

GLOBALIZATION AND THE WELFARE STATE:  
MORE INEQUALITY – LESS REDISTRIBUTION?

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# **Globalization and the Welfare State: More Inequality – Less Redistribution?**

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## **Abstract.**

This paper considers the possible connection between globalization and inequality in Western welfare states. There are a number of theoretical reasons why increased trade and factor mobility should lead to more inequality in rich countries. At the same time, there are arguments why globalization should also make it more difficult to redistribute incomes in favour of low-income groups, and this squeeze would seem to lead to severe difficulties for traditional welfare state policies. However, the empirical evidence for such a squeeze varies considerably between countries, and it is suggested that a richer framework than the standard competitive model is needed to understand the forces at work.

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## **1. Introduction.**

Many observers have spotted a trend towards increased inequality in Western countries during the last couple of decades. Although the trend is not uniform, it is important enough to give cause for some worry, or at least to stimulate research into the underlying causes. Although I believe that there are a number of different causes whose relative importance is far from clear, the set of causes popularly known as globalization certainly is one that has been emphasized by many observers. The general idea is that the liberalization of commodity trade and factor movements in the international economic system has led to an increasing inequality of factor incomes, i.e. of incomes before taxes and transfers. If true, this would obviously also contribute to greater inequality in the standard of living, provided there are no offsetting movements in the degree of public sector redistribution policies. But if one imagines that national governments pursue policies that trade off efficiency, e.g. as measured by GDP per capita, against equality, then we would in fact expect to see such offsetting policy changes; more inequality should lead to more redistribution. If governments acted in this way, redistribution policy would modify the effects of increasing inequality of factor incomes on the degree of inequality in people's standard of living.

However, many people claim that economic policy, instead of offsetting the forces making for greater inequality, will become increasingly powerless to achieve it. One argument that is invoked in support of this view is that the forces of globalization impose constraints on the degree of redistribution via taxes, transfers and social security. When factors of production become more mobile, an attempt to redistribute factor incomes will affect the international allocation of capital and labour. Then an attempt to tax capitalists will lead to an outflow of capital. Attempts to redistribute labour incomes between rich and poor via progressive taxation and transfers to the poor will lead to emigration of the high-income earners and to immigration of people who are particularly in need of social support. A higher degree of international factor mobility thus implies that redistribution diminishes the tax base while increasing the pressure on public expenditure. The welfare state finds itself in a globalization

squeeze between increased inequality on the one hand and less effective instruments to promote equality on the other.

In the following I first look at the theoretical hypotheses that are used as underpinnings for these arguments. I then go on to look at some of the empirical evidence<sup>1</sup>.

## **2. The causes of increased inequality.**

There is always the danger, when discussing globalization and inequality, that either one's audience or oneself is led to assume that globalization is the *only* cause of increased inequality. But as I have already pointed out, to the extent that there is a general trend towards increased inequality, there are good reasons for believing that globalization is only one element – although possibly an important one – in the set of underlying causes. To set the stage for a balanced treatment, I would therefore like to start with a summary review of the most important causes of increased inequality.

First, it is widely believed that the development of technology has a built-in inequality bias. To an increasing extent, both manufacturing and services require high-skill employees, workers who are able to handle advanced technological equipment. Since the required skills are scarce, those who possess them will be able to sell their services at an increased premium in the labour market. Consequently, the skilled-unskilled wage differential increases. In an important econometric study, Krusell et. al. (2000) interpret this general hypothesis as *capital-skill complementarity*, i.e. as the hypothesis that capital accumulation raises the marginal productivity of skilled labour but reduces the marginal productivity of the unskilled. They find considerable support for this hypothesis in U.S data for 1963-1992, even though there was a substantial increase in the supply of skilled workers during the same period. However, their study makes no attempt to assess the relative importance of technological change with respect to other influences on inequality, such as globalization.

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<sup>1</sup> For other treatments of this problem see Freeman (1995), Richardson (1995) and Wood (1995). These articles constitute a symposium on inequality and trade in the *Journal of Economic Perspectives*.

Second, during the past couple of decades Western countries have gone through a period of deregulation and tax reform with increased emphasis on economic incentives. It is highly unlikely that individuals respond in a uniform way to improved incentives. Some will react to the substitution effects of lower marginal tax rates by working harder and saving more. Others will change their behaviour only to a very small degree; in other words, the income effects will wholly or partly dominate the substitution effects. The consequence of this is that the former group of individuals will increase its incomes relative to the latter. In this perspective, some increase of inequality in factor incomes is an expected and unavoidable consequence of the creation of improved incentives for economic efficiency. Blomquist et. al. (2001) present evidence indicating that the Swedish tax reform of the 1980s did indeed contribute to increased inequality. For the United States it has been suggested that part of the increased inequality of labour incomes following the Tax Reform Act of 1986, has been due to income shifting from other tax bases as a response to lower marginal tax rates; see e.g. the discussion in Slemrod (1998).

Third, we may have witnessed a change in social attitudes to inequality. The labour market, in particular, is a complex mechanism whose operation reflects more than just the impersonal forces of supply and demand. Wage differentials – at least at the level of the individual working place – must be seen as being reasonably fair to be socially acceptable. If they are not, they may give rise to social frictions, e.g. in the form of strikes, which will reduce efficiency. Thus, both workers and management may have an interest in holding down inequality in the workplace. But attitudes towards fairness and social acceptability may change. It may be that they have indeed changed in favour of more tolerance towards wage and income differentials, and that part of any increased inequality of gross labour incomes may be a reflection of this.

These possible causes of increased inequality are unlikely to be independent. Thus, for example, the tax reforms that have led to greater rewards to work effort and saving might not have come about if politicians had not perceived a change in the social climate that has made inequality of outcomes more acceptable.

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A later symposium on globalization in the same journal contains articles by Rodrik (1998a), Obstfeld

In the following I will concentrate on globalization as the cause of increased inequality. In doing this I am well aware that I am conducting a partial analysis in which I am assuming that these other causes are somehow held constant. Ideally, perhaps, one would have liked to conduct the analysis on the basis of a model where all these causes are present, and where, on the basis of econometric estimates, one would have been able to assess their relative importance. But, at least to my knowledge, such a model is not presently available. Even if it had been, a partial analysis which concentrates on the basic economic mechanisms that are likely to be at work, is helpful for a better understanding of the economics and politics of globalization and inequality.

### **3. Trade, factor movements and inequality.**

The term ‘globalization’ does not have a precisely defined scientific content. In the following I shall loosely associate it with a larger volume of international transactions, both in commodities and in factors of production<sup>2</sup>. Globalization is not a new phenomenon. During the second part of the 19<sup>th</sup> century there was a strong move towards the liberalization of international transactions, and international trade expanded rapidly until the beginning of World War I. Then a decline set in which lasted until about 1960, after which there has been a new wave of globalization (O'Rourke (2001), Feenstra (1998)). Since then, the volume of trade in goods and services has gone up in most - but not in all - countries. Capital, both real and financial, has become more mobile. The mobility of labour is more open to debate. The general perception, especially in Europe, seems clearly to be that it has gone up, especially in terms of immigration from third world countries, and this is no doubt correct for the last couple of decades. However, there have been periods of history, in particular the century before World War I, when labour mobility was significantly higher. At that time however, migrants flowed out of Europe, mainly to North

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(1998), Feenstra (1998) and Williamson (1998)

<sup>2</sup> Some would no doubt consider this definition of globalization as unduly narrow and would e.g. ascribe an important role to the information technology revolution. I do not wish to deny the importance of this, but for my present purposes the IT revolution is taken to be important only to the extent that it changes the real flows of goods and services.

America, and it did not change the ethnic and cultural character of the European countries. Our perceptions are probably much influenced by the fact that immigrants are more different from us than they used to be, and therefore more visible. The importance of immigration varies considerably between European countries, and in some of them it is very low or insignificant. But in any case, *potential* immigration is probably high for most Western European countries; if all barriers to entry were removed, immigration would be likely to increase substantially. This in itself is reason enough to think seriously about the effects of increased immigration.

However, I begin by assuming away factor mobility and revert to the classical assumption in the theory of international trade, which is that commodities are mobile across international borders, while factors of production are not. (This can be seen as a stylized version of the more reasonable and less restrictive assumption that commodities are *more* mobile than factors of production.) This makes it possible to think in a structured manner about the following question: What are the likely effects of increased trade liberalization on the distribution of income in Western economies?

In international trade theory it has been common to study the effect of trade liberalization by assuming first that countries are in a state with no trade whatever. Relative prices will then be determined by domestic supply and demand conditions. Factor prices will be determined by country-specific scarcities; capital will be cheap in capital-rich countries, whereas labour will be cheap in countries with an abundance of labour. Goods that are capital-intensive in production will accordingly be cheap in capital-rich countries and expensive in countries whose endowment of capital is small relative to labour. If we disaggregate further, the theory implies that the skilled-unskilled wage differential will reflect the relative scarcities of the two classes of labour in each individual country<sup>3</sup>.

Imagine now that the countries switch from a regime of isolation and protectionism to one of free international trade. Countries will then come to export the commodities that they can produce relatively cheaply. These will be the commodities making

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<sup>3</sup> As pointed out by Atkinson (1999), this two-way distinction between labour types is much too coarse. I use it here primarily to capture the general idea that some workers have more human capital and a higher productivity than others.

relatively intensive use of the abundant factors of production. Thus, countries that are rich in skilled labour will export skill-intensive products, and countries with an abundance of unskilled labour will export commodities that are intensive in the use of unskilled labour for their production.

But in a competitive economy such a development will not leave factor prices unaffected. Take the case of the country that is rich in unskilled labour, which we may think of as the low-income country. The fact that some of its industries now no longer produce only for its domestic markets, but for world markets, means that output will increase and therefore also the demand for factors of production. Moreover, the demand will increase in particular for the factor of production used most intensively in the export industries, i.e. unskilled labour. On the other hand this country will import skill-intensive goods, and this will reduce the domestic demand for skilled workers. This development will tend to reduce the skilled-unskilled wage differential in the low-income country, which was presumably high to begin with.

Now let us look at a country with relatively much skilled labour. The wages of skilled labour there are relatively low, and the country therefore becomes an exporter of commodities that use skilled labour intensively. The wages of skilled labour go up, while the wages of the unskilled will tend to fall as the result of competition from the poor countries<sup>4</sup>. In the rich country, therefore, the skilled-unskilled wage differential will increase. Given time, this widening differential will create incentives for more workers to acquire skills, and this will close some of the initial gap in wages, although it is reasonable to think that some of it will remain.

This analysis utilizes the theoretical framework originally developed by the Swedish economists Eli Heckscher and Bertil Ohlin in the interwar period and refined by Paul Samuelson and a number of others during the subsequent decades<sup>5</sup>. They emphasized

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<sup>4</sup> The theory as I have outlined it here assumes full employment of labour; those who lose from trade liberalization take the loss only in the form of lower wages. This is obviously a simplification, and it is reasonable to assume that relative price changes due to trade liberalization will have as one of its short-term consequences an increase in the unemployment rate. However, neither economic theory nor the lessons from history would lead us to expect a long-run relationship between openness and unemployment, so that the simplification made here is hardly a serious one.

<sup>5</sup> An advanced textbook treatment of both Ricardian and Heckscher-Ohlin models can be found in Dixit and Norman (1980). In particular, Chapter 4 contains an excellent analysis of the theory of factor price equalization.

the implication that the opening of trade implies a movement towards *factor price equalization*. In fact, given a number of rather specific assumptions, the theory implies that free trade will lead to full international equalization of factor prices – and remember that this occurs without any international mobility of the factors themselves. Thus, we have the remarkable theoretical result that free international trade in goods may have the same effects on factor prices and income distribution as if the factors themselves had been perfectly mobile between countries. But we do not have to believe in this strong version of the theory in order to accept the weaker hypothesis that trade implies a *tendency* towards the equalization of factor prices.

What happens if we assume that factors of production also become mobile across international borders? The result of this assumption is more obvious than the case of commodity trade. Consider first the case of increased capital mobility. This will tend to equalize the rate of return to capital between countries, although it must be kept in mind that there are country-specific risks for which individual investors must be compensated in the form of a higher expected return. Country-specific risks may reflect investors' beliefs in the stability of the countries' policies and institutions. Countries that are seen as unstable in this sense may find it difficult to attract capital from abroad, even though the expected return in economic terms is high by international standards.

Increased labour mobility will similarly tend to reduce international differences in wage rates. To see this, note that migration will tend to flow from labour-abundant countries, where wages are low, to countries of relative labour scarcity, where wages are relatively high. Labour supply increases in the rich country, depressing the wage level there, while it diminishes in the poor country, so that wages increase. If the migrants are primarily low-skilled workers, wage differentials increase in the rich country and diminish in the poor country.

Two conclusions should be emphasized from this brief sketch of international trade theory. The first is that it is not necessary to assume that globalization takes the form of massive movements of factors of production in order to conclude that it implies a tendency towards factor price equalization; in this respect, commodity trade is a substitute for factor mobility. The second is that if we believe that poor countries have

a comparative advantage in the production of commodities that use unskilled labour intensively, this implies a widening of skilled-unskilled wage differentials in the rich countries. This tendency is reinforced by direct labour migration if we assume that the immigrant population tends to have a larger proportion of unskilled workers than the domestic population. It is naturally of interest to note that these hypotheses are consistent with a well-developed theoretical framework, and it is just as interesting to note that they agree with a more common sense approach to problems of international trade.

Before leaving this exercise in trade theory, there is a further conclusion that should be strongly emphasized. In a competitive world economy, all countries have the potential to gain from free trade in commodities in the sense that their aggregate incomes will increase. A more open economy benefits the citizens of a country in a number of ways. Through international trade the range of consumers' choice is expanded, since they are no longer bound to consume only the goods that their country is able to produce. Further, by specializing in the lines of production in which it has a comparative advantage, each country is able to increase the total value of its output. In addition, the opening up of the economy is likely to increase its degree of competitiveness and diminish the power of domestic monopolies, thereby leading to a more efficient utilization of domestic resources. These gains do not imply that each and every individual or group will gain; as should be clear from the discussion above, some groups of factor owners will lose and some will gain. But adding up the gains and losses, the country as a whole should come up with a net gain. This suggests that the liberalization of trade might be combined with a governmental policy of redistribution, transferring income from the gainers to the losers, which might in fact make everyone better off. Whether this is a realistic possibility may, however, be open to some doubt, particularly when commodity trade liberalization is combined with an increasing degree of international factor mobility.

#### **4. Redistribution from the viewpoint of optimal taxation.**

There are a large number of studies of optimal taxation that attempt to incorporate both equity and efficiency considerations. A particularly simple setting for such a study is the choice of an optimal linear income tax, where the choice of a constant

marginal tax rate ( $t$ ) is combined with a uniform lump-sum transfer ( $a$ ) to all income earners. This theory is well known, so I shall simply provide a brief sketch of it along the lines of the treatment in Dixit and Sandmo (1977)<sup>6</sup>. The budget constraint of individual  $i$  is

$$c^i = (1-t)w^i h^i + a. \quad (i = 1, \dots, n) \quad (1)$$

This says that consumption equals disposable income, with gross earnings being derived entirely from labour. The superscript  $i$  refers to the individual, who faces a wage rate that is the competitive market's reflection of his productivity or ability. The utility-maximizing choice of  $c^i$  and  $h^i$  (given identical preferences among individuals) implies that the indirect utility functions can be written as

$$v^i = v((1-t)w^i, a). \quad (i = 1, \dots, n) \quad (2)$$

The optimum choice of the tax parameters must obviously reflect the form of the social welfare function that is chosen to evaluate it. Here I assume that this is the utilitarian sum of utilities. The government's budget constraint requires that the excess of gross taxes over transfers must equal the government's net revenue requirement ( $R$ ), i.e.

$$t \sum_i w^i h^i - na = R. \quad (3)$$

It can then be shown that the optimal tax rate can be written as

$$t = \gamma \text{cov}(w^i h^i, \lambda^i) / \varepsilon. \quad (4)$$

In this formula,  $\gamma$  is a positive parameter (the inverse of the marginal utility of income for the government), and  $\varepsilon$  is the compensated derivative of aggregate labour supply (in efficiency units) with respect to the tax rate; it is reasonable to assume that  $\varepsilon < 0$ <sup>7</sup>. Consequently, since presumably we would have  $\text{cov}(w^i h^i, \lambda^i) < 0$  under utilitarianism,

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<sup>6</sup> An analysis of this model in a much broader setting is provided by Atkinson (1995).

the marginal tax rate is positive. It would be higher, the lower is the elasticity of labour supply; it would also be higher, the larger the dispersion of labour incomes between individuals.

The example is simplified in that all factor earnings come from labour and none from capital. But the model can be extended to account for the presence of both labour and capital income, e.g. along the lines of Atkinson and Sandmo (1980). If there is a proportional tax on capital income, and cross elasticities are assumed to be zero, then the optimal rate of tax on capital income can be expressed in a formula similar to (4). Both the tax rates on labour and capital income should be the result of a tradeoff between efficiency and equity considerations.

## **5. Redistribution policies in a world of factor mobility.**

In a closed economy with no or an insignificant amount of foreign trade, redistribution policies can be designed without any concern for international repercussions. Redistributive taxes on wage and capital incomes will distort factor prices relative to what they would have been in the absence of taxes, and this will have negative consequences for the efficiency of the economy. However, in a society that values both efficiency and equality, it will be rational, as demonstrated by the example of equation (4), to trade off some efficiency in return for a more equitable distribution of income and resources. Liberalizing the economy to allow for free trade in commodities does not raise any major problems in this regard. Evidently, the taxation of income from capital and labour might change wages and yields on capital in such a way that the country's comparative advantage might be distorted. But in principle this is no different from the effects of taxation on domestic efficiency. The social loss may be derived from a less efficient use of the country's own productive resources, or from a less efficient utilization of its comparative advantage. Whichever is the case makes no difference for the main principle: If society values equality, it is worth paying something to get more of it than the market system provides.

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<sup>7</sup> There is an aggregation problem involved which may cause the violation of the Slutsky restriction that  $\epsilon < 0$ , but this need not concern us here; see Dixit and Sandmo (1977).

Things become more complicated when we allow for the mobility of factors of production. Consider first the mobility of financial capital, which has increased significantly in recent years, partly due to deregulation, partly to a reduction in the costs of transaction. If individual investors are able to move their financial holdings of stocks, bonds and bank deposits around the world at low costs, there will be a tendency for the *after-tax returns* on the various types of assets to be the same across countries. However, there are also a large number of institutional investors who are exempt from tax, and their portfolio choices will tend towards international equalization of *before-tax returns*. An equilibrium allocation of financial capital among countries therefore requires the equality of *both* before-tax and after-tax returns. But this equilibrium can only exist if countries choose to have the same rate of capital income taxation. Letting  $(r, R)$  be the rates of return at home and abroad and  $(t, T)$  the capital income tax rates, we have that

$$r(1-t)=R(1-T) \text{ and } r=R \rightarrow t=T. \quad (5)$$

International financial integration leads to a pressure towards international uniformity of taxes on capital income. And since returns on real capital can always be converted to returns on financial assets, the pressure towards international uniformity of tax rates is one that will hold for all kinds of capital.

But the story does not stop there. If each individual country realizes that it can attract more capital by lowering its tax rate, it has a strong incentive to do so. But if it does, other countries will respond, either by cutting their own taxes correspondingly or even reducing them further. This international tax competition will have as its end result a political equilibrium of capital taxation where the tax rate is zero. This may be a good thing from the point of view of the efficiency of the global allocation of capital; however, many will consider it to be unfortunate that politicians will lose control of an important instrument of tax policy, possibly affecting both the supply of public goods and the amount of redistribution<sup>8</sup>.

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<sup>8</sup> The theory of tax competition was pioneered by Oates (1972). For a survey of the literature see Wilson (1999).

The pressure on the rate of capital income taxation may also be illustrated by reference to the formal exercise of the previous section of this paper. Whatever the effect of globalization on the dispersion of incomes from capital, the increased mobility of capital would increase the elasticity of the capital income tax base with respect to the tax rate. This in itself would tend to drive the optimal rate of tax down towards zero.

Let us now consider the consequences of increased mobility of labour, which raises even more interesting and challenging issues. As I have already remarked, labour immigration is still at a modest level in many European countries, but there is a potential for much higher levels. The realism involved in the descriptions of likely effects of increased mobility should therefore not be judged solely in terms of today's number of mobile workers.

Redistribution in the modern welfare state is of two kinds. One is truly interpersonal and goes mainly from the rich to the poor (although there are cases where government redistribution is regressive). The other, which is quantitatively the more important, is intra-personal. It takes primarily the form of social security and social insurance and provides a social safety net against economic hardship due to old age, illness, unemployment etc. This redistribution is similar to private insurance, which also provides transfers between 'good' and 'bad' periods and states in an individual's life. Progressive taxation and social security are the main instruments for redistribution policy, and both of them have elements of interpersonal as well as intra-personal redistribution.

Why can one not rely on private insurance contracts to carry out the whole job of intra-personal redistribution? One reason why private markets with voluntary contracts do not perform well in this regard is due to the problem of adverse selection. Suppose that one could buy private unemployment insurance at a premium which reflected the average risk (for the work force as a whole) of becoming unemployed. Who would be the most likely buyers of such an insurance policy? Clearly, it would be the people with above-average risk of becoming unemployed, while those with a risk below the average would find the premium too high. But this would lead to losses for the insurance companies and lead them to raise the premium - but then the

insurance buyers as a group would become even more risky. The result could be that the market for private unemployment insurance would break down completely, and that the population as a whole would be without protection against one of the more severe risks in a modern industrial society.

One solution to this problem would be for the government to take it upon itself to provide unemployment insurance while making membership in the insurance scheme compulsory. This is exactly the solution chosen by most welfare states. The same is true with disability and sickness insurance, which raise similar problems for the efficient functioning of private insurance markets. In a purely domestic setting, this implies that social insurance overcomes the adverse selection problem, although not the problem of moral hazard. But this conclusion has to be revised once one admits the possibility of international migration.

Now suppose that each government has designed a welfare state with varying degrees of redistribution built into it. Say that country A has generous benefit payments financed by high and progressive taxes on income, while B has lower benefits and lower taxes. Then labour mobility between countries begins to rise. A mobile worker can now look at the countries as different insurance companies, each offering a different insurance policy. Which one should he choose as his country of residence? People with high earning ability and low risk of becoming unemployed will choose country B, while those with low earnings and high risks of unemployment and sickness will choose the more developed welfare state A. The government of A then finds that its tax base is shrinking and may be forced to reduce its high taxes and generous benefits to make it more similar to country B<sup>9</sup>.

This aspect of the globalization squeeze on the welfare state fits neatly into the interpretation of equation (4). If globalization leads to a widening of differences in gross earnings through its effects on the skilled-unskilled differentials, the numerical value of the numerator increases. A utilitarian government would then like to increase the degree of redistribution by increasing the marginal tax rate and provide larger transfers. But if at the same time labour becomes more internationally mobile, the

numerical value of the labour supply elasticity also goes up, and this acts as a brake on the desire to redistribute.

But this is certainly not the whole story of migration, redistribution and the public sector. When considering migration, a person will have to consider a whole range of private costs and benefits in relation to the public sector. When making a choice between residence in countries A and B, a rational person will look not only at his total tax burden but also at his benefits from public expenditure. These benefits will be derived not only from social security and other transfers, but also from the supply of public goods and services. What could lead to substantial immigration or emigration would be large discrepancies between tax payments and benefits in each individual country. High-tax countries might still survive in a world of increased international mobility, but the high taxes would have to reflect correspondingly higher benefit levels, especially for the internationally mobile groups in the population. Both low-tax and high-tax countries might be forced to become less redistributive in terms of the total effects of taxes and public expenditure.

It should be added that, as emphasized by Tanzi (2000), market regulations have also played an important role in welfare state policies. This is especially true in the labour market, where many countries have a large set of regulations regarding minimum wages, working hours, health and safety, child labour, non-discrimination etc. Other markets where regulations have played an important role are energy, housing and transportation. Some of the regulations have legal status, while others are the results of collective bargaining. Economists have often disagreed about the nature of regulations. Some see them as mainly the outcomes of private rent-seeking, while others consider them as attempts, although often misguided, to afford additional social protection to the less fortunate members of society. Whatever one's view of this, it seems clear that national regulations will be much harder to preserve with increasing mobility of labour and capital between countries. There may be efficiency gains, but there may also be elements of loss of social protection<sup>10</sup>.

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<sup>9</sup> This argument has been formulated especially forcefully by Sinn (1990). See also Christiansen, Hagen and Sandmo (1994).

<sup>10</sup> The social benefits from labour market regulations have been analyzed by Agell (1999, 2002).

The theories that I have outlined above, although quite complex, are still much too simplified to be subjected to very simple empirical tests. One reason for this is clearly that the world is a much more heterogeneous place than indicated by the simple two-country model that I have used, and there is a need to take account of individual countries' institutions and experience. Another reason is that the population and labour force of a country show much more variability in terms of abilities and preferences than indicated by the simple skilled-unskilled dichotomy; see Atkinson (1999). However, some of the trends suggested by the theory should be of fairly wide applicability. Let me therefore turn to an examination of some of the evidence and to consider whether this leads us to accept the theories in roughly the form that I have outlined them, or whether there are other matters of importance that have so far been left out.

## **6. Some evidence.**

Once we move away from the simplified theoretical picture of a two-country world, it is evident that the expected effects of globalization must depend on its precise nature as regards the development of the pattern of international trade. A large part of the international trade of Western industrialized countries is with other industrialized countries. To the extent that globalization just means more trade and factor movements within this group of countries, there is little reason to believe that its effects on inequality of factor incomes will be very pronounced (although the constraints on individual countries' tax and expenditure policies might still be significant). For if differences in the relative importance of skilled and unskilled labour are small, the factor price effects of international trade are likely to be small also. Things look different when we consider the movement of goods and factors between on the one hand the Western welfare states and on the other hand the third-world developing countries and the transition economies of Eastern Europe. Since the latter groups of countries are particularly well endowed with unskilled labour, our theory predicts that this should result in increasing inequality in the Western welfare states. Has this actually happened?

This is not an easy question to answer. It is not enough to look at the development of income inequality indices over time, since this might reflect a number of different

causes. Ideally, we would have liked to see a fully specified econometric model that could account for all the causes listed in Section 2 above as likely to effect inequality within each of the welfare states that we might be interested in. For each country we would then be able to identify the exact contribution made by globalization to the observed change in inequality. Obviously, there are a number of severe problems of measurement here. Quite apart from the measurement of inequality (on which alone there is a large research literature), there is no self-evident way in which to derive aggregate measures of "technology" and "incentives". Not having recourse to such a grand model, we have to piece together what we know about the development of inequality, using a variety of sources and methods of measurement.

Atkinson (1999) has studied data on income distribution for eight countries – The US, UK, Canada, New Zealand, France, Netherlands, Germany and Norway – for the period from the end of the 1970s to the end of the 90s. In particular, he has studied the development of inequality of gross earnings (wages and salaries), using the ratio of average earnings in the top to that of the bottom decile as his measure of inequality. This is a very summary measure, but if the hypothesis of widening income differentials in Western countries were true, we would expect to see a steady rise in this ratio at least during most of the twenty years period. But this is in fact not what we see. There is a fairly steady rise in inequality for the US and the UK, while for France and Germany the trend is downwards. The other four countries, Norway included, show a mixed pattern with no obvious trend in the development of inequality. Cross-country studies surveyed by O'Rourke (2001) do not lead to any firm conclusions regarding the relationship between openness and factor income inequality, at least not for the late 20<sup>th</sup> century. On a more aggregate level, Melchior & al. (2000) cite studies showing that, for the period 1967-1990, the experiences of the main economic regions of the world were substantially different. Inequality showed a slight increase for the industrialized world as a whole, it fell in the Middle East, South Asia and Latin America, and it first fell and then increased for Sub-Saharan Africa. Gottschalk and Smeeding (1997), surveying the experiences of the OECD countries, emphasize that although there has been some increase in earnings inequality in almost all countries, the amount of increase, as well as the level of inequality vary widely among them. We must conclude that there is no firm support in the data for the theory that globalization leads to more inequality of factor incomes, at

least not if we interpret the theory as pretending to be valid for all countries. But the conclusion should be interpreted with care; it may e.g. be the case that the forces of globalization take longer to make their effects felt and that the theoretical hypotheses will be confirmed by future studies.

Second, our theoretical survey also suggested that the amount of redistribution carried out by governments is likely to go down. This should be reflected in increased inequality of *disposable income*, i.e. factor income or earnings minus taxes plus transfers. In Atkinson's (1999) study, inequality of disposable income, as measured by the Gini coefficient, shows a marked increase of inequality in the US, UK and New Zealand, but none in Canada and France. As Atkinson points out, the different experiences of the US and Canada is particularly noteworthy, given their geographical and cultural proximity and the large amount of trade between them. Canada seems to have chosen to neutralize the effect of increased earnings inequality by economic policy, while the US has not<sup>11</sup>. Inequality has increased in Norway particularly since 1991, but inequality remains lower here than in the other seven countries. In general, it is the small countries which are most exposed to the forces of globalization, so that one would expect both the level and upward trend of inequality to be more pronounced there than in the large countries. But no such pattern is discernible in the data.

Gottschalk and Smeeding (1997) have studied the historical records of OECD countries as regards their responses to increased pre-tax inequality. Their general conclusion is that changes in tax and transfer policies tend to modify increasing factor income inequality, although there are large variations between countries. At one end of the scale are the United States, Australia and Japan where redistribution has done little to modify pre-tax inequality, and the United Kingdom, where public policies may even have contributed to more inequality. At the opposite end are countries like Canada, Finland and Norway, where inequality of disposable income has increased much less than factor incomes. Their results seem broadly consistent with those of Atkinson; in particular, the small and more open economies do not seem to be constrained in their redistribution policies by the forces of globalization.

This brief and selective survey of empirical studies seems to suggest that the application of standard economic theories to the likely effects of globalization on inequality is unable to explain the development that we actually observe in a satisfactory manner. As regards the development of factor income inequality, the different experiences of individual Western economies are hardly consistent with a view that they are all exposed to the same forces of international competition from low-income countries. When it comes to the inequality of disposable income, the data indicate that individual countries actually have considerable freedom of action to design their tax and social security systems. The globalization squeeze on the welfare state may actually be less severe than standard theories of international trade and public economics might lead us to believe, and less than is frequently alleged in popular debates.

## **7. Theoretical modifications.**

I would not like to draw the conclusion from this discussion that the standard theory is somehow "all wrong"; it points to chains of causation and economic trends that are part of the whole picture and may become more dominant in the future. But there is obviously something missing from the theoretical picture which has to be added on to the standard model. The list of additions and refinements could be made quite long; I will limit myself to commenting on two central aspects.

One important feature of the standard neoclassical model of international trade is that it treats all markets as being perfectly competitive. When interpreted literally, this assumption is clearly wrong as a description of reality; the question is only how wrong it is. Although it is not difficult to find commodity markets whose behaviour differ from the predictions of the perfectly competitive model, the deviations may not be permanent or large enough to make much difference to the conclusions. However, this is different when it comes to the factor markets and in particular to the markets for labour. Empirical studies show that countries with strong trade unions tend to have both a lower level and a smaller increase of inequality than countries in which trade

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<sup>11</sup> The Canadian experience and the contrast to the United States has been discussed by Helliwell

unions are weak (Gottschalk and Smeeding, 1997). In addition, as argued by Atkinson (1999) social norms regarding fair wages and inequality may differ between countries and lead to wage structures that differ substantially from the competitive norm. These are likely to be more resistant to the forces of global competition than the competitive model would lead us to think. Indeed, we should probably think of trade unions and fair wage norms as being to some extent insurance devices, providing the individual worker with some protection against fluctuating prices and output demand. Since price and output fluctuations are likely to be larger in open economies, such economies are likely to have less inequality of earnings and to have more resistance against exogenous forces that tend to increase inequality.

When thinking about the future of the welfare state in the face of globalization, one should also keep in mind that the present wave of globalization is a process that has been going on since the end of World War II. This period has also been one of significant public sector expansion in the whole of the industrialized world. An empirical cross-country study by Rodrik (1998b) concludes that openness is the single most significant explanatory variable for the size of government, and that it is in the most open economies that government has expanded fastest. His interpretation of this result is that government is complementary to the market, particularly in providing insurance against the risks inherent in exposure to international competition. Moreover, especially in the advanced countries, openness tends to be particularly correlated with spending on social security and welfare, another indicator that increased openness does not imply a tendency towards a shrinking of the welfare state. Openness, rather than being a constraint on national redistribution policy, may in fact be one of the main causes behind the development of social safety nets and redistribution<sup>12</sup>.

## **8. Concluding remarks.**

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(2001).

<sup>12</sup> An interesting discussion of these issues with particular reference to the Swedish experience is Olson (1990).

In this brief discussion of the effects of globalization on inequality I have identified some reasons why we might expect an increased volume of commodity trade and factor movements to lead to increased income inequality in the rich countries. I have also discussed some of the reasons why more international mobility might lead to constraints on the redistributive policies of governments.

Theory leads to hypotheses about the likely direction of economic changes, but it tells us little about the quantitative magnitudes of the effects. A cursory look at the evidence does not indicate that the effects so far have been very large. For some countries it appears both that inequality of earnings has gone up and that redistribution has gone down, but in other countries the pattern has been quite different.

As we have already seen, the constraints on taxation and redistribution arise mainly from the possibility of increased mobility of the factors of production. A higher mobility of capital may release a process of capital tax competition between countries that may in the end result in the elimination of capital income taxation. So far, however, this has not happened. Perhaps the explanation is that country-specific uncertainties and transactions costs are important enough to neutralize differences in tax rates between countries. In the case of labour mobility, transactions costs, widely interpreted, are obviously even more important, so that international differences in taxes, social security and provision of social goods may have rather modest effects on the amount of international migration.

It is not clear which conclusions that one should draw from all this. One possibility is that globalization does indeed have the effects that the theory indicates, but that there are many other forces at work simultaneously which may lead to different outcomes in different countries. In particular, openness may foster labour market institutions and government policies that promote equality and social protection. Another interpretation is that it is still too early to see the full effects of the process of globalization, but that they will become more visible – and more in line with the predictions of the competitive model – with the passing of time. One certainly cannot reject these interpretations, but at the present time it still seems too early to conclude

both that globalization will increase inequality and that public policy is unable to neutralise it.

Let me close with an important reminder. What I have focussed on here is the effect of globalization on inequality in the Western industrialized countries. The effects on inequality in the poor countries might well be very different, with the increased demand for unskilled workers raising their wages and leading to less inequality there. Moreover, free trade is a powerful engine for growth in the poor countries and has the potential to radically reduce global inequality. This dimension of the problem should definitely be kept in mind when we worry about the effects of trade liberalization and globalization on the amount of inequality in our own countries.

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