

Social networks, institutions, and the process of “globalization”

Georg Duernecker*
Fernando Vega-Redondo‡

September 15, 2010

ABSTRACT

We propose a stylised dynamic model to understand the interplay of institutions and social networks in the phenomenon we call “globalization.” This refers to the process by which even agents who are geographically far apart come to interact, thus overcoming what otherwise would be a fast saturation of local opportunities. But for such interaction to turn global, the social network must become global as well, since it acts as the social collateral that deters opportunistic behavior. This effect is modulated by institutions, which parametrize how social influence decays along the social network.

In this context, our main conclusions are that the transition towards globalization often occurs abruptly, it is a robust state of affairs once attained, and may crucially depend on initial conditions. That transformation, however, requires that the forces at work be balanced — in particular, geographical cohesion cannot be too high (for then global opportunities do not arise) nor too low (in which case there is too little social structure for the process to take off). The model is studied exhaustively by relying on tools and concepts of the modern theory of complex networks — analytically for a benchmark setup, and numerically for the general case.

Keywords: Social networks, Globalization, Institutions, Cooperation, Social Cohesion, Innovation.

JEL classif. codes: D83, D85, C73, O17, O43.

* University of Mannheim

‡ European University Institute