
Chapter 11

Toward a Coordinated Pension System in Europe: Rationale and Potential Structure

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THE NEED FOR A RAPID AND COMPREHENSIVE REFORM of the pension systems in most current and future member countries of the European Union (EU) is increasingly acknowledged by pension scholars and politicians. While a few countries have recently undertaken major reforms to make their pension systems financially sustainable, in the majority of European countries the reform efforts are still insufficient. Although national efforts can now draw support on intensified EU cooperation based on the Open Method for Coordination, this method takes the diversity of European pension design as a given, and much of the reform debate is still limited to fiscal issues at national levels. There is little discussion about a reform need beyond fiscal consideration. There is no discussion (anymore) about a reform move toward a more coordinated pension system within the European Union, and how such a system may look and come about. That is the topic of this chapter. To this end, it progresses in four sections. The second section reviews the reform needs of the pension systems for fiscal, social, and economic reasons. The third section makes the case for a move toward a more coordinated pension system in Europe. The fourth section sketches how such a system may look and come about. The central claim of the chapter is that a multipillar system, with a non-financial (or notional) defined contribution (NDC) system at its core and coordinated supplementary funded pensions and social pensions at its wings, is an ideal approach to deal with diverse fiscal, social, and economic reform needs. The approach would also introduce a harmonized structure while allowing for country-specific preferences with regard to coverage and contribution rate. Such a reform approach may lead to a Pan-European reform movement as a number of countries have already or plan to introduce NDCs, and others may easily convert their point system into an NDC structure.

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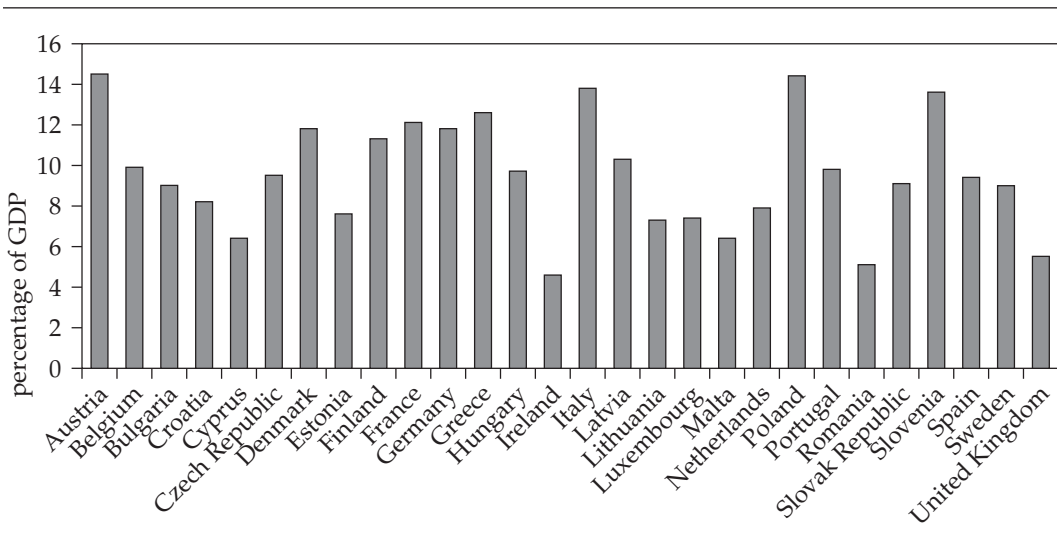
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The Need for Pension Reform in EU and EUA Countries

There are three main reasons¹ why EU countries and the new EU accession countries (EUA) in Central, Eastern, and Southern Europe need rapid and comprehensive reforms of their national pension systems:² First, the current high expenditure level and related budgetary pressure will only worsen given the projected further aging of populations. The national systems need to be reformed to handle aging in a manner consistent with individual preferences and macroeconomic constraints. Second, ongoing socioeconomic changes are rendering current retirement income provisions inadequate at the social and economic level. Third, globalization creates opportunities and challenges, and to deal with them effectively requires, inter alia, benefit and tax regimes that improve the functioning of factor markets.

The *expenditure level for public pensions* in most Western European countries is well above that of other highly industrial and postindustrial countries at a similar income level. The average of public pension expenditures as a percentage of gross domestic product (GDP) for the 15 EU countries in 2000 amounted to 10.4 percent (this is a low estimate because it includes only the expenditure under the projection exercise of the Economic Policy Committee 2001). The Organisation for Economic Co-operation and Development (OECD) estimate is about 1.3 percentage points higher (OECD 2002). The average for the non-European and affluent OECD countries—Australia, Canada, Japan, New Zealand, the Republic of Korea, and the United States—in 2000 was about 5.3 percent: that is, roughly half. In the EU, only Ireland (4.6 percent) and the United Kingdom (5.5 percent) have similar levels. This difference is also shared by the accession countries in Central and Eastern Europe. Except Romania (5.1 percent), all others have expenditure shares close to the EU

Figure 11.1. Pension Expenditure in EU and EUA Countries (plus Croatia), 2000 or latest (percentage of GDP)



Source: EPC 2001; Palacios and Pallares-Miralles 2000, updated; World Bank 2003b.

Note: Croatia data from World Bank 2003b.

average (and in Croatia, Poland, and Slovenia, well above) and hence much higher than non-European OECD countries, despite an income level of one-quarter and less. Poland's public pension expenditures, at close to 15 percent of GDP, rival that of Austria and Italy for the world championship (see figure 11.1). The gap between these expenditure levels and those in non-European OECD countries is only partially explained by differences in population age structure. Rather, it reflects differences in the public/private mix of provisions and in the benefit levels and the effective retirement age in the public systems. The replacement rate is generally much higher as public (largely unfunded) pensions are little supplemented by private and funded arrangements (except in Denmark, Ireland, the Netherlands, and the United Kingdom). The effective retirement age is typically low as a result of disincentives to work longer in current public schemes, special options for early retirement, and past labor market policy that deliberately attempted to keep the unemployment rate low by allowing older workers to exit prematurely. Yet the demographic component in pension expenditure is going to increase under unreformed systems as aging in Europe accelerates.

In Europe, the total fertility rate has been below replacement level (approximately 2.1) since the 1970s in the West and since the 1980s in the East, and there are few signs of a rebound from the current low levels. On the other hand, life expectancy is likely to increase during the next 50 years by 4.2 years for women and 5 years for men. As a result, for the EU15, the old-age dependency ratio is projected to increase from 27.7 percent (2000) to 53.4 percent (by 2050) (see table 11.1), based on rather optimistic assumptions with regard to total fertility rate (assumed to rise again to 1.8 in most countries) and life expectancy (assumed to rise less than in the past). The projections for the EUA countries are very similar (United Nations 2002); actually the projected pace of aging in the EUA is faster. Based on this projected change in the old-age dependency ratio in the East and the West, and in a no-reform scenario, expenditures would roughly double.

Of course, such a radical expenditure increase would not necessarily materialize because some reform measures have already been enacted, and system dependency ratios (beneficiaries to contributors) may not deteriorate to the same extent as old-age dependency ratios. Greater labor force participation by women is likely and that of both older (55+) men and women may increase as well. This, at least, is the scenario put forth by the Economic Policy Committee of the EU, and the country projections for the period 2000 to 2050 (EPC 2001; see table 11.2).³ As a result, the average EU public pension expenditures (captured under this exercise) are projected to increase "only" from 10.4 percent of GDP in 2000 to a peak of 13.6 percent around 2040 (with a projected fall from 5.5 to 4.4 percent for the United Kingdom, but almost a doubling for Spain from 12.6 to 24.8 percent). This moderate projected 30 percent increase of the average expenditure level (compared with a pure demographically induced increase of some 70 percent) is estimated as a result of lower benefit ratios (average benefits compared to GDP per capita) and higher employment ratios (employment to population aged 15 to 64). However, this modest increase in EU average public pension expenditure levels will require major changes in the pension schemes and their incentives for enhanced labor market participation and delayed retirement decisions. Put differently, a further major increase in pension expenditure can be prevented only if major reforms take place.

No similar and coordinated projection exercise has been undertaken for the new EU member states, but existing projections clearly paint a two-class picture (EPC 2003): In countries that have undertaken major reforms—such as Hungary and Poland—the expenditure share remains largely unchanged (and a similar path can be conjectured for reformed systems in Estonia and Latvia). In countries where a major reform is still out-

Table 11.1. Projections of Old-Age Dependency in EU and EUA Countries, 2000–50
(ratio of people aged over 64 to working age population, percent)

Country	2000	2010	2020	2030	2040	2050
Austria	25	29	32	44	55	55
Belgium	28	29	36	46	51	50
Denmark	24	27	34	39	45	42
Finland	25	28	39	47	47	48
France	27	28	36	44	50	51
Germany	26	33	36	47	55	53
Greece	28	32	36	42	51	59
Ireland	19	19	25	30	36	44
Italy	29	34	40	49	64	67
Luxembourg	23	26	31	40	45	42
Netherlands	22	25	33	42	48	45
Portugal	25	27	30	35	43	49
Spain	27	29	33	42	56	66
Sweden	30	31	38	43	47	46
United Kingdom	26	27	32	40	47	46
EU average	27	30	35	44	52	53
Bulgaria	24	24	29	34	41	53
Cyprus	18	20	26	32	34	39
Czech R.	20	22	32	38	47	59
Estonia	23	25	30	36	42	57
Hungary	21	23	29	33	40	50
Latvia	23	26	29	37	44	56
Lithuania	21	24	26	35	40	43
Malta	18	22	32	39	40	46
Poland	18	18	26	33	37	50
Romania	20	20	24	26	36	45
Slovak R.	16	17	23	30	36	47
Slovenia	20	24	32	44	53	64
EUA average	20	22	28	35	41	51

Sources: EU countries—EPC (2001); EUA countries—UN (2002).

standing, the expenditure share in percentage of GDP is projected to increase dramatically: to almost double in Cyprus and the Czech Republic, and to increase further from an already high level in Slovenia. World Bank internal projections are largely consistent with this picture.

Even if the budgetary and demographically induced pressures did not exist, there still would be a major need for most European countries to reform their public pension systems to better align them with socioeconomic changes. Three changes stand out: increasing female labor force participation; high divorce rates and changing family structures; and the rise in atypical employment. Furthermore, rising life expectancy and other changes also call for a rethinking of the design of disability benefits.

In the EU countries, the *labor force participation* of women has increased substantially over recent decades. In the former centrally planned countries, it was very high, but it decreased during the transition period of the 1990s (see table 11.3). The decrease for women followed that of men and was in some countries even less pronounced (World Bank 2003a). Although there are differences among EU countries (for example, in Italy,

**Table 11.2. Public Pension Expenditure in EU and EUA Countries in 2000–50
(percentage of GDP)**

<i>Country</i>	<i>2000</i>	<i>2010</i>	<i>2020</i>	<i>2030</i>	<i>2040</i>	<i>2050</i>
Austria	14.5	14.9	16.0	18.1	18.3	17.0
Belgium	10.0	9.9	11.4	13.3	13.7	13.3
Denmark ¹	10.5	12.5	13.8	14.5	14.0	13.3
Finland	11.3	11.6	12.9	14.9	16.0	15.9
France	12.1	13.1	15.0	16.0	15.8	—
Germany	11.8	11.2	12.6	15.5	16.6	16.9
Greece	12.6	12.6	15.4	19.6	23.8	24.8
Ireland ²	4.6	5.0	6.7	7.6	8.3	9.0
Italy	13.8	13.9	14.8	15.7	15.7	14.1
Luxembourg	7.4	7.5	8.2	9.2	9.5	9.3
Netherlands	7.9	9.1	11.1	13.1	14.1	13.6
Portugal	9.8	11.8	13.1	13.6	13.8	13.2
Spain	9.4	8.9	9.9	12.6	16.0	17.3
Sweden	9.0	9.6	10.7	11.4	11.4	10.7
United Kingdom	5.5	5.1	4.9	5.2	5.0	4.4
EU	10.4	10.4	11.5	13.0	13.6	13.3
Cyprus	8.0	—	—	11.9	—	14.8
Czech Republic ⁴	7.8	—	—	—	—	14.6
Estonia	6.9	—	—	—	—	—
Hungary ⁴	6.0	—	—	—	—	7.2
Latvia ³	9.8	—	—	—	—	—
Lithuania	5.3	—	—	6.0	—	7.0
Malta	5.4	—	—	—	—	—
Poland	10.8	—	—	9.6	—	9.7
Slovakia ³	7.9	—	—	—	—	—
Slovenia	13.2	—	—	19.7	—	18.1
Bulgaria	9.1	—	—	—	—	—
Romania	6.4	—	—	7.8	—	8.2
EUA	8.05	—	—	11.0	—	11.4

Source: EPC (2001), except as indicated.

Note: For most EU member states, these projections include most public replacement income for persons aged 55 and over. — = not available.

1. For Denmark, the results include the semi-funded labor market pension (ATP).

2. Results for Ireland are as percentage of GNP, not GDP.

3. Source is Gesellschaft für Versicherungswissenschaft und -gestaltung e. V. (which in turn draws on national statistics).

4. Source is OECD 2002.

female labor force participation in the age group 15–64 in 2000 stood at a low 46 percent, in contrast to Denmark where a 77 percent female participation rate is close to that of men), a further increase is projected for all countries. The EU average for women in the age group 15–54 is projected to increase from 63 to 76 percent, whereas that for men is projected to remain largely constant at around 85 percent. So far this change in female labor force participation is little reflected in countries' pension benefit structures (see table 11.4). The benefit rules still largely reflect the traditional image of a working husband and a child-caring housewife who needs a widow's pension for her protection in

Table 11.3. Labor Force Participation, Male and Female, in EU and EUA countries, 1960, 1980, 2000, and 2050 (percent)

Country	Male						Female									
	15-64			65+			15-64			65+						
	1960	1980	2000	2050	1960	1980	2000	2050	1960	1980	2000	2050				
Austria	90.1	84.9	74.4	79.3	15.0	4.5	2.0	6.0	53.0	54.4	57.7	67.8	7.0	2.6	1.0	5.0
Belgium	85.9	79.7	71.7	71.9	9.5	4.6	1.4	1.3	30.5	41.2	58.6	67.8	3.3	1.3	0.5	0.6
Denmark	92.3	88.3	85.1	81.8	32.6	15.4	9.4	8.1	42.8	71.3	77.3	80.5	8.0	5.2	2.7	2.4
Finland	87.3	79.3	74.8	73.9	31.7	6.8	4.0	2.5	55.5	69.4	73.0	74.7	12.0	3.0	1.4	1.0
France	88.9	81.5	75.6	75.1	26.0	5.8	2.1	1.7	43.6	55.1	62.2	70.0	10.2	2.9	1.2	1.0
Germany	91.0	83.2	80.7	80.1	24.0	8.9	4.5	2.4	50.4	51.9	64.7	71.3	8.0	4.2	1.7	1.1
Greece	90.1	83.5	76.7	76.6	45.0	27.0	9.6	7.9	26.3	31.8	46.7	67.0	8.7	6.1	3.7	3.2
Ireland ³	90.9	85.0	87.8	87.3	54.0	26.8	13.6	11.7	31.1	34.7	56.4	75.8	15.0	6.0	2.4	2.0
Italy	89.2	79.0	73.0	76.1	27.5	12.4	5.5	3.7	30.4	38.4	46.4	66.9	5.6	3.5	1.5	1.4
Luxembourg ¹	88.7	82.3	113.8	148.4	—	—	—	—	30.8	39.0	74.3	115.0	—	—	—	—
Netherlands	90.9	77.6	77.4	76.2	19.9	4.8	1.0	1.0	24.9	36.1	55.2	70.9	2.5	1.0	1.0	1.0
Portugal	93.5	87.1	87.5	87.2	62.9	29.7	16.7	14.3	18.4	52.4	66.4	81.5	11.0	8.4	7.1	6.5
Spain ³	92.8	86.4	83.6	85.5	56.6	12.3	2.8	2.8	20.3	32.9	54.7	75.2	9.4	4.1	1.1	1.1
Sweden	88.8	87.9	81.3	83.3	27.6	10.4	6.8	7.2	38.0	75.3	76.5	82.6	4.5	2.6	3.5	3.9
United Kingdom ³	94.6	89.2	87.6	85.9	26.6	11.0	6.8	5.8	43.6	57.0	69.9	75.5	5.4	4.1	2.7	2.4
EU	90.3	83.7	82.1	84.6	32.8	12.9	6.2	5.5	36.0	49.4	62.7	76.2	7.9	3.9	2.3	2.3
Bulgaria	88.4	82.7	77.2	77.2	38.3	18.8	10.1	8.6	68.9	70.4	71.4	68.8	8.5	3.9	3.0	2.5
Cyprus	91.7	88.6	88.0	86.1	53.0	35.7	20.5	0.2	42.0	46.7	56.9	59.1	17.6	11.8	7.8	6.3
Czech R.	86.5	84.8	83.0	80.6	24.4	18.8	11.7	10.3	61.6	75.0	75.0	71.7	9.2	7.1	4.9	4.5
Estonia	87.2	85.4	81.7	81.5	20.5	17.5	23.0	22.4	67.3	79.2	74.0	74.0	6.8	9.5	13.3	13.4
Hungary	91.7	84.8	78.7	76.2	57.0	3.8	0.9	0.9	46.9	62.0	61.1	60.5	20.0	3.0	0.2	0.2
Latvia	84.8	84.8	82.2	83.0	24.3	22.4	20.2	19.2	64.3	77.9	74.2	75.4	12.8	12.3	11.3	10.8
Lithuania	83.3	83.0	81.2	81.7	32.0	19.4	12.3	11.0	61.3	74.8	70.8	71.7	9.5	7.8	6.5	5.9
Malta	88.0	85.7	78.8	76.3	27.3	14.3	5.0	4.0	17.2	22.5	30.2	34.6	0.0	0.0	0.0	0.0
Poland	89.8	84.2	77.9	77.4	57.5	30.0	24.1	21.3	62.1	67.7	66.2	66.4	30.0	17.5	15.3	13.8
Romania	93.0	83.6	76.8	76.7	62.6	11.4	4.9	3.9	72.4	69.0	61.2	61.4	30.0	8.9	4.2	3.5
Slovak R.	86.5	83.5	82.1	81.8	30.9	19.8	11.0	9.6	47.4	69.3	74.6	72.7	7.7	4.7	4.2	3.6
Slovenia	89.9	81.9	76.0	74.1	57.1	19.0	11.8	10.2	44.3	67.0	66.5	64.9	13.5	10.0	8.6	8.0
EUA²	88.4	84.4	80.3	79.4	40.4	19.2	13.0	10.1	54.6	65.1	65.2	65.1	13.8	8.0	6.6	6.0

Sources: EPC (2001); OECD (2003); ILO (2003); UN (2002).

Note: — = not available.

1. Estimates for Luxembourg assumes increase in cross-border workers, which explains the high rate.
2. Projections for EU countries are for the year 2010.
3. Population aged 20-64.

Table 11.4. Pension Arrangements for Widows/Widowers and Divorcees in EU and EUA Countries around 2000

Country	Widow/widower's benefit		Divorcee's benefit	
	Eligibility	Benefits	Eligibility	Benefits
Austria	Deceased met insurance or contribution requirements for disability pension or was a pensioner.	Up to 60% of deceased spouse's pension, income tested. Rates below 60% may be increased depending on beneficiary's income.	—	—
Belgium	Those aged 45+, or disabled, or caring for a child. Should have been married for at least 1 year at the time of spouse's death. Conditions are waived if child born out of marriage or in case of accidental death.	80% of deceased spouse's pension. Minimum 9,102.11 euros/year if worker was fully insured; if not, then reduced. If widow(er) receives other pension, receives survivor pension only for 12 months and total pension benefits may not exceed 110% of own pension.	Special pension at age 60.	37.5% of former spouse's earnings during period of marriage less pension earned in own right during the same years.
Bulgaria	Deceased had 5 years of service, or 3 years if aged 20–25 or was a pensioner.	Minimum pension for each survivor is 90% of social pension. One survivor, 50% of deceased's pension; if 2, 75%; if 3 or more, then 100%.	—	—
Cyprus	Conditions same as for old-age pension, lump sum paid if conditions not met. Payable to widow or dependent disabled widower.	Same as old-age pension + 60% supplementary pension. Widow may substitute husband's coverage record for her own for period prior to his death.	—	—
Czech Republic	Deceased met pension conditions or was a pensioner.	Basic amount of 1,310 koruny plus 50% of deceased's pension, payable to all widow(er)s for 1 year, thereafter only to widow(er)s aged 55(58), or any age if disabled or caring for disabled/dependent child or disabled parent.	—	—

Table 11.4. (continued)

Country	Widow/widower's benefit		Divorcee's benefit	
	Eligibility	Benefits	Eligibility	Benefits
Denmark	Survivor pension eliminated as of 1984.	Lump sum paid to widow(er) and children under 18 of deceased; amount depends on pension of the deceased.	—	—
Estonia	Widow(er) not capable of gainful activity; deceased had 1–14 years of coverage depending on age.	One survivor, 40% of deceased's pension entitlement; 2 survivors, 70%; 3 or more 100%.	—	—
Finland	Under age 65 if caring for a child; if childless then at least age 50 at time of spouse's death and must have been married for at least 5 years, residing in Finland.	Universal pension awarded for first 6 months after spouse's death, thereafter becomes income-tested.	Eligible for survivor's pension if not remarried; pension proportionately divided if more than one surviving spouse.	—
France	At least 55 years and married for 2 years. Conditions are waived if child from marriage or if widow(er) and deceased were disabled. Personal income must be less than 13,874 euros/year and must not have remarried.	54% deceased spouse's pension, income-tested, payable for 2 years. If beneficiary is age 50, payment extended until 55.	Former spouse eligible for survivor's pension. Amount split between widow(er) and former spouse according to length of marriage.	54% deceased spouse's pension.
Germany	Deceased had 5 years of coverage, or was a pensioner.	100% of deceased's pension for first 3 months; 55% if aged 45+, disabled, or caring for a child; otherwise 25%.	—	—
Greece	Eligible for survivor's pension for 3 years, those above 40 continue to receive it provided they do not work or receive any other pension.	Full pension paid if disabled. Those who work or receive other pension get 50% of normal survivor pension. When survivors reach age 65 they are paid full pension, if receiving other pension at 65+ then they get 70% of normal pension.	—	—

Hungary	Deceased was pensioner or met requirements for pension at death.	50% of insured's pension paid to widow(er) who at the time of death was 55(60), disabled, or caring for 2 children, paid to other widow(er)s for 1 year only.	—	—
Ireland	Annual average of at least 39 weeks paid or credited in last 3 or 5 fiscal years prior to date spouse died or attained age 66, at least 24 weeks for minimum pension.	Contributory pension: up to 123.30 euros/week (144.80 euros if aged 66+), noncontributory pension: up to 118.80 euros/week (134.00 euros if age 66+).	—	—
Italy	Deceased was a pensioner or had 5 years of contribution of which 3 years were in the last 5 years.	60% of insured's pension, 80% if 1 child, 100% if 2 or more children; lump sum paid if conditions for survivors pension not met; must have paid at least 1 year's contribution in last 5 years.	Separated spouse eligible for survivor's benefit.	—
Latvia	Deceased was insured or was a pensioner.	50% of insured's pension, 75% if 2 survivors, 90% for 3 or more.	—	—
Lithuania	Deceased must have been a pensioner or had adequate coverage for disability pension at the time of death. Widow(er) who has reached old age or is disabled is eligible.	20% of deceased's benefit, 25% for each child, total may not exceed 80% of deceased's pension.	—	—
Luxembourg	Insured had 12 months of coverage in 3 years prior to death or was a pensioner.	100% of insured's basic old age pension plus 75% of increment earned by insured, payable without regard to personal income.	Divorced spouse eligible.	Amount depends on years of marriage, not on personal income.
Malta	Deceased paid 156 weeks of contribution with annual average of 50 weeks, paid or credited, reduced pension awarded for less coverage, earned income of widow(er) must not exceed minimum wage. Widows under age 60 with children under 16 qualify regardless of income.	Benefit varies depending on whether contributions were made before or after January 22, 1979. Earnings-related benefit that can be as much as 70.72 liri/week are 5/9th yearly average of best 3 consecutive years of last 10 years before husband's death or retirement. Upon remarriage, widow forfeits benefit from previous marriage and receives lump sum equal to 52 weeks pension.	—	—

Table 11.4. (continued)

Country	Widow/widower's benefit		Divorcee's benefit	
	Eligibility	Benefits	Eligibility	Benefits
Netherlands	Residents eligible. Payable to widow(er)/unmarried permanent partner.	Income-tested for those born before 1950, those 45% disabled, 932.38 euros/month for those caring for child under 18, benefit reduced by survivor's income from employment. No benefits if income > 2,002.54 euros/month.	—	—
Poland	Deceased was a pensioner or met employment requirements for old-age pension or disability benefits.	One survivor, 85% of deceased's pension; 2 survivors, 90%; 3 or more, 95%.	—	—
Portugal	Deceased met pension requirements or was a pensioner.	60% of insured's pension. Payable for 5 years only unless beneficiary over 35, disabled, or caring for a child.	—	—
Romania	Insured met pension requirements or was a pensioner at the time of death. Widows must fulfill certain age conditions and also duration of marriage requirements. No prior requirements if death was by work accident, occupational disease, or tuberculosis.	Limited benefit paid for 6 months to low-income spouse caring for child under age 7 who does not meet eligibility conditions, 50% of deceased's old-age pension; 2 survivors, 75%; 3 or more, 100%.	—	—
Slovak Republic	Deceased met pension requirements or was a pensioner.	60% of insured's pension payable to widows for 12 months, thereafter only to widows aged 50; aged 45 if she has reared 2 or more children; aged 40 if husband died in occupational accident; any age if disabled, caring for a child, having cared for 3 or more children; widowers pension 1,977 koruny/month.	—	—

Slovenia	Deceased met pension (old age or disability) requirements or was a pensioner and had 5 years of coverage and contribution; widow(er) must be at least 52(53) as of 2003.	70% of insured's pension; 2 survivors, 80%; 3 survivors, 90%; 4 or more, 100%.	—	—
Spain	Deceased had 500 days of contribution in the last 5 years, was pensioner at time of death, or had 15 years of contribution.	46% of either the deceased's or survivor's benefit base, whichever is higher, for income below a particular level—50%, 70% if there are dependents.	Ex-spouse not eligible for old-age pension once remarried unless 61+ at time of marriage, 65% disabled or survivor pension is 75% of pensioner's total income.	—
Sweden	Residents eligible. Deceased must be credited with pension points for at least 3 years or have 3 years coverage.	Benefit payable for 6 months if married or cohabiting for at least 5 years, under certain conditions. Payable for as long as living with child under 12. Special pension paid if unemployment or illness prevents self-support.	—	—
United Kingdom	Deceased met coverage requirements or was a pensioner.	Weekly allowance to those above age 45 without dependent children payable for 52 weeks after death of spouse. Amount depends on age at widowhood. Widow aged 18–59 with dependent children gets weekly allowance of 53.05 pounds plus 31.45–32.25 pounds for each child minus amount of other benefits/income.	—	—

Source: United States Social Security Administration (2002).

old age. Only a few countries, such as Denmark and Sweden, have fully moved toward independent pension rights and eliminated the traditional widow's pension (Denmark in 1984 and Sweden in 1991). As a result, there is often underprovisioning for young widows with children, and overprovisioning for widows with their own pensions—the latter group now includes widowers. To ensure gender neutrality, survivor's pensions in many countries have been extended to male spouses and the budgetary consequences are increasingly attempted to be curtailed by ceilings and tapers.

Furthermore, eligibility for survivor's pensions is complicated by the rising divorce rate. In a number of countries the divorce rates are more than 50 percent of the rates of marriage per 1,000 inhabitants (see table 11.5), which means that in many countries more than 50 percent of marriages will not survive, including second or third marriages. Countries with a more conservative divorce behavior, such as Italy and Ireland, can be expected to catch up quickly. But only a few countries have moved in the direction of establishing

Table 11.5. Changing Family Structures: Divorces and Marriages in EU and EUA Countries around 2000 (per 1,000 people)

<i>Country</i>	<i>Divorces (per 1000 people)</i>	<i>Marriages (per 1000 people)</i>
Ireland	0.7	5.1
Italy	0.7	4.9
Greece	0.9	5.4
Spain	1.0	5.2
Portugal	1.8	5.7
France	2.0	5.1
Luxembourg	2.3	4.5
Netherlands	2.3	5.1
Germany	2.4	4.7
Sweden	2.4	4.0
Austria	2.5	4.2
Finland	2.6	4.8
United Kingdom	2.6	5.1
Denmark	2.7	6.6
Belgium	2.9	4.2
EU average	1.9	5.1
Bulgaria	1.3	—
Cyprus	1.7	—
Czech Republic	2.9	—
Estonia	3.1	—
Hungary	2.4	—
Latvia	2.6	—
Lithuania	2.9	—
Poland	1.1	—
Romania	1.4	—
Slovakia	1.7	—
Slovenia	1.1	—
Malta	—	—
EUA	2.0	—

Sources: EU countries—EU (2003); U.K. Office of National Statistics, Inc. (2001). EUA countries—Americans for Divorce Reform (2003); UN (2001); Council of Europe (2001).

Note: — = not available.

independent rights for spouses (and even less for partners): that is, the individualization of pension rights. In many countries, benefit traps for women still exist: that is, incentives against rejoining the labor market or remarrying when eligibility for a survivor's pension has been achieved.

Another and more recent development concerns the rise in *atypical employment*: that is, the reduction in full-time salaried employment and the increase in part-time employment, self-employment, and temporary employment (see table 11.6). This development may be ascribed to globalization and competitive pressure that makes full-time employment and a life career with the same employer less dominant than it used to be; it may also be linked to more self-selected flexibility in the labor market (including the choice of retirement provisions). Data for OECD countries suggest that coverage under public pension schemes is decreasing (Holzmann 2003). Whatever the reason, these atypically employed people do not fare well under some pension schemes, which are based on the full-time employment fiction. In many current systems, the atypically employed fare extremely well, which limits their incentives to contribute on a continued basis. Again, this situation calls for reforms (and a stricter contribution-benefit relationships).

Socioeconomic changes also call for a review and redesign of disability benefits, including the delinking of design, delivery, and financing of old-age benefits. At the start of the Bismarckian-type pension scheme, disability benefits were much more important for individuals than old-age benefits as only one in six workers could expect to reach the advanced retirement age of 70. Old-age pensions then can be conceptualized as generalized or cate-

Table 11.6. Selected Work Arrangements in Europe, 1988 and 1998 (percent of total employment)

Country	Total employment (000s)		Self-employment (including family workers)		Part-time employment		Temporary employment ¹	
	1988	1998	1988	1998	1988	1998	1988	1998
Austria	—	3,626	—	13.8	—	15.8	—	6.8
Belgium	3,483	3,857	18.0	17.4	9.8	15.7	4.5	6.4
Denmark	2,683	2,679	11.0	9.7	23.7	22.3	10.2	9.1
Finland	—	2,179	—	14.6	—	11.7	—	15.1
France	21,503	22,469	16.2	12.5	12.0	17.3	6.6	12.2
Germany	26,999	35,537	11.5	11.0	13.2	18.3	10.1	10.9
Greece	3,651	3,967	49.5	43.4	5.5	6.0	8.8	7.4
Ireland	1,090	1,496	25.3	20.2	8.0	16.7	6.8	6.1
Italy	21,085	20,357	29.5	28.7	5.6	7.4	4.1	6.1
Luxembourg	152	171	11.2	9.4	6.6	9.4	3.3	2.4
Netherlands	5,903	7,402	12.1	11.6	30.3	38.8	7.7	11.2
Portugal	4,427	4,764	30.9	28.2	6.5	11.1	12.6	12.4
Spain	11,709	13,161	29.1	23	5.4	8.1	15.8	25.3
Sweden	—	3,946	—	11.4	—	23.9	—	11.4
United Kingdom	25,660	26,883	12.7	12.5	21.9	24.9	5.2	6.1
EU	128,345	152,494	19.1	16.6	13.2	17.4	7.8	10.6

Source: Holzmann (2003).

Note: — = not available.

1. Dependent employees, including apprentices, trainees, and research assistants.

gorical disability pensions: that is, insuring much the same risk. Nowadays an old-age pension is a life-annuity paid with accumulated funds or acquired rights and insures against the uncertainty of death. Conceptually, it is totally delinked from failing work capacity. But the original design of disability pensions and the close link to old-age pensions still prevail in many of the European pension systems, and the mixed design has also helped the use of disability pensions as a form of unemployment benefits in many countries. Furthermore, sport and car accidents instead of general incapacity have become a major reason for the granting of disability benefits, in particular at younger ages. As a final argument, disability benefits—insurance-based and means-tested—need to be reviewed and integrated into the design of an overall work/benefit package for the disabled (OECD 2003).

Last but not least, *globalization*—understood as high and increasing integration of markets for goods and services, factors of production, and knowledge—calls for changes in the way public programs operate, including in the area of pension provision. Such reforms are needed not only to reap the benefits of globalization but also to deal with challenges that include profound shocks resulting from technical innovations and shifts in the demand and supply of goods and factors. This calls, *inter alia*, for more flexibility across labor markets, improved financial markets, and lifelong learning.

A main conjecture about the fate of nations and their economic performance in a globalized world is their capacity to deal with shocks, in particular those that require the existing economic structure to adjust. It is claimed that the more flexible and adjustable an economy is in reacting to such shocks, the better it will fare. Such *flexibility* comprises mobility of individuals across professions, including between the public and the private sector. In most European countries, such mobility is hampered by separate pension schemes between both sectors that limit if not eliminate any movement between them. Moreover, separate schemes render the application of some reform measures difficult or counterproductive. For example, increasing the retirement age for all primary school teachers to, say 67, may not be in the best interest of all concerned, but it is feasible if a teacher can move easily to a related or different profession.

The integration of countries into the world economy is importantly linked with their own *financial sector development*. A developed domestic financial market is a main ingredient for full capital account convertibility, including the capacity to diversify pension assets internationally.⁴ International diversification is, perhaps, the only free lunch in the world, and it promises major welfare effects as long as national and international rates on return of retirement assets (beyond shares) are little correlated. This requires, however, that some minimum domestic financial market exists. Forcing individuals to hold most or all of their pension assets in illiquid pay-as-you-go (PAYG) assets is not an optimal strategy for dealing with diverse risks to which individuals are exposed and is clearly not welfare enhancing. Restricting a country solely to PAYG is truly an example of taking the risk of putting all pension eggs into one basket. Pension reforms that include introducing or strengthening a funded pillar allow such a risk diversification and at the same time can importantly contribute to development of the domestic financial market. Well-developed domestic financial markets are a critical pillar of a market-based economy as they mobilize intermediate savings, allocate and price risk, absorb external financial shocks, and foster good governance through market-based incentives. The level of financial market development is positively linked to output level and quite likely also to economic growth paths.⁵ Such effects are crucial for the EUA countries and are likely to be important for various current EU member states as well.

Last but not least, to handle aging through prolonged labor market participation, to provide labor market flexibility in a socially acceptable manner, and to contribute to knowledge and skill formation as a major ingredient for economic growth, a pension sys-

tem that supports *lifelong learning* is required. Too many pension schemes today are still based on the strict separation of education, work, and retirement leisure. But a modern economy and the need for lifelong learning require a pension scheme in which the mixing of the three activities is encouraged and not impeded—for example, going back to school after years of work, bringing forward (retirement) leisure, or taking up work again after retirement (say, from ages 70 to 72). Such flexibility is discouraged in most current pension schemes.

To deal with aging, socioeconomic changes, and globalization, a reform approach is required that moves toward a more actuarial system structure that better links contributions and benefits and includes more individualization to handle professional and family mobility and also some funding to allow more individual decision and choices. The approach must go beyond a parametric adjustment of existing schemes. For most old EU member countries, this contrasts with the adopted reform approach so far, while new EU member countries have shown more inclination to adopt a paradigmatic shift in pension provision,⁶ yet with stronger differentiation in system design compared with Latin America.⁷

Reforms in the 1990s and early 2000s in the EU countries were essentially of a parametric nature—with Sweden and partly Italy as the only exceptions. The reform package typically included a combination of the following elements: reduction or elimination of early retirement provisions, an increase in the retirement age or related indirect measures to this effect, reduction in the annual accrual factor, further changes in indexation, and introduction or enhanced support of a funded voluntary pillar. Only a few countries started toward more harmonized national systems (for example, Austria and partially France). Most countries ignored the nonfiscal reform needs except, perhaps, for reasons of political economy.⁸ While essentially all these reforms move in the right direction, even from a fiscal point of view more is needed and rapidly.⁹

The Need for a Better-Coordinated Pension System in an Integrated Europe

While there is increasing support for national pension reforms in old and new EU member countries, and despite agreement with some or perhaps all of the arguments advanced above, there is little understanding of and support for a Pan-European approach that should lead to a coordinated pension structure. Pension systems are considered—like other parts of social policy programs—as a national agenda item with little indication that member countries see a necessity for more coordination, and even less harmonization. Astonishingly, neither does the Commission of the European Union, which in many other areas often sees the need for such coordination, or even harmonization, and pushes accordingly. The EU approach of “Open Coordination” of the reform efforts by member countries is viewed as a benchmarking device, not a harmonizing one.¹⁰

This section argues that a major impetus for a Pan-European pension reform approach resides in European economic integration, and the objective of common markets for goods, services, and factors of production under a common currency—the euro. This objective has implications for the provision of retirement income: budgetary implications, the need for more labor market flexibility, and the need for enhanced labor supply in an aging population.

The concept of a stable common currency in Europe is linked with the Maastricht fiscal criteria to keep the fiscal deficit below 3 percent and public debt below 60 percent of GDP. Although the selection of the criteria may be questioned,¹¹ the objective is sound: to avoid excessive and opportunistic fiscal expansion by some member countries at the detriment

of the internal and external value of the euro. To comply with the related growth and stability pact, the 12 “Euroland” members engage to achieve a structural budget deficit of zero percent (to allow for fiscal expansion when cyclically needed). But many countries will not be able to achieve a zero budget deficit in a sustainable manner unless the pension system is reformed and the explicit or implicit transfers from the budget are curtailed. In Austria, as an extreme example, the pension-related deficit amounts to almost 5 percent of GDP. And all current and future member countries are exposed to enhanced fiscal pressure of population aging in the main public programs—pensions and health—in addition to the not yet fully grasped expenditure pressure in long-term care programs or infrastructure.

Room for budgetary expansion (and contraction) is needed in a common currency area because exchange rate and interest rate policy are lost and few other instruments are available to deal with asymmetric shocks hitting some member states and not others. Given the limited effectiveness of fiscal policy in an integrated economic area resulting from high leakages to other regions or compensating private sector savings, the other main policy instrument has to come into play: *labor market flexibility* through wage flexibility and migration.

Empirical evidence for the United States suggests that although wage adjustment during regional crises is important, the main adjustment mechanism is migration from (temporarily) contracting to expanding regions.¹² This can be contrasted with the European experience, in which both wage flexibility and migration have had little importance;¹³ actually the international and inter-regional mobility in Europe during recent decades has been very low.¹⁴ For Europe, both adjustment mechanisms are likely to remain less important than in the United States because of more rigid labor markets, and cultural and linguistic barriers; the last two restrictions also translate into a larger loss of social capital when moving.¹⁵ However, both wage adjustment and migration mechanisms need to be strengthened if sluggish adjustments after demand or supply shocks are to be avoided, along with their economic and social consequences.

A particular recent drastic example of the consequences of delayed structural adjustment and lack of mobility in resource reallocation under a common currency-type arrangement is Argentina. The introduction of the currency board with the national currency pegged to the U.S. dollar was motivated by many episodes of hyperinflation and the expectation that the tight monetary corset would help to push through reforms in the goods and factor markets. But these reforms (including reforms in the labor market) did not come through as expected, which left the country very vulnerable when shocks hit the world economy and neighboring countries.

One important mechanism to support a common currency and adjustments after shocks is a pension system that does not lock persons into sectors and countries, but instead supports full labor mobility across professions and states—a requirement that is far from reality in the European Union. In many European countries, different pension rules for public and private sector workers impede mobility between the sectors. Mobility between states exists notionally for public schemes (less in reality), but full portability for corporate and voluntary funded systems is still under construction. As a result, the European Union does not have a coordinated—and even less a harmonized—pension system, which characterizes other economically integrated areas under a common currency (such as Australia, Brazil, Canada, Switzerland, and the United States). These federations or confederations exhibit many differences at state or provincial levels (including income taxes or short-term social benefits), but they have one thing in common—a public retirement income scheme across states.

A third main argument for a more coordinated Pan-European pension system resides in the need for more *labor market integration* that goes beyond the requested labor market flexibility. A strand of international economics suggests that free trade in goods and services or alternatively free capital flows may be sufficient to lead to equalized factor prices and maximize welfare. However, in the real world of externalities and imperfect competition, quite likely the performance of all markets, including the labor market, needs to be improved and integrated more strongly to maximize welfare.¹⁶ Full integration of the European labor market requires full portability of pension rights between countries.¹⁷

Finally, the long-term *external value of the euro* is likely to be determined or at least co-determined by the growth expectation of Europe (compared with the United States or other currency areas). Current-period balances or imbalances in flows of goods and services or even the net-asset positions of countries are increasingly conjectured to lose their importance in determining the relative price of a currency under globalization. Productivity growth can only compensate partially for the effects on GDP growth of projected population decline in the EU15 (13 percent between 2000 and 2050, compared with an expected increase in the United States of 50 percent or more; see Holzmann and Muenz 2004)—and higher productivity requires mechanisms to reallocate workers from shrinking to expanding sectors and regions. If falling population and aging are not better compensated for through increased labor supply resulting from higher labor market participation, delayed retirement, and increased external migration, the impact on GDP growth will be substantial. The weakness of the euro until recently (compared with the U.S. dollar) may be explained by expectations of the financial markets about the relative growth of these two currency areas. Enhanced labor force participation and delayed retirement, however, require major changes in age management practices in work places and labor markets, as well as appropriately reformed retirement income schemes.

Clearly, although a Pan-European pension system would help remove current constraints on labor mobility, in and by itself it is not sufficient. It would help as it reduces the transaction costs for people wanting to move between member states. These costs can be very high and, in consequence, mobility very low, as suggested by migration research. But uncoordinated pension systems are not the only source of transaction costs. Other national social programs need to be adjusted in order to enhance mobility—most importantly, health care financing, and in particular the private/supplementary health care programs. And there are nonmonetary costs as a result of culture and language barriers. The latter will be gradually reduced as younger people and the more educated population are increasingly more proficient in other European languages or use English as *lingua franca*. Open borders with more travel, more inter-European marriages, and the emergence of a European identity will also reduce actual or perceived cultural barriers.

Potential Structure of Pan-European Pension System and Transition Issues

What structure could or should a more coordinated Pan-European pension system have? And if an appropriate steady-state system were to emerge from the discussion, what are the transition issues the approach would encounter? And how could they be solved? This section suggests answers to these questions. Issues of the political economy and how to get there will be addressed in the concluding remarks in the last section. This section starts out by outlining the general and specific main objectives a Pan-European pension system should have, before reviewing which of the main three options fits best. The proposed Pan-European system consists of a mandatory first pillar NDC plan, a (voluntary) funded

pillar with occupational and individual retirement plans, and a basic (or zero) pillar of social or noncontributory pensions providing minimum income support for the very vulnerable elderly. All elements are discussed in turn, with main emphasis on the NDC pillar. The proposed structure has highly attractive features against a Pan-European objective, but is also suggested to be an extremely powerful reform option for the many ailing pension schemes in Europe and beyond.

Demands on a Reformed and Coordinated Pan-European Pension System

What objectives should such a reformed system fulfill? A presentation of these desiderata should allow for a transparent and objective discussion and an easy comparison with alternative reform proposals. Two sets of objectives are suggested: generic objectives that all modern pension systems worldwide should fulfill, and specific objectives that result from the EU background.

The generic objectives are the ones developed and proposed by the World Bank in a recent policy position report, and two levels of goals—primary and secondary—are distinguished.¹⁸

The primary goal of a pension system should be to provide adequate, affordable, sustainable, and robust old-age income, while seeking to implement welfare optimizing schemes in a manner appropriate to the individual country.

- An *adequate* system is one that provides benefits to the full breadth of the population that are sufficient to alleviate old-age poverty on a country-specific absolute level, in addition to providing a reliable means to smooth lifetime consumption for the vast majority of the population.
- An *affordable* system is one that is within the financing capacity of individuals and the society: one that will not displace other social or economic imperatives or lead to untenable fiscal consequences.
- *Sustainable* refers to the financial soundness of a pension system and its capacity to be maintained over a foreseeable horizon under a broad set of reasonable assumptions.
- *Robust* refers to the capacity to withstand major shocks, including those coming from economic, demographic, and political risks.

The secondary goal of mandated pension provisions (and their reform) is to create positive output effects by minimizing negative impacts, such as on labor markets, while leveraging positive impacts, such as on financial market development. This secondary goal is important since all retirement incomes—whether funded or unfunded—are essentially financed out of the country's output. The centrality of output for pension systems¹⁹ for delivering on the primary goals makes it imperative that the design and implementation of pension systems are checked for their economic output level and growth effects.

The suggested specific objectives of a Pan-European pension system, to be used as criteria for selection and choice, are: mobility, national preferences, solidarity, and feasible transition.

- First, the system should allow for *easy, most unrestricted mobility* between professions, sectors, and regions and also between stages of the life cycle (school, work, and leisure) and family structures.
- Second, the system should be consistent with the (European) concept of *solidarity*, understood as a mechanism of risk sharing among and between generations, redistribution of income from the life-time rich to life-time poor, and open risk coverage.

- Third, the system should allow for *national preferences* of target levels of (mandated) benefits or contributions, and the redistributive allocation of resources toward the poor or specific groups or activities.
- Finally, the proposed future system should involve a *feasible system transition* from the current national systems for the largest possible number of member countries.

Potential Structures of a Pan-European Pension System

There are three main options for a future Pan-European pension system that aims to fulfill the objectives set out above: a basic pension plus a mandated fully funded pillar (Beveridge for all); an unfunded defined benefit system plus voluntary fully funded pensions (Bismarck for all); and a basic or noncontributory pillar plus an NDC pillar plus a voluntary (or mandated) funded pillar.

The first option—a basic pension in the form of demogrant or means-tested social pension plus a mandated fully funded pillar providing defined contribution (DC) benefits—would be consistent with all objectives, except most importantly the one on easy transition. Such a system may be structured in such a way as to target all primary and secondary goals, and if well done it may achieve these goals pretty well. Namely, such a system can ensure mobility, allow for national preferences (for example by country-specific levels of basic pensions and contribution rates for the funded pillar), and can be structured to ensure solidarity: for example, through a central public pension fund that pays one rate of return (hence pooling of risks across individuals) and through explicit budget transfers to individual accounts to deal with low income or periods of unemployment (as in Mexico). A main obstacle is (easy) transition. Abstracting from political problems to find consensus for such an Anglo-Saxon approach in continental Europe, the main obstacle is fiscal. It is well known that such an approach makes the implicit debt that pension promises constitute explicit, and the level of this implicit debt is in the range of 200–300 percent for most European countries.²⁰ Repayment of such an amount is beyond political and economic reach, and for a broad range of assumptions not Pareto-improving.²¹ Although a repayment of the debt may not be necessary to achieve the social policy objectives, it can be doubted that international markets are willing to live with such an explicit debt level of the European Union without consequences for interest rate and exchange rate of the euro.

Under the second option, a future pension system would expand the dominant Bismarckian approach of an unfunded and publicly managed defined benefit (DB) system to the whole European Union. Supported by social pensions and voluntary funded pensions, such an approach can also achieve many but not all objectives. Well structured, it can achieve all the primary goals, and very well structured it may even support the secondary goals of a pension scheme. But as experience with such systems throughout the world indicates, it will be difficult to make such structural reforms happen (and agreed at European level). With regard to the specific EU objectives, an inconsistency between the mobility goal and national preferences emerges. For example, with different accrual rates or additions for, say, childcare under another identical DB structure, it would be difficult but not totally impossible to move from one profession or member country to the next, but the administrative efforts to emulate such a mobility would be gigantic while not fully successful. Last but not least, the transition would first require a consensus on a DB structure (and there are many), and a second consensus on complicated rules of transitions.

The third option, the proposed structure of a (mandated) first pillar NDC plan, a (voluntary or mandated, if so desired) funded pillar with occupational and individual retirement plans, and a basic pillar of social/noncontributory pensions that provides minimum

income support for the very vulnerable elderly, is claimed to fulfill all objectives—generic and specific, primary, and secondary.²² Of course, there is room for design and implementation specificities to make a future structure fit very well or less well. The following subsections outline the basic structures and design elements to make it fit well.

The Crucial (First) Pillar: Non-Financial or Notional Defined Contribution Plan

To motivate the choice of NDC as the crucial pillar of a future Pan-European pension system, this subsection progresses in three parts: outlining the basic structure of an NDC system, highlighting its capacity to deal with system objectives and reform needs, and presenting the ease of transition for most (but not all) EU member countries.²³

BASIC STRUCTURE OF IDEAL NDC²⁴

One main attraction of an NDC system is the simplicity of its basic structure if one follows the rule book: that is, if it is seen as a system that makes the algebraic and economic logic and constraints of an (unfunded) pension system explicit. Simply put, an NDC system consists of an individual account system to which contributions by individuals (and their employers) are earmarked, notional interests paid, and at retirement the accumulated (notional) amount used to determine the level of annuity based on the residual life expectancy (and the notional interest rate). As a result, the system should be quasi-actuarially fair at the margin and on average.²⁵ Crucial elements for design and implementation are:

- The choice of a notional interest rate consistent with internal rate of return of a PAYG scheme: that is, growth rate of aggregate (covered) wage sum. Per capita rates of wage or GDP growth or contribution revenue will not do the trick if the contribution rate is constant, but the discussion about the (most) appropriate notional interest rate choice is far from over.²⁶
- The choice of remaining life expectancy. Politically determined underestimation (for example, by taking the cross-section life expectancies instead of estimated cohort life expectancies) to deliver higher annuities will also jeopardize financial sustainability.
- The indexation of benefits. Although indexation beyond price adjustments is feasible, in principle, keeping benefits constant in real terms allows higher initial benefits. A temporary underindexation compared with a steady state also allows building up a reserve fund.²⁷
- Although a reserve fund is not strictly needed in an NDC system to guarantee balancing the pension budget in every period—that is, to make it fully immune against economic and demographic risks²⁸—it avoids extreme fluctuation in benefit levels.²⁹

Other important basic design elements, which are discussed below, concern the minimum eligibility age to own pension and to minimum pension, if any; the introduction of redistributive elements; and transition rules to new NDC benefits. This and other design elements are discussed in more detail in Palmer (2006a; 2006b).

DEALING WITH SYSTEM OBJECTIVES AND REFORM NEEDS

An NDC pillar (together with a well-designed basic plus voluntary pillar) is able to achieve all reform needs outlined in the second and third sections, and to fulfill all system objectives. The discussion that follows concentrates on a subset for reasons of space and importance: financial sustainability, changing family structure and establishing own pension rights, mobility across professions and across states, and national preferences and solidarity.

Achieving financial sustainability, in particular under conditions of an aging population, is one of the trademarks of an NDC system, albeit it is not fully automatic. As life expectancy increases, individuals receive a lower pension benefit for a given retirement age, for which they can compensate by extending their labor force participation (or additional individual savings). Hence the system encourages behavior that deals with aging in a consistent and balanced manner: namely, splitting the increase in life expectancy between more work and more retirement leisure. Earlier or later retirement for a given age is sanctioned (rewarded) by quasi-actuarial decrements (increments) consistent with a PAYG scheme. But financial stability cannot be achieved automatically in all periods³⁰ without the use of a balancing approach.³¹ A reserve fund is needed to fund the contributions of relatively large cohorts, as well as external financing to cover possible noncontributory risks. It is also a general buffer that helps stabilization of a number of key variables.

Dealing with increasing female labor force participation, changing family structures, and rising divorces is easy under an NDC system, as it allows individualization of pension rights, together with considerations of fairness and efficiency. For example, marriage and separations over the life cycle can be easily handled by splitting the accumulated (notional) amounts (contributions and interests) of the time together. But even if the marriage lasts until retirement, one can imagine a splitting of benefits at retirement (as unisex survival probabilities may be applied anyhow). Also survivorship can be handled in an easy manner: for example, widows/ers with very young children receive a generous transitory pension until, say, the children enter school, and the split accumulations from prior marriage help build her (or his) own pension account and eliminate any pension benefit trap. Since in most European countries accumulated financial and physical assets during marriage are split at divorce, it would be inconsistent not to split the accumulated pension rights.

Mobility across professions can easily and quickly be established, as an NDC plan allows immediate harmonization of pension schemes with few technical problems. Take civil servants pensions to be integrated into a national NDC pillar. For those already retired, nothing changes. For those with accumulated pension rights, these rights can be estimated with high precision, transformed into a present value, and credited to an individual (notional) account. The next month (or year) this individual gets credited the unified contributions and notional interests as everybody else. As a result, for those very close to retirement, little change in the pension amount takes place, while for those with only a few years of work record, the new system dominates by far. Quite likely such a reform will need to be accompanied by a review of the overall compensation package of the public sector, leading to changes in earnings profile or, perhaps, introduction of supplementary but funded pensions of DC type.

The mobility across EU member countries can also be made very easy under an NDC plan. Albeit the accumulated amounts are only notional, they are very precise and allow an easy aggregation across countries with two main approaches. Under a *transfer approach*, a worker moving from, say, Germany to France would take his accumulated amount along (that is, the German social security scheme would need to make a cash transfer to the French social security scheme). The pension would be calculated and disbursed in the country when the worker stops his or her activity and applies for a pension. From a national point of view, only the balance for all labor market migrants (to and from the country) need to be transferred, which is likely to be modest. Under the alternative *preservation approach*, each worker would keep his or her account and continue to receive national notional interests until retirement. Then the individual would receive partial pensions from as many countries as he or she has worked in. The second approach seems more transaction-cost intensive (unless administrated under a Pan-European clearinghouse) and

may create a problem in case minimum pensions are granted (unless delivered in each country through top-ups and based on residency). Of course, social arbitrage is not excluded under the first approach, as individuals may be tempted to move before retirement to a country with high minimum pension, low remaining life expectancy, and low income tax rates.

But incentives for social arbitrage will always exist in case of national preferences and different depth of national solidarity across member countries, and NDCs cum social pensions/top-ups allow for national preferences. For example, one country may prefer a frugal mandated pension for its residents and prescribe a low NDC contribution rate (say 10 percent) and expect more voluntary contributions to well-regulated funded schemes (say also 10 percent). Another country may prefer a high target replacement rate and mandate a higher contribution rate accordingly (say 20 percent), but expect few people to contribute to a funded pillar. Individuals moving between these two countries would not fare too differently. The NDC approach exhibits national solidarity through its pooled rate of return approach—one single notional interest rate—and the sharing of economic and demographic risks. The second element of solidarity—redistribution—can also be easily introduced in NDC systems, but requires direct payments from the budget at the time of granting. For example, low-income workers can be provided a copayment to their contribution or for periods of recognized unemployment. The contributions to the NDC system are paid in cash by the unemployment benefits system.

DEALING WITH TRANSITION ISSUES ACROSS MEMBER COUNTRIES

The previous subsection has already highlighted that a transition across earnings-related and unfunded pension regimes within a country is technically but not necessarily politically easy. The same applies to countries that start from different systems. In the discussion that follows, such transition issues are discussed by country groupings.

Coordinating among the existing NDC countries. Four EU countries have already introduced NDC systems: Italy (1995/96), Latvia (1995/96), Poland (1998/99), and Sweden (1994/99). The first date refers to the year of legislation and the second date to the first year of payment into NDC. Although these countries share the broad system design of NDC, there are major differences in some design and implementation elements.³² For example, the countries use different notional interest rates, different ways to determine the residual life expectancy, or different transition rules to the new system. This raises two general issues: to what extent must or should a Pan-European NDC system have the same system design and implementation features (and hence be fully harmonized, except, say the contribution rate levied); and to what extent must or should the transition rules be harmonized?

For example, using different notional interest rates is primarily an issue of financial sustainability for the national scheme. Assuming that the choice of the rate of aggregated wage growth provides sustainability but the per capita average wage growth is too high, a country that chooses the latter would need to balance through other means (such as annual benefit indexation) or find additional budgetary resources. A priori there is no reason why such national preferences should not be granted.

There are more arguments for some harmonization of transition from the old to the new system. For example, Italy and Sweden will only gradually phase in the NDC system over the next decades, while Latvia has moved all workers in one stroke to the new system. If mobility across professions and countries is the main goal of a Pan-European reform, it is the latter approach that is needed—an approach that, however, allows for the expression of national preferences, in particular concerning the generosity of the transition rules at the detriment of financial sustainability.

Transitioning quasi-NDC countries. Two countries have unfunded DB systems that almost mimic NDC systems and hence should be easy to transit: Germany and France. A DB system that uses lifetime income revalued with national wage growth and actuarially determined annuities based on yearly revisions is algebraically similar (but not equivalent) to an NDC system.³³ In reality, sizable differences do exist,³⁴ which may not prevent a transition toward a common NDC design but would make such a transition not different from that of other earnings-related schemes.

Transitioning other Bismarckian systems. The transitioning of the many other current and future EU countries with a typical unfunded and earnings-related social insurance scheme for old age is, in principle, very simple and equivalent to transitioning civil servants benefits to NDC (discussed above)—calculate the acquired pension rights and transform them into the present value: that is, a lump sum amount to be credited to the individual account. The alternative approach would be to use past contribution records and past notional interest rates to determine the initial amount. In an actuarially fair scheme, the result would be the same. Under current conditions in a number of countries, the first approach may be cheaper for governments, as it will capitalize on the recent reforms that have reduced the present value of pensions (via increase in retirement age, change in indexation, and so on).³⁵ Hence, for fiscal reasons, a substantive parametric reform prior to a move toward NDC makes sense. This will be the case for Austria, which just did such a parametric reform and which is discussing a move toward NDC/individual accounts. An NDC reform is also under discussion in Hungary and the Czech Republic, and proposed by researchers in countries such as Belgium, Germany, Greece, Portugal, and Spain (see, for example, Vidal-Meliá and Domínguez-Fabián (2006).

Transitioning the European outliers. Although Bismarckian-type systems by far dominate the European scene by the number of population covered, four main countries have a more Beveridge-type system, for which a transition toward NDC would constitute a main policy change. Ireland has a flat-rate contributory and noncontributory system. The United Kingdom has a flat-rate contributory plus an earnings-related system (SERPS), with opting-out options to private sector arrangements for the latter. Denmark and the Netherlands have universal pensions, which are flat in Denmark, and prorata with regard to residency in the Netherlands (see EPC 2001). The new EU member countries in Central and Eastern Europe have inherited a pension system that is typically earnings-related. This was not changed during the economic transition (except the reforms moving toward a multipillar structure; see annex to Holzmann, MacKellar, and Rutkowski 2003).

If a transition/nontransition were to be envisaged, what would be the approach? For a typical universal and basic system plus a quasi-mandated funded scheme, such as in Denmark, one solution to achieve some coordination with regard to mobility would consist in providing a buy-in option to the universal pension as well as funded scheme by transfers of an accumulated NDC amount, or the reverse when migrating from Denmark.

The Funded—Second or Third—Pillar in a Pan-European Pension System

With a well-designed Pan-European NDC scheme that allows for national preferences, what is the role of a funded pillar, what structure should it have, and what needs to be done to make it work well? All current and future EU member countries already have funded pillars at different levels of importance and sophistication. These will need some adjustment and coordination to achieve the objectives of a Pan-European pension system (table 11.7).³⁶

Table 11.7. Scope of Funded Pensions in EU and EUA Countries around 2002

<i>Country</i>	<i>Mandated second pillar</i>	<i>Description</i>	<i>Contribution rate</i>	<i>Share of covered LF as %</i>	<i>Funded pension as % of retirement income³</i>	<i>Funded pension assets as % of GDP</i>
Austria	no	n.a.	n.a.	n.a.	3.0	2.6
Belgium	no	n.a.	n.a.	n.a.	0.5	4.8
Bulgaria ²	yes	Supplementary mandatory pension funds; not less than 50–100 leva for farmers and 200 leva for self-employed; maximum monthly income 1,000 leva, current contribution 2% but planned increase to 5%; no reserves.	2% payroll	48.4	Close to nil	Close to nil
Cyprus	no	Supplementary earnings-related contributions/benefits. Voluntary coverage for formerly covered persons and for Cypriots working abroad for Cypriot employers. Employer contributes 6.3% (voluntarily covered 10%), employee 6.3%, and state 4%.	n.a.	n.a.	Modest	Modest
Czech R.	no	n.a.	n.a.	n.a.	Low	3.4
Denmark	yes	Privately administered defined contribution scheme; civil service pension scheme (defined benefit) for public sector employees.	n.a.	82.0	16.0	21.5
Estonia	yes	Employer contributes 4%, employee 2% to funded system; no ceilings. Pension fund management companies maintain individual accounts and must make quarterly contributions to a guarantee fund.	6% payroll	60.0	Close to nil	0.13
Finland	no	n.a.	n.a.	n.a.	38.6	n.a.
France	no	n.a.	n.a.	n.a.	Low	5.6
Germany	no	n.a.	n.a.	n.a.	13.0	3.3

Greece	no	n.a.	n.a.	n.a.	Low	11.9
Hungary	yes	Contribution to grow to 8% by 2004; employee contribution ceiling 250% average wage in 2003; no ceilings on employer contribution, maintained as individual accounts, 0.4% of contributions go toward guarantee fund.	6% payroll	45.0	Low	5
Ireland	no	n.a.	n.a.	n.a.	High	High
Italy	no	n.a.	n.a.	n.a.	4.2	3.2
Latvia	yes	Current contribution 2% but rate expected to increase to 9%; maximum income from which contributions are paid is 18,400 lats.	2% payroll	72.0	Close to nil	0.4
Lithuania	no	n.a.	n.a.	n.a.	Close to nil	Close to nil
Luxembourg	no	n.a.	n.a.	n.a.	Low	Low
Malta	no	n.a.	n.a.	n.a.	Low	Low
Netherlands ¹	yes	Not mandatory but schemes set by industrial agreements; 95% of schemes are defined benefit; occupational pensions integrated with public pension schemes.	n.a.	91.0	19.0	85.6
Poland	yes	DC individual account schemes in which employees choose the fund. Employees contribute half and not less than minimum wage, maximum for employers and employees 250% average wage (annually); guarantee fund is 0.1% pension assets; backed up with state budget guarantee.	7.3% of total social security contribution	70.0	Low	3.0
Portugal	no	n.a.	n.a.	n.a.	Low	12.0
Romania	no	Partially legislated then questioned; second pillar decided on principle; adoption depends on future fiscal condition.	8% payroll	75.0	Close to nil	Close to nil
Slovak R.	no	n.a.	n.a.	n.a.	Close to nil	1.0

Table 11.7. (continued)

Country	Mandated second pillar	Description	Contribution rate	Share of covered LF as %	Funded pension as % of retirement income ³	Funded pension assets as % of GDP
Slovenia	no	n.a.	n.a.	n.a.	Close to nil	0.0
Spain	no	n.a.	n.a.	n.a.	Low	2.1
Sweden	yes	Premium Pension Authority maintains the individual accounts of the system; workers choose from several hundred privately managed funds for investment of their capital.	2.5% payroll	100.0	Moderate	32.6
United Kingdom	yes	Mandatory pension component covers defined benefit and defined contribution schemes; some components run by state, some by employers and some by financial services companies.	17.5%–40% earnings—varies with age	High	High	83.7

Sources: OECD (2000); World Bank (2003c); Luxembourg Income Study (2003); ISSA and INPRS (2003); Blommestein (2000, 2001); Whitehouse (2000, 2001); Palmer (2000); Denmark Ministry of Social Affairs (2002); Holzmann et al. (2003); Chłoń-Domińczak (2003).

Note: n.a. = not applicable.

1. The second pillar in the Netherlands is quasi-mandatory, based on collective labor contracts. Data on pension as a percent of retirement income not available so capital income as % of retirement income has been used.
2. For Bulgaria, the share of covered labor force column gives data on proportion of participants in funded systems as a percent of total contributors.
3. Includes total population, as specific data for age group 65+ is not available. In the qualitative and author-based assessment, "close to nil" refers to > 1%; low to 1%–5%, moderate to 5%–15%, and high to < 15% of funded pension income in retirement income of current population.

The role of a funded pillar is essentially fourfold. The first main purpose is consumption smoothing beyond NDC benefits. Although an NDC system can provide generous replacement rates if the contribution is sufficiently high, as a mandated, general scheme, it should not do so. A very high mandated contribution rate under an NDC scheme would resemble a labor tax rate with all the known negative social and economic effects, in particular for credit constrained individuals;³⁷ albeit the incidence effects on wage levels seem to be lower if the reciprocity between contributions and benefits is stronger.³⁸ An actuarially fair funded pillar allows better consumption smoothing according to individual preferences and has less distortionary effects on individual labor supply and savings decisions.

The second main purpose is to support retirement flexibility in an aging society. NDC as a quasi-actuarial scheme encourages later retirement with high decrements for early leavers. To compensate for future lower pensions at early age, individuals need to plan to stay longer in the labor market or to save more under a funded pillar. The alternative of voluntary NDC contribution to finance an earlier retirement is possible but must be weighted against the third main purpose—risk diversification. As funded and unfunded pension pillars have a different exposure to economic, demographic, and political risks, and as their rates of return are little correlated, diversifying pension benefits from two different pillars is welfare enhancing. It is often claimed that risks will increase in an aging and globalizing world that is subject to technological and many other changes, making risk diversification even more important (see, for example, Bovenberg 2003).

Last but not least, funded pillars are important to support Pan-European mobility and beyond. In the proposed more coordinated but not harmonized Pan-European pension system, differences would still exist. Their mobility-reducing effects, however, can be limited with a strong (voluntary or mandated) funded pillar. Furthermore, labor mobility with the rest of the world is also bound to increase, with Europeans working some part of their lives abroad, and migrants from developing countries working part of their lives in Europe. Again, a strong funded pillar that can easily be taken back home would make life for migrant workers, and host and sending countries, so much easier.

A number of choices need to be made to achieve a good Pan-European structure of a funded pillar. First, the issue of a mandated or voluntary pillar, a corporate (second), or an individual (third) pillar.³⁹ Mandating the second pillar at the explicit detriment of the first NDC pillar raises the issue of transition costs, and the assessment by many pension economists is likely to be that it is not worth the effort. In addition, it can be argued that the economic rationale for mandating a high replacement rate is decreasing because of reduced myopia of individuals and better financial retirement instruments. What can and should be considered is to transform existing and mandated severance payments, which exist in all EU member states, into funded unemployment benefit cum retirement benefit accounts, as some countries have started to do.⁴⁰ Hence I would argue that (newly) funded pillars should, in principle, be voluntary and the regulation should allow for both corporate and individual pensions in a well-designed but simple manner.

Second, the issue of DB or DC plans emerges. While as individuals we are likely to prefer a DB plan best in the form of the final salary-scheme type, economic rationale and recent trends tend to speak in favor of DC schemes. It is the least distortionary scheme with regard to individual labor supply decisions, including retirement, and it provides the required mobility across professions and states.

Third, simplicity and transparency of the approach will be of importance: that is, the structure of the retirement products should be simple and there should be at least one set of instruments that is standardized across the European Union. The suggested instru-

ments are some kind of individual or personal retirement account, as well as some corporate pension account offered by the employer as they exist with a relatively simple structure in, say, the United States and Canada. Complicated structures à la Germany, which try to achieve too many objectives at the same time, should be avoided. The mandated annuitization of the accumulated retirement saving is not suggested, at least as long as the NDC account allows the financing of a minimum pension.

Finally, funded pillars as part of a Pan-European pension scheme also have coordination requirements at the level of regulation, supervision, and taxation that are likely to be difficult to fulfill. At the level of regulation and supervision, the question of mutual recognition versus more centralized approaches emerges. At the level of taxation, the issues of consistency of taxation (income versus consumption-type taxation, and in the latter case whether it is back-loaded or front-loaded) and recognition of tax deduction for contribution to funded pillars across Europe emerge. Although progress has been made toward harmonization of tax treatment by EU directives, the launch of new infringement procedures against Belgium, France, Italy, Portugal, and Spain, and pushing forward existing cases against Denmark, signal that more needs to be done. The Pension Directive that emerged in 2003 after 10 years of preparation and discussion seemingly needs time to be digested by financial market institutions and multinational enterprises before a judgment can be made.⁴¹

The Social Pension Pillar: A Strengthened Social or Noncontributory Pension in EU Member Countries

All current and future EU member states have some income provisions for the elderly poor, at least in the form of general social assistance, but increasingly also in the form of a (partially or fully) means-tested social pension, and a few in the form of a universal demogrant (table 11.8). It is strongly suggested that a Pan-European pension system will need to strengthen the social pillar (or zero or noncontributory pillar), which deals with the vulnerable elderly in Europe, for reasons of social objectives and system consistency.

The main argument for a strengthened social pension pillar is twofold. First, having under the new structure a quasi-actuarial NDC system as the first pillar and actuarial funded second and third pillars tends to increase the efficiency in the labor market but reduces the redistribution of income toward the poor. Shifting from a nonactuarial to an actuarial system can result in Pareto improvement but will require (keeping or introducing) a minimum benefit.⁴² Second, income support for the very vulnerable elderly to prevent old-age poverty is part of the adequacy objectives of any pension system. A strengthened social pillar can be motivated by the increase in vulnerability of the elderly as aging progresses, and by the solidarity objectives of the European Union. With incomplete and perhaps falling coverage under earnings-related schemes, one can conjecture that poverty incidence will increase as the increase in life expectancy continues.⁴³

With regard to how such a strengthened social pension pillar should be structured, three main issues emerge: Should there be a minimum pension in the NDC system in addition to a social pension pillar? How is this related to the social pension? And what eligibility criteria and level should be applied? First, there are a few good arguments for a minimum pension under the NDC system. Most importantly, it strengthens incentives for formal labor force participation. However, in order not to contradict the neutrality objective of the NDC structure with regard to the individual retirement decision, eligibility needs to be restricted. For example, while allowing individuals to retire from the age of, say, 60 onward, it may be required to have a minimum accumulated notional amount equivalent to 100+ percent of the minimum pension or else the need to reach the standard

Table 11.8. Scope and Form of Social Pensions in EU and EUA Countries around 2002

<i>Country</i>	<i>General</i>	<i>Eligibility</i>	<i>Nationality/ residency requirements</i>	<i>Benefits</i>	<i>Percent share of elderly (65+)^y</i>	<i>Social assistance expenditure as % of GDP</i>	<i>Comments</i>
Austria	General assistance, supplementary pensions, minimum pension of 630.92 euros for an individual.	General assistance covers those unable to maintain minimum standard of living and age > 19. Older people (above retirement age) whose insurance pensions are below minimum qualify for supplements.	Must be residents, EU nationals or recognized refugees; some provinces require Austrian nationality.	Income-tested allowance maintains minimum level of pension.	6.7	0.2	Supplements for minimum pension level in all schemes. Social assistance for those without coverage under earnings-related pension.
Belgium	General assistance, guaranteed income for old, minimum pension.	All citizens in need, age >18 qualify for general assistance. Older people (women age 60, men 65) who cannot maintain minimum standard of living eligible for guaranteed income scheme.	General assistance for those registered; some restrictions on foreigners. Guaranteed income for Belgian or EU citizens plus residents of 5 years before claim or 10 years during lifetime.	Minimum pension of 9,253.11 euros/year for a single person fully insured. Means-tested allowance of 7,022.70 euros/year for a single person.	n.a.	0.7	n.a.
Bulgaria	Social pension.	n.a.	n.a.	Flat rate of 44 leva/month.	n.a.	n.a.	n.a.

Table 11.8. (continued)

<i>Country</i>	<i>General</i>	<i>Eligibility</i>	<i>Nationality/ residency requirements</i>	<i>Benefits</i>	<i>Percent share of elderly (65+)^y</i>	<i>Social assistance expenditure as % of GDP</i>	<i>Comments</i>
Cyprus	Social pension.	Those 65+ and not entitled to pension or similar payment from other sources. Lump sum payment to those aged 68 who do not meet contribution conditions for pension.	20 years of residency after age 40 or 35 years after age 18.	Lump sum payment of 15% of total earnings. Social pension is 133.63 pounds/month.	n.a.	n.a.	n.a.
Czech Republic	Minimum pension.	n.a.	n.a.	2,080 koruny/month.	0.2	n.a.	n.a.
Denmark	Noncontributory supplementary pensions scheme.	People with low pensions rights. Payable at age 67.	Residents of Denmark. EU citizens and recognized refugees given temporary help for 3 years until they become residents.	Income tested supplement of 4,406 kroner/month.	n.a.	1.4	n.a.
Estonia	n.a.	n.a.	n.a.	n.a.	2.6	n.a.	n.a.
Finland	Living allowance.	Those who have no other source of income; minimum age 18.	Residents registered by municipality.	n.a.	n.a.	1.1	n.a.

Netherlands	General assistance, income tested supplementary allowance for old.	All above age 18.	Residents. Non-citizens covered only if special agreements exist.	Supplementary allowance reduced by 2% for each unexcused year of noncontribution.	n.a.	2.2	n.a.
Poland	Minimum pension.	n.a.	n.a.	Minimum pension is 530.26 zlotys/month.	n.a.	n.a.	n.a.
Portugal	Guaranteed minimum income, social pension, social supplement to pension.	Guaranteed income for those in economic need. Social pension for older people (65+) not covered by any other social security scheme. Social supplement to pensioners whose contributions insufficient to generate minimum pension.	Nationals and EU citizens; six month residency required for stateless persons and refugees.	Social pension is 138.27 euros/month.	n.a.	0.5	n.a.
Romania	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Slovak Republic	Minimum pension.	n.a.	n.a.	550 koruny/month	n.a.	n.a.	n.a.
Slovenia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	Minimum income scheme, social pension.	Minimum income scheme for low income working age households; social pension for those 65+ without insurance pension.	One year residency requirement for minimum income; 10 years residency including 2 years preceding claim for social pension.	Minimum pension is 385.50 euros/month (for those aged 65), reduced minimum pension for those <65.	1.6	1.1	n.a.

Table 11.8. (continued)

<i>Country</i>	<i>General</i>	<i>Eligibility</i>	<i>Nationality/ residency requirements</i>	<i>Benefits</i>	<i>Percent share of elderly (65+)¹</i>	<i>Social assistance expenditure as % of GDP</i>	<i>Comments</i>
Sweden	Social welfare allowance, guarantee pension.	People with no other means of support; also serves as a supplement to people claiming social security benefits.	Residents.	n.a.	n.a.	1.2	n.a.
United Kingdom	Income support benefit.	All excluding unemployed. Income must be below certain level. Not payable if savings are over 8,000 pounds or if working more than 16 hours per week.	Residents only unless under EU regulations or refugee; restrictions apply depending on immigration status.	Depends on age, income, and circumstances; 92.15 pounds / week minus other income for a single person.	n.a.	4.2	Noncontributory means-tested social assistance.

Sources: Gillion et al. (2000); United States Social Security Administration (2002); ISSA (2003).

Note: n.a. = not applicable.

1. Social assistance recipients as a proportion of total aged population.

retirement age of, say, 67 (which is increased with a rise in life expectancy). Second, coordinating a minimum NDC pension with a social pension with regard to labor market incentives requires different eligibility criteria (such as some kind of means- or affluence-testing), different amounts, different eligibility ages, or some combination of these. Finally, eligibility for a social pension may have to be conditioned on higher ages (say 70 onward), but means-testing may be kept light, for example in the form of affluence-testing, which excludes people having access to other pension provisions and financial assets. How much national preferences such a social pension pillar would be able to exhibit without excessively inhibiting the incentive structure of a proposed Pan-European pension system is open for discussion and requires more research.

Concluding Remarks

This chapter examined why a more coordinated Pan-European pension system is needed and which potential structure could achieve this best. Both social and economic needs call for pension reform that is more radical and that cuts across member states. The economic needs are closely linked with the common economic area and currency. The suggested structure for the current and future EU member states is a multipillar system, with a NDC system at its core and supplementary funded pensions and social pensions at its wings. Such an approach would fulfill all generic and EU-specific demands on a Pan-European pension system, including the room for national preferences.

Besides the *why* of a Pan-European approach and *which* structure it may have, what remains to be sketched is *how* such a system reform could come about. One could imagine three main avenues.

The first would be an approach initiated and led by the EU Commission. This is possible but not likely. First, there is no intention by the member states to empower the Commission with such a reform request. Social policy continues to be seen as a national agenda item subject to the subsidiarity principle and hence not open for “centralization” by the Commission. Second, there are no visible efforts by the Commission to take such a lead, as the necessity for a more rapid and comprehensive reform does not seem to be seen. Last but not least, the recently introduced method of open coordination as a peer review process to accelerate reforms in the member countries has its merits, but is unlikely to lead to rapid national reforms—and even less to create a Pan-European reform vision.

The second approach would be a competitive approach across EU countries. One of the existing or reformed pension systems would gradually be adopted by other countries as they see advantages with regard to social and economic policy goals. This is also possible, and a bit more likely, but not sufficiently rapid. Even if carried out, the outcome might be suboptimal. First, the advantages of reformed systems emerge and get documented only with lapses of time, which may be measured in decades—and this may prove too late. Second, imitation of system reforms are and will be taking place (for example the inspiration of the Polish reform by the Latvian NDC reform, which in turn was inspired by the Swedish reform, or the possible introduction of individual accounts in Austria and Hungary, inspired by those reforms in the north). But imitation by other countries is likely to be restricted. Third, even if all countries were to follow a lead example under competitive pressure, this may not ensure sufficient consistency of approaches across countries to provide the needed mobility of the workforce in Europe. Last but not least, and “to the extent that social policy is meant to redress market failures or to implement solidarity transfers, competition among systems will not lead to efficient outcomes when the elements of the relevant equation span the borders of policymaking constituency.”⁴⁴ By definition, collec-

tive action is needed to eliminate inefficient or unfair economic interactions; hence one can argue that bringing back competition at the inter-constituency level defeats both purposes.⁴⁵

The third possibility is a cross-country approach led by governments. Issues of pension reform have started to be addressed by government officials, such as the Economic Policy Committee (EPC) of the European Union, which represents high-level officials from ministries of finance and economy of EU member countries.⁴⁶ EPC has, so far, been largely concerned with the fiscal consequences of aging. These concerns may be enhanced by the broader stability issues, including the need for cross-European labor mobility. To foster the points for a better-coordinated Pan-European pension system is quite likely the tasks of academics and research institutions, examined and supported by the EPC or similar core groups, and at some moment in the future espoused by a charismatic European politician as reform champion. Perhaps this will happen after the first main asymmetric shock hits Euroland.

Notes

1. This and the next section draw partly on Holzmann, MacKellar, and Rutkowski (2003).

2. For a similar list of nondemographic arguments for pension reform, see Bovenberg (2003).

3. Other projections by academics and national research institutes are typically less optimistic and predict a much larger increase in expenditure under current service scenarios. See, for example, Rother, Catenaro, and Schwab (2003).

4. See Karacadag, Sundararajan, and Elliot (2003).

5. See Beck, Levine, and Loayza (2000) and Levine (2003).

6. See Holzmann, MacKellar, and Rutkowski (2003).

7. See Mueller (2003).

8. See Natali and Rodes (2003).

9. To deal with the fiscal issues resulting from aging, various recent reforms propose adjustments in annual pension indexation. For example, the recent Rürup Commission Report for Germany led to adjusting pensions in line with the shifts in the ratio of contributors to retirees, and the recent Austrian reform envisages capping indexation by the amount the median voter receives. Balancing the fiscal accounts with reduced indexation instead of a lower initial pensions and price indexation thereafter is questionable for three main reasons: First, it introduces a high level of uncertainty for individuals, as the future real pension level cannot be determined, but once it is known the capacity to react may be nil. Second, in view of the unsettled issue of financing long-term care for the elderly, the financial needs of the elderly may increase but not be reduced. Last but not least, the reform is not credible, as politicians may not be able to withstand future pressures for changes in indexation.

10. See Holzmann, MacKellar, and Rutkowski (2003).

11. See Holzmann, Hervé, and Demmel (1996).

12. See Blanchard and Katz (1992).

13. See Decressin and Fatàs (1993).

14. See Braunerhjelm et al. (2000).

15. See Esping-Andersen (2001).

16. See Nicoletti et al. (2001).

17. On the recent debate about the need to harmonize or not to harmonize labor market policies in euro countries, see Calmfors (1998).

18. See Holzmann and Hinz (2005).

19. See Barr (2000).

20. There are various estimates for the implicit debt of European pension systems (see Holzmann, Palacios, and Zviniene 2001), but a simple rule of thumb may be sufficient, according to which the level of implicit debt is roughly 20 to 30 times steady-state annual pension expenditure. The average level of EU spending is more than 10 percent of GDP.

21. See Lindbeck and Perrson (2003).

22. Few other papers so far outline the basic structure of a more coordinated European social policy, even less a pension system. One recent exception is Bertola et al. (2001), which proposes contingent insurance provisions with three core elements: a minimum contribution rate, a close contribution-benefit link, and no penalization when moving.

23. This study is not the first one that proposes an NDC-type structure for a Pan-European pension system. The idea has popped up in various papers and presentations (including by the author) and references include Feldstein (2001) and Gora (2003). Yet this study provides, perhaps, the most comprehensive treatment so far.

NDCs for low- and middle-income countries have found very little attention. For a first exploratory paper, see Lindeman, Robalino, and Rutkowski (2006).

24. What constitutes an ideal NDC system and how it fares compared with other benefit options (such as nonfinancial defined benefit or financial defined contribution schemes), or how it performs in reality and under political stress, is still very much open to discussion and constitute the very reason for the Sandhamn conference of September 28–30, 2003. For an attempt at defining an ideal NDC system, see Palmer (2006a).

25. The applied discount rate is the rate of aggregate wage growth that is below the (risk-adjusted) interest rate in a dynamically efficient economy. The latter applies to a fully funded DC system, which is considered actuarially fair. Unfunded DC systems—that is, NDC systems—come close but are only quasi-actuarial.

26. See Palmer (2006b) and Settergren and Mikula (2006).

27. The quasi-actuarially fair annuity is determined by remaining life expectancy and notional interest rate. If productivity growth is above (negative) population/labor force growth, the growth rate of aggregate wages is still positive. Hence keeping pension benefits constant instead of indexing with positive notional interest rate provides a little surplus for reserve building, and additional indexation once a steady-state reserve fund is reached.

28. See Palmer (2006a).

29. See Knell (2004).

30. See Valdés-Prieto (2000).

31. See Settergren and Mikula (2006).

32. See Palmer (2006b).

33. See Valdés-Prieto (2000) and Settergren and Mikula (2006).

34. See Legros (2006).

35. The second (bottom-up) approach may be cheaper for countries that increased contribution rates from low levels and have not undertaken a benefit-cutting reform.

36. For details on supplementary and complementary funded pension arrangements in Europe and beyond, see ISSA (2003a; 2003b).

37. See Lindbeck and Persson (2003).

38. See Ooghe, Schokkaert, and Flechet (2003).

39. Please watch out: In the European terminology *second pillar* refers to corporate pensions (whether mandated or voluntary) and *third pillar* to individual pensions (whether mandated or voluntary). In the Anglo-Saxon terminology (and beyond) used by the World Bank, the *second pillar* refers to mandated and funded pensions (whether corporate or indi-

vidual), and the *third pillar* to voluntary and funded provisions (whether corporate or individual). In this chapter the European terminology is used.

40. On this topic of severance payments and their reform, a conference was held in Laxenburg, near Vienna, on November 7 and 8, 2003. The conference was jointly organized by the World Bank, Washington, DC, and the Ludwig Boltzmann Institute for Economic Analysis, Vienna, and was hosted by the International Institute for Applied System Analyses, Luxembourg. For the many interesting papers visit www.worldbank.org/SP or <http://members.vienna.at/libecon/boltzanalyse>. The conference volume is scheduled to be published as Holzmann and Vodopivec (2005/6).

41. See IPE (2003).

42. See Lindbeck and Persson (2003).

43. Data for European OECD countries suggest that while poverty incidence tends to be the highest among those in the 65+ age group, the poverty incidence in this group fell most markedly between the mid-1980s and 1990s (and for the Czech Republic and Hungary, in the early to late 1990s). See Förster (2003).

44. See Bertola et al. (2001).

45. See Sinn (2003).

46. See, for example, EPC (2001).

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A Magic All-European Pension Reform Formula: Selective Comments

*Bernd Marin**

ROBERT HOLZMANN HAS PROVIDED AN INTERESTING AND INNOVATIVE APPROACH to rapid and comprehensive pension reform in Europe. He shifts the debate beyond the conventional focus on fiscal affordability at the national level toward broader economic and social adjustment needs. And he proposes NDC as an “ideal” approach not just for dealing with a great variety of reform requirements but also for inducing pension harmonization across Europe while allowing for continuous country-specific preferences “and to lead to a political reform movement” toward NDC. This is a strong claim and he puts forward strong and sophisticated arguments in favor, some but not all of them convincing to me. The rationale for much wider domestic reform needs throughout Europe as well as for a move toward a more coordinated Pan-European pension reform are more persuasive than the proposals for its potential structure and transition strategy. While I share the central claim of the paper, which is new and sound, this occasionally is done so for other reasons—starting from other working hypotheses and then coming to other policy conclusions—than the ones put forward by the author, as in the case of atypical employment. At times, additional or other empirical evidence is suggested to strengthen the points, as with exemplifying pension barriers to mobility between the public and private sector. While NDC may be generally close to an “ideal” pension framework, whether the “ideal” NDC as proposed in the Holzmann design is truly “ideal” is still to be explored. Partly, parameters are not yet fully specified, partly risk reinforcement may be more probable than the risk diversification claimed for the Holzmann design of combining pillars. Furthermore, the guaranteed minimum social pension should rather not be conceptualized as a “zero pillar.” Crucial dimensions such as disability pensions may be missed. One could rather underline the primacy of political and not just economic desirability, feasibility, and sustainability of NDC. And finally one would stress some of its underestimated comparative advantages, such as its functions of fairness standard, anticorruption device and, as a core component of any pension constitution, its differentiation of welfare trigger, as well as its superior risk management (Gora and Palmer 2003).

Robert Holzmann foresees an increased need, rather than a diminishing one, for rapid and comprehensive pension reform in both current European Union member-states and future accession countries, due to worsening budgetary pressures, socioeconomic changes, and the impact of globalization, all related to societal aging. But expenditure levels are less a reflection of population age structures and aging dynamics than the

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public/private mix of provision, benefit generosity, and the actual retirement age, which is typically low due to disincentives to work. In the future, further increases in longevity, which are likely, together with even modest rises in fertility, which are still below the replacement level, will continue to make for rapid population aging and corresponding increasing old-age dependency ratios. Even if system dependency ratios deteriorate less than old-age dependency ratios, due to reforms and to increased labor force participation of women and middle-aged workers, pension expenditures will rise till around 2040. With reforms, the expenditure increase may be “only” 30 percent, as against the demographically required 70 percent, or a “rough doubling” of expenditures “in a no-reform scenario.” Under all circumstances, “a further major increase in pension expenditure can be prevented only if major reforms take place.”

While nobody may object to this reasoning and its conclusions, additional forms of empirical evidence supplied to support the cases in point are suggested. Holzmann offers data on public pension expenditure in terms of percent of GDP and projections of old-age dependency till 2050, depicting the great—and increasing—variety within European Union and accession countries. He takes the design flaws of most existing pension schemes for granted: not in need of further documentation. But as the main goal of his chapter is to argue in favor of a reformed NDC system to replace current defined benefit (DB) systems and to push toward a coordinated pension system in Europe, I would like to strengthen his case by providing supplementary calculations.

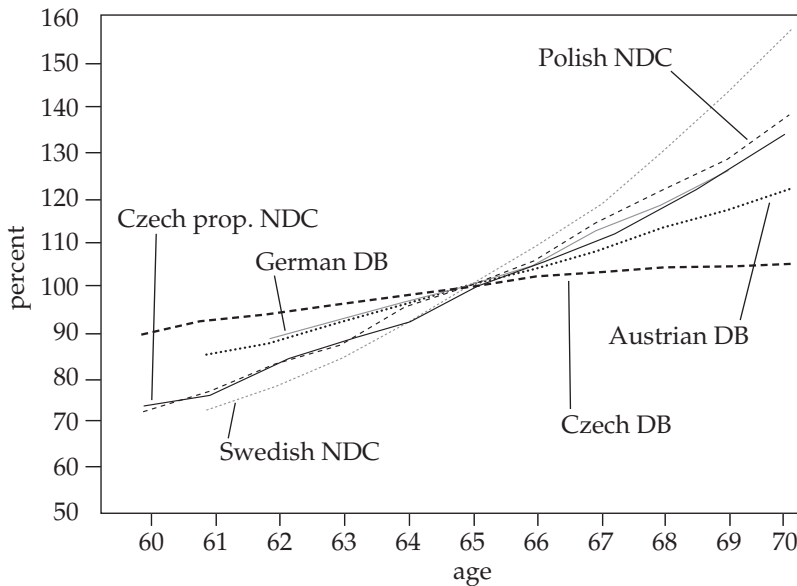
Deeds Defying Words—Reform Flaws Visible through NDC

The approximation offered in this discussion is a comparison of four smaller European countries. Two (Sweden and Poland) adopted NDC schemes when introducing benefit cuts to discourage early labor market exit; two (Austria and the Czech Republic) did not. One big country (Germany) with a reformed DB system holds an intermediate position. The evidence supplied shows quite clearly that all of them have moved in the right direction of increased benefit reductions for pre-retirement—but only NDC pension systems (by using the wage growth rate as notional interest rate) are “quasi-actuarially fair” and neutral to individual preferences. Existing DB arrangements, in contrast, actually continue to strongly subsidize early exit and to heavily penalize working longer (see figure 11.2).

In this way, the governmental rhetoric of praising delayed retirement is undercut by counter-productive measures in the political economy. Words are defied by deeds: only fools willing to sacrifice a painful amount of money—or unable to make the elementary calculation of tangible advantages—will *not* escape the Austrian and Czech labor market at their earliest possible opportunity and convenience. Figure 11.3 shows that benefit rules in these non-NDC systems are detrimental to declared public objectives. The distortion factor is at least 1:2 in Austria and the Czech Republic, and between a third and a half in Germany. In the smaller DB countries, regular voluntary early retirees (that is, not those persons experiencing ill health, disability, unemployment, or another disadvantage) are exempt from more than half of the actuarial losses to be incurred by them (in special categories up to 80 percent). Those working longer than expected, on the other hand, would lose much more than half and up to around six-sevenths (Czech Republic) of the savings generated to the insurance collective.

No surprise, therefore, to find hardly anybody working up until the legal retirement age in such a country and to find less than 3 percent of the working population working to the official working age of 65. Without NDC standards of actuarial neutrality and fairness, neither the amount of distortions and of hidden taxes for younger working generations, nor the fact, so puzzling to policy-makers, as to why their well-intended and supposedly

Figure 11.2. Actuarial Fairness (the Swedish and Polish NDC System) vs. Subsidizing Early Exit and Penalizing Working Longer (the Austrian and Czech DB Systems), as compared to the German DB Intermediate, 2003



Source: Author.

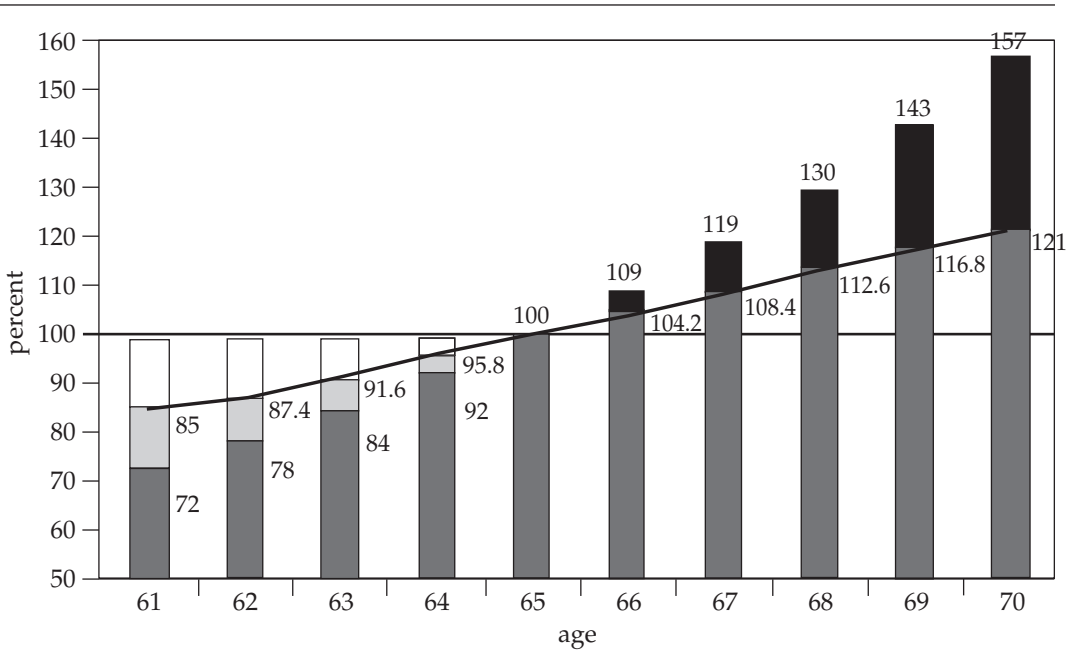
“harsh” reform measures generate opposite effects than the ones intended, could be explained. Recall the reasons for selecting those four smaller countries for paired comparisons. The Czech Republic has the single highest aging dynamics among the future EU-25 countries until 2050. Austria had confronted the single highest pension expenditures worldwide already by 2003 and “as an extreme example, the pension-related deficit amounts to almost 5 percent of GDP.” Sweden ages more than a decade earlier than Austria, whereas Poland and the Czech Republic age almost two decades later—but much more rapidly and drastically than Austria and Sweden.

The four countries, therefore, lend themselves to several paired comparisons. Although all those overall tendencies can be seen from the tables provided by Robert Holzmann, I have transformed data on population aging until 2050 into figures displaying the time dimension in a comparative manner. They depict “*l’Europe a plusieurs vitesses*” of aging and reform needs, lags, and peaks. Which country will reach its peak of collective aging when, and how does this compare to European averages and sub-regional aging patterns? (See figures 11.4a, 11.4b, and 11.4c.) Which are the *avant-garde* countries and which are the laggards hit latest by developments and therefore able to learn from the best, brightest and fastest?

Reform Needs Beyond Demography and Budgets

But “even if the budgetary and demographically induced pressures did not exist,” Robert Holzmann reasons, “there still would be a major need for most European countries to reform their public pension systems to better align them with socioeconomic changes.” Holzmann cites three such changes—“increasing female labor force participation; high divorce rates and changing family structures; and the rise in atypical employment”—and

Figure 11.3. Swedish NDC Actuarial Neutrality vs. Austrian DB, Amount of Labor-depressing Adverse Redistribution, 2003



Source: Marin (2005); author's estimates.

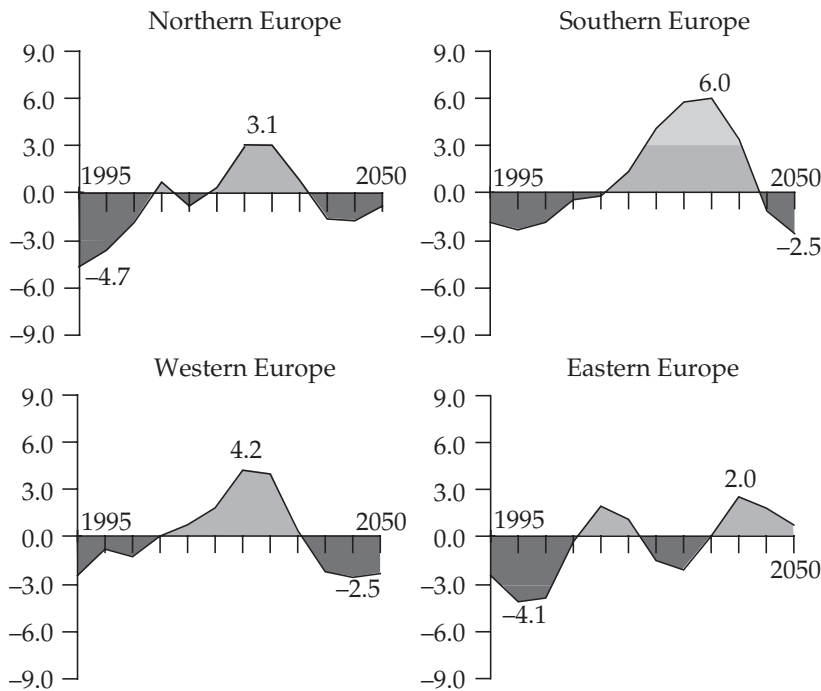
Note: The line across the bars indicates the steepness of the bonus/malus function and its deviation from actuarial neutrality. The light gray difference indicates the amount of subsidies for early retirement, which, perversely, grows with ever earlier retirement in Austria (e.g. 15 percent cuts in Austria compared to 28 percent in Sweden when retiring at age 61). The black color shows the amount of taxing away collective benefits from late retirement (e.g. 12.6 percent instead of 30 percent increments when retiring at age 68, or 21 percent instead of 57 percent higher monthly payments when retiring at age 70). Thus, socially desirable behavior of retiring later is sanctioned or punished in Austria. Harmful early exit behavior, which is strongly supported in Austria but not in Sweden, has led to a striking difference in retirement behavior in the two countries (more than 97 percent of Austrians retire before age 65).

analyzes them. I once again agree with both the diagnosis and the remedies suggested, such as “the individualization of pension rights” to avoid benefit traps for women. But I sometimes do so for other reasons—starting from other working hypotheses and then arriving at other policy conclusions—than the ones put forward by the author.

The Atypically Employed as Winners in Non-NDC-Schemes?

Let me take Holzmann's assertion that “these atypically employed people do not fare well under some pension schemes, which are based on the full-employment fiction. . . . This situation calls for reform (and a stricter contribution-benefit relationship).” This is true, no doubt, as it is general enough—but, therefore, the opposite proposition is equally true, and probably even more frequently true: namely, the atypically employed often fare very well under current pension schemes, despite, or even because, these schemes are based on the fiction of full employment. Just one outstanding example are full-time pension entitlements for predominantly or long-term part-time employees. In table 11.9, I provide a truly

**Figure 11.4a. Europe Aging at Multiple Speeds, Lags and Peaks, 1995–2050:
Subregional Deviations from All-European Regional Averages (percent)**



Source: Prinz and Lutz (1994a, 1994b).

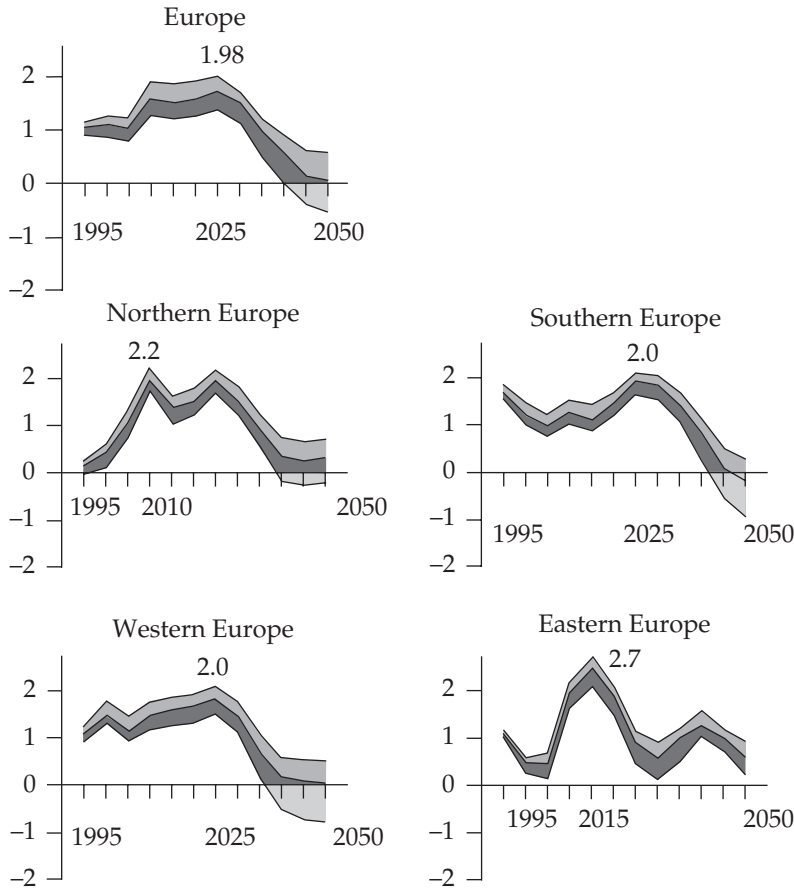
Note: Y-axis values greater than zero are considered above average; those below zero are considered below average.

shocking example of “injustice” and “perverse redistribution” from long-term full-time workers without career development toward part-time employees with good careers (such as female academics). Despite much less than a lifetime working, these part-timers receive between around two and two and a half times higher a lifetime pension in real terms than the simple worker—with identical lifetime contributions.

Such inequities of equal contributions and highly different benefits (and vice versa) within the private market sector may become even more drastic across the private and the public sector boundaries (as will be seen soon), as long as “best years” pension formulas prevail. All systems without a lifetime calculation-base lend themselves to such erratic redistributions in all directions, including frequent perverse redistribution from low-income to wealthy people, which are more able to fiddle the system by superior knowledge and ease of more flexible and well-dosed, opportunistically adjusted labor supply. Vesting periods as entitlements thresholds and other devices may also make for similar advantages. They are often used by self-employed persons and their family members, part-time farmers, railway workers, civil servants, and other special corporatist interest groups, providing them with benefits far above of those of people with equal contributions—and even further above their own contributions.

Thus the “stricter contribution-benefit relationship” called for by the author (which, of course, I agree with), would actually make few people better and many people much worse off than they are today—for good reasons of fairness. This is because current distor-

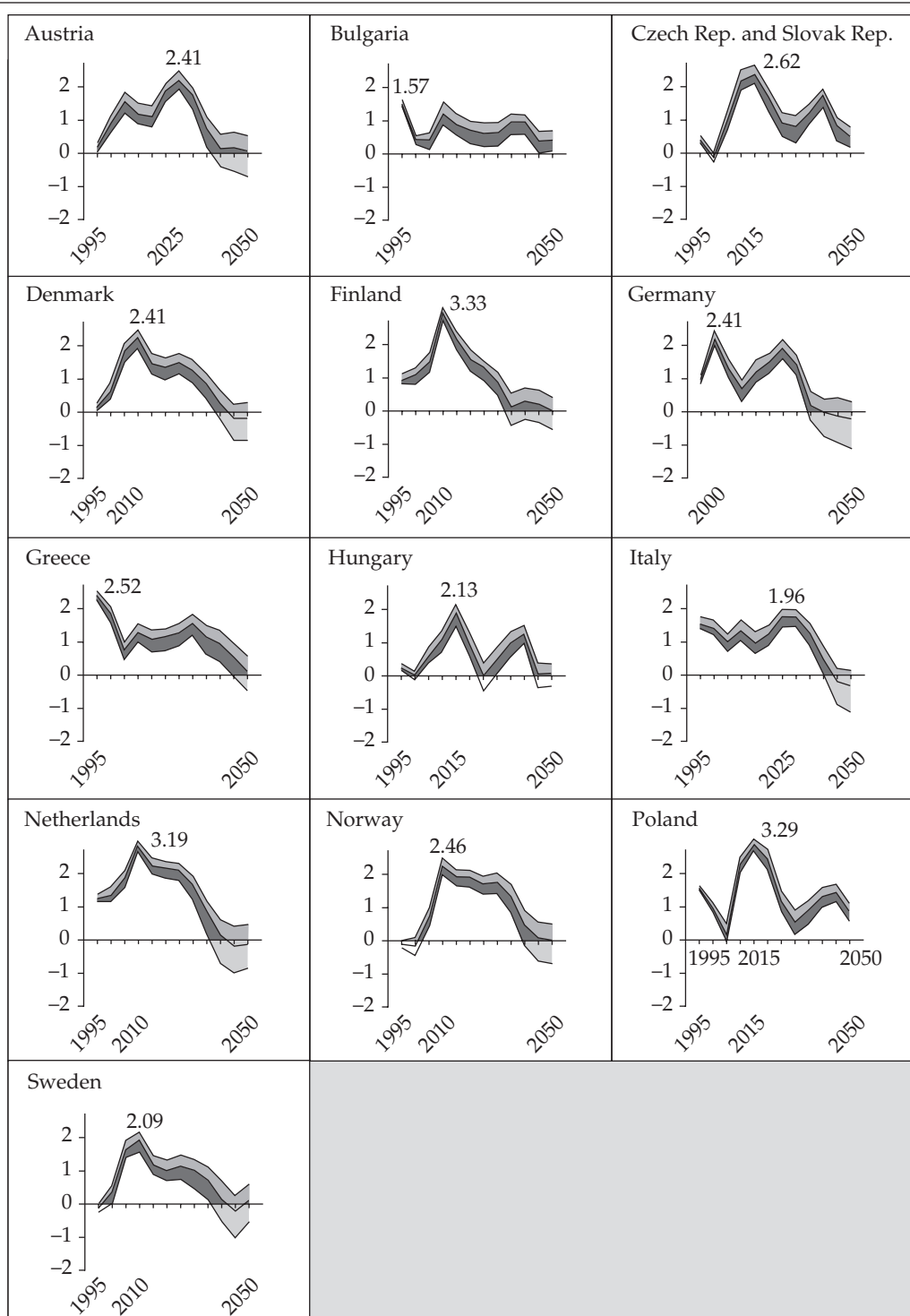
Figure 11.4b. When the Aging Process Will Reach Its Peak: Average Annual Increase of the Population Above Age 60 in Three Scenarios, by European Subregions (percent)



Source: Prinz and Lutz (1994a, 1994b).

tions from defined contribution standards are probably non-accidental, and well-structured by vested interests of atypical employees who typically stand to gain from existing pensions rules. Many “atypical” employees, in particular middle-class preferential part-timers, benefit from them at the expense of low-income people working long hours. In what one could call incomplete contributory Bismarckian insurance systems, DB pension awards are actually “based on the full-employment fiction.” But—according to so my counter hypothesis to the one forwarded by Robert Holzmann and many other scholars—this may more often make for their upgrading closer to full-employment or to non-contributory guarantee pension standards. In contrast, their downscaling to a minimum contribution equivalent base—or to indirect pensions rights only, derived through marriage, widowhood and other family status dependencies—is less probable and frequent. And non-contributory systems generally take care of flex-workers through other provisions, moving their pension entitlements above their contribution base.

Figure 11.4c. When the Aging Process Will Reach Its Peak: Average Annual Increase of the Population Above Age 60 in Three Scenarios, by country (percent)



Source: Prinz and Lutz (1994a, 1994b).

Table 11.9. Same Lifetime Contributions, Highly Different Pension Entitlements for Atypically Employed Part-Timers and No-Career Regular Full-Time Employees, Austria, 2003 (euros)

	<i>Part-timer, best years at start of career</i>	<i>Part-timer, best years at end of career</i>	<i>Full-time employee, constantly below average income</i>
Lifetime contributions, indexed by:			
without any indexation, nominal	50,977	135,182	83,290
notional IRR median income	171,525	175,716	159,884
notional IRR covered wage sum	221,421	187,257	187,823
Nominal lifetime pension, residual life expectancy 24,25 years, calculated by:			
“best 15 years”	551,088	802,744	328,102
lifetime “40 years”	222,274	298,647	237,824
status quo: losses capped at 10%	495,979	722,470	295,291
median income 40 years	324,731	332,665	302,692
wage sum 40 years	419,195	354,516	355,587
Lifetime contributions, indexed by:			
without any indexation, nominal	54,026	135,182	91,743
notional IRR median income	175,716	175,716	175,713
notional IRR covered wage sum	225,944	187,257	207,383
Discounted lifetime pension, residual life expectancy 24, 25 years, discount 3% p.a., calculated by:			
“best 15 years”	399,206	581,504	261,166
lifetime “40 years”	166,111	216,339	190,026
status quo: losses capped at 10%	359,285	523,354	235,050
median income 40 years	240,982	240,981	240,978
wage sum 40 years	309,866	256,810	284,410
Lifetime contributions, indexed by:			
without any indexation, nominal	50,977	143,754	97,825
notional IRR median income	171,525	202,512	187,563
notional IRR covered wage sum	221,421	221,423	221,418
Discounted lifetime pension, residual life expectancy 24,25 years, discount 3% p.a., calculated by:			
“best 15 years”	399,206	581,504	278,102
lifetime “40 years”	161,015	242,015	202,774
status quo: losses capped at 10%	359,285	523,354	250,292
median income 40 years	235,234	277,730	257,228
wage sum 40 years	303,663	303,666	303,659

Source: Calculations by M. Fuchs, European Centre.

Note: The table shows how well atypically employed part-timers can do under current DB pension schemes compared to no-career regular full-time employees. The 9 boldfaced rows in the table indicate both the lifetime contributions indexed by notional IRR median income and notional IRR covered wage sum as well as the nominal and discounted lifetime pensions according to the “status quo: losses capped at 10%,” an extended “best 15 plus a few years” combined with undervalued, “unfair” notional IRRs and crippling caps vs. a lifetime calculation base (40 years) with fair IRRs indexed by the median income or the wage sum. Whereas the first option (status quo after the 2003 reform) shows highly unequal (up to 1:2.4) pension entitlements with identical contributions, lifetime calculations with income or wage-sum-based notional IRRs display identical entitlements for identical contributions.

Other Non-Fiscal Reforms Needs Demanding NDC

Both the non-individualization of social rights to health insurance, social insurance, and pensions, as well as all existing deviations of current DB pension schemes from NDC standards of actuarial neutrality and fairness, are costly to society at large and increase public expenditures. Moreover, they tend to benefit those who are *not* most in need of support and targeted for special assistance, but those who are best able to seek the rents implicit in such incomplete arrangements, while taxing those outside the circle of the happy few privileged beneficiaries. NDC allows us to measure existing arrangements serving particular sectional interests at the expense of others against universalistic standards most broadly accepted as reasonable, equitable, and fair.

Another tendency requiring “changes in the way public programs operate, including in the area of pension provision” is increasing international market integration or globalization. It adds further non-fiscal reform needs to the already mentioned socioeconomic changes ignored by most countries that have introduced parametric reform packages during the last decade, exclusively addressed at balancing short- or mid-term fiscal requirements. But open economies will not do well in a globalizing world with social security and public pension systems that “limit if not eliminate” labor mobility between sectors, occupations, and countries. They will not reap the benefits of globalization with pension rules that impede the improvement of financial markets, including a development of portable liquid pension assets from fully funded pillars. And they will not do well with pension arrangements that block life-long learning indispensable for knowledge and skill formation, labor market flexibility, and prolonged activity in the workforce.

Socioeconomic changes, globalization, and societal aging require a reform approach “that must go beyond a parametric adjustment of existing schemes,” Holzmann argues, “toward a more actuarial system structure that better links contributions and benefits, more individualization to handle professional and family mobility, and also some funding to allow more individual decision and choices.” At this point of reasoning, Holzmann elegantly interweaves the view that more pension reform or “adjustments” are needed with his second core idea: that even with more pension reform, more European coordination is needed. He finally weaves it into the third core assumption or *leitmotiv*: namely, that NDC is “ideal” to make it happen, a cornerstone in the welfare architecture of a “Pan-European pension system.”

The Claim for NDC as “Pan-European” Pension System

The most innovative aspect of Holzmann’s study is his argument in favor of NDC as responding to “the need for a better coordinated pension system in an integrated Europe.” His “Pan-European approach” is not the first, but probably the most encompassing, treatment so far of the proposition to design NDC-type institutions to promote the emergence of an all-European pension system. He rightly deplores the fact that “there is little understanding of and support for a Pan-European approach that should lead to a coordinated pension structure” and wonders why the Commission of the European Union (in contrast to other policy field) does little to overcome the perception of pensions as a strictly national agenda. Can European economic integration truly advance without at least some development toward an all-European pension reform approach?

Budget requirements under a Maastricht fiscal regime, and enhanced labor market flexibility, mobility, and labor supply in aging societies, all demand some convergence in the area of pensions, which crucially affects overall labor supply and employment levels and

consumes up to half of all social expenditures. While migration and regional mobility will remain lower in Europe for a multitude of reasons, mobility is blocked not just across countries and regions, but also between sectors within countries and across professions within the same regions. In contrast to “other economically integrated areas under a common currency (such as Australia, Brazil, Canada, Switzerland, and the United States) . . . the European Union does not have a coordinated—even less a harmonized—pension system.” While other states or provinces differ in many things “including income taxes or short-term social benefits . . . they have one thing in common—a public retirement income scheme across states.” Even worse, European countries frequently have occupationally fragmented pension systems *within* the same countries, preventing mobility across professions and between the public and the private sector, even within nearby areas.

Barriers to Mobility

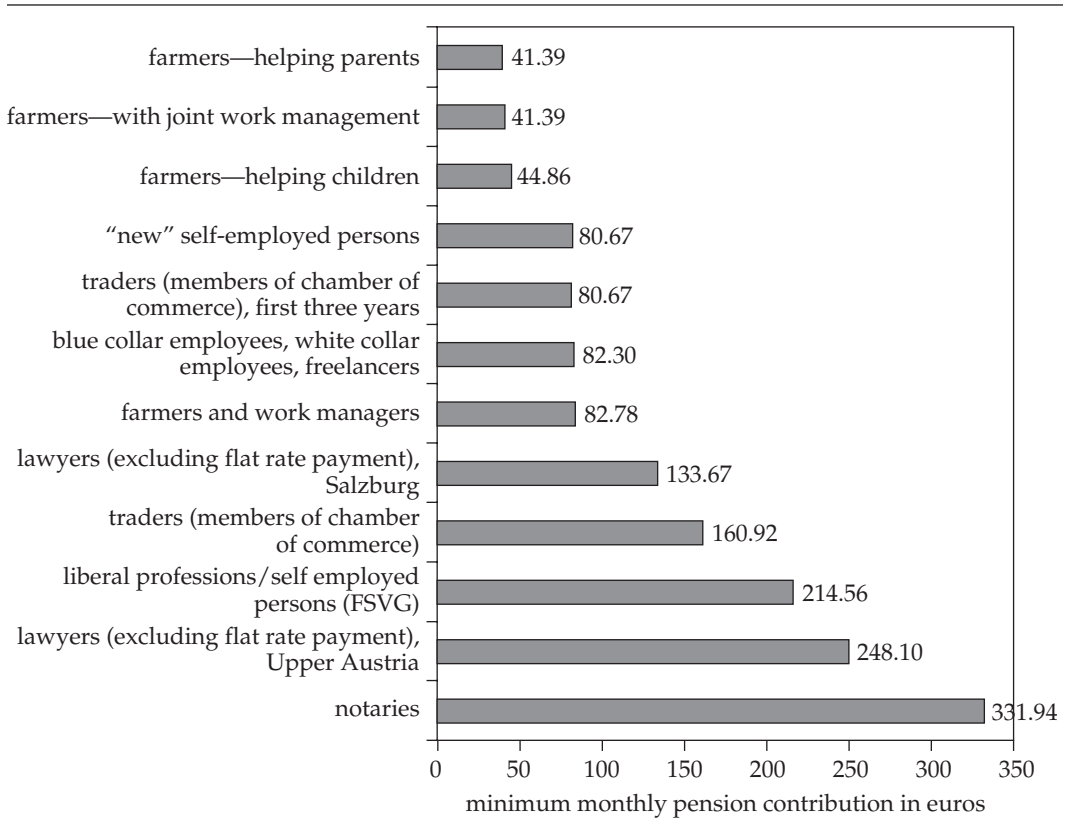
There is nothing to criticize or add to Holzmann’s reasoning about barriers to mobility, except perhaps some empirical evidence illustrating the almost incredible extent of barriers to mobility between public and private sector. In a corporatist country like Austria, public sector civil servants receive on average 264 percent of the median retirement income in the private sector (European Centre 2004). Within the same education bracket, public sector workers get up to 44 percent higher lifetime income than private sector employees; the gap decreases as educational attainment increases (Synthesis 2003). Due to a more favorable pension formula, civil servants get around 50 percent higher return on their retirement income—or notional interest rate, in NDC language—for the very same contributions during active life (Marin and Prinz 1999).

To be even more specific: A female civil servant born in 1945 and retiring at age 56.5 in 2002 receives between 46 and 49 percent of her overall lifetime income as old-age pension. With primary education only, her lifetime income (1,926,190 euros) is more than double that of a private sector worker/employee (838,266 euros). Her retirement income (884,318 euros vs. 272,760 euros) is 3.24 times greater. With secondary education, the relationship of lifetime income is 2,408,151 euros, compared to 1,094,097 euros. The retirement income 1,175,108 euros vs. 370,124 euros, or 3.17 times higher (Synthesis 2003).

In many cases, more than 50 percent—or the greater part—of overall lifetime income comes in retirement! Net income of retired civil servants on the regional (*Länder*) or municipal level is rarely below 100 percent of their last (not their average) active income before retirement—and that is around 130 percent of average or calculation base active salary during their working life! In addition, the gap in retirement income between civil servants in the *Länder* or municipalities and that on the federal level in some of the regions may increase up to 43 percent over that of civil servants nationwide by the year 2025 (Marin and Fuchs 2003, table 3/B). And the minimal pension contribution varies up to around 10 times or 1,000 percent between different occupational groups for what may turn out to be the very same monthly retirement income entitlement (Marin and Prinz 1999; see also figure 11.5).

Under such circumstances, how could professional mobility ever take place, except in a unilateral direction toward the public sector? The most telling symptom in this context may be that even among academics, who profit least from these arrangements (and male academics hardly at all), more than 70 percent of university graduates seek public employment as civil servants. Correspondingly, the outflow rates from public sector functions with permanent status (*Pragmatisierung*) is virtually nil—except toward those ever more

Figure 11.5. Corporatist Pension Disharmonies: Cost of Minimum Contribution One Month of Retirement, Austria 2003



Source: Hauptverband, AK department of statistics.

frequent cases of special early retirement arrangements in ever younger age cohorts down to 45 to 55 (“Lehrermodell” for all, “Bundesbediensteten Sozialplangesetz,” *Berufsunfähigkeitspensionen in “ausgeglieder-ten Einrichtungen”*). Despite annual decrements of 4 percent (capped at 20 percent)—calculated from a standard retirement age 5 years below that of the private sector—the absolute monthly retirement income usually is still far above of that of an average private sector employee working until the age of 65. It thus provides a frugal early retirement basic income over around 30 to 40 years of further life expectancy. In addition, varying by education but through all education attainment levels, the term of the pensions is several years longer in the public sector. Based on this generous basic income, pensioners may start a second career or undertake rather informal income-gathering activities, but rarely do, as entrepreneurship is neither promoted nor needed for a comfortable third age over decades: more than a quarter of a century on average.

The European Claims for NDC, Continued

Robert Holzmann checks the potential structure of a Pan-European pension system against the (primary and secondary) goals developed by him and his team at the World Bank

(Holzmann, Orenstein, and Rutkowski 2003). A good pension system should “provide adequate, affordable, sustainable, and robust old-age income, while seeking to implement welfare maximizing schemes in a manner appropriate to the individual country.” In doing so, it should create economic growth and minimize negative impacts on labor markets and other areas. As “specific objectives of a Pan-European pension system,” he also suggests the four criteria of “mobility, national preferences, solidarity, and feasible transition.”

These ideal demands on a reformed and coordinated Pan-European pension system are then confronted with three main options for the “potential structures”: “a basic pension plus a mandated fully funded pillar (Beveridge for all); an unfounded defined benefit system plus voluntary fully funded pensions (Bismarck for all); and a basic of noncontributory pillar plus an NDC pillar plus a voluntary (or mandated) funded pillar.” Holzmann then discusses the main arguments in favor of each option and the difficulties in implementation, the chooses the third as superior. The arguments are all in all convincing—apart from some reservations that I note below. NDC is designed as the crucial or first pillar, able to deal optimally with all system objectives and reform needs mentioned—from financial sustainability to all socioeconomic requirements, including divorce, survivorship, mobility across professions and frontiers, and transition issues across member-country groupings.

Holzmann considers coordination among the existing NDC countries, Italy, Latvia, Poland, and Sweden, which have adopted major differences in design and implementation elements, including transition rules, within the same overall NDC scheme. Germany and France are considered “quasi-NDC countries” most easy to transit. Other Bismarckian countries (Austria, Belgium, Czech Republic, Greece, Hungary, Portugal, Spain) may need more time and reform impetus. The greatest difficulty would be transitioning the European outliers with universalistic systems (Denmark, Ireland, the Netherlands, and the United Kingdom). Coordinated portability from/to other European systems may have to be achieved through buy-in options and transfers of the accumulated NDC amount.

In debating the transition issues in introducing such a potential structure of a Pan-European pension system, Robert Holzmann has no illusions, either about the speed or about the actors involved. “An approach initiated and led by the EU Commission” he considers “possible but not likely”; I would argue that is it impossible given the current interpretation of the subsidiarity principle with regard to pensions. This may also explain that “there are no visible efforts by the Commission to take such a lead,” even if “the necessity for a more rapid and a more comprehensive reform” is seen. Also, the method of open coordination “is unlikely to lead to rapid national reforms—and even less to create a Pan-European reform vision.” He does not expect a great deal from country competition as various countries adopt reformed pensions systems it is “again possible, and a bit more likely, but not sufficiently rapid. Even if carried out, the outcome might be sub-optimal.” Apart from the great time lags in a copy-cat world where countries learn from one another through imitation, institutional transfers will probably remain restricted—and may themselves not yet “ensure sufficient consistency of approaches across countries to provide the needed mobility of the workforce in Europe.”

Consequently, the only somewhat realistic perspective for Holzmann is a “cross-country approach led by governments,” for instance, through the EU’s Economic Policy Committee, should it take a broader view on aging issues. But the coalition to promote “a better coordinated, Pan-European pension system is quite likely the task of academics and research institutions, examined and supported by the EPC or similar core groups, and at some moment in the future espoused by a charismatic European politician as a reform champion. Perhaps this will happen after the first main asymmetric shock hits euroland.”

I wish one could be more optimistic on that last point than the author. But perhaps Robert Holzmann's expectations already express the maximum feasible optimism in a Europe simultaneously growing together and drifting apart in many social policy areas, including pensions.

If “No System is Politically Foolproof,” Not Even NDC, Is the “Ideal” NDC Truly “Ideal”?

Whether the very design of the “ideal NDC” in the Holzmann model—and the mix of pillars as such—is actually ideal must remain unanswered for the first and probably for the second query. The postulated mix of the model proposes the “structure of a (mandated) first pillar NDC plan, a (voluntary or mandated, if so desired) funded pillar with occupational and individual retirement plans, and a basic pillar of social/non-contributory pensions that provides minimum income support for the very vulnerable elderly.” This, in my view, is preferable to the older World Bank perspective of suggesting a combination of mandatory DB-PAYG with a mandatory fully funded DC (corporate or individual) private pillar and a voluntary fully funded DC (corporate or individual) private pillar. But there are also disadvantages, such as potentially fewer synergies in risk spreading, as will be seen in the next section. And whether the better mix proposed now is the best or “ideal” one is not easy to prove. The first step would be to demonstrate the crucial first NDC pillar as optimally designed.

Generally, NDC may be close to an “ideal” pension framework, and thus the “basic structure of ideal NDC” as the core component of the overall combination is designed optimally almost by definition. But specifically, Robert Holzmann leaves actually open almost all parameters to be specified for an “ideal NDC.” He neither specifies his choice of an ideal notional interest rate (“the discussion about the (most) appropriate . . . choice is far from over”), nor that of the remaining life expectancy, the indexation of benefits, the reserve fund to be created, or the amount of redistribution and the transition rules to new NDC benefits. Given the fact that all four European countries that have introduced NDC systems (Italy, Latvia, Poland, and Sweden) use different notional interest rates, different ways to determine the residual life expectancy, and different transition rules, some well-reasoned specificity in parameter choice for an “ideal” system would have been expected. But the only specific choice Holzmann makes is advocating a minimum eligibility age to a zero pillar pension that “may have to be conditioned on higher ages (say 70 onward).”

He carefully outlines the issues at stake with any one choice taken, and the non-trivial “technicalities” involved in opting, for instance, for aggregated wage growth rates or for per capita wage growth. The same applies to choices between cross-section life expectancies and estimated cohort expectancies, between price indexation and revaluation beyond price adjustments, or between a top-down and a bottom-up approach in transitioning from DB-PAYG to NDC. Holzmann weighs the pros and cons, the contexts, and follow-up problems of any single choice taken without opting for a preferred one. This is legitimate and academic prudence, but may be somewhat disappointing to readers expecting policy conclusions from a policy expert directing an intergovernmental economic and social policy institution. This even more so as we can see a risk of gradual erosion of NDC rules over time, from Latin America to Latvia. If *no* system is politically foolproof—not even NDC is a panacea, as Holzmann convincingly demonstrates—we may expect some more specific suggestions about how precisely to avoid choices that may turn out to be more foolish or less rational than intended.

Risk Reinforcement Instead of Risk Diversification by the Holzmann Design of the “Ideal” NDC-Mix?

As an “ideal” mix of pension systems around the core NDC pillar, Holzmann proposes combining this basic unfunded pillar with a supplementary funded scheme and with a social pension, unfunded as well. Whereas the crucial first NDC pillar and the social pension pillar or non-contributory pension (as a kind of fall-back device “for the elderly poor”) are both PAYG and mandated, the funded pillar—the second or third—is now proposed to be voluntary. Still, it will have to play an important role in a future “more coordinated but not harmonized Pan-European pension system,” where national “differences would still exist,” but where “their mobility-reducing effects . . . can be limited with a strong (voluntary or mandated) funded pillar.” Apart from facilitating “Pan-European mobility,” the funded pillar is meant to allow further “consumption smoothing beyond NDC benefits” and “according to individual preferences” without distorting labor supply and saving decisions; “to support retirement flexibility in an aging society”; and to achieve “risk diversification.”

Holzmann argues that “as funded and unfunded pillars have a different exposure to economic, demographic, and political risks, and as their rates of return are little correlated, diversifying pension benefits from two pillars is welfare enhancing.” No doubt that it is welfare enhancing for globetrotting professionals like those assembled in Sandhamn: currently constrained by a conspicuous and hardly understandable lack of pension portability, great uncertainties about future entitlements, and significant retirement income losses from mobility. It thus, probably serves the great majority of internationally mobile experts at the Sandhamn conference very well. Actually, many of us, despite being specialists in international pension issues, cannot more than very vaguely if at all envisage the kind and amount of retirement income to be expected from a diversity of institutions in a variety of countries. Whether similar welfare gains from combining NDC with a funded DC pillar can be expected by broader middle classes and lower-income strata is still to be seen.

Again, Holzmann’s argument holds in principle. But there usually is a much stronger complementarity of respective strengths and weaknesses between a traditional unfunded DB and a fully funded DC system (the previous World Bank priority mix) than between a funded DC and a formally “unfunded” but quasi-funded NDC scheme. As the last combination basically introduces the logic, structures, and processes of private funded DC schemes within public PAYGO systems, synergies of supplementing the other system get lost. By implication, at least two groups of persons may find themselves in more difficult situations than before. Both of them belong to the large section of the population losing through a “quasi-actuarially fair” NDC system because they before have unduly benefited from DB schemes far above their contribution base.

The first group is those in principle able to compensate for the expected losses in pension income. They may do so by investing significantly in a voluntary second or third pillar of a funded pension: for instance, by converting their severance payment claims into an old-age provision. But the new funded pillar is meant to be DC as well, simple in design (to avoid disappointing take-up rates such as with the German *Altersvermögensgesetz* or *Riester-Rente*), and voluntary: three design elements with which I agree. But being voluntary also implies that people free to choose may choose as well *not* to take care of their supplementary old-age provision—or not take care of it sufficiently.

Empirical evidence suggests that this is exactly what we have to expect, at least for some mid-term transition period. The majority of people are not fully aware of their “pension income gap.” Those who are do only about a third of the savings they themselves consider necessary. The Sandhamn conference has provided additional evidence of incomplete information, lack of interest, severely limited rationality—and subjective preferences for DB schemes. Annika Sundén (chapter 13, this volume) shows that even for the comparatively well-informed participants in the Swedish system, less than half of them had looked at the benefit projection. They have less self-reported “good knowledge” in 2003 than they had in 2001 when NDC was started, and they show a relapse in most basic knowledge (“all years count”) from 50 percent in the year 2000 to 38 percent in 2003. Low-income and younger participants are less likely to look at information at all. In the United States, workers generally lack knowledge about social security benefits, and those who depend most on them are least informed. In Michael Orszag’s unpublished presentation to the Sandhamn conference, on which this book is based, he shows that people are generally more satisfied with quality of information in DB systems than in DC systems. Thus, combining two DC schemes will obviously reinforce subjective feelings of uncertainty and information deficiency.

As a consequence, even those who make provisions and voluntarily contribute to a funded DC scheme may at times find themselves with significant and unexpected real losses; and will always find themselves with the double uncertainty of two DC schemes and somewhat unpredictable annuities. Again, Mike Orszag has calculated the “loss in retirement income” in Europe and the United States from 2000 to 2003 as ranging from more than 15 to 25 percent for those who invested in half equity and from more than 40 to more than 50 percent for those who invested in all equity for the funded pillar. The index of all active funds in the Swedish PPM has gone down between the starting period in spring 2001 to 88 percent (spring 2002) and to 63 percent in spring 2003. The Swedish PPM is the Premium Pension system, with a contribution rate of 2.5 percent which accrues a capital-market-determined rate of return. The PPM complements the unfunded (first) pillar with a contribution rate of 16 percent in addition to a minimum “guarantee pension” which provides a basic safety net for those aged 65 and above. The corresponding share of Swedes opting for actively managing their premium pension capital has declined from 67 percent initially to over 14 percent last year to 8 percent in the first half of 2003, the third year of falling stock markets (Casey 2003).

While fluctuations of NDC and funded DC schemes may be independent from each other, co-variation of volatility and thus risk reinforcement cannot be excluded, either. There are many scenarios where risks accumulate or even interact instead of cancelling one another smoothly. For many people, not only getting much lower pension but getting much less predictable retirement income from more sources than before may be the most probable outcome. This may still be meaningful from an overall welfare perspective, but it certainly is in sharp contrast to the hyper-stability of DB final salary pension rights for, say, civil servants in many countries today. It will therefore inevitably be perceived as deterioration over time, even if the final result may be equal to or even better than the *status quo ante*. In Germany, for instance, the *Gesetzliche Rentenversicherung* plus 4 percent savings qua *Riester-Rente* may generate a higher gross replacement income with anything higher than the projected 4 percent annual rate of return on financial markets—nominally (Börsch-Supan and Wilke, 2003, figure 13).

But it will take time to find out what is actually going to happen—and how people actually perceive what is going to happen under uncertainty. Welfare and old-age security must not only be provided, they must also seem to be provided, to be accepted as “good enough,” if not “best” a practice or “ideal” pension arrangement.

A Guaranteed Minimum Social Pension is Needed, Not a “Zero-Pillar”

This applies even more so to persons on a minimum social assistance or old-age provision for the elderly poor, who may have been fewer before reforms, or not so poor under a no-reform scenario. In OECD countries, old-age poverty fell for decades until about the mid-1990s, although it was still higher than average among the population above 65, and in particular the population over 75 (Förster 2004). Reforms will most probably reverse the past trend “of the increasing material well-being of the elderly population” and this turn-around has already been observed (Förster 2004). In an accession country like Hungary, for instance, around 150,000 more elderly poor in need of social assistance are expected as a consequence of reform, which is yet far from introducing an NDC scheme (see Marin, Stefanits, and Tarcali 2001).

Holzmann recognizes clearly that “having under the new structure a quasi-actuarial NDC system as first pillar and actuarial funded second and third pillars tends to increase the efficiency in the labor market but reduces the redistribution of income toward the poor” and therefore requires minimum benefits. “Income support for the very vulnerable elderly to prevent old-age poverty is part of the adequacy objectives of any pensions system.” Consequently, he unequivocally calls for “a strengthened social or non-contributory pension in EU member-countries” necessary to counter-balance increasing “vulnerability of the elderly as aging progresses. He argues that “with incomplete and perhaps falling coverage under earnings-related schemes, one can conjecture that poverty incidence will increase as the increase in life expectancy continues.” Let us not forget that more than the increase in residual life expectancy, it was and is the increase in survival rates to pension age that determines the pension load. Those survival rates rose from around 15 percent at Bismarck times in the 1870s to over about two-thirds in the post-war period to 90 percent today. Again, who would not share both the diagnoses provided and the normative and policy conclusions drawn in accordance with “the solidarity objectives of the European Union”?

Two main questions remain. First, “how such a strengthened social pension pillar should be structured”? Second, as I added in my original comment on the Holzmann paper, “why should the guaranteed minimum social pension be conceptualized as—and initially even called—a ‘zero-pillar’”? Holzmann’s response to the second query was to fully accept the objection “and to do away with the, perhaps, questionable notion” but not “with the proposed concept.” He thus changed “the language around the zero pillar” into “social pension pillar” or “non-contributory pension,” which signals rather a tribute to political etiquette or correctness—and less a rethinking of the real implications of semantic choices.

Before returning to this issue, I accept that his answers to the first query, his own, are all specific enough and satisfying. He opts for a minimum pension under the NDC system in addition to a social pillar in order to “strengthen incentives for formal labor force participation.” But he sees that this also requires eligibility restrictions “in order not to contradict the neutrality objective of the NDC structure with regard to the individual retirement decision.” Again, I tend to partly agree with the philosophy as well as with the measures proposed. “For example, while allowing individuals to retire from the age of, say, 60 onward, it may have to be required to have a minimum accumulated notional amount equivalent to 100+ percent of the minimum pension or else the need to reach the standard retirement age of, say, 67 (which is increased with a rise in life expectancy). Second, coordinating a minimum NDC pension with a social pension with regard to labor market incentives requires different eligibility criteria (such as some kind of means or affluence testing of the

social pillar), different amounts, or different eligibility ages—or some combination of these. Finally, eligibility for a social pension may have to be conditioned on higher ages (say 70 onward), but means-testing may be kept light . . .”

Still, Holzmann himself seems to be skeptic about the persuasiveness of his overall proposal: “How much national preferences such a social pension pillar would be able to exhibit . . . is open for discussion. . . .” This obviously needs more debate—and research. In this context, let me raise a few basic queries without having precise answers. Did not the very name of “zero pillar” originally disclose a preference for a residual conception of sheer poverty relief instead of a broader conception of welfare? Why not adopt the United Nations philosophy, as formulated from the time of the “Guiding Principles for Social Developmental Welfare Policies and Programmes in the Near Future” to the follow-up documents of the World Summit for Social Development (WSSD) 1995? Why not replace a concept of welfare as minority concern, program of poverty relief, and social control of those “living on welfare” by a more encompassing, comprehensive, and universal policy concern meant to “serve to raise the level of living of the widest possible sections of the population” (UN Guiding Principles; see European Centre 1993, pp. 212, 213 ff.)? Should guarantees regarding old-age pensions be restricted to protecting the marginal and vulnerable instead of more universal minimal standards of human well-being and social integration? Is protecting and compensating the most needy a sufficient complement to counting on self-help for all others, or may a strategy of enabling also require supporting those who generally take care of themselves—and assisting those who care for others?

Are no other forms of minimum income guarantees and non-contributory social rights qua redistribution conceivable, desirable, or even preferable? How does which kind of coverage of unemployment and periods of illness, disability, military service, and family-related time off, such as maternity leave or care leave, supplement insufficient earnings-related NDC claims to a decent minimum income guarantee? As they add up to several years, and frequently more than a decade of absenteeism from work during working life (Marin 2000), they may better assist consumption smoothing and provide more targeted, social policy goal-oriented support beyond poverty relief and to equal opportunities than a social pension. Generous cash contributions for non-contributory periods (related to unemployment, sickness, disability, military service, family-related time-off such as maternity leave, care leave, etc.) may supplement insufficient earnings-related NDC accumulations much better than unconditional basic social pensions, achieving a decent minimum benefit level and at the same time providing better incentives. This, at least, is my major hypothesis. Why should social pensions be means-tested and restricted to “the vulnerable elderly” and thus to the very margins of society, instead of being non-contributory universal grants available to specific categories of people, such as (working or lone) parents, caregivers, or the disabled?

In short: why, after all, should the social underpinning of NDC cum voluntary funded pillar be conceptualized as if it still were what it is not any longer called: namely, a “zero” pillar? Did “zero pillar” not imply unintentionally but tellingly that getting something for nothing (or at least for less than one’s contribution equivalent) may end up with getting next to nothing (“zero”) for something (a tax-financed primary social policy goal “pillar,” withering away with other “national preferences”)? Why not conceive the social safety net below the mix of mandated NDC and a supplementary voluntary funded scheme as a “grounding,” a basic pension guarantee—as much a core component as the crucial NDC—and not as a “zero pillar,” which may crack just when most needed? But I have to agree with Robert Holzmann’s rejoinder in a personal communication to this critique that my “grandiose ‘pension guarantee’ sounds fine but is not fully thought through with regard

incentives provided” and still “rather fluffy.” Indeed, much more work needs to be done on the synchronization of minimum NDC pension, social pension, and the non-contributory supplements to regular earnings-related NDC schemes for social policy goals on work-, family- and health-related interruptions of working life—open to everybody in need and not just to the poor.

Disability Welfare: A Most Relevant Lacuna

One crucial aspect of the pension *problematique* in general, and of massive pre-retirement as probably its single most important determinant in particular, that is completely ignored in the Holzmann model is disability pensions. (For recent publications, see OECD 2003; Prinz 2003; Marin and Prinz 2003; and Marin, Prinz, and Queisser 2004). This is even more surprising in view of two trends: first, the uncontrollable spending dynamics on disability policies during the last few decades; and second, its foreseeable future aggravation. With coverage and replacement rates of monthly pension incomes probably falling, as well as with retirement age rising under earnings-related schemes, one can assume that the propensity to exit early from the labor market via disability pension claims may increase. But can an “ideal” Pan-European pension pillar mix formula even be conceived without some solution to one of the major causes of early retirement, if massive early retirement itself is one of the major causes of unsustainable pension dynamics today? In addition to fiscal unsustainability, in several European economies with high non-employment rates, disability pensions play a major role in depressing labor force participation.

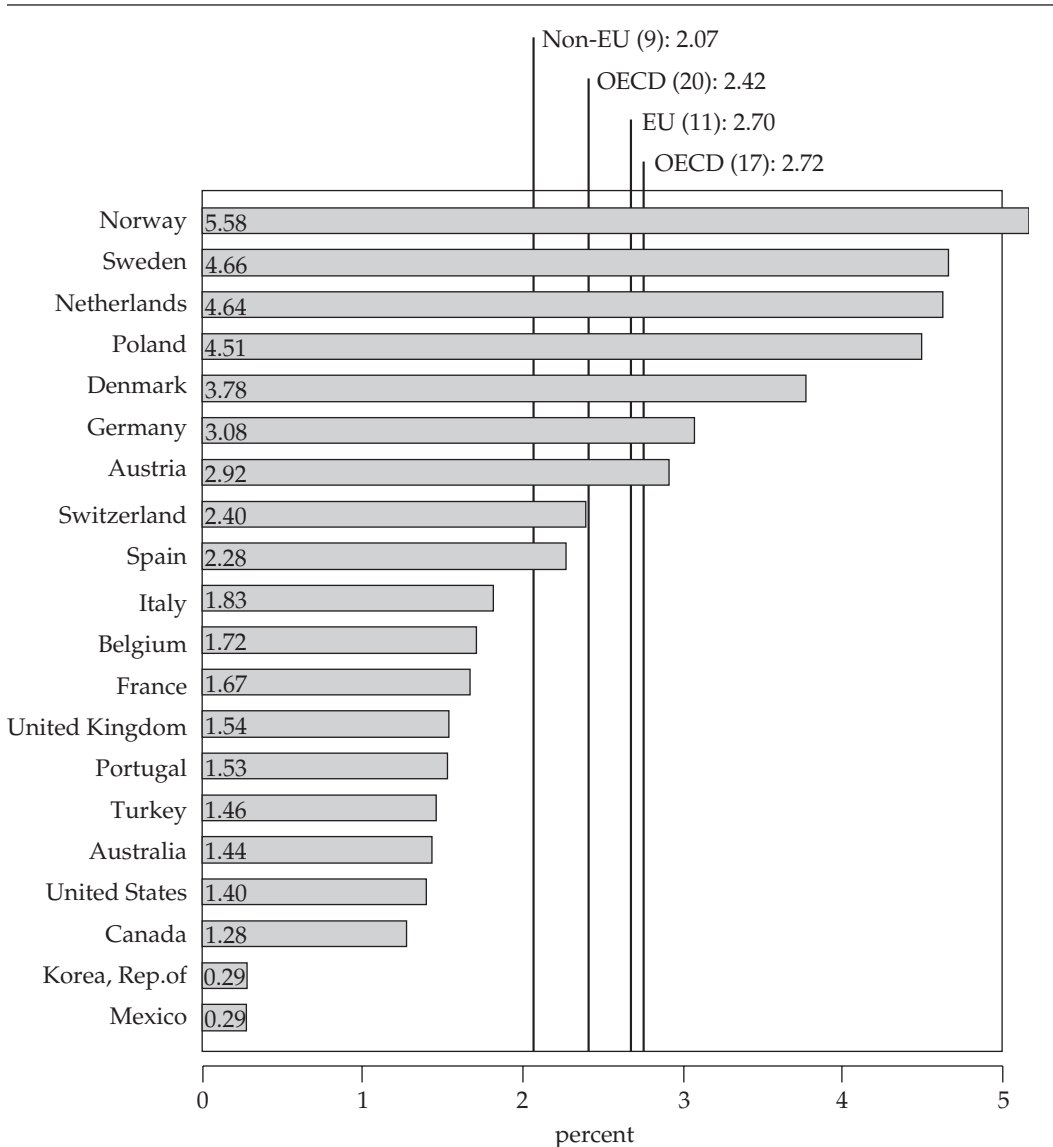
Some facts and trends are puzzling indeed: How can invalidity pensions for the working age population significantly increase with improved health and higher disability-free life expectancy, compression and postponement of morbidity? How is a steep rise in incapacity rates in working age possible along with a simultaneous reduction of chronic and occupational diseases, accidents, and work injuries—and with less exposure to infectious and contagious diseases (some of which have virtually disappeared) and to dust and to hazardous substances such as asbestos and other carcinogens? How can disability pensions in working age rise with a decline in disability of population groups of higher risk such as the elderly beyond working age 65?

In Hungary, for instance, the majority of all new pensioners exit to retirement via invalidity (Marin, Stefanits, and Tarcali 2001, figure 2). In Austria, every second man retires during working age as disabled and the numbers climb to up to two out of three farmers or three out of four blue collar workers. For the age cohorts 55/56 years, invalidity pensions have increased by 555(!) percent in less than two decades. Despite many other avenues for early retirement, in the age group 60 to 64 years, 40 percent of males have an invalidity pension. For the OECD, the average is 23 percent. In the Netherlands, which has one of the world’s most advanced medical and health care systems, almost 1 million persons of working age are on disability pension benefits; overall, invalidity reciprocity rates have increased 86 percent between 1980 and 1997. In the United Kingdom, without any evidence of deterioration in health, government spending for sickness and disability has quadrupled over the past two decades, and 40 percent of working-age recipients of state benefits now claim sickness and disability compensation.

Correspondingly, the general slowing down of the rate of welfare expenditure expansion (social spending roughly doubled between 1960 and 1980 and has increased around 20 percent since) has affected disability pensions less than any other social expenditure. Extension of programs, number of beneficiaries, and amount of expenditures for disability have steadily increased for about 35 years, even if one controls for the changing age structure of

societies. Periodic efforts at retrenchment (in the mid-1970s and 1990s) have succeeded in slowing down reciprocity growth rates, but never the growth of beneficiaries as such; the stock of benefit recipients remained high, and the inflow rates much higher than outflow. As a consequence, even disability pension expenditures have begun to show reduced inflow rates: that is, continuing though slower expansion dynamics. But overall cost containment

Figure 11.6. Variation in Public Expenditure for Disability Related Programs (percentage of GDP)



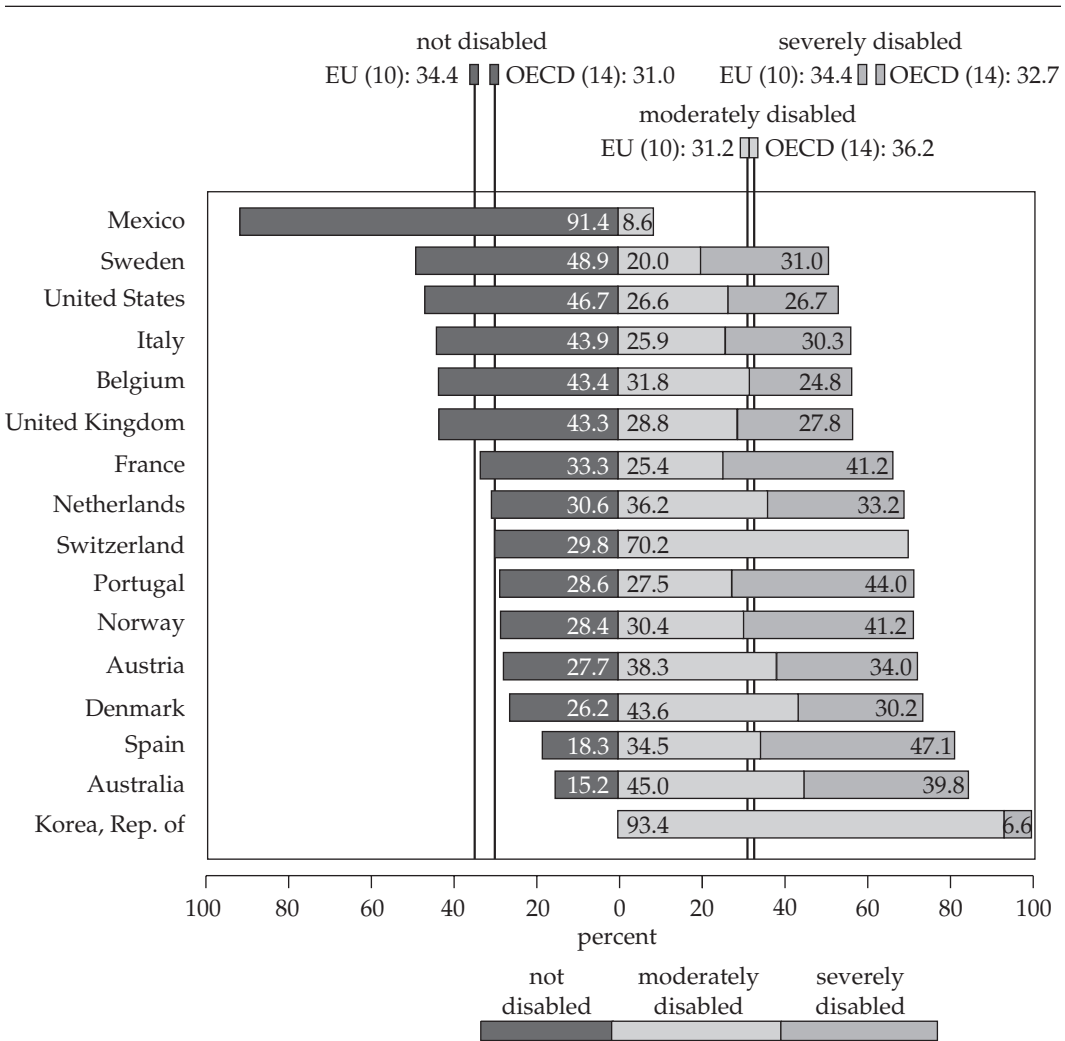
Source: Marin and Prinz (2003, p. 36).

Note: All disability-related programmes include broad disability benefits and employment-related programs for disabled people. OECD (17) excludes Republic of Korea, Mexico, and Turkey. The vertical lines in the graph indicate mean.

will be a core challenge in the years to come—more than in any other social policy field.

Expansion of disability pensions over the last decades has become uncontrollable (figure 11.6). Social expenditures on disability now total several times the social costs of unemployment, even under adverse conditions of very high unemployment rates. In 19 out of 20 OECD countries investigated, disability costs were significantly higher than the costs for unemployment. On average, they were more than double the costs (2.17 times). In Norway, they are up to 11.9 times the unemployment costs. Public expenditures go up to 5.58 percent of GDP, and are 2.72 in OECD-17 and 2.70 in EU-11 countries. Still, high costs do not guarantee good targeting. A recent OECD report (2003) shows that a clear majority of severely disabled people, most in need of support, are not awarded a disability benefit,

Figure 11.7. Disability Status of Disability Benefit Recipients



Source: Marin and Prinz (2003, p. 57).

Note: For Mexico and Switzerland, “severe” and “moderate” are one number. Mexico and Switzerland are excluded in the OECD average. The vertical lines in the graph indicate mean.

whereas more than 40 percent of disability pension recipients are self-declared non-disabled (figure 11.7). Scarce funds are thus wasted either on non-deserving persons, often neither poor nor needy, or on persons in need but deserving and being better helped by forms of support other than disability pensions. The European underemployment malaise seems to have shifted from mass unemployment to a massive non-employment, of which widespread invalidity has become a major current.

Above the age of 50, in particular, the relationship between unemployed and economically inactive persons, many of them on disability benefits, is now 1:8. During working age, Europeans are outside the labor force for between 10 years (men) and 22 years (women), of which the average person is likely to be unemployed or on job search for not more than two years. Thus unemployment (while still quite high) is becoming a minor problem as against overall non-employment. Whereas one-in-five adult men of working age is now outside the labor force and another one-in-ten-to-twelve is not working because of unemployment, male unemployed are less than a third of the male non-employed in Europe today. The proportion of women outside the labor force is six times greater than the proportion unemployed.

Obviously, invalidity pensions account for only one faction, though an important and growing one, of overall growing non-employment of adult Europeans of working age. And labor market hypotheses for explaining the rise of disability pensions are all the more plausible, as demographic explanations play no role for the working age population. All medical experts agree that there is no increase in the prevalence of invalidity and, therefore, no medical or epidemiological explanation for this steep increase in invalidity pensions and invalidity expenditures. Aarts, Burkhauser, and De Jong (1996) refer to a quantitative study of determinants of change in disability reciprocity shares in the Netherlands in the 1980s (Aarts and de Jong 1992). They concluded that only a third of the variance in inflow into disability status is explained by medical factors. Two thirds is explained by non-medical determinants, above all benefit generosity and unemployment rates.

The Policy Shift Needed on Disability Pensions

Disability pensions seem to have become a kind of garbage can social welfare category. It probably will continue to depress labor force participation above the age of the median voter—around 45 years already, today. Thus it will contribute to aggravating fiscal pressures rather than to maintaining or restoring stability and long-term sustainable social policy. This *malaise* requires a paradigmatic turnaround in framing the social policy issue at stake. The very expansion of disability pensions cannot be seen any longer as a sign of more overall welfare and well-being of disabled people or “elderly” unemployed of middle age, but rather as an administrative incapacity to provide welfare and cater it well enough to the persons with impairments in need. In short, disability welfare extension is a potential welfare failure, rather than an unquestionable welfare and social policy success.

As with spending on unemployment, hospitals, prisons, and pharmaceuticals, more spending on sickness, accidents, work injuries, and disabilities or early retirement invalidity may signal less welfare for each disabled person and for society at large. Yet the failure of disability pension policies is not at all accidental but an inevitable byproduct, an unintended but unavoidable consequence, of a purposeful and successful social compensation policy. Compensation produces income security for persons with assumed health-related restrictions on earnings without a corresponding level of integration offers and activation demands. In all modern European welfare states, the main determinants of public spend-

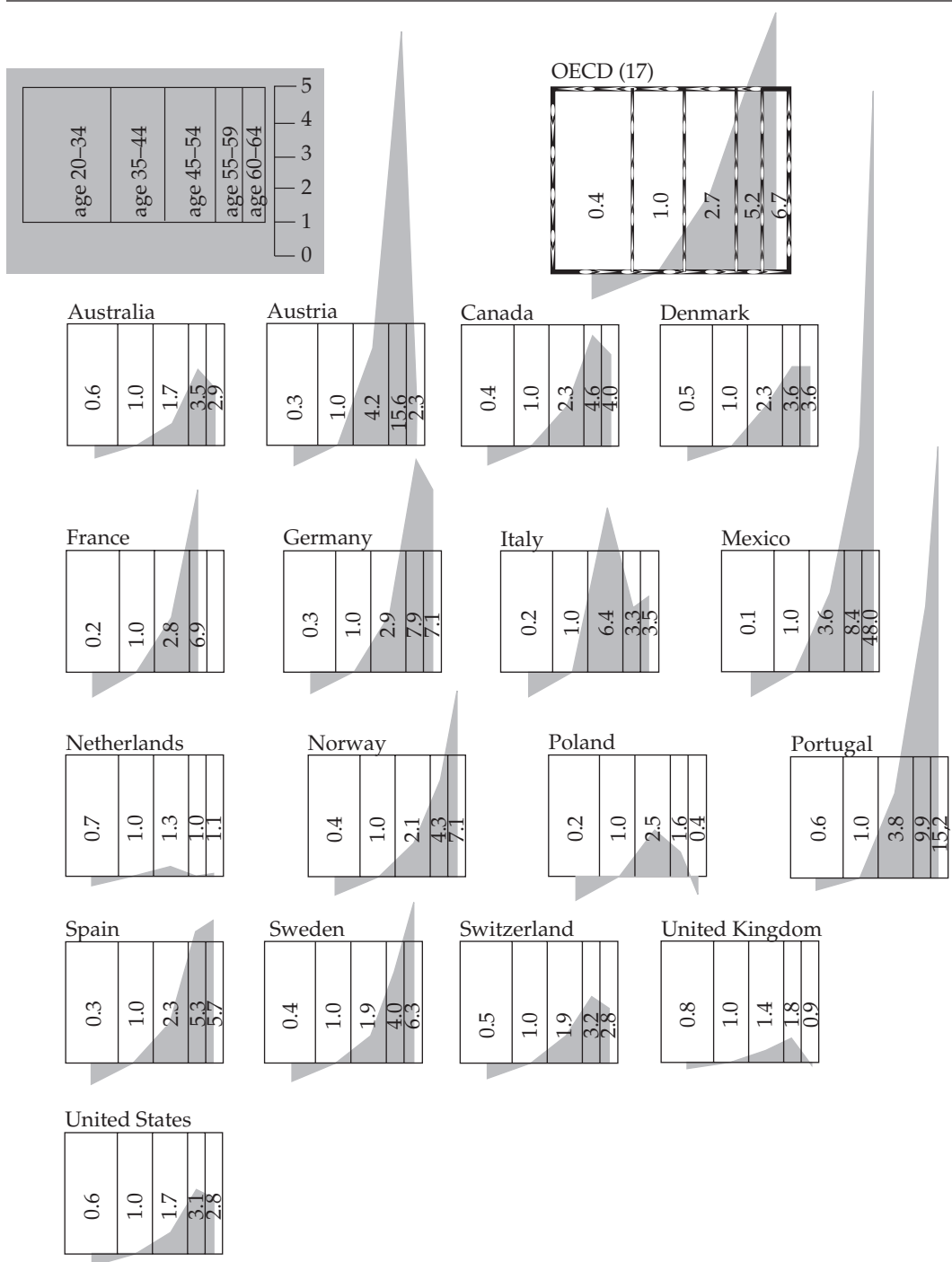
ing are not revenue but entitlements to welfare benefits. But in contrast to transfers—for instance, for unemployment, social assistance programs, or even old-age pensions—spending on invalidity pensions and disability benefits cannot easily be changed and adapted even over mid-term periods. Disability pensions lend themselves to the temptation of political rent-seeking and manipulation, to using pre-retirement and invalidity pensions schemes for facilitating industrial restructuring or for hiding unemployment, for getting votes instead of making welfare schemes compatible with standards of fairness, competitive requirements, and long-term affordability. Disability pensions allow for trading short-term political popularity for long-term sustainability. Easier access to early retirement, broader coverage, more generous replacement income, more relaxed screening of eligibility and assessment of claims buy immediate satisfaction of interest groups and voters. The fiscal burdens of unfunded liabilities are shifted unto later generations of working populations, without easily discernible relationship with the goodies distributed in earlier periods (for this and the following, see de Jong 2003).

But in contrast to political leniency with respect to regular old-age security, thoughtless generosity regarding disability pensions changes the behavior not only of current invalidity beneficiaries; it also adversely affects the behavior of potential claimants: non-disabled employees, their employers, and social administrators, and all other interest groups as well. As with sickness and health insurance, moral hazard in disability welfare may become contagious, spreading over to others, demoralizing previously innocent bystanders watching what they may consider malingering at their own expense by free-riding recipients. They may possibly give in to the temptation to use incapacity schemes that are an easier and cheaper way to deploy surplus workforce than regular dismissals. Enterprises frequently find themselves in the paradoxical situation of complaining about a rise of non-wage labor costs, which they themselves have previously produced by abusing pre-retirement and invalidity pensions schemes to offload large proportions of middle-aged workers at public expense.

Currently, disability policies award many more people permanent pensions than they place in rehabilitation or employment programs, with much higher costs for social exclusion. They are not able to create employment through activating programs. Everywhere, they systematically exclude exactly those persons most in need for occupational reinsertion—those above 45 years of age where inflow rates are highest—from return to work programs, creating a great age-mismatch between disability inflow and vocational rehabilitation offer. Thus, they are completely writing off broad middle-aged cohorts of persons with partial impairments and whole generations of so called elderly workers that have gone through longer spells of unemployment. They invite massive claims for invalidity pensions and illness-related pre-retirement for ever younger cohorts and frequently even grant early retirement under false disability label. Large country differences are not even well documented, nor understood (figure 11.8).

Disability policies have led to a situation where invalidity expenditures and non-employment costs for disabled people within generally more healthy populations greatly exceed the expenditures for unemployment. These policies have led to an acceptance of widespread paid non-employment of employable persons with (partial) disabilities. They take it for granted that extremely low outflow rates for even partial disability tend to make invalidity benefits, once granted, a lifelong welfare dependency. They even tend to channel social problems of long-term unemployment, social assistance, and non-employment through the invalidity track, thus making disability a major entrapment for surplus labor populations. They thereby not just misallocate resources at a grand scale but misdirect and reduce energies and work capacities at large. They demoralize and misguide disabled and non-disabled citizens alike—to the extent these mismatches become widely visible and

Figure 11.8. Country Differences in Age-specific Inflow Rates (ratio of age-specific inflow rates over age group 35–44, 1999)



Source: Marin and Prinz (2003, p. 74).

Note: Data for Canada, France, Italy, and Spain cover contributory programs only rather than both programs.

publicly debated—corrupt norms of solidarity and reciprocity by inviting opportunistic behavior and widespread abuse of social rights, and threaten to undermine the legitimacy of welfare entitlements and pension arrangements altogether.

As a consequence, the radically ambiguous paradigm shift that has occurred during the last decades must be followed-up by a shift toward a more coherent employment-oriented equal opportunity model (OECD 2003; Marin, Prinz, and Queisser 2004). What is crucial is that the normalization and mainstreaming of disability inherent in the social model finally moves away from modeling disability benefits primarily according to a lifelong retirement pension scheme without return option, and move it instead more toward job search, job return, and other (re-)start or unemployment programs.

The Primacy of Political Desirability, Feasibility, and Sustainability of NDC: Its Underestimated Comparative Advantages

For all those reasons, introducing NDC as a core component within an overall Pan-European pension package or combination of multiple pillars should be argued both in political and economic terms. The mix Holzmann proposes has “an NDC model at its core and supplementary funded pensions and social pensions at its wings.” It is a mix of mandatory and voluntary, of unfunded and funded, of public and private, occupational and individual retirement plans, of contributory earnings-related and non-contributory minimum income support. It will have to be argued convincingly—and that, in the last resort, is politically. When taking recourse to economic reasoning and formulated in its very framework, efficiency arguments are necessary, but not sufficient, whereas fairness and equity issues building on optimal efficiency are most important.

Policy conclusions follow this diagnosis. In order to win broader popular support for NDC schemes, their underestimated comparative advantages and *political assets* should be clearly presented.

- *NDC as a fairness standard, anti-corruption device, and promoter of pension literacy:* NDC sets broadly shared standards of fairness, as actuarial fairness may be the minimum common denominator, apart from and compatible with remaining ideological cleavages in matters of social justice. NDC thus makes explicit hidden or perverse redistributions, as well as implicit taxes for the benefit of special privileged sectional or particular interests, and discloses the true beneficiaries of pension arrangements and reform measures, as opposed to claimed beneficiaries. It makes people think in terms of lifetime contributions, lifetime incomes, annuities, and lifetime pension entitlements in relation to flexibly chosen retirement ages, as against monthly replacement rates to final or previous incomes. It induces thinking in terms of choices, trade-offs, and budget and other constraints, thereby living up to the requirements of modern pension systems, and generating pension literacy (against all well-known reasons for limited knowledge). It may unblock reforms and build political consensus on required adjustment options in situations where the current system is widely seen as unjust, but lack of credibility to continue with parametric reforms is difficult to overcome.
- *NDC as a functional differentiation of welfare trigger:* NDC allows for functionally differentiating old-age security from disability benefits, health or accident insurance, social assistance, unemployment benefits, survivor's income support, and other family policy measures such as child care credits, anti-poverty measures, and all minimum or basic income guarantees. While these and other social policy fields remain strongly interrelated, only functional differentiation and correspondingly separate

flows of resources permit transparent and politically defensible forms of redistribution. It also allows for autonomy and self-referentiality of the social security pensions system comparable to that of the central banks, the judiciary and court system, science and research, the market economy, and the political system. This system needs its own specialized language, vocabulary (translating all DB problems into NDC language), taxonomy, and framing. But finally, it makes for a “difference in philosophy, not just vocabulary” (Lindbeck 2003b). It is not an “autopilot” system (Monika Queisser, chapter 12, this volume), but helps safely navigate long distances (even with controlled naps or nodding off occasionally). And it eliminates the need for constant nerveracking, costly, and conflicting parametric reform maneuvers (for example, 35 since 1993 in Austria; 50 between 1963 and 1995 in Sweden).

- *NDC as better risk management:* As Gora and Palmer (2003) have shown convincingly, NDC is a superior form of risk management and risk diversification compared to all other pension paradigms. Of course, NDC faces the same macroeconomic and somewhat less demographic risks as all other systems. But compared to public defined benefit systems, it is much less exposed to political manipulation—and not at all subject to opportunistic behavior and moral hazard. It does not create overshooting expectations and no promises will ever be broken; it even depends less on good forecasts. And in contrast to financial defined contribution accounting systems, it is unexposed to financial market fluctuations. There are advantageous NDC features, but not all of them are inherent in NDC; rather, the tangible advantages are in political realities more than in design or superior formula. NDC is inevitably “under-researched” because of its newness, but it is not “oversold” (Diamond 2003) as long as it does not claim conceptual instead of practical and political superiority.
- *NDC as a core component of any pension constitution and autonomy:* NDC’s comparative advantages in handling risk exposure—compared to DB-PAYG systems and financial DC systems—make NDC the single most powerful candidate for a core component of any pension mix and pension constitution. The “wings” making this rare bird fly best are still under construction and testing. But the NDC corpus as a PAYG lifetime saving scheme could help to turn an implicit and frequently heavily distorted generation compact into an explicit generation contract, providing fairness and equity within and between generations. It does not yet solve the transition legacy problem of how to handle overhang liabilities (which in Japan amounts to 95 percent of all excess liabilities; see Takayama, chapter 24, this volume) and how to share the legacy costs over generations. But in preventing future excess liabilities, NDC can help overcome system imbalances and correct a prevailing sense of opaqueness and injustice that so far have been the major obstacles to pension reform. It may still not yet be a magic Pan-European pension reform and coordination formula. But it may come close to an optimal device in that there are no better ones around. And trying to become the best workable pension arrangement, not only in Europe, may make NDC come close to the “ideal” self-binding mechanism claimed for by Robert Holzmann.

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