

Aggregating Misallocation under Markups Heterogeneity: Theory and Evidence from China

Abstract: This paper develops an aggregator that translates firm-level misallocation into aggregate efficiency losses under markups heterogeneity. On the theoretical side, the aggregator generalizes the Hsieh-Klenow formula. In particular, it illustrates a novel channel through which the correlations between firm characteristics and distortions would cause sectoral misallocation and, then, aggregate efficiency losses. Using a unique dataset covering half million Chinese manufacturing and service firms, we present evidence for huge markups heterogeneity. Moreover, the heterogeneity is more pronounced among Chinese service firms. Our structural estimation shows: (i) TFP, markups and wedges are all positively correlated and (ii) the correlations are much stronger in the service sector. These findings suggest severe sectoral misallocation in China. When the correlation between firm TFP and wedges are hypothetically reduced to the extent observed in the manufacturing sector, we find labor reallocation of 10 percent from manufacturing to service and an aggregate welfare gain of 20 percent. In contrast, the Hsieh-Klenow formula would imply zero sectoral labor reallocation and much smaller welfare gain.