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Discussion paper No. 3

The European Welfare states at the crossroads.

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Foreword

This discussion paper series was conceived as a market place of ideas. It is a place where social protection professionals can air their views on specific issues in their field. Topics may range from highly technical aspects of quantitative analysis to aspects of social protection planning, governance and politics. Authors may come from within the Organisation or be independent experts, as long as they have "something to tell" concerning social protection and are not afraid to speak their mind. All of them contribute to this series in a personal capacity - not as representatives of the Organisations they belong to. The views expressed here are thus entirely personal, they do not necessarily reflect the views of the ILO or other organisations. The only quality requirements are that the papers either fill a gap in our understanding of the functioning of national social protection or add an interesting aspect to the policy debates.

The ILO believes that the worldwide services for a better design and management of social protection is a permanent process which can only be advanced by a frank exchange of ideas. This discussion paper series is thought to be a contribution to the process of publicizing new ideas or new objectives. It thus, contributes to the promotion of social security which is one of the core mandates in the ILO constitution.

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Table of Contents

Comments: Some of the tables referred to in the text have not been included in the Web document. In order to obtain a copy of the document please contact the Social Security Department.

1. Introduction: Can Europe sustain its welfare states?

The national social protection systems or the Welfare States in Europe (the terms are here used interchangeably) are under challenge(2) .

The financial volume of social transfers and hence the necessary tax and contribution levels(3) as well as the allegedly perverse incentives they create, are seen as a threat to economic growth. Persistently high rates of unemployment in Europe are often pinpointed as systemic symptoms for the failure of the European economies to fully exploit their economic potential due to lower than optimum growth rates during the last two decades. European welfare states are seen by their critics as being no longer economically affordable. These observations or interpretations are apt to shake the real foundation of the European Welfare states: their political acceptability.

This paper was triggered by one of the central questions in contemporary European social policy: ***Can Europe sustain its welfare states?***

An absolute normative answer is impossible and can only be approached by comparing the EU welfare states with an extra-European comparator. The US was chosen as an external benchmark. When looking at the differences of the US vs the European concepts of welfare it becomes soon clear that the comparison of the welfare state itself is not sufficient and a comparison between the complete socio-economic systems, i.e. the whole system of production of goods and services in the economies and their patterns of income distribution had to be undertaken.

The notion of economic and financial non-affordability is questioned here and it is demonstrated that the notion can almost entirely be translated into questions of political perceptions and misperceptions and changing political preferences. This paper offers an alternative hypotheses to the classical welfare state-employment nexus regarding the nature of the interrelationship between the economy and the welfare states. It basically concludes that the welfare states on both sides of the Atlantic are only one instrument in a country's set of tools to distribute national income between capital and labour and that the overall social result, i.e. the share of GDP which is allocated as disposable income to non-employer households in Europe

and the US is very similar, but there remain differences with respect to the distributional effects within the global allocation of income to non-employer households.

This paper enters new or uncharted territory and is meant to provoke discussion and thought. It sets out hypotheses rather than definitive answers to the fundamental question of whether developed market economies in Europe can afford their present level of social spending and whether they can maintain them politically.

What is claimed here is that there are good reasons to believe that high levels of social spending in Europe are not only financially sustainable but might even be economically efficient since they help in sustaining high levels of productivity and thus reduce the number of hours that European populations have to work. But paradoxically overall macro-economic efficiency does not necessarily make the European social protection systems politically acceptable or socially sustainable. Due to their failure to cope with unemployment they might be just about to meet the limits of their political acceptability.

However, one warning is in order. The figures and numbers displayed in the text and annex tables have to be interpreted with some caution as they had to be extracted from different sources (i.e. ILO EUROSTAT and OECD) and might hence not be fully compatible. Due to data limitations, the findings cited here should be regarded as estimates rather than crystal clear facts. Much more detailed research into some of the phenomena is needed to make the above findings and interpretations more reliable.

2. The two dimensions of sustainability:

political acceptability and economic affordability

European welfare states are sustainable as long as they are *economically affordable* and *politically accepted***.** One would think that prima facie the second aspect of sustainability is contingent on the first. However, the issue is more complex. Economic affordability is not clearly defined and the notion is blurred by political interpretations or a political virtual and biased image of the reality. The *perceived economic non-affordability* shakes the political acceptability as much as real *economic non-affordability*.

The interrelationship between the two dimensions of sustainability has to be clarified in more detail but first the nucleus of the challenge to the contemporary European social protection systems has to be spelled out.

2.1. The challenge: the alleged economic non-affordability

of the European welfare states

The alleged economic non-affordability of the European levels of social protection is usually built on two arguments: a macro-economic one and a micro-economic one. According to the macro-economic argument high social expenditure triggers high social security contribution rates and high tax rates. High social security contributions cause (together with other social cost caused by allegedly also generous labour legislation) high labour cost which inevitably reduce economic viability of enterprises in view of international competition, they either force them to adopt capital intensive production technologies or relocate to low-cost regions which in turn negatively affects the demand for labour.

Resulting high levels of unemployment are thought to signal that the economy as a whole is operating at below optimum levels of capacity utilisation. The micro-economic behavioural reactions of beneficiaries to social protection benefits are assumed to reinforce the negative macro-economic effects. Benefit levels are thought to provide perverse incentives. If benefit levels are high, people would not actively seek low paid jobs with wages close to or even lower than social protection benefit levels. This is assumed to result in an artificially high non-participation in the labour market financed by various social protection transfers (such as social assistance unemployment benefits, disability benefits and early retirement benefits). The consequentially increased social expenditure in turn negatively affects the competitive position of the economy as a

whole and hence aggravates the negative macro-economic effects of the national social protection systems.

The argumentation is obviously one-sided. It ignores for example the positive effects of social transfers on the stabilisation of aggregate demand for goods and services in an economy. But this is not the topic of this paper.

The observation that social expenditure is too high has two aspects: one -the static aspect- is that the present level of social expenditure is already unsustainable and the other -the dynamic aspect is- is that the future demographic and economic developments in Europe will cause an "explosion" of social expenditure, which will at least in the longer term future render the present social protection systems unsustainable .

Model simulations have shown that there is very little reason to assume that even under fairly conservative growth assumptions the European social expenditure - while somewhat increasing over the next two to three decades - is likely to explode, provided that the present level of employment in the European economies or the EU economy as a whole can be maintained and that resources can be shifted between different categories of social expenditures such as from less needed family benefits and education expenditure to old age benefits(4). Relatively small modifications of the benefit structure would even permit to keep the expenditure at the present level.

Thus the static argument that the European welfare states are already now too expensive to be affordable appears to be of a more principal nature and will be addressed here as a matter of priority in the following sections.

2.2. Solidarity, political acceptability and economic affordability

2.2.1. On solidarity and political acceptability

First of all one basic clarification is in order: the term *social expenditure* is somewhat misleading. Social protection systems are in effect income distribution mechanisms which generally redistribute income from some "financing" subgroups of the society (generally active members) to "benefiting" subgroups of the population (i.e the sick, the old, the disabled, the unemployed, the poor). There is also little reason to believe that in loose labour markets, high social protection charges actually increase the overall cost of labour, they are most likely directly or indirectly financed out of the income of the contributing or tax paying population. Social expenditure thus in fact only measures the extent of direct formal income redistribution through the social protection systems(5). There is a priori no reason to believe that social protection systems cannot be maintained as long as the overwhelming majority of all societal subgroups accepts that level of redistribution and the consequential reductions of income and profits by contributions and taxes and does not resort to various forms of tax evasion.

Assume a European society which finances its social protection system through the redistribution of 30 percent of its GDP. Let us assume further that due to stiff worldwide competition that society has to reduce its overall labour cost and profit levels by about 30 percent and hence GDP in total also shrinks by cum granu salis 30 percent. If societal solidarity survives the social turmoils of a downsizing exercise of that dimension there is no a-priori reason why the society could not continue to redistribute about 30 percent of the lower level of GDP through the social protection system - or in other words: continue to share the cake in the same way as before.

There is no generic rule to determine the limit of solidarity (which according to historical experience is changing over time) in any given society. These limits can only be tested politically. The limits reflect basic societal concepts and values rather than economic parameters. What we

observe in Europe is that these limits seem to change. Financing burdens appear to become increasingly "unacceptable"(6). The reasons are manifold and touch on such fundamental concepts as changing societal values which cannot be discussed within the framework of this paper. But fact is, that in each society there are limits to solidarity and hence, to the acceptable level of redistribution, or in more concrete terms limits to the acceptance of tax and contribution rates. Non-acceptance (of financing burdens) is often camouflaged as economic criticism citing the above mentioned macro- and micro economic effects of social protection, quoting unemployment as the major single negative effect and coupled with threats of economic migration.

2.2.2. A proxy for the notion of economic affordability

The perception that social protection systems are a barrier to optimal economic performance is a strong detriment to public acceptance. It is public acceptance rather than economic facts which mark the border line between politically sustainable and unsustainable levels of social expenditure and thus levels of social protection.

The only rational way to deal with such criticism is to try to establish - to the extent possible - the real facts on economic affordability of the welfare states. Hence, ideally, a definition of economic affordability would have to be found. Since - other than in mathematics - in economics and social policy there is no absolute, normative right or wrong, such a definition can only be approached by a proxy.

The ultimate test of affordability or non-affordability would be to expose the welfare states to a kind of negative optimality test: i.e. trying to find answers to the question of whether the economy and the society would fare better without, with less or with a different social protection system . "Faring better " in turn is not a very precise notion and needs clarification. It cannot be measured singularly by absolute levels of GDP. GDP in itself is an insufficient measure of relative or absolute welfare. All 15 national economies in the EU, as well as the emerging united big economy produce per capita levels of GDP which are several hundred percent higher than national per capita subsistence levels but this does not mean that the well being of all residents is automatically ensured.

If at home the cake is cut and shared, it does not matter how big it is before the cutting. What matters to my kids is how much of it they get. But they have understood two things: First, the way you cut the cake in front of you has no impact on its size. But, secondly, it might well have an impact on the size and their share of the next cake. If they do not allocate a sufficient fair share to their parents, i.e. the providers of the potential next cake, then with some probability the next one would not be forthcoming in the foreseeable future. Social unrest at the coffee table would provide additional disincentives to provide for the next cake. There is no way you can enjoy the cake if there is social unrest. Their parents - in a long process of trial and error - have found out, that social peace at the coffee table does not depend on the absolute size of the cake, as long as the cutting and sharing is fair, and as long as nobody leaves hungry.

In his chapter in the last World Development report(7) Nick Barr writes "*In the end what matters is people*". In other words it is the welfare or more generally the well being of the people which should be the goal of all economic policy. To simplify things a bit, economic affordability is here measured exclusively in terms of economic welfare of people. And in this context "people" are understood to be the 90 percent of the population which are not employers, or are not living in current or former employer households. How well individuals in Europe fare - in economic terms - in their respective (by all standards rich) economies does not depend primarily on how big the absolute national GDP per capita is, but can ultimately be reduced to three dimensions, i.e. answering three basic questions:

(1) How much of the overall level of GDP is allocated as disposable income to the majority of the population living in employee households (i.e. about 90 percent of the population) - and is that the maximum they can get?

(2) Is disposable income distributed in such a way as to keep at least all or virtually all members of the society out of poverty?

(3) How much does the population have to work for the per capita income?

If - on the basis of the answers to the above questions - there were reasons to believe that Europeans could fare better with another system, then the system would no longer be affordable according to the above ultimate test.

Due to the absence of an ideal world with an ideal economy and an ideal social protection system, the test cannot be made in an absolute normative environment. The answers can only be approximated by comparison. Hence the present performance of the European social protection system is mirrored against a comparator: the US system. The US system which - by European standards - is certainly not characterised by an over-generous social protection system, provides the points of reference for social and economic indicators. According to - at least conservative European - conventional wisdom the US social protection system is (now) lean enough to be financially and economically sustainable. Analysing the income redistribution effects of the American approach to social protection must thus provide useful indications as to the economic affordability of the European systems.

Since the comparison involves the performance of the national welfare states in their economic context, the analysis cannot be limited to outcome indicators of the social protection system itself. The social protection systems, or the European Welfare State, are only a part of national socio-Economic models, i.e the whole pattern of the production of national output , the sharing of work and the distribution of income among the members of the respective society. Analysing the performance of national social protection systems, thus inevitably means analysing the design and performance of the overall socio-economic systems.

This exercise first tries to extract the key economic and social indicators and then to shed some new light on key performance indicators of the European vs the American Socio-economic models, which have a potential impact on the notion of economic affordability and acceptability of the two social protection systems. Chapter 4 then addresses the three above questions.

3. Key characteristics and performance indicators of the European and US Socio-economic models

Annex tables 1 and 2 summarise the main characteristics of the European vs the US socio-economic models, in terms of levels of employment, GDP and crude productivity indicators and levels of redistribution through the national social protection system.

3.1. Three fundamental facts

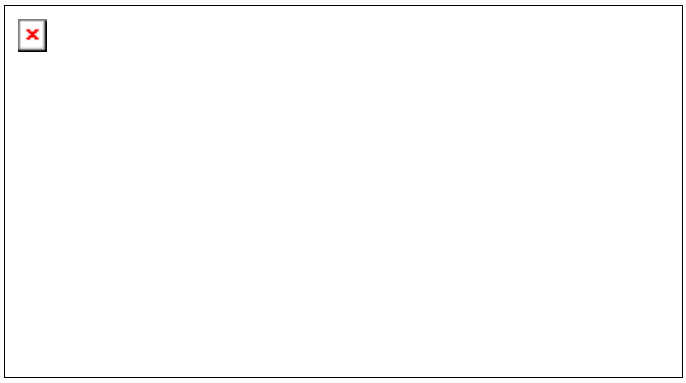
The difference between the European and the US socio-economic model is here highlighted by three fundamental facts which have a direct bearing on the subsequent arguments. As we all know there are myriads of other differences between societies and economies which have to be neglected here. The facts are also highly aggregated and further research might be needed in order to analyse some underlying distributional aspects. The GDP figures used in this comparison are expressed in ECUs which were converted from national currency units using the prevailing exchange rates in 1994.

Fact 1: Per capita GDP in the EU is about 23 percent lower than

the per capita GDP in the US.

The EU average, however, shows a wide variance. When only taking the EU big four (France Germany, Italy and the UK) the US advantage is 22 percent and when compared to the biggest EU economy (Germany) it falls to less than 3 percent(8). Smaller economies like Denmark and Luxembourg even exceed the US per capita GDP value.

Graph 1: Per capita GDP in the US and in the EU (selected member states), 1994



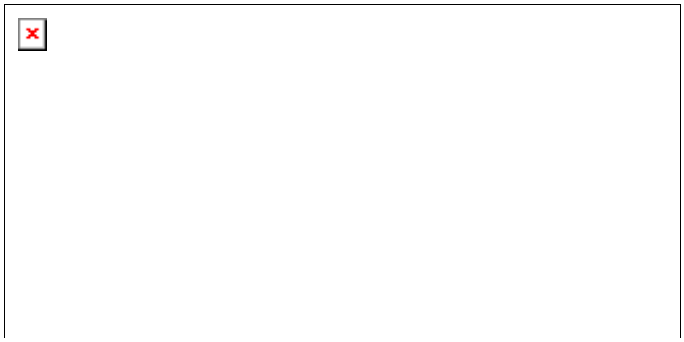
This does not mean however, that the American workers are more productive than their European counterparts. It first of all reflects the fact that on average (per capita of the total population) Americans are working more than their European counterparts. As can be seen from Annex Table 1 the overall labour force participation in the US is higher than in Europe (except for the UK), the rate of employment of the labour force is higher and the number of hours effectively worked per week per employed person is substantially higher than in the EU. The latter holds true for every individual country within the EU although there are again substantial differences between the EU member states. Resulting from the on average lower number of hours worked per capita in Europe is :

Fact 2: GDP per hour worked (i.e. productivity per hour worked) is about 13 percent higher in the EU than in the US.

In other words: European workers (on average) produce more per hour than their American counterparts. The productivity per hour in the big four is even 15 percent higher than in the US. The averages again hide a wide diversity, ranging from Portugal whose per hour productivity is only about one third of the US level to countries like Austria and Belgium which exceed the US level by up to two thirds.

Graph 2: Estimated GDP per hour worked

in the EU (selected member states) and in the US, 1994



The following section shows that high productivity per hour does not necessarily translate into higher wages per hour in all of Europe.

Fact 3: The wage share in GDP in the EU is 16 percent lower than in the US.

The US national accounts show a substantially higher share of GDP allocated to "the remuneration of employees paid by resident producers"(9)

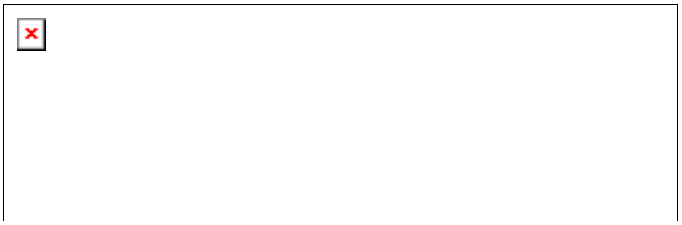
than most European national accounts. This item in the national accounts is identical with the average wage share in GDP (including gross wages and other payments to or on behalf of employees such as social security contributions) which is just another term for the average national unit labour cost(10). This indicator shows less variation between the different countries than for example the number of hours worked or the per capita GDP.

Further estimates show that the higher average unit labour cost in the US is a consequence of more labour intensive production rather than the amount of remuneration per hour worked. On the basis of national accounts statistics of 1994, the total remuneration per hour worked and per employed person (excluding self-employed) was estimated (see Annex Table 2) . Even when divided by a higher number of total working hours, the total remuneration per employee and hour (including social security contributions and other benefits) of the US is marginally higher than the average value for the EU, but lower than the combined figure for the big four and substantially lower than most of the western European countries. The latter fact is often interpreted as an incarnation of the competitive disadvantage of Western Europe vs the US without regard to the fact that due to a much more capital intensive production and consequentially higher labour productivity, unit labour cost (i.e. the wage share in GDP) in Europe on average (and even in the so-called high labour cost countries like Germany, Austria and Scandinavia) are lower than in the US .

The non wage share of GDP is allocated, according to the national accounts statistics' definitions, between "operating" surplus (i.e profits), indirect taxes (less subsidies) and depreciation. The US "profit" share in GDP is about 20 percent whereas the EU-share is in the order of 25 percent.

Graph 3: Wage shares in GDP (unit labour cost)

in the EU (selected member states) and the US, 1994



3.2. An interpreted summary

A summary across 16 national economies is always at risk of oversimplification. Tentatively , however, it can be stated that Europeans are working less than Americans. This means that less Europeans are employed and those employed tend to work less hours per year or week. But Europeans in general (in Western Europe in particular) are more productive per hour worked. The productivity gap between the high income countries in the EU on the one hand i.e. (Austria, Belgium, Denmark, Finland, France, Germany) and the US on the other hand is substantial and big enough to compensate for lower productivity in lower income countries (notably Greece, Spain and Portugal) and pulls the EU average over the US benchmark. This greater productivity translates into higher total remuneration per hour worked in all countries in Europe with higher than US productivity. A result which is fully compatible with classical economic theory(11).

On balance the US economy operates at a higher level of unit labour cost and probably lower gross profit shares than the EU. This in effect means that a greater share of GDP is going to the employed workers in the US than in Europe. The result is somewhat contradictory to the common prejudice.

However, neither gross GDP shares of wage nor gross profit shares say much about the acceptability of the respective Socio-economic models by US and European workers or employers. Both tend to judge their systems on their respective ability to generate *net* income. The following section compares the EU and US Socio-economic models based on their pattern of allocating net income to and distributing income between all people who are not self-employed entrepreneurs, i.e. in macro-economic terms basically the allocation of income to the production factor labour.

4. The redistributive outcomes of the different Socio-economic models

Now the above economic observations and interpretations are related to key indicators of social effects of the respective socio-economic models. Comparing social outcomes exclusively in terms of total officially measured social expenditure and unemployment does not capture their full social and redistributive effects. Ignoring the non-monetary effects of unemployment and the related leisure advantage of the European systems for a moment, one can argue that what matters at the end of the day for all individuals who are not self-employed or dependents of self employed (this group includes employed workers, unemployed workers, pensioners and other recipients of social protection transfer incomes, the term "employees" or employee households are used in the

following as shorthand for this group) in the countries are the following first two basic questions raised in chapter 2, i.e. in slightly different words:

(1) How much of the total GDP produced or the total income generated in the country in any period is actually allocated to them (or the households they live in) either in the form of wage or in the form of other transfers, and is this from the point of view of the non- self employed an optimal allocation, or could they receive more under a different redistribution system,

(2) How is the above global allocation of income distributed among the group of the non-self-employed, and in particular is the redistribution effective with respect to the reduction of poverty.

The following sections address these questions. First the global income allocation to non-employer households is measured, then the share of the income allocated through social transfer systems is estimated, and thirdly the effect of the global income allocation on the central indicator of income inequality, i.e. poverty , is analysed.

4.1. The global allocation of income to the non-self employed

The following table 3 adds the wage share in GDP of net wages and the GDP share of total social expenditure in the US and the EU as a whole as well as in its member states. The net wage share is calculated by subtracting the GDP-shares of taxes on personal income (attributed to the non-self-employed(12)) and the GDP shares of social security contribution from the share of gross remuneration to employees. To the resulting net income, the overall amount of public social expenditure estimated to be allocated to employee-households is added. All social expenditure are here interpreted as transfers of income, either in kind or in cash.

The result of the exercise shows that the share of GDP allocated as net income to the group of the non-self employed in the US is bigger than in the EU as a whole and in virtually all member countries. This result is somewhat counterintuitive. It can be explained on the one hand by the higher share of gross wages at GDP in the US which is dominantly a result of its higher level of employment and on the other hand the considerably lower taxes and social security contributions which are deducted from the gross wages of US employees. As a result the difference between the net wage shares in GDP in the US vs the EU is even bigger than the difference in gross wage shares. The difference of the net wage shares is too big to be fully compensated by the higher European social transfers.

Table 3: Total allocation of income to non-self employed persons in EU and the US, 1994

	Share of GDP paid as employee compensation	Taxes on pers. income of employees in % of GDP	Social security contributions in % of GDP	Net wage income of employees in % of GDP	Public social security transfers to employees in % of GDP	Net income of employees plus transfers in % of GDP
USA	60.5	8.9	7.0	44.6	14.2	58.8
Austria (5) (7)	51.9	7.6	15.0	29.3	23.4	52.7
Belgium (4), (6)	53.5	12.4	15.5	25.6	23.1	48.7
Denmark	52.2	25.2	1.6	25.4	28.1	53.6
Finland	51.3	15.3	12.1	23.9	30.9	54.8
France	51.7	5.5	19.1	27.1	25.6	52.7

Germany	54.6	9.4	15.4	29.8	25.7	55.4
Greece (6)	31.7	3.0	14.7	14.0	11.5	25.5
Ireland	48.8	9.7	5.4	33.7	16.4	50.1
Italy	42.6	7.8	13.0	21.8	18.4	40.2
Luxembourg	57.8	8.7	12.0	37.1	27.8	64.9
Netherlands (4)	51.7	8.3	19.3	24.1	27.1	51.1
Portugal	48.3	4.8	8.7	34.8	12.7	47.5
Spain	44.8	6.4	13.8	24.6	17.7	42.3
Sweden	59.2	16.8	13.9	28.5	34.2	62.6
United Kingdom	54.6	8.2	6.1	40.3	20.4	60.7
EU total						
in % of US	50.7	8.4	13.7	28.6	22.7	51.3
in % of US						

Source: same as Annex tables

Footnotes: same as Annex tables.

Thus, at first sight there seems to be a substantial difference between the total allocation of net income to the non-self employed in the US and the EU (i.e 7.5 percent-point of GDP). But, the US calculation of net income is inflated compared to the European calculations. The reason is that US citizens have to pay a substantially higher share of their health care costs through privately financed private insurance or direct out of pocket cost sharing(13). If one were to assume that about 70 percent of the total private expenditure for health in the US and the EU is financed through out of pocket outlays and self-sponsored private health insurance, and the rest is covered through employer sponsored insurance, US residents would then spend the equivalent of between 4 and 4.5 percent of GDP more of their net income on privately financed health care than their European counterparts. When this is taken into account then the gap, between the US net after-tax- and-transfer disposable income of non-employer households and the EU average, would reduce to about 3 percent-points of GDP and to almost zero compared to the major central European economies like France and Germany. One can conclude that in terms of the global allocation of post-tax and transfer net disposable income share in GDP, American non-employer households are probably slightly better off than their European counterparts and about equally as well of as their counterparts in the major Western European economies .

The crucial difference between the two allocation patterns is - and that can be related to the public acceptance of visible public transfers - that the European Socio-economic system relies to a much larger extent on explicit transfers through the social security systems to provide income to those who cannot contribute or are not needed to generate the national GDP than the American system. The American system on the other hand, relies to a much larger extent on supplying jobs also to people whom the European model would probably put on benefits. This substitution effect needs to be explored in more detail in the following section.

There are also indications that the GDP share of net income on capital in the US is lower than in the EU, or to be on the safe side one can state that US and EU net profit shares in GDP are in the same order of magnitude. OECD data permit only a crude estimation of the taxes on capital, but if one were to assume that taxes on capital are equal to the total taxation in the country minus social security contributions and employee income tax and minus indirect taxes, then the European

average profit share would be 18 percent and the US in the order of 16 percent of GDP(14). These appear to be pretty fair shares of sufficiently big cakes.

4.2. The total social transfer theorem

At this point a new indicator of total distribution has to be developed. It does not suffice to estimate the extent and impact of the direct transfers of income in kind and in cash through the tax and social transfer system. It is claimed here that the US socio-economic model has developed in addition to direct social transfers a system of indirect social transfers using the labour market as an agent of income redistribution - or by reverse logic, that the European welfare states have triggered a suppression of that function of the labour market.

The American way of income allocation is to a large extent determined by the observed relative low productivity of the economy compared to the EU in general and in particular to the more productive economies in Central and Northern Europe. There are basically three alternative explanations for this:

(1) The American economy is relying on a less capital and more labour intensive technology to produce the entirety of its goods and services, which cause lower labour productivity than the major European economies but also creates more employment in particular among workers with relatively low skills,

or:

(2) the American economy is employing similar technologies to the Europeans, but chooses for whatever reason to employ additional labour,

or:

(3) The American economy is producing an entirely different basket of goods and services compared to the Europeans, which requires a different set of technologies, which happen to be more labour intensive.

One can rule out number (2), since there is no good reason why the economies should employ more labour than absolutely necessary - given a chosen technology. If one assumes furthermore, that the need for goods and services of the American population is not fundamentally different from their European counterparts than one can assume that the adoption of a certain set of technologies is a result of *explicit or implicit choice* or *the absence of or lower external competitive pressures.*

The latter would permit the US economy to operate at higher unit labour cost than the European counterparts. An indication of lower competitive pressures on the US economy is that only about 10.6 percent of US GDP is going into exports whereas the respective EU value is 28 percent(15)

. In the competitive environment within the EU, companies would tend to reduce their unit labour cost by reducing their workforce employing technologies which increase the productivity of labour. High wages and high labour costs probably accelerate labour saving restructuring in the economy in general and thus push unit labour costs and implicitly employment down.

If one assumes that there is no real obstacle preventing the rich US economy from employing the same capital intensive technologies as the most efficient European counterparts, then the technology choice is an implicit choice in favour of higher than "necessary employment" in the US case or in favour of lower than "possible" employment in the European case. It is argued here that this choice is also implicitly - even if possibly not deliberately - a *social policy choice* which

involves using or not using the labour market as a social protection mechanism, or in other words using it as a mechanism of income redistribution. In Europe, this social policy choice is embodied in the use of social protection systems and labour protection rules which buy low productivity labour out of the labour market(16) and prohibit access to unprotected jobs but provide transfer incomes rather than low wage jobs. In the US, this choice manifests itself in not providing a social protection system that creates reservation wages above the poverty line and not imposing labour regulations which largely suppress access to precarious employment.

In the former planned economies the social function of the labour market, i.e. the above phenomenon of "higher than necessary employment" was implemented by public sector enterprises and nicknamed *social employment*. The term is borrowed from here(17).

This *implicit redistribution through the labour market* has to be taken into account when the overall level of income redistribution of the European vs the US social protection systems are compared. The following table 4 describes a methodology which estimates the overall level of social income redistribution in the major European and US economies. First, the overall "official" social expenditure in terms of GDP shares (i.e. the ***explicit redistribution*** through the social protection transfer systems) are estimated from OECD data and then the implicit redistribution due to the productivity gap between the national economies and the most efficient European comparator country (here Austria) is calculated. The ***sum of the explicit and implicit redistribution*** is the ***estimated total social income redistribution***(18) (through social employment and the explicit social protection transfer system) in the economy.

The calculation of the implicit redistribution is based on the following reasoning. If the US were to follow a similar high productivity drive as most European countries, it could achieve the higher productivity level of the comparator country. It consequently could - in theory - reduce the level of employment while still producing the same GDP. It could then also achieve a lower net wage share in GDP, if one assumes that the net remuneration level would also not exceed European levels. It is here assumed that the US could achieve the same net wage share in GDP as one of the most efficient European comparator country. If the US were to adopt such a high productivity strategy, it would most likely need a European style welfare state with its high benefit levels, on the one hand to trigger high reservation wages and on the other hand to sustain higher levels of unemployment politically.

The comparator country used in this exercise is Austria(19). The difference between the net wage share of the US and the net wage share of Austria is then defined as the implicit social income redistribution through the labour market(20)

, or in other words the "indirect cost" of social employment. For the sake of comparison the calculations were done for each individual EU country as well as for the EU on the whole. All net wage shares in GDP are here corrected for out-of-pocket health care cost differentials.

In this context it is worth noting that GDP might not remain constant, if the US where to move (hypothetically) to more productive technologies. This strategy might result in an increase of GDP due to higher productivity, if export markets were able to absorb the additional goods. On the other hand GDP could fall, as the non-employment of low productivity labour has a direct negative impact on the GDP (i.e. assuming that many of these jobs are in some type of service industries, additional unemployment of low productivity labour reduces GDP by exactly the amount of the total gross wages of this group). To avoid the debate on the comparison of absolute levels of GDP between countries and the affiliated exchange rate debates, only the relative levels of social redistribution between the US and the EU are compared. It is the relative measure of total social income redistribution and its composition which determines the level of social protection within a society, not the absolute per capita amounts(21) (which are similar to the US level for many high

productivity countries in the EU).

Table 4: Estimated total redistribution in the US and in the EU, 1994 (GDP in ECU)

	Net wage income of employees in % of GDP adjusted for out-of-pocket health expenditure	Hypothetical net wage income under Austrian productivity and wages=Austrian net wage share	Estimated implicit redistribution through social employment in % of GDP	Public social transfers in % of GDP	Estimated total social income redistribution in % of GDP
USA	39.3	27.4	11.9	15.6	27.5
Austria (5)(7)	27.4	27.4	0.0	25.8	25.8
Belgium (4), (6)	24.9	27.4	-2.4	27.0	24.6
Denmark	24.6	27.4	-2.8	31.0	28.2
Finland	22.8	27.4	-4.6	35.4	30.8
France	25.5	27.4	-1.9	28.7	26.8
Germany	28.1	27.4	0.7	28.3	29.0
Greece (6)	13.2	27.4	-14.2	17.2	3.0
Ireland	32.5	27.4	5.1	20.0	25.1
Italy	20.5	27.4	-6.9	25.0	18.1
Luxembourg	36.7	27.4	9.3	31.0	40.2
Netherlands (4)	22.5	27.4	-4.9	30.2	25.3
Portugal	32.9	27.4	5.5	16.4	21.9
Spain	23.8	27.4	-3.6	22.5	18.9
Sweden	27.2	27.4	-0.2	38.0	37.8
United Kingdom	39.5	27.4	12.1	23.4	35.5
EU total	27.2	27.4	-0.1	26.5	26.3

Sources: Same as for Annex tables. Own calculations.

Notes: (1) source see table 3.

Footnotes: Same as Annex tables.

The result of the exercise is striking and gives rise to an interpretation which is here called the **total social transfer theorem**:

The explicit income redistribution through the social protection system in the US is about 41 percent lower than in the EU. But, in addition to the explicit social transfer system, the US is using the labour market as an implicit transfer mechanism. According to these estimates the US is redistributing roughly 27.5 percent of the per capita GDP through the total social transfer system, of which indirect redistribution through the labour market (i.e. social employment) accounts for about 43 percent of that redistribution. The overall level of social income redistribution is almost identical to that of the EU as a whole and in particular to that of countries like France, Germany

and Denmark and lower than that of Sweden and the UK.

Redistribution through the labour market only plays a minor role in France and Germany. The negative indirect redistributive effects of the labour market, calculated for some countries, indicate that the social protection system in part compensates for lower than Austrian wages, paid presently in some of the economies. The overall EU level of redistribution appears to be slightly lower than in the US, but the difference should not be overemphasised due to the possible margin of error due to data deficiencies.

It can be concluded here that the US economy has found a way to redistribute just about the same share of GDP for social purposes as the EU on average. But - due to the use of social employment - the redistribution is less visible.

The macro-economic reasoning behind the above hypothesis is explored in more detail in the following box.

BOX: An exercise in macro-economic reasoning(22)

Box graph 1 describes GDP (Y) in a given economy as a function of labour (L), all other inputs being kept constant - for the moment also the volume and structure of capital and technologies employed. Box graph 2 is the first derivative of box graph 1, i.e. the marginal product of labour dY/dL which in a competitive environment according to classical economic theory should be equal to the real wage (W).

Let us now assume an economy which operates at a given technology (depicted by line t1 in graph 1) at full or close to full employment level L1. Employing L1 produces a total output of Y1 and an average wage of W1.This situation, described by (Y1, L1, W1) may be interpreted as a simplified interpretation of the American case (of high employment).

Now let us assume there would be mechanisms in place in the economy which would permit or force a reduction of the employment level to L2 without a change of technology. This could for example be the consequence of a state guaranteed minimum income level, which would guarantee an income to every body which would at least be equal to the poverty line. This could prohibit the full clearance of the labour market as workers might consequently refuse to work for less than a decent reservation wage which would be somewhat higher than the state guaranteed minimum income level. It could also be the consequence of a 'regulatory reduction of the supply of labour", for example due to low legal retirement ages. In any case the average wage would increase to W2. The amount of total wages paid in the economy would change from W1 x L1 to W2 x L2 and L1 - L2 workers would be put out of work (or the total number of hours worked would be reduced equivalently). One can assume that the society would only tolerate such a move when the L1 -L2 unemployed workers are paid some transfers, i.e some proportion of their previous wage i.e. T = tr * ((L1-L2) x W1) which would "keep them quiet". The shaded area in box graph 2 indicates the volume of wages that has to be replaced by transfers. Ignoring for the purpose of this exercise some income distributional effects, the new workforce L2 can be expected to accept these transfer payments as long as their new higher wages minus the share of the transfers ws*T, which they have to finance out of their wages, is higher than their previous wage income, i.e.

(1) L2 * W2 - ws* T > L2 * W1.

Whether this relationship can be achieved depends on the shape of the curves t1 and w1 and the willingness of other economic actors (notably employers) to accept a lower GDP in exchange for some mechanisms which effectively reduce total employment. Employers are likely to resist such a move since according to this simplified model their capital is largely fixed and accepting a lower Y at higher wages would also mean accepting less than optimal capacity utilisation and hence less

than optimal profits.

But the mental experiment made in this paper is the following: Assume the economy had an implicit or explicit choice to move to another technology employing more capital, a better organisation of production or improved training of the workforce. Doing so would lift the economy on a higher productivity curve t2. Employing workforce L2 the economy could produce Y1' which would be higher than Y2. This means that some of the losses of output and profits which simply moving the technology curve t1 upward would entail, could be compensated by productivity gains. If the new productivity curve has the same slope as the old one (i.e. merely embodies a constant upward shift of t1) than the first derivative of the curves p1 and p2 would be equal. This could mean that even though the average product per working hour has increased, wages would not necessarily have to increase to the same extent. This means Y1' could now be produced at a level of L2 x W2 wages, i.e. the technology shift towards a higher productivity would result in an increase of profits without necessarily an increase of wages. This could be described as the prevailing situation in the high productivity countries in Europe , i.e. (Y1', L2, W2), with

$Y1' <= Y1$

$L2 < L1$

$W2>W1$

At least theoretically it could be possible to achieve an output level of Y1'=Y1 with workforce L2. Which de facto embodies an increase of average productivity per hour compared to the initial (American) situation (Y1, L1, W1). The first direct effect would be that the smaller employed labour force (L2) would on average be better off as long as the above relation (1) holds. The newly unemployed part of the labour force L1-L2 is worse off if their previous wages were higher than the transfer payments they receive now. This might or might not be the case. It will depend on what amount of transfer payments the employed workforce L2 and employers are willing to finance out of their wages and profits.

In the classical macro-economic reasoning, the economy would become more efficient by moving from technology t1 to t2 as the same output could be produced during a lesser number of working hours. It is argued here that an economy which has the choice and does not move to a more efficient technology makes an implicit choice for more employment. But this additional employment must be financed through lower average wages and to some extent probably lower than potentially maximum profits. This constitutes an element of indirect redistribution through the labour market caused by deliberately chosen lower productivity. This type of redistribution can be regarded as *social employment*.

This might not be directly clear. How could more employment embody a form of redistribution? Why would, for example, the wage of a highly skilled professional in the low productivity economy be lower than the wage of a professional with similar skills in the high productivity economy? The answer is that in the second case the high skilled worker can realise a higher marginal product because the whole organisation of his workplace might allow him to be more productive and negotiate a higher wage. Reversely, to achieve the same output as in the high productivity economy, and to achieve the same wage, the other professional has to work longer hours. This would have a direct and/or an indirect additional employment effect. Either he would share his job with another professional and thus accept a lower wage or he would buy ancillary services (ranging from gardening, to day-care and babysitting, advise on taxes etc.) and would thus compensate some of the lost leisure by buying services.

The professional in the low productivity economy would, for example, have his house painted by the next door painter, while the professional in the high productivity economy with more leisure at

his hands and facing a higher reservation wage of the painter would go to the hardware store, buy the material and do his own painting. This has yet another effect. The professional in the low productivity economy would help to increase his country's GDP by the painters remuneration, in the high productivity case only the material would end up in the GDP accounts. The lower productivity professional is redistributing some of his income to the next door painter, while the same painter in the high productivity economy would probably be unemployed and either receive an early retirement pension, an invalidity pension or unemployment benefits. And the cost conscious do-it-yourself professional would finance him through higher social security contributions or taxes.

If one takes the US and the EU (or its major Western European economies) representatives of the cases (Y1,L1,W1) and (Y1',L2,W2) respectively, then the effects of the social employment theorem should manifest themselves in the labour market statistics. And in fact the theorem can be backed up by some empirical facts. The following box table shows that in 1993/1994 Europe used on average one fourth of its population to service the total population whereas in the US a full one third of the population was employed in services. The difference in "service" intensity of the economy between the high productivity economies in Europe (e.g. Austria and Germany) and the US is of particular interest. If one were to add additional service sector workers paid at poverty level wages to the labour force, the per capita GDP of Austria, Belgium, Denmark, France and Germany would most likely exceed the US per capita value.

Box table: The service intensity in the EU and US labour markets, 1993/1994

Comments: Some of the tables referred to in the text have not been included in the Web document. In order to obtain a copy of the document please contact the Social Security Department.

Box graph 1

Box graph 2

4.3. The social impact of different patterns of income allocation and social redistribution

However, a higher, comparable or almost equal level of overall allocation of income to non-employer households and a similar level of overall social redistribution of income does not automatically lead to similar social effects. Within the overall envelop of allocation and redistribution of disposable income, it is the relationship between the horizontal redistribution (i.e. redistribution between groups of equal income) and vertical redistribution (i.e. redistribution between different income groups) that determines the social outcomes of the overall income allocation and redistribution system.

The ultimate test of the social outcomes of the redistributive machinery of a country is the extent to which it reduces or contains the level of poverty. The European socio-economic model has maintained low poverty levels. National cross comparisons of poverty levels conceptually "hinge" on the definition of comparable poverty lines. Uniform absolute lines expressed in currency units are virtually impossible to construct thus international comparisons usually resort to defining a relative poverty line in terms of a certain percentage of median per capita income. The following table 5 compares the developments of poverty rates, calculated as the number of persons with per capita income under 50 percent of the national average per capita income(23) for the period of the mid 1980s to the early 1990s. The data are quoted from a recent OECD document(24), which to a

large extent is based on results of the Luxembourg Income Study. It appears that according to this head count measure, poverty in the US remains at least double as high as in the more affluent European countries even after the correction of poverty levels through social protection transfers. According to the comparison of pre- and post transfer poverty rates in Europe and in the US, the US social protection transfer system has also remained remarkably unsuccessful in reducing the poverty gap, i.e. the total sum of differences between the income of persons under the poverty line and the poverty line. While in all selected European countries the social protection system closes the poverty gap to at least 84 percent, the US "success rate" is at least 25 percent lower.

Poverty rates for persons of active age in the US are also a multiple of the rates in the quoted European countries, which might serve as an indicator of a substantial number of working poor. This means, not only is the social protection system not able to correct the number of poor to the same extent as its European counterparts, the labour market also only provides below poverty line incomes to a substantial number of persons. Poverty has tremendous costs with respect to the social cohesion of a society. The fact that in the US a full 2 percent of the total male population is imprisoned at any given point in time might serve as an indicator of the eroding social cohesion(25).

In other words: within the overall almost equal share of the respective cakes going to employees and their dependents in Europe and the US, the cutting of the US cake seems to be less fair than the European.

Table 5: Pre-transfer and post-transfer poverty rates(26), poverty gap reduction through social transfers in the US and selected European countries

Country, period	Pre-transfer and post-transfer poverty rates in% of all persons residing in the country		Closure of poverty gap through social protection transfers in % of total poverty gap
United States, 1991	31.6	22.7	58.5
United Kingdom, 1986	37.2	13.0	83.9
West Germany, 1983	26.2	8.0	90.4
Netherlands, 1991	30.2	7.7	89.4
France,1984	38.4	11.9	88.1
Sweden, 1992	43.3	6.0	94.1
Denmark,1992	36.6	5.5	93.0

Source: OECD

5. By way of summary and conclusion:

The European welfare states at a conceptual crossroad

Since the oil-shocks in the early 1970s, the European Socio-economic model is characterised by four essential elements: *high productivity and relatively high wages, high unemployment and decent levels of social transfers* [(27)]. These characteristics are not uniform throughout the EU, they hold true for 10 out of 15 member states of the Union (Austria, Belgium, Denmark, Finland, France Germany, Italy, Luxembourg, Netherlands and Sweden). When ranked by productivity per hour worked, Ireland and the UK would follow the above group with some distance and Greece, Spain and Portugal show substantially lower levels of productivity.

The above facts are fully compatible with the following interpretation: The European model has relied on buying excess and unproductive labour out of the labour market through high social transfers which has facilitated the achievement or maintenance of high productivity levels[(28)]. High productivity in turn underpins the maintenance of high wage levels which in turn - not the least in light of international competition - triggers further productivity drives. High productivity levels per hour worked signal high efficiency of the employed labour force and permit a relatively low average number of hours worked. Lower employment levels in terms of total number of hours worked are in principle a sign of success. But, the number of hours worked is not equally distributed and the increasing concentration of work on workers with higher productivity leads to the exclusion of whole groups of workers from the labour market.

The "American Model" on the other hand has relied on: *low(er) productivity and low(er) wages, low unemployment and low transfers*. Again there is little doubt that low levels and availability of income transfers (for example through social assistance and unemployment benefits) increases the level of employment. Benefit amounts below poverty levels will force people into some form of employment, in particular into low productivity jobs. This additional employment inevitably has an effect on GDP. Most of these jobs can be assumed to be service sector jobs and enter into GDP with the equivalent of their low gross wage[(29)]. This explains on the

one hand to some extent the difference in the absolute average levels of GDP between the US and the EU. On the other hand this explains the relatively low American productivity.

In Europe around 26 percent of GDP is redistributed through social protection transfers financed through taxation and social security contributions. The US economy redistributes less through taxes and social security contributions, but the socio-economic system adds at least the difference through an implicit redistribution through low productivity which leads to higher than theoretically necessary employment. The latter phenomenon was here defined as "social employment".

This means in other words, about 40 percent of the total US social redistribution system consists of the redistribution of income through jobs while the high income European economies almost exclusively rely on the direct redistribution of income. Despite virtually equal or even higher levels of overall redistribution, the US system remains less successful with respect to the eradication of poverty - but in the US the pre-transfer poor tend to work whereas in Europe they tend to be unemployed.

In the present debate on the affordability of the welfare states, the US socio-economic model seems to be regarded as economically and financially sustainable - however loosely this term is defined. The overall levels of redistribution in the EU and the US seem to be in the same order of magnitude non-employer households receive slightly less disposable income in Europe but they have to work considerably less. Employers appear to be slightly better off in Europe, but poverty in the US remains higher than in Europe. On balance it seems that Europeans would not be markedly better off in strict income terms by moving to a US style redistribution system and thus - based on our strict definition of economic affordability - the present welfare states in the EU (on average) appear to be equally economically affordable as the US system. If the American socio-economic model and with

it, its social protection system is economically affordable, then the same applies to the European model.

Economic affordability is compatible with the above observation that the European wage and transfer levels have triggered high average productivity rates per hour and hence have pushed a more efficient use of the production factor labour. The down side of the system is that the gain in leisure could not be allocated evenly and persistent unemployment, and with it increasing social exclusion of the less productive members of the labour force was created.

Sustainability of the welfare states then becomes a matter of political acceptability. Political acceptability is a labile equilibrium. As long as a society accepts high levels of unemployment on the one hand and high levels of transfers on the other hand, this labile equilibrium holds. However, in the virtual political image of the world - it is perceptions that count. High social security contributions and taxes are interpreted as a consequence of the failure of the European model of redistribution even when levied on comparatively high wages and despite achieving relatively low poverty rates. Lower wages with lower public social charges (as in the American model of redistribution) are considered acceptable despite higher poverty.

Unemployment serves as a catalyst for the comparison of the two models of welfare, even if unemployment differentials bear no or little relationship to poverty differentials. Persistent unemployment levels signal failure, which in turn reduces the willingness to finance the failing system, which allegedly directly or indirectly creates unemployment and thus drives up the cost spiral. The diminishing acceptance of the model also reduces the resources needed to feed the European social redistribution mechanisms. Diminishing resources in turn require in the mid-term to long-term range a reduction of benefit levels. Decreasing benefit levels will increase poverty, undermining the competitive strength of the European welfare states. The labile political equilibrium, which carries the model, begins to shake. Presently, we are all witnesses to that process.

Unemployment and social exclusion of an increasingly persistent pool of members of the society from economic activity and hence from the fulfilment of a socially meaningful life becomes unacceptable on ethical grounds even if this impairment can financially and economically be managed by the social transfer system .

The logical way out for Europe seems to be to achieve a better distribution of the existing workload in its post-industrial economies. If Europeans cannot afford to give up the achieved levels of productivity, and want to maintain lower overall levels of unit labour cost and at the same time low levels of poverty through efficient transfer systems, then the only answer to the unemployment problem in the foreseeable future seems to be to finance additional jobs out of existing incomes. There are a number of ways in which this could be achieved, through an American use of the labour market with European style income supplements for low productivity jobs or the financing of new service jobs in the social and health sectors through the social protection systems, i.e. a new way of social employment. As long as it maintains its low poverty priority and as long as growth rates in Europe do not show substantial improvements, Europe has a clear-cut choice: either it accepts unemployment and maintains high wages and high social transfers or it substitutes some of its disposable income and its social transfers by the financing of additional (social) employment. European social policy is at a critical crossroad.

For the social outcome it is largely irrelevant whether social employment is implemented through public or publicly sponsored employment in the service sector or brought about by liberal labour market mechanisms as long as the latter are accompanied by mechanism to keep the working population out of poverty. But, higher employment levels in Europe will have to be financed either directly or indirectly through the sharing of income.

The comparison of the American and European socio-economic systems show, that there are different ways to cut the cake, but there is a good chance that the two pieces that the workers and their dependents will get (i.e. net wages and transfers) will add up to the same share.

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Annex 1: Sources

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Annex 2: Tables

Table 1: Crude productivity and social expenditure indicators, US and EU, 1994

Table 2: Estimated remuneration and productivity in the US and the EU, 1994

Remark: The statistical appendix has not been included. In order to obtain a copy of the complete document, kindly contact the Social Security Department.

Footnotes:

1. Chief, Financial, Actuarial and Statistical Branch. The views expressed here are those of the author and do not necessarily reflect the position of the organisation. Sincere thanks are due for comments on an earlier draft and support to Anne Drouin, Colin Gillion, Wolfgang Scholz, Denis Latulippe, John Turner, Jean Victor Gruat, Roger Beattie and Werner Sengenberger (ILO), Monika Queissser and Tom Hoopengardner (World Bank), Jack Carroll (Washington), Demetrios Pelekanos (Department of Social Insurance, Cyprus), Nicholas Barr (LSE), Peter Scherer (OECD) and Warren MacGillivray (ISSA) . Krsysztof Hagemejer of ILO Budapest did the "last sound check" on the second draft and Karuna Pal - as always - cleaned up the draft. The responsibility for factual and conceptual errors, however, clearly rests with the author.

2. No attempt is made here to define the term welfare state precisely but it is understood here that it is the set of all public and private institutions, or legal provisions which provide or regulate either directly or indirectly the transfer of income in cash or in kind to private households. This means particularly that the welfare state or the national social protection systems contain in particular the pension schemes, health care schemes , unemployment and short-term benefits schemes, family benefit provisions and social assistance. There are also clear difference with respect to the exact structure and nature of the national welfare states within the EU notably between the Central and Western European version, the UK version and the Scandinavian version. These differences are explicitly acknowledged here but are not of central importance for the following arguments.

3. As long as these cannot be offset against compensations through the exchange rate.

4. Cf. Cichon: The aging debate in social security: Barking up the wrong tree?(1996) and Cichon:

Can Europe afford the future financing of its welfare states? (1996).

5. This includes transfers of income equivalents through benefits in kind (like health services) but generally excludes tax benefits (such as tax reductions for the disabled, the elderly or families with children).

6. Throughout the last one and a half decades wage inequality in Europe and the US has increased substantially, inter alia triggered by increasing low wage employment. These developments resulted in a widening of the income distribution (cf. ILO: World Employment 1996/1997).

7. cf. The World Bank: From Plan to Market - World Development Report 1996, Washington 1996, chapter 4.

8. A comparison of the results with different US regions might provide further interesting insights into the EU and US difference of national output and productivity but is clearly outside of the scope of this paper.

9. OECD: Historical statistics, 1960 - 1994, Paris 1996.

10. See Hofmann (1996).

11. The European average remuneration per hour is virtually identical with the US level indicating that wage differentials are not a linear function of productivity differentials.

12. The overall GDP share of taxes on personal income as reduced by the share of self-employed at the total labour force. This is clearly a simplification as the average tax rate of employees is probably different from the average tax rate of self-employed persons. But the OECD statistics, which provide the data for this exercise, do not permit an isolation of taxes on personal income of the employed and the self employed.

13. cf. Schneider et al.: Gesunddheitssyteme im internationalen Vergleich, Augsburg 1992, pp.11. According to this source 53.4 percent of overall US health care costs are financed privately either through private insurance or direct co-payments. The respective share in the EU is only 23.2 percent.

14. This was calculated based on OECD data from the "historical statistics" series and the "revenue statistics series" as well as the estimates of table 3.

15. cf. OECD: Historical statistics 1960 - 1994.

16. Sala-i-Martin (1994) comes - based on an elegant theoretical economic model - to a similar conclusion: ..."The main idea is that social security is just a way to buy the elderly out of their jobs, that is a way to induce retirement. The reasons why societies choose to do such a thing is that aggregate output is higher if the elderly do not work." There is nothing in his model that would exclude an extension to social cash transfer systems and hence these findings are fully compatible with the findings of this paper.

17. The author was warned by his friends and colleagues that using the term social employment will provoke unnecessary hostile reactions but - after many years of working in Eastern European social security - he could not resist the temptation. The term social employment is also a concise description of a policy option for European welfare states to reduce unemployment while maintaining the overall level of social spending, see also section 5.

18. The total income redistribution is here limited to labour market related redistribution and social

protection related redistribution. This is an obvious simplification as there are other redistributive mechanisms in a society which had to remain outside analysis of this paper (for example possibly the housing and education systems).

19. The Austrian productivity level might also be regarded as a proxy for the potential productivity in Germany, which is presently most likely still distorted by the effects of the unification of the country.

20. The mechanism of this reasoning can also be explained as follows: If one assumes that the US could achieve the same level of productivity as Austria then, at an assumed constant level of GDP this higher per hour productivity would lead to lower employment levels. Then the total net wage, i.e. the theoretical amount of remuneration of the employed labour force of the country at the new employment level and at the higher wage of the comparator country, is calculated. This is a conservative assumption as US workers might not be able to realize the same wage levels as Europeans at identical productivity levels. The difference between the new remuneration of all employed persons (at higher productivity and lower employment levels) and the old total amount of remuneration can be regarded as the amount implicitly redistributed due to low productivity.

21. But it may nonetheless be noted in this context, that if one were to reduce the American GDP by the cost of social employment here estimated (these costs increase the US GDP whereas, the European transfers do not increase the GDP) then the remaining difference to the average European level can be explained in full by the different labour force participation rates. After deduction of social employment costs, the US per capita GDP is virtually identical with that of the richer European countries.

22. The idea for this box as well as some of the text was taken from Tom Hoopengardner's comments on the first draft of the paper. The conclusions and assumptions remain those of the author.

23. Poverty for each age group is measured against the so called adult equivalent income scale, according to which the basic needs of children of different ages are only a portion of the poverty line of an adult.

24. Cf. OECD: Document DEELSA/ELSA/SP (96)5/AN of 18 October 1996.

25. Source: L. Summers, US Deputy Treasury secretary according to the International Herald Tribune of 1-2 February 1997.

26. Pre-tax and transfer poverty rates measure poverty based on income levels before social transfers of individuals and, post-transfer poverty rates are based on income levels after payment of social transfers.

27. Through publicly financed social protection benefits.

28. This interpretation in effect reverses the classical argument that high unemployment benefits (and other social protection benefits like early retirement pensions) induce increased permanent or temporary withdrawals from the labour market. It argues that benefits have to be high to permit the buying out of excess labour from the labour market. Both directions of this "chicken and egg" problem are compatible with the (albeit shaky) econometric evidence which correlates the duration of benefits utilisation to the level of benefits (as quoted for example in Gillion (1996)). Econometric equations only determine the degree of simultaneity of two or more phenomena, they can never establish a causal link.

29. I.e. their wages enter on both sides of the GDP accounts, into the compensation of employees

on the cost side and the private final consumption expenditure on the expenditure side (cf. UN: A system of National Accounts , New York 1968).

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