

Rethinking economic growth and structural change

Citation for published version (APA):

Guillard, C. (2019). *Rethinking economic growth and structural change: the role of boundaries and linkages between industries*. [Doctoral Thesis, Maastricht University]. Universitaire Pers Maastricht. <https://doi.org/10.26481/dis.20191127cg>

Document status and date:

Published: 01/01/2019

DOI:

[10.26481/dis.20191127cg](https://doi.org/10.26481/dis.20191127cg)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Summary

Economic development is associated with changes in production and export structures. Each country masters a set of capabilities, i.e. a set of tasks and knowledge necessary for the realization of some products. Mastering additional capabilities allows countries to produce more complex products or technologies. Understanding economic development involves understanding how countries can add new products to their production and export basket and develop particular industries. Each industry has specific characteristics in terms of capabilities, technologies and knowledge and in terms of the nature of their production. In this thesis, I provide empirical evidence of the importance of both boundaries and linkages between industries to understand structural change and the dynamics of economic growth.

Chapter 2 proposes a new methodology for identifying patterns of organization of industries and their evolution over time. To do this, I analyze the cluster structure of the product network built from export data. Results show that products cluster according to different factors: their complexity and technological domains, the abundance of low-skilled labor or of natural resources they require, as well as global value chains and vertical integration of their production process. Moreover, I find that technological domains and boundaries between industries are not always clear-cut and can evolve over time.

In chapter 3, I study the dynamics of economic growth by examining the characteristics and determinants of transitions between different medium-term growth regimes (rapid growth, slow growth and recession) using a semi-Markov framework. Results indicate that the effect of the manufacturing sector on economic growth is far from uniform and that the measure of economic structure also matters. In addition, clusters with similar technological intensity play a different role in the dynamics of growth, and, global value chains (GVCs) may explain some of these differences. Furthermore, although the textile industry is often seen as a stepping stone to industrialization, in this study the effect of this cluster is negative in many cases. Finally, this analysis highlights the presence of “recession traps”, which are largely driven by a greater specialization natural resources-based manufacturing

clusters.

Differences between industries affect not only the growth process through productivity gaps, but also the stimulation they provide to the rest of the economy through upstream and downstream linkages. Chapter 4 examines the impact of inter-industry interconnections on economic performance, focusing on demand dynamics (i.e. backward linkages). I relax two strong assumptions associated with the traditional calculation of the output multiplier, which makes it possible to estimate the degree of response to demand shocks from the supplying industries. Results show that there are significant differences across industries and countries. Manufacturing industries, and in particular final consumer goods ones, tend to be less responsive to shocks in demand relative to services. Significant differences are also observed between countries since manufacturing industries in developed countries tend to be less sensitive to demand shocks than in developing countries.