

Vít Macháček

## Chapters in a cross-country analysis of science

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### *Abstract*

The dissertation consists of three independent chapters:

Chapter 1 – Predatory publishing in Scopus: Evidence on cross-country differences – presents evidence on how predatory journals have infiltrated research systems across various countries. The chapter builds on data from the Scopus database in combination with the content of the so-called Beall's list. Based on this data we identify 324 potentially predatory journals. Then we compare the number of papers in these journals with the total number of papers for each country. The results reveal considerable heterogeneity across countries. While the most affected countries – Kazakhstan and Indonesia – published 17 % of their output in the journals indexed on Beall's list, the share was below 1 % in developed countries.

The second chapter – Researchers' institutional mobility – bibliometric evidence on academic inbreeding and internationalization – analyzes researchers' career paths at 1,130 universities included in the Leiden Ranking 2020. Researchers affiliated with one of these universities and publishing in 2018 were split into categories according to the affiliation stated on their earliest publication: i) insiders published their first papers while affiliated with the same university, ii) domestic outsiders started at a different university in the same country, and iii) foreign outsiders started publishing in different country. The share of insiders is a proxy for a university's tendency to engage in academic inbreeding – a commonly criticized practice of universities hiring their graduates. We identify a robust spatial structure. Universities in Anglo-Saxon countries and North Western Europe tend to be highly mobile, but the rest of the world often hires their own graduates. To our knowledge, this is the first scientometric evidence of academic mobility taking an institutional perspective.

The third chapter – Globalization of Scientific Communication: Evidence from authors in academic journals by country of origin – measures the tendency to publish research in domestic journals across countries and disciplines. The methodology determines seven indicators of globalization for each journal indexed in Scopus. The individual journals' indicators are subsequently aggregated to the country and discipline level. In developing countries, the globalization of scientific communication is high and relatively homogenous. Contrary, countries of the former Soviet bloc still heavily rely on local journals. Developing countries are in between the previous groups. The role of local journals is higher in social and health sciences than in physical and life sciences.