

Why Are Some Regions So Much More Productive than Others?

Chiara Lacava*

Abstract

Differentials in aggregate labor productivity across regions could be due to differences (1) in workers' skills (2) in firms' technologies (3) in how efficiently skills and technologies are matched and (4) in institutional factors specific to each region. I introduce a framework to separately identify each determinant using matched employer-employee data. I estimate skills by comparing the wages of each worker with co-workers in the same firm and in the same region; technologies by comparing the productivity of firms with same workforce's skills and in the same region; I estimate positive complementarities between skill and technology by measuring how workers and firms jointly contribute to productivity in the same region through a model of the aggregate production function. Finally, I disentangle region-specific factors from technologies since some firms have plants in more than one region. In an application to the Italian regions, I find that differences in firms' technologies and in region-specific factors account respectively for 60% and 35% of the large productivity differentials. In contrast, no contribution is due to differences in the distribution of skills, since they are close to zero and do not change with the migration of workers. Also, under optimal assignment of workers productivity differences do not increase, but productivity level rises by around 20%.

*Goethe University Frankfurt and SAFE. Email: lacava@safe.uni-frankfurt.de.