

Essays on technological change and income distribution

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Valorisation addendum

In accordance with article 22.5 of the “Regulation governing the attainment of doctoral degrees at Maastricht University”, this addendum discusses valorisation opportunities of the dissertation regarding “social and/or economic relevance” of the research results.

The dissertation explores the impact of technological change on income distribution from various perspectives. The findings of this work have not only academic relevance but also implications for society and policymakers. Income inequality is detrimental to the general society for several reasons. Greater levels of income inequality are associated with lower trust, higher levels of crime and social unrest, as well as health and psychological issues. Therefore, contrasting income inequality should be at the top of the economic policy agenda. This dissertation offers several insights to address policy instruments to contrast income inequality.

First, the results of the first chapter show that the share of labour is larger where technological change is faster. The divergence across European regions in technological capabilities is well recognized, although additional efforts to favour convergence across regions in technological change are called for. In particular, the economics of innovation has offered a variety of policy tools to foster technological catch-up. The findings in this dissertation suggest that a greater level of technological change supported by appropriate measures should contribute to reducing the levels of functional inequality, increasing the share of income paid to labour.

Second, Chapter 3 shed light on a scenario that has been neglected by the policy agenda, the increase in how labour is made substitutable by capital. If the trend of the last decades is toward an increase in the elasticity of substitution, the economic agenda should closely investigate the phenomenon. As explained in Chapter 3, the change in the elasticity of substitution may be driven by economic and institutional factors related to international trade and labour markets. In particular, the degree of unionization and labour market regulations may represent significant institutional barriers that facilitate or hamper the substitution of labour by capital. The assessments of the variation of the elasticity of substitution across places and the causes behind the changes are therefore crucial to address this critical change of the recent decades.

Finally, Chapter 4 suggested that increasing attention should be given to the role of knowledge-based services in increasing income inequality. In these sectors, compensations are highly skewed towards top talented workers, and workers with these scarce talents command a wage premium with respect to other sectors. Policymakers should investigate

in more detail whether the excess compensation mechanisms are related to superstar and market size mechanisms or to social norms that allow these workers to extract rents above their marginal productivity.