Creation: A Partial Review of Some Key Issues and Policy Options
by Gaëlle Pierre and Stefano Scarpetta, October 2007 (online only)
- 0715 A Review of Interventions to Support Young Workers: Findings of the Youth Employment Inventory
by Gordon Betcherman, Martin Godfrey, Susana Puerto, Friederike Rother, and Antoneta Stavreska, October 2007
- 0714 Performance of Social Safety Net Programs in Uttar Pradesh
by Mohamed Ihsan Ajwad, October 2007
- 0713 Are All Labor Regulations Equal? Assessing the Effects of Job Security, Labor Dispute and Contract Labor Laws in India
by Ahmad Ahsan and Carmen Pagés, June 2007
- 0712 Convention on the Rights of Persons with Disabilities: Its Implementation and Relevance for the World Bank
by Katherine Guernsey, Marco Nicoli and Alberto Ninio, June 2007
- 0711 Reaching the Poor and Vulnerable: Targeting Strategies for Social Funds and other Community-Driven Programs
by Julie Van Domelen, May 2007
- 0710 The Macedonia Community Development Project: Empowerment through Targeting and Institution Building
by Caroline Mascarell, May 2007

- 0709 The Nuts and Bolts of Brazil's Bolsa Família Program: Implementing Conditional Cash Transfers in a Decentralized Context
by Kathy Lindert, Anja Linder, Jason Hobbs and Bénédicte de la Brière, May 2007 (online only)
- 0708 Globalization and Employment Conditions Study
by Drusilla K. Brown, April 2007
- 0707 The Kosovo Pension Reform: Achievements and Lessons
by John Gubbels, David Snelbecker and Lena Zezulín, April 2007 (online only)
- 0706 Measuring Disability Prevalence
by Daniel Mont, March 2007
- 0705 Social Safety Nets in World Bank Lending and Analytic Work: FY2002-2006
by Annamaria Milazzo and Margaret Grosh, March 2007 (online only)
- 0704 Child Labor and Youth Employment: Ethiopia Country Study
by Lorenzo Guarcello and Furio Rosati, March 2007
- 0703 Aging and Demographic Change in European Societies: Main Trends and Alternative Policy Options
by Rainer Muenz, March 2007 (online only)
- 0702 Seasonal Migration and Early Childhood Development
by Karen Macours and Renos Vakis, March 2007
- 0701 The Social Assimilation of Immigrants
by Domenico de Palo, Riccardo Faini and Alessandra Venturini, February 2007 (online only)
- 0616 Pension Systems in Latin America: Concepts and Measurements of Coverage
by Rafael Rofman and Leonardo Lucchetti, September 2008 (online only).
Also available in Spanish.
- 0615 Labor Market Outcomes of Natives and Immigrants: Evidence from the ECHP
by Franco Peracchi and Domenico Depalo, November 2006 (online only)
- 0614 The Relative Merits of Skilled and Unskilled Migration, Temporary and Permanent Labor Migration, and Portability of Social Security Benefits
by Johannes Koettl under guidance of and with input from Robert Holzmann and Stefano Scarpetta, November 2006 (online only)

- 0613 The Limited Job Prospects of Displaced Workers: Evidence from Two Cities
in China
by Gordon Betcherman and Niels-Hugo Blunch, October 2006
- 0612 Unemployment Insurance in Chile: A New Model of Income Support for
Unemployed Workers
by Germán Acevedo, Patricio Eskenazi and Carmen Pagés, October 2006
- 0611 Evaluating Social Fund Impact: A Toolkit for Task Teams and Social Fund
Managers
by Sarah Adam, October 2006
- 0610 Risk and Vulnerability Considerations in Poverty Analysis: Recent Advances
and Future Directions
by Carlo Cafiero and Renos Vakis, October 2006
- 0609 Comparing Individual Retirement Accounts in Asia: Singapore, Thailand,
Hong Kong and PRC
by Yasue Pai, September 2006 (online only)
- 0608 Pension System Reforms
by Anita M. Schwarz, September 2006 (online only)
- 0607 Youth Labor Market in Burkina Faso: Recent Trends
by Daniel Parent, July 2006
- 0606 Youth in the Labor Market and the Transition from School to Work in
Tanzania
by Florence Kondylis and Marco Manacorda, July 2006
- 0605 Redistributing Income to the Poor and the Rich: Public Transfers in Latin
America and the Caribbean
by Kathy Lindert, Emmanuel Skoufias and Joseph Shapiro, August 2006
(online only)
- 0604 Uninsured Risk and Asset Protection: Can Conditional Cash Transfer
Programs Serve as Safety Nets?
by Alain de Janvry, Elisabeth Sadoulet, Pantelis Solomon and Renos Vakis,
June 2006
- 0603 Examining Conditional Cash Transfer Programs: A Role for Increased Social
Inclusion?
by Bénédicte de la Brière and Laura B. Rawlings, June 2006 (online only)
- 0602 Civil-service Pension Schemes Around the World
by Robert Palacios and Edward Whitehouse, May 2006 (online only)

0601 Social Pensions Part I: Their Role in the Overall Pension System
by Robert Palacios and Oleksiy Sluchynsky, May 2006 (online only)

**To view Social Protection Discussion papers published prior to 2006, please visit
www.worldbank.org/sp.**



The portability of pension rights is an increasingly important issue in the Caribbean. The large and increasing flows of migrant workers, including both permanent and temporary migrants, the small size of the domestic economies and the process of regional integration and economic openness call for effective means to make pensions portable. This document presents a select survey of the literature on pension portability and reviews the progress made by the Caribbean countries as well as some remaining challenges in the light of the international experience.

HUMAN DEVELOPMENT NETWORK

About this series...

Social Protection Discussion Papers are published to communicate the results of The World Bank's work to the development community with the least possible delay. The typescript manuscript of this paper therefore has not been prepared in accordance with the procedures appropriate to formally edited texts. The findings, interpretations, and conclusions expressed herein are those of the author(s), and do not necessarily reflect the views of the International Bank for Reconstruction and Development /The World Bank and its affiliated organizations, or those of the Executive Directors of The World Bank or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. For free copies of this paper, please contact the Social Protection Advisory Service, The World Bank, 1818 H Street, N.W., Room G7-703, Washington, D.C. 20433-0001. Telephone: (202) 458-5267, Fax: (202) 614-0471, E-mail: socialprotection@worldbank.org or visit the Social Protection website at www.worldbank.org/sp.