

# Equality and Efficiency: Policy for Globalisation

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### ABSTRACT

Policy responses to increasing wage inequality in advanced countries are considered. Protection is argued to be a means of diverting resources to appease particular interest groups at net cost to society. A social security system is shown to damp the effects of increased inequality at the cost of aggravated unemployment. Reforms linking benefits more firmly to work are shown to reduce unemployment and, in the presence of learning from experience, to raise productivity and reduce overall inequality.

Keywords: Social Security Reform; Employment-linked Benefits; Wage Inequality; Globalisation

JEL Codes: F160, J230, J240.

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## INTRODUCTION

Thank you very much for inviting me here to Berlin; it is a great honour to address this conference. I would like to discuss some of the effects of globalisation, or at least of the changing economic environment in which we live, and to illustrate the point that policy response needs to be carefully thought out. Some popular policy solutions may exacerbate the problems they seek to address.

Globalisation is a process with many facets, many of which are generally welcomed while others can be a source of considerable economic and political concern. Many people see benefits in falling transport costs and the increased choice which results from rising volumes of international trade. Fischer (2003) regarded globalisation as a challenge mainly for the international economic environment and for developing countries. He identified five key issues.

1. Implementing the right policies
2. Delivering on Trade and Aid
3. Making the International Financial System less Crisis-prone
4. Dealing with Migration
5. Improving Governance

Although it is obvious that the advanced countries are substantial actors in some of these and the key actors in others, it is noteworthy that the effect of globalisation on the domestic labour market in advanced countries does not feature on his list. Perhaps someone in the United States does not see that any policy questions are raised in the public mind.

Nevertheless in Europe and perhaps increasingly in the United States there are considerable concerns about the effects of access to cheap imports resulting in “unfair” competition with established domestic industries and the feeling that, as a result, wages for unskilled labour are being driven down or that unemployment is being driven up. These concerns are understandable. Change always creates uncertainty and a changing economic environment is often unpopular. In England we remember the Luddites who rioted against the advanced technology of the textile industry in the 18<sup>th</sup> century because they saw it as a threat to their jobs and way of life. In the late 1960s the unionised dock workers in London refused to handle containers because these posed a threat to their continuing employment. It is little surprise that England did not sustain the sort of cottage textile industry the Luddites sought to preserve or that the London docks are no longer of any economic significance. They have been replaced by non-unionised docks further down the Thames and on the East Coast, while the City of London’s satellite, Canary Wharf, stands on one of the former docks.

International trade in goods is an alternative to international trade in factors of production. The developed countries are capital rich and labour scarce while the opposite is true of the developing countries such as China and India. We are not willing to accept the movements of labour which would balance out capital/labour ratios internationally but trade in goods has a similar effect on the wage/rental ratio. Factor prices are equalised if both developed and developing countries produce similar goods and provided also that labour efficiency levels are similar in both

regions. If labour efficiency is higher in the developed than in the developing region, then the wage/rental rate may also be higher but the effects of globalisation will still be to depress it. This argument can be taken a step further by making a distinction between skilled and unskilled labour, recognising that, at least in the short run, the developing countries have a particular abundance of unskilled labour rather than labour in general. In such circumstances as developing countries start to produce goods which compete with those from developed countries factor-price equalisation is likely to lead to downward pressure on the price of unskilled labour. One might expect the United Kingdom to be more affected than Germany given that the poor quality of intermediate level education in the United Kingdom has been documented for many years. But in any case it is reasonable to expect developing countries to have some influence on wages in the developed world (Freeman, 1995).

Developed countries can avoid the problem of factor price equalisation by stopping producing the goods which are also produced in the developing regions. Unskilled labour can nevertheless be employed in the non-traded service sector provided that rates of pay are low enough for there to be a demand for the services which they might provide. With institutional obstacles to low wages, such as the United Kingdom's minimum wage, it is more likely that low-skilled workers will tend to be unemployed. Even without a minimum wage, institutions such as unemployment benefit may set a practical floor to the wage rate and thus limit the employability of low-skill workers. A transatlantic summary of the matter is given by Lucas (1988) who remarked, the question why people choose not to work is not very different from the question why they choose to work for one employer rather than another. If people are paid not to work then some people will choose not to work.

It should be noted that, while it is generally accepted that the position of unskilled labour in the advanced countries has worsened in the last twenty years or so, it is by no means clear that globalisation is responsible. Many authors have argued that the responsibility lies predominantly with skill-biased technical change rather than with globalisation *per se* (see Wood, 2002). But I wish to discuss policies to address the problems arising from the worsening position of unskilled labour and, at least in the context I am considering, it does not matter whether the cause of the worsening is globalisation or skill-biased technical change. I wish to consider first the use of protection to alleviate the symptoms and secondly to consider how, depending on its design, the social security system can be an engine for aggravating rather than mitigating the effects of these sorts of changes for unskilled labour. My illustrations are with respect to the United Kingdom. However, I think the points they raise are relevant to all advanced countries.

## **PROTECTION**

I think it is fair to say that there remains in both Europe and in North America a substantial body of opinion which sees protection as a solution to the labour market issues raised by or at least attributed to globalisation; in doing so it ignores the lessons of history. Kindleberger (1973) gives a good account of the tariff war which developed in the early 1930s. Obviously history would not repeat itself exactly. The scope for the new exporting countries such as China to retaliate must be limited by the magnitude of their trade surpluses. Thus it is conceivable that the developed world

could achieve a terms of trade gains by means of protection- resulting in a genuine increase in its income. This is the standard optimal tariff argument. But as the world moves to a more balanced pattern of international trade it is hard to see such a situation being sustained and a tariff war on the scale of the early 1930s would probably then re-emerge.

The domestic pressures for protection are easy to understand. Although, in the absence of sufficiently favourable terms of trade movements, protection results in a lower overall level of national income as compared to free trade, the Stolper-Samuleson theorem demonstrates that it raises the price of the factor in which the goods whose import is restricted are intensive. As a corollary it must reduce the relative price of other factors. Some factors gain and others lose. But typically industries seeking protection represent a band of coherent and well-organised beneficiaries while the losers, although larger in number may not understand that they lose out from such a policy. Thus the argument for protection can be summarised by the Austrian prayer to St Florian.

“Lieber heiliger Florian. Beschütz unseres Haus und sünd die andere an.”

When tariffs are imposed at least the revenue accrues to the country imposing the tariff and the terms of trade effect means that aggregate domestic income may be raised. However, a particularly insidious form of protection is given by voluntary trade restrictions. Here producers in industrialising countries agree to limit their exports to developed countries. As a result they are able to raise their prices, so the tariff rent, which would otherwise accrue to the importing country is instead garnered by the exporter. This of course makes the arrangement much less controversial than a tariff but ensures that, with no favourable movement in the terms of trade, the protected country always loses out. Many years ago (Cable and Weale, 1982) I looked at this using the Cambridge Growth Project Model. We found that with a tariff depressing imports of textiles and clothing into the United Kingdom by just over 30% after ten years, the tariff led to real household income being depressed by 0.2% while the voluntary export restraint led to a fall of 0.7%. The simulations were carried out with taxes and the exchange rate adjusted to restore budget and external balance. Employment in the textile industry was raised by about 120,000 people in both cases and profits were also increased. So employment was raised to the benefit of the insiders in the industry, but at a cost to the consumer and a reduction in national income.

In the last few years we have started to see the benefits of much cheaper clothing becoming available as a result of the end of the Multi-Fibre Agreement and it is perhaps not surprising that this has created difficulties for Italy whose textile industries have turned out not to be very competitive at world prices. It will be an important test for the European Union to resist domestic pressures for renegotiation of voluntary export restraints. Protection can certainly offer short-term relief to industries and employees affected by globalisation but, whether delivered by tariffs or voluntary export restraint, it is hard to see that it is solution to the effects of globalisation in depressing wages of low-skilled workers or leading to their unemployment. Theory suggests that, except in the most favourable circumstances where no retaliation results, it is likely to be little more than the appeasement of sectional interests.

Rejecting protection then, the question arises what other solutions are appropriate. How is it possible to maintain, or not to depart too far from economic efficiency while at the same time ensuring that low-skill workers are protected, at least to some extent, from the effects of globalisation on their earning potential? Perhaps an alternative to consider is to explore the role of the social security system and to consider its effectiveness in alleviating the labour market problems which may be caused by globalisation.

## **SOCIAL SECURITY and the LABOUR MARKET**

The basic issue and problem associated with social security is well known at least by economists. Flat rate taxes can be collected and subsidies paid without distorting incentives and without leading to economic inefficiency. If a citizen's income- as a flat rate social credit is now often known- is paid to people whether they work or not, then although some satisficers will decide that they can afford not to go out to work, the social security arrangement will not offer a strong disincentive to work. But such an arrangement is very expensive and the taxes needed to pay for it are themselves bound to be distortionary. Social credit can be made cheaper by the introduction of a taper- withdrawing benefits from people as their incomes rise. But this is of course equivalent to a high marginal rate of taxation and promotes equality at the expense of economic inefficiency. In the United Kingdom effective tax rates faced by poor people are much higher than those faced by rich people with a significant number paying over 70p in the pound.

When the framework for the United Kingdom's Welfare State was set out (Beveridge, 1942) an attempt was made to keep the cost of the social security system within bounds by limiting them to people whose incomes were low because of unfortunate circumstances- unemployment, illness and old age. But we have since learned that the step from non-employment to employment is also often a matter of choice, recognising that people will be unlikely to take up work after a period of unemployment if their income falls or rises only slightly as a result. Thus since the mid 1980s and in particular in the last ten years there has been a move to make it much harder for people to draw benefits for long periods without working. Britain's unemployment is now considerably lower than it was twenty years ago despite the pressures on unskilled labour arising from globalisation or skill-biased technical change. Indeed, because we have higher labour force participation income per head is now higher in the United Kingdom than in Germany and quite possibly even than in West Germany- an outcome which I find incredible.

A similar approach has been used elsewhere. Denmark has also succeeded in delivering a low unemployment rate despite apparently generous benefit arrangements. People who draw them are put under considerable pressure to find work so as to offset the disincentive effects of social security. In Germany the Hartz reforms are similar in spirit although Boss and Elendner (2005) doubt whether there will have a substantial effect.

Immervoll *et al.* (2006) shed some light on the importance of linking social security payments to employment using a combination of a simple model of labour supply and the tax and benefit system as represented in country-specific micro-simulation

models. The difficulty with such *ad hoc* models is of course well known; they do not represent in any way the intertemporal consumption and labour supply decisions that households face and as a consequence they cannot lead to satisfactory conclusions about the welfare effects of different policies. Nevertheless, Immervoll *et al.* confirm the superiority of an arrangement like the United Kingdom's working family tax credit over one where income rather than employment status is the main determinant of benefit entitlement. The effect of benefit withdrawal as a disincentive to work is much reduced by the arrangement.

But I would like to come on to the reasons why the analysis provided by Immervoll and his colleagues is unlikely to be the whole story. If one considers the labour/leisure choice of an individual over the whole life cycle behaviour seems, on the face of it, most peculiar. Most men take most of their leisure late in life (e.g. they retire from the work-force) - although perhaps the fashion for gap years after graduation is indicative that the incentive to work is also fraying at the start of working life. While many women take career breaks in order to look after young children, they too tend to return to work, often full time after child care becomes easier, and then concentrate leisure late in life. Unless the earning power of old people is much below that of young people, economic theory suggests that people would prefer to take their leisure spread more evenly over their lives. Why don't people work three days a week up to age eighty instead of five days a week up to age sixty or sixty-five and then not at all beyond that?

My colleagues and I at the National Institute have been working on a modelling framework to explore the two key marginal decisions in economics, work/leisure and consumption/saving (Sefton, van de Ven and Weale, 2005a, b). We simulate the behaviour of a synthetic panel of households through the life-cycle. Each household faces uncertain income and an uncertain life-span, and makes its consumption and labour supply decisions optimally in the face of this. Our work so far has focused on pension policy and its interaction with the retirement decision. But the model can also be used to explore labour supply decisions of younger people and their interaction with social security. The approach has the attraction of being robust to the Lucas critique; economic behaviour is a direct consequence of optimising decisions.

Our work suggests that, although intertemporal substitution does take place, the observed profile of rates of pay is not in itself adequate to explain the pattern of labour supply over the life cycle. On the other hand if, as Mincer (1974) and Weiss (1986) suggest, people's earning power increases with experience, then the advantages of concentrating labour supply become very apparent; we find a degree of learning from experience is necessary to calibrate our model in a manner consistent with consensus views about intertemporal substitution.

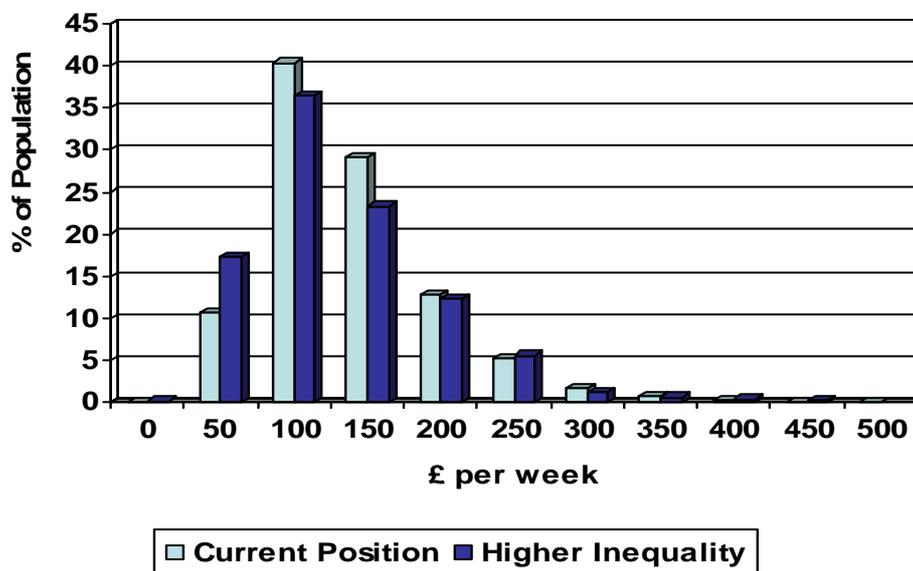
If this is the case, then the influence of the social security system on the incentive to supply labour will interact with the effects of experience to generate the distribution of individual earning power. A social security system which discourages work or encourages only casual and perhaps intermittent black economy work will be likely to lead to a distribution of market wages which is more unequal than that arising in an economy where "the caring hand" does not cripple, to use Herr Snower's phrase. In much the same way, a social security system which discourages retirement saving increases wealth inequality- because it discourages saving by relatively poor people

(Sefton, Dutta and Weale, 1999). The social security system may also have a depressing effect on “true” productivity, by which I mean the productivity which would be observed if everyone chose to work; despite this, it may raise observed productivity by filtering out of the labour force the least productive members.

Obviously these effects are likely to be accentuated if a poorly-designed social security system interacts with an exogenous widening of the inequality of earning power, whether as a result of skill-biased technical progress or because of the factor price equalisation pressures arising from globalisation on the incomes of low earners. We use the National Institute model to indicate the effects of increased inequality and to show how they interact with the social security system. We identify how social security alleviates and aggravates inequality at the same time.

Inequality in our model is driven by the initial distribution of earning power (human capital) at age twenty, when people are assumed to enter the labour force, and the dynamics of the income process after that. We represent the increased inequality by raising the standard deviation of log earning power at age twenty from 0.4 to 0.5, adjusting the mean value so as to keep mean earning power unchanged. The Gini coefficient is raised from 0.22 to 0.27. The impact of this change on the distribution of earning power at age twenty is shown in figure 1. In the stochastic income process which we use to represent the evolution of earning power (by which I mean the amount people would earn gross of taxes but before any social security receipts if fully employed), there is only a small degree of mean reversion, so this increased earning inequality persists throughout working life.

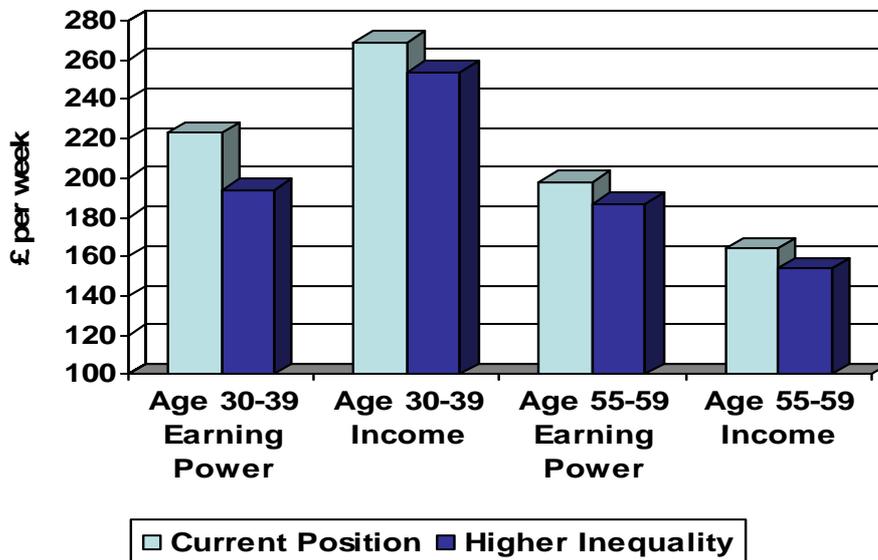
**Figure 1: INEQUALITY at AGE 20 before and after an INCREASE in INEQUALITY**



The social security system as we have modelled it, and this is meant to be a representation of the UK system as far as is possible, does not protect poor people entirely from the increased inequality. Nevertheless the fall in average incomes after taxes and benefits of people in the bottom quintile of life-time incomes when aged 30-39 is only 5½ % compared to a fall in earning power of 13%. By age 55-59 both

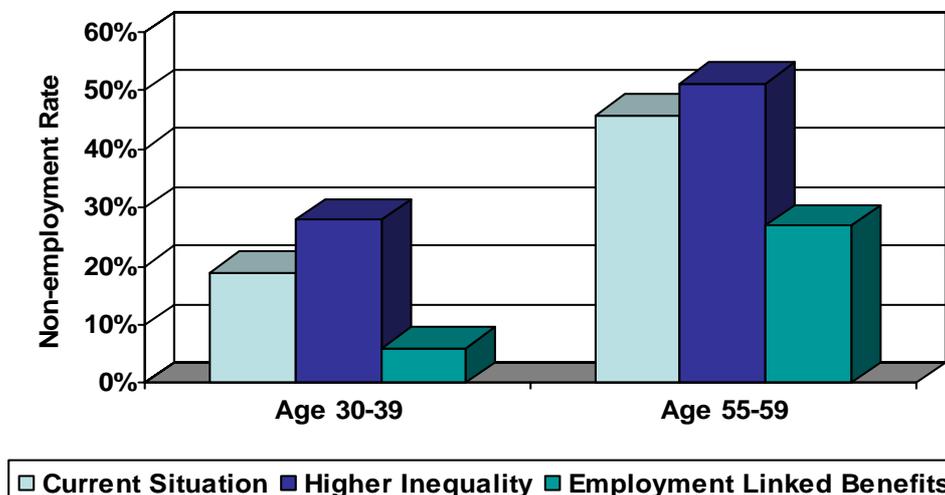
earning power and income fall by 6%. Figure 2 shows these changes which result from greater inequality such as might result from globalisation or skill-biased technical progress.

**Figure 2: SOCIAL SECURITY MITIGATES the IMPACT of RISING INEQUALITY**



With no change to the social security system non-employment among the group in the lowest quintile of life-time earnings increases sharply, from 19% to 28% at age 30-39. The proportion of people aged 55-59 in the same income group who are retired increases from 46% to 51%. There is also an increase in the proportion of retired people in the top quintile, from 27% to 28% reflecting the fact that, with increased inequality and the same mean income, their incomes have risen. This raises the number of people who feel that they can afford to retire. This is shown in figure 3.

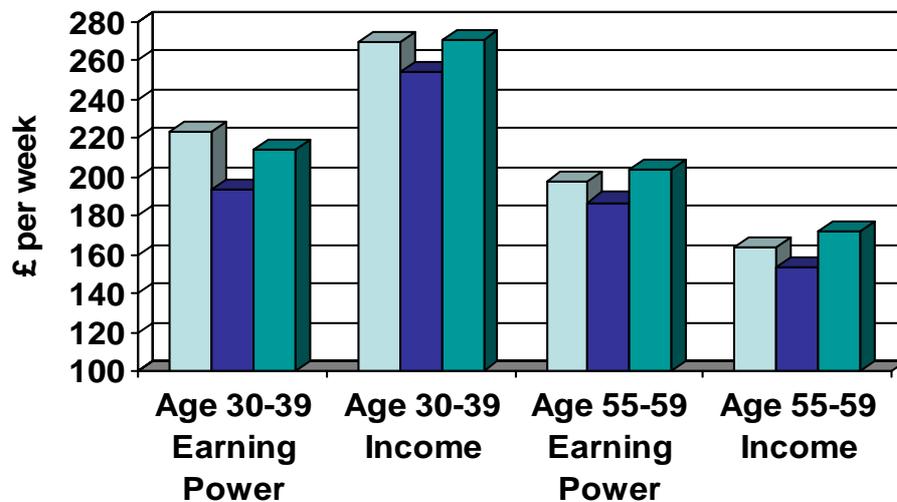
**Figure 3: The EFFECT of SOCIAL SECURITY on LABOUR FORCE PARTICIPATION by the LOWEST LIFE-TIME INCOME QUINTILE**



What might one hope for from reform of social security? As I mentioned earlier a key policy in the United Kingdom has been to link benefit receipts to work. We represent a policy of this type by reducing the benefits paid to people who do not work by £15 per week. This matches the reduced earning power of the twenty-year olds in the bottom income quintile. Obviously it considerably increases the incentive to work because the benefits accruing to people who do have jobs are not changed. The proportion of the population not working in the bottom quintile aged 30-39 falls to 6% instead of rising to 28%. And only 27% of the population aged 55-59 retire instead of 51% with the social security system unchanged. This is also shown in figure 3.

Figure 4 shows the effect of social security reform on the income and earning power of people in the same life-time income quintile. Because incentives to work are stronger the population of low earners has higher earning power. Both the incomes of those in the bottom quintile and, at least for people aged 55-59, their earning power, is actually higher than before the “increase” in inequality. As a consequence the mean income of the bottom life-time income quintile rises as a proportion of the overall mean income in the age group and, as a result income inequality is reduced.

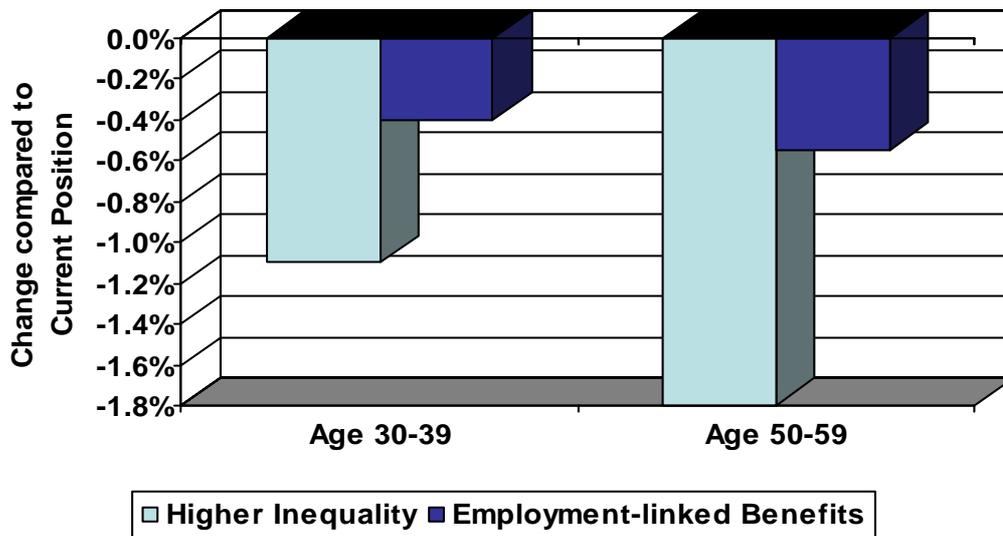
**Figure 4: The EFFECT of EMPLOYMENT-LINKED BENEFITS on EARNING POWER AND INCOME of the LOWEST LIFE-TIME INCOME QUINTILE**



**Current Position**
 **Higher Inequality**
 **Employment-Linked Benefits**

Figure 5 explores the effect of social security reform on average productivity of people aged 30-39 and 55-59. While the increase in inequality reduces this, a greater-focus on employment-linked social security mitigates the fall.

**Figure 5: EMPLOYMENT-LINKED BENEFITS RAISE PRODUCTIVITY OF THE LOWEST LIFE-TIME INCOME QUINTILE**



Obviously, if the results are believed, such a reform is desirable with or without the effects of globalisation, but the results do demonstrate that we should look at our own institutions, as well as exogenous factors, in influencing inequality.

## CONCLUSIONS

Of course it can be objected that these results are nothing more than simulations from our model and the world may not turn out to be like that. The fact that the model is calibrated to the data we have is no real protection against that. And it is also true that a reform as stark as that I have described would not be easy to implement.

I should also stress that I am not in any sense claiming that the social security system is the only route by which “helpful” policies can be a source of unemployment. Snower and Merkl (2006) show that it can interact with employment protection legislation to create an even more damaging mix- a finding which is easy to accept.

Nevertheless I hope I have demonstrated how, in a framework which most economists regard as plausible, the social security system interacts with changes to inequality such as might arise from globalisation or skill-biased technical change and that some of the possible adverse effects of globalisation on the labour market can be mitigated by reviewing the working of the social security system. The tide of globalisation cannot be turned back but economists can certainly advise on how policy changes may affect its consequences.

## REFERENCES

- Beveridge, W.H. (1942). *Social Insurance and Allied Services*. Cmnd 6404. HMSO.
- Boss, A. and T. Elendner. (2005). "Incentives to Work: the Case of Germany". Kieler arbeitspapier Nr 1237. <http://www.uni-kiel.de/ifw/pub/kap/2005/kap1237.pdf>
- Cable, V. and M.R. Weale. (1982). "Trade and Aid Policy Analysis: Use of the Cambridge Growth Project Model". *ODI Review*. Pp 50-70.
- Fischer, S. (2003). "Globalisation and its Challenges". *American Economic Review*. Vol 93. No 2. pp 1-30.
- Freeman, R.B. (1995). "Are your Wages set in Beijing?". *Journal of Economic Perspectives*. Vol 9. pp 15-32.
- Immervoll, H., H. J. Kleven, C.T. Kreiner and E. Saez. (2006) "Welfare Reform in Europe: A Micro-simulation Analysis", *Economic Journal*. Forthcoming.
- Kindleberger, C.P. (1973). *The World in Depression. 1929-1939*. Allen Lane. London
- Mincer, J. (1974). *Schooling, Experience and Earnings*. NBER New York.
- Sefton, J., J. Dutta and M.R. Weale (1998). "Pension Finance in a Calibrated Model of Saving and Income Distribution for the UK". *National Institute Economic Review*. No 166. pp 97-107.
- Sefton, J. J. van de Ven and M.R. Weale. (2005a) "Means Testing and Retirement Choices in Europe: a Comparison of the British and Danish Systems" *Fiscal Studies*. Vol 26. pp 83-118.
- Sefton, J. J. van de Ven and M.R. Weale. (2005b) "The Effects of Means-testing Pensions on Savings and Retirement". NIESR Discussion Paper 265. <http://www.niesr.ac.uk/pubs/dps/dp265.pdf>.
- Snower, D.J. and C. Merkl. (2006). "The Caring Hand the Cripples: The East German Labour Market after Re-unification". Kiel Working Paper No 1263.
- Willis, R.J. (1986). "Wage Determinants: a Survey and Re-interpretation of Human Capital Earnings Functions". In *Handbook of Labour Economics*. Vol 1. Ed O. Ashenfelter and R. Layard.
- Wood, A. (2002). "Globalization and Wage Inequalities: a Synthesis of Three Theories". *Weltwirtschaftliches Archiv*. Band 138. pp 54-82.