How to Measure Globalization? A New Globalization Index (NGI)

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Abstract This paper presents the New Globalization Index (NGI). It is a composite index constructed to measure the relative globalization level of a group of countries. With its 21 variables, it accounts for the multidimensionality of this phenomenon instead of relying purely on economic indicators. As compared to other existing globalization indices, three major innovations are introduced in the NGI. Firstly, five variables that have until now not been used in globalization indices enter the calculations, introducing some new and important aspects to the measure, such as international student mobility and environmental issues. Secondly, the NGI forms a weighted sum of bilateral trade flows using the geographical distances between trading partners as weights. This modifies the usual trade openness measure by placing more weight on distant trading partners. In effect, intra-regional trade is given a lower weight in the NGI. One of the effects of this procedure is a significant downward movement in the ranking of some EU countries, whose international openness comes primarily from trade within their region and reflects regional integration more than globalization. A final innovation in the NGI is the use of a statistical method (principal component analysis) to form subcomponents of globalization according to the statistical features of the variable structure. The goal of this step is the analysis of the multidimensionality of globalization. Three dimensions emerge by the use of this technique: finance, trade and politics, and social globalization. Principal component analysis is also employed for producing weights for individual indicators within the overall index. Additionally, a control for country size is employed for some of the variables, as has been done in some other globalization indices before. The final index contains 70 countries and covers a period between 1995 and 2005.

Keywords Globalization · Openness of economies · Measurement of openness · Measurement of globalization · Integration · Composite index

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