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HETEROGENEOUS CONSUMERS AND MARKET STRUCTURE IN A MONOPOLISTICALLY COMPETITIVE SETTING

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The present paper proposes an extension of the traditional Dixit and Stiglitz set-up by introducing consumers'/workers' heterogeneity into a general equilibrium model of monopolistic competition. Assuming that consumers and firm employees are the same people, the paper divides them into two groups, distinguished by their role in production process. The first group of employees consists of the people, fulfilling «non-production» functions. The payments to this group of the «creative» (or «white collar») workers generate fixed costs of a firm. The second group of employees contains people, directly involved into production process. The payments to this group of «production» (or «blue collar») workers provide variable costs. The members of «production» and «non-production» groups are endowed with different tastes and labor productivities, related statistically, over each of which the joint tastes-productivity distribution is given.

The model obtains a closed-form solution for a symmetric equilibrium and shows how the market outcome depends on the joint distribution of consumers'/workers' tastes and labor productivities. In contrast to the more conventional CES-framework, based on the assumption of homogeneity of consumers' preferences, our model predicts that the short-run equilibrium price may vary along with the number of firms, exhibiting both anti- and pro-competitive behavior, which is in accordance with economic intuition and empirical evidence. Proposed approach is also capable to explain variability of the long-run equilibrium markups, which is observed empirically. Unlike the standard CES model, where markups are constant, the equilibrium markups in our setting depend on the covariance of tastes and productivities.

The key policy problem under investigation is how each type of heterogeneity manifests itself in the equilibrium, and how this manifestation can be regulated by policymakers. Two observations should be made in this respect.

First, any change in the number of firms in our model is inevitably accompanied by the corresponding transformation of the labor market structure. More concretely, an increase in the number of firms should automatically increase the proportion of «white-collar» workers at the expense of proportion of «blue-collars». The increased proportion of «creative staff» members affects the market demand elasticity and triggers corresponding variation in the equilibrium price level which may be either positive or negative. As our analysis shows, in order to achieve price reduction in response to an increase in the number of firms one has to ensure more elastic demand generated by «creative staff» group, compared to that of «production» workers. At higher average wages of «creative staff» this could be realized in the economy having identical univariate taste distributions and negative correlation coefficients between tastes and productivities in both groups of consumers/workers. As far as the sign of the correlation coefficient between tastes and productivities in our model depends upon the type of goods,

produced within particular industry, we may conclude that price response to an increase in the number of firms may be different for different industries. Production of goods which perception provides negative values of the correlation coefficient between tastes and productivities makes corresponding industry more competitive compared to others. This peculiarity could be taken into account when conducting industry-specific regulations directed to an increase in the degree of competition within and across industries where the number of firms appears insufficient or excessive from the point of view of policymakers.

Second, in accordance with our model prediction, an increase in the average productivity in the production sector (which is provided by the replacement of the «blue-collar» activities by automated processes) acts in the same direction as the number of firms does and shifts labor demand towards «white-collar» workers. This structural shift, which is accompanied by an increase of the employment share of the «creative staff» group, may exert an ambiguous influence upon the degree of income inequality. As our analysis shows, the direction of the income inequality change also depends upon the sign of the correlation coefficient between tastes and incomes of consumers/workers in the particular group, and, as a consequence, upon the type of goods, produced within particular industry. This points out that our prediction concerning the income inequality response to an increase in the average productivity may be industry-specific. As a consequence, the final result of Gini transformation in the economy as a whole will be determined by the competing contributions of the separate industries into this process. Since policies aimed at achieving distributional objectives are likely to impact the economy's productive performance at its aggregate level, this should be taken into account by policymakers in their attempts to reduce the degree of income inequality within particular country.