Payroll Taxes Around the World: Concepts and Practice

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PRÉCIS

Les charges salariales sont très courantes dans le monde, à la fois pour le financement de programmes de sécurité sociale et comme source de revenu générale. Cet article examine les diverses applications des charges salariales et les structures qui leur sont appropriées. L'auteur compare l'utilisation de charges salariales dans plusieurs pays par rapport au régime fiscal dans son ensemble et au produit intérieur brut; il indique également les taux de cotisations sociales pour les employés et les employeurs selon le pays et le niveau des revenus. L'étude procède ensuite à l'examen critique de la classification de ces prélèvements entre les «contributions pour la sécurité sociale» et les «taxes sur la masse salariale et la main-d'oeuvre». L'analyse des impôts sur la masse salariale dans certains pays révèle de nombreuses anomalies en ce concerne la méthode de classification actuelle de ces impôts. L'article suggère de modifier la classification des charges salariales afin de faire la distinction importante en termes économiques entre les impôts liés aux avantages sociaux et les recettes fiscales générales. L'étude se termine par une analyse des différences entre divers pays dans le traitement fiscal des charges salariales.

ABSTRACT

Payroll taxes are used extensively around the world both for social security finance and for general revenue purposes. This article examines the varying applications of payroll taxes and the structures appropriate to these purposes. It reviews the comparative use of payroll taxes

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internationally relative to the total tax mix and to GDP, and it reports the rates of social security contributions for employees and employers by country and earnings level. The study then critically considers the classification of these levies between "social security contributions" and "taxes on payroll and workforce." An examination of the payroll-type taxes imposed in selected countries demonstrates numerous anomalies in the existing system for classifying payroll taxes. A revised classification for payroll taxes is suggested that would conform more closely to economically meaningful distinctions between benefit-linked taxes and general-revenue taxes. The study concludes with a review of cross-country differences in the tax treatment of payroll taxes.

INTRODUCTION

Payroll taxes play a major role in the overall public finances of the advanced economies. Most countries rely overwhelmingly on payroll taxation to finance their social security programs, with individuals' entitlements to benefits linked directly to the taxes they pay as employees or paid by their employers.[1] Lesser use is made of payroll taxation for general revenue purposes; two prominent examples are taxes imposed by the Canadian provinces and the Australian states. However, where payroll-based contributions for social security have no strong tax-benefit linkage or no ceiling on insurable earnings, they also assume some properties of general payroll taxes. Previous analyses have blurred over the conceptual and practical differences between payroll taxes applied for general revenue as against social security purposes. Indeed, as will be shown here, the statistics used most commonly to compare payroll taxes internationally have serious anomalies that obscure understanding of these differences.

This article will describe the essential differences between using payroll taxes to raise general revenues and to finance benefit-linked social insurance programs. Earmarking and incentive uses of payroll taxes will also be examined. These differing policy purposes will be shown to affect the design and operation of a payroll tax. Then the reliance on payroll taxes for all purposes will be compared across the OECD (Organisation for Economic Co-operation and Development) countries. These comparisons will consider the relative size of payroll taxes in the revenue mix and the payroll tax rates applied in various countries. The payroll taxes used in several selected countries are briefly examined, with special emphasis on those used for general revenues or applied without earnings ceilings. A critical review is undertaken for the standard methods of classifying payroll taxes as distinct from social security contributions, and a revised classification is suggested. How social-security and general payroll

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[1] Such taxes are commonly called "contributions" or "premiums" even though they are mandatory. For discussion of whether social security contributions should be regarded as taxes, see K.C. Messere, *Tax Policy in OECD Countries: Choices and Conflicts* (Amsterdam: IBFD Publications, 1993), 455.

taxes are treated under the personal and corporate income taxes in various countries is also examined.

CHARACTERISTICS OF PAYROLL TAXES

The distinguishing trait of all payroll taxes is that they apply to a base of labour earnings only. Returns to capital, business, and financial investments are excluded from the base of a payroll tax. Labour earnings for the purpose of a payroll tax include wages and salaries and may also include supplementary labour income and fringe benefits. Some payroll taxes further cover self-employment earnings, whereas others do not.[2] Payroll taxes can be levied on the employer, the employee, or both parties in varying proportions. A payroll tax may use exemptions or ceilings on the taxable payroll, applied at the level of the individual worker or the aggregate payroll of the firm. These choices depend upon whether the tax is benefit-linked or for general revenue and also upon related policy objectives. Payroll taxes typically apply a flat rate to the taxable earnings or payroll, within the bounds of floors or ceilings. This contrasts with the progressive rates applied in most direct personal taxes but is similar to the flat rates commonly used in property taxes and indirect consumption taxes. Compared with most other types of taxes, payroll taxes are relatively simple in their design and operation; this in part accounts for their pervasive usage.

Linkage and Earmarking of Taxes

Payroll taxes can take a variety of forms and take on attributes that are not shared by most other taxes. First, the amounts of tax paid, by either employer or employee or by both, can be linked to the worker's entitlements for social security benefits. Second, payroll taxes can be structured so that their effective rates on the individual firm hinge upon its activities in specified respects; this approach serves an incentive or regulatory function. Third, the revenues of a payroll tax can be earmarked for a particular program. Earmarking is often used for both benefit-linked and activity-linked payroll taxes, but it can also be utilized for a payroll tax that is linked neither to worker benefits nor to business activities.[3] The use of earmarking in the latter case may have political economy implications but lesser effect on the tax's economic properties.[4] Moreover, the earmarking of revenues to a particular program may not even have much significance if the program also needs general revenues for its total finance. If a payroll tax has neither a strong benefit link nor a strong activity link, and

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[2] Depending on how a payroll tax is applied to self-employed earnings, or net incomes of proprietors or partners in business, it may also include the returns to capital employed in the business.

[3] Useful discussion of earmarking in the context of social security is provided in Messere, supra footnote 1, at 174-76.

[4] For the economics and political economy of tax earmarking, see Richard E. Wagner, ed., *Charging for Government: User Charges and Earmarked Taxes in Principle and Practice* (London: Routledge, 1991).

if any earmarking is more symbolic than substantive, the tax can be regarded as one for general revenue purposes—a general payroll tax.

Types of Payroll Taxes

Benefit-Linked Payroll Taxes

The most widespread use of payroll taxes is in social security programs where the taxes paid while working are linked to the individual's benefits for insured contingencies. Most countries have one or more large programs of this kind. Benefit-linked payroll taxes may involve levies on employers alone, employees alone, or more typically both parties (though the proportions vary).[5] Ceilings on the amount of covered or "insurable" earnings per worker are commonly used, paralleling the ceilings or limits on the maximum amount of benefits that a worker can obtain. Hence, the total taxes paid by each employer, and by the firm's employees, depends upon how the wages are distributed across the workers. With ceilings on covered wages per worker, the tax cannot be levied on the basis of aggregate payroll, unlike a general payroll tax. The tax-benefit linkage also provides incentives for responsible economic behaviour by firms and employees. Numerous studies of national social security systems focus on these tax-benefit linkages in particular programs.[6]

Several factors explain why payroll or employee compensation is used as the tax base for financing most social security programs. These include:

1) economic incentives and discipline, as cited above;

2) the relative administrative and operational ease of payroll-type taxes;

3) a desire to confine the costs of the program to those who will benefit, as well as to confine the benefits to those who have been working;

4) the relative security and stability of a program that has its own earmarked financing source and does not have to compete in the annual budget allocation process; and

5) related to the last factor, the political support that arises for programs where the public can see what it is receiving for what it is paying, at least relative to the many public expenditures financed out of general revenue sources.

Yet another factor is also vital in explaining the use of payroll taxes to finance social security programs. A major objective of such programs is to replace a portion of each worker's accustomed earnings in the event of

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[5] For contingencies where there is little moral hazard, such as disability and old age, social security schemes often cover the self-employed as well as employees; their contribution or tax rates may equal the sum of employer and employee rates or a concessionary rate. For contingencies with greater moral hazard, such as unemployment, most countries exclude the self-employed.

[6] In addition to national studies, comparative international studies of social security financing include Margaret S. Gordon, *Social Security Policies in Industrial Countries: A Comparative Analysis* (New York: Cambridge University Press, 1989); and Messere, supra footnote 1, especially chapter 8.

the insured contingency. This earnings-replacement objective of social insurance programs differs from the income-maintenance objective of welfare-type programs. Earnings replacement—where benefits rise with the individual's accustomed (and "insured") earnings—would probably be unacceptable in a program financed out of general revenue. Even if the overall tax system were substantially progressive, paying out larger benefits to higher earners would not likely pass the test of public acceptability. Nevertheless, it is not uncommon for social security programs to draw on general revenues for supplementary funding beyond their payroll tax sources. However, the general-revenue portion of program finance is typically earmarked to aspects such as flat-rate benefits or provisions targeted at the needy rather than enhancing the earnings-related benefits of higher earners.[7]

Activity-Linked Payroll Taxes

Employer payroll taxes can be structured with the rate of tax paid by a firm hinging on its behaviour or performance in a clearly specified manner. Such "activity-linked" payroll taxes can be used to serve regulatory or incentive functions of public policy. Typically the revenues from such taxes are earmarked for programs related to the behaviour on which the taxes are targeted. There may or may not also be a linkage to benefit entitlements for the employees of the firms paying activity-linked payroll taxes. The use of payroll rather than another tax base for activity-linked taxes is typically explained by the simplicity in design and operation of payroll taxes; the linkage of benefits to employee earnings in some cases provides an additional explanation. Actual or proposed policies of this kind can be found in four major areas: workers' compensation, unemployment benefits, worker training, and health insurance.

Activity-linked payroll taxes are common in many countries for the finance of workers' compensation programs.[8] The rationale for such taxes is both to allocate the costs of the benefits to the industries and products that generate work place injuries and to provide an incentive for greater work place safety. Practices vary widely by jurisdiction but commonly include rate variations by industry, occupation, or individual firm. The last method, known as "experience rating," provides the strongest incentive for firms to enhance worker safety. Experience rating of individual

[7] This point is well illustrated by features of the Canadian unemployment insurance program prior to its conversion to full finance by "premiums" in recent years. Large general revenues went into the program in the 1970s and early 1980s, but those funds were tied to benefits paid at high national unemployment rates, extended benefits in regions of high unemployment, and various benefits provided for social reasons. For description and analysis, see Jonathan R. Kesselman, *Financing Canadian Unemployment Insurance*, Canadian Tax Paper no. 73 (Toronto: Canadian Tax Foundation, 1983), chapters 4-5.

[8] For descriptions of individual country provisions, see Watson Wyatt S.A., *1995 Benefits Report: Europe & U.S.A.* (Brussels: Watson Wyatt Data Services Europe, 1995); and United States, Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, *Social Security Programs Throughout the World—1993*, SSA Publication no. 13-11805, Research Report no. 63 (Washington, DC: US Government Printing Office, 1994).

firms is far rarer in financing unemployment benefits; the main example of this arises for the programs in the United States. Various systems are used by the individual states, typically based on the firm's rate of layoffs or the benefits claimed by its employees who were laid off or fired without good cause.

Activity-linked payroll taxes have also frequently been proposed in the areas of training and health insurance but less commonly been put into practice. My review of this topic is limited to the North American context. Several proposals for training-related payroll taxes have emanated from Canadian groups as diverse as the Advisory Council on Adjustment in 1989, the New Democratic Party (a "refundable training levy"), and the Parti Québécois government in Quebec in 1995.[9] These proposed payroll taxes would waive the tax for firms that are deemed to be expending a specified level on training. Manitoba already has a form of training-linked tax through the allowance of a training credit against the provincial payroll tax. Some analysts have expressed doubts as to the feasibility or ease of measuring suitable private outlays on training to make such a scheme workable.[10] Other proposed payroll taxes to fund public training or wage protection funds in Canada or the United States have not been activity-linked.[11] An "employer mandate" played a key role in the Clinton administration proposals for US health care reform in 1993-94.[12] Employers providing inadequate health coverage would have faced a new tax, of up to 7.9 percent of their payrolls, to finance health insurance for their employees.

General Revenue Payroll Taxes

Payroll taxes applied in a way that does not link the amounts paid for the individual worker to his or her benefit entitlements have major similarities to other forms of taxation. Lacking linkages both to individuals' benefits and to activities of the firm, such payroll taxes are simply one way of raising general revenues. The distinguishing trait of these taxes is that their base is aggregate payrolls or labour compensation. It is not

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[9] Canada, *Adjusting To Win: Report of the Advisory Council on Adjustment* (the Grandpré commission) (Ottawa: Supply and Services, 1989), 43-44; New Democratic Party of Canada, *Strategy for a Full-Employment Economy: A Jobs Plan for Canada from Canada's New Democrats* (Ottawa: New Democratic Party, 1993), 25, proposed a 2 percent payroll tax offset by firm's qualifying training outlays; *The Globe and Mail*, March 23, 1995, and May 3, 1995, describes the proposed payroll tax of 1 percent, to be implemented January 1, 1996, for firms with annual payrolls over $1 million and extended to payrolls of $250,000 two years later.

[10] See Harry Kitchen and Douglas Auld, *Financing Education and Training in Canada*, Canadian Tax Paper no. 99 (Toronto: Canadian Tax Foundation, 1995), 138-39.

[11] See "Ontario To Fund Wage Protection," *The Globe and Mail*, April 12, 1991; "Workers' Fund Planned for Bankruptcy Cases: Tax on Employers Proposed by Ottawa," *The Globe and Mail*, June 14, 1991; and "Reich Weighs Payroll-Tax Increase To Fund 'Dislocated-Worker' Training," *The Wall Street Journal*, December 14, 1993.

[12] Paul G. Merski, "Hiding a Tax, Off Budget," *The Wall Street Journal*, December 3, 1993, argued that "This mandate . . . is nothing but a payroll tax."

uncommon for general payroll taxes to exempt firms below a specified level of aggregate payroll or to relieve from tax a specified amount of the payroll of firms of any size. One could also conceive of a general payroll tax that exempted a specified amount of earnings per worker, for labour market or social reasons, though no country appears to have done so. However, payroll taxes for general revenue purposes never apply an upper ceiling on the taxable amount of earnings per worker, unlike the common practice for benefit-linked payroll taxes.

Many programs that are recognized as social security or social insurance in fact contain elements of general payroll taxation. This arises when the program provides either no linkage or an imperfect linkage between the taxes or "premiums" paid by or on behalf of each worker and the individual's subsequent benefit entitlement. Several circumstances can give rise to this:

1) benefits provided to the public at large irrespective of whether a person has paid the taxes;

2) benefits paid out at a flat amount independent of the beneficiary's earnings level, with or without a ceiling on earnings subject to the payroll tax;

3) benefits paid in a way linked to earnings but with an upper limit, while the associated taxes are imposed without a ceiling.

The last circumstance is found in the social security programs of many countries. Even if there is a tight linkage between the periodic benefit level and the insured earnings level, and even if both are subject to ceilings, features of eligibility or benefit duration may also distort the connection between taxes and benefits. For example, in some countries persons with relatively short work histories may obtain unemployment benefits for long durations.

Earmarking the revenues from a payroll tax to a particular program does not necessarily undermine its properties as a general payroll tax. Assume first that the program pays flat benefits or provides benefits to all of the population irrespective of whether they have paid any payroll tax. Then, only if the payroll tax is the sole means of financing the program does earmarking of its funds make the tax differ from a general payroll tax. In that case the payroll tax has implications for the allocation of resources to the particular program in addition to the allocative effects of the tax itself. Conversely, if the tax is just part of the total funding needs of the program, so that it must draw on other general revenue sources through periodic budgetary allocations, then the payroll tax acts much like a tax for general revenue purposes. For example, the payroll taxes of four Canadian provinces, all labeled for health and/or post-secondary education purposes, in fact flow into consolidated revenues or need supplementary general revenues for funding their ostensible purposes.[13]

[13] For details, see Jonathan R. Kesselman, "Canadian Provincial Payroll Taxation: A Structural and Policy Analysis" (1994), vol. 42, no. 1 *Canadian Tax Journal* 150-200, at 197-99.

COMPARATIVE USE OF PAYROLL TAXES

Payroll taxes of various kinds are in widespread usage around the world. Indeed, very few countries run their public sector without some form of tax on payrolls or labour earnings. The most comprehensive review of this topic, covering 163 countries in 1993, found that all but 6 levied social insurance contributions on employers and/or employees.[14] These levies typically assumed the form of payroll taxes, though in a few cases they were based on income rather than labour earnings. Countries with such taxes ranged the alphabet from Afghanistan, Albania, and Algeria to Zaire, Zambia, and Zimbabwe. Moreover, one of the countries without social insurance levies, Australia, still operated a payroll tax for general revenue purposes. Detailed descriptive and statistical material on payroll taxes is limited to the more industrialized economies. Hence, I shall examine the relative reliance on payroll-type taxes (whether for social insurance finance or for general revenues) for the OECD countries and rates of payroll tax for a subset of them. Then I briefly review the payroll taxes in selected countries, with particular emphasis on those used for general revenues, including payroll taxes abolished in earlier years.

OECD Comparisons

The most accessible comparable revenue statistics are restricted to the OECD countries. The classification scheme used by the OECD in compiling these statistics distinguishes between social security contributions and taxes on payroll and work force.[15] OECD revenue class 2000 for "social security contributions" includes all compulsory contributions that are

> a) paid to institutions of general government providing social security benefits;
>
> b) levied as a function of earnings, payroll or the number of employees;
>
> c) earmarked to provide social security benefits; and
>
> d) made by insured persons or their employers.[16]

Revenue class 3000 for "taxes on payroll and work force" includes those "paid by employers, employees or the self-employed either as a proportion of payroll or as a fixed amount per person, and which are not earmarked for social security expenditure."[17]

Table 1 presents figures for the relative reliance on these two classes of taxes for the 24 countries of the OECD in 1993.[18] Levies classified as

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14 *Social Security Programs Throughout the World—1993*, supra footnote 8.

15 The genesis of this distinction was the preference of some European countries not to count social security contributions as taxes; they "grudgingly" accepted their inclusion in the revenue statistics as a separate classification. Private correspondence from Ken Messere, December 8, 1993. (Messere was head of the OECD Fiscal Affairs Division from 1971 to 1991.)

16 Organisation for Economic Co-operation and Development, *Revenue Statistics of OECD Member Countries, 1965-1994* (Paris: OECD, 1995), 34.

17 Ibid., at 35.

18 The OECD currently has 25 countries; comparable data are not yet available for Mexico.

social security contributions accounted for more than 30 times the revenues of non-social-security-based payroll taxes. Social security contributions were a major source of total revenues in most of the OECD countries, accounting on average for 26 percent of all taxes and for more than 30 percent in 10 countries. In France, Germany, the Netherlands, and Spain, these levies accounted for more than 38 percent of all taxes. Only Australia did not impose any social security contributions. Although the OECD denotes New Zealand as having no social security contributions, my analysis later in this article does find a benefit-linked payroll tax. Social security contributions constituted over 10 percent of gross domestic product (GDP) on average for the 24 countries. Payroll taxes not related to social security were employed by fewer than half of the OECD countries, accounting on average for just 0.8 percent of all taxes and 0.3 percent of GDP. The only countries where such payroll taxes represented as much as 1 percent of GDP were Australia, Austria, and France.[19]

The OECD method of distinguishing between these two types of payroll taxes raises questions relevant to the concept of general payroll taxes. It argues:

> A distinction should be made when the proceeds of taxes on payroll, etc. are earmarked to finance social welfare (as opposed to social security) benefits. Where there is normally no connection between the payment of the contribution and the entitlement to the benefits, as in the case of the Austrian tax earmarked for family allowances, receipts would be classified in heading 3000 . . . ; where, however, there is a link between eligibility for benefits and the making of contributions, such receipts are shown under 2000, even though in some countries individuals may receive benefits without themselves or their relatives having made contributions.[20]

By these criteria, the payroll taxes of four Canadian provinces should be classified as taxes on payroll and work force rather than social security contributions. They have no linkage between contributions and benefits, and only one of the four provinces has even nominal earmarking of the revenues to program spending. Yet, the OECD statistics for Canada show no levies of the general payroll tax variety. Hence, one might question whether the statistics for other countries also understate the measure of reliance on general payroll taxes in the sense used here.[21] Review of other countries later in this article confirms the uncertainties about the current tax classification methods.

Table 1 also shows the percentage of social security contributions paid by employers. For the 22 OECD countries reporting contributions, the

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[19] Payroll taxes in Sweden were about six times as large (relative to taxes and to GDP) in 1992 as the figures shown for 1993 and hence were over 1 percent of GDP.

[20] Supra footnote 16.

[21] According to Messere, some of the taxes imposed in a number of OECD countries are classified as social security contributions even where the benefit linkage is absent and the programs earmarked by the levies require supplemental funding from general government revenues. Private correspondence, December 8, 1993.

Table 1 Social Security Contributions and Payroll Taxes, OECD Countries, 1993

	Social security contributions			Payroll taxes	
	% employer[a]	% of taxes	% of GDP	% of taxes	% of GDP
Australia	—	—	—	6.1	1.7
Austria	53	34.0	14.8	5.8	2.5
Belgium	65	35.6	16.3	—	—
Canada	67	16.6	5.9	—	—
Denmark	20	3.2	1.6	1.1	0.5
Finland	89	26.4	12.1	—	—
France	67	44.6	19.6	2.3	1.0
Germany	54	38.7	15.1	—	—
Greece	48	33.8	13.9	0.6	0.2
Iceland	96	8.0	2.5	—	—
Ireland	62	15.4	5.6	2.0	0.7
Italy	82	37.1	17.7	0.3	0.1
Japan	58	33.6	9.8	—	—
Luxembourg	56	28.6	12.7	—	—
Netherlands	22	38.2	18.3	—	—
New Zealand	—	—	—	1.0	0.4
Norway	64	25.1	11.5	—	—
Portugal	62	26.8	8.4	—	—
Spain	81	38.1	13.4	—	—
Sweden	99	27.6	13.8	0.4	0.2
Switzerland	49	37.4	12.4	—	—
Turkey	61	19.7	4.6	—	—
United Kingdom	61	17.8	6.0	—	—
United States	59	29.2	8.7	—	—
Unweighted average					
OECD total	63	25.7	10.2	0.8	0.3
OECD Europe		28.2	11.6	0.7	0.3
European Community		29.8	12.4	0.5	0.2

— not applicable.

[a] Employer's share of total contributions paid by employers plus employees; excludes contributions that are paid by the self-employed or non-employed or that are unallocable; computed by the author from classes 2100 and 2200 for each country.

Source: Organisation for Economic Co-operation and Development, *Revenue Statistics of OECD Member Countries, 1965-1994* (Paris: OECD, 1995).

average share paid by employers was 63 percent. In 18 countries, more than half the contributions were paid by employers, while in 2 (Greece and Switzerland) payments were equally split between employers and employees, and in 2 others (Denmark and the Netherlands) contributions relied mainly on employees.[22] However, the Netherlands collects most contributions via the personal tax system, with employers effectively paying most of these amounts through mandated supplements to salaries ("overhevelingstoeslag").[23] The heavy use of payroll-type charges to finance

[22] Yet, Denmark had the lowest reliance on social security contributions of the OECD countries that apply them (just 1.6 percent of GDP).

[23] Table 2 properly allocates these payments in the Netherlands to employers rather than employees.

social security programs might be explained by the public perception that firms are paying most of the costs. Of course, the true economic incidence of contributions paid by employers may still fall on workers, as is well known from economic theory and related empirical studies.[24]

International Rate Comparisons

The average effective payroll tax rates on workers at different earnings levels are also of interest, since countries vary in their insurable earnings ceilings. Table 2 presents figures on social security contributions as a percentage of gross earnings for four selected levels of earnings (all converted to US dollars). The figures for European countries and the United States, compiled by Watson Wyatt S.A., have been supplemented with figures for Canada. Excluded from the table are contributions for workers' compensation and most subnational levies, but almost all other benefit-related contributions are included. Of particular interest for my study of general payroll taxes is the existence of levies that have either very high insurable ceilings or no ceilings whatsoever. Unless the associated benefit schedules are similarly unbounded, such contributions have some attributes of general payroll taxes, even if their revenues are effectively earmarked to a particular program.

In reading table 2, one should note that only the lowest tabulated earnings (at US$20,000) is near the average earnings in most countries. The upper three earnings levels, at US$50,000 and higher, significantly exceed most workers' earnings. At earnings of US$20,000, the total average effective payroll tax rate exceeds 35 percent in 8 of the 20 countries tabulated; it exceeds 45 percent in Belgium, France, Greece, and Italy. Three countries—Canada, Denmark, and Turkey—have unusually low average contribution rates across the tabulated earnings range. By imposing relatively low insurable ceilings, not much above average earnings, several countries display average rates that fall sharply with earnings; most notable in this respect are Canada, Greece, Spain, and Turkey. For the latter three countries, earnings of US$50,000 are far above the average.

At the other end are countries that have relatively uniform average rates by applying high or no ceilings on earnings subject to tax. Norway and Portugal are fully uniform in their rates for both employees and employers across the tabulated earnings range.[25] Belgium, Finland, Sweden, and the United Kingdom are fully uniform in their employer rates,

[24] For a partial review of the literature, see Bev Dahlby, "Payroll Taxes," in Allan M. Maslove, ed., *Business Taxation in Ontario*, Research Studies of the Fair Tax Commission (Toronto: University of Toronto Press, 1993), 80-170.

[25] All of my commentary applies only to the tabulated range of US$20,000-200,000. For example, the United Kingdom applies a series of graduated rates below 10.4 percent to employers for earnings below the US$20,000 level. But no country applies an insurable ceiling greater than US$100,000. Moreover, contrary to the Watson Wyatt tabulations in my table 2, Sweden does apply ceilings to the employee contributions. See footnote 27, infra, regarding the rate pattern for Portugal.

Table 2 Social Security Contributions as a Percentage of Gross Earnings, Europe, Canada, and the United States, 1995[a]

	Equivalent annual earnings in US$			
	$20,000	$50,000	$100,000	$200,000
Austria[b]				
Employee	16.65	16.17	8.08	4.04
Employer	18.95	18.40	9.20	4.60
Total	35.60	34.57	17.28	8.64
Belgium				
Employee	13.07	13.82	13.82	13.44
Employer	32.78	32.78	32.78	32.78
Total	45.85	46.60	46.60	46.22
Canada				
Employee	5.37	3.03	1.51	0.76
Employer	6.57	3.75	1.88	0.94
Total	11.95	6.78	3.39	1.69
Denmark[c]				
Employee	6.64	6.26	6.13	6.06
Employer	1.29	0.51	0.26	0.13
Total	7.93	6.77	6.39	6.19
Finland				
Employee	7.65	9.08	9.53	9.75
Employer	24.32	24.32	24.32	24.32
Total	31.97	33.40	33.85	34.07
France—basic				
Employee	18.48	16.32	14.68	12.27
Employer	38.09	34.72	32.32	28.72
Total	56.57	51.04	47.00	40.99
France—other[d]				
Employee	2.00	3.26	4.14	4.57
Employer	3.00	6.81	8.42	9.21
Total	5.00	10.07	12.56	13.78
France—total				
Employee	20.48	19.58	18.82	16.84
Employer	41.09	41.52	40.74	37.93
Total	61.57	61.10	59.56	54.77
Germany				
Employee	19.80	19.16	10.93	5.47
Employer	19.80	19.16	10.93	5.47
Total	39.60	38.32	21.86	10.94
Greece				
Employee	17.03	8.36	4.18	2.09
Employer	31.57	15.51	7.75	3.88
Total	48.60	23.87	11.93	5.97

(Table 2 is continued on the next page.)

Table 2 Continued

	Equivalent annual earnings in US$			
	$20,000	$50,000	$100,000	$200,000
Ireland				
Employee	7.75	5.84	4.05	3.15
Employer	12.80	10.32	5.16	2.58
Total	20.55	16.16	9.21	5.73
Italy[e]				
Employee	9.99	10.16	11.40	7.47
Employer	50.56	47.39	41.85	30.83
Total	60.55	57.55	53.25	38.30
Luxembourg				
Employee	10.58	10.58	8.46	4.23
Employer	10.58	10.58	8.46	4.23
Total	21.16	21.16	16.92	8.46
Netherlands[f]				
Employee	6.26	8.03	4.02	2.01
Employer	19.21	13.08	6.54	3.27
Total	25.47	21.11	10.56	5.28
Norway				
Employee	7.80	7.80	7.80	7.80
Employer	14.10	14.10	14.10	14.10
Total	21.90	21.90	21.90	21.90
Portugal[g]				
Employee	11.00	11.00	5.56	2.78
Employer	23.75	23.75	12.24	6.12
Total	34.75	34.75	17.80	8.90
Spain				
Employee	6.40	4.35	2.17	1.09
Employer	30.80	20.92	10.46	5.23
Total	37.20	25.27	12.63	6.32
Sweden[h]				
Employee	3.95	3.95	3.95	3.95
Employer	29.98	29.98	29.98	29.98
Total	33.93	33.93	33.93	33.93
Switzerland				
Employee	6.55	6.55	6.17	5.61
Employer	8.37	8.37	7.99	7.43
Total	14.92	14.92	14.16	13.04
Turkey				
Employee	1.68	0.67	0.34	0.17
Employer	2.15	0.86	0.43	0.22
Total	3.83	1.53	0.77	0.39
United Kingdom				
Employee	8.09	6.50	3.25	1.62
Employer	10.20	10.20	10.20	10.20
Total	18.29	16.70	13.45	11.82

(Table 2 is concluded on the next page.)

Table 2 Concluded

United States				
Employee	7.65	7.65	5.24	3.35
Employer	7.65	7.65	5.24	3.35
Total	15.30	15.30	10.48	6.70

[a] Excludes workers' compensation and most subnational levies, such as unemployment insurance in the United States, where rates vary by state. For some countries the rates are based on particular cases, such as larger employers, location, or occupational or industry groups. See the original source for full details. [b] No account has been taken of the payroll tax applied separately from social security. [c] Social security contributions are included in the income tax paid by employees; only ATP contributions are shown here. [d] For earnings of US$20,000, figures relate to ARRCO scheme (for non-executives); for higher tabulated earnings, figures relate to INPDAI (the "Dirigenti" in industry). Workers falling under FPDAC ("Dirigenti" in commerce) have total contribution rates of 68.77 percent at US$100,000 and 57.32 percent at US$200,000. [f] Contributions are levied via the tax system including employer contributions through a so-called transfer supplement. [g] Figures for the lower two tabulated earnings levels relate to the general scheme, for the higher levels to the directors' scheme. There is no ceiling on earnings subject to contributions under the general scheme. [h] The Watson Wyatt source states that there is no earnings ceilings for the employee contributions (which are applied on the basis of income through the income tax and also include net business income); however, correspondence from the National Tax Board of Sweden states that an earnings ceiling does apply to these "general personal contributions."

Sources: Watson Wyatt S.A., *1995 Benefits Report: Europe & U.S.A.* (Brussels: Watson Wyatt Data Services Europe, 1995), 297-300; figures for Canada computed by the author for Canada Pension Plan plus Unemployment Insurance program, using exchange rate of US$ = Cdn.$1.4028 (end of 1994 rate), from International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF, July 1995).

while Finland applies rising average rates for employees. Denmark applies nearly uniform rates for employees only, and Belgium, France, and Switzerland apply very roughly uniform rates in total. One has to check the benefit schedules to determine the extent to which uniform contribution rates are also reflected in benefits that rise proportionately with insured earnings without ceilings.[26] Of the countries with no contribution ceilings and thus uniform rates, only Portugal also imposes no ceiling on benefits.[27] Hence, most of the countries with uniform contribution rates take on some properties of a general payroll tax.

Payroll Taxes in Selected Countries

I next briefly describe the payroll taxes of selected countries, focusing on those with either general payroll taxes or social security levies applied without ceilings.[28] My review includes most of the countries in table 1

[26] Watson Wyatt's *1995 Benefits Report*, supra footnote 8, offers considerable detail on benefit programs by country.

[27] Portugal's general scheme has a uniform rate across all earnings; the tabulated figures for the upper two earnings levels shown in table 2 are for a director's scheme with an earnings ceiling.

[28] Where not otherwise cited, the main sources for these descriptions are Watson Wyatt's *1995 Benefits Report*, supra footnote 8; the International Bureau of Fiscal Documentation,

(The footnote is continued on the next page.)

with non-trivial amounts of payroll taxes apart from social security contributions. Historical experience with general payroll taxes that are no longer applied is also noted for Austria, Germany, and the United Kingdom. The use of payroll taxes at a subnational level provides added scope for policy variations, as shown by the experience in federal states such as Australia, Canada, and the United States. My analysis of the selected countries leads to a proposal for revisions to the classification method used by the OECD for social security contributions and payroll taxes.

Australia

Australia is one of the few countries without a payroll tax that has either linkage to social security benefits or earmarked revenues; it is the only OECD country in this situation. Yet, Australia has one of the oldest general payroll taxes, begun as a Commonwealth levy in 1941 as a means to fund child endowment. In 1952 this earmarking was severed and payroll taxes were paid into consolidated revenues; in 1971 the payroll tax was transferred to the states and remained a general revenue tax. All six states and the two territories have such taxes, which have grown to be the largest source of tax revenues at the state level. These taxes are employer levies, essentially at flat rates but with various relieving devices for firms with small to intermediate payrolls. Variations in the structure and operation of the state taxes are instructive for an analysis of employer payroll taxes.[29] Australian debate over the alleged disemployment effects of the payroll taxes and proposals to replace them with a value-added tax raise further issues of interest for general payroll taxation.

The Australian state payroll taxes account for only about 80 percent of the revenues classified by the OECD as "taxes on payroll and workforce." Australia also imposes two other levies that might be regarded as payroll taxes, both at the Commonwealth level. First is a fringe benefit tax on employers, which is intended to supplement the personal income tax. Whether an employer tax on fringe benefits is properly classified as a payroll tax is discussed in the section on New Zealand below.

Australia applies a superannuation guarantee charge (SGC) designed to ensure that employers make minimum prescribed contributions to superannuation funds on behalf of their employees.[30] Only shortfalls between actual and prescribed contributions are subject to the SGC, thus exemplifying the activity-linked type of payroll tax described earlier. The SGC

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[28] Continued . . .
Guides to European Taxation and *Taxes and Investment in Asia and the Pacific* (Amsterdam: IBFD) (looseleaf services); and Messere, supra footnote 1. Unless otherwise cited, the provisions and rates are those for 1994 or 1995.

[29] The Australian payroll taxes will be covered in a chapter of the author's forthcoming monograph for the Canadian Tax Foundation.

[30] Description and rationale of the SGC is taken from John Dawkins, Treasurer, *Security in Retirement: Planning for Tomorrow Today* (Canberra: Australian Government Publishing Service, June 30, 1992). Interestingly, both defined benefit and defined contribution schemes are eligible under the program.

began in mid-1992 with rates of 3 percent for employers with payrolls of A$1 million or less and 4 percent for employers with payrolls above A$1 million. These rates gradually rise to 5 and 6 percent, respectively, in fiscal 1995-96 and to an ultimate 9 percent for all employers in 2002-3. Employee contributions of 3 percent of earnings are planned to start near the end of the scheduled period. Covered annual earnings were $A80,000 per worker at the outset and have been indexed for subsequent inflation. Revenues from SGC go into consolidated revenues but are then deposited to superannuation plans. Given the lack of tax deductibility for SGC payments as well as interest and administration charges, very few employers are likely to expose themselves to the SGC. In view of its purpose as a regulatory backstop, the SGC cannot easily be regarded as a benefit-linked payroll tax.

Austria and Germany

Austria and Germany both impose a business tax separate from their corporate income tax, with the revenues used to finance subordinate levels of government.[31] This tax is called the Gewerbesteuer, which is translated as "enterprise tax" or "trade and industry tax." The main base of this tax is business profits, but the German Gewerbesteuer also had a portion based on payrolls (Lohnsummensteuer) from 1965 to 1978.[32] A payroll tax was imposed mainly in larger cities with an industrial base, and in 1977 almost half of total payrolls in West Germany were subject to tax.[33] The Austrian Gewerbesteuer still has a payroll tax component, a 0.2 percent tax on enterprise payrolls. Another Austrian payroll tax is the Kommunalsteuer for local public finance. This tax is levied at a 3 percent rate on aggregate salaries paid by Austrian-based enterprises. Additionally, Austria imposes a payroll tax of 4.5 percent to finance family allowances. The OECD classifies this as a general payroll tax rather than social security levy, because there is no linkage between tax payments and benefit entitlements. However, an eligibility criterion for receiving the Austrian family allowances is that at least one parent be employed.

Canada

Canada has perhaps the most diverse range of payroll taxes of any country, even though its total reliance on payroll taxation is well below average.[34] At the national level there are benefit-linked contributions for

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[31] Luxembourg also imposes a municipal business tax (Loi impôt commercial communal, LICC); a payroll tax component of the LICC was abolished in 1987.

[32] Konrad Littmann, "Gewerbesteuern," in Norbert Andel, Heinz Haller, and Fritz Neumark, eds., *Handbuch der Finanzwissenschaft*, 3d ed., vol. 2 (Tübingen: Mohr, 1980), 607-32.

[33] Ibid., at 623.

[34] Note that the figures on payroll taxes for Canada do not include workers' compensation in table 1 and also do not include the provincial payroll taxes for health and post-secondary education in table 2.

social security in programs of unemployment insurance and the Canada Pension Plan (and a parallel Quebec Pension Plan operating in one province). These schemes apply insurable ceilings that roughly approximate the average earnings of full-time workers. Each of the 10 provinces and the 2 territories operates a workers' compensation scheme, financed by payroll taxes on employers.[35] The tax rates are varied by industry and occupation and for some provinces and industries are experience-rated at the firm level. Most relevant to this study are the general payroll taxes of four provinces (including the two most populous, Ontario and Quebec) and one territory. The oldest of these has been in place for 25 years, and the variation in structures and operation across the provinces is highly informative for a study of general payroll taxation.[36]

Revenue statistics of the OECD show Canada as having no "taxes on payroll and workforce." The provincial payroll taxes are classified as "hospital insurance premiums" and "social insurance levies" under the employer subheading of the category for social security contributions.[37] Yet, this treatment appears to violate the OECD's own criteria for classifying such taxes. Despite the names of the levies in the four Canadian provinces, they are not in practice earmarked for specific funds or spending purposes, at least in three of those provinces. The Canadian territory that imposes a payroll tax also does so without any pretense of earmarking. Moreover, for none of these levies does any linkage exist between payment of the tax and benefit entitlement. These taxes are in fact imposed for general revenue purposes of the provinces, which should make them "taxes on payroll and workforce."[38]

Denmark

In 1994 Denmark instituted a new payroll tax with the funds earmarked for specified labour market measures such as unemployment allowance and employment schemes.[39] However, there was no linkage between an individual's tax payment and his or her benefit entitlement. The tax rate for employees was 5 percent in the first year and scheduled to increase to 8 percent in 1997. Employers were to be subject to a tax of 0.3 percent of total payroll beginning in 1997 and rising to 0.6 percent in 1998. Self-employed persons were also liable for payroll tax at the same rate as employees based on their taxable income minus a deduction for a normal

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[35] Detailed description and assessment of these schemes is provided in François Vaillancourt, *The Financing of Workers' Compensation Boards in Canada, 1960-1990*, Canadian Tax Paper no. 98 (Toronto: Canadian Tax Foundation, 1994).

[36] See Kesselman, supra footnote 13.

[37] Supra footnote 16, at 99.

[38] See Kesselman, supra footnote 13, for details; the territorial tax is applied to employees and serves a different purpose.

[39] This change was part of a broader scheme of reforms including reductions in the marginal tax rates on personal incomes and abolition of "AUD-contributions" for labour market training.

rate of return on equity invested in their business. Denmark's payroll tax coverage is very broad, including workers in almost all industries[40] and the non-profit and public sectors, foreign employees of Danish firms, payments into pension schemes, and fringe benefits liable to the personal income tax. The reason officially cited for instituting this primarily employee payroll tax was "to make the national expenses more visible."[41]

Denmark also applies an unearmarked payroll tax (Lønsumsafgift) to particular sectors of the economy to backstop the country's value-added tax (VAT).[42] Almost all countries exclude financial intermediation activities from their VATs on account of conceptual problems in measuring value-added for that sector. The Danish payroll tax is applied to enterprises in the financial sector (banks and insurance companies) and other enterprises whose sales of goods and services are exempt from VAT (for example, tourist offices and lottery organizations). The taxable base for these sectors is 190 percent of the amount of wages paid during the year, with a tax rate of 2.5 percent, but 4.5 percent for the financial sector.[43] This tax can be regarded as a form of payroll tax for general revenues. It is an interesting application of the payroll tax with similarities to a proposal that has been made for replacing Canada's VAT, the goods and services tax.[44]

France

In addition to its social security levies, France imposes a variety of payroll taxes with funds earmarked for particular purposes. About a third of local government revenues are raised through the "taxe professionnelle," which is based on a mixture of the rental value of enterprises' fixed assets and a proportion of payrolls. Family allowances are financed through an employer tax of 5.4 percent of payrolls without any upper limit. Separate taxes on employers' aggregate payrolls are imposed for various purposes—national housing assistance (at 0.1 percent), employers' insolvency fund (0.35 percent), vocational training programs (1.5 percent for firms with 10 or more employees, 0.15 percent for those with fewer than 10 employees), and apprenticeship programs (0.5 percent). Furthermore, several components of French social security are financed through taxes

[40] The few exceptions were areas such as civil defence service and domestic servants and workers in private households.

[41] Private correspondence from the Denmark Ministry of Taxation, September 27, 1993; other sources for the Danish payroll tax include correspondence from Peter Birch Sorensen, May 1993, and Act no. 448 of June 30, 1993 ("Lov om arbejdsmarkedsfonde") and Bill L 326 of May 25, 1993.

[42] See "Denmark," in International Bureau of Fiscal Documentation, *Guides to European Taxation*, vol. 2, *The Taxation of Companies in Europe* (Amsterdam: IBFD) (looseleaf), section 6.

[43] For publishers and importers of newspapers the taxable base is the turnover of newspapers; for other covered taxpayers it is total wages plus adjusted profits.

[44] See Jonathan R. Kesselman, "Assessing a Direct Consumption Tax To Replace the GST" (1994), vol. 42, no. 3 *Canadian Tax Journal* 709-803; this proposal combines a broad payroll tax with a cash-flow tax on business.

on total earnings without ceilings, either on employers alone or on both employers and employees.

New Zealand

New Zealand imposes levies on wages and salaries and the earned income of self-employed individuals to finance its accident compensation and rehabilitation insurance program (commonly referred to as ACC).[45] The ACC "earner premium" is applied in 1995 at a rate of 0.6 percent on employees' earnings up to NZ$76,000. The ACC levies on employers and on earned incomes of the self-employed apply at rates that vary with the risk rating of their industries. Additional revenues for ACC derive from levies on motor vehicle licensing, insurance, and gasoline, and a government contribution on behalf of those not in the labour force and the unemployed. In return, the ACC funds medical, hospitalization, and rehabilitation expenses for people who are injured through accidents, whether at work or elsewhere. Earnings-related compensation, at 80 percent of average earnings up to a limit, is also available for those in employment who suffer work-related accidents.

The OECD revenue statistics show New Zealand as having "taxes on payrolls and workforce" but no social security contributions. It turns out that the payroll tax cited by the OECD for New Zealand is the fringe benefit tax (FBT) and not the ACC premiums. FBT was introduced in 1985 and applies to benefits in kind provided by employers to their employees. The tax is paid by employers at a uniform rate near the top rate of personal tax as a substitute for taxing the benefits in the hands of employees. The taxable benefits originally included many categories but now cover: (1) loans provided to employees at low-interest rates, (2) company cars supplied to employees or available for their private use, and (3) goods supplied to employees at concessionary prices. Given the function of the FBT, and the fact that it does not apply to the bulk of employee remuneration, it is questionable whether these taxes (and similar taxes in Australia) should be classified as payroll taxes.

While it is not clear how the OECD classifies New Zealand's ACC earner premiums and the charges for employers and the self-employed, they appear similar to contributions for social security. They contain a major element of earnings-related compensation for injuries that arise at work. This situation as well as the treatment of FBT illustrate the problems of classifying levies between social security and payroll taxes. It may be that the OECD statistics do not count the ACC premiums as social security contributions on account of the provision of certain ACC benefits for individuals who are not employed. These benefits might be characterized as having a general welfare nature rather than social insurance. But

[45] All the information on New Zealand and the discovery that the OECD classification of payroll taxes in New Zealand refers to the fringe benefit tax was provided in correspondence from Michael Dunn, New Zealand Inland Revenue Department, August-September 1995.

in that case the premiums would logically be classified under the heading of taxes on payroll and workforce.[46]

Russia

Russia applies a large general-revenue-type payroll tax to higher wages.[47] Monthly wages of each worker above US$25 are subject to a 38 percent "excess wage tax." This tax covers Russian businesses, Russian-foreign joint ventures, and foreign representative offices operating in Russia. Like all payroll taxes, this tax must be paid irrespective of whether a business is profitable. Similar excess wage taxes are found in other formerly communist countries of Europe, and some analysts believe that they should be classified as business taxes rather than payroll taxes because they exempt the earnings of the average worker.[48] Additionally, Russia collects payroll taxes for social insurance programs based on total payrolls without any ceilings. In 1993, a total rate of 39 percent was applied to employers—28 percent of payroll for a pension fund, 5.4 percent for a social insurance fund, 3.6 percent for a medical insurance fund, and 2 percent for the employment fund—and employees paid 1 percent of gross salary to the pension fund.[49]

Sweden

Sweden imposes several large employer levies that are nominally known as social security contributions.[50] In 1993 the total rate of employers' contributions was 29.8 percent; by 1995 the total employer rate had risen to 32.9 percent, with rates of 21.4 percent for employees aged over 65 years[51] and 31.3 percent for the self-employed. These levies are imposed without ceilings, so that they appear to be closer to general payroll taxes than social security charges, although a few components of the benefits

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[46] Note that the International Bureau for Fiscal Documentation stated in 1995 that New Zealand has "no payroll tax in the strict sense." See "New Zealand," in International Bureau of Fiscal Documentation, *Taxes and Investment in Asia and the Pacific* (Amsterdam: IBFD) (looseleaf), section 34.

[47] "Russia Expands a Tax on Payrolls, Angering Many Foreign Businesses," *The Wall Street Journal*, April 5, 1995.

[48] "[T]here is some doubt in the IMF and OECD whether such taxes should be classified as payroll taxes (3000) or other taxes on business (6000)." Ken Messere, private correspondence, August 23, 1995.

[49] "Russia," in International Bureau of Fiscal Documentation, *Guides to European Taxation*, vol. 5, *Taxation and Investment in Central and East European Countries* (Amsterdam: IBFD) (looseleaf), section 7.

[50] Where not otherwise cited, information on Sweden is taken from Watson Wyatt's *1995 Benefits Report*, supra footnote 8, and from correspondence with Sören Blomquist, August 31, 1995; The National Tax Board of Sweden, September 15, 1995; and the Swedish Ministry of Finance, October 26, 1995.

[51] According to the National Tax Board, this "so called special wage tax . . . is purely an employer's tax, and gives no right to social security benefits." Correspondence with the National Tax Board of Sweden, September 15, 1995.

are earnings-linked up to stated ceilings. Moreover, the employer calculates its contributions based on aggregate remuneration paid (including in-kind benefits), just like an employer payroll tax, and the contributions are not earmarked for a particular employee. That means an employee does not lose his or her right to social security benefits even if the employer has failed to pay the contributions.

Sweden has introduced employee contributions for health insurance and other purposes in recent years. These levies began at 0.95 percent of personal income in 1993 and have risen to a total of 4.95 percent in 1995 (3.95 percent for health insurance plus 1 percent for pension). These "general personal contributions" also apply to net income from business operations including self-employment and are collected through the income tax mechanism. Unlike the employer contributions, the employee contributions are subject to an earnings ceiling—Skr267,000 or about US$40,000 for 1995. Sweden plans to raise the relative reliance on employee contributions until they reach 50 percent of total contributions by the year 2000. These changes will make the average total contribution rates decline sharply with higher earnings, unlike the uniform pattern shown for Sweden in table 2.[52]

In explaining its sweeping tax reforms of 1991, the Swedish Ministry of Finance expressed the view:

> The links between social security contributions and social security benefits have gradually weakened. For example, pensioners having no earned social security benefits obtain other types of supplementary benefits. According to rough calculations, 22.2 percentage points of the full contributions of 38.97 per cent constitute a tax in an economic sense, i.e. they do not entitle the beneficiary to any benefits.[53]

In contrast, the OECD statistics for Sweden in 1991 counted only a small part of total levies on payrolls (3.0 percent of taxes) as payroll taxes and a much larger portion (27.6 percent of taxes) as social security contributions; by 1993 the share of all taxes classified as payroll taxes had declined further to just 0.4 percent.[54] About two-thirds of the revenues from Swedish social security contributions go into funds with specified purposes, while the rest goes into general revenues. Hence, even by the OECD criterion of earmarking, the classification of the Swedish payroll-type levies seems anomalous.

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[52] See footnote h to table 2.

[53] Sweden, Ministry of Finance, *The Swedish Tax Reform of 1991* (Stockholm: Norstedts Tryckeri, 1991), 24. Swedish social security contributions are also described as "perceived as primarily to finance government expenditure" rather than "perceived as primarily insurance" by Ken Messere, "Taxation in Ten Industrialized Countries Over the Last Decade: An Overview" (August 21, 1995), 11 *Tax Notes International* 512-35, at 523, table 8.

[54] The OECD details the types of levies classified as social insurance contributions versus taxes on payroll and work force for Sweden. In 1993 the only levies classified as payroll taxes were fees for child care, adult education, and labour welfare. The OECD further refers to a Swedish payroll tax that existed from 1969 to 1979. See supra footnote 16, at 140 and 35.

United Kingdom

Several variants of payroll tax have been used in the United Kingdom over the years. A "selective employment tax" (SET) was implemented by the Labour government in 1966.[55] The SET in effect covered employers in the "service trades" and construction, accounting for about one-third of all employees. In practice it was collected from employers in all sectors, with the sums collected from employers in the tax-exempt sectors refunded (with a small premium for employers in the manufacturing industries, intended to subsidize their employment). Rather than applying a percentage rate, the SET was levied at lump-sum amounts per worker, varying over three groups—men, women and boys under age 18, and girls under age 18. At its highest level, SET amounted to about 10 percent of wages in the service trades. Motivations for the SET were varied:

1) to improve economic growth by shifting labour from service industries to manufacturing, where productivity growth was deemed to be higher;

2) to alleviate balance of payments deficits by stimulating export industries;

3) to raise revenues in a politically palatable manner; and

4) to remedy the tax imbalance on services, including distribution, which had previously been lightly taxed relative to the excise duties and purchase tax (applied at wholesale level) on manufactured products.

SET was abolished when a VAT replaced the purchase tax in 1972.

A surcharge to employers' national insurance contributions (NIC) was introduced in 1977 and varied until abolished in 1985; this acted as a form of general payroll tax.[56] Following the Social Security Act 1986 and to the present, the ceilings were removed from employers' national insurance contributions. The official justification for this change was given in a 1985 green paper as follows:

> [T]here is no good reason for aligning exactly the bands of earnings on which employers' and employees' contributions are levied. It is right that employers as a group should share with their employees the need to provide for the payment of contributory benefits. . . . But the purpose of the employers' contribution is simply to raise revenue for the National Insurance Fund. No benefit rights hinge on it, and its structure is therefore best considered in relation to its effect on employment.[57]

Ceilings remained on the employees' NIC payments, but removal of the employer ceilings reportedly led to "an avalanche of schemes designed

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[55] For description and analysis of the SET, see Nicholas Kaldor, *Reports on Taxation*, vol. 1 (London: Duckworth, 1980), chapter 6, "The Economics of the Selective Employment Tax," 200-29. (Kaldor was the "principal originator of this tax" (ibid., at 201).)

[56] Naming this unearmarked payroll tax a "national insurance surcharge" has been described as an example of "newspeak . . . to sweeten the introduction of a potentially unpopular new tax by misnaming it." Messere, supra footnote 1, at 112.

[57] United Kingdom, Secretary of State for Social Services, *Reform of Social Security*, vol. 1, Cmnd. 9517 (London: Her Majesty's Stationery Office, 1985), 40-41.

to save contributions" that required regulatory changes to foreclose.[58] More recent analysts have opined "In the UK, despite the continued assertion that we have a contributory system, the link between National Insurance contributions . . . and benefit entitlements is complex and weak."[59] In particular, NIC levies on the self-employed appear as a general payroll tax rather than a social security contribution, based on the following assessment:

> Class 4 contributions, being entirely unrelated to benefit entitlement, are the closest we come in the UK to a social security tax, for, somewhat brazenly, the legislation states that "*all* the provisions of the Income Tax Acts . . . apply in relation to Class 4 contributions *as if* they were income tax."[60]

United States

The United States applies payroll taxes at both the federal and state levels. Unemployment insurance is primarily a set of state-run programs, financed by payroll taxes on employers that vary by state, industry, and firm through experience-rating systems. However, the state taxes are underpinned by mandatory federal employer levies of 6.2 percent of each worker's pay up to US$7,000.[61] From this contribution, each employer can claim a credit against the federal tax of up to 5.4 percent of the covered pay for the state levies, so that only 0.8 percent of covered wages is actually paid to the federal government. Each state also has its own workers' compensation program, with payroll taxes on employers that vary by occupational risk, or else mandatory coverage under an insurance scheme. The primary federal program of "social security" covers retirement, survivors, and disability benefits. It is financed by benefit-linked payroll taxes of 6.2 percent on both the employer and the employee, with a maximum insurable earnings level of US$61,200 per worker in 1995. An ancillary program of Medicare (Part A) covers hospital benefits for the elderly and disabled. It is financed by payroll taxes of 1.45 percent on both employers and employees without any insurable ceiling, so that it acts as a kind of general payroll tax.

Revised Classification of Payroll Taxes

My review of the selected countries has focused on those with general payroll taxes or with social security contributions applied without earnings ceilings. Several cases have shown the weaknesses in the OECD concepts and methods for classifying levies as between the categories of social security contributions and payroll taxes. Serious anomalies were

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[58] David Skinner and Mark Robson, "National Insurance Contributions: Anomalies and Reforms" (1992), vol. 13, no. 3 *Fiscal Studies* 112-25, at 117.

[59] Andrew Dilnot and Steven Webb, "A Practical Framework for the Analysis of Social Security Reform" (1991), vol. 12, no. 2 *Fiscal Studies* 33-55, at 44.

[60] Skinner and Robson, supra footnote 58, at 116.

[61] Table 2 does not include the federal or state payroll taxes for unemployment insurance in the United States.

found for Canada, New Zealand, and Sweden, but questions have also been raised for countries that collect social security contributions without any ceilings on earnings or that pay benefits to those who have not paid contributions. An economically meaningful distinction between general payroll taxes and those levies on employers, employees, or both, to finance social security programs must relate to a tax-benefit linkage as well as to true earmarking of revenues to the specified program.

OECD officials have acknowledged the difficulties in classifying levies as between social security contributions and other types of payroll taxes:

> The OECD does not decide which taxes are to be classified where, it merely provides the framework of rules and asks countries to apply them. . . . There is either no or very little link between employers' social security contributions and the benefits received by employees in most countries, which makes them in effect payroll taxes. Often these contributions are paid to funds which, although in theory are "National Insurance Funds," are in fact often topped-up with contributions from general tax revenues. Hence they are "earmarked" in the sense that they do not go directly into the principal government account, but in practice are simply taxes under another name.[62]

The OECD classification 3000 for payroll taxes has become an almost meaningless one, accounting for less than 1 percent of all taxes in member countries in 1993. Given the choice, countries will have a strong inclination to classify their employer and employee levies as social security contributions rather than payroll taxes.

Another aspect of the OECD distinction between social security contributions and payroll taxes hinges on whether the revenues are used for social security or "social welfare" benefits. The latter means that "there is normally no connection between the payment of the contribution and the entitlement to the benefits."[63] However, my examination of the actual provisions of selected countries indicates that there are often provisions of social security programs where benefits paid have little or no relationship to contributions paid, and still the levies have been classified as social security contributions. The collection of premiums without a ceiling on earnings while benefits are subject to ceilings is a common practice.

In view of the conceptual and practical problems of consistently collecting and reporting statistics for many countries, a revision of the revenue classifications would be desirable. An approach that was advanced but rejected when the OECD revenue classifications were first being drawn up would be a major advance.[64] It would merge the two existing categories for social security contributions (2000) and payroll taxes (3000), as follows:

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[62] Correspondence from Mark Pearson, Directorate for Financial, Fiscal and Enterprise Affairs, OECD, November 10, 1993.

[63] Supra footnote 16, at 34.

[64] This proposal was offered by Ken Messere, who was responsible for the original classification scheme. He reports that it was rejected because several countries preferred "to regard social security contributions as something other than taxes." Correspondence dated December 8, 1993.

2000 Taxes on payroll or work force
    2100 Earmarked for social security contributions
        2110 Paid by employers
        2120 Paid by employees
        2130 Other
    2200 Unearmarked for social security contributions

This scheme would combine all types of payroll taxes into a single category, which would improve the reliability of cross-country comparisons. Distinctions between the proposed categories 2100 and 2200 might also hinge upon the presence of tax-benefit linkage, so that levies without a strong benefit linkage would fall under 2200 even if they were imposed for a social security purpose. Then category 2200 would approximate the concept of general payroll taxes. At the least, any uncertainties in classification would fall between 2100 and 2200 and would still be counted under the broader class 2000 for payroll-type taxes.

Tax Treatment of Payroll Taxes

Payroll-type levies, whether imposed for social security or general revenue purposes, are themselves subject to choices about treatment under corporate and personal income taxes. They may or may not be afforded tax deductibility depending upon their type, the country, and whether they are paid by employers or employees. If employer and employee levies are treated differentially, then the split of total taxes between these two groups can affect the net incidence of the tax and the net revenues to government. Little systematic cross-country evidence is available for the tax treatment of general payroll taxes. For two countries with large employer payroll taxes, Australia and Canada, the payments are fully deductible in the firms' company taxes. Indeed, a major reason for four Canadian provinces' imposition of such taxes is their ability to shift some burden to the federal government via deductibility in the federal corporate income tax.[65]

Descriptions of the tax treatment of social security contributions are available for the 20 countries of Europe and North America included in table 2.[66] In all cases the amounts paid by employers are fully deductible in computing their taxable income (whether they are incorporated or not), and these payments are not deemed taxable income to the employees. Employee contributions are also fully tax deductible in 13 of these countries.[67] The employee contributions are not tax deductible in Finland (except

[65] See Kesselman, supra footnote 13, at 192-97.

[66] These descriptions, other than for Canada, are drawn from Watson Wyatt *1995 Benefits Report*, supra footnote 8.

[67] This count includes Germany, with employee contributions that Watson Wyatt describes as "largely paid from before-tax income and are therefore practically tax deductible." Ibid., at 127.

for the unemployment contributions), Ireland, the Netherlands, Norway, the United Kingdom, and the United States.[68] Canada has a unique system for employee contributions of non-refundable credits at a rate equal to the bottom-bracket marginal rate of personal income tax. This method replaced full tax deductibility, which prevailed prior to the 1988 tax reforms; the change was justified on the grounds of vertical equity and the poor linkage between an individual's social security contributions and future benefits.[69]

CONCLUSION

Payroll taxes are used extensively around the world both for social security finance and for general revenue purposes. In practice, the distinctions between these purposes are often blurred on account of the poor linkage between contributions and benefits in social security programs and the lack of earnings ceilings in the payroll taxes of many countries. Further, the notion of earmarking revenues from payroll taxes to social security programs is often compromised by the supplementary use of general tax revenues. Payroll taxes in practice are used far more for general revenue purposes than is conveyed in the standard statistical reports. Hence, the criteria used by the OECD in classifying levies as either "social security contributions" or "taxes on payroll and workforce" have limited economic content or policy significance. More useful would be an amalgamated measure of all such taxes on payroll, regardless of their purpose, and a more careful differentiation between those payroll taxes with and without a strong tax-benefit linkage. Improving the measurement and reporting of all payroll taxes might also help to focus attention on the substantive issues of economic and social policy.

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[68] In the United States self-employed persons pay a "self-employment tax" equal to the total of the employer and employee contributions for social security, and they can deduct half of this amount from their income tax. This is equivalent to the deductibility of the employer share only, since the employee and employer shares are equal.

[69] These reasons can be inferred from the official Canadian tax expenditure accounts of 1979, 1980, and 1985. See Jonathan R. Kesselman, "Direct Expenditures Versus Tax Expenditures for Economic and Social Policy," in Neil Bruce, ed., *Tax Expenditures and Government Policy* (Kingston, Ont.: Queen's University, John Deutsch Institute for the Study of Economic Policy, 1988), 283-323, at 302-3; and A. Pierre Cloutier and Bernard Fortin, "Converting Exemptions and Deductions into Credits: An Economic Assessment," in Jack Mintz and John Whalley, eds., *The Economic Impacts of Tax Reform*, Canadian Tax Paper no. 84 (Toronto: Canadian Tax Foundation, 1989), 45-73.