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Pension Schemes for the Self-Employed in OECD Countries

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SUMMARY

The self-employed workers make up a small but significant minority of the workforce in many OECD countries. Moreover, transitions into and out of self-employment have become much more common for a larger group of workers. It is therefore of critical importance to review and assess the pension schemes available to self-employed workers across OECD countries. Given employment and income patterns commonly observed for this subgroup, it is also important to address the issue of compliance and enforcement towards a formal affiliation of this group to pension schemes on offer. This paper reviews three key aspects of pension schemes available to self-employed workers: coverage, contributions and benefits. In each part, analyses are undertaken not just by describing the rules governing these schemes but also looking into their actual functioning in terms of compliance and enforcement.

Key findings include the fact that the self-employed are covered by the same pension schemes as those of employees in the majority of countries. One important difference is that, while employees share the contribution burden with their employers, the self-employed workers in most cases pay the full pension contribution from their own income. The rules for pension entitlements, on the other hand, are usually almost identical to those that apply to employees. One key conclusion emerging from this paper is that the pension provision for the self-employed is a matter of practical implementation of existing schemes rather than overhauling pension rules for these schemes. Low coverage is a common problem for this group in some OECD countries, as they belong to the informal sector and their incomes are hard to identify. Contribution evasion or under-reporting of income by the self-employed is prevalent even in some countries with high per capita income. This has implications as these self-employed workers will have lower levels of pension incomes at retirement. In some cases, low contributions coupled with relatively generous pension rights also raise an issue of equity in the provision of pensions for the self-employed and employees.

RESUMÉ

Dans beaucoup de pays de l'OCDE, les travailleurs indépendants constituent, au sein de la population active, une minorité faible par la taille mais d'importance significative. En outre, pour un nombre accru de travailleurs, le passage au statut d'indépendant et l'abandon de ce statut est un processus bien plus courant aujourd'hui. En conséquence, il est crucial d'examiner et évaluer les régimes de pension qui sont à la disposition des travailleurs indépendants dans les différents pays de l'OCDE. Compte tenu de la structure de l'emploi et de celle du revenu généralement observées au sein de cette population, il importe également de s'intéresser au respect de l'obligation d'affiliation formelle de ces travailleurs aux régimes de pension qui leur sont proposés et aux moyens de les y contraindre. Ce document examine trois aspects clés des régimes de pension auxquels les travailleurs indépendants peuvent s'affilier: couverture, cotisations et prestations. Dans chaque partie, les analyses proposées ne se contentent pas de décrire les règles régissant ces dispositifs, mais portent aussi sur leur fonctionnement concret du point de vue du respect de l'obligation d'affiliation et des instruments de coercition.

Les principales observations englobent le fait que, dans la majorité des pays, les travailleurs indépendants sont couverts par les mêmes régimes de retraite que les salariés, à ceci près, et la différence est de taille, que si les salariés partagent le poids des cotisations avec leurs employeurs, les travailleurs indépendants payent dans la plupart des cas les deux parts sur leur propre revenu. Par ailleurs, les règles régissant les droits à pension des indépendants sont généralement presque identiques à celles s'appliquant aux salariés. Une conclusion essentielle se dégage de ce document : en matière de retraite, la question qui se pose pour les travailleurs indépendants concerne l'application pratique des dispositifs existants et non la remise à plat des règles. Dans quelques pays de l'OCDE, les indépendants se heurtent à un même problème, celui du faible niveau de couverture, car cette catégorie de travailleurs relève du secteur informel, et ses revenus sont difficiles à cerner. La fraude fiscale et la sous-déclaration des revenus sont très répandues chez les travailleurs indépendants, même dans des pays où le revenu par habitant est élevé. Ce phénomène n'est pas sans conséquence car au moment de la retraite, le niveau de revenu que procurera à ces travailleurs leur pension sera plus modeste. Dans certains cas, le faible niveau des cotisations conjugué à la générosité des droits à pension soulève aussi un problème d'équité dans le financement des pensions des travailleurs indépendants et des salariés.

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PENSION SCHEMES FOR THE SELF-EMPLOYED IN OECD COUNTRIES

1. INTRODUCTION

- 1. Pension schemes were originally set up to offset social risks of dependent workers followed by the industrial revolution. The systems were largely developed on the basis of what had existed for industrial workers rather than the self-employed who were thought to be able to provide for their own social protection. After World War II, coverage of pension schemes was extended further. In most countries, regardless of the type of pension system adopted, the self-employed are nowadays entitled to pension benefits. But the self-employed differ from the group of employees in several respects. Most notably, their incomes are less stable and personal incomes are often difficult to distinguish from revenues necessary to keep the business running. Therefore, many countries have decided to treat the self-employed differently from the employees in the provision of retirement income. In some countries, self-employed persons are integrated in the employees' scheme which provides more or less the same level of benefits for both groups. In others they are covered by separate schemes with different methods of benefit calculation.
- 2. The lack of studies in this area reflects the generally low attention to pension schemes for the self-employed. Academics and policy-makers are more preoccupied with issues related to pension schemes for the much larger population of employees. In addition, concerns related to low contribution compliance and difficulty of measuring actual incomes of the self-employed are not apparent in many OECD countries. An often-held opinion is that the business assets of the self-employed constitute the best source of retirement income for the self-employed. It is, however, worth looking into this issue, because, in a few countries, especially those with low per-capita income, old-age income security for this group is still a major policy concern. In addition, higher incidence of in-work poverty within the self-employed, and the growing briefness and low-paid income of many new forms of self-employed jobs provoke concerns for their income security after retirement. Furthermore, to boost labour market integration of the young unemployed and also older workers, many countries have introduced policies to encourage self-employment (OECD, 2000).
- 3. The self-employed make up a substantial minority of the workforce in many OECD countries (OECD, 2007). In 2005, the total self-employment rates ranged from under 8% in Luxembourg, Norway and the United States to over one third in Korea, Mexico, Greece and Turkey. On average, nearly 17% of total civilian employment is in self-employment in 2005. Over the period from the early 1990s, self-employment rates have been falling in most countries although there have been small increases in Sweden and Germany and much larger increases in the Czech Republic and Slovak Republic. Generally, self-employment rates are highest in countries with low capita income although Italy, with a self-employment rate of 27%, is an exceptional case with Ireland and Spain. 1

^{1.} More detailed information about the self-employed is provided in the Annex 1.

4. Reviewing the pension systems for the self-employed – how are they treated under different schemes and what happens to them in reality – is no easy matter because of the great variety of systems within OECD countries and limited data and analyses on this issue. In this paper, the topic will be approached based on three key aspects of pension schemes: pension coverage, pension contributions and pension benefits. In each session, the rules and the actual functioning of the systems in practice will be dealt with distinctively. Finally, some general reform trends in selected OECD countries will be reviewed. Summary charts of the employees' schemes and the self-employed' schemes in individual OECD countries are provided in the Annex 3.

2. PENSION COVERAGE FOR THE SELF-EMPLOYED

5. There is a wide range of approaches to pension provision for the self-employed in OECD countries. These can be categorised into four different types.

2.1. Rules for pension coverage

- 6. First, some countries have pension schemes that are based on the principle of national insurance. These schemes cover the whole population in the same way without considering the employment status (Type 1: Basic pension with or without distinctive supplementary pensions of the self-employed). To supplement this generally basic pension, most countries have complementary pension schemes which are earnings-related and financed by contributions. The participation of the self-employed in these latter schemes can be voluntary or compulsory. In Ireland and New Zealand, where there are only basic pension schemes, complementary schemes are voluntary. Australia, Japan, the Netherlands and the United Kingdom grant basic pensions to the self-employed, but do not require compulsory participation of self-employed in the second tier earnings-related scheme (although participation in these schemes for employees is mandatory in Australia and quasi-mandatory in the Netherlands). Other countries such as Canada, Finland, Iceland, Norway and Sweden have mandatory earnings-related schemes for the self-employed.
- 7. The second group of countries has an earnings-related pension scheme which is financed by contributions, and covers both salaried employees and the self-employed within the same scheme (Type 2: Earnings-related pensions with no distinction for the self-employed). Countries in this group are Austria, the Czech Republic, Hungary, Korea, Portugal, Slovak Republic, Switzerland, Turkey and the United States. In many cases, small amounts of earnings-related pensions for low-income groups whether they are self-employed or employees are topped up by a minimum pension guarantee. In Hungary, for example, HUF 20 100 per month (equivalent to around 45% of average earnings) is provided as a minimum pension to pensioners who have contributed for at least 20 years. In Switzerland, which has both public earnings-related schemes and mandatory occupational pension schemes, the self-employed are required to join the earnings-related scheme, but may participate in the occupational pension scheme voluntarily.
- 8. A third group of countries has special separate schemes for the self-employed as a whole or for individual groups of self-employed (Type 3: Separate pensions for the self-employed). This is the case in Belgium, France, Germany, Greece, Italy, Luxembourg, Poland and Spain. Often, farmers are covered by separate schemes which are not part of the overall scheme for the self-employed. In Poland, for example, all non-agricultural self-employed are incorporated into the general scheme for the salaried workers but

farmers have separate arrangements. Even though the self-employed have separate pension schemes, the same rules apply to dependent employees and the self-employed in Luxembourg and Spain.

- 9. Mexico is the only OECD country where there is no obligation for the self-employed to join any pension scheme (Type 4: No mandatory pensions for the self-employed). Participation of the self-employed and informal sector workers is voluntary. Since this group makes up a large share of the Mexican work force, the newly introduced funded scheme covered only one-third of Mexico's workforce in 1999. In Hungary, although farmers can join on a voluntary basis, it should be noted that they are excluded from the mandatory pension system.
- 10. The pension scheme for self-employed in Germany is worth a special mention. Coverage of German pension systems has been extended, but there is no general, universal coverage of the whole population. Part of the self-employed are completely excluded from collective pension schemes and thus have to rely exclusively on private provision. A special private pension product was recently introduced targeted specifically to this group ("Rürup-Rente"). German self-employed persons are affiliated to different pension schemes depending on their professions. Craftsmen and journalists are assimilated with salaried workers and come under a pension insurance fund for employees. The self-employed who are members of professional chambers such as doctors, lawyers and architects have to join the pension schemes of the respective chamber. These schemes are run by decentralised private institutions. Other self-employed persons such as retailers may resort to voluntary insurance.
- 11. Pension coverage of the self-employed in individual OECD countries is shown in Table 1. The shaded area in Table 1 shows a mandatory pension scheme for the self-employed. For example, in Australia, the self-employed join the **shaded** Targeted pension mandatorily, but there is no obligation for them to join the **non-shaded** Defined contribution pension. Further details about the differences between employees and the self-employed are provided in Annex 3. Overall, the table shows that, in most countries, the difference in pension coverage between employees and the self-employed is not very large. Separate schemes for the self-employed are operated in 11 countries, including Poland which has a separate scheme only for farmers while the other self-employed are integrated into the employees' scheme. Eight countries exclude the self-employed from all or part of their public or mandatory occupational pension schemes. In most countries, the self-employed are allowed to join or benefit from at least the primary basic or targeted pension scheme. The impact of this difference in coverage on the pension level varies depending on the weight of the basic or targeted pension in the overall pension entitlements.

Table 1. Pension coverage for the self-employedDifference between employees and the self-employed

Country	Coverage of the self-employed				Туре				
Australia		Targeted Defined contribution (superannuation)			1				
Austria						ings-related			2
Belgium				Ea	arnings-r	elated (sepa	rate)		3
Canada		В	asic				Earı	nings-related	1
Czech Republic		В	asic					nings-related	1
Denmark	Basic	Targeted	contri		(ATP)	Define contribution	n (SP)	Occupational	1
Finland	Та	geted				emplo	yed (YE		1
France		gs-related parate)	М	andate	ory occu	pational for f (CNAVPL		and other self-employed etc.)	3
Germany	,		_	•	(doctors	s, lawyers, et	ic)	r self-employed	3
Greece	Ea	rnings-relat	ed (sep a	arate)				er self-employed (OGA)	3
Hungary		Earnings-re	ated		Defined	contribution	(volunta	ary membership for farmers)	2
Iceland		Basic	c Mandatory occupational			1			
Ireland		Basic			1				
Italy	Earnings-related (separate)			3					
Japan			Basic					Earnings-related	1
Korea						ings-related			2
Luxembourg			•	ed (se	parate)	for farmers a		r self-employed	3
Mexico		Minin						unded	4
Netherlands		Bas	ic				Осс	upational	1
New Zealand						Basic			1
Norway		Bas					Earnii	ngs-related	1
Poland	Earn	ings-related farmers		ite foi			contribu	tion (not for farmers)	2
Portugal					Earn	ings-related			2
Slovak Republic					Earn	ings-related			2
Spain		Earnin	gs-relate	ed (se	parate)	for farmers a	ind othe	r self-employed	3
Sweden	Targete	ed Earnin	gs relate	d	Defined	contribution	Qua	si-mandatory Occupational	1
Switzerland		argeted	E	arning	gs-relate	d	Mano	datory occupational	1
Turkey					Earn	ings-related			2
United Kingdom		Basic			Targete	ed		Earnings-related	1
United States					Earn	ings-related			2

Note: 1. The shaded area means a covered (mandatory participation) pension scheme for the self-employed.

Sources: EC (2004 and 2006) and various national sources.

2.2. Coverage in practice: Participation by the self-employed

There is only very limited evidence on the actual participation of the self-employed in pension schemes. Amongst OECD countries, data on evasion by self-employed persons is available in only a few cases. For example, in Japan where the basic pension system covers the entire population, non-registered and unpaid persons account for 17.2% of the expected members of the "number 1 category" group. This group mostly consists of the self-employed and farmers with small numbers of unemployed persons and students. More than 3 million self-employed persons are in arrears with respect to their contribution payments. As a result, the payment rate of contributions for the basic pension (ratio of the contributions that are due and actually paid, except for exempted contributions) was 62.8% for the 2002 fiscal year. The corresponding figure for the employees' scheme was 97.6% in 2001 (Japan MHLW, 2005).

^{2. &}quot;Type" shows a corresponding pension type among 4 types which are described above.

- 13. In Korea where there is only one pension scheme which covers both salaried workers and the self-employed, the regionally insured group which mostly consists of the self-employed, farmers, unemployed and students, accounts for more than half (55.1%) of all insured persons in 2004. Among them, 49.8% (4.7 million people) are formally exempted from paying contributions. Insured persons who cannot pay contributions or have difficulties in paying because they have no, or only a very low, income are exempted from contributions rather than losing the insured status. However, one study (Kim and Kang, 2004) estimates that around 20% of this exempt group are suspected of having capacity to pay contributions. Nearly 50% of persons in arrears are also thought to have enough income to pay their delayed pension contributions. Some people in this category even join private pension schemes.
- 14. As mentioned above, participation of the self-employed in the funded pension scheme in Mexico works on a voluntary basis. One statistic shows that in 2001, 64% of the labour force⁴ excluding civil servants and oil workers were affiliated in the pension scheme (Mesa-Lago, 2002). Even though detailed classification of the non-participants is not available, this figure nearly coincides with 37% of self-employment rates to total civilian employment in that year (OECD, 2007). Generally, in Latin America, coverage of self-employed workers is much lower than that of salaried workers. Making coverage mandatory is not necessarily the appropriate solution, because of the low capacity of many self-employed to contribute and the existence of serious obstacles for enforcement. In Mexico, like other Latin American countries, the self-employed are the main component of the informal sector.

Box 1. Pension schemes for farmers

Farmers in many OECD countries obtain special treatment in the old-age pension system. First, pension provision for farmers is sometimes separate from that for the rest of society, including other self-employed. Austria, Finland, France, Germany, Greece, Poland and Spain have set up separate pension schemes for farmers.

In general, this fragmentation is accompanied by concessions in contributions and internal government transfers to fund the benefits (OECD, 2005 a). Korean farmers (also including fishermen) receive government subsidies for their contributions, the amount of which depends on the individual's income level. In Austria, Finland and Germany, government provides a substantial amount of financial aid, equivalent to nearly three-quarters of total pension expenditure, to the farmers' pension scheme (Mairhuber, 2003 and EC, 2004). In France, farmers' own social security contributions pay for only 18% of the total expenses of their social security system, with the remaining balance financed by government. While farmers account for only 3.8% of the total population, estimates of the pension fund balance show that, in 2040, the farmers' pension fund deficit will reach 2% of GDP which is equivalent to that of the scheme for private-sector employees (France, 2003).

The Polish special farmer's pension system (KRUS) which was set up towards the end of the 1970s shows the most extreme situation (Poland, 2004). Farmers pay substantially lower contributions than employees but are offered comparable pension benefits. Their contributions are less than one-third of the contributions that would be paid by a minimum wage earner in the general system (ZUS). As a result, Polish government subsidies cover more than 95% of the total pension expenditure for farmers. In 2002, all KRUS spending amounted to 2.1% of GDP.

^{2.} Identical contribution rates and benefits calculation formula are applied to both the workplace-based group – mainly employees - and the regionally insured group – mainly the self-employed. Main difference is that while employees share the burden of paying contributions with employers, the self-employed within the regionally insured group should pay all the contributions themselves.

^{3.} Although the period of exception of contributions payment is not regarded as insured period which is a basis of calculation of benefits, insured persons may increase their insured period by paying postponed contributions later.

^{4.} The compliance rate among these affiliates is much lower. Only 28% of the labour force, or 45% of pension affiliates are active contributors (Mesa-Lago, 2002).

15. In Turkey, which has the highest incidence of self-employment amongst OECD countries, approximately one-quarter of the working age population, or around half the labour force, pay social security contributions (Turkey, 2006). Given that those benefiting from the generous pension schemes are generally formal-sector salaried workers, it is estimated that a substantial number of the self-employed are not covered by the public pension system. For example, although participation in the self-employed pension scheme is supposedly mandatory, 91% of farmers do not participate. Furthermore the level of the anti-poverty means-tested pension is extremely low: estimated at 6% of average earnings in 2002 (OECD, 2005b). In addition, it has very strict eligibility criteria, including the absence of someone responsible for the elderly person's care. This further emphasises the seriousness of the coverage problem amongst the self-employed and that other measures to improve the weak coverage have been insufficient.

3. PENSION CONTRIBUTIONS BY THE SELF-EMPLOYED

16. The contribution rates for the self-employed are, in the majority of cases, identical to those of employees. Reflecting the difficulty of measuring the real income level of the self-employed, however, different methods of calculating the contribution base are used. Under-reporting of income by the self-employed is acknowledged in many countries and this has implications for the actual pension contributions made by the self-employed.

3.1. Contributions as a rule

- While contributions for employees are shared between workers and employers, in most cases, the self-employed have to pay the full pension contribution by themselves. This does obviously not apply to purely tax-financed basic pensions for the self-employed, such as those in Australia and New Zealand. As Table 2 shows, there are only two countries in which the self-employed pay only part of the pension contributions: Austria and Luxembourg. Among the 21 OECD countries which have comparative data for contribution rates of employees and the self-employed, on average, employees pay 7.6 percentage points out of the total contribution rate of 20.3%. The self-employed, however, contribute 18.2% out of total 18.8% (Table 2). In most countries, no significant difference of total contribution rates between both groups is reported. The average contribution rate gap of 2.4% (employee 19.1% and the self-employed 16.7%) is largely due to the large differences between the two groups in Italy and Mexico. The Netherlands has very narrow contribution gap between both groups.
- 18. Some countries apply special treatment to pension scheme financing of the self-employed. In such special schemes, the self-employed do not pay the whole sum of employer and employee contributions. For example, in Austria, salaried workers pay contributions of 10.25% out of a total of 22.8% (12.55% by employer), but farmers and other self-employed persons pay 15% and 17.5%, respectively. The remaining part of 7.8% and 5.3% are called "partner co-payment" and financed by general revenue (Republic of Austria, 2005). As a result, in 2001, the proportion of the tax-based finance made up about 41% for the scheme of the self-employed in trade and business, and reached 74% for the farmers' scheme (Mairhuber, 2003). The financial support of the government for employees' scheme amounted to only 15% of total financing. This higher subsidy for these schemes is justified by the fact that employees, unlike the self-employed, benefit from government payments for periods of unemployment, sickness and child-care and also the self-employed pay additional trade tax.

- 19. In Finland, the contributions for self-employed persons and farmers are fixed annually by the government. In 2004, the rate was 21.4% of declared earnings. However, farmers are entitled to a contribution reduction, which depends on the insured pensionable earnings. As farmers' earnings are generally low, the level of their average contribution is lower: on average 10.5% of declared earnings in 2004 (SSA, 2004). In Luxembourg, of the total 24% of contributions for self-employed, the government pays 8% which is equivalent to financial support for the employees from the government. In Poland and Spain, the self-employed farmers are also subject to low contribution rates. There are also other cases of indirect financial support. While the Korean government levies the same level of contribution rates on self-employed farmers as those on employees, at least one-third of the contributions of the lowest income group are paid by the government. The Japanese government also supports one-third of total finance of the basic pension for the self-employed. The Greek government has supported two-thirds of total pension finance for farmers since 1998 (Mylonas and Maisonneuve, 1999).
- Many OECD countries use net professional income of the self-employed (income minus the necessary business expenditures) as the contribution base. In some countries, a different base is used: for example, in the Czech Republic, the contribution rate for the self-employed is 28% of declared earnings, and declared earnings are defined as 50% of the difference between income and expenses. In this case, this calculation base for the self-employed' contribution has to be at least half of the average gross monthly wage in the national economy. As a result, on average, the contribution base amounts to only 30% of that of wage earners in 2004 (The Czech government, 2005). Similarly, in Hungary, the self-employed are required to pay the same rates of contribution, but based on the minimum wage not on income actually earned (Hungary, 2004). Polish self-employed have to pay 19.52% of declared earnings, however a lower threshold for the contribution base applies which is equal to 60% of the calculated average wage in the economy set by the budget law.

5. A flat-rate CZK 4 709 is applied in 2006, if declared earnings for a full-time self-employed person are less than half of 50% of the average monthly wage.

Table 2. Pension contributions rule for the self-employed

Country		Employee	Self-e	mployed
Country	Total	Employee	Total	Self-employed
Australia	9.0	0.0	0.0	0.0
Austria	22.8	10.25	22.8	17.5 (farmer: 15)
Belgium ^a	37.94 (16.36 ^b)	13.07 (7.5 ^b)	19.65 or 14.16 ^c	19.65 or 14.16
Canada	9.9	4.95	9.9	9.9
Czech Republic	28	6.5	28	28
Denmark	16+DKK 2 682	6+DKK 894	1+DKK 894	1+DKK 894
Finland	21.4 ^d	4.6	21.4	21.4 (farmer: 10.5)
France	23.95	9.65	23.05	23.05
Germany	19.5	9.75	19.5	19.5
Greece	20	6.67	20	20
Hungary	26.5	8.5	26.5	26.5
Iceland	15.64	4	15.64	15.64
Ireland		No separate pension	on contribution	
Italy	32.7	8.89	19	19
Japan	13.58	6.79	¥13,300/month	¥13,300/month
Korea	9	4.5	9	9
Luxembourg	24	8	24	16
Mexico	6.275	1.75	0	0
Netherlands	28.05	19.15	27.95	27.95
New Zealand		No pension co	ntribution	
Norway		No separate pension	on contribution	
Poland ^e	32.52	16.26	32.52	32.52 (farmer: PLN 663/year)
Portugal		No separate pension	on contribution	
Slovak Republic	26	7	26	26
Spain		No separate pension	on contribution	
Sweden	18.91	7	18.91	18.91
Switzerland	9.8 + 14-36 ^f	4.9 + 7-18	9.2	9.2
Turkey	20	9	20	20
United Kingdom		No separate pension	on contribution	
United States	12.4	6.2	12.4	12.4
Average*	20.3	7.6	18.8	18.2

Note: aGlobal contributions for sickness, maternity, disability and old-age, etc.

Sources: EC (2004 and 2006), SSA (2004, 2005 and 2006) and various national sources.

21. Some countries give the self-employed the option of choosing between several contribution rates themselves. In the Czech Republic, the self-employed person can determine the level of the assessment base for pension contribution. In Hungary, the pension contribution base is the income which the self-

b Pensions only. 37.94% and 13.07% are for the global contributions.

c 19.65% for earnings between €9,067.99 and 44,289.23, and 14.16% for earnings between €44,289.23 and €65,273.48.

d Average number. According to the number of persons employed, from 16.9% to 24.0%.

e Old-age pension only.

f 9.8% for earnings-related and 14-36% for mandatory occupational according to their age.

^{*}For averaging, Belgium, Denmark, Ireland, Japan, New Zealand, Norway, Portugal, Spain, Switzerland and the United Kingdom are excluded.

employed declare for themselves. In Greece, the self-employed use the presumptive criteria for assessing income and their contributions are calculated according to income classes that are set by the payers themselves (Greece, 2001). In Portugal, the reference income which is the contribution base is chosen by the self-employed person from a range of 1.5 to 12 times the national minimum wage (SSA, 2006). Spanish self-employed are essentially free to choose their covered earnings – the contribution base – between a floor and a ceiling legislated annually (Boldrin and Jiménez-Martín, 2003).

3.2. Contributions in practice: Income reporting

- 22. The issue of pension contributions of the self-employed is closely related with the issue of taxation. In most OECD countries, the tax treatment of the self-employed is the Achilles heel of income taxation. In general, the self-employed face low effective tax rates, as they have more deductions and credits regarding expenses, or under-report income due to self-assessment and weak auditing (Van den Noord and Heady, 2001). The self-employed are responsible for their own income assessment and are a particularly difficult group of contributors to monitor.
- 23. Inequalities between pension contributions for the self-employed and employees are reported in many countries. For instance, in the Czech Republic, due to the lower contribution base together with the self-assessment of the base, the contribution obligation of the self-employed is considerably smaller than that of employees. In 1999, the average assessment base for employees was CZK 14 165, while that of the self-employed was CZK 3 474. Due to high degree of redistribution between different income groups in the pension system, this results in a heavy redistribution from the salaried workers to the self-employed. One of the reasons for pension deficit is the advantageous treatment of the self-employed, whose contributions are continuously falling (Král, 2000). One of the problems is the widespread practice among the self-employed to set the reported income too low, especially when they report their income for the first time. For this reason, the pension contribution amount is lower than that of employee (Tuomine, 1997).
- 24. In Greece, the self-employed receive generous pensions relative to their contributions. It is estimated that while their real contributions are below half of those made by private employees, the difference of the benefit level between both groups is not so large. The self-employed often choose to place themselves in low income contribution classes significantly below the average income of the sector as they can still benefit from the main component of the earnings-related scheme which is broadly equal to pensions corresponding to that of employees (Greece, 2001; Mylonas and Maisonneuve, 1999). This is likely to have contributed to the large share of non-agricultural self-employed in Greece. The same challenge is encountered by the Korean pension system. The self-employed group's reported income on which contributions and benefits are based is only 60% of that of employees. Income under-reporting is a serious problem not only among lower-income groups but also among many high-income groups such as doctors and lawyers.
- 25. In Poland, pension contribution of the self-employed and farmers is not at all or weakly linked to income. Polish law does not allow the Social Insurance Institution ZUS to monitor the actual income of the self-employed. The basis for the contribution is the declared income, and almost all the self-employed declare the minimum level of income (60% of the average wage), which indirectly shows how common income under-reporting is amongst the self-employed (ILO, 2004). According to the Household Budget Survey, the self-employed constitute the socio-economic group that has the lowest incidence of poverty. Thus, actual incomes of the self-employed should be substantially higher than the declared minimum. Portuguese self-employed also pay low pension contributions. They tend to choose the lower contribution

base allowed by the system (i.e. the minimum national wage) in order to minimise pension contributions (Portugal, 2001).⁶

Likewise, in Spain, a large proportion of self-employed workers report earnings equal to the 26. legislated floor (Boldrin and Jiménez-Martín, 2003). This is common until the age of 50; thereafter, there is a sudden increase of reported contribution basis which is due to the way that the final salary enters into the calculation of the pension benefit – the earnings measure for pension benefits is based on pay over the last 15 years. To reduce this behaviour, a different ceiling applies to the self-employed aged 50 and over who had not reported higher earnings in the previous years. While the contribution ceiling for normal selfemployed is 1.9 times the average earnings in manufacturing and services, that for the self-employed who under-report their income before age 50 ceases to be around the average earnings in 2000. In short, the self-employed who falsely report their income before age 50 are not allowed to increase their contributions after 50, due to low contribution ceiling. In 2003, nearly 45% of Spanish, formerly self-employed, pensioners, who represent 25% of all pensioners, had contributed for less than 20 years and 44% of them were receiving a minimum pension. This reflects a minimum pension "purchase" strategy by these workers (Spain, 2005). Because of the existence of a minimum pension, the self-employed reduce their pension wealth if they increase their contribution periods.

Table 3. Estimated pension contributions by the self-employed (2004)

Country		Contrib	ution amoun	t	Self-employed contribution ratio		Self-	Aroo
Country	Employee (A)	Employer (B)	Sub total (C)	Self-employed (D)	Gross (D/C+D)	Adjusted	employment rate	Area
Austria	8802	9314	18116	1675	8.5%	10.0%	12.8%	pension
Canada	17804	17804	35608	2117	5.6%	5.6%	9.5%	pension
Czech	53463	176811	230274	13634	5.6%	5.6%	16.9%	pension
Finland	2525	11449	13974	707	4.8%	4.8%	12.8%	pension
Germany	135280	152530	287810	25380	8.1%	13.5%	12.1%	SSC
Italy	31547	120688	152235	20847	12.0%	18.3%	28.4%	SSC
Luxembourg	1272	1292	2564	331	11.4%	13.2%	6.7%	SSC
Norway	55415	98762	154177	9514	5.8%	11.4%	7.4%	SSC
Portugal	4463	10288	14751	542	3.5%	4.8%	26%	SSC
Slovak	38395	114631	153026	8362	5.2%	5.5%	12%	SSC
Spain	16053	71983	88036	9049	9.3%	11.8%	18.1%	SSC
Turkey	11258	14402	25660	6484	20.2%	31.8%	49.2%	SSC
US	346423	397280	743703	39459	5.0%	7.5%	7.6%	SSC
Average					8.1%	11.1%	16.1%	

Note: 1. Unit for contribution amount is euro or currency of individual country.

4. "SSC" means social security contributions.

Source: OECD (2006 and 2007).

27. Among 13 OECD countries, on average, while the self-employment rate is 16.1% of total civilian employment, their pension or social security contributions account for 11.1% of total pension or social security contributions (Table 3). Rather big differences between the self-employment rate and the self-

^{2.} Adjustment is made considering the difference of contribution rates between employees and the self-employed.

^{3.} Contributions of unemployed are included in those of the self-employed.

^{6.} While the employer's and employee's combined social security contribution rate for a skilled worker is around 34%, the self-employed normally contribute the equivalent of 16% of the gross salary of an average production worker (Portugal, 2001).

employed' contribution burden are shown in many countries except Austria, Germany and the United States. In the Czech Republic, the self-employed labour force, 16.9% of total civilian employment pays only 5.6% of total pension contributions. This difference can be explained by various factors, even though some more in-depth analysis is needed. It could testify the widespread contribution evasion among the self-employed. Otherwise, it could reflect that the self-employed may truly have a lower contribution base, even though the same contribution rate as that of employees is applied. If the actual income level of the self-employed is lower than that of employees, their total contribution could take small portion in total contributions. Nevertheless, the large difference between the share of the self-employed in the labour force and their contribution to pension and social security financing may indicate that the self-employed pay less than their real capacity to pay would allow.

4. PENSION BENEFITS OF THE SELF-EMPLOYED

28. It is hard to find any significant difference in benefit levels between employees and the self-employed when looking at the rules of the pension systems. But how do the pension systems for the self-employed work in reality? In many countries, it is widely acknowledged that it is quite difficult for the national authorities to detect the exact income level of the self-employed. This presents a major obstacle to designing adequate retirement protection as well as reaching wide-spread pension coverage for the self-employed.

4.1 Benefits as a rule

- With some exceptions, the method of benefit calculation for the self-employed does not differ much from that of wage earners. As Table 4 shows, there are very few countries which apply different rules of benefit calculation. Belgium is the only country with a distinctively different pension formula for the self-employed and employees. In Belgium, where there are three different pension schemes for employees, the self-employed and civil servants, different ways of calculating a pension are used for each group. The minimum pension for the self-employed was far below the poverty threshold (60% of the equivalised median income) in 2001, while that of employees, covering all earnings levels, with a full career was at about the same level as the poverty threshold and that of civil servants was above this threshold. To improve the situation of the self-employed, the so-called 1st pillar *bis* was introduced on 1 July 2006. The aim of this pension is to reduce the difference between the pension of employees and that of the self-employed (Belgian government, 2005).
- 30. Three countries Ireland, Poland and Spain apply slightly different rules, such as the exclusion of early retirement pension. In Greece, the earnings base for employees to calculate benefits is the average over the last 5 years before retirement, while that for the self-employed is based on lifetime average earnings. Some countries which have a separate scheme for farmers France, Germany and Poland also have different pension benefit formula for farmers. For example, in France, identical rules are applied to employees and the self-employed in non-agricultural work. But pension schemes for farmers use a different method of calculating benefits which consists of a flat-rate component and a proportional component based on a points system.

Table 4. Estimated pension contributions by the self-employed (2004)

Country	Rule (difference from employees)	Note
Australia	No.	DC: Voluntary
Austria	No.	,
Belgium	Yes. Different ways of calculating benefits for three schemes (employee, the self-employed, civil service)	Low benefits for the self-employed.
Canada	No.	
Czech	No.	
Denmark	No.	ATP: Voluntary
Finland	No.	
France	No (farmer: Yes).	Farmer: A flat-rate maximum pension and a proportional pension.
Germany	No (farmer: Yes).	Farmer: Partial coverage. Benefits are less than half those of employees.
Greece	Yes (Partial difference. Earnings base: the last 5 years salary (employee), lifetime average (the self-employed)).	Farmer: Substantially low benefits.
Hungary	No.	
Iceland	No.	
Ireland	No.	Retirement pension payable from age 65 is not available.
Italy	No (But, difference in contribution rate).	Low benefits for the self-employed (employee: 33% of contribution versus the self-employed: 20% of contribution rate).
Japan	No.	Earnings-related: n/a
Korea	No.	
Luxembourg	No.	
Mexico	Voluntary participation.	
Netherlands	No.	Occupational: n/a
New Zealand	No.	
Norway	No.	Low contribution, but the same benefits.
Poland	No (Partial difference. Farmer: Yes).	Early pension is not available. Farmer: Contributory part plus supplementary part.
Portugal	No.	
Slovak	No.	
Spain	No (partial difference).	Partial retirement is not covered. No pension entitlement before age 65.
Sweden	No.	Occupational: n/a
Switzerland	No.	Occupational: Voluntary
Turkey	No.	
UK	No.	Earnings-related: Voluntary.
US	No.	

Source: EC (2004 and 2006) and various national sources.

31. Figure 1 shows the difference of benefit levels between the self-employed and employees. Instead of replacement rates, relative pension levels which represent the gross individual pension divided by gross economy-wide average earnings are used. This data is based on the assumptions set by OECD

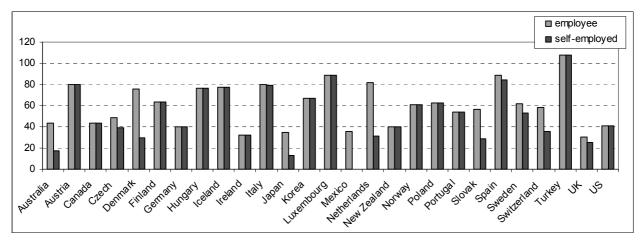
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^{7.} This is to highlight the difference of benefits between two groups. Because replacement rates tend to increase, as the earnings decrease, that indicator does show little the contrast in this case.

pension modelling (OECD, 2007b), with the exception of Italy and Spain. In nearly half of the 27 OECD countries⁸ examined here, no difference between a self-employed person and an employee is reported in terms of average pensions relative to average earnings. So if the wage of salaried workers and the income of the self-employed after expenditure for business are identical, then they both have the same level of pension benefits in these countries.

Figure 1. Difference in benefit levels between the self-employed and employees

Relative pension levels as a percentage of economy-wide average earnings, average earners



Note: 1. The contribution period is 40 years for Italy and 35 years for Spain. 2. The reference year is 2004, but 2003 for Italy and 2000 for Spain.

Source: OECD Pension Model except OECD (2004) for Italy, and Spain (2001) for Spain.

32. Except in Mexico where no compulsory pension scheme for the self-employed exists, the self-employed are covered by some kind of pension scheme, at least by the basic or targeted pension. In countries where employees and self-employed persons have different extents of coverage, actual entitlements depend on the weight of pension scheme from which the self-employed are excluded. As Figure 1 shows, the self-employed could experience reductions of the replacement rate ranging from only a little in Italy and over 60% in the Netherlands, unless they voluntarily join special schemes targeted at the self-employed or save money in private or personal pension plans. There are benefit cuts of over 50% in Australia, Denmark, Japan, Netherlands and Slovak Republic. Countries which have a relatively small difference – less than 20% – in pension entitlements for the self-employed also include the Czech Republic, Italy (nearly identical), Spain, Sweden and the United Kingdom. Switzerland is the only country which provides less than 40% of pension of employees' to the self-employed. On average, among 27 OECD countries, the self-employed receive a pension which is around 18 lower than that of employees (Table A2).

4.2. Benefits in practice and private pension

33. In theory, the difference in pension levels between employees and the self-employed is not very large, but in practice, it could be substantial. In many countries, pension entitlements are closely linked with contributory period and earnings level. As discussed above, under-reporting of income by the self-employed in order to avoid taxes and social security contributions is prevalent in many OECD countries. For instance, in Poland where most self-employed declare their income at the floor level (60% of the average wage), the actual relative pension level of the self-employed – as indicated by relative pension

^{8.} Because of lack of information on the self-employed benefit formulae, Belgium, France and Greece are excluded.

level - is 36.7% rather than theoretical 62.2%. Likewise, because many Spanish self-employed pay contributions only for the minimum period in order to obtain entitlement to the minimum pension, the pension level drops substantially. In countries where the self-employed are allowed to self assess their income for pension or social security contributions, they tend to choose an income level as low as possible. Greece, Poland, Portugal and Spain are such examples. This strategy results in cuts in benefit levels.

- 34. In many OECD countries where there is a defined-benefit scheme with a progressive benefit formula, low pension contributions, but relatively high entitlements for the self-employed will result in redistribution from employees to the supposedly low-income self-employed which in fact often have much higher incomes. A solution to this problem would be to introduce a defined-contribution scheme for the self-employed or to reduce the progressiveness of the benefit formula. An example of this is found in Italy where pension reform has resulted in a much less progressive pension system than in the past. Self-employed persons will experience a much larger cut in the replacement rate than employees. This is mainly due to the lower contributions paid by the self-employed in the new pension system (OECD, 2004). When the Italian self-employed workers retire at 65 with 40 years of contributions and average earnings, their replacement rates will decrease from 79.2% in 2003 to 61.1% in 2030. The numbers for employees are 79.9% in 2003 and 84.4% in 2030 respectively.
- 35. Without actual administrative data for individual countries, it is quite difficult to draw any definite conclusion about the actual pension levels of the self-employed. However, at least for some countries, old-age pensions of the self-employed are lower than those of employees. Pensions of French self-employed persons are fairly low (France, 2001) and the pension level of the Finnish self-employed is lower than that of employees (Tuominen, 1997). Belgium also has low pension provision for the self-employed.

Box 2. Private pension schemes for the self-employed in Ireland and the United States

Ireland: Personal Retirement Savings Account (PRSAs)

This allows adults to contribute to an individual account of their own and benefit from tax relief. The payments through an employer scheme will usually be made once a month. If the payment is done directly by the self-employed, most providers allow very flexible ways: weekly, monthly, quarterly, half-yearly and yearly payments. The insured are free to stop, start and increase their contributions at any time without being charged. They are also allowed to decrease their contributions at any time, as long as they meet the minimum annual contribution levels, if any, set out by the PRSA provider. In each case, the insured are usually required to give the provider advance notice. If the insured do not pay contributions for two years or more and the value of the PRSA fund is € 650 or less, the provider can terminate the PRSA and give the insured a refund of the value of the account.

Source: Consumers' Association of Ireland (2003), Personal Retirement Savings Accounts (PRSAs): A Consumer Guide.

United States: The Keogh Plan

This is similar to individual retirement accounts plan (IRAs) but have higher contribution limits. If a person has net earnings from self-employment, he/she can make contributions. If the person has a net **loss** from self-employment, he/she cannot make a contribution for that year. If the insured does not pay the full contribution timely, there may be interest on any underpayment for the period of the underpayment. For the money purchase pension plan or a defined benefit plan, there is a minimum funding requirement. The contributions required to satisfy the minimum funding requirement for a plan year will be considered timely if made by 8 and a half months after the end of that year.

Source: Internal Revenue Service (2005), Retirement Plans for Small Business.

^{9.} These numbers are from Italian national authorities (OECD, 2004). Different assumptions from the OECD pension modelling are used: 1.8% of annual growth in wages and productivity, 1.4% of annual GDP growth rate, and 2% of inflation rate.

36. One way to supplement the low replacement rate of the self-employed in public pension schemes is to join a private pension scheme which can accommodate fluctuation of income. Very limited evidence is available on this. In Ireland, under the target set by the Irish National Pensions Policy Initiative, pension coverage – a measure of the proportion of the workforce that have supplementary pensions ¹⁰ – for the self-employed has increased from 27% in 1995 to 43% in 2004 (Pension Board, 2005). In the United Kingdom, half of the self-employed population is covered by the private pension scheme in 2002, while the number for employees is 65% (UK, 2004). According to a survey by a UK insurance company, self-employed people in the UK are under-saving significantly compared to their employed counterparts (Scottish Widows, 2007). Only about one- third of self-employed people are saving enough for old age, while they have greater debts than employees. Two in five (38%) of them are not saving at all, which is lower than that of private sector employees (28%).

5. PENSION REFORMS IN SCHEMES FOR SELF-EMPLOYED IN OECD COUNTRIES

- The self-employed as well as employees have been affected by pension reforms from the early 1990s onward. Even though most of the impact of reform is the same for both groups, some specific features affect the self-employed in particular. One of these measures is the integration of the self-employed' scheme into the general scheme for employees; another is the increase of contributions paid by the self-employed. All these reform measures are designed to establish more equitable pension systems between employees and the self-employed through monolithic benefit and contribution formulae, and an increase of input by the self-employed. This change is also expected to improve the ability of overall administration to accurately monitor the number of insured persons as well as revenues and expenditures. The establishment of an integrated pension system contributes greater mobility of the workforce between the public, private and self-employed sector.
- There are several recent examples for the integration of schemes. In Austria, the latest pension reform, implemented in January 2005, established a unified pension system that covers the entire labour force (employee, self-employed and unemployed) including federal civil servants. A unified contribution rate of 22.8% was set, with a government subsidy for the actual contributions for the self-employed and farmers. In France, to simplify the administrative process, a unified social scheme for craftsmen, trade and industrial self-employed workers was established in 2006. In Greece, a new single fund, "Insurance Organisation for the Self-employed" (OAEE) replaced the three large non-agricultural primary funds for the self-employed: TEBE (craftsmen and other professionals), TAE (retailers) and TSA (motorists). Farmers remain covered by a separate pension scheme (OGA). Based on the reform act which took effect in January 2007, the three separate pension systems in Turkey private and public sector workers (SSK), civil servants (ES) and the self-employed and farmers (Bag-Kur) were unified by introducing a single pension formula (Turkey, 2006).
- 39. The second common reform has been to increase contributions paid by the self-employed. This is to correct excessively favourable treatment for pension contribution by the self-employed. For example, in the Czech Republic, the minimum contribution base for the self-employed was increased from 35% to 50% of the difference between income and expenditures, with the base threshold to be equal to half the average wage. In Greece, farmers began to pay contributions to the new basic pension plan in 1998, with the

^{10.} These include Personal Retirement Savings Account (PRSA), Retirement Annuity Contract (RAC), and etc.

government providing two-thirds of the contributions. Before then, farmers did not make any contributions at all. Their low flat-rate pension was funded from the budget (1.2% of GDP) and earmarked taxes (0.5% of GDP). The new pension plan is expected to provide the opportunity to raise their pension level (Mylonas and Maisonneuve, 1999). The pension contribution rate for Italian self-employed is being gradually increased from 16% to 19% by 2014 (Italy, 2000). In Portugal, the reference wage to determine minimum contributions to social security for the self-employed was raised from 1 to 1.5 minimum wages. This is meant to be the first step forward in the direction of levying social contributions including pension contributions as a proportional share of net earnings on the self-employed. Since 2000, in Poland, the self-employed have to pay social security contributions for persons who work with them, such as assisting family members.

Changing patterns of employment careers are one of the factors behind these reform measures. Because more and more people, at least for part of their professional career are self-employed, pension systems need to be adapted to allow this new environment to be fully integrated into pension systems. Austria, Germany and Italy, for example, integrated new types of self-employed work (such as the self-employed working for only one client) into their statutory pension scheme (EC, 2006). Other changes for the self-employed include the introduction of flexible contribution systems within a certain limit in Denmark and measures for enhancing portability between employees' scheme and the self-employed' in the Netherlands. With effect from 2004, a self-employed person in Denmark can pay an amount corresponding to up to 30% of the profits into a pension scheme without being bound to making specific payments in subsequent years. This measure which takes into account the fact that profits from self-employment can vary from one year to another, allows the self-employed person to save up pension when possible. From 2005, in the Netherlands, a formerly self-employed person who becomes an employee or has another job is allowed to transfer his or her pension rights to another pension provider (Dutch government, 2005).

6. CONCLUSION

- 41. Three aspects of pension coverage for the self-employed have been discussed in this paper. In many OECD countries, at least in theory, the self-employed are covered by the same pension schemes as those of employees at nearly the same level, with the exception of Mexico. While employees share the contribution burden with their employers, the self-employed, in most cases, must pay the total pension contribution. The rules for pension entitlements are usually almost identical to those that apply to employees.
- 42. The issue of the self-employed' pension is a matter of practical implementation rather than that of pension rules. The main problems are compliance and enforcement. In some OECD countries, a substantial part of the self-employed workforce is excluded from pension coverage. Many of them belong to the informal sector and their income levels are very hard to identify. Contribution evasion or under-reporting of income by the self-employed is prevalent even in some countries with high per capita income. This will lead to lower replacement rates at retirement for the self-employed. Under DB schemes with progressive redistribution formulae, low contributions coupled with relatively generous benefits could raise an equity issue of pension provision between the self-employed and employees.
- 43. The self-employed are generally assumed to secure enough retirement income by selling their business at retirement. Their business may represent accumulated wealth. This seems to be the reason why

the pension issue for the self-employed has not been considered seriously in many OECD countries. However, in recent years, the number of 'new self-employed', many of whom have come directly from unemployment and set up small companies in the service sector is growing (Lindskog, 2005). More frequent transitions into and out of self-employment are becoming common in the employment histories of a growing share of the population. Those people may not have accumulated enough realisable capital value by the time they retire to provide an adequate retirement income.

44. The changing pattern of labour market, together with the difficulty of enforcing pension rules on the self-employed on an equal base with dependent workers has posed and will pose difficult challenges to the policy-makers in OECD countries. The main issue would be how to build equitable pension systems for the self-employed and employees, while providing the self-employed with enough retirement income security.

REFERENCES

- Belgian government (2005), Strategy Report on Pensions: 2005, http://ec.europa.eu/employment_social/social_protection/docs/2005/be_en.pdf
- Boldrin, M. and S. Jiménez-Martín (2003), Evaluating Spanish Pension Expenditure Under Alternative Reform Scenarios, http://www.micheleboldrin.com/Papers/nber3.pdf
- Czech government (2005), National Strategy Report on Adequate and Sustainable Pensions, http://ec.europa.eu/employment social/social protection/docs/2005/cs en.pdf
- Dutch government (2005), 2005 National Strategy Report on Adequate and Sustainable Pensions: The Netherlands, http://ec.europa.eu/employment_social/social_protection/docs/2005/nl_en.pdf
- EC (2004 and 2006), MISSOC, Brussels.
- EC (2006), Adequate and Sustainable Pensions: Synthesis Report 2006, http://ec.europa.eu/employment_social/social_protection/docs/2006/rapport_pensions_final_en.pdf
- ILO (2004), Collection of Pension Contributions: Trends, Issues and Problems in Central and Eastern Europe, Budapest.
- Japan MHLW (2005), Public Pension Schemes Issues, http://www.mhlw.go.jp/english/org/policy/dl/p36-37d4-1.pdf
- Kim, S. and S. Kang (2004), *Enhancing the Compliance Rate of the Insurers of the region-based National Pension Scheme*, Seoul, National Pension Research Institute (in Korean).
- Král, J. (2000), "The Czech Pension Reform: Developments after 1989 and future perspective", Social Security in the Global Village, The Year 2000 International Research Conference on Social Security, Helsinki, 25-27 September 2000.
- Lindskog, M. (2005), "The Swedish Social Insurance System for the Self-Employed", http://skylla.wz-berlin.de/pdf/2005/i05-103.pdf
- Lisicky, M. (2003), Pension Reform in the Czech Republic: A Gradual Approach, http://www.oenb.at/en/img/lisicky ftr 103 tcm16-10376.pdf
- Mairhuber, I. (2003), "The Austrian Pension Systems", FORBA Research Report 2/1003, Vienna.
- Mesa-Lago, C. (2002), "Reassessing Pension Reform in Chile and Other Countries in Latin America", http://www.adb.org/Documents/Events/2002/SocialProtection/lago_paper.pdf
- Mylonas, P. and C. Maisonneuve (1999), "The Problems and Prospects Faced by Pay-as-you-go Pension Systems: A Case Study of Greece", Economic Department Working Papers No. 215, Paris.

OECD (2000), Employment Outlook, Paris.

OECD (2004), Ageing and Employment: Italy, Paris.

OECD (2005 a), Taxation and Social Security in Agriculture, Paris.

OECD (2005 b), Pensions at a Glance: Public Policies across OECD Countries, Paris.

OECD (2006), Revenue Statistics, Paris.

OECD (2007 a), OECD Factbook 2007, Paris.

OECD (2007 b), Pensions at a Glance: Public Policies across OECD Countries, Paris.

Pension Board (2005), National Pensions Review, Dublin.

Republic of Austria (2005), Report on the Austrian Pension Strategy 2005,

Scottish Widows (2007), Self-employed More Steptoe Than Stelios, http://www.scottishwidows.co.uk/documents/generic/2007 Grantrepreneurs.pdf

SSA (Social Security Administration) (2004, 2005 and 2006), Social Security Programs Throughout the World, http://www.ssa.gov/policy/docs/progdesc/ssptw/

Tuomine, E. (1997), "Self-Employment and Pension Provision for the Self-Employed in Finland", Social Protection and the Development of Self-Employment in Non-Agricultural Occupations, ISSA European Regional Meeting, Paris, 4-5 December 1997.

Van den Noord, P. and C. Heady (2001), "Surveillance of Tax Policies: A Synthesis of Findings in Economic Survey", Economic Department Working Papers No. 303, Paris.

* OECD Economic Surveys on individual countries are quoted as (country name, publication year).

ANNEX 1

GENERAL FEATURES OF THE SELF-EMPLOYED IN OECD COUNTRIES

- The self-employed population is predominantly male. In more than half of the OECD countries, over 15% of all men in employment were self-employed. The corresponding figure for women was under 10% in 2005. In addition, the self-employed have a higher average age than the population in paid employment. The under-35s accounted for only 30% of all self-employed workers in the European Union. Older self-employed workers (55 or more) were very clearly over-represented in the agricultural group (27% in comparison with an average of 17%). According to the 1996 Second European Survey on Working Conditions, two-thirds of the self-employed were concentrated in the service sector (34%) and in the sectors of commerce, hotels and restaurants (30%). The service sector was becoming even more predominant.
- 46. According to the 1998 European Foundations survey, in 15 EU member countries and Norway, the average working hours of the self-employed are 48.2 hours, 10.5 hours longer per week, on average, than that of employees. While only 12% of dependent employees work more than 50 hours per week, almost 50% of the self-employed do. The survey also shows that a significant proportion (16%) of the self-employed work part-time, against 21% in the case of employed workers.
- Data on the incomes of the self-employed are both harder to obtain and less reliable than those for salaried workers. Nevertheless, rather outdated studies unanimously agree that the distribution of the income of the self-employed tended to be less equal than that of wage earners. In addition, the self-employed record generally lower levels of income relative to those of employees. The risk of in-work poverty is more than 2.5 times greater for self-employed workers than for dependent employees. Data for the 15 EU countries suggest that 16% of the self-employed are classified as the working poor (defined as those earning less than 60% of the median equivalised household income). Among employees, only 6% are classified as such in 2003.

Source: OECD Employment Outlook 2000, OECD Factbook 2007, OECD Ageing and Employment series, European Foundation for Improvement of Living and Working Conditions papers.

ANNEX 2

Table A1. Self-employment rates in OECD countries

As a percentage of total civilian employment

	1990	1991	1993	1995	1997	1999	2001	2003	2005
Australia	15.1	15.7	16.5	15.4	15.1	14.5	13.8	13.5	13
Austria	14.2	13.9	13.1	14.4	13.6	13.4	13.2	12.8	13.3
Belgium	18.1	18.3	18.9	18.8	18.6	17.8			
Canada	9.5	9.8	10.7	10.6	11.4	11.3	9.9	9.8	9.4
Czech Republic			9.4	12	12.4	14.5	15.2	17.3	16.1
Denmark	11.7	10.9	10.8	9.6	9.1	9.1	8.9	8.8	8.7
Finland	15.6	15.3	16	15.6	14.9	14	13	12.9	12.7
France	13.2	12.7	11.7	10.8	10.1	9.5	8.9	8.8	9
Germany	10.9	9.8	10.4	10.7	10.9	10.8	11.1	11.4	12.4
Greece	47.7	46.8	46.7	46.1	45.2	42.1	39.9	39	36.4
Hungary			18.1	18	17.4	15.7	14.5	13.5	13.8
Iceland	15.1	20.3	18	19.6	17.7	17.7	16.8	14	14.3
Ireland	24.9	23.3	23.4	22.2	20.8	19.2	18.1	17.5	17.4
Italy	28.7	28.6	28.9	29.3	29.1	28.6	28.2	27.5	27
Japan	22.4	21.2	19.1	18.3	17.6	17.2	15.9	15.2	14.7
Korea	39.5	37.3	37.9	36.8	36.8	37.6	36.7	34.9	33.6
Luxembourg	9.1	8.6	8.3	8.4	8.2	7.7	7	6.8	
Mexico	31.9	44	43.8	40.9	39.9	37.9	36.8	37.1	35.7
Netherlands	11.6	11.2	11.6	12.4	12.6	11.3	11.5		
New Zealand	19.7	20.4	21.2	21	20.1	21.2	19.9	19.4	18.5
Norway	11.3	10.8	10.2	9.4	8.2	7.8	7.2	7.4	7.5
Poland	27.2	30	31.2	29.7	28.3	26.9	28	27.3	25.8
Portugal	29.4	30.6	26.3	27.9	28.9	27.2	27	26.8	25.2
Slovak Republic				6.5	6.3	7.7	8.4	9.8	12.7
Spain	25.9	25.2	26	25.2	23.6	21.3	19.8	18.3	18.3
Sweden	9.2	9.1	10.8	11.2	10.8	10.6	10	9.6	9.8
Switzerland		11.7	12.7	12.7	13.8	14	12.9	11.9	11.2
Turkey	61	62	57.8	58.5	55.4	55	52.8	49.4	45.8
United Kingdom	15.1	14.6	15.6	15.6	14.5	13.2	12.8	13.2	13.5
United States	8.8	9	8.8	8.5	8.2	7.7	7.4	7.6	7.5
OECD total	19.4	20.1	19.7	19.4	19	18.3	17.6	17.3	16.9

Source: OECD (2007).

Table A2. Comparison of pension benefit levels between employee and the self-employed

Relative pension levels as a percentage of economy-wide average earnings, average earners

	Employee (A)	Self-employed (B)	Difference (A-B)/A
Australia	43.1	17.4	60%
Austria	80.1	80.1	0%
Canada	43.9	43.9	0%
Czech	49.1	39.4	20%
Denmark	75.8	29.2	61%
Finland	63.4	63.4	0%
Germany	39.9	39.9	0%
Hungary	76.9	76.9	0%
Iceland	77.5	77.5	0%
Ireland	32.5	32.5	0%
Italy	79.9	79.2	1%
Japan	34.4	13.4	61%
Korea	66.8	66.8	0%
Luxembourg	88.3	88.3	0%
Mexico	35.8	0	100%
Netherlands	81.9	31.2	62%
New Zealand	39.7	39.7	0%
Norway	60.7	60.7	0%
Poland	62.2	62.2	0%
Portugal	54.1	54.1	0%
Slovak	56.7	28.4	50%
Spain	88.7	84	5%
Sweden	62.1	52.7	15%
Switzerland	58.4	35.8	39%
Turkey	107.6	107.6	0%
UK	30.8	25.4	18%
US	41.2	41.2	0%
Average	60.43	50.77	18%

Note: 1. The contribution period is 40 years for Italy and 35 years for Spain.

Source: OECD Pension Model except OECD (2004) for Italy, and Spain (2001) for Spain.

^{2.} The year is 2004, but 2003 for Italy and 2000 for Spain.

ANNEX 3

OVERVIEW OF PENSION RULES FOR DEPENDENT EMPLOYEES AND THE SELF-EMPLOYED (2004)

* This overview is based on MISSOC (2004), Social Security Programs Throughout the World (various years) and various national sources.

1. Australia

Australia's pension system has two components: a means-tested age pension plus the superannuation guarantee, a compulsory contribution to a private pension plan. The self-employed can join the superannuation voluntarily.

	Coverage	Contributions	Benefits	Note
Employee	Targeted: Residents. Defined contribution (superannuation): Employed persons older than age 17 and younger than age 70 earnings more than AUD 450 a month.	Targeted: None (tax-financed). Defined contribution (superannuation): 9% of basic wages by employer. Contributions by employees are not compulsory.	Targeted: Up to AUD464.20 every 2 weeks for a single person. Defined contribution: The accumulated capital is converted into a price-indexed annuity.	
Self-employed	Targeted: Residents. Defined contribution (superannuation): Voluntary participation.	Targeted: None (tax-financed). Defined contribution (superannuation): Voluntary contributions with tax deduction. There is no upper limit for the contributions.	Targeted: Up to AUD464.20 every 2 weeks for a single person. Defined contribution:	As of September 2003, there are 275,523 small funds for the self-employed. The number is 511 000 and takes 2% of total superannuation members (In 2003, the self-employment rate is 13.4% of total civilian employment).

2. Austria

Separate special schemes for farmers, and craftsmen and retailers have been integrated recently (from 2005). The pension scheme is mainly earnings-related.

	Coverage	Contributions	Benefits	Note
Employee	Wage earners and salaried employees (separate systems with essentially identical provisions) earning €316.54 or more a month and apprentices.	22.8% of earnings (10.25% by employee and 12.55% by employer).	DB. The current accrual rate is 2% of earnings for each year of contributions, but this will fall gradually.	Individual separate schemes for mining, railways and notaries. The proportion of tax-based financing (government subsidy) is about 15% (2002).
Self-employed	Farmers: Compulsory for farm owners and assisting family members.	22.8% (15% by farmers' own "personal contributions" and 7.8% of government's "partner copayment").	Benefits rules are the same as those of employee.	The proportion of tax-based financing (government subsidy) is about 74% (2001).
	The self-employed in trade and business: Craftsmen and retailers. Other professional workers such as doctors, lawyers, pharmacists, etc. Since 1998, freelancers and related workers whose jobs do not require a trade or business license have been subject to compulsory pension.	22.8% (17.5% by the self-employed' own "personal contributions" and 5.3% of government's "partner copayment").	Benefits rules are the same as those of employee.	The proportion of tax-based financing (government subsidy) is about 41% (2001).

3. Belgium

There are three pension schemes: employee (special provisions for miners and seamen), the self-employed and civil servants. The pension system is mainly earnings-related.

	Coverage	Contributions	Benefits	Note
Employee	Employed persons	16.36% (7.5% of earnings by employee and 8.86% of payroll by employer).	DB. The full replacement rate for a single pensioner is 60%.	
Self-employed	Compulsory for the self- employed and voluntary for the assisting spouse.	Up to €9,067.99, €445.47 per quarter. Between €9,067.99 and 44,289.23, 19.65% of net professional income. Between €44,289.23 and €65,273.48, 14.16% of net professional income. More than €65,273.48, €0.	There are differences between the employee's scheme and the self-employed' scheme as to the way to calculate a pension.	The benefit calculation based on real wage is subject to a correction. The correction uses a coefficient, expressing the ratio of the self-employed contribution to the salaried worker's contribution.

4. Canada

Canadian pension consists of a basic pension scheme which can be topped up with an income-tested targeted pension, and an earnings-related Canadian Pension Plan (or Quebec Pension Plan).

	Coverage	Contributions	Benefits	Note
Employee	Basic: Residents. Earnings-related: All employees working in Canada. But those in casual employment (annual earnings less than CAD 3,500) or in seasonal agricultural employment are excluded.	Basic: None. Earnings-related: 9.9% (4.95% of earnings by employee and 4.95% of earnings by employer).	Basic: The maximum monthly pension is CAD461.55. Earnings-related: DB. 25% of average adjusted yearly covered earnings.	
Self-employed	Basic: Residents. Earnings-related: All self-employed persons residing in Canada.	Basic: None. Earnings-related: 9.9% of net business income (after expenses).	The same as that of employee.	

5. Czech Republic

The Czech social security system is in principle uniform for employees and the self-employed. The current system was established in 1990 by adopting the definition of the self-employed (until then farmers, people providing services under a special license issued by local government and artists) and the contribution payment (until then, only farmers paid contributions).

	Coverage	Contributions	Benefits	Note
Employee	Employees, members of assimilated groups (such as students, persons caring for children etc.)	28% of gross salary (6.5% by employee and 21.5% by employer). No ceiling.	DB. A flat-rate basic amount plus an earnings-related percentage amount based on the personal assessment base and the number of years of insurance.	
Self-employed	Compulsory for all self- employed persons.	28% of declared earnings (declared earnings = 50% of difference between income and expenses). Ceiling is CZK 486 000 per year.	Pensions are calculated according to the rules for employee.	Number of insured (1999): 610,105 (total 4,727,184), 12.9% of total insured. The self-employment rate is 14.5% in 1999.

6. Denmark

In general, the Danish social protection system does not operate on the principle of distinction between the employed and the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Basic: All resident citizens.	Basic: None (tax-financed).	Basic: DKK 4,648 a month.	
	ATP scheme: Employees aged 16 to 66 if working time exceeds 9 hours a week. Defined contribution (SP): Employees aged 16 to 66(69 from July 2004) Occupational: Nearly universal (based on agreement between social partners).	ATP scheme: The contribution amount depends on the number of hours worked (1/3 employee, 2/3 employer). Defined contribution (SP): 1% of gross-income Occupational: 15% (employer 10%, employee 5%).	ATP Scheme: Pension depends on contribution record. Defined contribution (SP): Pension depends on contribution record. Occupational: -	
Self-employed	Basic: All resident citizens. ATP Scheme: Voluntary for the self-employed. Defined contribution (SP): Compulsory for the self-employed. Occupational: -	Basic: None (tax-financed). ATP Scheme: None (voluntary). Defined contribution (SP): 1% of gross income. Occupational: -	Except for ATP scheme and occupational pension, pensions are calculated according to the rules for employee.	

Note. The ATP scheme is a special insurance system for the employed. The self-employed have access only if, after exercising a salaried activity with a minimum of three years of contributions, they have voluntarily opted to continue the insurance. Of the pension amount of the average-wage worker, the ATP scheme takes 1/10. If the self-employed do not join the ATP, he/she, on average, would obtain pension amount 1/10 less than that of employee.

7. Finland

The self-employed and the employed persons have, more or less, the same coverage for pension benefits. There special pension schemes for farmers, and the self-employed. Each has its own act: Self-employed Persons' Pensions Act (YEL) and Farmers' Pensions Act (MYEL).

		Coverage	Contributions	Benefits	Note
Employee		Targeted (means-tested): All Finnish citizens. Earnings-related: All regular employees aged 14 or older (From 2005, persons caring for a child under age 3 and students who received a degree, for study periods up to a maximum of 5 years)	Targeted: None by employee. Earnings-related: 4.6% of earnings by employee. 21.59% for employer with fewer than 50 employees. For employer with more than 50 employees, 16.9% to 24.0% according to the age of the employee. The average contribution is 21.4%.	Targeted: €11.21 to €496.38. Earnings- related: 1.5% of average pensionable earnings for each year of employment between ages 23 and 59.	
Self- employed	Farmers	Targeted (means-tested): All Finnish citizens. Earnings-related: Compulsory for farmers, fishermen and reindeer herders when the farm contains more than 5 ha of arable land and the income is at least € 2,752.04 a year (2004).	Targeted: None. Earnings-related: 21.4% of declared earnings (In reality, due to deduction, on average 10.5% of declared earnings).	Basic entitlements and benefits are similar to those of employee.	In 2002, 76% of total finance is supported by the government.
	The self- employed	Targeted (means-tested): All Finnish citizens. Earnings-related: The self- employment has lasted continuously for at least four months since the age of 18 and annual earnings from self-employment amount to a minimum of € 5,504.14 (2004). Professionals such as doctors, lawyers, writers and freelance journalists are also covered.	Targeted: None. Earnings-related: 21.4% of declared earnings (16.05% for the first 4 years of self- employment).	Basic entitlements and benefits are similar to those of employee.	In 2002, 8% of total finance is supported by the government.

8. France

Social protection for the self-employed is subject to specific regulations. Farmers and other self-employed have their own social security schemes such as Mutual Insurance Fund for Farmers.

		Coverage	Contributions	Benefits	Note
Employee		Earnings-related: employed persons. Mandatory occupational: ARRCO for non-executive private workers and AGIRC for executive private workers.	Earnings-related: 6.55% of insurable earnings by employee and 8.2% of insurable earnings by employer. Mandatory occupational: 3-7.5% by employee and 4.5-12.5% by employer.	Earnings-related: DB. After a full career, 50% of replacement rate. Mandatory occupational: Points system.	
Self- employed	Farmers	Compulsory for the head farmer, farm associates and family members who take part in the farm.	Earnings-related: Main part (for benefits) is 8.44% within the limit of the social security ceiling, 1.29% on professional income. Additional part (for management costs) is 2.53%, of which 0.25% on professional income. Mandatory occupational: 2.97% of occupational income.	Earnings-related: A flat-rate maximum pension of € 2,898.28 a year for the maximum length requested depending on the birth year of the insured person, and a proportional pension calculated by points (Minimum guaranteed for a complete career is € 7,052.95 per year). Mandatory occupational: Calculated by points.	
	The self- employed	Four schemes exist: Liberal professions (CNAVPL), Lawyers (CNBF), Craftsmen (CANCAVA) and shopkeepers & manufacturers (ORGANIC). Workers practising a self-employed activity must be registered with social insurance organisations and pay their contributions. Compulsory affiliation for managers of firms on the trades register as well as assisting family members who take part in the small-scale enterprise, and persons practising an industrial and commercial activity involving signing up on the Commercial Register or liability to professional tax as a retailer.	Earnings-related: 16.35% of the professional income within the limit of the social security ceiling. Mandatory occupational: 6.7%.	The general rules for earnings-related scheme are identical to those of employees.	

Note. Financial equalisation mechanisms exist between these different schemes.

9. Germany

Self-employed craftsmen are covered within the scope of the general scheme (for employee). Farmers including assisting family members have independent social security systems.

		Coverage	Contributions	Benefits	Note
Employee		Earnings-related: Employee (including apprentices), certain self-employed persons (craftsmen and journalists), persons caring for a child under age 3, recipients of social benefits.	Earnings-related: 19.5% (9.75% of earnings by employee, none if earnings are below €400 a month, and 9.75% of payroll by employer, 12% of earnings for employee with monthly earnings below €400).	The total of individual earnings points multiplied by the pension factor of 1.0 and the pension value. 45.8% of average earnings.	Optional for retailers.
Self- employed	Farmers	Compulsory for the farmers and their spouses.	n.a. Average contributions amount to less than half of those from employee's scheme.	Average benefits amount to less than half of those from employee's scheme.	Among total finance, 75% is from tax revenues and 25% from flat- rate contributions.
	The self- employed	Voluntary for retailers. Various schemes for professionals organised in professional chambers, such as doctors, lawyers and architects. Compulsory for those self-employed who are members of the respective chambers.	19.5% of income.	Benefits are paid according to the regulation of the employee's scheme.	These schemes are run by decentralised private institutions.

Note.

¹⁾ Coverage has been extended, but there is no general, universal coverage of the whole population. Part of the self-employed are excluded from the public scheme and have to rely on private provision.

²⁾ Self-employed artists and members of the publishing professions have to pay contributions under the Artists Social Welfare Act, if their annual income exceeds a set minimum, €3,900 a year and until they have been five years in the profession – though they pay only half the contributions themselves. The Artists' Social Welfare Fund decides who must pay contributions and also sets the rate.

10. Greece

In 1998, a basic social security system (OGA) for farmers was introduced, strictly contributory. From 1999, a process for the integration of three main insurance funds for the self-employed - TEBE (craftsmen and other professionals), TAE (retailers), TSA (motorists) - into a single unit called OAEE started.

		Coverage	Contributions	Benefits	Note
Employee		Earnings-related: Employees in industry, commerce and related occupations (IKA).	20% of earnings (6.67% by employee and 13.33% by employer).	Earnings-related: DB scheme.	
Self- employed	Self- employed	Craftsmen, retailers and motorists (OAEE). Family members are co-insured and exempt from contributions.	20% of earnings.	Nearly identical to that of employees. But, earnings base is lifetime average earnings (employee: the last 5 years salary).	
	Farmers	Farmers, employed persons in agriculture and fishermen (OGA). This system applies to all other self-employed persons in areas of less than 5,000 inhabitants and in cities of less than 2,000 inhabitants, with the exception of persons insured under the general scheme. Family members are con-insured and are exempt from contributions.	n/a Among total finance, one third by the insured and two thirds by the government under the new system from 1998.	n/a	Under the old system, farmers did not make contributions to earnings-related scheme (main component).

Note. There are earmarked taxes for financing of pension funds for professionals. For example, the lawyers' fund receives a percentage from all contracts, the doctors' fund 4.6% of the wholesale price of pharmaceuticals.

11. HungaryAll self-employed persons are covered for social security in the general system.

	Coverage	Contributions	Benefits	Note
Employee	Earnings-related and Defined contribution: Employees, members of handicraft and agricultural cooperatives, apprentices of professional training schools, outside workers, artistic performers, lawyers, public notaries, the clergy, and recipients of unemployment benefits.	Earnings related and defined contribution: 26.5% (8.5% of gross earnings by employee and 18% of payroll by employer).	Earnings related: 53% of average earnings is paid with 20 years of service. Defined contribution: The value of accumulated contributions plus accrued interest.	
Self-employed	Earnings-related and Defined contribution: Self-employed entrepreneurs except independent farmers.	Earnings related and defined contribution: Equal to the total employee and employer contribution. The contribution base is the income which the self-employed declare.	The same calculation method as that of employee is applied.	

Note. The Hungarian pension system includes both employees and the self-employed. Only farmers are excluded. They can join on a voluntary basis.

12. Iceland

One general scheme covers employees and the self-employed. There is no distinction between employee and the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Targeted: All residents. Mandatory occupational:	Targeted: None (5.64% by employer).	Targeted: ISK 21,249 a month for a single pensioner.	
	All employees.	Mandatory occupational: 10% of wages (4% by employee and 6% by employer).	Mandatory occupational: 1.4% of average lifetime salary per contribution year.	
Self-employed	Targeted: All residents. Mandatory occupational: All self-employed persons (including farmers).	Targeted: 5.64% of the presumptive income (Presumptive income is employment income comparable with the remuneration one would receive if similarly employed by an unrelated person). Mandatory occupational: 10% of earnings.	The same rules as that of employee are applied.	

13. IrelandOne general scheme covers employees and the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Basic: Employed persons aged 16 to 65 with €38 or more in weekly covered earnings.	Basic: For weekly earnings of €356 or less, no contribution for the first €127 and 4% for the remaining balance. For weekly earnings of €356 or more, 2% for the first €127 and 6% for the remaining balance (8.5% or 10.75% by employer according to their earnings).	The maximum pension is €167.39 a week.	Global contribution
Self-employed	Basic: Self-employed persons with annual earnings of €3,174 or more (including farmers).	For annual income of €18,512 or less, 3% of gross income; for annual income greater than €18,512, 5% of gross income.	The same rule as that of employee is applied.	Global contribution

14. ItalyA separate scheme for the self-employed exists.

	Coverage	Contributions	Benefits	Note
Employee	Earnings-related: Employed persons including domestic workers.	Earnings-related: 32.7% (8.89% by employee and 23.81% by employer).	The resulting sum of annual contributions, or "notional capital" is multiplied by a "transformation coefficient" at retirement. This is the corollary of the annuity rate in a funded defined-contribution scheme.	
Self-employed	Earnings-related: Compulsory for farmers, craftsmen and retailers. It includes free-lancers and other semi-autonomous workers, if not insured in other pension funds.	Earnings-related: 19% of professional income.	The contributions are paid into the accounts for each year of contributions, and are reassessed at the end of the year according to the GDP five-year variation. The resulting sum of annual contributions, or "notional capital" is multiplied by a "transformation coefficient" at retirement.	

15. Japan

Japanese basic pension scheme includes the self-employed (including farmers) and employee altogether. Compulsory earnings-related second tier scheme covers only employee, and the self-employed can join another second tier scheme for only them on a voluntary basis.

	Coverage	Contributions	Benefits	Note
Employee	Basic: Residents age 20 to 59. Earnings-related: Employees of firms in industry and commerce, including seamen.	Basic and Earnings- related: 13.58% (6.79% by employee and 6.79% by employer). 14.96% for miners and seamen.	Basic: 794,500 yen a year for a fully insured person. Earnings-related: The insured's indexed average monthly wage over the full career times a coefficient determined by the insured's date of birth times the number of months of coverage.	Basic: Government subsidy for one third of the cost of benefits plus 100% of administrative costs. Earnings-related: Government subsidy for the administration.
Self-employed	Basic: Residents age 20 to 59 (The self-employed and farmers). Lowincome persons are exempt from paying the contributions partially or entirely. Earnings-related: The self-employed are allowed to join the separate scheme for them (National Pension Funds) voluntarily. Only about 4% of the self-employed are subscribing to the Fund (0.77 million out of 22.37 million people).	Basic: 13,300 yen a month. Earnings-related: n/a	Basic: The same as that of employee's scheme. Earnings-related: n/a	Basic: Government subsidy for one third of the cost of benefits plus 100% of administrative costs.

Note. Many self-employed persons are not participating in the basic pension scheme or not paying the entire contributions. In 1998, 4.9% of the expected insured self-employed persons did not join the scheme (some estimate the number would be even greater than this). In 2000, the ratio of actually paid monthly contributions to the full contributions was 73%. This makes the financial situation of the basic pension scheme even worse. This trend is getting stronger in younger generations.

16. Korea

One earnings-related scheme covers both employees and the self-employed. There is no distinction between employee and the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Employees between ages 18 and 59.	9% of earnings (4.5% by employee and 4.5% by employer).	The basic monthly pension amount (BPA) plus 5% of the monthly BPA for each year of insurance beyond 20 years.	
Self-employed	The self-employed (including farmers and fishermen) between ages 18 and 59.	9% of monthly business earnings.	The same rules as that of employee are applied.	Government subsidy for farmer and fishermen (no less than 1/3 of the contribution of the lowest income group).

Note. Many self-employed persons who have regular earnings are suspected of not joining the pension scheme. Even though it is difficult to estimate the exact degree of this evasion, it appears to account for a substantial proportion of the total self-employed.

17. Luxembourg

Social protection for the self-employed is primarily covered under the rule of the general system. However, special organisations are responsible for matters for farmers on the one hand (Agricultural Pension Fund) and craftsmen, retailers and manufacturers on the other hand (Pension Fund for Craftsmen, Retailers and Manufacturers).

	Coverage	Contributions	Benefits	Note
Employee	All economically active persons in the private and public sectors.	24% of gross wage (8% by employee, 8% by employer and 8% by the government).	A flat-rate component of € 329.75 a month if insured for 40 years and an annual increment equal to 1.85% of adjusted lifetime covered earnings.	
Self-employed	All economically active self-employed persons (including farmers).	24% of professional income (16% by the self-employed and 8% by the government). For farmers, contributions are based on the farmland size, nature of crops, and vegetable and animal productions. Smaller farms are subject to flat-rate contributions.	The same rules of those of employee are applied.	

18. Mexico

Mexico's new funded scheme does not request the compulsory participation of the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Funded scheme (mandatory individual accounts): All workers entering the labour force on or after January 1, 1997.	6.275% by employee and employer. 0.225% by the government.	Benefits are calculated by the value of accumulated capital plus accrued interest.	
Self-employed	Voluntary.	n/a	n/a	

19. Netherlands

The general social protection system is applied to all residents of the Netherlands as a rule.

	Coverage	Contributions	Benefits	Note
Employee	Basic: All residents. Quasi-mandatory occupational: Mainly employees (Determined by industrial-relations agreements).	Basic: 17.9% of income by employee (additional 1.25% for the survivor pension). 5.85% of payroll by employer (additional 0.85% for disability and 2.2% of supplement). Quasi-mandatory occupational: Determined by industrial-relations agreements.	Basic: €921.28 for single persons and €631.76 for couples (A third of average earnings). Quasi-mandatory occupational: 1.75% of those earnings for each year of service or 2.25% of accrual rate for each year of service.	
Self-employed	Basic: All residents. Quasi-mandatory occupational: Compulsory for some self-employed professions such as doctors and lawyers.	Basic: 17.9% of income. Additional 1.25% for survivor pension and 8.8% for the disability pension. Quasi-mandatory occupational: n/a	Basic: The same as that of employee. Quasi-mandatory occupational: n/a	

20. New Zealand

The only public pension is flat rate based on a residency test.

	Coverage	Contributions	Benefits	Note
Employee	Basic: All residents.	None.	NZD 249.09 a week for a single person living alone or NZD 383.22 a week for an aged married couple.	
Self-employed	Basic: All residents.	None.	NZD 249.09 a week for a single person living alone or NZD 383.22 a week for an aged married couple.	

21. NorwayAll self-employed persons are compulsory members of the general scheme.

	Coverage	Contributions	Benefits	Note
Employee	Basic: All residents. Earnings-related: All employed earnings over the base amount (NOK 56,861).	Basic and earnings-related: 21.9% (7.8% of income by employee and 14.1% of payroll by employer).	Basic: Up to 100% of the base amount for single, 150% for couple. Earnings-related: 42% of the current base amount multiplied by the insured's average annual number of pension points in the 20 years with the most points.	Global contributions.
Self-employed	Basic: All residents. Earnings-related: All self-employed earnings over the base amount (NOK 56,861)	Basic and earnings-related: 10.7% of income up to 12 times the base amount, plus 7.8% of income exceeding 12 times the base amount. Farmers and fishermen pay only 7.8%.	The same as that of employee's scheme.	Global contributions. Despite of lower contribution rates, fishermen enjoy very similar level of benefits to those of employees. It is financed by a special contribution levied on the first hand turnover value of the catch.

22. Poland

All self-employed and their assisting persons who are not involved in agricultural work, are covered by the general scheme on a mandatory basis. There is a special separate scheme for farmers and their family members, and compulsory membership depends on the farmland size and other conditions.

		Coverage	Contributions	Benefits	Note
Employee		Earnings-related: All economically active employed persons. Defined contribution (funded scheme): All economically active employed persons.	Earnings-related: 25.22 % (8.96% of gross salary by employee and 16.26% of gross payroll by employer). Defined contribution: 7.3% of gross salary by employee (no contribution by employer).	Earnings-related: Accumulated notional capital is divided by the "average life expectancy at retirement age." Defined contribution: An annuity is purchased with the funds from the individual account.	
Self- employed	Farmers	Compulsory for farmers who own more than one hectare of land, and their family members.	Flat-rate (in 2002, PLN 663 a year). The contribution per quarter is equal to 30% of the minimum monthly pension.	Contributory part: Benefits that relates to the average income of the insured. Supplementary part: About 25% of the basic amount.	Government subsidy covers approximately 94% of the expenditure.
	The self- employed	Earnings-related: All economically active self-employed persons and assisting family members (those who run their own non-agricultural businesses, creators and artists and people performing so-called "free occupation"). Defined contribution (funded scheme): All economically active self-employed persons.	Earnings-related: 32.52% of declared income. Defined contribution: 7.3% of declared income. Declared income cannot be lower than 60 % of the calculated average wage in the economy.	The same rules for employee, but no right to the early retirement pension.	Total insured's number is 14,320,000 (2002). Insured self-employed is estimated to 1.2 to 1.4 million (around 10%). Self-employment rate is 28.1% (2002).

23. PortugalAll self-employed persons are covered under the general scheme.

	Coverage	Contributions	Benefits	Note
Employee	Earnings-related: Compulsory for those self-employed persons whose gross yearly income is higher than 6 times the highest minimum wage.	Earnings-related: 34.75% (11% of earnings by employee and 23.75% of payroll by employer). Of the total 34.75%, 16.01% is allocated to old-age benefits.	The pension accrues at 2% of the earnings base for each year of contributions for 20 or fewer years' contributions. For beneficiaries with 21 or more years of contributions, the accrual rate ranges between 2% and 2.3% depending on earnings.	Global contributions.
Self-employed	Earnings-related: Compulsory for those self-employed persons whose gross yearly income is higher than 6 times the highest minimum wage. For first time self-employed persons affiliation is not compulsory for the first 12 months For others, membership is voluntary. Lawyers and solicitors are covered by a specific insurance fund.	Earnings-related: 25.4% of reference income for mandatory coverage and 32% of reference income for voluntary coverage. The reference income is chosen by the self-employed person from a range of one to eleven times the national minimum wage. The national minimum wage is €365.60.	The same rule as that of employee's.	Global contributions.

24. Slovak Republic

All self-employed persons are covered within the general scheme.

	Coverage	Contributions	Benefits	Note
Employee	Earnings-related: Employee.	Earnings-related: 4% of earnings for old-age and survivor by employee (another 3% of disability). 19% of payroll by employer.	The pension reflects the average personal wage points which are based on the ratio of individual earnings to average earnings.	
Self-employed	Earnings-related: Self- employed persons. Persons whose yearly income is less than SKK 72,960 (€1,809) (12 times of the national minimum wage) are exempt from compulsory membership.	Earnings-related: 26% of earnings (20% for old-age and survivor, 6% for disability). The contributions base is 50% of average monthly taxable income over the previous year. There are upper and lower ceilings.	The same rule as that of employee's.	

25. SpainThere are special individual schemes for farmers and other self-employed.

		Coverage	Contributions	Benefits	Note
Employee		Employees in industry and services (classified according to 11 occupational classes).	28.3% (4.7% of earnings by employee and 23.6% by employer).	50% of the benefit base for the first 15 years' contribution, plus 3% for each year between 16 and 25 years of contributions and 2% for each year beginning with the 26 th year, up to maximum 100%.	Global contributions.
Self- employed	Farmers (R.E.A)	Farmers and their family members.	18.75% of a tax base (Tax base is legislated annually and is only weakly related to average earnings). In 2004, the contribution basis is €596.70 a month.	Essentially, the rules correspond to those of employee. Partial retirement is not covered.	
	The self- employed (R.E.T.A)	Craftsmen, retailers, etc.	26.5% of covered earnings (the self-employed are essentially free to choose their covered earnings between a floor and a ceiling legislated annually). In 2004, the contribution basis varies between a minimum of €755.40 and a maximum of €2,731.50.	Essentially, the rules correspond to those of employee. Partial retirement is not covered.	Global contributions.

26. Sweden

The Swedish social protection system is based on the principle of the national insurance. There is no distinction between employee and the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Targeted: All residents. Earnings-related and Defined contribution: All employed earning over SEK 17,800 a year. Quasi-mandatory occupational:	18.91% (7% of assessable income by employee and 10.21% of payroll by employer). Additional 1.7% for survivor pension. Quasi-mandatory occupational:	Targeted: SEK 83,707 for single. Earnings-related: The accumulated notional capital is converted to an annuity. Defined contribution: The accumulated balance is converted into an annuity. Quasi-mandatory occupational:	
Self-employed	Targeted: All residents. Earnings-related and Defined contribution: All self-employed earning over SEK 17,800 a year. Quasi-mandatory occupational: n/a	18.91% (7% of individual pension contribution and 10.21% of self-employment contribution). Additional 1.7% for survivor pension. Quasi-mandatory occupational: n/a	The same as that of employee's scheme.	

27. Switzerland

There is no special scheme for the self-employed. They are covered by the general scheme.

	Coverage	Contributions	Benefits	Note
Employee	Earnings-related: All residents. Mandatory occupational: Employees whose annual earnings exceed CHF 25,320.	Earnings-related: 9.8% (4.9% by employee and 4.9% by employer). Mandatory occupational: Employees contribute from 7% to 18% of income according to their age. The contribution by employers is at least equal to the employee's contribution.	Earnings-related: For average lifetime earnings (ALE) less than CHF 37,080, the pension is CHF 9,146 plus 26% of the ALE. For above this level, a flat CHF 12,854 plus 16% of the ALE. Mandatory occupational: An annual payment equal to 7.2% of the accumulated funds in the personal account with interest.	Non-working persons pay a contribution between €227 and €5,411 a year according to their social conditions.
Self-employed	Earnings-related: All residents. Mandatory occupational: Voluntary membership.	Earnings-related:9.2% of gross professional income. Contributions vary according to a decreasing scale of contributions. Mandatory occupational: Voluntary contributions.	Earnings-related: The same as that of employee. Mandatory occupational: Voluntary membership.	

28. Turkey

There is a special scheme (Bag-Kur) for the self-employed including farmers.

	Coverage	Contributions	Benefits	Note
Employee	Earnings-related: Employees aged 18 or older working under a service contract in the public or private sector.	Earnings-related: 20% of monthly earnings (9% by employee and 11% by employer).	Earnings-related: The first 10 years earn a pension of 35% of pay, with 2% per year extra for the next 15 years and 1.5% per year.	
Self-employed	Earnings-related: Self-employed urban workers and farmers.	Earnings-related: 20% of professional income.	Earnings-related: The same as that of employee.	

Note.

¹⁾ In 2002, the number of the insured self-employed including farmers are 15,548,000 while total insured's number is 61,832,000 (25%). The self-employment rate is 49.4%.

²⁾ The total size of the informal or unregistered sector is estimated at around 52% of total employment including agriculture, and 37% in private sector employment excluding agriculture.

³⁾ The collection rate of the pension scheme for the self-employed is very low.

29. United Kingdom

The general social protection system basically covers the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Employed persons aged 16 to 65 (men) or aged 16 to 60 (women) with weekly earnings of at least £77.	Employee: 11% of weekly earnings between £91 and £610. Employer: 12.8% of employee's earnings over £91 a week.	Basic: £75.50 a week in 2002-2003 for a single person. Earnings-related: The accrual rate varies depending on the level and year of earnings and the date of retirement.	Global contributions. The pension credit (means-tested) is available to all residents aged 60 or older.
Self-employed	Self-employed persons aged 16 to 65 (men) or aged 16 to 60 (women) with annual income of at least £4,095. The state second pension is not applied.	Earnings-related: A flat- rate contribution of £2.05 a week if earnings are more than £4,215. Self-employed persons with annual profits between £4,745 and £31,720 pay an 8% plus 1% of any profits above £31,720.	Basic: The same as that of employee. Earnings-related: Voluntary contributions.	Global contributions. The pension credit (means-tested) is available to all residents aged 60 or older.

30. United States

The general social protection system basically covers the self-employed.

	Coverage	Contributions	Benefits	Note
Employee	Earnings-related: Gainfully occupied employed persons. Casual agricultural and domestic employees are excluded.	Earnings-related: 12.4% (6.2% by employee and 6.2% by employer).	Earnings-related: The first USD 592 a month of relevant earnings attracts a 90% replacement rate. The band of earnings between USD 592 and USD 3,567 a month is replaced at 3%.	
Self-employed	Earnings-related: Gainfully occupied self-employed persons. Some categories of self- employed (when annual net income is below USD 400) are excluded.	Earnings-related: 12.4% of self-employment income (gross earnings minus allowable business deductions).	The same as that of employee.	

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