

# CESifo *Working Paper Series*

## THE THREAT TO THE GERMAN WELFARE STATE

Hans-Werner Sinn\*

Working Paper No. 320

July 2000

*CESifo*

*Poschingerstr. 5*

*81679 Munich*

*Germany*

*Phone: +49 (89) 9224-1410/1425*

*Fax: +49 (89) 9224-1409*

*<http://www.CESifo.de>*

---

\* The author extends his thanks to Marcel Thum, Holger Feist and Michael Reutter for their helpful comments on this paper. This paper is based on a lecture first given to the Verein für Socialpolitik in 1998.

*CESifo Working Paper No. 320  
July 2000*

## THE THREAT TO THE GERMAN WELFARE STATE

### Abstract

Germany is in a dilemma. Low wage competition via product and factor markets increases the demands on the welfare state, but increased systems competition in the context of international factor mobility reduces the possibilities of maintaining it. The welfare state has important allocative functions. It is an insurance against career risks and it stimulates risk taking and economic growth. However, it also has severe moral hazard effects by reducing work incentives. To help the welfare state survive and improve its performance, the paper advocates the home country principle for the treatment of immigrants, the introduction of funded elements in the pension system, and employment subsidies at the expense of ordinary welfare payments.

JEL Classification: H53, H55, H73, H77

*Hans-Werner Sinn  
CESifo  
Poschingerstr. 5  
81679 Munich  
Germany  
email: SINN@ifo.de*

## **The Threat to the German Welfare State**

### **A. A special historical situation**

Germany now faces a special historical situation with three concurrent developments as potential burdens for the welfare state.

First of all, the German economy is facing increasing competitive pressure from low-wage countries. With globalization high German wages are being compared more frequently with wages in other parts of the world, and in comparisons of investment locations, Germany is increasingly at a disadvantage. The Asian crisis only brought temporary relief. With devalued currencies, the countries in the Far East have become even stronger competitors. In addition, there is new competition in Eastern Europe. Poland is experiencing an economic boom, the crisis in the Czech Republic will soon be overcome, and western Hungary is presently one of the fastest growing regions in Europe. At wages that are often only one tenth of German wages, Germany is being put under pressure. The new tigers at Germany's doorstep are preparing to leap. Wage competition will create unemployment in Germany if high wages are defended, and if they are not defended poverty will be created in the lower social strata. Assistance from the welfare state is more crucial than ever before in this situation.

Secondly, the German population is ageing. The Germans are not only becoming older, they are also having fewer children. DINKs are in. With two incomes and no children, per capita income is five times higher than with three children and one income. It is not surprising that over the lifetimes of every ten Germans, less than seven children are born and that Germany occupies the third last position in international birth statistics.

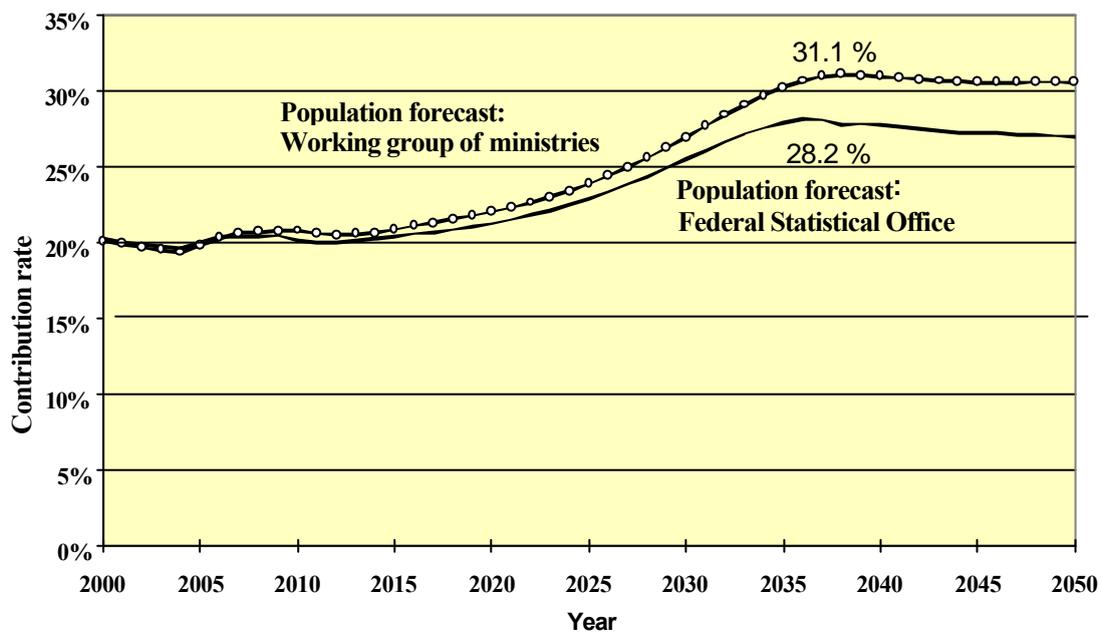
In the mid-2030s, when people who are now in their thirties or forties will retire, the ratio of elderly over 65 to young people over 20 will be twice as high as it is today, which will also be the case despite the alleviation, as assumed by the German Federal Statistical Office, of 11 million immigrants. A social security computer simulation is not necessary to realize that this will be the end of the pay-as-you-go pension system. With the pension system as it was in 1992, the shift in the ratio between old and young would mean a doubling of the current 20% contribution rate for the social insurance system to 40%; without an increase in the contribution rate, pensions in 2035 would only be half of that which was originally promised to the

contributors. The choice open to policy-makers lies between halving pensions and doubling the contribution rate – a magic bullet does not exist.

With pension cuts, as have been implemented by reform legislation between 1992 and 1999, a middle way between the two extremes was chosen. If the percentage of employees obliged to pay into the social insurance system in the working population and the average income tax rate remain constant, the contribution rate will rise to about 30% by 2035. This is the result of calculations made by CES for the Scientific Advisory Council to the German Federal Ministry of Economics.

Figure 1 illustrates the results of these calculations.<sup>1</sup>

Figure 1: The development of the social insurance contribution rate



Source: Scientific Advisory Council (1998).

German unification is the third factor – besides globalization and the ageing population – that is putting pressure on the welfare state. The recovery has not gone as smoothly as the politicians wanted the public to believe. Today, eastern Germany has an absorption of DM 650 billion but the national product is

<sup>1</sup> The forecast begins in 2000 with the same contribution rate as forecast by the federal government for this year (see Wissenschaftlicher Beirat 1998, p. 9 and Bundesministerium für Arbeit und Sozialordnung 1997, p. 17). In accordance with the 1999 Social Insurance Reform Law, an increase in the federal subsidy of one percentage point is included. For the following years it is assumed that the changes in the level of ad-hoc benefits paid by the social insurance system, but not inherent to it, will be covered by changes in the federal subsidy in correspondence to prevailing legislation.

only about DM 440 billion. The goods and services used by private households and governments exceed east Germany's own production by about half – an intolerable situation. A third of the eastern German deficit on the current account is financed by private capital imports, two-thirds by public transfers, a small portion of which are for investments and the major portion, however, for social spending. This is all financed on credit. Before unification, the German national debt stood at DM 900 billion; today it is DM 2.2 trillion. It has more than doubled.

The debt to GDP ratio that has resulted is 60% today. If we calculate the implicit national debt, which exists today in the form of social insurance entitlements and which is now at an astonishing 290%, the debt ratio is a total of 350%. GNP of three and a half years has been pawned off.

With this policy, Germany is sinning against the coming generation. The present generation is burdening future generations not only with social insurance contribution rates that will approach 30% but also with additional taxes to service the enormous national debt. Germans cannot go on shifting the burdens of the welfare state into the future but must finally begin to either reduce the debt today or to bear the burdens themselves.

## **B. The dilemma of the welfare state**

Bearing burdens oneself is easier said than done since tax increases are hardly possible in an age of growing globalization. Globalization is not only putting pressure on wages and increasing the need for protection from the welfare state, it is also leading to competition among welfare states that is setting spending limits that would not exist in a closed economy. If borders are open for goods and factors, legislators must consider the effects of every tax reform on the internationally mobile factors. The German debate on locational attractiveness clearly illustrates this consideration. Fiscal taxes, which load a net burden onto a mobile factor beyond the cost of the infrastructure used by that factor, and which are needed in order to finance the welfare state are hardly possible any more. Thus, especially highly mobile international capital can no longer be used to finance the welfare state in future.

This is a real dilemma. At a time when low-wage competition creates poverty, where an ageing population leads to new social insurance contribution burdens, and where social transfers are needed to

cushion the difficult transformation problems in eastern Germany, the increasingly fierce competition between welfare systems is robbing the welfare state of part of its revenue base.

In addition, in a world with a free movement of factors, the measures of the welfare state have lost a good deal of their effectiveness since the welfare state attracts the poor. Why does the major portion of EU immigrants land up in Germany and why do more and more people from non-EU countries stream to Germany? This certainly has something to do with the generosity of the welfare system.

Immigrating refugees of poverty neutralize to some extent the national effects of welfare-state measures, since the immigrants offer their labour in the same underground economy as the domestic poor and since they seek housing in the same housing market. They rob the domestic poor of market opportunities, they lower their wages, and they increase their rents. In short, they lower the degree of target fulfilment of domestic welfare policies.

At the same time, of course, the target fulfilment degree of foreign social policies is increased. When the poor in other countries leave, there is a reverse effect on market opportunities, rents, and the wages of the poor that remain there. With free migration the impact of national social policies is partially exported, and for this reason the national possibilities and incentives for continuing such policies at previous levels are reduced.

### **C. Why we need the welfare state**

There are people who welcome this development either because they must pay for the welfare state or because they feel that the sluggards encouraged by the welfare state cost more than the benefits derived from a more even distribution of income. However, things are not that straightforward.

It is certainly true that the welfare state leads to extremely problematic behavioural effects. These are well known. The most important are the effects of unemployment compensation and welfare payments on the labour market supply. Both systems only pay benefits, seemingly in accordance with their principles, when people do not work. They are thus not only assistance for the needy but also subsidies for idleness. If idleness is subsidized then it is no wonder that more and more people decide to do nothing. Or as Friedman once said, in words to this effect, by subsidizing poverty you create poverty.

Welfare entitlements are almost more problematic than unemployment compensation since their amount is not linked to how high wages are. Welfare payments, for all practical purposes, create a minimum wage in the German wage negotiation system, since no one would work if wages are below welfare benefits. For this reason the level of the lowest negotiated-wage group is already established before wage negotiations actually begin. Germany does have a prescribed minimum wage even if lawyers seek in vain the corresponding laws where this is stipulated. People whose marginal product of labour lies below this minimum wage are unable to find market employment.

Added to this are the negative incentives of income tax and social insurance contributions, at least to the extent that these taxes have no equivalence relation and are not regarded as the price for what the state gives in return. In recent decades the factor labour has had to bear an increasingly large portion of the state's financing burden. It is no wonder that many have sought refuge in the underground economy, in domestic activities, and in self-employment.

With all these negative incentives, the positive effects of the welfare state must not be overlooked. The most frequently mentioned are social peace and the reduction of crime. These are certainly important effects, but two others are even more important. The most important is protection itself, since no one knows whether they or their children might someday be dependent on this protection. We live in an uncertain world, especially in the long term. Who is able to predict the income status that their children and grandchildren will have? What expectant couple knows whether their child will be healthy or sick, whether it will have good or bad teachers, how intelligent it will be, what professional opportunities it will have, etc.? The welfare state, the redistributive state in itself, provides this couple with valuable insurance protection against career risks that they could never acquire on the private insurance market. In the legal system of the Western world it is not possible for parents to make binding redistribution contracts for their children. They can, of course, bring about a transfer of resources for their children themselves, but they cannot sign a contract that would force their children, if they are successful, to transfer resources to the less successful children of other people. What they can do is to induce such a transfer of resources politically by voting for socially oriented parties, which in fact is what they do. The redistributing state can be seen in this respect as an allocation enhancing insurance institution that fills a gap that cannot be filled by the private insurance market.

A positive result of the insurance protection that the redistributing state offers is an increase in people's willingness to take risks and the associated enlargement of the national product (see Sinn 1996). Any insurance, alongside the problematic moral hazard effects, also has an increase in risk taking as a result, which in itself is positive since it enables the insured person to take advantage of promising situations in life that he otherwise would have been hesitant to do. With career insurance which is offered by the redistributing activity of the welfare state, it is no different. It would not be surprising if it turned out to be the case that the advantage of the indirect productivity effects of the welfare state exceed the direct insurance advantage that results from its equalizing effects. A recent study by Bird (1998) has demonstrated that the welfare state indeed has a significant influence on risk taking. In a comprehensive, cross-sectional analysis of many countries he has shown that the share of the welfare state's expenses in the national product is positively correlated with the variation in the lifetime incomes of its citizens, and he concludes that the welfare state thus contributes to economic growth.

In light of these considerations we should be wary of labelling the welfare state in itself as a foe of efficiency and of referring to the alleged goal conflict between just distribution and efficiency. We should also stop trying to interpret the redistributive elements in the health insurance and pension systems as alien to the insurance purpose. This is all much too short-sighted. Despite the numerous moral hazard effects that it produces, the welfare state can be understood to be, at heart, an institution which in comparison to the market is able to bring about Pareto welfare gains.

For this reason caution against rash cutbacks and also against placing trust in the forces of competition among social-welfare systems is appropriate. This competition will damage the welfare state, and it is hard to see how it can improve it. Even a well-designed welfare state has only a very slight chance of surviving this competition.

## **D. Necessary reforms of welfare benefits**

Instead of massive cutbacks forced by competition among social-welfare systems, I place my hopes in reason and systematic reforms that will reduce the negative behavioural effects touched off by the welfare state.

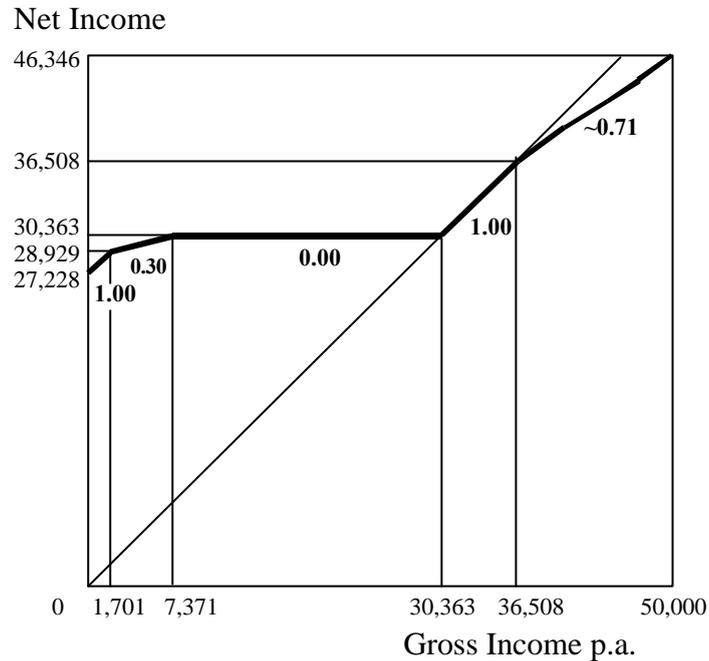
### **I. Subsidize employment instead of idleness**

Let's begin with a reform of welfare benefits. It is sometimes said that welfare, because of its low financing volume in comparison to the overall pension level, has no impact on the amount of unemployment. This is not true. Since welfare, as mentioned, introduces a minimum wage in the negotiated wage system, the extent of its effects has little to do with the financing volume. It makes marginal labour, which is most susceptible to dismissals, more expensive and shifts the whole wage scale upwards.

In order to comprehend the nature of false incentives, it is helpful to look at a concrete example. A family of five in Germany receives ca. DM 30,000 in welfare payments if no one works in this family. If a family member decides to work, welfare payments are reduced one-to-one with the increase in family income. This has an extremely harmful effect on the labour market and is a confiscatory tax of the last additionally earned D-Mark: the marginal rate of taxation amounts to 100%. Figure 2 illustrates this case. Before reducing the marginal rate of ordinary taxation, one should first lower the implicit marginal rate of taxation of welfare recipients to under 100%.

In principle, a welfare system can be designed in three ways. First, it can be constructed in such a way that welfare is cut off when the recipient works. Then it is a subsidy for idleness, as in the German system. Second, assistance can be paid regardless of whether one works or not. Then it is the concept of the negative income tax (*Bürgergeld*) which many economists favour. Third, welfare could be designed in a way that it is only paid when the recipient works, with exceptions for medical problems. Then welfare becomes an employment subsidy.

Figure 2: Welfare benefits in Germany – for a family of five



It is desirable to pattern reforms according to the third variant, i.e. to reduce benefits for the idleness of those able to work and instead to reward industriousness. An increase in the permissible income for only a partial offsetting of welfare, e.g. an increase in the current level of DM 7,371 for the case exemplified in Figure 2, would not suffice at all since the implicit marginal rate of taxation at 70% would still be too high. Introducing a negative income tax would mean setting the marginal rate of taxation at zero, and the employment subsidy would mean that the implicit marginal rate of taxation would be negative. It is indeed my position that we should make the implicit marginal rate of taxation negative for those people whose marginal product is below current welfare levels.

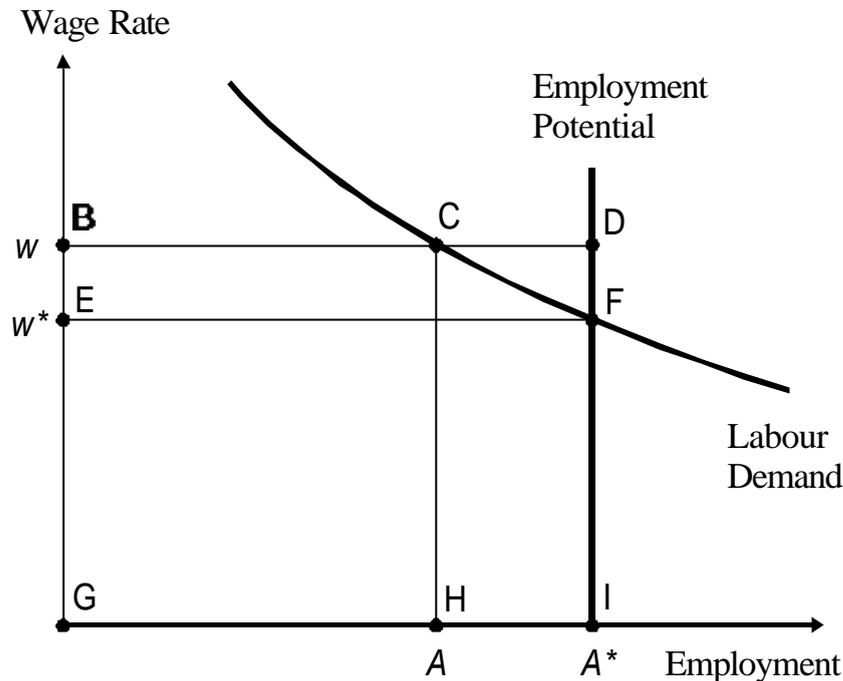
The recent discussion in Germany about “combi-wages” points in the right direction. Of course, the scale of welfare payments would have to be reduced in accordance with the combi-wage that is paid so that the burden to the state remains neutral. The neutrality of the burden to the state must have top priority, since an expansion of the state financing volume is out of the question. There is no one on whom the additional tax burden can be imposed. It is a problem, however, that the combi-wage is linked to the amount of the earlier wage, since this makes the measure very expensive for the state. The subsidy component should only bridge the gap between welfare and market wages when such a gap exists. For jobs in the upper segments of negotiated wage settlements, an employment subsidy is not appropriate.

Both the negative income tax as well as the employment subsidy would eliminate the minimum wage in the present system. Most people would be prepared to work for wages below current welfare benefits if they could assume that they could keep their welfare payments; and everyone who could work would if they knew that without work they would receive nothing but with work both wages and welfare payments. With minimum wages, which under the new regime could be in the neighbourhood of DM 8 per hour, new jobs would mushroom.

The impression is often given that a market economy only has a fixed amount of jobs to distribute. Such claims, often made by sociologists, are pure nonsense. In five years Israel expanded its economically active population by one quarter when Russia allowed its Jewish citizen to emigrate, but this did not cause an increase in the unemployment rate. Since they couldn't have lived otherwise, people looked for work, were productive, earned incomes and developed effective demand. Supply-side policies are often the best demand-side policies, in line with Say's law. The often-cited examples from the Netherlands and the U.S. show how flexibly the labour market reacts if it is only allowed to.

The employment subsidy cannot be implemented vigorously, since many people only react very slowly and because they must be helped in the transitional phase to find new employment. The negative income tax may be more realistic but is also very expensive. The state will hardly be able to afford granting all its citizens a negative income tax. For this reason welfare payments can only be lowered gradually in favour of an increasing employment subsidy. Nevertheless, the target-fulfilment degree of social policy will continue to rise in the course of time since additional jobs will be created: people at the lower end of the income scale will still receive welfare assistance and in addition also wages for their labour.

Figure 3: Subsidizing employment versus subsidizing idleness



Consider Figure 3, which illustrates the market for simple labour. According to the present system a welfare benefit is paid amounting to  $BG$  or  $CH$ . Since this assistance is only paid when the recipient does not work, it causes an amount  $HI$  of unemployment and leads to a minimum wage and actual wage equal to  $BG$ . If the system is converted to employment subsidization, it induces unions to allow a lower wage, since only in this way will employees qualify for the employment subsidy. The wage rate will fall to  $EG$  and employment will rise to  $GI$ . In order to prevent a lowering of incomes, the state pays a wage or employment subsidy of  $BE$  per person. If the wage and the new kind of welfare payment is taken together a person now has just as much income as before in case of employment or as a welfare recipient, while unemployment has vanished. However, the government may have to spend more or less money on welfare. It is not difficult to see, and equations can easily be produced to show, that welfare becomes cheaper for the state precisely when the elasticity of the labour demand curve is larger than one in absolute terms, i.e. when the demand curve in the relevant area is flatter than a equally sided hyperbola.<sup>2</sup> The area  $BDFE$ ,

<sup>2</sup> We take a labour market in which in a laissez-faire situation without state intervention a combination of wage rate and employment ( $w^*$ ,  $A^*$ ) would be realised. For political reasons a minimum wage  $w$  is aimed at, which can be implemented by a welfare benefit of the same amount. We define the resulting unemployment  $A^* - A$  as share of the total of available labour volume  $A^*$ :

which measures the costs of employment subsidization, is then smaller than the area CDIH, which measures the costs of ordinary welfare.

We know from macroeconomic production theory that the long-term elasticity of the labour demand curve for a given capital stock corresponds to the quotient of the elasticity of substitution between capital and labour and the partial production elasticity of capital. The numerator in the quotient is set in many empirical studies at a good 0.6 and the denominator at approximately one third. Accordingly, the long-term demand elasticity is nearly two.<sup>3</sup> If this result can be transposed, it is apparent that the employment subsidy, at the same target fulfilment degree of social policy, is cheaper for the state than the currently practised subsidizing of idleness. The same could be said, with some restrictions, also for the negative income tax.

The results apply a fortiori if we take into consideration that lowered wages make it worthwhile expanding capital invested. In this case the elasticity of the labour demand curve is much greater and the fiscal costs of employment subsidization even smaller. In a theoretically ideal situation of perfect international mobility of the other factors of production and internationally fixed levels of the corresponding

$$(1) \quad A^* - A = \gamma A^* (= HI)$$

Alternatively, the difference between the desired wage and the laissez-faire wage,  $w - w^*$ , can also be bridged by a wage subsidy, whose rate is a share  $\delta$  of the desired wage:

$$(2) \quad w - w^* = \delta w (= DF)$$

Budget costs  $K$  arise in the welfare assistance solution by payments of  $w$  to the unemployed and in the wage subsidy solution by payments of subsidy  $w - w^*$  to the employed. For the ratio of budget costs we have:

$$(3) \quad \frac{K_{welfare}}{K_{wage\ subsidy}} = \frac{(A^* - A)w}{(w - w^*)A^*} = \frac{\gamma w A^*}{\delta w A^*} = \frac{\gamma}{\delta}$$

The ratio between  $\gamma$  and  $\delta$  is the elasticity of labour demand with regard to the wage rate. This is easily seen when equations (1) and (2) are rewritten as

$$(4) \quad \gamma = \frac{A^* - A}{A^*} = -\frac{\Delta A}{A^*} \text{ and}$$

$$(5) \quad \delta = \frac{w - w^*}{w^*} = \frac{\Delta w}{w}$$

It is evident that (3) to (5) imply

$$(6) \quad \frac{K_{welfare}}{K_{wage\ subsidy}} = -\frac{\Delta A / A^*}{\Delta w / w^*} \equiv -\eta_{A,w}$$

where  $\eta_{A,w}$  is the labour demand elasticity. Whether the budget costs in welfare payments are greater or less than the budget costs in wage subsidies thus depends on labour demand elasticity. If we assume that  $|\eta_{A,w}| > 1$ , the budget costs of welfare at the given target fulfilment degree of welfare are above the costs of employment subsidization.

<sup>3</sup> Burgess (1988) determined a value of 1.85, Nikell and Symons (1990) 1.92. In other studies, such as Franz and König (1986), the elasticity was found to be one.

factor payments, the elasticity of labour demand would be infinitely large, and the wage subsidy could cost close to nothing relative to the fiscal burden of the current welfare system.

Some objectors to the employment subsidy claim that it would produce high free-rider effects and would thus be too expensive. It may be useful, they would argue, if it could be limited to the present unemployed but it could no longer be financed if those who have jobs could also take advantage of it. This objection is not very convincing if we consider that the employment subsidy suggested here has its effect by making possible and stimulating the emergence of a new negotiated-wage group beneath the present welfare level. We must distinguish two types of free-rider effects. On the one hand, employees in higher wage groups may be tempted to let themselves be categorized at a lower level so they qualify for the subsidy. On the other hand, employees currently working at a wage close to the welfare level could claim the subsidy although they would also have worked even without the subsidy.

The first type of free-rider effect is not likely since the claimed subsidy only fills the wage-gap to the level of current welfare payments. Whoever earns more than the welfare level and now classifies himself below the welfare level in order to qualify for the subsidy only harms himself since with a total of wages and subsidy he would receive less. The second type of free-rider effect has already been taken into consideration in Figure 3 in which all those already in employment (GH) also qualify for the subsidy. Figure 3 shows that despite the full free-rider effects the state still succeeds in lowering spending without reducing the target fulfilment degree of social policy, and it must be stressed that this free rider effect is a prerequisite for a successful social policy, for without it most people would be worse off because of the wage reduction.

Apart from lowering the costs of social policy while retaining a given degree of target fulfilment, the proposed policy has another major advantage: It enlarges the social product and increases the income of the other factors of production. In Figure 3 the enlargement of the social product is measured by the area CFIH, and the enlargement of the income of the other factors is indicated by the area BCFE. In the case of an absolute value of the demand elasticity of one, both surfaces are equally large. In the realistic case of an elasticity of more than one in absolute terms, the income of the other factors grows by less than the national product. As was shown, the state can then also claim a part of the growing national product for other purposes, because the cost of the welfare measures declines given the income of the needy.

So much for the main considerations of the model on how employment subsidies would work. I am not arguing that, on the basis of this model, the welfare system should be completely changed overnight. But I am arguing for a reform that would dismantle step by step the current subsidy for idleness and replace it with a subsidy for employment in a way that the burden for the state would not increase in the transitional period. I am confident that a socially just reform process can be constructed.

## **II. Home-country instead of residency principle**

An additional reform that could be added to the welfare system is the elimination of the residency principle, a principle that states that everyone regardless of country of origin is entitled to the benefits of his place of residence provided he works or worked there. The principle does not harmonize well with the general liberality in Europe, because it leads to poverty migrations and encourages countries to grant less generous welfare benefits than their neighbours in order to prevent the migration of the poor.

In the U.S., where people are much more mobile than is currently the case in Europe, this effect has had a great influence on the states' social policies. New York City nearly went bankrupt in 1975 after an improvement in its welfare benefits led to its being flooded by the poor of America. High mobility linked with the state of residence being responsibility for welfare has prevented the construction of welfare states in the U.S.

In New York, welfare was granted to immigrants even when they had not previously worked there. In Europe the benefits of the welfare state are granted by a particular country only after the immigrant has worked there or while he is working. Immigration for the mere purpose of collecting welfare is not possible. This speciality mitigates inefficient poverty migrations, but does not eliminate them. The incentive to migrate is distorted whenever the migrant does not receive his marginal product of labour in the immigrant country, and this distortion is in the direction of overly strong migration incentives when poor people migrate to welfare states. By definition, a welfare state takes from the rich and gives to the poor. Most immigrants are poor, in particular those that will come from Eastern Europe once this part of the continent is integrated in the European Union. They are net recipients of public resources in the Western welfare states which they

enter. Thus, too many of them will be attracted, and a downward competitive spiral leading to a dismantling of the Western welfare states will be put in motion.

In order to prevent this development, the EU could convert to the home-country principle in the payment of welfare benefits, a principle that I have proposed for many years and that is also favoured by the Advisory Council of the German Federal Ministry of Economics.<sup>4</sup> According to this principle the country of origin remains responsible for welfare, even if the needy person is residing in another country. This principle is practised in the Swiss cantons with some success, and there is no reason why it cannot be applied within the EU, after appropriate legal adjustment, of course. With this one measure, social policy could be freed of having to take into account the migration that it itself triggers, and the incentive is also removed of entering into systems competition that would destroy the welfare state.

The home-country principle should be applied to migrations of EU citizens within the borders of the Union but not to third countries. For asylum seekers the home-country principle is not applicable because they are under persecution in their own countries. But the flow of asylum seekers is guided to a considerable extent by the generosity of the various national support measures, and this leads to a detrimental competitive pressure on national governments with the effect that asylum seekers receive increasingly poor treatment. This problem can only be solved by a European-wide harmonization of benefits provided for asylum seekers linked to the creation of country quotas.

## **E. The necessary reform of the pension system**

The reform of the pension system is a truly enormous problem in light of the financing volume. What direction should be taken? Many economists argue for a complete transition to a fully-funded plan. In America vehement attacks have been launched against social insurance on a pay-as-you-go (paygo) basis, and the echo of this debate has been clearly heard in Germany. I was a bit taken aback by the force of the arguments and cannot avoid expressing my own reservations.

Most parties in the discussion base their position on the so-called rate of return argument. Empirically it is clear that the internal return on contributions paid in the paygo system is much smaller than

---

<sup>4</sup> See Sinn (1990), Wissenschaftlicher Beirat (1994).

the return that can be obtained in the capital market. According to calculations made by the Munich Center for Economic Studies (CES), under present conditions in Germany a real rate of return of 2% can be expected whereas about a 4% return can be achieved on the capital markets. In the past as well, the rate of return in the pension insurance fund has always been below the capital market yield, except for the initial generation which received their pensions as a gift. The conclusion that many draw is that the pension insurance fund is inefficient because it wastes resources.

This is truly not at all the case. In terms of cash value, social insurance spread over all generations is a zero sum game. That which is gained by the initial generation is lost by the following generations, except for the administrative costs and special effects that may result from the use of different rates of time preference. When the system is running, every generation pays into it to finance the previous generation and accumulates entitlements whose present value is smaller than the inpayments. This explains the rate-of-return difference. The loss in present value terms can be regarded as an implicit tax that every generation must pay. The tax is needed in order to service the implicit public debt in the form of the pension rights that resulted from the gift to the first generation and that is turned over from generation to generation with a growing volume. The present value of this tax that is spread over all generations is equal to the present value of the introductory gains or, measured from an arbitrary point of time onwards, equal to the present value of the then-existing pension entitlements. This is not a matter of semantics, but can be proved rigorously.<sup>5</sup>

To view the implicit tax in the paygo system – which today lies between 50% and 60% of contributions – as an indication of fundamental inefficiency is completely misguided since it is nothing but the result of an intergenerational redistribution. Even with a transition to a funded system this tax cannot be eliminated unless the entitlements that have already been earned are cancelled, which of course is not possible for many reasons. One of them is the property-like character of these entitlements, which has been underscored by the German Constitutional Court. In a transition to a funded system, the present implicit tax that is part of the contributions would have to be converted into an explicit tax. It is a naïve miscalculation to try to derive a fundamental advantage from the yield advantages of the paygo system. Once we include the necessary taxes to cover the old entitlements, there is no longer a net advantage except for, as stated above, a few minor effects of the second or third order which may be related to an improved efficiency on

---

<sup>5</sup> See Sinn (2000).

the capital markets. There is no point in wanting to stretch the tax over time by an inserted public debt either. The present value of the tax burden always remains the same, and it is always exactly the same as the present value of the implicit tax burden in the current system.

For this reason the assertion that the transition to a funded system could alleviate the distortions in the labour market that result from the implicit tax in the paygo system stands on shaky foundations. Without referring to the present value equivalence, Fenge (1995) showed, using other considerations, that a transition to a funded system, starting from a paygo system with individual accounts as in Germany, is no way to bring about Pareto improvements due to a reduction in the labour market distortions. An implication of this finding is that a concentration of the tax burden in a short historical period of time, as would happen with a direct transition to a funded system, would even enlarge the present value of the burden of distortions. In light of the fundamental present value equivalence among all pension systems and potential transition strategies proved in Sinn (2000), it may seem best to keep to the paygo procedure since this system distributes the unavoidable tax burden fairly evenly over the generations.

If allocative arguments are to be used in the choice between a funded and a paygo system, they lie in a completely different area (see Sinn 1998). The paygo system can probably be blamed for the low birth rates that have driven the system into crisis. One hundred years ago, everyone knew that children were necessary to avoid starvation in old age. The fact that no one thinks this way today, although from an economic standpoint nothing has changed, is a clear indication of how much we have grown accustomed to the pension system, and the strong influence this has probably had on reproductive behaviour.

In defence of the paygo system, however, it must be added that it is de facto an insurance against childlessness. If people do not succeed in having children of their own, they can take advantage of the productivity of the children of other people in order to live in old age. One may well imagine that rational citizens, before they know whether they will be able to have children, are prepared to enter into a mutual insurance pact which pools together the uncertain future pension contributions of all children for the purpose of joint old age security. The pension insurance system is such a pooling device.

Finally, the pension insurance system can be interpreted as a means of coercion invented by parents to force their children to pay their pensions, since with the weakened family bonds they might not otherwise be willing to do so voluntarily. A careful reading of Bismarck's speech of 1881 in the Reichstag reveals evidence for such an interpretation.

The problem cannot be examined more deeply here. But it should be pointed out that there is no substantiation for the alleged allocative superiority of the funded system. To this extent we should agree with the position that Breyer (1989) formulated with other arguments years ago.

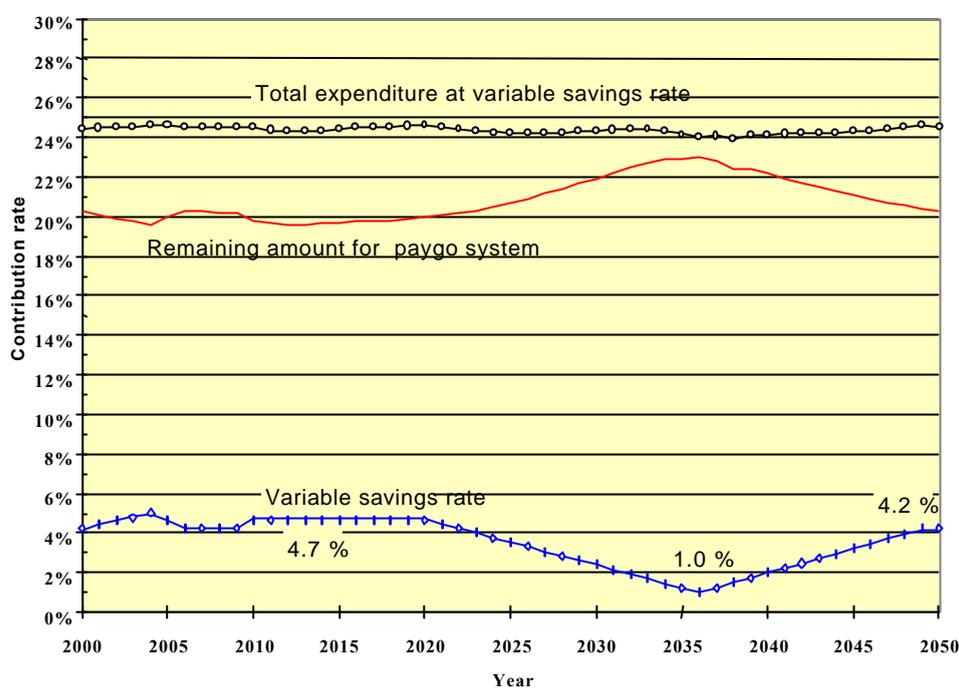
But despite everything, a partial transition to a funded system might be advisable. The reason is not so much because of allocative reasons but because of the looming crisis and considerations of what is just.

To receive an old-age pension, a person must either have children or savings, or in plain and simple terms: one must have formed either human capital or real capital. A generation that has formed neither human capital nor real capital cannot draw a pension. The Germans have decided to form less human capital than they once deemed necessary. This is why they now have a pension crisis.

In order to master the crisis, thought could be given to reducing the false incentives regarding fertility decisions that are inherent in the paygo system and in this way to improve the formation of human capital. But the Germans have already missed this boat. It is already too late for such measures, even without the political overtones it would involve. The only thing that will work, in order to spare the heavy burdens on future generations, is savings in the capital market. To the extent that human capital is missing, real capital must be formed to fill the gap. However, a complete conversion from one system to the other is neither necessary nor helpful if this philosophy is followed.

According to CES calculations, compulsory savings of about 4% of gross wages, which in the regions of the crisis years would be reduced to 1%, would suffice to plug the gaps in the pension system. Total burdens from the paygo contribution and the compulsory savings would be kept to about 24% in the long run without endangering the pension system. As Germany approaches the crisis years around 2035, already one fourth of old-age pensions would be funded, and in the very long term, half of pensions could be covered this way.

Figure 4: The proposal of the Scientific Advisory Council to the  
Federal Ministry of Economic Affairs



The otherwise immanent increase in the contribution rate to 30% would be avoided and the present generation of employed people would not be overburdened, a generation that has decided not to spend as much money as was formerly the norm on raising children. They are the cause of the problem by not having borne enough children and they also have the economic power – because of not having spent as much on children – to accumulate the necessary savings.

Objections may of course be raised that it is not fair to force all members of the present working generation to accumulate capital, since many have in fact made sufficient investment in human capital. Those who have children cannot be made responsible for the crisis of the system. In future, old-age pensions should be differentiated according to the number of children. Those who have caused the crisis and who are sufficiently solvent from the money not spent on child rearing should be required to pay more for funding their pensions than others. The causality principle and the ability-to-pay principle both favour such a differentiated treatment. I will dispense with discussing possible changes in fertility incentives to prevent the superficial reader from drawing the wrong conclusions. We are compelled both by justice and common sense to give the welfare state a more thorough examination than present policy seems to permit.

## References

- Bird, E. (1998): "Does The Welfare State Induce Risk Taking?" Working Paper No. 12, *W. Allen Wallis Institute of Political Economy*, Rochester.
- Breyer, F. (1989): "On the Intergenerational Pareto Efficiency of Pay-as-you-go Financed Pension Schemes," *Journal of Institutional and Theoretical Economics* 145, 643-58.
- Bundesministerium für Arbeit und Sozialordnung (1997): *Entwurf zum Rentenreformgesetz 1999*, Begründung, Gesetzestexte, Erläuterungen, Bonn.
- Burgess, S. (1988): "Employment Adjustment in UK Manufacturing," *Economic Journal* 98, 81-103.
- Fenge, R. (1995): "Pareto-Efficiency of the Pay-as-you-go Pension System with Intergenerational Fairness," *Finanzarchiv* 52, 357-63.
- Franz, W., and H. König (1986): "The Nature and Causes of Unemployment in the Federal Republic of Germany since the 1970s: An Empirical Investigation," *Economica* 53, 219-44.
- Nickell, S., and J. Symons (1990): "The Real Wage-Employment Relationship in the United States," *Journal of Labor Economics* 8, 1-15.
- Sinn, H.-W. (1990): "Tax Harmonization and Tax Competition in Europe," *European Economic Review* 34, papers & proceedings, 489-504.
- Sinn, H.-W. (1996): "Social Insurance, Incentives and Risk Taking," *International Tax and Public Finance* 3, 259-80.
- Sinn, H.-W. (1998): "The Pay-As-You-Go Pension System as a Fertility Insurance and Enforcement Device," NBER Working Paper No. 6610, *National Bureau of Economic Research*, Cambridge, Mass.
- Sinn, H.-W. (2000): "Why a Funded Pension System is Useful and Why it is Not Useful," forthcoming in *International Tax and Public Finance*.
- Wissenschaftlicher Beirat (1994): *Ordnungspolitische Orientierung für die Europäische Union*, Gutachten des wissenschaftlichen Beirats beim Bundesministerium für Wirtschaft, 31 August, Bonn.
- Wissenschaftlicher Beirat (1998): *Grundlegende Reform der gesetzlichen Rentenversicherung*, Gutachten des wissenschaftlichen Beirats beim Bundesministerium für Wirtschaft, 20/21 February, Bonn.