

Connectedness in times of ecological overshoot

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Summary

This thesis sets out on a research journey to quantitatively assess the sustainability of globalization and to gain insights into the main research question ‘to what extent is globalization as a process and policy discourse sustainable?’

Chapter one introduces the concept of sustainable development (SD), which encompasses the social, economic and ecological pillars. The social pillar considers health, justice, equity, equality, and education; the economic pillar includes affluence, income and wealth; and the ecological one demands that socio-economic development does not threaten the integrity of ecological systems. This thesis follows Griggs et al. (2013) definition of SD as “development that meets the needs of the present while safeguarding Earth’s life support system, on which the welfare of current and future generations depends”. Hence, we define sustainable globalization as a form of globalization that is socially robust and contributes (positively) to the three pillars of sustainable development: the economic, the social and ecological. We put forward an interdisciplinary quantitative assessment of globalization that looked at four main issues: definition and measurement, recent trends, its consequences on (ecological) sustainability and the social robustness of globalization as a policy discourse.

Chapter two discusses the measurement of globalization with a view to advancing the construction of globalization indices. It critically analyzes the types of indices that can contribute to knowledge and policy on globalization. Three issues are particularly highlighted: (a) the focus of measurement (i.e. on activities or policies); (b) the dimensions of measurement (i.e. cultural, ecological, economic, political and/or social); and (c) the units of measurement (i.e. local, national, regional and/or global). The chapter argues that a workable forward strategy should not seek to identify a single best composite globalization index, but should rather work in an interdisciplinary mode towards a set of complementary approaches. These quantitative analyses can then be productively integrated with qualitative approaches in a fuller assessment of globalization’s extent and impact.

Chapter three introduces the Maastricht Globalization Index (MGI) in detail, elaborating on its indicators and revised calculation method, and presents the results of the updated 2012 edition. This provides an assessment of the state and trends of globalization between 2000 and 2012 for 117 countries. The evidence shows that in this period, globalization slowed down but nevertheless continued to increase. The MGI makes clear that countries differ greatly in their degrees of globalization. Moreover, the evi-

dence also indicates that the least globalized countries are not catching up to the more globalized ones.

Chapter four builds on chapter three and extends the data coverage of the MGI to 181 countries by employing imputation methods. We further review the evidence regarding the consequences of globalization. Previous literature has shown that globalization has contributed to the social and economic dimensions of sustainable development – enhancing economic growth, health, human development, integrity rights and gender equality. However, evidence about the effects of globalization on the ecological environment has not provided clear patterns; for instance, different dimensions of globalization have different effects on various pollutants. This chapter finds that ecological indicators, in particular Ecological Footprints, have been absent from the existing literature. Hence, this chapter analyzes the statistical relationship between the most recent MGI (2012 edition) and four variants of the Ecological Footprint. The relation between globalization and sustainable development is controlled for by GDP per capita as a proxy for affluence. We report the results for Pearson correlations and multivariate regressions for up to 171 countries. We conclude that the overall index of globalization significantly increases the Ecological Footprint of consumption, exports and imports. The decomposition of globalization into different domains reveals that apart from the political dimension, all dimensions drive human pressures and demands on the environment.

Chapter five goes further and employs the KOF-index of globalization, to develop an unbalanced data set covering 146 countries for the period 1981–2009. We are thus able to address the influence of countries' development over time, by controlling for country and time-fixed effects. After empirically showing that globalization is an explanatory factor of Ecological Footprints, rather than the other way around, we employ an Extreme Bounds Analysis (EBA) to identify a robust set of determinants, out of 29 potential drivers. Subsequently, we consider specifically the multiple dimensions of globalization and test specific hypotheses on economic, political, social and overall globalization. We find that economic globalization drives the EF of consumption, production, imports and exports. Social globalization correlates negatively with the EF of consumption and production, while increasing the EF of imports and exports. The findings show that globalization may have different effects on EFs, depending on the dimension (consumption, production, exports and imports) one refers to.

Chapter six explores the sustainability of globalization by analyzing its 'social robustness'. It argues that to be considered sustainable, a policy, trend or process should be acceptable to a broad range of people in society. A text and discourse analysis, based on Cultural Theory, demonstrates a general imbalance of perspectives across various policy reports and documents on three core themes of global governance: climate

change, the economy and well-being. With the results of this analysis we contribute towards a more inclusive discussion on global issues that matter in the context of a sustainable future for all. We believe that a more socially robust form of globalization is possible, but only if marginalized perspectives are included in the policy debates and thereby able to contribute to solving humanity's most pressing issues.

Chapter seven answers the research questions and finds "a world out of balance" as the emerging qualification for all four issues of globalization: definition and measurement, recent trends, its consequences on (ecological) sustainability and the social robustness of globalization as a policy discourse. Hence, the thesis concludes that globalization, as a process and policy discourse is not sustainable in its recent form and that it needs to go into new directions if it is to contribute towards all aspects of sustainable development.