

COMMENTS ON SESSION I: TAXATION AND THE LABOUR MARKET

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I will start off with the last paper by Ulrik Nødgaard on the distributional consequences of progressive taxation. The paper presents a nice and simple model, where a distinction is made between unskilled and highly skilled labour. The two key parameters of the model are the elasticity of the supply of labour by the highly skilled workers and the elasticity of substitution in the production function between the two types of labour. For the low-skilled the labour supply is fixed, *i.e.* the supply elasticity is zero by assumption. A further important assumption, although not emphasised in the paper, is that wages are fully flexible, as a result of which the labour market always clears.

The policy point of the paper is to challenge the general perception, according to which progressive taxes redistribute income from high-income to low-income workers. The underlying behind this perception is that labour supply and relative wages remain intact when the tax progressivity increases. This assumption is not justified.

The policy experiment done in the paper contains an increase of taxes on highly skilled workers and the use of the tax receipts to raise transfers to unskilled workers. According to the general perception the welfare of the low-skilled workers should increase as a result. Nødgaard's model shows that this is not necessarily the case, or in any case the increase in the welfare of low-skilled is much smaller than what one would obtain by assuming no changes in the behaviour. The reason for this is that higher taxes reduce the supply of highly skilled labour, which through the complementarity effect reduces the demand for low-skilled workers and depresses their wages. The wages of the highly skilled will actually increase as a reaction to reduced supply, which offsets in part the negative effect of higher taxes on net income. If the two types of labour were fully complementary, an increase of taxes on high-skilled labour would in fact make the low-skilled workers worse off. The results are policy relevant. References to empirical studies would further strengthen their relevance.

I have two questions in mind. First, what would happen if one relaxes the assumption of full wage flexibility? I do not see any major difficulty to modify the model in order to address this issue. Assume, for instance, that the wages of the low-skilled labour do not decline when the tax on highly skilled workers is increased due to, say, real wage rigidity, trade union power or minimum wage legislation. The outcome would no doubt be lower employment for the low-skilled workers and higher wage for the highly skilled, who also would choose to work less hours. This should be a policy-relevant issue for the European countries at least.

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Secondly, how does globalisation have any effect on the distributional effects of progressive taxation. One is tempted to assume that globalisation will increase the supply elasticity of especially the high-skilled labour. If this is the case, an attempt to further redistribute income from high-skilled to low-wage earners by raising the tax progressivity would be offset even more by lower wages or lower employment of the low-skilled workers.

Tax cuts are supposed to bring important supply-side benefits in the form of higher growth and employment growth. It is, however, difficult to estimate these dynamic benefits compared to the calculation of direct revenue losses to the government necessarily associated with tax cuts. In his paper Niels Kleis Frederiksen calculates the revenue/recovery ratio first for the wage income tax and secondly for a hypothetical reform of capital and corporate income taxation. The model used for the calculations is based on the concept of the marginal cost of public funding, which concept is related to the revenue/recovery ratio.

The calculation of the revenue/recovery ratio for wage income taxes is in principle straightforward. Simulation with the Danish parameters shows that the ratio is relatively small for low wages and increases with the wage. The differences arise from tax progressivity. A critical parameter again is the supply elasticity of labour supply. In the numerical example it is assumed to be the same for all wage brackets. A sensitivity analysis by changing the assumptions on the supply elasticities in different wages brackets might be informative. It would also be interesting to see similar results based on the parameters from other countries.

A reform of capital and corporate income taxation affects the behaviour in a number of fronts. Household saving, business investment and residential investment at least can be expected to change. As a result the asset allocation will change as will the rates of return, which in turn affects the accumulation of pension and life insurance assets.

In the hypothetical reform of capital and corporate income taxation, the tax rates are lowered (to a uniform level of 25 per cent) and the tax system is streamlined. Assuming no change in the behaviour this reform would lead to sizable revenue losses. The revenue loss will be much smaller once the savings and investment behaviour are assumed to change. The simulation shows that inflation matters a lot. With the same tax reform the revenue/recovery ratio would be comparatively modest when inflation is zero, while with an inflation of 4 per cent an identical reform would be entirely self-financing.

While these results are interesting and policy relevant it is not obvious to me that they carry far enough to justify the conclusion that the reform of capital and corporate income taxation to be preferred to tax cuts on labour income. Lowering capital and corporate taxes and streamlining the tax system may in itself be desirable, and in some cases unavoidable due to tax competition. But these two forms of taxes are not alternatives. I have some doubts of whether the labour supply elasticity alone is sufficient to capture the channels through which the dynamic effects are felt in the economy.

The reform in capital taxation affects the asset allocation, although it may take some time before a new allocation is obtained through investment flows. In principle, the asset prices could change before assets are reallocated by new investment. Would it affect the results in any way?

The only empirical content of the paper is the fact that the parameters chosen for simulations are close to those the present Danish tax system. However, there has been a number of important tax reforms in the developed world in recent years. It would be interesting to study whether the estimated affects of those reforms conform to Frederiksen's analysis. I think they would. I have in mind our own experience. Finland implemented a rather comprehensive reform in early 1990s. Tax rates were lowered to 25 per cent uniformly across the board. Many tax allowances were eliminated, and the double taxation of dividends was abolished. In retrospect, it appears that the revenue/recovery rate turned out to be very high, although it is difficult to distinguish between the effects of different elements of the reform.

The paper on taxation in the US by Jagadeesh Gokhale is also very interesting. The problem I have with the paper is the fact that it is not very transparent. To fully comprehend it would require huge institutional knowledge on the American system. However, what becomes clear is that the American tax system is very complicated. The fact that one does not know the financial planning software program *ESPlanner* and the underlying model does not help to read the results.

The paper presents rates of taxation which are calculated on the basis of lifetime incomes and lifetime taxes and transfers of stylized American families. I find the idea of stylized families attractive, but my problem with them is the fact that there does not seem to be any tax/income dynamics in the lifetime of these families. One stylized family earns minimum wage over the whole lifetime, while another family earns 40 times the minimum wage throughout its lifetime. Although there may be such families, this does not exactly correspond to my perception of stylized families in America. I have been in the belief that most families have rising incomes over their lifetime and that in the US workers who start at the minimum wage can expect to get much higher earnings in the not-too-distant future. It would be interesting to see similar results calculated for a representative middle class family, which faces a representative income and tax profile over the future lifetime. It would also be interesting to see similar calculations made for the European countries.

Nevertheless, the results are interesting. For example, they show that in the US the effective lifetime progressivity of taxes seems to be high for low-income families. It is also interesting for an European to note that despite the relatively low tax burden in the United States the US tax system contains a lot of distortions. I also find interesting one conclusion presented in the paper according to which all American workers lose more than half of their lifetime earnings in taxes. What do they actually lose? Apparently, these calculations are not made on the welfare basis.

The first part of the paper by Carlos Martinez-Mongay is largely descriptive. It uses national incomes data in order to calculate effective tax rates on labour, capital and consumption. An important merit of the paper is in its wide geographical

(OECD plus USA and Japan) and historical (1970 onwards) coverage. One could dig out much more interesting comparative information from this data than what is done in the paper.

The effective tax rates based on the flow-based national accounts may in some occasions be misleading. This is because of the treatment of taxes on capital gains and realized stock options. These two items played a very significant role in Finland during and immediately after the ICT boom. During a few years the tax revenue from stock options was very significant indeed. The gains from realized stock options are taxed as labour income, but they are not recorded as such, neither should they be recorded as such. In other words, the taxes and tax bases do not match. There is another reason why the flow-based national income data may occasionally give a distorted picture on effective tax rates. This is because of the year when taxes are collected may differ from the year they accrue.

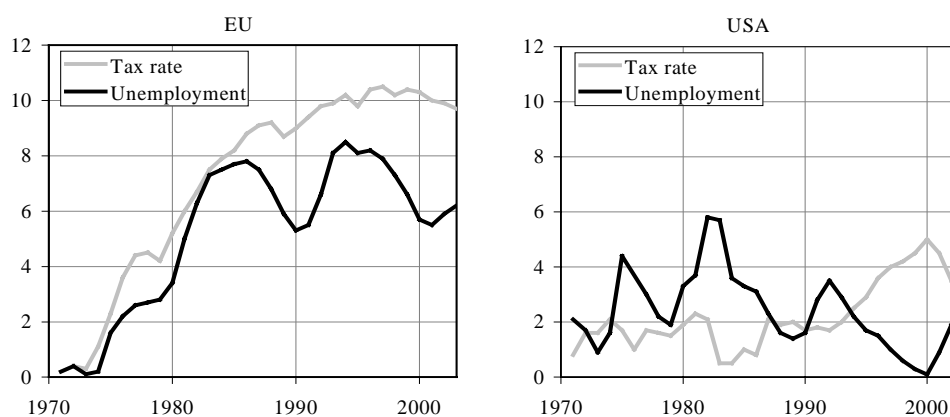
These kind of distortions may be disturbing if cross-country comparisons are made on an annual basis, but they are likely to be less harmful when one uses five-year averages as in fact is done in the latter part of the paper to estimate the so called fiscal reaction functions. These estimates illustrate the interdependence between various tax measures as well as public expenditure and transfers to households in the sample of EU countries as well as the EU plus the US and Japan. Table 5 shows that the relationship is indeed tight in all cases except for the effective capital tax rate. Admittedly the close relationship does not tell anything about the causality. The author is tempted to interpret the relationship reflecting the simultaneous build-up of the welfare states in most countries, which explains the fact that tax rates and tax revenues as well as public spending and transfers have been increasing practically everywhere.

While this may be part of the story, it most likely is not the whole story. Figure 1 depicts the cumulative increase in the total tax rate in Europe and in the US since 1970. The difference between the two panels is striking.¹ It reveals that unemployment and its relationship to the tax burden and transfers should be taken into account in order to tell a full story.

Indirect taxes are generally regarded as regressive, because low-income earners pay more indirect taxes in relation to their incomes than do high-income earners. This is simply due to the fact that the latter have a higher propensity to save. This regressivity element drops out if consumption expenditure rather than income is used as the welfare indicator. This is the choice done in the paper by Georgia Kaplanoglou and David M. Newbery on the distributional aspects of the indirect taxation system in Greece.

Indirect taxes have distributional effects if the tax rates differ between the commodity groups and if the distribution of consumption across different goods

¹ It suggests also that the distinction between the two samples, EU15 and EU15 plus the US and Japan is not very interesting given that the data is unweighted. The most important differences are visible to the eye.

Figure 1**Cumulative Increase in the Tax Rate and the Rate of Unemployment in EU-15 and the US since 1970**

Source: Secretariat of the Economic Council, *Structural Rigidities in Europe*, Helsinki, Prime Minister's Office, Publications 2002/7, p. 65.

differ between income groups. Kaplanoglou and Newbery use the microdata on Greek households in order to examine the effects of the tax reforms made between 1988 and 2002 on the distribution of welfare. The empirical analysis is carefully done. According to the results the indirect tax system in 1988 reduced the welfare inequality compared to the hypothetical situation of a uniform indirect tax on all goods. In 2002 the redistributive effect was in other direction: the prevailing tax system increased welfare inequality compared to the case of a hypothetical uniform tax rate. This implies that changes made to the indirect tax system between 1988 and 2002 have increased inequality.

It is difficult to argue against these conclusions. But the question is: is the measured increase in inequality or the implied reduction in welfare large or small? Some kind of a yardstick would be helpful in order to assess the significance of the results. The authors tend to conclude that the reforms in indirect taxation probably have not had an important adverse impact on the distribution of purchasing power. In any case the system of indirect taxation in 1988 was complicated and costly to manage. Streamlining and modernizing the tax system probably have reduced these costs. If, in addition, they have led to better allocation of resources and higher growth, households in all income groups might have benefited. This potential effect need to be taken into account before a final conclusion on welfare effects can be done.

The paper demonstrates that taxes on cars and the use of cars (including fuels) plays a very important role in indirect taxation. Even the conclusion may change

depending on whether car-related expenditure is taken into account or not. The empirical analysis of the paper is based on the assumption that indirect taxes are fully passed on to the consumer prices and that they have no effects on producer prices. In theory, both prices could change. It would be interesting to see, how the results might change if the effects of taxes on prices are significant. Again cars are an interesting example. It is widely understood that pricing-to-market is a common practice in the car market. It implies that import prices of cars are lower in countries where taxes on new cars are high. A reduction of the tax will then lead to higher import prices.