Inequality and Growth: The Neglected Demand Side

Reto Foellmi
University of Zurich, Switzerland

Josef Zweimüller
University of Zurich, Switzerland and CEPR

We want to explore the relationship between inequality and demand structure. In particular, we study how inequality affects the demand for innovative goods, and thus the incentives to innovate, which in turn determines growth.

We consider a model of distribution and growth where consumers expand consumption along a hierarchy of needs and desires. Consumers have identical non-homothetic preferences but they differ in wealth. The consumption along a hierarchy of wants implies that the shape of the demand curves for various goods depends on the distribution of income.

The supply side of our model consists in an endogenous growth model with monopolistic competition and product innovation. Together with the hierarchy of wants over the innovative goods, this setting enables us to study a mechanism that so far has been largely neglected in the literature: the *role that inequality plays for the prices that innovators can charge* and the corresponding quantities that innovators can sell.

Three key lessons arise out of our analysis:

First, inequality alters the degree of competition in the economy. With poor and rich consumers, it may be profitable for the monopolist only to sell to the rich, whose demand is inelastic (relative to the poor), and thus to charge higher prices. However, this strategy implies that in the aggregate we have a distortion in the price structure due to the fact that the poor are *excluded from consumption due to too high prices*.

Second, it turns out that inequality has an a priori ambiguous impact on the incentive to innovate: On the one hand, with high inequality an innovator faces immediate demand with a high willingness to pay by the rich consumers; on the other hand, the mentioned price distortion effect implies that the poor are *"priced out of the market"*. This keeps new markets small since only the rich buy.
This ambiguity vanishes once a rather egalitarian distribution is considered. In that case, the innovator has no incentive to set prices that would exclude the poor. Thus, prices are determined by the willingness to pay of the poor. An even more egalitarian distribution allows the monopolist to set higher prices and earn higher profits as the poor are the 'critical' consumers that determine demand at the extensive margin.

Third, it is straightforward but important to note that the functional distribution becomes endogenous and depends on inequality since the profits/wage ratio is affected by the income distribution.

For the inequality-growth relation, the size of the innovating sector in the whole economy is important. The presence of a non-innovative sector limits the scope for price setting by innovators, because the marginal willingness to pay for innovative products is bounded also for the very rich. Thus, in the presence of a non-innovative sector, inequality tends to have a negative impact on growth.

We conclude that the relationship between inequality and research incentives is ambiguous and depends crucially on the size of the non-innovative sector.

Key Words: Inequality, Growth, Hierarchic Preferences, Price Distortion

JEL classification: O15, O31, L16