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Unreformed or Hybrid? Accounting for Pension Arrangements Diversity in the EU

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Abstract EU27 pension systems are diverse and different from textbook ideal-type. They are hybrids because they combine public and private pension features. Over a century, public and private pensions have been designed and reformed simultaneously. We examine how the history of those reforms can explain the emergence of existing hybrid pension arrangements.

Keywords Old-age pensions, Funded and PAYG, Hybrid · Public and private

Pension systems have been reformed importantly throughout the EU 27. From the 1980s, politicians and experts alike presented pension reforms as pressing and inevitable in the face of demographic changes (ageing, decreasing fertility) and globalization.

Still, in spite of recurrent pension reforms, experts tend to consider them embryonic and incomplete (e.g. Holzmann 2004). This paper aims to understand this contradiction. We sustain real-world pension systems are different from textbook ideal-types because reforms are hybridized.

Our paper starts by identifying the ideal-types on public and private pensions. We then contrast these with existing EU27 systems. How can we account for the differences? Mainstream economics implicitly considers reforms shift the pension system from some given set into a new one. For example, the introduction of compulsory private pensions has been described as a paradigmatic shift (e.g. Barr and Rutkowski 2005). As such, the degree of reform is evaluated confronting real-world systems and textbook ideals. The differences are interpreted as imperfections and as a symptom of the need to promote further reforms.

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In this paper, we sustain hybrid mixes result from reforms themselves. As such, *imperfections* cannot be eliminated by reforms. Hybrid mixes emerge from the introduction of reforms into path dependent pension systems. We analyze how the specific history of pension developments in EU27 countries can explain the present-day hybrid systems.

The Ideal-Models of Public and Pension Systems

Economic literature often assumes public and private pension systems have distinct financing arrangements and pension determination models (e.g. World Bank 1994) (Table 1).

Life insurance is the paradigm of private pensions. Ideally, private pensions are funded, and financed out of individual savings. Conversely, public pensions are financed through payroll taxes and managed on a pay-as-you-go (PAYG) basis; meaning present-day payroll taxes (paid by employers and/or employees) are used to pay current pensions. Contrary to private pensions, public pensions are run by state-agencies, who typically do not invest in financial markets.

Concerning pension determination methods, the value of pensions can be defined benefit (DB) and defined contribution (DC). Public PAYG pensions have traditionally paid DB pensions. In a DB system, benefits are determined by a formula and usually linked to wages earned during a certain time span (e.g. last 15 years, best 20 years). Traditionally the DB formula focused on final wages. The formula is typically redistributive; as such, major risks are assumed collectively.

Conversely, private pensions are supposed to be DC, i.e. strictly determined by contributions made and yielded returns as well as life expectancy. There is no room for redistribution and insurance is strictly individual. The inclusion of life expectancy means that the individual alone supports demographic risks.

EU27 Pension Systems[1]

Once we look at actual pension systems in the EU27 we are confronted with a quite different picture. Existing arrangements do not conform to ideal-types. Furthermore, they are conspicuously different across countries.

Private pension arrangements are particularly differentiated. These can be predominantly individual (Central Europe and Baltic countries–CEB—, in Finland as well as in Portugal, Greece and Spain) or occupational (Austria, Belgium, Denmark, France, Ireland, Luxembourg, the Netherlands, Sweden and UK). Furthermore, private pensions can be voluntary or compulsory to some segments of the population (e.g. from a certain age in Estonia, Hungary, Latvia, Poland; or for some branches in Belgium).

[1] The analysis of EU27 pension systems institutional features builds particularly on data from the MIssoc database. Other information comes from Adam (2004); Anderson (2005); Taylor-Gooby (2005); EU (2006); Whiteside (2006); Bonoli and Palier (2007)

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Table 1 Private and public pensions ideal types

		Private	Public
Financial arrangements	Financing method	Funded	Unfunded
	Contributions	Savings	Payroll taxes
	Investments	Financial markets	None
	Management	Private	State
Pension determination	Rules	Defined contribution	Defined benefit
	Risks supported by	Individual	Social insurance

Moreover, private pension coverage is extremely diverse, ranging from very low in Southern Europe to virtually universal in Denmark, the Netherlands and Sweden.

Furthermore, as we can see in Table 2, existing EU27 pension systems are more complex than the ideal types in Table 1 suggest. While cross-country differences are absent from Table 2, we will underline them in the text beneath.

Starting with individual private pensions, we can see that they encompass some hybrid elements. On the one hand, since contributions to compulsory private pensions are often collected simultaneously with payroll taxes, individuals may not actually distinguish savings (contributions to individual accounts) from taxes (contributions to public systems). On the other hand, since participation in private pensions is often promoted by tax incentives, these represent *de facto* subsidies from the public budget.

Occupational pensions are hybrid arrangements. Like public systems, occupational pensions are partly financed by employer contributions and often operate on a PAYG manner (e.g. in Austria, France, and for Swedish blue-collars). Furthermore, in most countries occupational pensions are framed by collective agreements and worker representatives are often involved in management. In some countries, tripartite management is also used in public pension fund management.

While most private funds pay DC pensions, Finnish individual pensions are mostly DB and this is also the case for occupational pensions in Austria, Belgium, France, Germany, Ireland, and the Netherlands as well as in Swedish blue-collar pension funds and British bigger firms.

Table 2 Private and public pension arrangements in EU27

	Private		Public
	Individual	Occupational	
Contributions	Employer and employee contributions budget subsidies		
Financial arrangements	Funded	Funded & Unfunded	Unfunded some funding
Investments	All invest in financial markets and public assets		
Management	Private supervision	Collective agreements	State or tripartite
Pension determination	DC DB (Finland)	DB and DC	DB, flat-rate and NDC
Risks	All include elements of individual and social insurance		

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Funding has recently developed in both occupational pensions and public pension templates. Contrary to the strictly public- PAYG ideal-type, special reserve funds were introduced throughout the EU27. Furthermore, public pension funds have increasingly invested in financial markets. These dispositions introduce hybrid financial arrangements.

Public pension generosity is very diverse. As we can see in Fig. 1, average net pensions can represent from 35 to almost 90% of average net wages. These public pensions net replacement rates are declining throughout Europe as a way to promote private pensions. These should remain complementary in most countries, since only in the UK participation in the public scheme is voluntary.[2]

Public pensions are often financed through payroll taxes, but can also be partly (e.g. in Finland and for French minimum pensions) or completely (Denmark) tax financed. Financing also includes (exceptional or systematic) transfers from the general budget. Some countries also use a special energy tax (Germany, the Netherlands and UK), unpaid holiday (France and Germany).

Public pensions formulas are very diverse and rarely account for final wages only. They are flat-rate in the Netherlands and in Denmark. Additionally, Latvia, Sweden, and Poland converted pension calculation into notionally defined contribution (NDC); this will also apply to Italian labour market entrants from 1995. In a NDC arrangement, individual contributions and yielded returns are converted into a stream of pension payments using a formula based on life expectancy. NDC is a hybrid system which replicates the functioning of private funds through fictitious individual accounts.

The increase in reference wages blurs the distinction between DB and DC pensions and reduces the social insurance dimension. Like NDCs, other reforms have increased *actuarial fairness* (e.g the DB formula considers the entire work history in Austria, Finland, Portugal and Slovakia). Furthermore, the integration of bonus/malus depending on retirement age integrates the private insurance moral hazard problem into social security.

Accounting for the Emergence of Hybrid Pension Systems

As we have seen, EU27 pension systems do not conform to ideal-types. They are hybrid since both private and public systems include elements from the ideal-types on Table 1. Most experts consider these a-typical forms require accelerating reforms. Still, we will see in this section that: First, public pensions are different from the ideal-type because they have been reformed; second, private pension systems, particularly occupational pensions, have co-evolved with public pensions for many decades; and third, in many countries the top-down design of private pensions involved some hybridization. Generally, hybrid templates emerge from path dependent arrangement reforms.

Path dependence means that the situation in one moment in time influences the costs of reforms. This concept has been used to analyze reform choices. Particularly, Myles and Pierson (2001) sustain mature unfunded systems cannot shift to funded

[2] 60% of British employed opted-out of PAYG pensions (EU 2006)

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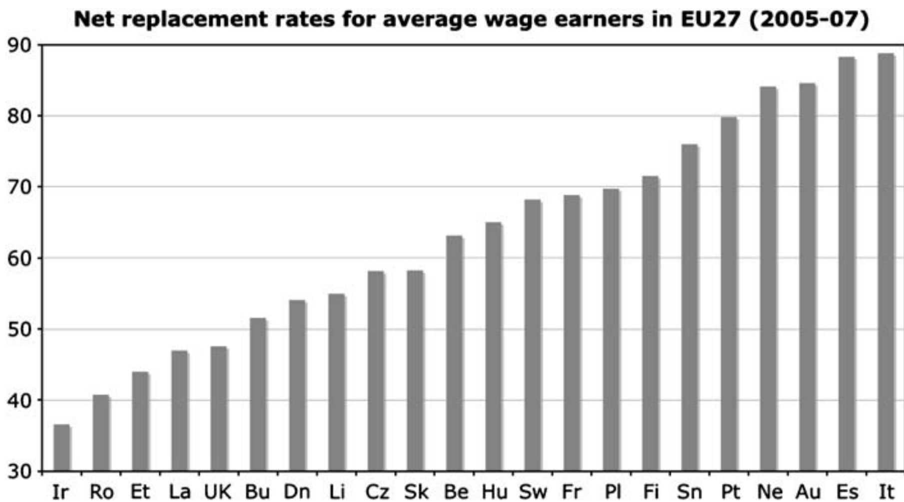

Fig. 1 Net replacement rates for average wage earners in EU27 (2005–07). *Sources*: OECD (2008); for non OECD CEE, own calculations based on data from national statistical offices

systems because of enormous switching costs.[3] Others underline constituency preferences also limit options available to decision-makers (e.g Bonoli and Palier 2007). Neither of these analyses implies reforms are impossible. Both signify the costs of major reforms are significant.

Reform adoption depends on anticipated switching costs and on perceived returns. Economists have are proeminent in estimating both. Given the complexity of socio-economic problems, *epistemic communities*[4] play a central role *"in articulating the cause-and-effect relationships of complex problems, helping states identify their interests, framing the issues for collective debate, proposing specific policies, and identifying salient points for negotiation*" (Haas 1992, p. 4). Present discourse on pension crisis sustains present-day switching costs are inferior to the future costs of non-reform; this argument is used to reduce electoral costs of substantial reforms.

The epistemic community on pensions includes experts at national level, as well as experts at the World Bank, the OECD and at the European Commission. From the 1980s, the epistemic community on pensions promoted an important consensus around two major strategies: (i) public pension recalibration,[5] through enhancing "actuarial fairness" (Lindbek and Persson 2003), increasing retirement age and developing means-tested minimum pensions; and (ii) promoting a supplementary privately-run funded.[6] These principles oriented pension reforms across the EU27. These similar reforms were recombined into specific national trajectories.

[3] Switching from an unfunded to a funded system would have forced present workers to finance both present-day benefits while contributing for their own future pensions

[4] Haas (1992) defines epistemic communities as "*networks of knowledge-based experts*"

[5] Welfare state recalibration (Ferrera and Hemerijck 2003) involves interdependent upgradings and downgradings in social policies

[6] Though this paper does not discuss whether such reforms are needed or desirable, we should highlight that there is some controversy in the economic theory over the relative merits of funded systems (Barr 2000; Orszag and Stiglitz 2003)

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We will use the term path dependence in a second sense, indicating that reforms introduced into a path-dependent pension system change some elements; these will be structured by, and in turn affect, system complementarities. In this sense, "*legacies are not simple residues from the past but can serve as resources for the future*" (Grabher and Stark 1997).

Private Pensions

Following the epistemic community on pensions praise of private pensions, every EU27 country has developed these provisions. This had different outcomes, depending on the particular experiences with private pensions across-countries. In countries with a tradition of occupational arrangements, private pension incentives have translated into the expansion of these, accompanied by a less important expansion in individual pension accounts. This was the case of Austria, Belgium, Denmark, France, Germany, Ireland, the Netherlands, Sweden and UK. In other member states, private pensions are dominated by individual arrangements. This group is even more heterogeneous, encompassing countries where individual accounts have developed importantly (e.g. Central European and Baltic countries) and others where they remain unimportant (e.g. Southern Europe).

The first group has in common that significant occupational arrangements pre-existed public pension arrangements and developed importantly in the post-WWII era.

The development of occupational pensions in North-western Europe in the 1950s and 1960s was influenced by the emergence of internal labor markets. Particularly, firm-level pensions were a mechanism to counter job turnover in a context of labour shortage (for the UK see Glennerster 2006). Pensions are a part of the earnings package. This explains the significance of collective bargaining in these arrangements. Later, in Ireland occupational pensions developed with collective agreements, particularly as a result from the will to moderate wage developments in the 1990s.

Public and private pension systems developed simultaneously and influenced reciprocally. For example, the Swedish public servant scheme influenced white-collar scheme redesign in the 1950s and both of these influenced the blue-collar pensions design later. In France, the AGIRC inter-professional template became a mould to other schemes. *The emulation of existing systems seems to have limited the range of possibilities and gave rise to a branching process.* Furthermore, specific developments can explain the divergence of occupational systems: firm-specific in Germany, inter-professional in France and Sweden and inter-branch in the Netherlands (Whiteside 2006).

While in Denmark and in British small firms, occupational pensions have always been predominantly funded and still are, this is not the case elsewhere. Recent reforms have promoted the introduction of funded templates. Still, for unfunded systems, switching to a funded system would force present workers to finance both present-day pensioner's benefits and their own future pensions. Thus switching costs can explain why some occupational systems remain unfunded (and do not comply to the ideal-type).

Although Southern and in Central Europe and the Baltics (CEB) countries have also recently promoted private pensions, they lacked any pre-existing private pension tradition.

From the mid 1990s, voluntary private pension accounts spread throughout CEB. The epistemic community on pensions was very active in CEB and the World Bank often supported the design and implementation of compulsory private pensions (Müller 2003; Stubbs 2003).

In spite of rising fiscal deficits most countries incurred the sizeable costs of switching from a PAYG to a partly funded system. The perspective of a pension crisis due to increasing dependency ratios legitimated these switching costs. Throughout the region, private pensions were framed as part of the economic transformation and presented as an innovation that would inevitably be adopted throughout the EU. Furthermore, it was perceived as a way to foster growth.

While private account template is closer to the private pension ideal-type, putting it to practice required some hybridization. Private accounts are hybrid because, as their contributions are collected with payroll taxes, it is unclear why workers would perceive them as savings. Additionally, tax incentives to both compulsory and voluntary private systems mean they are partly tax-financed.

Neither Slovenia nor Czech Republic introduced compulsory private pensions. Czech Bismarckian legacy might have opposed compulsory individual accounts introduction (Vecernik 1996). Moreover, although these were discussed in Slovenia, the government decided otherwise after considering the switching costs involved.

Literature is often inclined to regard Southern European countries as laggards relative to their continental European neighbors. Indeed, there has been considerable institutional transfer in the case of PAYG DB design. There have also been recent attempts to import private pension templates, both individual and occupational. These elements were hybridized within a specific *Southern European welfare state* (Ferrera 2005), deriving from pronounced labor market segmentation coupled an endemic underground economy.

While legislation enabled from the late 1980s has sought to promote occupational pensions, these are generally restricted to exceptional systems (e.g. banking, public servants). Rules often try to reproduce the rules on private accounts and social partner influence is very limited.

Reforms increased inequalities, since only workers in good and stable jobs have incentives to join private pensions (individual or occupational). Conversely, individuals with undeclared incomes are not receptive to fiscal incentives and tend to prefer other savings. Furthermore, the extensive group of outsiders has been penalized by the increase in actuarial fairness, but cannot afford to participate in private schemes. This creates a pressing need to foster protection, which is largely lacking (Ferrera 2005).

Public Pensions

It is common to distinguish Bismarkian and Beveridge traditions because the former are employment-related and the latter are universal. Still, until mid-20th century, pension inequalities were generally low and public pension benefits were virtually flat-rate. Public pensions were not final-wage templates from the start; the employment related component was imported from the USA in the late 1950s (Glennerster 2006). Only in the late 1970s was it introduced in the UK, where trade

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unions overtly opposed it (*idem*). Denmark and the Netherlands were the only countries in the EU27 who kept the original flat-rate public pension template.

In some countries, tripartite management was imported from occupational pensions templates. Collective bargaining arrangements are key to understand why existing systems do not correspond to ideal-models. Furthermore, social partner involvement in pension reform discussions often translated into phasing-out and to the introduction of special entitlements.

Public pension reforms were marked by a dominant discourse on pension crisis and by the prominence of fiscal concerns in discussions. EU pension guidelines encompass a strong modernization rhetoric calling for funding and enhanced benefit-contribution link (EU 2006).

The transfer of elements from private pensions, such as funding and actuarial fairness can explain public pensions hybridisation. Actuarial fairness decreased social insurance over individual insurance. Income protection was limited to means-tested. The result was a considerable recalibration of public pension systems, involving a decrease in replacement rates and an increase in means-tested elements.

Concluding Remarks

All EU27 countries introduced incentives to private pension development. Still, emerging EU27 pension systems are differentiated and different from the ideal-type on private pensions; they are hybrid arrangements, combining elements from both public and private ideal-types.

In this paper we differentiated hybrid templates from unreformed pension systems. Hybrid mixes are not a symptom of incomplete reforms; they emerge from reform hybridization in path-dependent settings.

Neither funding nor actuarial fairness are a distinctive feature of private pensions. On the one hand, private pensions are not always DC and can be PAYG. On the other, some funding was introduced into public systems and new DB formulas tend to mimic DCs. Indeed, reforms have promoted the introduction of these features into both systems, since the epistemic community on pensions praised them.

The promotion of funded systems was based on the argument that these are more robust against ageing. Barr (2000) challenged such an argument. Furthermore, the ongoing financial crisis reveals funded systems also have weaknesses. By December 2008, the OECD reported private pension funds had lost an equivalent to USD 5 trillion. Public pension fund losses are for the moment unknown.

References

Adam, G. (2004). Questionnaire for EIRO comparative study on occupational pension. European Foundation for the Improvement of Living and Working Conditions. Retrieved March, 4 2008 from http://www.eurofound.europa.eu/eiro/2004/04/study/index.htm

Anderson, K. (2005). Pension reform in Sweden: Radical reform in a mature pension system. In G. Bonoli & T. Shinkawa (Eds.), *Ageing and pension reform around the World. Evidence from eleven countries*, pp. 94–115. Cheltenham, UK & Northampton, MA, USA: Elgar.

المنارة للاستشارات

Barr, N. (2000). Reforming pensions: Myths, truths and policy choices. IMF Working Paper. Fiscal Affairs department, August.
Barr, N., & Rutkowski, M. (2005). Pensions. In N. Barr (Ed.), *Labor markets and social policy in Central and Eastern Europe. The accession and beyond*, pp. 135–170. Washington: The World Bank.
Bonoli, G., & Palier, B. (2007). When past reforms open new opportunities: comparing old age insurance reforms in Bismarkian welfare systems? *Social Policy and Administration, 41*(6), 555–573.
EU. (2006). *Synthesis report on adequate and sustainable pensions*. Brussels: European Commission.
Ferrera, M. (2005). Welfare states and social safety nets in Southern Europe: An introduction. In M. Ferrera (Ed.), *Welfare state reform in Southern Europe: Fighting poverty and social exclusion in Italy, Spain, Portugal and Greece*, pp. 1–32. London & New York: Routledge.
Ferrera, M., & Hemerijck, A. (2003). Recalibrating Europe's welfare states. In J. Zeitlin & D. Trubek (Eds.), *Governing work and welfare in a new economy: European and American experiments*, pp. 88–128. Oxford & New York: Oxford University Press.
Glennerster, H. (2006). Why so different? Why so bad a future? In H. Pemberton, P. Thane & N. Whiteside (Eds.), *Britain's pension crisis: history and policy*, pp. 64–73. Oxford: Oxford University Press. Published for The British Academy.
Grabher, G., & Stark, D. (1997). *Restructuring networks in post-socialism: Legacies, linkages, and localities*. Oxford: Oxford University Press.
Haas, P. M. (1992). Introduction: Epistemic communities and international policy coordination. In P. Haas (Ed.), *Knowledge, power and international policy cooperation*, pp. 1–35. Columbia: University of South Carolina Press.
Holzmann, R. (2004). *Toward a reformed and coordinated pension system in Europe: Rationale and potential structure*. Washington: The World Bank, Social Protection Unit. Social Protection Discussion Paper Series, n. 407.
Lindbek, A., & Persson, M. (2003). The gains from pension reform. *Journal of Economic Literature, 41* (1), 74–112.
Müller, K. (2003). The making of pension privatization in Latin America and Eastern Europe. In R. Holzmann, M. Orenstein & M. Rutkowski (Eds.), *Pension reform in Europe : Process and progress*, pp. 47–78. Washington: The World Bank.
Myles, J., & Pierson, P. (2001). The comparative political economy of pension reform. In P. Pierson (Ed.), *The New Politics of the Welfare State*, pp. 305–333. Oxford & New York: Oxford University Press.
OECD. (2008). *Pensions at a Glance 2007*. Paris: OECD.
Orszag, P., & Stiglitz, J. (2003). Rethinking pension reform: Ten myths about social security systems. In P. Orszag & J. Stiglitz (Eds.), *New ideas about old age security*, pp. 17-56. Washington: The World Bank.
Stubbs, P. (2003). international non-state actors and social development policy. *Global Social Policy, 3*(3), 319–348.
Taylor-Gooby, P. (2005). UK pension reform: A test case for a liberal welfare state? In G. Bonoli & T. Shinkawa (Eds.), *Ageing and Pension Reform Around the World. Evidence from Eleven Countries*, pp. 116–136. Cheltenham, UK & Northampton, MA, USA: Elgar.
Vecernik, J. (1996). Markets and People. The Czech reform experience in a comparative perspective. Avebury, Aldershot.
Whiteside, N. (2006). Adapting private pensions to public purposes: historical perspectives on the politics of reform. *Journal of European Social Policy, 16*(1), 43–54.

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