

### NBER WORKING PAPER SERIES

### THE WELFARE STATE AND THE FORCES OF GLOBALIZATION

Hans-Werner Sinn

Working Paper 12946 http://www.nber.org/papers/w12946

NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138 March 2007

The views expressed herein are those of the author(s) and do not necessarily reflect the views of the National Bureau of Economic Research.

© 2007 by Hans-Werner Sinn. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

The Welfare State and the Forces of Globalization Hans-Werner Sinn NBER Working Paper No. 12946 March 2007 JEL No. F11,F21,F22,H53,J64

# **ABSTRACT**

The emergence of the Asian tiger countries and the participation of the ex-Communist countries in world trade has reduced the equilibrium price of labor in western Europe and elsewhere. However, the actual price of labor hardly reacts, because the welfare state's minimum replacement incomes are fixed. The rigidity of wages causes pathological overreactions of the European economy in terms of excessive capital exports, excessive immigration and excessive structural change towards the capital intensive export sectors. The overreactions cause unemployment, sluggish growth, a current account surplus and a high export volume, but may prevent gains from trade. Moving from a system of wage replacement incomes to one that pays wage subsidies would enable a more efficient economic reaction that would not jeopardize social goals but bring about more employment, growth and gains from trade.

Hans-Werner Sinn
Center for Economic Studies
University of Munich
Schackstr. 4
80539 Munich GERMANY
and NBER
hans-werner.sinn@ces.vwl.uni-muenchen.de

# Globalization, the Fall of the Iron Curtain and Factor Price Convergence

The fall of the Iron Curtain was an unparalleled shock to Western economies in general and Europe in particular. Suddenly the 28% of mankind who previously had lived in the Communist states began to participate in the market game in the same way as the 15% OECD people had done before. And, coincidentally, India has now also decided to participate, which increases the new entrants into the world market economy to 45%.

While this development is likely to produce gains from trade for most countries involved and substantially raise the standard of living of a substantial part of mankind, it is not without problems for the West. The main difficulty is the process of factor price convergence. Gains from trade always accompany the process of price and wage convergence, because the original differences in prices and wages initiate the arbitrage and specialization processes that are the reason for these gains. Thus there will always be groups in society that lose, despite the gains to be achieved in the aggregate.

In theory, assuming no frictions and transportation costs, the aggregate gains from trade reach a maximum when all wages and prices are equal and arbitrage ceases to be profitable. In practice, given the frictions, prices and wages will not and should not become identical. However, given the huge differences that we see today, they will converge over time. For the next half of a century it will hardly make any difference whether the wage convergence between China and the West will eventually lead to equal wages or to wage gaps of, say, 30% as are found among the countries of the West.

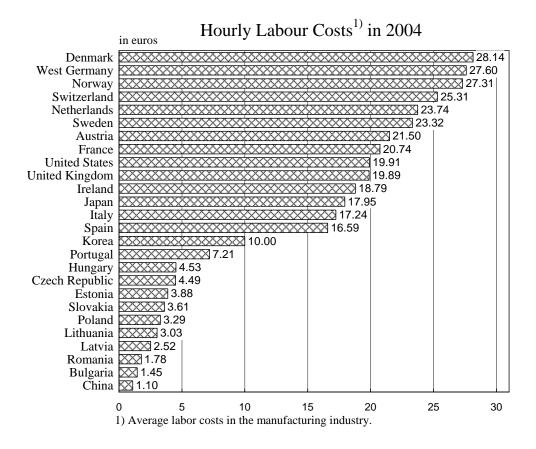


Figure 1

Figure 1 shows how far the ex-Communist countries will have to go until their wages match those of the West. Currently, the average wage cost per hour of the eight east European EU accession countries is 13% of the west German wage cost, for example, and the Chinese wage is only 1/27. Closing the wage gap will be a positive experience for the ex-Communist countries, but will involve severe and painful adjustment processes for the West.

Some have downplayed the difficulties by pointing out how easy it was for the EU to manage Western enlargement by Spain and Portugal in the mid 1980s. However, these developments are not comparable, as the two countries were much more advanced

than the eastern European countries. Instead of the 13% ratio of the west German wage, their wages stood at 50% at the time of EU accession.

How long will convergence take? Estimates vary. If one believes in the convergence figure of 2% that was found by Barro and Sala-i-Martin (1995), implying a half time of 35 years, east European wages will have reached 50% of German wages by 2035. However, during the last decades, west European convergence has just been 1.1% p.a. implying a half time of 63 years. If east-west convergence were to proceed at the same speed as the internal convergence in the western part of the EU, the wages of the east European member countries would reach 50% of west Germany's wages by 2054.

## **The Forces of Factor Price Convergence**

There are various economic forces bringing about factor price convergence. The first is the spill-over of technological knowledge. The transfer of scientific knowledge through the scholarly media as well as the transfer through observation and imitation are powerful equalizing forces. It is true that some of this transfer can be prevented by patents and other intellectual property rights. However, as patents usually expire after 30 years, the still backward countries can immediately leapfrog to the state of western knowledge of 30 years ago. Moreover, most of the technological knowledge of this world is not protected, and much knowledge is too diffuse to be patented. When a European company opens a factory in China, there is little to prevent the Chinese to build a nearly identical plant on the green field next door.

The second force is capital flows. Capital moves from high-wage western countries to low-wage eastern countries because the rate of return is higher there. The

capital creates jobs in the East and increases the demand for labour there which raises the wage, and the reverse process takes place in the West. Thus wages converge.

Germany is a country which is currently very strongly affected by this process. At a net investment share of only 2.9% of net domestic product (NDP), it currently ranks lowest among all OECD countries. In 2005, net investment was only 60 billion euros or 40% of aggregate savings which itself stood at 150 billion euros. 60% of German savings, or 90 billion euros, were sent abroad as net capital exports.

The third force is migration. As people migrate from low-wage to high-wage countries, they make labour scarcer in the former and more abundant in the latter, which tends to reduce the international wage differences. In Europe, migration has already been strong in the past decades and, in all likelihood, it will continue to be strong in the future.

% of total population 25 21.5 19.5 20 18.2 15 12.6 11.5 11.0 11.1 10.4 10 6.9 6.0 5 3.0 2.8 Canada Ledand Australia Germany\*

Stock of Foreign-born Population, 2000–2005

Dotted areas: Share of foreigners, where data were available.

\*) Most countries: 2001, USA: 2000, Germany: 2005.

Sources: OECD (2004), Trends in International Migration: Sopemi 2003 edition, Statistisches Bundesamt (2006), Leben in Deutschland – Ergebnisse des Mikrozensus 2005; Eurostat: Population and social conditions, Statistcs in Focus 8/2006.

#### Figure 2

Figure 2 gives an overview of the shares of the foreign-born population in those countries for which the OECD has provided data plus Germany, for which the Federal Statistical Office published such data for the first time in June 2006. It shows that the Netherlands, Austria, Sweden and Germany have immigration figures that resemble and, in the latter two cases, even exceed those of the United States. Obviously, western Europe is currently facing a mass immigration wave of historical dimensions.

To properly interpret the immigration figures note that they cannot be equated with the shares of foreigners, because the former also reflect the countries' naturalization policies. Where available, the shares of foreigners have also been indicated in the diagram. In the case of the Netherlands, which has a very liberal naturalization policy, this share is only 4.3%, in the case of Germany it is 8.9%. The figures also cannot be equated with the share of the population with a migration background, as the children of the immigrants born in the host country are not included. In the case of Germany, immigrants—including their children—currently account for 18.5% of its population.

A fourth force of factor price convergence is specialization. As the capital-rich West encounters new trade possibilities with the low-wage countries of the East, it retreats from labour-intensive production processes and specializes in capital-intensive ones, where labour typically is unskilled labour and capital includes human capital in

the sense of skilled labour. Conversely, the East, which is rich in labour, specializes in labour-intensive production. Both specialization processes also tend to reduce the wage gaps, as the demand for unskilled labour in the West falls while it rises in the East.

Specialization towards capital-intensive sectors can take place in the horizontal and in the vertical direction. Examples of horizontal specialization are the retreat from textile and leather industries and the expansion of the high-tech areas like chemistry or automobiles. Examples of vertical specialization are outsourcing and offshoring activities.

Outsourcing and offshoring have become particularly strong since the mid1990s, because that was the time when the eastern European EU accession countries
had overcome their transformation crises and the decisions on EU membership were
made. West European firms have increasingly cut off the more labour intensive
upstream parts of their production chains, shifting them to low-wage countries in the
East. Either they themselves established plants there (offshoring) or they gave up part of
their own intermediate production, buying the respective parts instead from other
companies located in low-wage countries (international outsourcing). They thereby
created jobs in the East and destroyed them in the West, pulling up wages in the former
and depressing them in the latter, thus contributing to the process of factor price
convergence.

The process has been observable in most EU countries. Practically everywhere has production depth declined in the sense that the share of the manufacturing sector's value added in its own output has fallen.

Due to its geographical and cultural proximity to the East and its own high wages, Germany has been affected particularly strongly. There is hardly any German

car whose domestic share in production cost reaches 50%. Even exports as such, including the exports of non-manufactured goods, increasingly consist of imports. From 1991 to 2001, the share of imported intermediate goods in exports rose from 27% to 39%, and at the margin this share is already 53%. From each additional euro that German companies earn in exports, they need 53 cents to buy the additional imports needed to produce these exports. Germany is developing towards what I have called a bazaar economy (see Statistisches Bundesamt 2004, Sinn 2004 and 2006).

The labour market implications of these and other flight reactions have been enormous, as can be seen by the sharp decline in manufacturing employment since the collapse of Communism. From 1991 to 2003, manufacturing employment declined by 11% in the Netherlands, about 12% in France, 23% in Great Britain, 26% in Japan and 27% in Germany, the dubious OECD champion in this regard.

## Gains from Trade and Specialization: Theory and Reality

Despite the obvious hardship resulting from job losses, these losses cannot in themselves be considered a sign of welfare losses for the West. After all, they could be the necessary counterpart of a gradual process of sector shift that normally is associated with gains from trade, specialization and an improved international division of labour. There could be an equal number of jobs created elsewhere in the economy, compensating for the losses. This at least is the typical economics textbook view.

Unfortunately, however, reality does not always fit the textbook view. One example of where it definitely does not fit is Germany. As shown in Table 1, full-time equivalent employment in German manufacturing declined by 1.21 million in the ten years from 1995 to 2005. However, in the whole rest of the economy including services,

construction and high-tech areas, no jobs were created in net terms that could have compensated for these losses. On the contrary, even these sectors lost 150,000 jobs in full-time equivalents. So, where did the manufacturing workers go? There is only one possibility left. They went to the welfare state, into state-financed unemployment. That was the improvement in the division of labour à l'Allemande. The dirty industrial jobs were abolished, but nothing was created in exchange!

Improvement in the Division of Labour? The German Case 1995 – 2005, million full-time equivalents

Manufacturing Industry	-1.21
Rest of the Economy	-0.15
Into Non-employment	1.36

Table 1

This development pattern is so remote from what the textbook predicts that it would be absurd to interpret it as an improvement in the international division of labour. It rather seems to be accompanied by welfare losses. As more and more people stop working, they stop making contributions to GDP and national income. Small wonder that Germany was the European growth laggard in the period under consideration, next to Italy.

While no comparable data for other European countries are available, it may be suspected that the problems described for Germany may also be occurring there. After all, even Western Europe on average had a miserable growth performance during the last ten years. There was no comparable region and no continent in the whole world

whose growth performance was similarly disappointing. From 1995 to 2004 the world economy grew by 30%, east Asia grew by 87%, the U.S. by 34%, Latin America by 26% and even Africa grew by 31%, while the old EU countries grew only by 23%.

## Rigid Wages and the Welfare State

What went wrong? That is the obvious question one must ask after realising the problematic reactions of the labour market.

The answer is that the European labour market is rigid, impeding the textbook type wage adjustments, and with rigid wages, unemployment results.

The rigidity stems, to some extent, from the strong unions that have not allowed wage reductions despite the fact that the participation of the ex-Communist countries has reduced the equilibrium wage of unskilled labour in Europe. To another extent, it stems from the welfare state that offers generous wage replacement incomes.

All Western European countries, perhaps with the exception of Great Britain and Ireland, have social systems that are based on the idea of the state paying money in the case no labour income is available. Whether one thinks of social assistance, unemployment compensation or early retirement benefits: the rule is always that the government provides an income under the condition that people do not work and withdraws this income to the extent they do. The government acts as a competitor to private business in the labour market, paying a wage for doing nothing, a replacement wage. This replacement wage creates a minimum wage demand that the private sector must exceed in order to find people who are willing to work. If, however, the labour productivity of the people involved is not high enough to make the employer pay this wage, unemployment results. Evidently, the gradual expansion of replacement incomes

as part of the expansion of the welfare state in recent decades contributed significantly to the rise in structural unemployment (Phelps, 1994).

This is a particular problem for the unskilled, whose wage is significantly pushed above the market clearing level by this effect. However, it extends also to more skilled wage categories because certain natural distances between the categories have to be maintained. As a result of replacement incomes, the whole wage distribution is compressed from below like a harmonica held with the left hand and pushed upward with the right. Unemployment is created up to the middle income ranges, though at progressively lower rates. Small wonder that in nearly all EU countries unemployment among the unskilled is higher than that among medium-skill levels, which in turn exceeds that among people with a university education.

Wage rigidity is a clue to understanding the difference between the textbook prediction of gains from trade and the reality of increasing unemployment and also for evaluating the adjustments one can observe.

There are three different conceptual levels from which the structural changes can be assessed. One is the business perspective. From a business point of view, the economic reactions to trade and international wage differences obviously make sense, for otherwise they would not be taken. This is a trivial truth that no one can deny. Take the German automobile industry, for example. Because it can have its parts cheaply produced in Eastern Europe, it manages to stay competitive and make profits.

Another level of judgement is economic second best. Given that the wages are cut in stone and do not react to the forces of globalization, it is probably good that firms react the way they do, because otherwise they would go bankrupt, unable to maintain any employment. Capital deepening and sector shifts towards capital-intensive

production, including outsourcing and offshoring the upstream parts of the production chain, are welfare-improving reactions to the forces of globalization when wages cannot be changed. They go along with unemployment, but there would be even more unemployment without these reactions.

The last and most important level of judgement is economic first best, and this is the textbook view discussed above, claiming that trade generates gains with all countries involved thanks to an improved international division of labour. This view obviously is not correct for a country like Germany, as was demonstrated above.

In summary, therefore, one can say that the European economy's reactions to international low-wage competition are efficient from the perspective of firms and from an economic second best perspective, given the rigidities of the welfare state, but that these rigidities themselves prevent a first best reaction of the economy.

## **Pathological Overreactions**

Many politicians and even some economists face substantial difficulties when they are asked to evaluate the European economy's reactions to the globalized world, including the new trade possibilities with the ex-Communist countries. These difficulties result from the fact that the distortions in economic reactions resulting from rigid wages resemble efficient economic reactions in qualitative terms, but go too far quantitatively if judged from the perspective of the economic first best. As the direction of economic reactions fits what the trade textbook predicts, many do not think there is reason to worry. But they are wrong, because they overlook the fact that the reactions are

pathologically overdrawn. Let us once again consider the forces of factor price convergence mentioned above to see why this is so.

Consider migration first. If the borders between a high-wage and a low-wage region are opened, people migrate from the low to the high-wage region. In principle, such migration is efficient, because it is driven by wage differences that in turn reflect marginal productivities of labour in different locations. With flexible wages, the stock of East European immigrants living and working in the West is determined such that the last migrant earns a wage increase and induces a corresponding output increase that just matches his migration cost. Thus, the joint GDP of the countries involved net of migration costs is maximized. The nationals of both countries share in this welfare gain by experiencing a higher income net of migration costs than before. There are obvious gains from trade.

When Western wages are rigid, above their market clearing level, this is not quite true, however. On the one hand, the high wages induce more than efficient migration. On the other hand, wage rigidity prevents the creation of new jobs for the immigrants. The result is immigration into unemployment.

Immigration into unemployment is only indirect, however. It is not the immigrants who become unemployed, but the nationals. The immigrants have low reservation wages reflecting their low wages at home, and they are not entitled to social benefits in the host country before they have worked there. Domestic workers, by contrast, have high reservation wages reflecting the high replacement incomes offered by the welfare state. Thus, the domestic workers are the marginal suppliers in the labour market determining the wage and the employment level, and the immigrants are

inframarginal low-wage suppliers that simply crowd out the domestic suppliers one by one (Sinn 2005).

The next topic is capital exports. Capital exports from rich Western Europe to the poor countries of the East can, in principle, be seen as welfare increasing intertemporal trade among nations. The rate of return to capital in the rich countries as well as the rate of time preference are above the respective values in the poor countries. Thus both countries gain if the rich countries lend some of their capital to the poor countries, be it for the purpose of investment or for the purpose of consumption smoothing over time.

However, when wages in the rich western countries are kept rigidly above their market clearing levels, the rate of return to capital in these countries is artificially reduced and more than the efficient amount of capital leaves the country, while unemployment increases. There is a pathological capital export (Seidel 2005).

Confusingly for the politicians, who are not trained economists, this capital export comes along with a current account surplus, since such a surplus by definition is a capital export. Thus the politicians even applaud the pathological overreaction as a sign of a high competitiveness of the domestic economy.

Things are similar with the specialization effects described above. Consider first horizontal specialization. Suppose the West, rich in human and real capital, opens up trade with the East, which is poor but has an abundance of unskilled labour. As explained above, a natural reaction of the rich countries is to give up some of their labour-intensive sectors so that the factors of production can move to the capital-intensive export sectors where the rich countries have a comparative advantage. As the capital-intensive sectors, by definition, are unable to absorb all the workers released in

this process of fully absorbing the real and human capital, the sector shifts in the first instance cause unemployment.

Suppose for a moment the West has well-functioning labour markets with flexible wages. The initial unemployment will then lead to declining wages which themselves incur counter-reactions that ultimately avoid unemployment for two reasons. For one thing, all sectors switch to more labour intensive production techniques. For another, a brake is imposed on the extent of the sector shifts, as with lower wages a larger part of the labour intensive sectors of the economy is able to survive. The economy reacts efficiently in the manner described in the textbooks.

If, however, we take into account that wages are rigid, these two counterreactions cannot take place, and permanent unemployment will prevail. In particular, the brake on the sector shift, which an efficient economy imposes via declining wages, is not operative. Thus, there is a landslide shift in the economy's sector structure from labour intensive import-competing to capital-intensive export sectors, causing mass unemployment together with a pathological overshooting of value added earned in exports (Sinn 2004, 2006).

The process is further reinforced by excessive vertical specialization from labour-intensive upstream to capital-intensive downstream activities, i.e. by the bazaar effect. Again, a flexible economy, whose wages decline following job losses, would also exhibit the bazaar effect to some extent. Production depth would decline and export quantities would increase faster than value added in exports, as described above. However, the wage decline would help to fine-tune the structural change by again imposing a brake on the development. In the absence of such a decline, with rigid wages, the bazaar effect, too, becomes excessive. Too large a fraction of the upstream value

added chains are cut off, and too much capital and labour is moving to the downstream sectors. Thus, value added in exports not only grows too much. What is more, the ratio of export quantities and value added generated in exports expands too quickly. For two reasons the measured export quantities are becoming too large.

This is particularly alarming news for a country like Germany, whose exports seem to perform excellently. Germany is number two in world exports of goods and services. In terms of goods exports alone, Germany even ranks first (WTO 2005). While most observers interpret the excellent German export performance as a sign of competitive strength, the above analysis at least suggests that some caution is appropriate. Germany's growth has been miserable during the last ten years, the country being the laggard of Europe next to Italy, and its standardized unemployment rate has risen from 8.0% to 9.5%. Given that Germany has very high social replacement incomes, which have made it a world champion in terms of the rate of unemployment among the unskilled (OECD 2002, 117, table A11.2), it seems quite possible that Germany would have done better without such high exports. Lower wages for the unskilled, determined by the forces of the market rather than the social preferences of government and unions, would have implied that more of the labour-intensive sectors of the economy had survived and that fewer jobs would have disappeared via outsourcing and offshoring. Value added in exports and export quantities would have been lower, but value added in upstream activities as well as other labour intensive parts of the economy would have stayed higher, more than compensating for the more moderate export performance. Growth and employment would have been higher because overspecialization, excessive capital exports and migration into unemployment could have been avoided.

#### **Activating Social Assistance**

What is the policy conclusion following from this analysis? Some would say that the welfare state needs to be curtailed in order to reduce the high wage competition it exerts in the labour market so that wages become flexible and the economy is able to react efficiently to the forces of globalization. But that would mean giving up the European dream of an equitable society avoiding crime and social unrest, because it provides useful insurance against the multiple economic risks that the market economy encounters.

Arguably, a better, more feasible alternative is to make the welfare state's redistributive activities compatible with wage flexibility. In principle, this is not difficult because instead of paying people for staying absent, the state could pay them for participating: it could provide wage subsidies to workers instead of wage replacement incomes. If the state pays wage subsidies, there is no lower bound on wages, as people do not need a wage that compensates for the loss of social benefits. On the contrary, they would be willing to accept very low wages knowing that the subsidy will be paid in addition to these wages, augmenting their incomes. The state's role would be to give people, who are not productive enough to earn a subsistence minimum with their own work, a second income that is tailored to the individual circumstances so as to ensure that the subsistence minimum is not undercut.

The proposal follows the spirit of the American literature on this theme ranging from Haveman (1988) and Solow (1988) to Phelps (1994a, 1994b, 1997, 2000). However it is based on subsidies to individuals rather than their firms. In theory, both approaches lead to similar results when the market has reacted. However, since

individual subsidies can be tailored more easily to individual circumstances they may be a more efficient tool for targeting the poor.

One viable way of translating this idea into practice is the Ifo Institute's system of Activating Social Assistance, modelled in part on the US Earned Income Tax Credit (Sinn et al., 2002 and 2006). Activating Social Assistance can best be understood as a reform of the existing welfare systems like the German Unemployment Benefit II or the Dutch Bystand. In Germany, a single individual without a job receives 670 euros from the state, in the Netherlands he receives 600 euros. If this individual takes up a job, he can earn up to 100 euros in Germany or up to 150 euros in the Netherlands without a withdrawal of transfers. Thereafter, in Germany, the transfer is cut by 80 cents for every additional euro earned, and in the Netherlands by a full euro, until the transfer has disappeared. It is clear that this is an insurmountable obstacle for the labour market, generating excessive wage demands that private employers can hardly meet.

According to Activating Social Assistance, not only 100 or 150 euros, respectively, would be free, but 500 euros. People could earn that much income by themselves without having to fear any transfer withdrawals. As a consequence, they would demand very low wages, and at low wages there are jobs.

Activating Social Assistance even means that the first 200 euros of earned income are subsidized at a rate of 20% such that the point at which the state pays most money to the individual is not where his own effort is zero. A minimum of effort has to be shown in order to receive the maximum state support.

In order for the system to be financially viable for the state, two additional measures are necessary. For one thing, beyond 500 euros the transfer has to be curtailed gradually. Here the withdrawal rate could be 70% or perhaps only 50% as the Scientific

Advisory Council at the Ministry of Economics has suggested (Bundesministerium für Wirtschaft und Arbeit 2003). For another, the level of basic social assistance has to be cut. In the German case, a reduction by a third is necessary to keep the government budget balanced.

This new system is likely to provide the necessary wage flexibility for the unskilled to enable the economy to return to full employment. In the German case, wages for the unskilled are expected to fall by one third, with 3.2 million new jobs being created.

At least in Germany, a further provision of the system is required to ensure that no one who is needy can fall below the subsistence minimum even if he does not find a job in the private economy. This is communal jobs. In case of need, when no private job is found, everyone can demand employment with his local community providing him a wage for a full-time job equal to today's social assistance or Bystand, for that matter. That is a wage of 600 euros in the Dutch case and 670 euros in the German case.

One may wonder how the local community could meaningfully employ all the people who might be coming. But the simple answer is loan labour. The community can use the private loan labour business, which is already well developed in the Netherlands, and lease its labour force to the private sector at a fee that is determined by supply and demand. And for sure, there will be a fee above zero, at which the bulk of the people who came to the communities can be leased successfully to private employers.

Augmented by communal loan labour contracts, the system offers two ways of wage subsidization. A direct way, where people themselves find employment in the private sector, and an indirect way, where they are employed in the private sector by the aid of local communities and loan employment firms. The incentive structure is

designed such that the first way is preferable. Despite the cut of the basic social assistance level, people can earn an overall income equal to the previous level of social assistance by working half-time in the private sector, and they can earn more than that by working more than half-time. If they rely on communal jobs, they have to work full-time for the same income.

Overall, Activating Social Assistance is a water-tight new polder system that both respects the social aims of the European welfare state and the needs of a market economy that struggles to survive the international low-wage competition brought about by globalization.

The old welfare state based on the idea of paying wage replacement incomes has come to its historical end. It represents an experiment of history that failed because it produced mass unemployment. It is becoming more and more obvious in these times how utopian that system really is. There is no way it can be maintained despite the forces of international factor price convergence. This suggests that a move towards a new new welfare system that provides people a state income while they work may be the better alternative. Help for participating instead of for staying away would be its new slogan.

#### References

- Barro, R., and X. Sala-i-Martin (1995), *Economic Growth*, McGraw-Hill: New York. OECD (2002), *Education at a Glance*, p. 117, table A11.2.
- Bundesministerium für Wirtschaft und Arbeit (2003), "Die Hartz-Reformen ein Beitrag zur Lösung des Beschäftigungsproblems?," Gutachten des Wissenschaftlichen Beirats, BMWA-Dokumentation No. 518.
- Haveman, B. (1988), Starting Even: An Equal Opportunity Program to Combat the Ntions's New Poverty, Somon and Schuster: New York.
- Phelps, E.S. (1994a), "Economic Justice to the Working Poor through a Wage Subsidy," in: D.B. Papadimitriou, ed., Aspects of Distribution of Wealth and Income, St. Martin's Press: New York, 151-164.
- Phelps, E.S. (1994b), "Low-Wage Employment Subsidies versus the Welfare State," American Economic Review 84, 54-58.
- Phelps, E.S. (1997), Rewarding Work. How to Restore Participation and Self-Support to Free Enterprise, Harvard University Press: Cambridge, Mass., and London.
- Phelps, E.S. (2000), "The Importance of Inclusion and the Power of Job Subsidies to Increase It," *OECD Economic Studies* 31, 85-113
- Seidel, T. (2005), "Welfare effects of capital mobility with rigid wages," *Applied Economics Quarterly, Supplement, Beihefte der Konjunkturpolitik* 56, 61-75.
- Sinn, H.-W., Ch. Holzner, W. Meister, W. Ochel und M. Werding (2002), *Aktivierende Sozialhilfe Ein Weg zu mehr Beschäftigung und Wachstum, ifo Schnelldienst* 54, Special Issue, , Nr. 9.

- Sinn, H.-W. (2004), Die Basar-Ökonomie. Deutschland: Exportweltmeister oder Schlusslicht?, Econ: Munich.
- Sinn, H.-W. (2005), "Migration and Social Replacement Incomes. How to Protect Low-income Workers in the Industrialized Countries against the Forces of Globalization and Market Integration," *International Tax and Public Finance* 12, 375-393.
- Sinn, H.-W. (2006), "The Pathological Export Boom and the Bazaar Effect. How to Solve the German Puzzle?," forthcoming in: *The World Economy*, The World Economy Annual Lecture, Nottingham 2005, CESifo Working Paper No. 1708, 2005.
- Sinn, H.-W., Ch. Holzner, W. Meister, W. Ochel and M. Werding (2006), *Redesigning the Welfare State. Germany's Current Agenda for an Activating Social Assistance*, Edward Elgar: Cheltenham and Northampton, Mass..
- Statistisches Bundesamt (2004), Volkswirtschaftliche Gesamtrechnungen, Input-Output-Rechnung. Importabhängigkeit der deutschen Exporte 1991, 1995, 2000 und 2002, Wiesbaden.

Solow, R. (1988), Work and Welfare, Princeton University Press: Princeton.

WTO (2005), Press Release: World Trade Report 2005.