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HAS BISMARCK BEEN SUNK?

The reform of Germany's pension system introduces the principle of a supplementary, funded pension, which is financed by employees alone, supported by State aid. Thanks to such funding, in addition to the PAYG scheme, pensions will continue to be equivalent to 70% of the average wage. Given the risks associated with the demographic ageing of the population for the equilibrium of the pension scheme, the political dexterity of the project lies in the way it has put forward a constant replacement rate, without raising compulsory contributions. However, the reform is based on very favourable assumptions, which make it likely that it will be difficult to avoid a rise in the retirement age. Furthermore, while the reform does fit into the "Bismarkian" tradition, it nevertheless includes a number of breaks with the past.

The history of modern social security in Germany starts in 1871, when Chancellor Bismarck created compulsory social insurance for employed workers. Insurance for pensions and invalidity were introduced in 1889. It was managed on a funded basis: a subsidy by the Empire was provided on top of joint, equal contributions paid by employees and employers[1]. Pensions were paid to workers over 70, provided that they had contributed for at least 30 years. In 1913, the scheme was extended to include office-workers, and in 1916 the retirement age was brought down to 65. Progressively, pensions and benefits have been increased and generalised, notably to self-employed workers.

The German model spread to much of continental Europe in the wake of World War I. But World War II, coming after the crises of the inter-war years, strongly affected pension insurance as assets had been wiped out by inflation. In order to carry on paying pension even though the pension funds were empty, governments had to resort to Pay-As-You-Go (PAYG) schemes, whereby pensions are directly financed by the workforce.

Great Britain's history has been different. Though social security was organised along the lines of continental Europe, the Beveridge Report (1942) argued for a systematic struggle against want and favoured the creation of minimum benefits, which are uniform and universal, that are to be topped up by voluntary contributions to private schemes. Britain's pension scheme, which includes a minimum rate, follows on from this model. It was extended to *Commonwealth* countries. The differences in the two schemes make it possible to stress the specificities of the German model:

– the German pension scheme is insurance-based: contributions and benefits are proportional to wages. The strong link between the rights acquired and the contributions paid justifies the fact that such "Bismarckian" schemes are qualified as "contributory". In contrast, "Beveridgian" schemes are characterised by redistribution, as they lead to minimum, uniform pensions. There is no minimum pension in the German scheme.

– joint financing (by employees and employers) and co-management are the rule: companies and wage-earners contribute the same amount and are equally implicated in the management of the pension contribution funds.

– the State plays a central role: by making pension contributions compulsory, the State fulfils its duty of insuring all its citizens against their own lack of foresight.

1. These measures have lasted until today: the federal subsidy is henceforth funded by an ecotax, and accounts for 30% of pension insurance.

The Present Regime

In terms of its generosity, Germany's scheme presently falls within the average of compulsory schemes in Europe: an industrial worker with a full working life on an average salary will essentially acquire a net pension equal to 70% of his/her last wage, as in France. This replacement rate on retirement (see box) is approximately 40% in Ireland and a little more than 100% in Greece.

unilaterally, to some or all employees, based on reserves built up on their balance-sheets. This mechanism benefits from tax advantages accruing to companies and employees. Similar to France's employee saving schemes, the scheme allows companies to retain capital. Since the Law of 1974, companies have been obliged to contribute to a mutual guaranteed fund which insures such schemes in the case of insolvency. About 4 million employees have access to such schemes, mainly in large companies.

Box: Some Definitions

A PAYG, or Pay-As-You-Go, scheme is based on the idea that benefits paid out are financed by contributions or taxes paid into the scheme, in each period. Some PAYG schemes do have reserves, whose related financial products have been ignored here in order to simplify the analysis.

The PAYG scheme's equilibrium is this indicated as:

The sum of all contributions = The sum of all benefits

or:

*Rate of contribution * Number of employees * Average wage = Average pension * Number of pensioners*

or:

*Rate of contribution = The macroeconomic replacement rate * Dependency ratio*

Where:

– the dependency ratio is the ratio of the number of pensioners to the number of contributors;

– the macroeconomic replacement rate is defined as the relationship between the average pension and the average salary, of the economy.

This latter ratio provides a measure of the share of pensions with respect to income in a country. It differs quite notably from the "theoretical" replacement rate yielded by the rules of the scheme, which is the replacement rate accorded after a full working life. The macroeconomic replacement rate depends especially on the indexing rules: for example, when pensions are indexed on prices (as has been the case of the German scheme for 2 years) the pension/wage ratio will fall over pensioners' lifetime, given that wages rise faster than prices. In contrast, indexing pensions on wages ensures that the ratio remains stable.

Pensions paid out by the compulsory scheme have an important place in pensioners' income, as they account for about 87% of income (in Great Britain the proportion is 43%, and in Italy it is 97%). Leaving aside government employees, the same scheme covers the whole population, and is based on a single pillar: there is no distinction between the basic scheme and the supplementary scheme. The system is based on "points": pensions are the product of the number of points accumulated throughout a person's working life multiplied by the value of each point at the moment of liquidation. The sum of all points is itself affected by a liquidation coefficient, which is drawn down for early retirement and raised for late retirement (Table 1). Despite such encouragement for late retirement, working life generally stops well below 65, as is the case in a majority of European countries: only about 39% of those aged 55 to 64 work.

Table 1 - The liquidation of pensions coefficient as a function of age at liquidation (%)

62 years	63yrs	64yrs	64yrs	66yrs	67yrs	68yrs	69yrs
89.2	92.8	96.4	100	106	112	118	124

Source : Ministry of Labour and Social Affairs.

Given the generosity of the scheme, additional pension schemes have developed little in Germany. They are not compulsory, except when they are set out in collective conventions for certain sectors. The most original versions of these latter schemes stem from the direct commitment by employers to pay out pensions

The Demographic Constraint

Over the next decades, the equilibrium of the German pension scheme will be affected by an unfavourable evolution of the "dependency ratio", in other words by a rise in the number of pensioners relative to the number of contributors. A significant rise in life expectancy (forecast at 82 years by 2040), and a low fertility rate (1.3 children per woman in 2000) will more than double the ratio of the population aged over 65 compared to those aged between 15 and 64, between now and 2050. Germany thus finds itself among the most strongly affected countries in the OECD (see Table 2).

On the basis of such demographic trends, three parameters may influence the dependency ratio: the age of retirement, which when raised will cause the number of retirees to fall while increasing the working population; an increase in the activity rate of the population of working age (especially of women); and lastly a fall in the rate of unemployment, which augments

Table 2 - The ratio of the population aged over 65 to that aged 15-64 (%)

	2000	2025	2050
United States	19	29	35
Germany	23	34	52
France	25	37	47
Italy	26	41	69

Source: United Nations, Demographic Yearbook.

the ratio of the employed (contributing) population to the active population. However, it must be understood that as far as the latter two parameters are concerned, any additional activity also leads to a greater accumulation of rights, especially in Bismarkian schemes. Their effects on the equilibrium of the pension scheme are thus only transitory. Furthermore, these effects are only limited in scale: a fall in unemployment, for example, will only lead to a small rise in contributions relative to the doubling of the dependency ratio.

Under these circumstances, the pension scheme contribution rate should rise significantly if no measures are taken to alter the retirement age or the replacement rate (see box). Table 3 provides an example of projections made in this area. For about ten years, several reforms have tried to adapt the German regime to this constraint.

Table 3 - The pension contribution rate 1995-2040 (%)

1995	2010	2020	2030	2040
18.6	21.5	23.3	26.3	27.1

Source: Institut Prognos, median scenario[2].

Reforming the Pension Scheme

After two marginal reforms in 1992 and 1999, the current reform is being promoted as structural. The *Rentenstrukturreform 2000* is indeed ambitious: in the face of the doubling of the dependency ratio, it is striving to limit the rise in compulsory contributions by employees and companies, while at the same time holding the replacement rate steady. This challenge is to be met by setting up a supplementary funded pension on top a modified version of the basic scheme. The reform project, which is being managed by the Social Democrat Minister W. Riester, has undergone several modifications since 1999, as a result of pressure by the unions and by the opposition. It has been broken down into two components:

The first component relates to setting new parameters for the PAYG scheme. It was adopted in January 2001 by parliament, after several changes.

The initial project of the governing coalition envisaged a gradual cutback in the replacement rate from 70% to 64%, through to 2030. This was judged as unfair because it meant differentiating the replacement the across cohorts of retirees. The project was modified, in December 2000, and has led to an agreement between the government and the social partners. According this agreement, the replacement rate floor has been increased to 67% for a complete working life of 45 years at the average wage, with young and old retirees to be treated identically. In addition, pensions are once again to be indexed on net wages, whereas for two years they have been set to follow prices (see box). Nevertheless, this concession is less important than it appears. The rising of the replacement rate comes with a new way of calculating pensions. On the one hand, tax exemptions that increase low wages are no longer taken into account in calculating pensions, thus reducing the latter. On the other hand, the net wage is henceforth taken as being not just net of PAYG contributions, but also as net of contributions to the funded scheme. Both of these changes to the way in which the replacement rate is calculated actually bring the rate back to its level of 64% of the net average wage, as stipulated in the first project. The authorities have not therefore made any concessions on this point. As a proof, the contribution ceiling of 22% planned for 2030 in the initial project has not been called into question, even though it is now linked to an apparently higher replacement rate.

In exchange for these “concessions”, the unions have accepted *the second component* and real cornerstone of the reform, namely the principle of having a supplementary pension based on funding by employees alone, though supported by State aid. Indeed, it is only thanks to the combination of funding and PAYG that pensions will be able to continue to be equivalent to 70% of the average wage. 3

Wage-earners will have the possibility (not the obligation) of saving up to 4% of their gross salary for retirement, by 2008. Such savings schemes may be initiated by individuals, companies or sectors. Public aid will be accorded to them, provided that the schemes guarantee wage-earners against any loss of capital (the guaranteed rate of return must be at least zero), and that they provide pensioners with a fixed annuity of unlimited duration, which will be subject to tax. Half the State aid will come from the federal budget, and the other half from the *Länder*. Depending on the choice made by savers, such aid is distributed as a tax rebate or as a State bonus (which should help seduce the less-privileged sections of the population). The cost is estimated to be approximately € 10 billion, as of 2008, the year when the reforms will mature[3]. Given the involvement of the *Länder*, and costs they must bear, as well as opposition from the CDU-CSU, the reform was only adopted in Germany's Upper Chamber (*Bundesrat*) the 11 May last. The Law will enter into force in 2002.

2. The Institut Prognos is a private research institute which has carried out forecasts for the equilibrium of the German scheme, based on various combinations of different economic and demographic assumptions. The demographic assumptions may differ from those presented here in Table 2. Prognos, for example, assumes annual migration flows of 210 000 persons per year.

3. The total cost of the reform could be significantly greater. Today, pensions are only partially taxed though contributions, which is set to change. This will lead to further costs to the federal budget, estimated at € 5 billion per year.

A Substantial Break with the Past?

The political dexterity of the project lies in the fact that the replacement rate is held constant in the years to come, without compulsory contributions rising. This nevertheless relies on two assumptions. The first relates to the rational behaviour of households, faced by the tax which should encourage them to save as expected. The second assumption concerns the rate of return on the saved funds: the simulations of pension scheme's equilibrium are based on a 5.5% rate of return. Such a rate, however, would appear difficult to achieve because of the proliferation of guarantees and prudential rules[4] on the one hand and difficult to maintain over the long term on the other hand. This rate of return in indeed far higher than the potential rate of growth of the German economy, which itself has been diminished by the fall in the working population[5]. Furthermore, it should be stressed that as the scheme is based on defined contributions[6], its members cannot be sure about how much they will gain from their savings. Under these conditions, stating a replacement rate is somewhat illusionary.

On the other hand, it seems unlikely that it will be possible to avoid raising the retirement age: numerous commentators have stressed that simulations have been carried out, based on very favourable assumptions concerning PAYG regimes, relating especially to constant life expectancy and a relatively dynamic fertility rate. Less favourable demographic trends would make holding the age of retirement incompatible with a limited fall in the replacement rate provided for by the compulsory regime and the rate ceiling on contributions which has been written into the reform.

Apart from such economic and financial aspects, many commentators have underlined the change in philosophy introduced into the German retirement system. They see the reform abandoning the principle of intra-generational redistribution. But, as remarked above, the orginal philosophy of the German retirement regime was not re-distributive but contributory[7]. Another point which is often made is that introducing a degree of funding actually constitutes a real "revolution". But, as has already been pointed out, this form of management characterised the original schemes. The proposed reform indeed fits in with the first schemes. The reform put forward thus continues the "each according to his/her work" model: the re-indexing on net salaries, the strengthened link to individual career paths, the absence of any form of a minimum pension all mark out the Riester reform as being strongly within the Bismarckian tradition.

Breaks points have to be found elsewhere, and even if the share of funding remains small, the change is indeed symbolic: the financing of pension savings by wage-earners alone challenges the concept of parity: social security is no longer the shared responsibility of wage-earners and their employees. Furthermore, as such saving is optional, welfare for senior citizens becomes the responsibility of individuals in part, while the State loses the central role it had in financing compulsory retirement. To fill the gap left by the partial withdrawal of the State, a branch-specific pension fund has been set up in the metal-working industries. It is to be expected that wage negotiations will cover all pensions and that there will be a greater demand for guarantees. The project in this branch aims to benefit from the reforms, by extending the scheme's coverage to small companies and by applying the principle of ethical investments.

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4. The Federal Association of German Bankers estimates that the obligation to guarantee capital on savings products leads to a loss on the rate of return of 3% by German pension funds compared to Anglo-Saxon funds.
5 For the role of financial globalisation in the rate of return on savings see: "Our Future Pensions and Globalisation: An Exploration of the Issue Using the INGENUE Model", *La Lettre du CEPII*, April 2001.
6. Pension savings may take two forms: either benefits are defined, so that pensions are then guaranteed and the financial risk falls on the promoter of the scheme; or contributions are defined, in which case fixed contributions will finance pensions that are liable to vary given financial returns, so that the risk falls on the saver.
7. Reform accentuates this contributory character by limiting reversion pensions to widows or orphans, which have not been financed by contributions. However, the means testing of such pensions introduces a degree of redistribution for low income earners (50% of the average wage), as does the pension supplement for having children.

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