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EDITORIAL: CESifo DICE REPORT – A NEW QUARTERLY JOURNAL FOR INSTITUTIONAL COMPARISONS

This is the first issue of CESifo's new quarterly, CESifo DICE Report – Journal for Institutional Comparisons. The word "DICE" refers to our free access "Database for Institutional Comparisons in Europe".

In a world of free factor migration and free exchange of goods and services, not only firms but also countries face growing international competition. Every country is eager to learn how others solve their regulatory problems, how they tax their citizens, where they spend government resources, how they help the poor and how they organise their labour markets so as to become successful competitors and offer an attractive economic environment for their citizens and the mobile factors of production. DICE provides an overview of the institutional differences and offers yardsticks for international comparisons. The focus is on EU countries, the US and Japan, but even a wider scope is often presented.

DICE is the Ifo Institute's second empirical pillar next to its famous business surveys that monitor the state of the trade cycle. It reflects the growing importance of allocative problems in a rapidly changing world and their challenge to national policymakers. Founding a new journal around DICE signals the importance the Ifo Institute assigns to this new type of database.

The CESifo DICE Report comments on new entries to the database and offers a forum for the discussion of institutional topics among researchers from the Ifo Institute, from the CESifo research network and from other economic research institutions. The journal will provide information relevant for economic debate without seeking to be an academic journal. The presentations are aimed at journalists, policymakers and members of the business community as well as academic economists.

The journal has different sections. In the rubric "Forum" a specific institutional question is considered from different points of view. Under "Research Reports" the reader finds various topics treated by scholars interested in the design and the effects of institutions. Institutional reform projects are presented under "Reform Models". The rubric "Database" comments on new entries to the DICE database and puts them into a larger perspective. Under "News" we inform the reader about conferences, new information on regulations, ongoing research projects, new studies etc.

The contributions to the new journal will frequently be based on data from the CESifo database DICE. Some articles may also provide us with additional information that will be included in the database. The final aim of CESifo DICE Report is to improve the understanding of the effects of institutional design as well as economic policymaking, thus stimulating well-founded institutional reforms in Europe and the rest of the world.

Hans-Werner Sinn

Professor of Economics and Public Finance,
University of Munich
President, Ifo Institute

Pension Reforms in Europe

Securing Pensions for the Next Fifty years - Achievements of Recent Reforms in Selected Countries

Eric Thode*

Public pension systems following the pay-as-you-go (PAYG) principle are experiencing increasing pressure. Apart from system-immanent problems such as diminished labour supply incentives due to the partial tax character of contributions and distortions of relative prices of labour and other production factors these developments can be mostly attributed to demographic changes. Increasing longevity, for example, extends the period of inactivity and dependency (see Table 1 and Figure 1).[1] Apart from this permanent development, declined birth rates have already started to change the age structure of the population, augmenting the size of older cohorts while decreasing the younger population's share. Although fertility rates are not expected to fall below current levels within the next 50 years (see Table 2), the past decline has only started to manifest itself and it will take some decades until this transitional effect disappears. Thus, the dependency ratio, measured by the number of persons 65 years of age or older in relation to those between 15 and 64 years, will increase sharply. The projections of the dependency ratio from 2000 to 2050 depicted in Table 3 for selected countries indicate that, in round terms, the countries will move from having four to only two persons of working age (or even less as in the case of Italy) for every elderly person (Economic Policy Committee 2002).

Table 1

Life Expectancy of men and women in years, 2000 and 2050

	Men		Women	
	2000	2050	2000	2050
Denmark	75.2	79.4	79.6	83.1
Germany	74.7	80.0	80.8	85.0
France	74.8	80.0	82.8	87.0
Italy	75.5	81.0	82.0	86.0
Netherlands	75.5	80.0	80.9	85.0
Finland	73.9	80.0	81.1	85.0
Sweden	77.3	82.0	82.0	86.0
United Kingdom	75.2	80.0	80.0	85.0

Source: Economic Policy Committee (2002).

Developments that have countered the increasing dependency ratio in past years include the increasing labour market participation of women in virtually all industrialised countries and the peak of labour force participation of the post-World War II "Baby Boom" generation. Until the end of this decade these factors will continue to overlay the adverse effects of demographic change on public pensions. The validity of this outlook, however, hinges on a well functioning labour market and the absence of longer-lasting structural slumps.

Basic reform possibilities

The financial breakdown of public pension systems is by no means an inevitable event. Reforms in various aspects are still possible and have already been implemented in several countries. The pension system can usually be divided into three different pillars. The first pillar commonly consists of a pension scheme financed by taxes, contributions or combination of those following the pay-as-you-go principle with the currently active generation paying the pensions of the retired. Funded elements have played a minor role in most countries up to recently, mostly functioning as a buffer to smooth cyclical fluctuations in the systems' pension expenditures.

The second pillar comprises occupational pension schemes. Employers and employees contribute to

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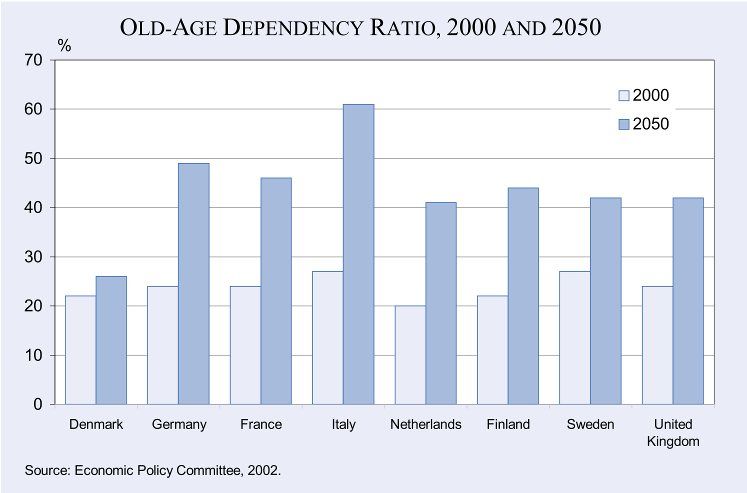
[1] Longer periods of education have also played a role in shrinking the relative length of the working period.

Figure 1



funds[2] that are organized either within the firm or externally through financial service companies. Occupational schemes can be based on legislation or collective agreements between business and labour groups. Coverage with such schemes can be mandatory or optional.

The importance of the first and second pillar differs between countries. In the Netherlands, for example, there is only a basic tax-based universal scheme in the first pillar solely applicable to the private sector, whereas the main emphasis lies on an occupational scheme that is mandatory for the vast majority of employees. In Italy, on the other hand, no occupational pension schemes exist. A contribution-based PAYG scheme in the first pillar is the only publicly provided form of old-age insurance. See Table 3 for an overview of the pension systems of selected EU-countries (Economic Policy Committee 2001).

Lastly, the third pillar comprises all voluntary individual savings plans specifically aimed at old-age provision. Life-insurance and personal stock-market investments with annuitised returns are popular instruments in this pillar. In order to secure the financial sustainability of public pension systems and provide beneficiaries with acceptable income levels, there is room for manoeuvre in every single pillar.

Reforms within existing pay-as-you-go systems

A first approach to account for demographic pressures within existing PAYG systems is the explicit or implicit reduction of benefit levels. This can in principle be achieved by modifying the pension formula. In defined-benefit systems, i.e. mostly earnings-related systems, a reduction of the replacement rate in comparison to net earnings of the average active worker is possible. Less generous adjustment of pensions to inflation and productivity gains entails reductions of the replacement rate as well. Such reforms have taken place in Germany and Finland, for example. More subtle methods for reducing benefit levels for specific groups of retirees include the introduction of a ceiling for benefits as well as increasing the number of necessary years or the amount of overall contributions to be eligible for full benefit entitlement. Furthermore, changes of price or wage level indexation rules influence the replacement rate. Reform along those lines have been implemented in Finland, Germany, Italy and the UK. In Sweden, the public PAYG system has been turned into a "notional" defined-contribution system in which the size of benefits varies with the current demographic situation.

In the nineties, early retirement schemes that were originally implemented in view of soaring unemployment turned out to put a huge burden on public pension systems while not being very successful in reducing unemployment. Although the statutory age for men to be eligible for old-age pensions was 65 years in almost all EU-countries[3] in 1999, actual

[2] These can also be arrangements mimicking funds like accrued pension liabilities in the company's balance.

[3] Exceptions were France with 60 years and Denmark with 67 years.

Table 2

Fertility Rates, 2000 and 2050

	2000	2050
Denmark	1.8	1.8
Germany	1.4	1.5
France	1.7	1.8
Italy	1.2	1.5
Netherlands	1.7	1.8
Finland	1.7	1.7
Sweden	1.5	1.8
United Kingdom	1.7	1.8

Source: Economic Policy Committee (2002).

Table 3

Overview of 1st and 2nd pillar pensions in selected EU Member States

	DK	D	F	I	NL	FIN	S	UK
FIRST PILLAR								
General								
Universal (Means-tested)	Yes (Yes)	No	Yes[e)](Yes)	No	Yes[h)] (No)	Yes (Yes)	Yes (Yes)	Yes (Yes)
Labour-marked-based	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Private sector								
Mandatory	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PAYG/FF/SF[a)]	SF	PAYG/SF	PAYG/SF	PAYG/SF	-	PAYG/FF	PAYG/FF/SF	PAYG
Public sector								
Mandatory	Yes	Yes[d)]	Yes	Yes	-	Yes	Yes	Yes
PAYG/FF/Sf[a)]	SF	SF	PAYG/SF	PAYG/SF	-	PAYG/FF	PAYG/FF/SF	PAYG
Self-employed								
Mandatory	Yes[b)]	Yes	Yes[f)]	Yes	-	Yes	Yes	Yes
PAYG/FF/SF[a)]	SF	PAYG/SF	PAYG/SF	PAYG/SF	-	PAYG/SF	PAYG/FF/SF	PAYG
SECOND PILLAR								
Private sector								
Mandatory	No[c)]	No	Yes[g)]	No	Yes[i)]	No	No[c)]	No
Public sector								
Mandatory	No[c)]	Yes	No	No	Yes	No	No[c)]	No

[a)] PAYG (Pay as you go); FF (Fully funded); SF (Financed by state budget). - [b)] Partial. - [c)] Mandatory for the individual, but voluntary in the sense that contributions are negotiated between employers and unions. - [d)] Special pension scheme for civil servants with life-time status. Wage and salary earners in the public sector, however, belong to the general statutory pension scheme. In their case the same features as for wage and salary earners in the private sector apply. - [e)] In France, a unique public scheme for basic pensions does not exist. However, there is a guarantee that all elderly persons (or households to which they belong) have the right to a minimum level of resources. - [f)] The basic scheme is mandatory whereas the complementary scheme is voluntary. - [g)] For part of the private sector. - [h)] Application to the system depends on the years of permanent residence in the Netherlands between the age of 15 and 65 years; therefore a division of the system by sector is not relevant. - [i)] A vast majority of all employed persons (more than 90 %) takes part in an occupational pension scheme.

Source: Economic Policy Committee (2001).

withdrawal from the labour force took place up to six years earlier (see Fig. 2; Scherer 2001). Thus, many recent reforms have aimed at raising the actual retirement age. At first, this can be achieved be increasing the statutory retirement age for old-age pensions or early retirement schemes. Attempts in this direction have been taken in Italy, Belgium, Germany, Finland, Portugal, Sweden, Switzerland and the UK, albeit in some cases only for specific early retirement schemes or for either men or women. Other possible measures include the abolishment of certain early retirement schemes, tightened eligibility criteria for early retirement and a modification of the pension formula for early retirees towards an actuarily fair calculation of benefits in view of lower lifetime contributions and longer retirement periods for such individuals.

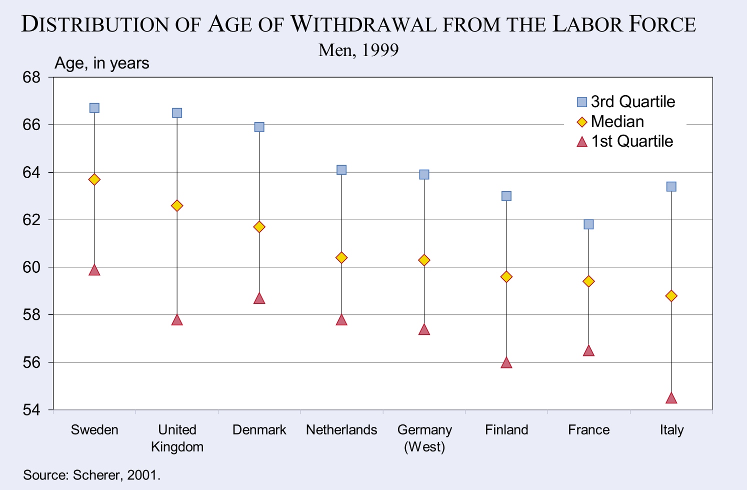
Finally, funded elements can be introduced to PAYG systems in order to offset future benefit reductions with returns from accumulated capital. These funds can be fuelled by current surpluses of public pensions or by additional contributions or tax revenues. This has happened in the Netherlands and Canada, for example.

Introduction and promotion of occupational and private individual schemes

In the nineties awareness was raised that modifications of the existing earnings- or tax-related systems in the first pillar alone could hardly suffice to guarantee desired pension levels or contribution rates because certain measures such as broadening the social security coverage could only bring temporary relief. Apart from that, demographic burden would simply be too large to be borne by earnings-related PAYG elements of the pension system alone. Hence, attention has turned to occupational and private individual pension schemes as well.

In occupational schemes starting points for reform can be found on various levels. First of all, the introduction of such schemes has to be mentioned for countries where this step has not yet been taken or where occupational schemes only apply to certain groups of employees. The take-up rate of existing occupational and also individual schemes can be increased by creating incentives for workers to sign such plans. This is achieved primarily by favourable tax treatment of contributions from employees or employers. But it is also possible, e.g.,

Figure 2



employed who pretend to work for their own accounts simply for tax and social security evasion reasons. This can merely be a temporary relief for the pension system as increased coverage automatically entails higher pension claims. In addition, the statutory eligibility age for early retirement has been raised over a two year period from 60 to 61.5 years and from 55 to 56.5 years for men and women, respectively. This increase applies to self-employed and civil servants as well. Furthermore, reductions of pension benefits due to early retirement have been augmented from two to three percentage points for every year short of the statutory retirement age. Persons retiring after the statutory age will receive a bonus of four percentage points for each year. Both aspects of this legislation provide incentives for postponing retirement.

to allow for partial deductibility of occupational or private pension benefits from the income-base for the calculation of means-tested public pensions.

Increasing transparency, reducing transaction costs and guaranteeing minimum returns are regulatory instruments to raise employees' willingness to sign occupational or private plans. Considering the regularly observed myopia of individuals with respect to old-age provision, turning voluntary schemes into mandatory plans can also be an option. A less radical approach would call for a mandatory scheme with the individual possibility of opting out.

Recent reforms in selected countries

The pension system has been repeatedly subject to reforms in virtually every industrialised country in the 1990s and thereafter. The changes have been far too numerous to be presented here in detail. Therefore, a sample of especially innovative, comprehensive or prototypical reforms that are instructive for an ongoing discussion had to be selected.[4]

Partial reform of the public pension system in Austria can be viewed as a rather conservative approach (see Bertelsmann Foundation 1999 and 2000b). Mostly modifications of the existing system, which is a mandatory earnings-related PAYG system, have been undertaken. This includes broadening social security coverage to part-time workers with very low working time and self-

A more comprehensive, but similar reform of pension legislation took place in Finland in 2001 with implementation beginning in 2003 and 2005 (see Bertelsmann Foundation 2002). Under the new arrangement, eligibility for a pension will start to accumulate beginning at the age of 18, in contrast to the current age of 23. Employees can choose to retire between an age of 62 and 68 years. There will be an incentive mechanism to postpone retirement so that the average accrual rate of the pension, which amounts to 1.5 percent of annual wages, will be raised to 4.5 percent starting at the age of 63. In return the rate at which pension claims accrue for those retiring earlier than the official age will be reduced. With the individual early pension and the unemployment pension scheme, two instruments for early retirement will be abolished and the retirement age in the ongoing part-time pension scheme will be raised from 56 to 58. The accrual rate for part-time pensioners will also be reduced, effectively diminishing incentives for using the remaining early retirement possibilities. In turn, measures for improved rehabilitation and education over the whole working life will be implemented, eventually enabling older workers to longer activity on the labour market. There is still dispute, however, on how to calculate pension claims. Currently, the last ten working years of every employment relationship is taken into account leading to redistribution from earners with

[4] The subsequent reform reports are based on information from Leinert and Esche 2000.

relatively flat earning profiles over time to those with steep earning increases over the life cycle. Not surprisingly, the current arrangement is favoured by white-collar trade unions, whereas business groups and blue-collar unions advocate the consideration of the whole working life.

Canada took a more progressive step with introducing a funded element to its earnings-related PAYG old-age pension (see Bertelsmann Foundation 2000b). The combined mandatory contribution rate for employers and employees has been raised from 5.6 percent of pensionable earnings in 1996 to 9.9 percent in 2003. The additional revenues form this increase together with generated surpluses of the PAYG system are being invested in a broad variety of assets similar to those in the portfolio of large employer pension funds. Before the reform, the surpluses of the PAYG system were mainly lent to Canadian provinces, yielding a comparably low return. With this step Canadians have opted for a relatively sharp increase of pension contributions which is expected to have detrimental effects on labour demand and employment. But this has been consciously preferred by both politicians and voters over the alternative of running the risk of future breakdown of the public pension system.

Other than that, the existing PAYG system has undergone only minor changes. These comprise abolishing the indexation of the basic annual exemption which is now frozen at CDN$ 3500 of earnings. This effectively increases total contributions over the life-cycle. Additionally, future benefits were slightly trimmed by 1.7 percent. These are measures for a rebalance of contributions and benefits.

Similarly, in the Netherlands a savings fund (AOW Spaarfonds) was established in 1998 to secure the financial sustainability of the universal basic pension scheme. The fund is filled from tax revenues. It was decided that money could not be withdrawn from this fund before 2020. After that date the accumulated assets are to be used as supplements to pension expenditures from the PAYG scheme.

Early retirement in the Netherlands has been financed up to recently by occupational schemes following the PAYG principle. The new provisions are instead fully funded and of the defined-contribution type. They have been integrated in general pension schemes offering workers the choice to retire before the statutory retirement age of 65. Some plans also include a premium for workers who delay retirement until that age.

The fundamental Swedish pension reforms of the 1990s had different aims (see Bertelsmann Foundation 1999; Palmer 2002). One was to convert the two-tier PAYG defined-benefit system of a predominant basic flat-rate scheme and an additional earnings-related scheme to a combination of notional defined-contribution PAYG and financially defined-contribution individual schemes. The goal was to promote mandatory savings through the public system but with privately managed assets with a large degree of control for the individual. Another aim was to reduce redistribution from blue to white-collar workers with the pension system that originated from the pension formula, similar to the Finnish case.

A funded component was introduced to the public PAYG pension system in 1994. From the total contribution of 18.5 percent of pensionable income, 2.5 percentage points are being paid to individual funds. The funds are controlled and generally managed by the official Premium Pension Authority, while management by private funds is also an option. Insured persons have control over the investment of their individual accounts and are allowed to change their fund manager.

By modification of the pension formula the defined-benefit principle of the former PAYG system has been replaced by a so-called notional defined-contribution. Incorporating the unisexual life expectancy from the point of retirement explicitly accounts for increasing longevity of the population. This lets individual pension benefits adjust accordingly to the demographic circumstances of the population at the time of retirement.

Funding has been an element of the PAYG ("ATP") system since its initiation in 1960. However, as in many other countries those were not individualised but rather designed mainly as a collective buffer to compensate for short-term fluctuations. Over the past two decades these buffer funds have totalled more than five times annual benefit payments. With the introduction of individual funds and a defined-contribution system, the ATP's assets have been reduced and partially transferred to the general government budget.

Quite different approaches to pension reform have been taken in Germany (see Bertelsmann

Foundation 2000b and 2001). In 1999, an ecological tax was levied on the used of non-renewable forms of resources such as oil and gas. The revenue from this tax supplements pension payments from the public earnings-related old-age pension system in order to keep the contribution rate at sustainable levels. After initial success, persistently high unemployment and low economic growth led to a contribution rate in 2003 almost as high as before the reform. As an additional reform in this area, modifications of the pension formula became effective in 2001. The standard pension level will be reduced from 70 to 67 percent for people having average net earnings for 45 years. This will be achieved by abandoning full adjustment of pension to wages.

Also in 2001, reforms to promote voluntary occupational and private pension insurance were adopted. Contributions exceeding a minimum amount to individual pension schemes that were previously accredited by government authorities have been subsidised since the beginning of 2002. The subsidy consists of a basic subsidy for the individual and additional subsidies per child. The basic subsidies started out at _38 per year in 2002 and will rise to € 154 by 2008. The additional support per child amounted to € 46 in 2002 and will increase to €185 by 2008. Thus, a couple with two children will receive up to € 678 from 2008 on. Alternatively, a deduction of annual old-age provision expenditure up to € 525 in 2002 increasing to € 2100 in 2008 from income tax liabilities is possible. Because of the lump-sum nature of the subsidy this scheme is especially profitable for low wage earners. The share of the subsidy in total contributions declines with rising income.

Accredited schemes must comply with the following regulations: The liquidation of assets is not possible until the age of 60. The financial service provider must guarantee that at least the nominal value of accumulated contributions is paid out during the withdrawal phase. To ensure transparency, a detailed report on the funds activities has to be presented annually. Most notably, the share of contributions used for administrative charges have to be reported separately.

The reform of occupational pensions has introduced the right for workers to have part of their earnings converted directly into contributions to occupational pension plans. Such contracts can be transferred to a new employer in the case of job change, or, alternatively, the employee has the right to continue paying contributions on his own. Formerly, occupational plans required the formal approval of the employer. The newly created possibility for investment into pension funds enables small and medium-sized employers to provide their employees with occupational plans. Previously, this was virtually impossible.

The traditional occupational plans, where the employer pays for the employee's contribution or employee and employer jointly contribute have been subject to minor reforms. The qualifying period for pension entitlement has been reduced from 10 to 5 years of uninterrupted employment at the same company provided the individual is 30 years of age. This will lead to an increasing number of beneficiaries of such schemes.

In the 1990s many countries started to extend their existing occupational pension schemes to groups of employees previously excluded from such forms of old-age provision. In Denmark, for example, occupational pensions have existed for public sector employees since the late 1960s. In 1991 business and labour groups agreed upon expanding pension coverage to workers in the private sector. Implementation took place in 1993 with an initial contribution rate of 0.9 percent. Since 2003 the rate has risen to 9.0 percent and it is expected that it will further increase to a level similar to the 12 percent in the public sector. Employers pay one third of contributions, the remaining two thirds are borne by the employees.

In the *United Kingdom* pension reform was implemented as a part of the comprehensive Welfare Reform and Pension Act in 1999 (see Bertelsmann Foundation 2000a; Whitehouse 2002). The aim is to reduce the state's share in the pension system by encouraging individuals to make their own provision in private insurance markets while at the same time ensuring low old-age poverty. Of the formerly two state-run pension schemes only the basic state pension has been retained. It is a flat-rate system with universal coverage and financed by employer and employee contributions, essentially giving a minimum income guarantee to prevent poverty of retired persons. The State Earnings Related Pension Scheme (SERPS) was designed to lift basic state pension benefits above subsistence levels. It was financed by employer and employee contributions as well but with the opportunity for workers to opt out of this system in order to obtain insurance in occupational or private schemes. With the exception of low-wage earners it was profitable for almost every worker to opt out and take up additional old-age provisions in the form of occupational or individual schemes instead. To further increase old-age income of low and medium wage earners, the SERPS have been replaced by the State Second Pension (S2P). The S2P gives employees with annual earnings up to £24,600 (in 2002/03 terms) a higher pension than SERPS, whether or not they are contracted out into a private pension. Most support is going to those on the lowest earnings (up to around £10,800). In that sense, the system is highly redistributive, and it is expected that individuals with annual earnings of more than 10,800 GBP will opt out of the system. Apart from low wage earners, also persons with fragmented working lives such as persons engaged in the care of relatives, disabled and long-term unemployed will receive higher benefits from the new scheme. As another measure against old-age poverty the Guaranteed Minimum Income has been introduced as a form of social assistance for elderly persons who did not contribute sufficiently to the basic state pension.

Occupational schemes in the UK are mostly the result of contracting out of SERPS and therefore widespread. They are almost exclusively defined-benefit schemes with only one per cent of employees having additional occupational schemes following the defined-contribution principle. Occupational schemes are granted on a voluntary basis.

Facilitating access to private pension plans is the intention of newly introduced Stakeholder Pensions in the UK. Employers who do not offer occupational pension schemes or group personal pension plans are required to choose a stakeholder pension scheme from the private sector and then collect employees' contributions.[5] This new hybrid form of occupational and personal scheme is more regulated than other private insurance plans. Commission fees and administrative charges are limited to one per cent of pension contributions per year. Regulation aims at increasing In the case of job change, employees will retain their claims. Contributions to any occupational scheme in the UK are taxed at a lower rate.

[5] Small employers are exempted from this scheme.

Lessons to be learned from international experiences

At first sight, differences between the countries' reform strategies seem considerable. This is hardly surprising as reactions to demographic changes are also affected by historically evolved pension institutions. But there are also broad similarities.

In most countries it has been realized that small adjustments to public PAYG systems alone cannot guarantee the sustainability of the pension system. This is confirmed by simulation studies showing that only partial reform within the existing PAYG pension systems leads to an unsustainable accumulation of pension deficits in the future (Rother, Catenaro and Schwab 2003).

On the other hand, an entire shift away from PAYG systems to fully funded systems would be equally misleading. Such a radical reform would shift unbearable burdens from future to the currently active generations, making it economically and politically infeasible.

Thus, a mixed strategy of reforming PAYG systems and introducing or strengthening funded elements is recommended for restoring sustainability of pension systems. This strategy should consist of three elements:

First, strip existing PAYG schemes from inefficiencies. Most importantly, this includes the abolishment of labour market-motivated early retirement schemes. There is no empirical evidence that early retirement of elderly workers increases youth employment (see Blöndal and Scarpetta 1999; Eichhorst, Profit and Thode 2001, p. 302). As demographic changes move on, elderly workers' productivity will be increasingly needed. Additionally, unintended distribution effects of pension systems should be minimised. This especially applies for countries where pension benefits are calculated from a specific number of years with highest earnings. This favours white collar employees compared to blue collar workers, reducing work incentives for the second group.

Second, adjust the parameters of PAYG schemes to increased longevity and changing age structure. Although this measure alone is far from sufficient, increasing the retirement age or modifying indexation rules, for example, can greatly help in balancing contributions and benefits in the face of demographic changes. In this respect Sweden has gone a step further by incorporating longevity as a variable into the pension formula, effectively turning it into a defined-contribution system. This way, pension benefits can adjust without time lags caused by legislative procedures.

Third, promote occupational and private individual schemes. PAYG pension systems are much more directly affected by demographic changes than funded systems.[6] Therefore, the possibilities for the individual to receive additional insurance through funded occupational or individual schemes should be improved. Although such schemes should be offered by the private sector, there is large scope for government activity in setting the framework of private markets. The most important prerequisites are transparency and comparability of different schemes so that individuals can find offers that fit their needs. This includes information an administrative charges or the classification of different risk categories as to the kinds of investments that are made by fund managers.

Special attention has to be paid to low and medium wage earners and individuals with fragmented employment histories. They often lack the financial resources to engage in insurance other than public or employer-paid occupational schemes. Direct public subsidies and favourable tax treatment are measures to increase private scheme participation of those groups. The problems of "demographic myopia" and procrastination preventing individuals from privately saving for their retirement can at least partially be solved by a compulsory insurance with an opting out possibility. This means that individuals would have to become active in order to leave the insurance rather than to join it.

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[6] Although it can be shown that in a closed economy a funded pension system is equally vulnerable to a shrinking population, the integrated world economy permits partial immunization by investing domestic capital in foreign countries with different demographic structures and prospects.

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After Another Decade of Reform: Do Pension Systems in Europe Converge?

Martin Werding*

Public pension schemes that today are operated in virtually all industrialised countries, also defining the scope for any other sources of retirement income, are of a dual origin. What is now often referred to as the contrast between Bismarckian vs. Beveridgean systems – the former being the dominant form of public old-age provision in continental Europe, the latter prevailing in Anglo-Saxon countries – effectively dates back to the introduction of public pensions in Germany (1889) and Denmark (1891).[1] Over time, national systems that were inspired by either of these differing approaches have developed numerous similarities with respect to many details, or have been augmented by additional tiers that are built on the competing tradition, thus compromising any simple distinctions. In fact, European pension systems nowadays show what the philosopher Ludwig Wittgenstein, in a very different context, has termed "family resemblance", pointing to the fact that a limited number of distinct features are combined in a far greater number of permutations in any of the existing institutions.

The question of whether or not there is a convergence of actual pension arrangements across countries has been addressed repeatedly over the past decades. Sometimes the intention of those who investigated it was purely descriptive, sometimes the inquiry was also driven by an interest in exploring ways to further co-ordinate, or even harmonise, public pension systems, for instance on an EU level. During the last fifteen years or so, there have been fresh rounds of major pension reforms in next to all European countries. As the reforms enacted are meant to address very similar problems, and are largely built on a similar set of principles, the question for convergence across countries may again deserve some interest.

It would go beyond the scope of this article to describe all the details of current pension systems and the changes made in recent years.[2] Yet, based on a stylised description of what national pension systems look like, and what the latest reforms were about, we can shed some new light on an old controversy. In the end, the answer to the question raised here will once again be twofold. Yes, there is a notable degree of convergence brought about by recent amendments. But, considering the different points of departure, national systems seem to converge towards at least two differing models which can still be described in terms of the ancient Bismarck-Beveridge dichotomy.

Bismarck vs. Beveridge: a stylised description

Ideally – i.e., disregarding a host of complications that enter the picture if we look at real-world public pension schemes as they are actually run decades after their inauguration – Bismarckian systems of old-age provision are characterised by the following features:

- Membership is compulsory mainly for dependent workers, the systems often being "categorical" in that separate branches are designated to different categories of (e.g., blue-collar vs white-collar) employees or to different sectors of

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[1] In other words, Beveridgean systems were introduced long before Lord Beveridge wrote his famous report in 1944. In a sense, the contrast between the two types of regimes becomes even sharper if we acknowledge that they were invented almost simultaneously and not with a 50-year interval in between. Also, the rough localisation need not be adjusted in any way, as it is well-known that the Anglo-Saxons lived on the Danish mainland before many of them moved to Britain.

[2] Recently, the Ifo Institute has completed a comparative survey dealing with all the three pillars of typical systems of old-age provision in the EU-15, Switzerland, and the US, covering revenues, benefits, and the taxation of all major branches (cf. Fenge et al. 2003). Much of the information provided in this study, which was published as a book volume in German only, will now be fed into the DICE database (see http://www.cesifo.de).

employment (in agriculture, mining, the public sector, etc.).

- Benefit entitlements are strongly linked to an individual's contributions, based on benefit formulae which, to some extent, are modelled on the principles of actuarial fairness that are a necessary ingredient in any privately managed pension plan operating in a competitive environment.
- Considering the level of benefits accruing to individuals with a life-time work record, systems of this kind usually aim at a substantial replacement rate, effectively providing a major share of retirement income for most pensioners.

In contrast, Beveridgean pension systems typically have the following characteristics:

- Membership is much more universal, often covering the total labour force or, as a limiting case, all the residents of a given country.
- The link between contributions and benefits is weak at best, the latter being basically a flat rate that is reduced pro rata temporis in cases where labour force participation (or the time of residence) falls short of a legally defined qualification period.
- Even in cases of a full life-time work record, benefits are largely intended to guarantee a certain minimum level of retirement income, while second or third-pillar provisions play a major role for maintaining earlier living standards at old age.

The first of these characteristics, though less important from a theoretical perspective, often turns out to be a crucial aspect for the implementation of pension reform. Applying a new set of rules to just one, universal system is often much easier than doing so to a categorical system with several branches that differ slightly in their design. The second and third features - actuarial fairness vs redistribution and the (average) level of benefits - are obviously important in both theory and practice.

As of today, a common feature of the two types of pension systems is that they are now run primarily on a pay-as-you-go basis, current benefits being financed from current contributions. The observation is remarkable because this is merely a historical outcome, not a necessary prerequisite for how public pension schemes should be managed. In fact, many Bismarckian systems were initially meant to be fully funded, thus completing the analogy to private-sector pension plans.[3] In the context of pure flat-rate pensions, on the other hand, funding benefits has never been thought to be completely appropriate.

It has already been mentioned that much of the contrast between the two regimes is effectively blurred when we turn to real-world pension schemes and follow the paths they have taken over time. For instance, most Bismarckian systems do not really take into account the full life-time profile of annual contributions when assessing individual benefits. Instead, reference periods range from the entire working career between the ages of 15 and 65, over the "best" 35, 20, or 15 years of employment, to just the last 5 years before retirement. Also, minimum pension guarantees have been introduced in many of these systems. At the same time, many Beveridgean systems have been augmented by "supplementary" schemes with earnings-related benefits in line with the Bismarckian tradition. Over time, these second tiers have often turned out to be the dominant branch of public pensions for most of the individuals covered. The latter observation is particularly true for all of the Nordic countries, while the UK has suspended mandatory participation in the supplementary public pension scheme only a few years after it was established.

Allowing for these and many other complications, public pension schemes that follow a primarily Bismarckian tradition can be found in Austria, Belgium, Germany, Greece, Italy, Luxembourg, Portugal, and Spain. Public pensions that are built on the Beveridgean tradition exist in Ireland, the Netherlands, and the UK. Public pensions which, in one way or another, combine elements of both types of arrangements are operated in Denmark, Finland, France, Sweden[4], Switzerland, and the US.

Recent reforms: the main trends

First of all, the classification that was just given relates to the situation prior to the latest round of pension reform which has taken place during the

[3] The German public pension scheme, for instance, lost all of its capital reserves in the course of the early 20th century, following several periods of war, hyperinflation, and currency reform. Nevertheless, the pay-as-you-go mechanism was not adopted as a legal standard until 1969.

[4] In order to avoid confusion, I should hasten to add that in Sweden things have changed since the latest reform which took effect in 2000. We will turn to that in the sequel.

last 10 to 15 years. We will now look at what happens to our rough distinction following more recent changes.

A fundamental trend necessitating some kind of pension reform in virtually all industrialised countries is a projected shift in the population structure, with the ratio of elderly people over individuals at working age sharply increasing.[5] Demographic ageing is already well under way, being expected to reach its peak in about 30 to 50 years. In order to deal with the problems involved with this trend in an economically reasonable and socially acceptable way, recent reforms taken around the world are driven by one or more of the following four major sub-tasks:

- Reducing, in general, the level of unfunded pension expenditure over time; this is done, for instance, through unspecific changes in the benefit formula which governs pensions at award, implying a decrease of the replacement rate, or through adjustments in the indexation mechanism that is applied to pensions after award, moving, say, from wage indexation to CPI indexation.
- Expanding the portion of pension benefits that is funded; this strategy can be followed either inside the domain of public pensions - by establishing "demographic buffer funds" for example - or in terms of strengthening second and third-pillar arrangements that are expected to compensate for the reduction in unfunded public provisions.
- Promoting actuarial fairness in several dimensions, which usually also amounts to reducing average benefit entitlements. Issues that are relevant here are the extension of reference periods for the assessment of earnings-related pensions, the reduction of financial incentives to retire early, or the introduction of stronger means-testing with respect to redistributive benefit components.
- Introducing or expanding a limited number of non-contributory elements, in particular minimum pension guarantees for low-wage earners and child-related benefits for parents who discontinue labour force participation for a limited period of time.

[5] The timing and strength of these trends are of course different across countries, but the fundamental pattern is the same everywhere. For comparative work on how demographic change is projected to affect public pension schemes in industrialised countries if current policies are pursued over the long term, see OECD (2001a, chapter 4) and EU Economic Policy Committee (2001).

At first sight, measures of this type seemingly contradict the common trend behind all other approaches to reform. On the other hand, they may be just what is called for in order to fix a new set of problems - in particular, poverty at old age arising from gaps in coverage - that only turn up when public pension schemes are tightened in regard to many other aspects.

Whatever route is actually taken in a given country, the majority of pension reforms enacted during the last decade is merely incremental in nature, leaving the system basically intact with respect to its general design. If we restrict our attention to the countries of the EU-15, Switzerland, and the US, reforms with a limited scope that can be subsumed under sub-tasks 1 to 3 have recently been enacted in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Portugal, and Spain.[6] There are also remarkable examples of more fundamental reforms, but their number is very limited and some of them date back to more than 10 to 15 years ago.

In fact, the 1983 reform of US Social Security, drafting a considerable expansion of the Social Security Trust Funds, is remarkable - but not really fundamental - because it was enacted so early.[7] The introduction of an "opting-out" clause for the UK State Earnings-Related Pension Scheme was also made during the early 1980s; in this case, the reform is clearly fundamental in that it kept the UK public pension system very close to its pure Beveridgean design, against a broad-based trend that could be observed elsewhere at that time.

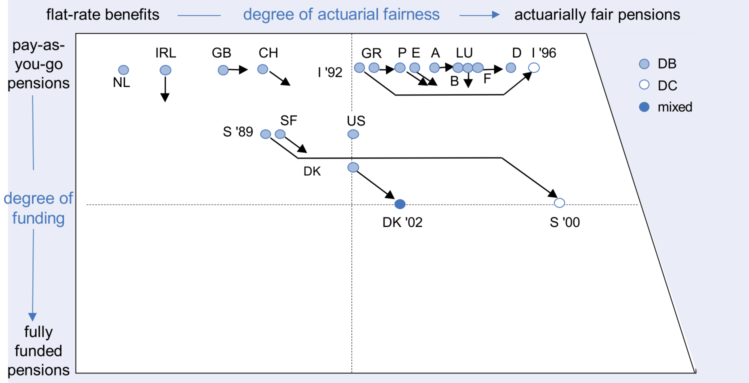
In the 1990s, two further countries in our sample - Italy and Sweden - carried out what could be called fundamental pension reform. Interestingly, the direction of these reforms is very similar in both cases. This time, however, the main effort is spent on making a Bismarckian system (Italy, in 1995) and a mixed regime (Sweden, in 1998) much more "Bismarckian" than even the German public pension scheme. In fact, with their new systema contributivo and the inkomstpension, the Italians and the Swedish invented what is now called a "notionally defined-contributions" scheme, as opposed to a system with defined (levels of) bene-

[6] For a more detailed survey, see Fenge et al. (2003, section 1.4).
[7] This first example of introducing of "demographic buffer funds" has served as a model for similar reforms that meanwhile have taken effect in Luxembourg, Portugal, Spain, and Switzerland.

fits.[8] In NDC-type arrangements, benefits are strongly linked to individual contributions in a way that mimics a particular design of privately managed pension plans which has become more and more wide-spread over the last two decades. Applying parallel approaches to the domain of public pension schemes was not conceived of until just a few years ago. The new Swedish pension scheme is also remarkable for its premiereservsystem, which was introduced in the course of the 1998 reform and became effective in 2000. Meant to make up for projected reductions in unfunded benefits derived from the inkomstpension scheme, there is now an additional scheme of mandatory savings that is located, in a sense, at the interface between a public pension scheme and fully private provisions.[9]

Figure 1

CHARACTERISTICS OF PUBLIC PENSION SCHEMES AND DIRECTIONS OF RECENT CHANGE, 1990 -2002



Source: Fenge et al. (2003, p. 131).

If taken together, the reforms observed in our sample of countries indicate that, over the last decade, there has been some convergence with respect to a number of basic features of how public pension schemes are operated: the share of funded pensions has increased, the idea of actuarial fairness has moved to the fore, and systems with defined contributions – instead of a defined-benefits arrangement – have become more wide-spread over the past few years. Yet, this does not necessarily imply that the systems converge to just one, uniform, model across all the countries considered here.

Some convergence with respect to basic features

In a recent review, Lindbeck and Persson (2003) take the three elements just mentioned – the degree of funding, the degree of actuarial fairness, and the choice between pensions based on defined benefits or defined contributions – to be the most important features when it comes to assessing the potential gains from pension reform. Following their line of reasoning, we can thus obtain a simple, but very illustrative way, of comparing systems across countries and of tracking the relevant effects of changes that follow from recent reforms.

First of all, note that the features chosen here are indeed important as they relate to the three main dimensions of (re-)distribution that are affected by the design of pension systems: they are all about distribution – or, to put it in an alternative perspective, about risk allocation – on an inter-generational level (funding), an intra-generational level (actuarial fairness), and between those who provide and those who buy insurance (defined benefits vs defined contributions). If we accept that in between the extremes of fully funded vs pay-as-you-go pensions and of strict actuarial fairness vs pure flat-rate arrangements, there exists a continuum of possible solutions, these two features effectively span a two-dimensional space in which any existing pension system can be located. In addition, any change in the design of a system can be represented as a move inside the funding-fairness space. This is precisely what is done in Figure 1, which is meant to illustrate the position of public pension schemes for all the countries considered here, also covering moves that occurred during the 1990s. The third dimension is captured by using different symbols for (the majority of) defined-benefits schemes and the (rare and rather recent cases of) defined-contributions schemes.[10]

It should be noted that, in Figure 1, the position of any single pension system is to an important

[8] See Palmer (2000) for a comprehensive description.

[9] With their Særlige Pension scheme, the Danish adopted a similar approach as of 2001. The option of subsidising voluntary private savings that was chosen in Germany in the course of the 2001 reform is different with respect to a very important feature – compulsory participation. During the first year after its introduction, response has been very low.

[10] The fact that the space spanned by the dimensions "funding" and "actuarial fairness" is not a true rectangle has already been discussed in Lindbeck an Persson (2003), who also suggested this kind of representation. The trapezoid form is meant to indicate that true actuarial fairness is much more easily accomplished in the context of a fully-funded pension scheme.

degree not based on quantitative measurement. Rather, the positions given are relative - vis-à-vis the other systems, that is - and neither the precise location nor the distance between the different symbols should be over-interpreted. Given that, the figure nonetheless tells us something about the diversity of public pension schemes and the directions of recent reforms. First, it is easy to re-establish the classification of Bismarckian (positions: top-right), Beveridgean (top-left), and "mixed" regimes (located somewhere in the middle of the graph). Second, recent reforms have only moved in two directions: towards higher funding (downwards) and increased actuarial fairness (to the right). So these are the aspects in which recent reforms clearly coincide.

Before we continue, we must note that viewing public pension schemes and their reforms in isolation does not offer a full picture of general trends in the larger field of old-age provision. (In fact, the observation that the lower half of Figure 1 is nearly empty should warn us that the picture obtained so far is incomplete.) Public pensions are clearly important for the overall design of national pension systems - even where they deliberately leave considerable room for second and third-pillar schemes. But we would obviously miss important pieces of information regarding actual similarities and differences between national systems of old-age provision if our considerations stopped here.

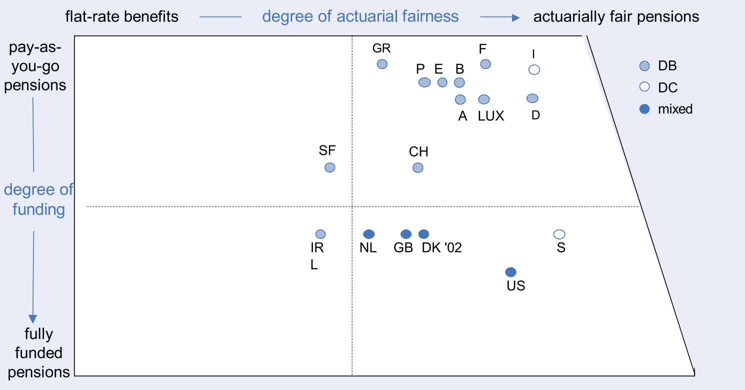
Figure 2 is therefore based on the same logic as that in Figure 1, now covering national pension systems as they are currently designed in total. Unfortunately, comprehensive information regarding the relative importance of the different pillars and branches of national pension systems is often lacking. We therefore use whatever kind of information is available, for example that provided by OECD (2001b) regarding the share of different sources of income in a typical retiree's budget, or similar results derived by Eurostat (2000) to locate each national pension system as a whole in terms of rough "cross-pillar" averages. (In some cases not covered in these studies, it must be admitted that the final position is merely the outcome of an informed guess.) In any case, the relative position of each country as represented in the figure should again be taken to be more important than the precise location on an absolute scale.

Generally speaking, the vast majority of occupational pension schemes, and certainly all kinds of purely private provisions, are fully funded.[11] Also, actuarial fairness established in these schemes can be expected to be rather high, even though it need not exceed the levels that we attributed before to the highest ranking public pension schemes. As a consequence, the position of entire national pension systems should again be located to the "south-east" of the one indicated for public pensions alone in Figure 1 - the question is merely, how far away?

The distance cannot be very long in the case of countries with Bismarckian public pension schemes, due to their relatively high levels of public pension benefits that call for only a limited amount of occupational pensions and additional private savings as a complement. In contrast, all the countries with pure Beveridgean systems, and some of those with a mixed regime, have radically altered their position. In these cases, symbols move quite a long way from the top-left corner to the centre of the graph or even to a position somewhere in the bottom-right section, indicating that the total portfolio of old-age provisions in the respective countries is funded to a much greater extent and exhibits a degree of actuarial fairness that is certainly not lower than in countries which follow the Bismarckian tradition. Last but

Figure 2

CHARACTERISTICS OF NATIONAL PENSION SCHEMES
(FIRST, SECOND AND THIRD PILLAR, 2002)



Source: Fenge et al. (2003, p. 133).

[11] The only major exception is the French system of occupational pensions which is administered in a semi-public fashion, with participation being mandatory for all employed individuals and benefits being financed on a pay-as-you-go basis.

not least, we observe that defined-benefits schemes are still the dominant standard in pure Bismarckian countries[12], while components with defined contributions have become very important in quite a number of the other countries.

Persisting differences with respect to the public- private mix

What does all this imply with respect to convergence across countries in terms of the management of public - and, hence, national - pension schemes? In spite of the fact that a host of recent pension reforms are following a similar pattern, public pensions systems in Europe and other industrialised countries are apparently far away from moving towards a uniform design. The most important reason is that the starting point of reforms is very different from country to country. Comparing Figures 1 and 2, we can easily see that the different pillars of old-age protection are weighted differently from country to country. Thus, the main source of heterogeneity among the national pension systems of industrialised countries is ultimately dependent on the different public-private mix that is inherent in their overall design.

From the point of view of countries with a relatively high level of public pension benefits, increasing the degree of funding and/or establishing more actuarial fairness in the total portfolio of old-age provision may be an important option for reform. However, considering the considerable amount of problems involved in a full transition, switching from generous systems with earnings-related pensions to pure flat-rate benefits is certainly not a type of reform that can be easily enacted. Conversely, countries where public pensions are confined to a much more limited role, providing relatively low levels of (mainly flat-rate) benefits, are not too likely to expand their public pension schemes beyond what is needed for a decent minimum pension guarantee. Thus, in a realistic assessment there is no way of harmonizing the two approaches, which still turn out to be strongly influenced by the competing traditions of Bismarck vs Beveridge, in a uniform framework. The choice between public pension benefits that aim at making a substantial contribution to the maintenance of earlier living standards or, as an alternative, of public pensions that are only expected to provide protection against poverty in old-age cannot be easily rolled back, even if it is effectively a choice that was taken long ago.

[12] Here, an important exception is Italy where the public pension scheme now follows an approach with ("nominally") defined contributions.

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The Development of the Shadow Economies and Shadow Labour Force of 21 OECD and 22 Transition Countries

Friedrich Schneider*

As crime and other underground economic activities (including shadow economic ones) are a fact of life around the world, most societies attempt to control these activities through various measures like punishment, prosecution, economic growth or education. Gathering statistics about who is engaged in underground (or criminal) activities, the frequencies with which these activities occur and their magnitude, is crucial for making effective and efficient decisions regarding the allocations of a country's resources in this area. Unfortunately, it is very difficult to get accurate information about these underground (or, as a subset, shadow economy) activities in terms of value added and of the labour market, because those engaged in these activities seek anonymity un.[1]

Definition of a shadow economy

Most authors trying to measure the shadow economy face the difficulty of how to define it. One commonly used working definition is: all currently unregistered economic activities which contribute to the officially calculated (or observed) Gross National Product.[2] Smith (1985, p. 18) defines it as "market-based production of goods and services, whether legal or illegal that escapes detection in the official estimates of GDP". As these definitions still leave open a lot of questions, Table 1 may be helpful for developing a better feeling for what could be a reasonable consensus definition of the legal and illegal underground or shadow economy. From Table 1 it becomes clear that the shadow economy includes unreported income from the production of legal goods and services either from monetary or barter transactions - hence all economic activities which would generally be taxable if they were reported to the state (tax) authorities.

Size of the shadow economies (labour force) in 22 transition and 21 OECD countries

Twenty-one OECD countries

For the 21 OECD countries either the currency demand method or the DYMIMIC (Dynamic Multiple Indicator Multiple Causes Approach) method are used to estimate the size of shadow economies.[3] The results for these countries are shown in Table 2 and in Figure1 over the period 1989/90 to 2000/01. Considering again the latest period, 2000/01, Greece has the largest shadow economy with 28.5 percent of "official" GDP, followed by Italy with 27.0 percent and Portugal with 22.5 percent. In the middle-field are Germany with a shadow economy of 16.3 percent of "official" GDP, followed by

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[1] The scientific fascination of the underground economy has inspired many scientists (like me) to tackle this difficult question and undertake the challenging task of estimating the shadow economy in transition and OECD countries in the 1990s.

[2] This definition is used, for example, by Feige (1989, 1994), Schneider (1994a), Frey and Pommerehne (1984), and Lubell (1991).

[3] These and other estimation procedures are described in detail in Schneider and Enste (2000, 2002).

Table 1

A taxonomy of types of underground economic activities[a)]

Type of activity	Monetary transactions		Non-monetary transactions	
Illegal activities	Trade with stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling and fraud		Bartering of drugs, stolen goods, smuggling etc. Produce or growing drugs for personal use. Theft for personal use.	
	Tax evasion	Tax avoidance	Tax evasion	Tax avoidance
Legal activities	Unreported income from self-employment; wages, salaries and assets from unreported work related to legal services and goods	Employee discounts, fringe benefits	Barter of legal services and goods	All do-it-yourself work and neighbour help

[a)] Structure of the table is based on Lippert and Walker (1997, p. 5).

Table 2

Size of the shadow economy in OECD countries

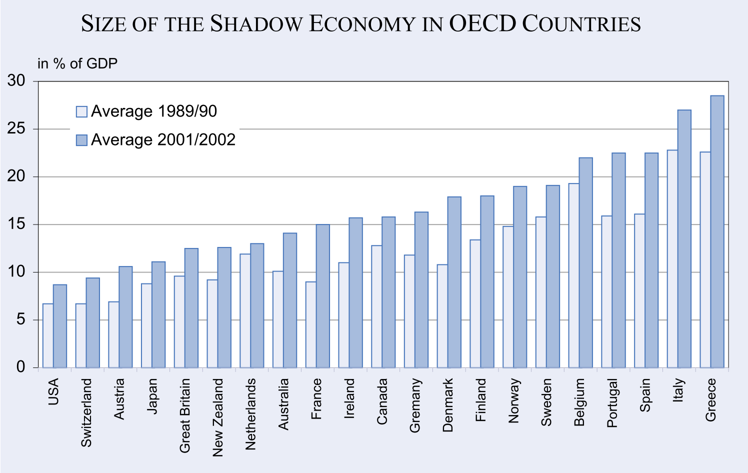
OECD-Countries	Size of the shadow economy (in % of GDP) using the currency demand method						
	Average 1989/90	Average 1991/92	Average 1994/95	Average 1997/98	Average 1999/2000	Average 2001/02[a]	Increase (+) or decrease of the shad. econ. (-) from 1997/98 to 2001/02
1. Australia	10.1	13.0	13.5	14.0	14.3	14.1	+0.1
2. Austria	6.9	7.1	8.6	9.0	9.8	10.6	+1.6
3. Belgium	19.3	20.8	21.5	22.5	22.2	22.0	- 0.5
4. Canada	12.8	13.5	14.8	16.2	16.0	15.8	- 0.4
5. Denmark	10.8	15.0	17.8	18.3	18.0	17.9	- 0.4
6. Finland	13.4	16.1	18.2	18.9	18.1	18.0	- 0.9
7. France	9.0	13.8	14.5	14.9	15.2	15.0	+0.1
8. Germany	11.8	12.5	13.5	14.9	16.0	16.3	+1.4
9. Great Britain	9.6	11.2	12.5	13.0	12.7	12.5	- 0.5
10. Greece	22.6	24.9	28.6	29.0	28.7	28.5	- 0.5
11. Ireland	11.0	14.2	15.4	16.2	15.9	15.7	- 0.5
12. Italy	22.8	24.0	26.0	27.3	27.1	27.0	- 0.3
13. Japan	8.8	9.5	10.6	11.1	11.2	11.1	0.0
14. Netherlands	11.9	12.7	13.7	13.5	13.1	13.0	- 0.5
15. New Zealand[b]	9.2	9.0	11.3	11.9	12.8	12.6	+0.7
16. Norway	14.8	16.7	18.2	19.6	19.1	19.0	- 0.6
17. Portugal	15.9	17.2	22.1	23.1	22.7	22.5	- 0.6
18. Spain[c]	16.1	17.3	22.4	23.1	22.7	22.5	- 0.6
19. Sweden	15.8	17.0	19.5	19.9	19.2	19.1	- 0.8
20. Switzerland	6.7	6.9	7.8	8.1	8.6	9.4	+1.3
21. USA	6.7	8.2	8.8	8.9	8.7	8.7	- 0.2
Unweighted Average over 21 OECD countries	13.2	14.3	15.7	16.7	16.8	16.7	- 0.01

[a] Preliminary values.
[b] The figures are calculated using the MIMIC-method and currency demand approach. Source: Giles (1999b).
[c] The figures have been calculated for 1989/90, 1990/93 and 1994/95 in Mauleon (1998); for 1997/98, 1999/2000 and 2001/2002 my own calculations were used.

Sources: Currency demand approach, own calculations.

Ireland with 15.7 percent and France with 15.0 percent of official GDP. At the lower end are Austria with 10.6 percent of " official" GDP, Switzerland with 9.4 percent of " official" GDP and the United States with 8.7 percent of " official" GDP. In OECD countries an increase of the shadow economies during the 1990s can be observed. On average, the shadow economy was 13.2 percent in these 21 OECD states in 1989/90 and it rose to 16.7 percent in 2001/2002. That is an increase of 3.5 percentage points. But we can also see that this increase was considerably smaller compared to that of 22 transition countries with an increase of 9.9 percentage points of " official" GDP (over the same period). If we consider the second half of the 1990s, we realize that for 14 out of the 21 OECD countries the shadow economy was not increasing, but even slightly decreasing, for example Belgium from 22.5 percent (1997/98) to 22.0 percent (2001/2002), for Denmark from 18.3 percent (1997/98) to 17.9 percent (2001/2002) or for Finland from 18.9 percent

Figure 1



Source: see Table 2.

(1997/98) to 18.0 percent (2001/2002). For 6 of the 21 OECD countries, like New Zealand, it was still increasing, from 11.9 percent (1997/98) to 12.6 percent (2001/2002), or Germany from 14.9 percent (1997/98) to 16.3 percent (2001/2002) or Austria from 9.0 percent (1997/98) to 10.6 percent (2001/2002). Hence, for 14 of 21 OECD countries the shadow economy was decreasing slightly at the end of the 1990s. The decrease differs from country to country; in some countries efforts have been made to stabilize (or to decrease) the size of the shadow economy and in other countries (like Germany) these efforts were apparently not successful.

Twenty-two transition countries

The physical input (electricity) method and DYMIMIC method have been applied to the transition countries in Central and Eastern Europe and to states of the former Soviet Union. The results are shown in Table 3 and in Figure 2, covering the periods 1990- 93, 1994- 95 and 2000/01. Considering the physical input method by Johnson et al. and the countries of the former Soviet Union over the period 1990- 93, Georgia has the largest shadow economy with 43.6 percent of " official" GDP, followed by Azerbaijan with 33.8 percent and Moldova 29.1 percent . Russia can be found in the middle with a shadow economy of 27 percent. According to the Johnson et. al. figures, Belarus and Uzbekistan have the smallest values with 14 percent percent and 10.3 percent, respectively. . Except Uzbekistan all other former Soviet Union countries experienced a strong increase in the shadow economy from an average of 25.7 percent for 1990- 93 to 35.3

Table 3

Size of the shadow economy in transition countries

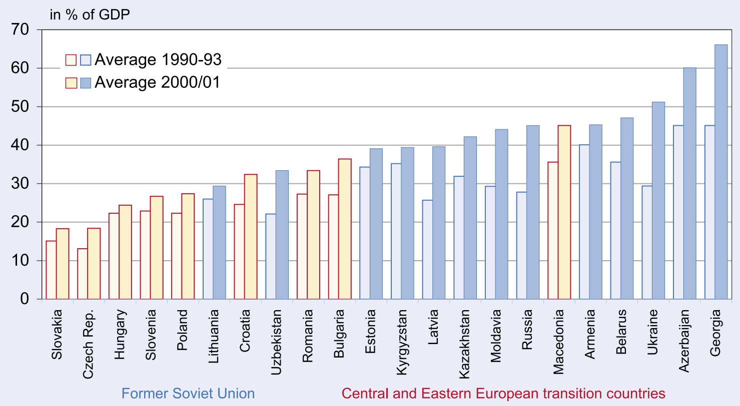
Transition countries	Size of the shadow economy (in % of GDP): Physical input (Electricity) method - using values from Johnson et. al. (1997) Average 1990- 93	Physical input: Average 1994- 95	DYMIMIC method: Average 1990- 93	DYMIMIC method: Average 2000/01	Shadow economy labour force in % of (working age)[a] population 1998/99
Former Soviet Union					
1. Armenia	39.4	40.3	40.1	45.3	40.3
2. Azerbaijan	43.8	59.3	45.1	60.1	50.7
3. Belarus	34.0	39.1	35.6	47.1	40.9
4. Estonia	33.9	38.5	34.3	39.1	33.4
5. Georgia	43.6	63.0	45.1	66.1	53.2
6. Kazakhstan	32.2	34.2	31.9	42.2	33.6
7. Kyrgyzstan	34.1	37.2	35.2	39.4	29.4
8. Latvia	24.3	34.8	25.7	39.6	29.6
9. Lithuania	26.0	25.2	26.0	29.4	20.3
10. Moldavia	29.1	37.7	29.3	44.1	35.1
11. Russia	27.0	41.0	27.8	45.1	40.9
12. Ukraine	38.4	47.3	29.4	51.2	41.2
13. Uzbekistan	20.3	28.0	22.1	33.4	33.2
Unweighted average: former Soviet Union countries	32.8	40.4	32.9	44.8	37.1
Central and Eastern Europe					
1. Bulgaria	26.3	32.7	27.1	36.4	30.4
2. Croatia	23.5	28.5	24.6	32.4	27.4
3. Czech Republic	13.4	14.5	13.1	18.4	12.6
4. Hungary	20.7	28.4	22.3	24.4	20.9
5. Macedonia	34.5	40.3	35.6	45.1	35.1
6. Poland	20.3	13.9	22.3	27.4	20.9
7. Romania	26.0	28.3	27.3	33.4	24.3
8. Slovakia	14.2	15.2	15.1	18.3	16.3
9. Slovenia	22.4	23.9	22.9	26.7	21.6
Unweighted average: Central and Eastern European Countries	22.4	25.1	23.4	29.2	23.3

[a] Working age population means population between the age of 16 and 65.

Sources: Own calculations using the DYMIMIC method and values using the physical input method are from Johnson, Kaufmann, and Shleifer (1997, Table 1, p. 182- 183), Johnson, Kaufmann and Zoida-Lobatón (1998a, p. 51).

Figure 2

SIZE OF THE SHADOW ECONOMY IN TRANSITION COUNTRIES



Method employed: DYMIMIC, see text.
Source: see Table 3.

percent for 1994- 95, calculated for all 12 countries of the former Soviet Union. Turning to the transition countries of Central and Eastern Europe for 1990- 93 and including the Johnson et. al. Figures, Hungary has the largest shadow economy with 30.7 percent of GDP followed by Bulgaria with 26.3 percent. The lowest two are the Czech Republic with 13.4 percent and Slovakia with 14.2 percent. The Johnson et. al figures show average shadow economies of 22.4 percent in the Central and Eastern European states for 1990- 93 and 1994- 95. Johnson et. al. show average shadow economies of 25.1 percent in the Central and Eastern European countries. Turning to the size of shadow economies estimated by the DYMIMIC method for the 13 former Soviet Union countries, the average size is 32.9 percent and for the nine Central and Eastern European countries the average size is 23.4 for 1990- 93. Both values are similar compared with the ones calculated by the physical input method, and most single country estimates come quite close to the one estimated by Johnson et.al. (1997). For 2000/01 Georgia has the largest shadow economy with 66.1 percent of the " official" GDP, followed by Azerbaijan with 60.1 percent and Ukraine with 51.2 percent. The country with the smallest shadow economy amongst those of the Former Soviet Union is Uzbekistan with 33.4 percent of official GDP and Kyrgyzstan with 39.4 percent and Latvia with 39.6 percent. On average the shadow economies have reached 44.8 percent of official GDP for 2000/01 which is a considerable increase compared to the average of 1990/93. If we turn now to Central and Eastern Europe, we see that in the years 2000/01, again using the DYMIMIC method, Macedonia has the largest shadow economy with 45.1 percent of official GDP, followed by Bulgaria with 36.4 percent of official GDP and Romania with 33.4 percent. Slovakia has the smallest shadow economy with 18.3 percent of official GDP and the Czech Republic with 18.4 percent. The average size of the shadow economy in the nine Central and Eastern European transition countries has increased from 23.4 percent (of official GDP) in 1990- 93 to 29.2 percent (of official GDP) in 2000/01. If we finally discuss the size of the shadow economy labour force in percent of the population, we see that amongst the Former Soviet Union transition countries, Georgia has the biggest shadow economy labour force with 53.2 percent, followed by Azerbaijan with 50.7 percent and the Ukraine with 41.2 percent. Lithuania has the lowest with 20.3 percent and Kyrgyzstan with 29.4 percent. Turning to Central and Eastern Europe, we see that the Czech Republic has the smallest shadow economy labour force with 12.6 percent, followed by Slovakia with 16.3 percent, and Macedonia has the largest with 35.1 percent, followed by Bulgaria with 30.4 percent and Croatia with 27.4 percent. In general, the size of the shadow economies and also that of the shadow economy labour forces is quite remarkable for these 22 transition countries and, has continued to increase up to 2000/01.

Main causes of the increase of the shadow economy

Increase of tax and social security contribution burdens

In almost all studies[4] it has been determined that the increase of tax and social security contributions is one of the main causes for the increase in the shadow economy. Since taxes affect labour-leisure choices and also stimulate labour supply in the shadow economy, or the untaxed sector of the

[4] See Thomas (1992); Lippert and Walker (1997); Schneider (1994a, 1994b, 1997, 1998, 2001); Johnson, Kaufmann, and Zoido-Lobatón (1998a,1998b); Tanzi (1999) and Giles (1999a), just to quote a few recent studies.

economy, the distortion of this choice is a major concern for economists. The bigger the difference between the total cost of labour in the official economy and after-tax earnings (from work), the greater is the incentive to avoid this difference and to work in the shadow economy. Since this difference depends broadly on the social security system and the overall tax burden, they are key features of the shadow economy and its growth. But even major tax reforms with considerable tax rate deductions will not lead to a substantial decrease in the shadow economy. These measures will only be able to stabilise the size of the shadow economy andprevent a further increase. Social networks and personal relationships, the high profit from irregular activities and associated investments in real and human capital are strong ties which prevent people from transferring to the official economy. In Canada, Spiro (1993) expected similar reactions for people facing an increase in indirect taxes (VAT, GST). After the introduction of the GST in 1991 - in the midst of a recession - , the individuals suffering economic hardship because of the recession turned to the shadow economy, which led to a substantial loss in tax revenue. " Unfortunately, once this habit is developed, it is unlikely that it will be abandoned merely because economic growth resumes." (Spiro 1993, p. 255). They may not return to the formal sector, even in the long run. This fact makes it even more difficult for politicians to carry out major reforms because they may not gain a lot from them.[5]

In neoclassical models the most important factor is the marginal tax rate. The higher the marginal tax rate is, the more significant the substitution effect and the greater the distortion of the labour-leisure decision. Especially when taking into account that the individual can also receive income in the shadow economy, the substitution effect is definitely greater than the income effect[6] and, hence, the individual works less in the official sector. The overall efficiency of the economy is, therefore (ceteris paribus), lower and the distortion leads to a welfare loss (according to official GNP and taxation). But the welfare might also be viewed as increasing, if the welfare of those, who are working in the shadow economy, were taken into account, too.[7]

Empirical results of the influence of the tax burden on the shadow economy is provided in the studies of Schneider (1994b, 2000) and Johnson, Kaufmann and Zoido-Lobatón (1998a, 1998b); they all found strong evidence for the general influence of taxation on the shadow economy. The strong influence of indirect and direct taxation on the shadow economy will be further demonstrated by discussing empirical results in Austria and the Scandinavian countries. For Austria the major driving force for the shadow economy activities is the direct tax burden (including social security payments), followed by the intensity of regulation and complexity of the tax system. A similar result has been determined by Schneider (1986) for the Scandinavian countries (Denmark, Norway and Sweden). In all three countries various tax variables (average direct tax rate, average total tax rate [indirect and direct tax rates]) and marginal tax rates have had the expected positive effect (on currency demand) and are highly statistically significant. Similar results have been obtained by Kirchgaessner (1983, 1984) for Germany and by Kloveland (1984) for Norway and Sweden.

Several other recent studies provide further evidence of the influence of income tax rates on the shadow economy: Cebula (1997), using Feige data for the shadow economy, found evidence of the impact of government income tax rates, IRS audit probabilities and IRS penalty policies on the relative size of the shadow economy in the United States. Cebula concludes that a restraint of any further increase in the top marginal income tax rate may at least not lead to a further increase in the shadow economy, while increased IRS audits and penalties might reduce the size of the shadow economy. His findings indicate that there is generally a strong influence of state activities on the size of the shadow economy: For example, if the marginal federal personal income tax rate increases by one percentage point, ceteris paribus, the shadow economy rises by 1.4 percentage points. In another investigation, Hill and Kabir (1996) found empirical evidence that marginal tax rates are more relevant than average tax rates, and that a substitution of direct taxes by indirect taxes seems unlikely to improve tax compliance.

[5] See Schneider (1994b, 1998) for a similar result of the effects of a major tax reform in Austria on the shadow economy. Schneider shows that a major reduction in the direct tax burden did not lead to a major reduction in the shadow economy. Because legal tax avoidance was abolished and other factors, like regulations, were not changed, for a considerable number of tax payers the actual tax and regulation burden remained unchanged.
[6] If leisure is assumed to be a normal good.

[7] See Thomas (1992) p. 134- 7.

Intensity of regulations

The increase in the intensity of regulations (often measured in the numbers of laws and regulations, like licenses requirements) is another important factor which reduces the freedom (of choice) for individuals engaged in the official economy.[8] Examples are abour market regulations, trade barriers, and labour restrictions for foreigners. Johnson, Kaufmann and Zoido-Lobatón (1998b) find overall significant empirical evidence of the influence of (labour) regulations on the shadow economy. The impact is clearly described and theoretically derived in other studies, e.g. for Germany (Deregulation Commission 1990/91). Regulations lead to a substantial increase in labour costs in the official economy. But since most of these costs can be shifted to the employees, these costs provide another incentive to work in the shadow economy, where they can be avoided. The model of Johnson, Kaufmann and Shleifer (1997), which predicts, inter alia, that countries with more general regulations of their economies tend to have a higher share of the unofficial economy in total GDP, is supported by their empirical analysis. A one-point increase in the regulation index (ranging from 1 to 5, with 5 = the most regulation in a country), ceteris paribus, is associated with an 8.1 percentage point increase in the share of the shadow economy when controlled for GDP per capita (Johnson et. al. [1998b], p. 18). They conclude that it is the enforcement of regulation which is the key factor for the burden levied on firms and individuals and not the overall extent of regulation - mostly not enforced - which drive firms into the shadow economy. Friedman, Johnson, Kaufmann and Zoido-Lobaton (1999) reach a similar conclusion. In their study every available measure of regulation is significantly correlated with the share of the unofficial economy and the nature of the relationship is unambiguous: more regulation is correlated with a larger shadow economy. A one point increase in an index of regulation (ranging from 1-5) is associated with a 10 percent increase in the shadow economy for 76 developing, transition and developed countries.

These findings demonstrate that governments should put more emphasis on improving enforcement of laws and regulations rather than increasing their number.

[8] See Brehm (1966,1972) for a (socio-) psychological theoretical foundation of this feature and Pelzmann (1988) for a (first) application to the shadow economy.

Some governments, however, prefer this policy option (more regulations and laws) when trying to reduce the shadow economy, largely because it leads to an increase in power of the bureaucrats and to a higher rate of employment in the public sector.

Summary and Conclusions

There are many obstacles to overcome in measuring the size of the shadow economy (either in value added and/or in labour force units) and in analysing its consequences on the official economy, although some progress has been made. This paper has shown that though it is difficult to estimate the size of the shadow economy it is not impossible. It has been demonstrated that with various methods, e.g. the currency demand and the model approach, some insights can be provided into the size and development of the shadow economy (labour force) of 210 OECD and 22 transition countries. The general impression from the results of these estimations is that for all countries investigated the shadow economy (labour force) has reached a remarkably large size. In 2000/01, on average, the shadow economy in terms of value added (labour force) was 16.7 percent (15.3 percent) of official GDP in the 21 OECD and 38 percent (30.2 percent) in the 22 transition countries.

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Do Strict Electoral Campaign Finance Rules Limit Corruption?

Thomas Stratmann*

When candidates for democratic office run for election they are looking for funds to finance their campaigns. These funds allow them to get the word out about their positions, and their campaign advertisements inform voters about those positions.[1] Thus campaign advertisements can have the beneficial effect of helping voters to make more informed choices. However, candidates may promise policy favors to contributors in exchange for contributions. Some scholars argue that such quid-pro-quos give wealthy individuals and organizations an unfair advantage in the political process. Policies may be systematically tiled to donors at the expense of those who do not contribute to candidates' campaigns. Moreover, it has been suggested that voters will become disgusted with the political process when they believe that politicians are for sale, and thus may cease to participate in elections and lose trust in government.

Many democracies regulate from where candidates or parties can obtain campaign funds, the amounts of funds, and whether the source of funds has to be disclosed. Table 1 presents data from the CESifo Database for Institutional Comparisons in Europe, describing the institutional framework in which the campaign finance regulation occurs, the laws limiting contributions, and disclosure requirements. While Austria appears to have the fewest limits on the source and amounts of funds, and has very little disclosure requirements, the USA has the most regulated campaign finance system of all countries and the strictest disclosure requirements.[2]

The sources of political parties financing and financing rules for individual candidates are described in Table 2. This table, as Table 1, provides a snapshot of the rules, but cannot be complete as rules are very complex, and often rules differ, depending on whether a candidate runs for President, for the House or the Senate, and whether the candidate runs for local office. Some form of public financing occurs in all countries, although the "Public Funding" column in Table 2 reports no public funding in 1999 and 2000 for the United Kingdom and the United States.

Cross-country work on the effects of campaign finance regulations is virtually non-existent. Work that wanted to examine the consequences of reform, would ask how the regulations affect economic outcomes such as expenditure and tax policies; electoral outcomes, such as the closeness of election, the incumbency advantage, and the number of candidates running for office; voter behavior, such as their voting participation and trust into the political process; how regulations affects the trustworthiness of the campaign message, and whether regulations influence legislators' decisions.

Recent empirical work has addressed some of these questions for the United States. For data work, the Untied States is a wonderful laboratory to examine these questions, as there is a large variation in campaign finance laws across the fifty states and over time. For example, while some states disallow corporate contributions to candidates, other states allow unlimited contributions. Similar variation exists for contributions from individuals, unions, and Political Action Committees. Moreover, several states have made their campaign finance laws stricter in recent years, allowing the researcher to examining the effect of campaign finance law changes.

Recent evidence from the 50 states suggests that stricter limits lead to closer election margins (Stratmann und Aparicio-Castillo 2003). Their estimates imply that the introduction of contribution limits increases the closeness of an election by up to 7.7 percent. However, since incumbents tend to win with large margins of victory, these numbers indicate that the enactment or tightening of campaign finance laws does not lead to a large increase in incumbent turnover. This evidence seems to suggest that limits primarily curtail the fundraising ability of incumbents and put challengers in a slight competitive advantage. Also stricter limits lead to more candidates in elections (Stratmann und Aparicio-Castillo 2003). Here, the results sug-

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[1] There is some debate as to whether advertisements are truthful, but if they are not, the opposition candidate has the opportunity to inform voters about the "lies" disseminated for the opponent.

[2] Table 1 indicates that there are no limits on independent expenditures in the United States. However, in the US, there are limits on giving to candidates from individual and so-called Political Action Committees. Corporations and unions are not allowed to contribute directly to candidates.

Table 1

Financing Rules for Political Parties and their Campaigns

	Restrictions on fundraising and expenditure	Disclosure rules
Austria	No limits on individual or corporate donations. No limits on expenditure. Political donations by interest groups are subject to an income tax surcharge to be paid by the recipient party. Donations in excess of € 7,730 must be disclosed (total amounts and type of donor i.e. individual, interest group, corporation).	States do not require strict reporting and data provided by parties on the federal level thought to be incomprehensive for it covers only part of the parties' activities and financial dimensions.
France	No foreign donations. No donations from private or public-sector companies (since 1995). Individual donations may not exceed c. € 7,575 per year and donations of more than c. € 150 must be given by cheque, thereby disclosing the identity of the donor.	Legal status of parties is vague; data protected and not released to the public due to the constitutional freedom of action granted to parties. Available reports are incomplete: local activities expenses are not detailed and links between parties and foundations remain unclear. Poor level of supervision by regulating authorities.
Germany	No limits on individual or corporate donations. Ban on tax benefits for corporate donors imposed by the Supreme Court. Donations in excess of c. € 10,300 must be disclosed (names, addresses, and amounts). Ban of foreign donations except from EU citizens and EU corporations. No donations in excess of € 500 from anonymous individuals.	Reports and lists of donors are published in parliament material: Bundestagsdrucksache. Reports have a common format and are well detailed. The total revenue of assessments (political graft) remains unclear. For detailed info and statistics see: http://www.bundestag.de/datbk/finanz/index.html http://www2.spd.de/partei/finanzen/ausw_rechenschaftsbericht99.pdf
Japan	No political donations by private firms which receive public subsidies, by corporations in public ownership, by indebted enterprises, by foreign individuals and organizations, or by anonymous sources (est. 1976). Donations limited to € 181,820 (JPY 20 mill) by individuals and to € 68,180 - 909,100 (JPY 7.5 - 100 mill) by corporations/unions. Donations in excess of € 440 (JPY 50,000) must be disclosed (names of all donors: individuals, corporations, and organizations). Names must also be disclosed of individuals or corporations buying tickets for fundraising events in excess of € 1,770 (JPY 200,000) per event.	At the national level, financial reports are published by the Ministry of Public Management, Home Affairs, Posts and Telecommunication; on the local level, reports are published by the local election agencies. Unreliable data; local and national level agencies do not have the authority to verify or investigate the financial statements and transactions of parties. Restrictions have not been effectively monitored and enforced (i.e. 1976 ban on types of political donations).
United States	No limits on "independent" expenditure (expenditures not coordinated with a candidate). No donations to federal elections from foreign nationals, national banks, and other federally chartered corporations, labor organizations and federal government contractors. See tables: "Federal Contribution Limits 2000" and "Expenditure Limits for Publicly Funded Presidential Candidates" (Foundations for Democracy, pp. 47-48).	Relevant statistics stem from national election years since finance is dominated by campaign fundraising and spending (little routine spending by parties in inter-election years).

Note: This table is a condensed version of two large tables in the DICE Database: www.cesifo.de/DICE; search for "Financing of Political Parties".

Main Sources: Foundations for Democracy, Karl-Heinz, Nassmacher, ed., Nomos Verlagsgesellschaft: Baden-Baden, 2001.
Karl-Heinz Nassmacher, International IDEA Handbook on Funding Parties and Election Campaigns forthcoming 2003.

gest that the introduction of individual contribution limits for individuals leads to an increase in the number of candidates by up to five percent.

The issue as to whether campaign contributions are actually corrupting politicians has been subject of a lively academic debate. Contributors have

Table 2

Financing of Political Parties: Source and Amount of Funding

	Year of survey	Private funding		Corporate funding		Public funding		Total		GDP in bill €	Total in % of GDP
		Amount in mill €	% of total	Amount in mill €	% of total	Amount in mill €	% of total	Amount in mill €	% of total		
Austria	1998	43.6	21.0	17.3	8.0	147.4	71.0	208.3	100	204.8	0.102
France	1998	60.0 a)	40.0 a)	15.0 a)	10.0 a)	75.0	50.0 a)	150.0 a)	100	1,404.8	0.011
Germany	1999	241.0 a)	61.5	33.0 a)	8.5	1,230.0 a)	30.0 a)	392.3	100	2,025.5	0.019
Italy	1999	n.a.	n.a.	1,660 a)	n.a.	50.0 a)	n.a.	1,710.0 a)	100	1,165.7	0.147
Netherlands	1999	5.15 a)	31.3	few	few	4.35 a)	26.5	16.4 a)	100	401.1	0.004
Spain	1998	n.a.	<=10	n.a.	n.a.	56.3	up to 90	96.5 a)	100	608.8	0.016
Sweden	1999	62.0 a)	44.0	few	few	70.5 a)	50.0 a)	141.0 a)	100	246.6	0.057
Unite Kingdom	1997	97.0	95.0	5.23	5.0	none	none	102.2	100	1,547.9	0.007
Australia	1998	13.0 a)	39.0 a)	few	few	20.0	61.0 a)	33.5	100	445.8	0.008
Canada	2000	37.1	69.7	16.0	30.2	0.03	0.1	53.1	100	774.7	0.007
Japan	1999	low	low	725.0 a)	50.0 a)	495.0 a)	34.0	1,459.0	100	4,319.4	0.034
United States	1999-2000	741.0	60.0	495.1	40.0	none	none	1,236.1	100	10,708.9	0.012

Notes: Some data are unavailable. Some amounts given in national currencies have been converted into Euro. Data are not always comparable. The figures given relate only to the costs of the political parties, not to those of the whole political system.

a) Data are estimated due to lacking transparency.

Sources: Foundations for Democracy, Karl-Heinz, Nassmacher, ed., Nomos Verlagsgesellschaft: Baden-Baden, 2001;
Karl-Heinz Nassmacher, Chapter from the International IDEA Handbook on Funding Parties and Election Campaigns, forthcoming 2003;

probably the largest effect on legislator behavior, when it comes to legislation where politicians do not have already a public position, such as on abortion or the death penalty. Academic work that looks at legislation that is not at the center of the public eye, and legislation whose consequences are difficult to understand for the average voter, finds that contributions cause legislators to vote according to the preferences of their campaign contributors, even after controlling for the interests of legislators' voting constituencies (see, for example, Stratmann 2002).

Some recent theoretical work suggests that voters are more responsive to the campaign message when they believe that candidates do not promise many favors to contributors in exchange for campaign funds (Coate 2003). According to this theoretical work, voters are more likely to believe that candidates promise policy favors when contributions are unlimited as opposed to limited. Statistical evidence is supporting this hypothesis. Stratmann (2003), for example, finds for the USA, that when states limit contributions, an additional $10,000 in campaign advertisement significantly increases the candidates' vote shares run in states that limit campaign contribution, while a similar campaign advertisement is not very effective in increasing candidates' vote shares when no laws limit individual contributions to candidates. This evidence is consistent with the model that votes respond better to "clean" money, as opposed to "tainted" money.

While new data bases have to be developed in order to test these hypotheses across countries and over time, Tables 1 and 2 (presented here in an abridged version) allow for a limited analysis. Based on the full content of the tables[3], I constructed an index from 0 to 3 indicating the strictness of campaign finance laws, where a higher number indicates restrictions on giving to parties and to candidates. Table 3, column 2 shows the index I assigned to each country.

One of the major motivators for limiting contributions is the hope that limits will reduce actual cor-

[3] The full tables cover 14 OECD countries and contain more variables. See DICE database, www.cesifo.de/DICE.

Table 3

Strictness of Campaign Finance Rules and Indexes of Corruption

Country	index	tibribe 2002	ticorrupt 2002	wbcorrupt 2001
Japan	3	5.3	7.1	1.202561
Italy	2	4.1	5.2	0.633461
Spain	1	5.8	7.1	1.445595
Portugal	3	na	6.3	1.212141
France	2	5.5	6.3	1.145166
United States	3	5.3	7.7	1.449898
Austria	0	8.2	7.8	1.561577
Australia	1	8.5	8.6	1.751209
Germany	1	6.3	7.3	1.37717
United Kingdom	2	6.9	8.7	1.86457
Netherlands	1	7.8	9	2.092631
Canada	2	8.1	9	2.048426
Switzerland	0	8.4	8.5	1.911583
Sweden	0	8.4	9.3	2.213424

Note: Index: author's calculation on the basis of tables 1 to 3.
tibribe 2002: TI Bribe Payers Index (0 to 10=zero bribes).
ticorrupt 2002: TI Corruption Perception Index (0 to 10=clean).
wbcorrupt 2001: World Bank Corruption Control Index (-2.5 to 2.5=less corruption).

ruption and the perception of corruption in the political process. If candidates make promises to contributors in election year t and implement those promises in years t+1 or t+2, one would expect a correlation between the index in year t and a measure of corruption in year t+1 or t+2. The DICE survey and thus the constructed index is for the years 1998 to 2000. To examine the relation between the stringency of campaign finance laws and amount of corruption in a country, I collected a corruption index from the years 2001 and 2002. I collected three types of corruption indices, as shown in the last three columns of table 4 (for sources, see the notes to Table 4). Higher values indicate less corruption.

Table 4 shows the correlation coefficients between the index and the corruption measures. All coefficients are negative, indicating that states with stricter contribution limits have lower corruption indexes values. Since a lower corruption index

Table 4

Correlation measures for Table 3

bpi2002	cpi2002	wbcc2001
-0.7014	-0.4694	-0.5133
(0.0075)	(0.0904)	(0.0605)

value indicates more corruption, the result means that stricter campaign finance limits are correlated with more corruption. This is a somewhat surprising result, as typically limits are implemented in order to reduce corruption.[4]

However, this correlation does not allow one to make a statement such as that contribution limits cause more corruption. An unobservable variable such as a country specific "corrupt culture" may lead to the adoption of contribution limits and the presence of corruptness. Thus, the correlation result may be due to the fact that countries that have an inherently more corrupt culture will introduce contribution limits in order to address the problem of already high levels of corruption. Clearly, this line of research requires more work.

I also examined whether the index was correlated with central government expenditures and with whether the country has a proportional representation or a plurality rule electoral system but found no statistically significant correlations. Future work may want to examine these relations using cross-country regression analysis, which allows one to control for variables that are omitted in these simple correlations. Future work may also want to examine a larger sample of countries and to take account of changes of campaign finance laws within countries, allowing the researcher to analyze the effect of changes in campaign finance regulations.

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[4] It may be worthwhile noting that the corruption indices are fairly stable over time, thus these results do not depend much on the fact that I chose corruption indices for 2001 and 2002 instead of, for example 1999.

Redistributive Tax Policies and Inequality: An Assessment of Recent Country Comparative Studies

Kjetil Bjorvatn and

Alexander W. Cappelen*

The redistribution puzzle

A well known result from the optimal tax literature is that the optimal tax rate is increasing in the degree of inequality, see Sandmo (1976). The larger the pre-tax income inequality between rich and poor, the larger the gap is in the pre-tax marginal utility of consumption between the two groups, and hence the larger the welfare gains of redistributing income towards the poor should be. If we believe that policies are guided by a welfare maximizing government, welfare economics predicts that larger inequality in pre-tax income distribution will be accompanied by larger transfers to the poor.

A similar prediction can be derived from standard median voter models of taxation, see for instance Roberts (1977) and Meltzer and Richard (1981). In a society with large pre-tax income inequalities, the decisive voter will be poor relative to the average income. Let us assume that taxes are a positive function of income and transfers are distributed, say, on an equal per capita basis. In this case, the larger the pre-tax income inequality in society, the lower the decisive voter's tax price for any given transfer level. We should therefore expect to see more redistribution the larger the pre-tax income gap is between rich and poor.

Empirical observations, however, tell a different story. Consider two countries, the United States and the Netherlands. In the United States, the wage income of a top 10 percent wage earner is almost 6 times that of a worker belonging to the poorest 10 percent of the working population. In the Netherlands, the wage gap measured in this way is less than 2.5. Consider next the amount of redistribution in these two countries, measured as the share of GDP spent on various social programs for the non-aged part of the population. In the Netherlands, this share is around 13 percent and in the United States less than 4 percent. From these figuress we can conclude that the United States is both a more unequal and less redistributive society than the Netherlands.[1]

The same result can be found by comparing government spending as a percentage of GDP (GOV) and income inequality, prior to taxes and transfers, as measured by the Gini-coefficient (GINI) for a number of OECD countries, see table and figure below.

The regression line for these observations in the table is:

$$GOV = 60{,}1 - \underset{(-\ 1{,}94)}{0{,}73} \cdot GINI + e \qquad R^2 = 0{,}32$$

The t statistic indicates that the coefficient is significantly negative at the 10 percent level.

More systematic empirical investigations in the literature, also offer no strong support for the predicted positive relation between pre-tax inequality and redistribution. For instance, Perotti (1996, p. 172) in a survey of growth, income distribution and democracy, concludes that " there is ... very lit-

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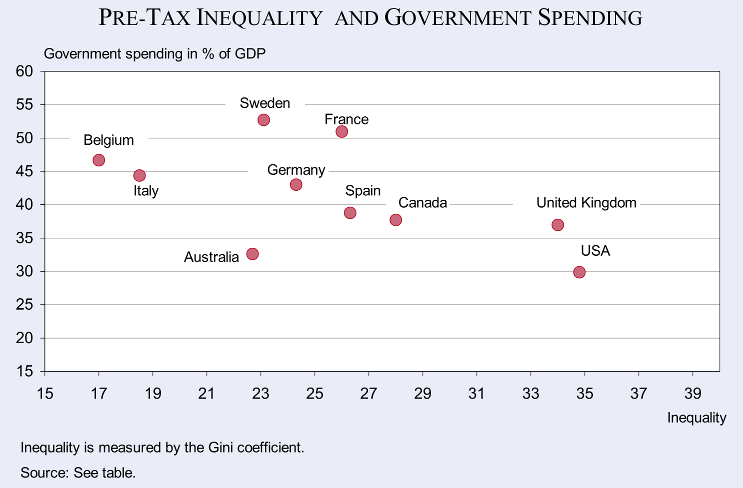
[1] The numbers on income inequality and redistribution in this paragraph are collected from Gottschalk and Smeeding (1997).

Government spending and pre-tax income inequality in OECD countries

	GOV	GINI
Australia	32.6	22.7
Belgium	46.7	17
Canada	37.7	28
Germany	43.3	24.3
France	51	26
Italy	44.4	18.5
Spain	38.8	26.3
Sweden	52.7	23.1
United Kingdom	37	34
USA	29.9	34.8

Source: GOV is for the year 2000 and based on OECD Economic Outlook, 2000. GINI are the latest figures reported in Ruiz-Huerta et al., 1999, Table 3, except GINI for the UK, which is found in OECD, 1995, Table 6.5.



tle evidence of a negative association between equality and fiscal variables in democracies." Even more surprising, a number of studies indicate that countries characterized by a high degree of pre-tax income equality in fact may be more redistributive than less egalitarian societies (Persson, 1995, and Bassett, Burkett and Putterman, 1999). Finally, Horstmann and Scharf (1999) observe that increasing income inequality in the U.S. and other developed countries has been accompanied by increased reliance on local level provision of public goods. Since local communities typically consist of people with relatively similar income levels, fiscal decentralization means less redistribution. In light of the prediction from both welfare economics and median voter models on this subject, these empirical results are puzzling.

Different explanations to the "puzzle"

There are certainly a number of reasons why pre-tax inequality may be associated with little redistribution. First, consider the reverse causality, namely from fiscal variables to pre-tax income distribution. A large share of de facto redistribution probably takes place through measures that equalize people's productivity, most importantly through government investments in health and education. Societies that, for some reason, vote for a large public sector may therefore experience small differences in pre-tax income. Second, pre-tax inequality and redistribution may have a common cause. If for instance a society has strong preferences for equality, this might affect the wage bargaining process and therefore the pre-tax income distribution, as well as the choice of tax policy.

Alternatively, policies of redistribution may not be guided by a welfare maximizing government or the preferences of the less wealthy majority of the population. If people are selfish, and political power is distributed according to people's wallets, then there may well be less redistribution in more inegalitarian societies. Three articles which seek to explain the "redistribution puzzle" along these lines are Persson (1995), Horstmann and Scharf (1999), and Bénabou (2000). Generally speaking, the argument offered in these contributions is as follows. Cooperation between rich and poor in society entails some measure of redistribution. The rich dislike redistribution but cooperation generates benefits to both groups. From the viewpoint of the rich, if the income gap is modest the common benefit of cooperation dominates the cost of redistribution, and hence both groups will agree on the cooperative solution. If the income gap is large, on the other hand, the rich will oppose cooperation. Given that the rich group has sufficient political influence, the result may be limited redistribution.

Our explanation: Inequality and segregation

We offer an alternative explanation to the redistribution puzzle (see Bjorvatn and Cappelen, 2003). The explanation is based on the combined effect of two mechanisms. First, a link between income distribution and residential segregation. Second, a link between residential segregation and attitude formation and thereby the willingness to support redistributive policies. In a model of endogenous choice of location and endogenous aversion against inequality, we demonstrate that large pre-tax differences in income may lead to spatial segregation between rich and poor. Such segregation may reduce the social attachment between the groups in society, and thereby reduce the willingness of the rich to make transfers to the poor. Conversely, societies with small pre-tax differences in income may be characterized by a less segregated population structure and larger transfers to the poor.

The most important difference between our paper and the contributions by Persson, Horstmann and Scharf, and Bénabou is that while in our model, people dislike inequality, in these other papers, rich people do not care about the income level of the poor and can only be induced to give away money as a quid pro quo.

As for empirical support for the two proposed mechanisms, consider first the link between income distribution and residential segregation. Testing the implications of the Tiebout model, a number of studies confirm the existence of a spatial segregation between rich and poor, see for instance Miller (1981), Grubb (1982) and Massey (1996). Jargowsky (1996, 1997) demonstrates that spatial segregation has increased for all ethnic groups in almost all metropolitan areas in the United States during the last three decades. He shows that increased poverty is a significant factor in explaining this development.[2]

Support for the link between residency and empathy can be found in sociological and psychological research. A number of studies find that people tend to make friends with those who live nearby (for instance Festinger, Schachter and Back, 1950, and Nahemow and Lawton, 1975). There is also a large literature on race relations indicating that residential integration between ethnic groups may create greater sympathy across races. In a study of British children's contact with immigrants, Brown and Johnson (1971, p. 311) find that "children with no close contacts with immigrants tend to rely on stereotypes derived from hearsay, or from atypical situations. Such stereotyping, and its associated prejudices, is diminished by close contact with immigrants, since there is then an opportunity to form evaluative judgements which are truly representative of the racial group." The authors also find that attitudes on other races are shaped at an early age.[3]

Although race is not explicitly an issue in the explanation that we offer, there is typically a strong correlation between race and socioeconomic status. Our paper could therefore be interpreted as describing the attitudes of, say, a white middle class towards a colored lower class. More generally, Baumeister and Leary (1995) argue that social attachments are created between people who interact frequently and live close to each other. These authors also find that the childhood years are particularly important in this respect. Finally, Seller (1999) finds that residential inclusion reinforces interests in provision for the disadvantaged, while residential exclusion undermines those interests.

The fundamental feature we attempt to capture in the model is the existence of mechanisms that translate income inequality into social segregation between rich and poor individuals. While we focus on how residential choice may create social segregation, other choices could have the same effect. The choice of location could for example be seen as the choice between public and private schools. If private schools are of higher quality, but also more expensive, than public schools, rich individuals would be more inclined to send their children to private schools. In this way, the school system may constitute a mechanism segregating rich and poor individuals. Differences in the social environment in private and public schools would affect the children's preferences and these preferences would in turn affect the process of redistribution.

[2] For a study of urban segregation in western cities, see Musterd and Ostendorf (1998).
[3] See also Deutsch and Collins (1951). For a survey of the literature on intergroup contact and ethnic relations, see Amir (1976).

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How Decentralised Is Government Activity?

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The degree of decentralisation of government activity can be measured and analysed in several different ways. In this article we use total government expenditures and ask for the share which is spent by sub-central levels of government. This share is then looked at for its development over time. In a third step, we consider that an equal share of sub-central expenditures might hide a different degree of decentralisation due to different sources of funds (own or grants from the centre). Finally we ask whether the different degrees of decentralisation might be explained by constitutional factors (federal and unitary) or country size measures (area, population). In a later article the question of decentralisation will be posed not for total expenditures, as here, but for its structure (single public tasks, functions).

The question of the optimal assignment of public expenditures (or of specific public tasks) to the different levels of government is not tackled. Nor it is asked how the optimal assignment would look when one adds a supra-national (e.g. EU) level of government activity.

Method and data

The degree of decentralisation can be approximated by calculating the sub-national government's (SNG) share of general government expenditures or revenues and by distinguishing between different public tasks. Such ratios are used in most empirical investigations on decentralised government structures.[1] There seems to be a consensus that the share of expenditures of sub-national governments in total government expenditures is the best (or most accessible) proxy for the degree of decentralisation. Additionally, self-reliance or vertical imbalance ratios (grants from other levels of government as a share of sub-national expenditures) are constructed in order to examine the independence of sub-national levels.

As a database, the Government Finance Statistics (GFS) of the International Monetary Fund is chosen, as is very common for most researchers.[2] The countries included in the study are the EU member states (without Greece) Switzerland, Norway, Australia, Canada, the United States and Russia: 20 altogether. The country selection depends also on the availability of data. The data stem from the 2002 edition of the Government Finance Statistics of the International Monetary Fund and are mainly from the year 2000.

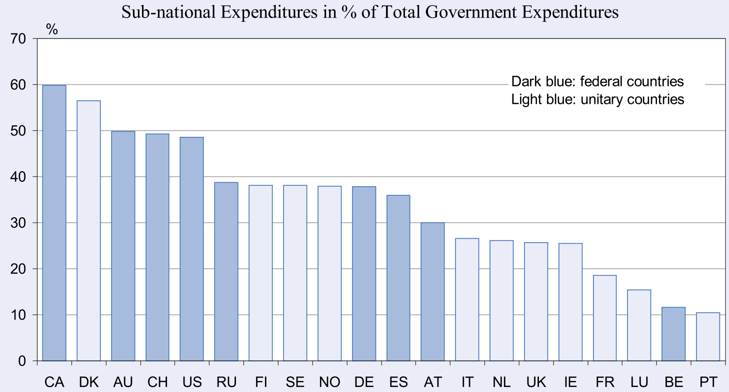
General degree of decentralisation

On the basis of the GFS data set, we can construct the above-mentioned proxy for the general degree of decentralisation. The relevant values are summarised in Figure 1. In our sample the SNG share

Figure 1

GENERAL DEGREE OF DECENTRALISATION

Sub-national Expenditures in % of Total Government Expenditures



Sub-national: Lower level than centre. For most countries the data are from 1999 and 2000; for some countries also earlier figures had to be used.

Source: IMF, Government Finance Statistics Yearbook (2002); Ifo calculations.

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[1] See, e.g., Elbel/Ylmaz (2002), Hoeller/Louppe/Vergriete (1996), Letelier (2001), Oates (1995), Thießen (2000).

[2] The World Bank evaluates the application of the GFS on decentralisation issues (e.g., the lack of details on expenditure autonomy and own-source revenue, deficiencies regarding reported data for the sub-national levels, information scarcity for analysing dispersion among sub-national regions), provides a broad decentralisation bibliography and discusses thoroughly the measurement and adaptability of quantitative as well as qualitative fiscal decentralisation indicators (see: www1. worldbank .org /public sector / decentralization).Besides the GFS, also several OECD sources are used for empirical decentralisation analyses: National Accounts, Revenue Statistics, Fiscal Design Surveys Across Levels of Government.

in general government expenditures ranges from 10 percent in Portugal to 60 percent in Canada. We can distinguish between federal (dark blue bars) and unitary (light blue bars) countries:[3] while the former show, as expected, relatively high decentralisation ratios, the latter tend to spend less at the sub-national level. Nevertheless, the non-federal Scandinavian countries (Denmark, Finland, Norway, Sweden) show quite high degrees of expenditure decentralisation, while Belgium as a federal country exhibits a relatively low decentralisation ratio. Furthermore, we observe that larger countries exhibit higher ratios than smaller countries, with the exception of Denmark and Switzerland.

Development of decentralisation over time

Figure 2 delineates the international decentralisation performance over the past 30 years. The various ratios do not fluctuate remarkably and have remained at a similar level. Nevertheless, structural breaks and unexpected changes took place in Spain (1979, 1989) Norway (1979) and France (1982, 1985). A steady annual decrease from 59 percent (1972) to 47 percent (1998) can be detected in Switzerland. The breaks reflect institutional changes and administrative reforms. In Spain the new constitution of 1978 specified a gradual transfer of powers from central government to autonomous provinces, regions, communities and inter-municipal bodies (Buttress et al. 1999, p. 69). Since then the degree of decentralisation has been increasing from 10 percent in 1978 to 32 percent in 1997. In France an extensive decentralisation of functions took place in the 1980s, devolving more functions to the municipalities (Buttress et al. 1999, p. 40; Frère 1997). The degree of decentralisation rose from 16 percent (1981) to 27 percent (1982) but returned to the previous level in 1985.[4]

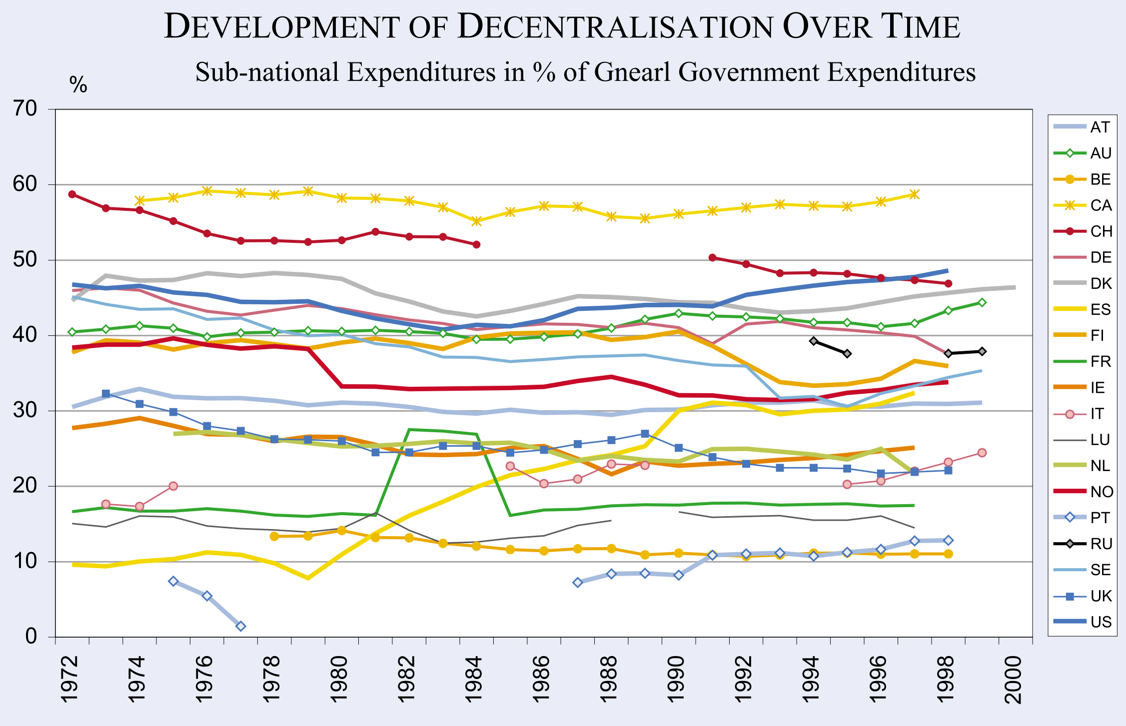
Vertical imbalance

The general decentralisation ratios characterise the hierarchical level to which spending permissions have

[3] Federal system: a form of government in which power is at least nominally shared (with some equality) between central and an intermediate tier of government and legislative powers exist at the national and intermediate tiers: Austria (AT), Australia (AU), Belgium (BE), Canada (CA), Switzerland (CH), Germany (DE), Spain (ES), Russia (RU), United States (US).
Unitary system: a form of government where the central government is the highest level of authority and all other levels of government are constitutionally subordinated to it: Denmark (DK), Finland (FI), France (FR), Ireland (IE), Italy (IT), Luxembourg (LU), Netherlands (NL), Norway (NO), Portugal (PT), Sweden (SE), United Kingdom (UK).
The source for the information on federal or unitary system is Worldbank; see above footnote.

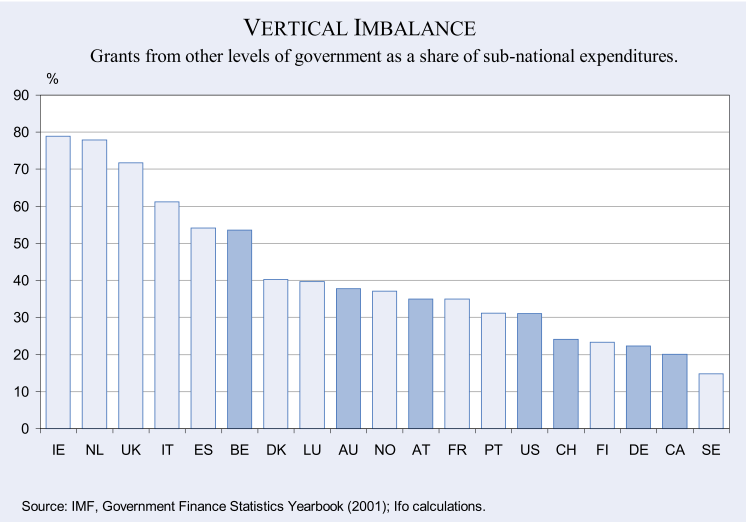
[4] A new wave of decentralisation has been recently announced by the French government.

Figure 2



Source: IMF, Government Finance Statistics Yearbook (2002); Ifo calculations.

Figure 3



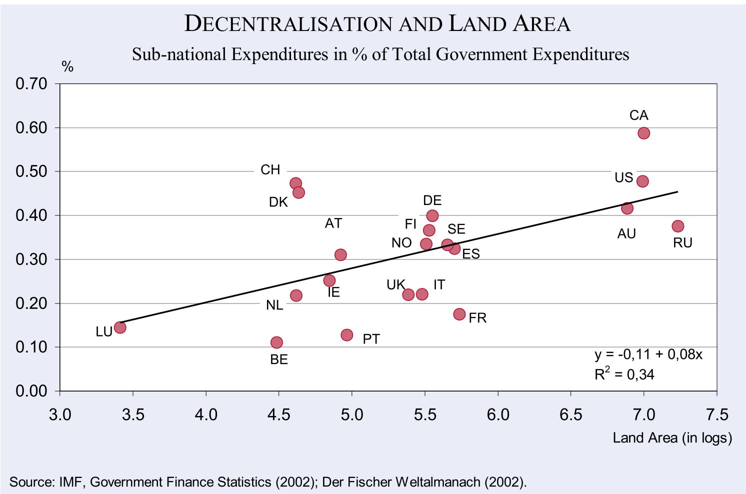
been allocated. But for an adequate measure of decentralisation the sources of funds must also be taken into consideration. It makes a difference for decentralisation whether the spending can be made from own funds or must be made from means which are granted by the centre. The larger the share of grants is, the larger is the "vertical imbalance" and the smaller is the "true" degree of decentralisation. Figure 3 gives the relevant information. The ratios to which sub-national governments must rely on central government revenues to support their expenditures range from 15 percent in Sweden to 79 percent in Ireland (IE). Federal countries exhibit, on average, considerably lower vertical imbalance ratios than unitary countries. This might be explained by the fact that sub-national levels in federal countries - by the very nature of federalism - generally dispose of more own revenues to support their expenditures than is the case in unitary countries. However, an equal vertical imbalance ratio might hide a different degree of "true" decentralisation because it matters whether the transfers are bound (conditional) or not bound (unconditional, general). This further differentiation can only be pursued by detailed country studies.

Possible causes of different degrees of decentralisation

It is highly plausible that the different degrees of decentralisation can be partly explained by the constitutional structure. In Figure 1 the majority of the federal countries exhibits relatively larger decentralisation ratios. This may be roughly characterised by the respective averages. The average decentralisation ratio of the federal countries is 40.6 percent, while that for the unitary countries is 26.8 percent. But other variables might also play a role, e.g. the country size, measured in terms of area and/or population.[5] The larger a country is, a) the more diseconomies of scale might be at work in governing the country and b) the more heterogeneous might be the preferences of the population. If country size (area) goes hand in hand with lower population density, it might also be the case that c) external effects between regions are less relevant so that higher level governance would be required to a lesser degree.

The regression of decentralisation ratios on area, population and population density has been performed (with constitution as a dummy). The best fit turned out to be that on area and is reported in Figure 4. Obviously, country size in terms of area explains to a certain degree the differences of decentralisation ratios. However, some countries are remarkable outliers. Switzerland, Denmark and Canada exhibit comparatively high, Belgium, Portugal and France comparatively low degrees of decentralisation.

Figure 4



[5] See for example Elber/Yilmaz (2002), pp. 20f; Alesina/Perotti/Spolaore (1995), p. 754; Färber (2001), p. 112; Thießen (2000), p. 12).

The next best fit is on population density (not reported in detail)[6] which has, interestingly, a slightly negative impact on decentralisation. This observation would confirm the hypothesis that sparsely populated countries (like Australia, Canada or Russia) prefer a decentralised government structure because central collection of information costs too much due to widespread jurisdiction areas, inadequately developed networks of infrastructure and communication and relatively strong heterogeneous preferences at the local level.

Summary

Public expenditure of sub-national government levels is compared in order to measure the degree of vertical decentralisation in 20 countries. The following results have been obtained:

- The degree of decentralisation differs widely between countries.
- Sub-national tiers of federal countries spend, on average, more and rely less on central revenues to support their expenditures than unitary ones. Exceptions are the Scandinavian countries (unitary, but high degree of decentralisation) and Belgium (federal, but low degree of decentralisation).
- Over the past 30 years the share of sub-national levels in general government expenditures has not fluctuated remarkably, nor is there a visible trend. Nevertheless, the article shows considerable structural breaks in France, Norway and Spain.
- Country-size variables help to explain the international differences in the degree of decentralisation. Within our country sample, land area has the strongest positive impact on the share of sub-national tiers in total government expenditures.

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[6] Rsquare of 0.27.

The Reform of the Savings Bank System in France - A Model for Other Countries?

Jochen Klein*

Up to the end of the twentieth century, the French banking industry consisted of four distinct groups of large banks. In addition to the large private banks comprising Banque Nationale de Paris, Société Générale and Paribas, which were major players in the corporate and foreign business, the government-owned banks Crédit Lyonnais[1] and Post Office Savings Bank were of considerable importance for the retail banking. However, the retail banking was largely dominated by the cooperative banks Crédit Agricole, Banques Populaires and Crédit Mutuel. The fourth mainstay of French banking was traditionally represented by the savings banks.

In 2000, the French savings banks entered a new phase of their development. Following a fundamental reform of the law relating to their operation, they abandoned their traditional legal form and were converted to cooperatives.

The following article will initially look at the development of the savings bank system in France up to the year 2000 and will then, on this basis, show the essential aspects of the reform and the resulting structures of the savings banks institutions. Finally, it will be asked whether the reform of the French savings banks institutions may offer an appropriate model for a reform of their German counterparts.

The development of the savings bank system in France

From the founding of the first savings bank in 1818 until after the Second World War, the business of French savings banks (caisses d'épargne et de prévoyance) consisted solely of collecting the savings of local citizens in savings accounts and subsequently forwarding them to the public authorities for financing the government. The savings banks thus assumed the unilateral function of capital collection points for the state.[2]

Not until the 1970s did the activities of the savings banks expand to other bank business. At that time, they were granted the legal authorization to operate a lending business and run current accounts independently, albeit to a limited degree.

The law which reformed the savings banks in 1983[3] finally allowed them to carry out all banking business for private individuals, but the corporate client business continued to be closed to them. Furthermore, the law annulled the legal form, in force since 1835 for the savings banks, of charitable bodies (in private law); they now acquired the legal form, hitherto unknown in France, of non profit-making financial institutions. With this step, the legislators made allowance for the fact that the savings banks had no profit-seeking shareholders who had to be paid interest from their annual surplus; rather, their operating result merely had to ensure the continued existence of the savings banks.

Numerous mergers then took place between the savings banks so that they could continue to operate successfully in the credit business by becoming large enough to be competitive. Their number dropped from around 460 to 35 within a mere decade. Relevant legislation accompanied their reorganization and in 1991 another reform bill came onto the law books[4] which adapted their internal organization to their larger size.

The current structure of the savings bank system in France

Concerns arose within the French savings bank group that the uniqueness of the legal form of non-profit financial institutions granted to the savings banks by the reform of 1983 could lead to their isolation in the radically changing bank landscape. These concerns were the principal trigger for the efforts to give them a "modern" and generally rec-

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[1] The privatization of Crédit Lyonnais took place in stages beginning in 1999.

[2] See Duet, p. 38 ss.

[3] Law no. 83-557 of July 1, 1983 on the reform of the savings banks, Journal Officiel (JO) of July 2, 1983, p. 2007.

[4] Law no. 91-635 of July 10, 1991 modifying law no. 83-557 of July 1, 1983 on reforming the savings banks, JO of July 11, 1991, p. 9023.

ognized constitution. This wish of the savings bank group was satisfied by the reform law of June 25, 1999[5] which converted the savings banks to cooperatives with effect from January 1, 2000.[6] As a result, they have lost the character of an independent bank group and now reinforce the cooperative sector, which has consequently gained considerably in importance compared to the private and public banks.

The legal framework regulating the activities of the savings banks had previously remained almost unchanged for 160 years. At the end of the twentieth century, however, the reforms of the years 1983, 1991 and 1999 changed it radically within a period of only 16 years and gave the savings bank group a fundamentally new character.

Since the reform of 1999, 34 regional savings banks and a national bank of the savings banks have been responsible for running the banking business. The national bank works together with the regional savings banks within a closely linked framework with various responsibilities. The associative tasks are carried out centrally by a national association of the savings banks. In addition, the savings bank group consists of around 450 local savings companies at its disposal since 1999. These are not involved in the financial business but are closely associated with the savings banks in a legal and practical sense.

The local savings companies

The local savings companies operate under a cooperative form of law like the savings banks. They form the lowest and, in terms of numbers, the largest unit within the savings bank group in France. Although not independent institutions, they are invariably attached to the savings bank in the region in which they operate. In this way, several savings companies are attached to each savings bank, but with varying numbers in each case.

The savings companies do not conduct any banking business. Their principal function is to hold all the shares of the savings banks to which they are attached. For the law permits only the savings companies to be members of the savings banks. In contrast, other interested parties such as the savings banks clients and employees as well as local authorities are prohibited from being direct members of the savings banks by acquiring their shares. However, they may acquire shares in the savings companies, which in turn use all the funds obtained in this way to obtain shares in the savings banks. As a result, the importance of a savings companies to its savings bank is proportional to the volume of its shares which it invests publicly. Clearly, the more funds that a savings companies acquires through the sale of its shares, the more shares it may in turn draw from its regional savings bank. The local savings companies thus act as the connecting link between the savings banks and the numerous (indirect) investors, and relieve the savings banks from the need to coordinate and support the latter.

The local savings companies have been the target of considerable criticism since their establishment in 1999. This is directed especially at the fact that their existence gives the savings bank group an unusual and clumsy structure compared with the traditional cooperative banks. For in the latter, the members of the cooperative participate directly in the banks without any intermediate agents. As a result, the avowed aim of the savings bank group to participate without restrictions in a widely familiar and usual (cooperative) legal form has not been completely achieved by the reform of 1999. Moreover, the criticism also attacks the high administrative costs caused by the existence of numerous savings associations/companies at local level.[7] Against this background, it would in principle be a logical step to abolish the local savings companies and transfer their responsibilities to the savings banks. It remains to be seen if the keenness of the legislators to undertake reforms which began two decades ago in the sphere of savings banks will be sufficiently sustained in the next few years to carry out this step.

The regional savings banks

The 34 savings banks are large and mutually independent regional institutions which have operated as cooperatives since the beginning of the year 2000. As already outlined, the local savings companies have the exclusive right to be members of a regional savings bank, which consequently has a comparatively small circle of members, averaging about thirteen.

[5] Law no. 99-532 of June 25, 1999 relative to savings and financial security, JO of June 29, 1999, p. 9487. See also Klein, p. 211 ss.
[6] The law granted the banks a period of more than four years to carry out this conversion, i.e. by the end of 2003.
[7] On the criticism levelled against them, see Moster, p. 551.

From the viewpoint of business policy, the reform law of 1999 eliminated the last hurdle which had hitherto prevented the savings banks from conducting business with companies listed on the stock exchange. Regional savings banks can now carry on all banking business stipulated in the law on currency and finance[8], with anyone, without exception. However, their business continues to focus on accepting customer deposits into savings accounts (via a booklet known as livret A) and to forward them to a public financial institute, the Caisse des Dépôts et Consignations (CDC)[9], to finance the building of subsidised housing. Unlike the savings accounts run by the other financial institutions, the livrets A reserved to the savings banks have the peculiarity that the repayment of client deposits is traditionally guaranteed by the state. This guarantee, criticised by the competitors as competition-distorting, is a major reason for the enormous popularity of the livret A.

In their business activities, the savings banks must observe a number of basic principles which have changed little over the years. Thus they must - in broad conformity with the regulations applicable to German savings banks - observe the regional principle which obliges each bank not to extend its business activities beyond the region assigned to it to that of other savings banks. They are also obliged by law to serve the common good and to perform certain public functions. The aim is that they should have a positive influence on the willingness of the population to save, on the situation of the labour market and on the general level of education. Moreover, the savings banks should ensure that no-one is excluded from using the banking and financial services. Part of their surplus must be used as a so called "social dividend" to finance local economic and social projects - for instance in the domain of environmental protection.

Although the savings banks do perform significant public functions, the government assumes no liability for them - with the exception of the guarantee for the livret A already mentioned. In particular, therefore, French savings banks are subject neither to a liability for the debts of the saving banks ("Anstaltslast")[10] nor a guaranty obligation ("Gewährträgerhaftung")[11] by the public authorities, which are characteristic of German savings banks.

The first signs of future change are already apparent for both the regional savings banks and their local savings companies. Thus concrete indications already suggest that the number of regional savings banks will decline further in the near future as a result of mergers. This is because the business area of some savings banks is likely to be too limited for them to achieve satisfactory operating results in the long term in a tougher and increasingly international competitive climate. It is consequently realistic to assume that the present number of savings banks, namely 34, will be pruned to between only 20 and 25 large ones after a further wave of mergers.

The National Bank of the savings banks

In order to strengthen the savings bank group at national level by focusing their energies, the reform law of 1999 created the National Bank of the savings banks with headquarters in Paris. This has become the legal successor to two supreme institutions which had previously exercised the functions of a central bank as well as acting as the coordinating body for the savings bank group. In addition to its activity as a general commercial bank responsible for key customers, therefore, the National Bank now acts as the central bank of the savings banks, administers their liquid funds and supports their refinancing programs. But it also possesses extensive representational and monitoring powers as the head of the savings bank group. Moreover, it administers a guaranty and solidarity fund which assures the solvency of the savings banks. The National Bank has the legal form of a public limited company in which the savings bankgroup as well as the CDC are majority shareholders.

The National Association of the savings banks

The National Association, as the second supreme body of the savings bank group, only came into

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8 Monetary and financial code, legislative part, annex to administration order no. 2000-1223 of December 14, 2000, JO of December 16, 2000.

9 On the traditionally close relations between the savings banks and the CDC, see Priouret, p. 29 ss.

10 The liability assumed by the public authorities for the debts of the savings banks obliges these authorities to make appropriate financial provision to ensure that the banks can perform their functions in a regular manner.

11 The guaranty obligation obliges the public authorities to be responsible for the liabilities of the savings banks vis-à-vis their external creditors. For the liability assumed by the public authorities for the debts of the savings banks and their guaranty obligation in German law, see also Schlierbach/Püttner, p. 138 ss.

being on the basis of the 1999 reform law. The 34 savings banks are the sole (mandatory) members of the National Association, which was set up as a registered association, so that it is a body reserved exclusively to these institutions. The association acts principally as a forum for the exchange of ideas and the formation of opinions. However, it also shares the responsibility with the National Bank of the savings banks vis-à-vis third parties to represent the common interests of the savings banks, especially in dealing with the public sector, and to intensify the links between the savings bank group and other European savings bank organisations. As the National Association has limited decision-making powers, however, it plays only a subordinate role compared with the National Bank of the savings banks. Against this background, it remains to be seen whether the association succeeds in creating its own profile alongside the powerful National Bank in the long run and in justifying its existence as a second supreme body.

Reflections on a reform of the German savings bank system on the French model

In various European countries - such as Italy, Spain and Austria - far-reaching reforms of the savings banks are currently being discussed for various reasons. Similarly to the situation prevailing in France, the idea is that radical structural reforms will enhance the competitiveness of the savings banks and avoid competitive distortions. In view of these common objectives, it makes good sense to determine whether and how far the structure assigned to the French savings banks by the reform of 1999 is transferable to these countries and can act as a model for them.

Comparing the structural features of French and German savings banks

Structural feature	France	Germany
Proprietor	Directly: the local savings associations. Indirectly: clients, employees of the savings banks, local authorities	Local public authorities
Structure of the savings bank organization	Tripartite (approximately 450 local savings associations, 34 regional savings banks, National Bank of the savings banks)	Tripartite (519 local savings banks, 12 regional state banks, DekaBankDeutsche Girozentrale)
Coordinating function	National Bank of the savings banks	State banks and DekaBank Deutsche Girozentrale
Validity/Application of the regional principle	Yes	Yes
Performance of public functions	Yes	Yes
Charitable status	Yes	Yes
Public welfare oriented distribution of profits	Yes (up to a third of the annual profits)	Yes (the amount varies in the individual Federal states)
Liability assumed by the public sector	No	Yes, but in modified form after July 18, 2005
Guaranty obligation by the local authorities	No, but state guarantee of "livret-A" savings	Yes, but to be abolished by July 18, 2005
Number of retail customers	Approximately 26 million (corresponding to almost 50% of the population)	Approximately 36 million (corresponding to about 45% of the population)
Number of branches - per million inhabitants - total	 Approximately 87 Approximately 4,700	 Approximately 225 Approximately 18,000
Number of employees - per savings bank (average) - total	 1,235 Approximately 42,000	 540 Approximately 280,000

The common points existing in significant domains, above all as regards the tripartite structure of the organization, the obligation to observe the regional principle[12] and to promote public affairs are briefly contrasted in the table below. Despite all existing differences of scale, it would therefore also be conceivable to take the current structure of the French savings banks in many respects as a model for a future reform of the German savings bank system.

Indications of an impending radical reform of the German savings bank system come particularly from the controversial discussions which have for some years now centred on certain basic principles of the German savings bank system operating under public law. This applies especially to their legal form, the regional principle, the liability assumed by public authorities for their debts and the guaranty obligation. Although some of these discussions have been initiated and conducted by the savings bank organization itself, most of them originate from politicians at state and European level as well as competitors and banking and legal experts. However, they tend to be based on the - admittedly variously motivated - wish to abolish the traditional structural features of the savings bank system.

The structural debates initiated by the savings bank organization itself aim to consolidate their own market position. In contrast, state political circles often seek ways, in view of the general shortfalls in public funds, to increase the profits of the savings banks which flow to the local authorities in order to boost their coffers. There have even been suggestions to privatize the savings banks in order to reduce the national debt by means of the revenues released from their sale. Finally, private commercial banks have successfully attempted to abolish the competitive advantages of the savings banks due to the liability assumed by public authorities for their debts and the guaranty obligation. They have been supported by the European Commission and argue that these arrangements are incompatible with European subsidy law. The liability assumed by the public sector and the guaranty obligation must now be adapted to the EU's subsidy law or be abolished by July 18, 2005.

The various tensions to which the German savings banks operating under public law are currently exposed as regards the maintenance of their key structural features can lead to significant changes in the mid term. These could, in view of the current status of discussions, even go so far as to abolish these savings banks and to privatize them by conversion into public limited companies, foundations[13] or cooperatives - these legal forms being most frequently mentioned in the discussions.

In such a case, weighty reasons would support conversion of the German savings banks into registered cooperatives on the French model.

German savings banks and cooperative credit institutions already possess numerous common features. Both are integrated into a tripartite financial association cooperating on the basis of a division of labour and exhibit a decentralized structure operating on the regional principle. In addition, both have a similar customer base consisting largely of private individuals as well as small and mid-sized businesses.

The German law on cooperatives, which forms the special legal framework for the activities of the (registered) cooperatives, represents another factor of considerable importance for the choice of legal form: it is distinguished by granting them a comparatively large discretionary scope, notably absent from German stock corporation law. In many respects, it offers the cooperatives the possibility of regulating matters outside the law, in a manner tailored to their individual needs, in their statutes. Their members are thus accorded extensive freedom to grant themselves their own legal constitution within the framework of the autonomy granted by their statutes as a supplement to the cooperative law and to structure their cooperative in accordance with their ideas. Against this background, the conversion of the German savings banks into cooperatives would give them the opportunity to retain a large number of their characteristic peculiarities simply by drawing up their statutes accordingly.

However, savings banks operating under public law cannot be converted to cooperatives in Germany on the basis of the prevailing law. As the public legal form of the savings banks is anchored in the state law on these institutions, the legislators

[12] For the regional principle in savings bank law, see Stern/Nierhaus, p. 156 ss.

[13] To this extent, reference is regularly made to the savings banks in Austria, Spain and Italy, which are based on the model of a foundation.

in the states and - to a lesser degree - the federal legislators as well, would have to create the legal basis for such a conversion. In so doing, they could also make use of the know-how and experience already gained in France in conjunction with the reform of 1999 in the following key domains:

- The legal and actual conversion of the savings banks into cooperatives,
- The use of the revenues accruing from the sale of the shares of the cooperative savings banks,
- The corporate aim of the cooperative savings banks,
- The composition of the members of the cooperative savings banks and the future influence of the local authorities on them,
- The internal organisation and administration of the cooperative savings banks.[14]

Thanks to the existing close business relationships between them, the French savings banks would certainly welcome joining their German counterparts in cross-border economic exchanges based on a common - namely a cooperative - legal form.

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[14] See Klein, p. 376 ss.

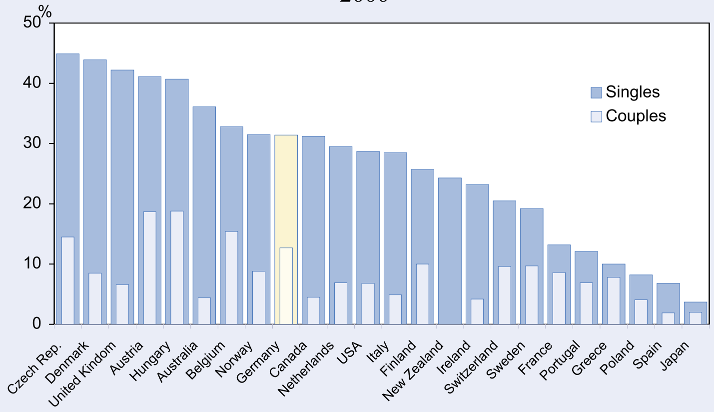
TAX PRIVILEGES FOR FAMILIES IN AN INTERNATIONAL COMPARISON

WOLFGANG MEISTER

AND WOLFGANG OCHEL

Figure 1

ADDITIONAL TAKE-HOME PAY OF FAMILIES WITH TWO CHILDREN[a)]
2000



a) Compared to households without children.

Source: Tables 1 and 2.

The problems associated with the ageing of the population have led to a call for family policies designed to raise fertility. If such policies hope to contribute to increasing the birth rate, they must consider the fact that many women have set their sights on working (Atkinson 1999).

It can be assumed that a large proportion of women would like to have children. And yet, women often value a professional activity so highly that they put off their desire for children. To ensure the compatibility of job and family, a whole series of conditions must be satisfied. Women must be released from working at the birth of a child. Moreover, sufficient childcare facilities must be available. The world of work must be designed to accommodate families. And finally, the net income of families with children must be sufficiently high for them to afford external childcare facilities, unless these facilities are financed from the public purse (Fenge and Ochel 2001).

Child allowance or tax exemptions for children may be granted in order to increase the net income of such families. And tax splitting for spouses benefits couples with children indirectly. But families with children are also eligible for preferential tax treatment in other ways. The following paper compares the tax privileges offered to families in an international comparison on the basis of data calculated by the OECD in 2002.

The OECD calculations are based on a representative taxpayer. This is an employee earning an average wage by working full-time in the manufacturing sector, i.e. an *average production worker.* The

Table 1

Tax privileges for single parents with two children[a)], 2000

	Net income without children[b)]	Additional net income with two children[b)]	
	US$	US$	%
Austria	11 173	4 593	41.1
Belgium	11 742	3 850	32.8
Denmark	13 801	6 062	43.9
Finland	14 305	3 680	25.7
France	9 943	1 311	13.2
Germany	12 650	3 981	31.4
Greece	5 458	545	10.0
Ireland	12 079	2 802	23.2
Italy	9 609	2 740	28.5
Netherlands	11 951	3 524	29.5
Portugal	4 044	488	12.1
Spain	8 080	546	6.8
Sweden	11 604	2 226	19.2
United Kingdom	14 968	6 323	42.2
Norway	15 217	4 799	31.5
Switzerland	19 606	4 022	20.5
Czech Republic	2 407	1 080	44.9
Hungary	1 586	646	40.7
Poland	2 425	200	8.2
Australia	12 152	4 387	36.1
Canada	12 576	3 923	31.2
Japan	22 551	825	3.7
New Zealand	8 752	2 128	24.3
United States	15 759	4 516	28.7

a) Employees with a gross income of 66 2/3% of an average production worker's wage.
b) Net income = gross wage – income tax – employee contributions to social insurance + transfer payments.
Income data converted to US$ at average daily exchange rates.

Source: OECD, Taxing Wages 2000–2001, Paris 2002; calculations by the Ifo Institute.

Table 2
Tax privileges for married couples with two children[a)], 2000

	Net income without children[b)] US$	Additional net income with two children[b)] US$	Additional net income with two children[b)] %
Austria	21 348	3 995	18.7
Belgium	22 138	3 405	15.4
Denmark	27 603	2 351	8.5
Finland	27 575	2 755	10.0
France	19 568	1 676	8.6
Germany	25 300	3 203	12.7
Greece	11 399	887	7.8
Ireland	23 108	974	4.2
Italy	19 170	942	4.9
Netherlands	23 505	1 616	6.9
Portugal	7 883	540	6.9
Spain	15 579	299	1.9
Sweden	22 857	2 226	9.7
United Kingdom	29 936	1 970	6.6
Norway	30 242	2 675	8.8
Switzerland	39 107	3 760	9.6
Czech Republic	4 790	694	14.5
Hungary	3 123	587	18.8
Poland	4 851	200	4.1
Australia	24 034	1 048	4.4
Canada	24 678	1 118	4.5
Japan	45 015	878	2.0
New Zealand	17 504	0	0.0
United States	31 283	2 125	6.8

a) Two employees with gross incomes of 100% and 33 1/3% of an average production worker's wage
b) Net income = gross wage – income tax – employee contributions to social insurance + transfer payments
Income data converted to US$ at average daily exchange rates.

Source: OECD, Taxing Wages 2000–2001, Paris 2002; calculations by the Ifo Institute.

calculation looks at his net income (= net wages - income tax - employee contributions to social insurance + transfer payments). The net income of single parents and families with two children is compared with that of singles and families without children.

All OECD countries grant tax privileges to single parents and families with children (the only exception is New Zealand as regards families with children). Their net income is higher than that of singles or families with no children. It is striking that single parents get more favourable treatment than families with children. The differences are considerable in many countries (cf. Fig. 1). The preferential treatment given to single parents may be due to the fact that they have only one income which they can sustain only by making use of external childcare facilities.

The benefits granted to single parents with two children are considerable in many countries. Their net income exceeds that of singles without children by more than 40 percent in the Czech Republic, Denmark, Great Britain, Austria and Hungary. The difference is less than 10 percent of net income only in Japan, Spain and Poland (cf. Table 1).

The difference in the net income of families depending on the number of children is - as already mentioned - much less. In no country does the net income of families with two children exceed that of families without children by more than 20 percent. Hungary, Austria, Belgium, the Czech Republic and Germany are among the countries offering the most generous tax benefits to families with children (cf. Table 2).

Hitherto, the net income of families with two children was compared with that of families with no children. However, there are countries where tax benefits do depend on the number of children. One such example is France, which offers scarcely any benefit for the first child but considerably privileges the third one. In France, the system of the family quotient applies to a part of the tax arrangements. In a splitting procedure, the taxable income is divided by a number which depends on how many children there are in the family: 1 for the husband, 1 for the wife, $1/2$ each for the first and second child, 1 for the third child etc. So the income of a married couple with three children is divided by four. The tax payable on this income is then in turn multiplied by four. This procedure thus avoids the burdens due to the tax progression. Many children make economic sense, especially for families on high incomes. (This system may be seen as an attempt to promote higher birth rates among socially more desirable groups.)

Table 3

Income of married couples depending on the number of children[a)] – A comparison Germany – France

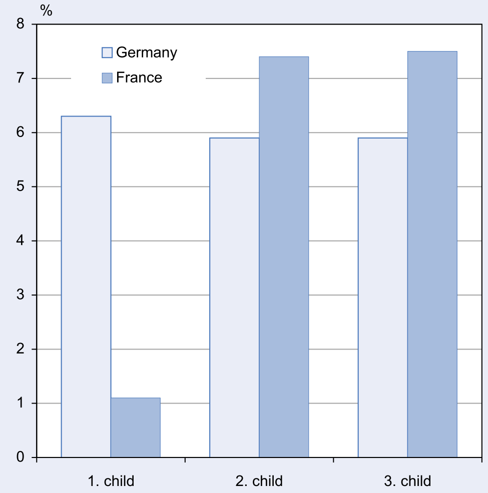
Income level[c)]	Couple without children			Couple with 1 child[b)]			Couple with 2 children[b)]			Couple with 3 children[b)]		
Main earner	100	100	100	100	100	100	100	100	100	100	100	100
Second earner	0	33 1/3	66 2/3	0	33 1/3	66 2/3	0	33 1/3	66 2/3	0	33 1/3	66 2/3
GERMANY	US$											
Gross earned income	29423	39231	49039	29423	39231	49039	29423	39231	49039	29423	39231	49039
Main earner	29423	29423	29423	29423	29423	29423	29423	29423	29423	29423	29423	29423
Second earner	0	9808	19615	0	9808	19615	0	9808	19615	0	9808	19615
Taxes	2938	5889	9129	2785	5814	9046	2785	5742	8967	2785	5582	8892
Employee social insurance contributions	6032	8042	10053	6032	8042	10053	6032	8042	10053	6032	8042	10053
Net earned income	20453	25299	29857	20606	25375	29939	20606	25446	30018	20606	25606	30094
Child allowance	0	0	0	1528	1528	1528	3057	3057	3057	4585	4585	4585
Family income	**20453**	**25299**	**29857**	**22135**	**26903**	**31468**	**23663**	**28503**	**33075**	**25191**	**30191**	**34679**
Difference to a couple with one child less				1681	1604	1611	1528	1600	1607	1528	1688	1604
As a percentage				8.2	6.3	5.4	6.9	5.9	5.1	6.5	5.9	4.8
Difference to a couple without a child				1681	1604	1611	3210	3204	3218	4738	4892	4822
As a percentage				8.2	6.3	5.4	15.7	12.7	10.8	23.2	19.3	16.1
FRANCE	US$											
Gross earned income	19171	25562	31952	19171	25562	31952	19171	25562	31952	19171	25562	31952
Main earner	19171	19171	19171	19171	19171	19171	19171	19171	19171	19171	19171	19171
Second earner	0	6390	12781	0	6390	12781	0	6390	12781	0	6390	12781
Taxes	1573	2566	3851	1457	2356	3208	1457	2048	3019	1457	1943	2524
Employee social insurance contributions	2571	3428	4285	2571	3428	4285	2571	3428	4285	2571	3428	4285
Net earned income	15028	19568	23816	15143	19778	24460	15143	20086	24648	15143	20191	25144
Child allowance	0	0	0	0	0	0	1164	1164	1164	2655	2655	2655
Family income	**15028**	**19568**	**23816**	**15143**	**19778**	**24460**	**16307**	**21250**	**25812**	**17798**	**22846**	**27798**
Difference to a couple with one child less				116	210	643	1164	1472	1352	1491	1596	1987
As a percentage				0.8	1.1	2.7	7.7	7.4	5.5	9.1	7.5	7.7
Difference to a couple without a child				116	210	643	1279	1682	1995	2770	3278	3982
As a percentage				0.8	1.1	2.7	8.5	8.6	8.4	18.4	16.8	16.7

[a)] In 2000. – [b)] In Germany: under 16 years of age. – [c)] As a percentage of an average production worker's wage (Germany: in the territory of former West Germany).
Income data converted to US$ at average daily exchange rates.

Source: OECD; calculations by the ifo Institute.

Figure 2

ADDITIONAL TAKE-HOME PAY OF COUPLES IN GERMANY AND FRANCE[a], 2000



a) Difference to couples with one child less, two wage earners; wage level: 100 and 33 1/3 per cent average production worker.

Source: OECD, Taxing Wages 2000-2001, Paris 2002; Calculations of the ifo Institute.

Despite this graduated benefits scheme, a family with an average income and three children is not treated more favourably in France than in Germany. In France, their net income increases by 16.8 percent and in Germany by 19.3 percent compared with that of families without children. For families with only one child, however, the differences in benefits are considerably larger, as France hardly privileges the first child at all (cf. Fig. 2). The French argue that the first child comes along without too much fiscal reflection by the parents.

However, a different picture emerges if we examine the additional state privileges accorded, via child allowance and tax savings, to families on the birth of an additional child if they already have one or two children. For the previously examined dual-income married couple where one spouse earns the average wage and the other a third of it, the increase in net income per year due to a second child worked out at 1,600 US$ (corresponding to 5.9 percent) in Germany in 2000, whereas in France the figure was 1,472 US$ (corresponding to 7.4 percent). At the birth of a third child, the relative increase in income was also 5.9 percent in Germany, whereas it increased slightly to 7.5 percent in France (cf. Fig. 2 and Table 3).

The French family quotient mentioned above does not lead only to increased privileges as the number of children increases, but as a rule also to higher benefits with rising incomes. If we consider the difference in net income between a married couple with two children and a five-member family in France, we see that the latter does better the higher their joint gross income is. If the second spouse earns two thirds the average wage, the additional benefit was 7.7 percent of net earnings (corresponding to 1,987 US$ per year) in France, whereas it was only 4.8 percent (1,604 US$) in Germany. As shown in Table 3, the additional benefit for the third child in Germany hardly depends at all on the income level of the second earner, whereas there is a great difference in France.

If we consider incomes which are significantly higher than average earnings, the splitting factor in conjunction with a progressive tax function further increases tax relief in France (at least in terms of the absolute amount). There is also a slight progression effect in Germany, apparent in the first instance in calculating the solidarity supplement. To this must be added the child exemption which replaces the flat-rate child allowance for very high earners: it is included in the tax assessment and leads to continuously increasing tax relief in the progression zone.

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Early and Late Reformers: Long-Term Trends of Public Expenditure in 21 OECD Countries

Rigmar Osterkamp*

It is generally believed that lacking economic growth might be regained by limiting the role of the state, i.e. by reducing public expenditure. Such a strategic re-orientation of economic policy is all the more necessary if the business cycle dampens tax revenues and if other routes of escape from a growth crisis, like higher budget deficits, are blocked, as is the case in some countries, e.g. Germany, who have committed themselves to following the rules of the Maastricht treaty.

Unfortunately, it is exactly this necessary reform of public expenditure which is obviously the most difficult to achieve in the political process. It might, thus, be helpful to ask whether and when a significant reduction of public spending was achieved in the past and by which countries, taking into account a longer period (four decades). We look at the long-term trends of public expenditures as a share of GDP. The question of the causes and the effects of such a re-orientation of public spending is not tackled here.[1]

The public expenditure data for 21 countries (15 EU countries plus Norway, Switzerland, Australia, Canada, USA, Japan) as a share of GDP are considered. We use long-term time series from 1960 to 2001 (OECD data).

The definition of public expenditures differs between countries. One difference concerns subsidies which are treated as expenditures in some countries and as foregone revenues in others. The size of the public deficit remains, the total of public expenditures, however, not. Nevertheless, if the treatment of subsidies (and of other items) is not changed over time the comparison of long-term trends of public expenditures should not be misleading.

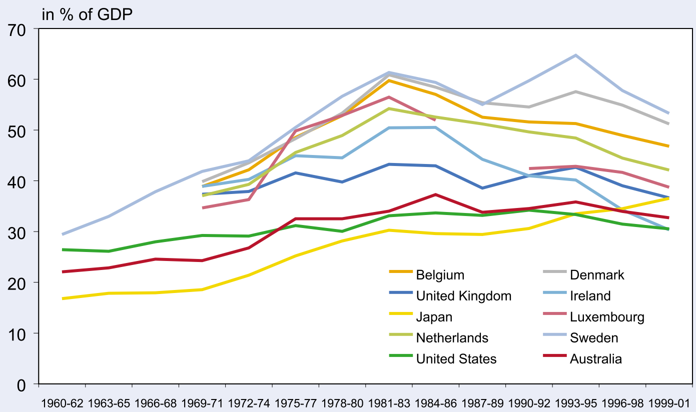
For an easier detection of underlying tendencies the annual figures have been condensed to (non-moving) three-years averages, starting with the period from 1960 to 1962. In accordance with the literature (summarised e.g. by De Haan, Sturm and Sikken 1996) we find that many countries initially exhibit long-run rising trends in the public expenditure share of GDP and later decreasing shares. However, the reversal of the trend can be described to have happened not only "at various moments" – as De Haan, Sturm and Sikken (1996, p. 55) suggest – but mainly at two moments, namely either in the beginning of the 1980s or in the beginning of the 1990s.

It is relatively easy to form two groups of countries based on the period of trend reversal. The first group of countries might be named the "early reformers", the latter the "late reformers". Figures 1 and 2 show the development of the public expenditure share for the two country groups.

USA and Japan do not fit easily into the group of early reformers. But looking additionally at public consumption as a share of GDP (not shown) they are clearly early reformers because this variable exhibits for both countries a falling trend even from the 1960s onwards. Also Sweden is partly an outlier, because its share of total public expenditure – after the fall in the early 1980s – rises for two

Figure 1

Early Reformers: Development of Public Expenditures

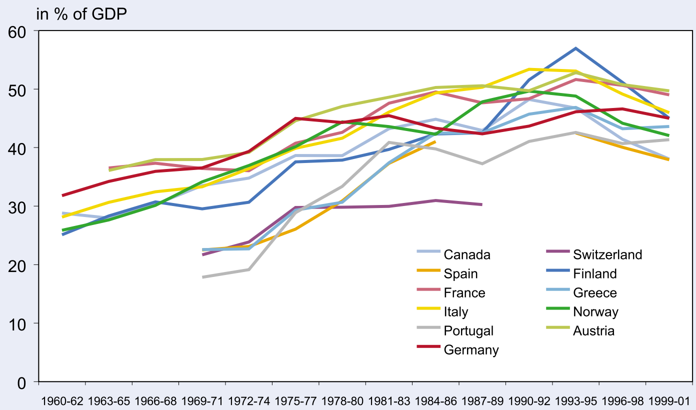


Source: OECD.

* I am thankful to Anna Stangl, Ifo Institute, and Markus Selwitschka, University of Munich, for their data work and support.
[1] For the causes see e.g. De Haan, Sturm and Sikken 1996; De Haan and Sturm 1994; Roubini and Sachs 1989.

Figure 2

LATE REFORMERS: DEVELOPMENT OF PUBLIC EXPENDITURES



Source: OECD.

three-years periods before it decreases again. But also Sweden has, nevertheless, been put into the group of early reformers due to the development of public consumption (likewise not shown) which is reversed in the beginning of the 1980s.

While the grouping can be made without much coercion, a common denominator for the two groups is not easily apparent. This question is not pursued further here as more detailed country studies are necessary. With respect to the period of the first trend reversal - in the early 1980s - it may be noted, however, that at around this time Margret Thatcher and Ronald Reagan started their economic reforms.[2]

To conclude:

- There are long-term tendencies in the behaviour of public expenditure as a share of GDP in 15 EU and 6 important non-EU countries.
- These long-terms trends show a reversal from rising to falling shares of GDP.
- The reversals occurred primarily at two periods, namely at the beginning of the 1980s and at the beginning of the 1990s.
- Thus, the sample countries can easily be grouped according to this criterion and labelled "early reformers" and "late reformers", respectively.
- The early and late reformers perspective might also be used to ask why trend reversals have occurred at all, why they have occurred at different - and not at the same - periods, why there have been two and not many periods of reversal, and what have been the effects of these trend reversals on economic growth.

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[2] Margret Thatcher, British Prime Minister, 1879-1990; Ronald Reagan, US President, 1981-1989.

OLDER EMPLOYEES - A NEGLECTED SOURCE OF WORKERS

Two longer-term demographic trends can be observed in the Western industrialized countries. Birth rates are declining and the life expectancy of the population is rising. As a consequence, the age profile of the population of working age is shifting towards older people. The practice of satisfying the need for workers with younger people will therefore come up against limits in the near future. Many companies are already lamenting the lack of trained employees. Greater utilization of the potential represented by older employees could offer a solution.

Figure 1 shows the degree to which persons aged between 55 and 64 are still working. It can be seen that in Italy, Belgium and Austria fewer than 30 percent of this age group were still employed in 2001. Older people are also very largely excluded from working life in France, Germany, Greece and Spain. On the other hand, in Norway, Switzerland, Sweden, Japan and New Zealand, over 60 percent of those in this age group were still in gainful employment.

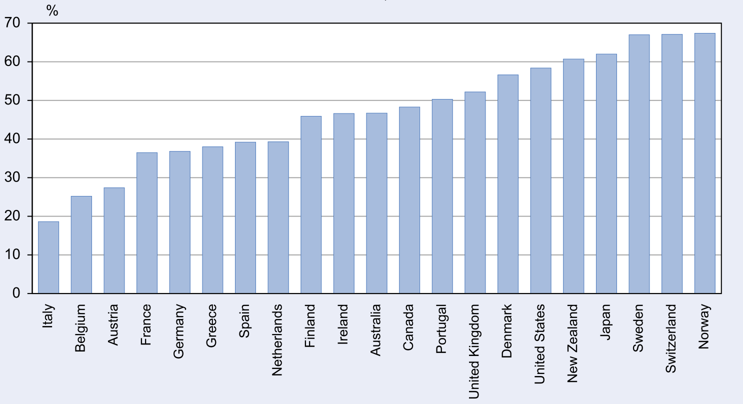
In Germany, Spain and France, however, it is not only the rate of employment among older people that is relatively low. At the same time, the unemployment rate among older persons of working age is among the highest in all industrialized countries. The German figure of 11.2 percent in 2001 heads the list by a wide margin (cf. Fig. 2). The high unemployment rates of older workers make it clear that in a number of industrialized countries the attitude of companies to this age group as well as the relevant labour market regulations place major obstacles in the way of employing older people.

A first step towards integrating older people more strongly into working life would be to reduce incentives to early retirement again. Early retirement is practiced widely in many countries, although a reorientation has been observed in recent years, as shown by steps to raise the pensionable age. Nevertheless, early retirement continues to be considerably encouraged. Parts of the population continue to see early retirement as a suitable way of reducing unemployment. This was shown again only recently by the proposal of the Hartz Commission in Germany to introduce a bridging system for older employees. However, concepts of this kind take us in the wrong direction.

In addition to reducing incentives to early retirement, employment for older people should be actively promoted. One way of doing this would be to cut back seniority privileges in the remuneration of employees. Wage subsidies might also facilitate the hiring of older workers.

Figure 1

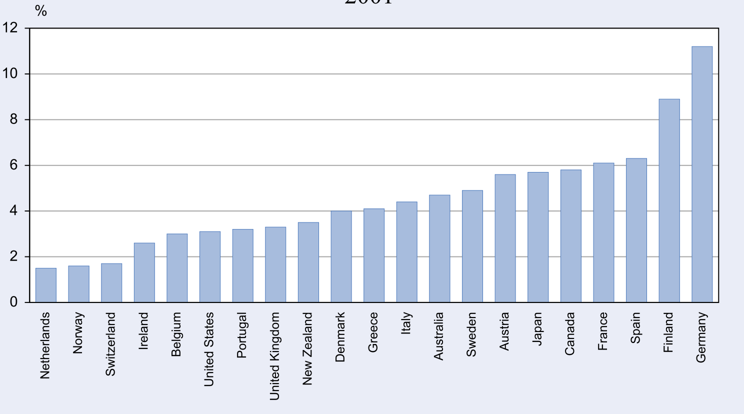
EMPLOYMENT/POPULATION RATIOS FOR PERSONS AGED 55 TO 64 YEARS, 2001



Source: OECD Employment Outlook 2002, pp. 307-309.

Figure 2

UNEMPLOYMENT RATES OF PERSONS AGED 55 TO 64 YEARS, 2001



Source: OECD Employment Outlook 2002, pp. 307-309.

A third approach could be to increase the participation of older workers in continued education. The over-50s play almost no part in further education programmes in many countries. Greater inclusion in qualification programmes could increase the productivity of older employees and improve their chances of obtaining employment.

W.O.

European Union Activities

In a recent research paper, the economists Alesina, Angeloni and Schuknecht took the burdensome task to count the number of European Commission activities and of European Court decisions for the period from 1971 to 2000.

Their figures disclose a remarkable growth of all of these activities. While the total of all "domestic" legal acts of the Commission has increased by the factor of 4.5, the single item of the Commission's "Decisions" rose by the factor of 7.5.

The most dynamic development has happened in the production of "White" and "Green" papers. In the first half of the 1980s only one - the first - paper of that sort has been published, while in the second half of the 1990s it were 37. A very rapid increase has happened with the Commission's "Recommendations" and "Opinions". Their number rose by the factor of 22.

The number of Court decisions and of international agreements developed somewhat slower.

The EU expenditures, in percent of the EU GDP, rose from 0.4% to 1.1%, i.e. by the factor of 2.7.

R.O.

European Union: Number of Activities, 1971 - 2000

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	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000
No. of Directives of the EU Commission	108	264	330	537	566	532
No. of Regulations of the EU Commission	1,788	4,022	6,106	9,124	7,752	5,583
No. of Decisions of the EU Commission	716	2,122	2,591	3,251	4,42	5,299
Total No. of "domestic" legal acts	**2,612**	**6,408**	**9,027**	**12,912**	**12,560**	**11,414**
No. of Court decisions	693	1,155	1,760	2,127	20,27	2,487
No. of international Agreements	454	488	517	542	852	1,123
No. of Recommendations and Opinions	68	114	95	143	1,246	1,505
No. of White and Green papers	0	0	1	9	28	37
EU expenditures as % of EU GDP [a)]	0.4	0.7	0.8	0.9	1.0	1.1
EU expenditures as % of government expenditure	1.0	1.5	1.6	1.8	2.0	2.4

Note: The data on legislative acts include all acts issued in the period, including those no longer in force today.
(a) Last year of 5-year period only.

Source: Alesina, A., Angeloni, I., Schuknecht, L., What does the European Union do?, NBER Working Paper 8647, December 2001; original sources mentioned there.

The Duration of Unemployment Benefits in Europe

To provide a safety net for the unemployed is one of the central tasks of social policy. It protects those affected and their families against a sudden loss of income. At the same time it gives them an opportunity to seek new employment. However, the granting of unemployment benefit, unemployment assistance and welfare benefit, which are the forms taken by this safety net, does not merely realize the aims of social and labor-market policy. It is also an important cause of the high rate of unemployment in the low-wage sector. The level of these payments drives the wages upwards for which the unemployed are willing to work. And the period during which they are granted affects the intensity of their efforts to find a new job.

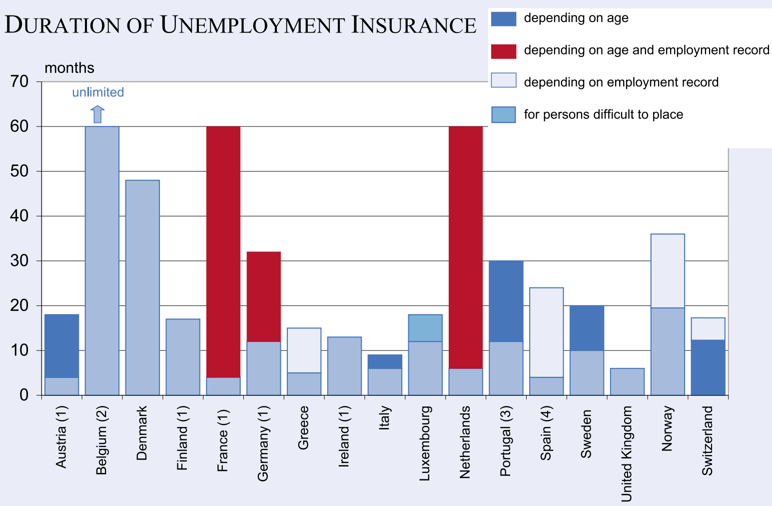
In most European countries, the period during which unemployment benefits are granted has remained unchanged in recent years. Only Austria and Sweden have extended the basic period of benefit for the older unemployed. Now, however, the German government is planning a radical reform of its system of income compensation. In his government declaration of March 14, 2003, Chancellor Schröder announced a reform of unemployment benefit and the abolition of unemployment assistance. Thus the period over which the unemployed are entitled to full benefits is to be reduced. All those younger than 55 will only be eligible to draw them for twelve months. Up to now the threshold had been fixed at 45 years. From the age of 55, the maximum period for full entitlement will be reduced from 32 to 18 months. Moreover, the requirement for recipients of unemployment benefits to accept work will become much tougher. Those no longer entitled to unemployment benefit will only receive unemployment benefit of *category II* at the same level as welfare benefit.

The reduction of the period of granting benefits will shift Germany to a middle position among European countries. The longest periods of unemployment benefit are granted in Belgium (unlimited) and Denmark (four years). France, the Netherlands and Norway also grant long benefit periods, but make eligibility dependent on the applicant's age and duration of employment. At the other end of the spectrum are Great Britain and Italy. Great Britain grants unemployment benefit for only six months. In Italy, unemployed persons from the age of 50 can draw another three months of benefit on top of the standard six months (see diagram).

Unemployment assistance is granted for an unlimited time in Belgium, Finland, France, Germany, Ireland and Austria. Portugal and Spain continue to pay it for a limited period after unemployment benefit runs out. After the abolition of unemployment assistance, Germany would join countries such as Denmark, Great Britain, Italy and Sweden.

W.O.

Duration of Unemployment Insurance



(1) Unlimited unemployment assistance
(2) Degressive
(3) Unemployment assistence: 12 to 30 months (depending on age)
(4) Unemployment assistence: 6 to 18 months

Source: EU Comission, MISSOC (as of 1 January 2002).

Consumer Protection

From the variety of aspects which are relevant for the protection of consumers the table sheds light on the specific question of unsolicited offers of commercial sales in European countries. Those offers might be made by telephone, e-mail or television.

In several countries unsolicited offers by e-mail are not regulated - what often means: not yet or not yet finally regulated.

Commercial sales by telephone or television are in all countries regulated. The control of unsolicited offers by telephone is rather diverse and ranges from outright prohibition (Austria, Netherlands), prohibition with exceptions (Denmark, Finland), permission if registered or commercial purpose is openly declared (Spain, Sweden), permission except for repeat calls (United Kingdom) to no regulation at all (Greece). In Germany telephone sales are allowed if they are approved before the call, i.e. they are practically forbidden.

By contrast, commercial sales and advertising by television are regulated in a rather similar way in Europe. Tele-shopping is generally allowed (except for the Flemish part of Belgium), but the commercial intention must be made clear. Non-sublimal advertising is allowed but must be separated from the program.

R.O.

Consumer Protection Against Unsolicited Offers

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	Unsolicited offers by		
	Telephone	**E-mail**	**Television**
Austria	Prohibited. Considered unfair in accordance with the Law Against Unfair Competition (UWG).	Not regulated.	Subliminal advertising prohibited. Considered as unfair. Media laws apply. Tele-shopping allowed.
Belgium	Allowed if identity of the caller and commercial purpose is made explicit at the beginning of the call.	Allowed if the sales purpose is clearly identifiable as such.	French part: Tele-shopping allowed. Flemish part: Tele-shopping prohibited
Denmark	Prohibited, but allowed for offers for books, magazines and insurance.	Not regulated.	Subliminal advertising prohibited. Tele-shopping and advertising allowed if sales intention is clearly identifiable.
Finland	Allowed, but specific provisions when addressed to older people.	Not regulated.	Subliminal advertising prohibited. Tele-shopping and advertising allowed if sales intention is clearly identifiable. Basis: self-regulation.
France	n.a.	Not regulated.	Subliminal advertising prohibited. Tele-shopping and advertising allowed if sales intention is clearly identifiable.
Germany	Allowed if explicitly approved before the call.	Not definitively regulated. Different court rulings.	Advertising must be separate from program.
Greece	Not regulated.	Not regulated.	Strict separation of program and advertising.
Italy	Allowed if identity and commercial purpose of the caller is made at beginning of the call.	Not regulated.	Advertising and tele-shopping allowed if commercial intention is clear. Auctions prohibited.
Netherlands	Prohibited.	Prohibited.	No subliminal advertising. No advertising on public TV for "avoidable" products.
Spain	Phone sales must be registered.	Same as for telephone sales. Self-regulation.	Advertising separate from program.
Sweden	Allowed if identity and commercial purpose of the caller is made at beginning of the call.	Not regulated.	No subliminal advertising. Sales intention must be clearly identifiable.
United Kingdom	Permissible except for repeat calls. Automated calls allowed.	Not regulated.	Comprehensive regulation.

Source: Institut für Europäisches Wirtschafts- und Verbraucherrecht, Study of the Feasibility of a General Legislative Framework on Fair Trading, November 2000.

User survey of the DICE Database

Recently, the DICE Database introduced a user survey in order to better know what the main interest of the users are. Before entering the database the user is asked to fill out a questionnaire. Participation is voluntary. The questionnaire can be filled before and after a search session. We would be pleased about active participation (www.cesifo.de/DICE).

OECD Health Data 2002

End of 2002 the latest release of OECD Health Data on CD-ROM has been published. The database consists of about 8000 health market related variables which cover - in principle - all OECD countries and extend - again in principle - over the period of 1960 to 1999 or 2000. Some time series start at 1980 and some show estimates for 2001.

The main focus of this database is on the input and the output side of the health market - all what can be more or less easily described in time series. Causes of mortality, measures of morbidity, average length of stay in hospitals by cause of mortality as well as many measures for health related expenditures are reported in great detail.

The way the health market is governed, the rules of the game, the institutional framework, however, is considerably less intensely covered - although this is the information health policy makers and researchers should dispose of in the ongoing reform debate about national health systems in Europe and elsewhere.

The database comes with an easy to handle querying software which allows to construct quickly the tables one wants to have.

Steven Shavell, Foundations of Economic Analysis of Law

This book, forthcoming in 2003, Harvard University Press, partly pre-published in several NBER Working Papers, is on a very important aspect of institutions and regulations. In seven parts and 29 chapters it covers the following topics: Accident Law; Property Law; Contract Law; Litigation and the Legal Process; Public Law Enforcement and Criminal Law; General Structure of the Law; Welfare Economics, Morality, and the Law.

The character of the book is of an analytical-theoretical and normative nature. But it is not too difficult to read. The text of the book is nearly free of any mathematics (which is mainly put into footnotes) and many examples illustrate the points the author wants to make.

However, the book does not describe systematically in a country-comparative way how the existing national (and international) laws on accidents, property, contracts etc. are structured, how they have developed and how they have been reformed in the course of time.

Conferences

Norwegian-German Seminar on Public Economics

The Seminar is held in Munich at the CESifo Conference Centre, 20-21 June, 2003. Speakers are David Wildasin, Kjetil Bjorvatn, Thomas Stratmann and others. (www.cesifo.de)

CESifo Conference on Health and Economic Policy

The Conference is held in Munich, 27-28 June, 2003. The scientific organisers are Robert Fogel (Chicago) and John Komlos (Munich). Speakers are William Nordhaus, T. Paul Schulz, Axel Boersch-Supan and others. (www.cesifo.de)

International Institute of Public Finance, 59th Congress

The Congress is held in Prague, Czech Republic, August 25-28, 2003. The central topic is about "Public Finance and Financial Markets". (www.iipf.net/call.htm)

The Ronald Coase Institute, Workshop

The Institute holds a workshop in Budapest, 6-11 September, 2003. The subject is "Institutional

Analysis". Among the speakers will be Douglass C. North, John Nye, Mary Shirley and others. (www.coase.org)

International Society for New Institutional Economics, 7th Annual Conference

The Conference is held in Budapest, Hungary, September 11-13, 2003. The central topic is "Institutions and Change". Keynote speakers are Douglass C. North and Vernon L. Smith. (www.isnie.org)

DICE

Database for Institutional Comparisons in Europe

www.cesifo.de/DICE

The database DICE was created to stimulate the political and academic discussion on institutional and economic policy reforms. For this purpose, DICE provides country-comparative information on institutions, regulations and the conduct of economic policy.

To date, the following main topics are covered: Labour Market, Public Finances, Social Policy, Pensions, Health, Business Environment, Capital Market and Education. Information about Basic Macro Indicators is added for the convenience of the user.

The information provided comes mainly in the form of tables - with countries as the first column - , but DICE contains also several graphs and short reports.

In most tables all 15 EU and some important non-EU countries are covered. Many topics already contain information on the EU accession countries.

DICE consists mainly of information which is - in principle - also available elsewhere. But we think that the access we provide is very convenient for the user, the presentation is systematic and the main focus is truly on institutions, regulations and economic policy conduct. However, some tables are based on empirical institutional research by ifo and CESifo colleagues as well as the DICE staff.

DICE is a free access database.

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