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Taxation, human capital and economic growth

In the developing and developed countries heated discussions concerning reforms of public finances, especially tax reforms are in process. Taxes are in principle a reaction to the formation of a state in compliance with contractual theories. From an economical viewpoint they provide allocation, re-distribution and stabilization functions. The tax theory examines inefficiency and costs produced by taxes. Income taxes cause two kinds of costs: administrative costs and excessive burden costs. The more important seem to be the dead-weight costs in the form of an excessive tax burden. In principle it means that taxes cause a substitution of one behavior for another through a distortion effect. Thus causing a change of payerr's preferences that would not have occurred in the case of the absence of a tax. In the case of most goods and services a selective consumption tax can especially lead to a preference of consumption of another commodity (e.g. a higher tax burden of labour will lead to a preference for leisure time etc). The distortion mentioned could eventuality undermine long-term economic growth and thus living standards of citizens.

1. Growth theory

Recent approaches have been in the general level of growth theories dating from the 50s and 60s (the neoclassical growth model) or since the late 80s and early90s (New growth theories). At approximately the same time as the post-Keynesians (Kaldor [1] and Engen [2]) developed Harrodr's [3] and Domarr's [4] Keynesian model, the neoclassic arrived, headed by Solow [5] and Swan [6] with a relatively new view on the growth theory. This neoclassical growth model was modified and extended in successive years to varying degrees for other, 'growth' factors, namely human capital (Lucas [7] and Romer [8]). The neoclassical model extended to human capital as described by Mankiw, Romer and Weil [9] and seems to have been thoroughly tested.

2. Taxation and human capital in the growth theory

As it has been mentioned above, by the inclusion of human capital into growth theories the conclusions of the original growth model which presume the achievement of a steady state and a convergence of economies are modified. Due a growth in marginal product the human capital causes investments into education and improvement of expert qualification to be effective even in developed economies founding themselves as a steady state.

Trostel [10] and Heckman et al. [11] analyzed the influence of taxation on long-term economic growth. The higher taxation level decreases the growth of job offers, leads to a preference of leisure time activities and by this it decreases the long-run economic growth but not necessarily the economic growth per worker, which we are examining. This distortion may then be used for education and increasing of human capital. A loss of job satisfaction and the decrease in human

capital associated with this will most likely result in anti-growth. Moreover, a high taxation of labour can lead to a decrease in employment in sectors with a higher productivity of labour, i.e. in sectors of the economy requiring a higher level of human capital and an increase in employment in segments with a low productivity of labour. Growth effects are negative [12].

A progressive tax rate of personal income tax furthermore deepens the negative effects of taxation on human capital and hence long-term economic growth. As Koester and Kormendi [13] and Heckman [11] state, a higher tax rate of higher incomes leads to a decrease in investments into human capital returns and to the elimination of a preference for investment into it. Therefore tax progression decreases the accumulation of human capital and long-term economic growth.

Harberger [12] comes with an interesting idea, that a higher level of taxation negatively influences technological progress because if there is a more taxed sector with high productivity a shift of investments into a sector with a low productivity occurs. Taxation of a market segment with low productivity of labour seems to be logical.

Conclusion

In the field of growth models more attention is devoted to the neoclassical growth theory (Solowr's model) and the so-called new growth theories in this paper. New growth theories extend the Solowr's model for, besides others, an influence of human capital on long-term economic growth. The human capital is, according to representatives of these theories, even crucial as it eliminates, in a significant way, decreasing revenues from a marginal product of the physical capital. From the viewpoint of analysis of influence on taxation on human capital the attention is mainly focused on the negative effects of taxes’ progression. This causes tax distortions due to a lower return on human capital. The long-term economic growth is depressed.

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S U M M A R Y

The objective of the paper is to discuss the harmfulness or helpfulness of taxation in relation to the long-term economic growth from a theoretical viewpoint. It is possible to use the analysis of taxation influence on human capital. *The paper was financed by the grant project 402/08/0763 by Czech Science Foundation (GACR).*

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