NBER WORKING PAPER SERIES

THE GLOBAL DISTRIBUTION OF AUTHORSHIP IN ECONOMICS JOURNALS

Ernest Aigner
Jacob Greenspon
Dani Rodrik

Working Paper 29435
http://www.nber.org/papers/w29435

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
October 2021, revised January 2025

This is a revised and greatly expanded update of a short note by Greenspon and Rodrik (2021) undertaken for the International Economic Association. As explained in the body of the paper, this paper uses a different data source with much broader coverage, and extends the analysis to citations. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2021 by Ernest Aigner, Jacob Greenspon, and Dani Rodrik. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

The Global Distribution of Authorship in Economics Journals
Ernest Aigner, Jacob Greenspon, and Dani Rodrik
NBER Working Paper No. 29435
October 2021, revised January 2025
JEL No. A1

ABSTRACT

We assemble a dataset of the universe of economics and business journal articles published since 1980 to assess differences in the levels and trends of the global distribution of authorship in economics journals and citations by country/region, quality of journal, and fields of specialization. We document striking imbalances. While Western and Northern European authors have made substantial gains, the representation of authors based in low-income countries remains extremely low -- an order of magnitude lower than the weight of their countries or regions in the global economy. Fields such as international or development economics where global diversification may have been expected have not experienced much increase in developing country authorship. Developing country representation has risen fastest at journals ranked 100th or lower, while it has barely increased in journals ranked 25th or higher. Regression analyses suggest that articles by developing country authors are far less likely to be published in top journals even when holding constant article quality (as proxied by citation counts). Similar trends are observed in citation patterns, with articles by authors in the U.S. receiving far more citations, and those by authors in developing countries receiving fewer. These results are consistent with a general increase in the relative supply of research in the rest of the world. But they also indicate authors from developing countries remain excluded from the profession's top-rated journals and that their research receives less attention from other economists.

Ernest Aigner
Leuphana University Lueneburg
Universitaetsallee 1
21335
Lueneburg
Austria
ernest.aigner@leuphana.de

Dani Rodrik
John F. Kennedy School of Government
Harvard University
79 J.F. Kennedy Street
Cambridge, MA 02138
and NBER
dani_rodrik@harvard.edu

Jacob Greenspon
University of Oxford
10 Manor Rd
Oxford OX1 3UQ
United Kingdom
jacob.greenspon@economics.ox.ac.uk

Highlights:

- The representation of authors from low-income countries remains extremely low.
- Developing country representation has risen fastest at journals ranked 100th or lower, while it has barely increased in journals ranked 25th or higher.
- Developing country authors are far less likely to be published in top journals even when holding constant article quality (as proxied by number of citations).
- Authors in the U.S. receive far more citations compared to authors from developing countries
- Authors from developing countries remain excluded from the profession's top-rated journals and receive less attention from other economists.

1. Introduction

There has been much discussion recently on the lack of diversity within the Economics profession and on strategies for addressing it. Much of this discussion has focused on gender, socioeconomic and racial under-representation and has centered on the U.S. and Western Europe (Liu et al., 2020; Lundberg & Stearns, 2019; Stansbury & Schultz, 2023). Another dimension of diversity which has received comparatively little attention to date is geographical and global. It concerns the under-representation in research publications of authors based outside the U.S. and other advanced nations. In this paper, we present evidence on the strikingly persistent patterns of geographical concentration in the world of Economics publishing.

Economics is a contextual science: it tries to make sense of a social reality that is dependent on local and changing circumstances. It is enriched when its practitioners can see (and analyze) the world in all its variety, when the diversity of proximate or deeper determinants of economic phenomena is fully considered, and when received wisdom is confronted with "anomalous" behavior or outcomes in unfamiliar environments. Hence the problem is not merely one of inequity, but also one of research quality. Excessive concentration of journal authors in a handful of countries and very low representation of researchers from the rest of the world impoverishes the discipline.

It should suffice to cite two notable examples of how local knowledge can spur advances in Economics. Joseph Stiglitz (2001) has described the time he spent early in his career in Kenya as "pivotal in the development of my ideas on the economics of information." There, Stiglitz was struck by various oddities in how the local economy operated:

> "seeing an economy that is, in many ways, quite different from the one grows up in, helps crystallize issues: in one's own environment, one takes too much for granted, without asking why things are the way they are."

Similarly, Albert O. Hirschman's highly influential book *Exit, Voice, and Loyalty* (1972) was the result of his experience in Nigeria where he observed behavior he found puzzling. The rail company, which was a public monopoly, had begun to face competition from private truckers. But instead of responding to competition by providing better service and cutting costs, the company deteriorated even further. Hirschman reasoned, in what became a broadly applied idea, that the loss of customers to the private sector ("exit") had denied the state firm the valuable feedback ("voice") required for superior performance.

Many economists believe their discipline is a universalist one, offering tools that can be applied to any setting. True as this may be in principle, their approach in practice often reflects parochial perspectives on the institutional contexts and biases with respect to which questions are important. Research driven by local experience can help uncover the role played by social and cultural structures that would otherwise remain hidden from the analyst's view. It might overcome blind spots with respect to practices and institutions that diverge from those that prevail in the U.S. or Europe. As such, this paper also relates to the literature on "decolonizing Economics" and provides empirical support for some of its

claims, such as the marginalization of the "vantage point of the Global South" (Kvangraven and Kesar 2023).

We focus here on the location of authors and not their nationality or national origin. One could argue that the Economics profession has become more global in recent decades as top academic institutions in the U.S. and Western Europe have become more internationalized, with their faculty being drawn from all around the world. The number of foreign-born researchers in the top economics departments and research networks has grown. Researchers in advanced economies also have been paying more attention to developing countries, reflecting the fact that development economics has become a much more prominent field within the discipline. But none of these positive developments can fully substitute for local knowledge and insight. The sociology and organizational realities of the profession result in foreign-born economists in the West quickly being absorbed into intellectual environments dominated by rich-country issues and conditions. For instance, Laslier (2018) studies 171 empirical research articles published in 2014 in three top economics journals (QJE, JPE and AER) and finds that 60 percent of the articles with a national level focus use data from the United States. Similarly, the visiting economist's exposure to diverse local realities remains limited to happenstance and coincidence, as in the examples of Stiglitz and Hirschman. It is not wild fancy to think that many important ideas remain undiscovered because researchers from the academic periphery lack a receptive audience.

Our analysis uses data from Clarivate World of Science (WoS) on articles published in economics and business journals. [1] The dataset includes 451,029 articles published between 1980 and 2021 in 486 journals. Authors are allocated to countries based on the location of their institutional affiliations.[2] We ask four questions regarding authorship of journal publications. First, how do levels and trends in the global distribution of authorship compare to the levels and trends in the economic size of different regions or groups of countries? Second, how does the global distribution of authorship vary by quality of journal, as ranked by SCImago.[3] Third, are there noticeable differences in these trends when journals are categorized by fields of specialization? Fourth, and finally, are there differences in the citations of research by authors from different regions?

Our results point to striking imbalances in the geographic distribution of authorship. Perhaps not surprisingly, developing country authors are greatly under-represented. But what is perhaps more surprising is that their under-representation in economic journals is out of proportion to the weight of their country or region in the global economy. The share of developing country authors in top-10 journals is significantly lower than the share of their respective regions in global GDP – a discrepancy that is most marked for East Asia and South Asia. While authors based in China have steadily increased

[1] A previous note used data from Fontana et al. (2019), generously made available by Fabio Montobbio. Our updated dataset, obtained directly from World of Science, includes wider coverage of journals and longer time coverage, which allows us to generate additional results of interest, with a finer geographical and journal classification.

[2] We exclude research networks that do not provide relevant geographic information for authors and use fractional weighting for multi-authored articles. See text for details.

[3] Based on 2016 rankings of the SJR2 indicator computed from citation networks weighted by impact factor, available from SCImago Journal & Country Rankings: https://www.scimagojr.com/. This is the same rankings used in Fontana et al. (2019).

their participation in top journals, their representation falls far short of China's share in the world economy (2.8 percent versus 16 percent).[4] Meanwhile Western and Northern European authors have made substantial gains, despite the declining relative economic size of Europe. Hence there is only a poor correlation between changes in economic resources and access to top journals. Financial constraints may not be necessarily the main factor that prevents geographical diversity. While the experience of Northern and Western Europe provides some encouragement, it seems also to be the case that once networks and hierarchies are established, it becomes difficult to break into them.

Next we look beyond top-10 journals and at geographical representation across different categories of rankings of journals. One result that stands out here is that non-U.S. representation is lowest and has increased (if at all) least rapidly at the highest-ranked journals. Developing country representation has barely increased in journals rated 25th or higher, while it has risen fastest at journals rated 100th or lower. These results are consistent with a general increase in the relative supply of research in the rest of the world. But they also indicate authors from developing countries, especially, remain excluded from the profession's top-rated journals.

We next look at journals classified by field. Among the top 100 journals, representation by authors from developing countries has improved only in energy/environment/agriculture journals. Interestingly, it has not increased in two fields where we might have expected to see significant global diversification – development and international. When including lower-ranked journals outside the top 100, there has also been an increase in developing country authorship across a wider range of journals, in particular in accounting, area studies, and development, albeit from very low levels.

We next turn to an analysis of citations. Our results show that publications by authors outside the U.S. and advanced economies receive relatively little academic attention. Articles by U.S. authors receive about 50% more citations (per year since publication) than articles by authors in other advanced economies, and twice as many as articles by authors in developing economies, with little variation across developing country regions in average citations received.

The final analysis explores whether the disproportionate representation of U.S. authors in top journals and their high citation counts could be due to selection effects. We use regression analyses to first show that developing country authorship is substantially negatively associated with the likelihood of an article being published in a top 10 journal, even controlling for article quality as proxied by the number of citations received. We also show that articles authored only by authors located outside the U.S. receive fewer citations from other economics publications, controlling for differences in citation patterns among journal fields, although there appears to be a boost to citations for collaborations among authors from multiple different regions.

[4] Calculated for the share of top 10 journal publications by authors with Chinese affiliations (based on fractional counting for multi-author publications) over the 2012-2016 period and China's share of world GDP (by PPP) in 2016.

2. Materials and Methods

a. Literature review

Trends in the geographic affiliations of those publishing in economics journals have received little comprehensive study across journals and fields. We summarize here some of the main contributions to date.

Guo and Zhang (2019) provide a very long-term perspective and analyse authors' affiliation from 1900 to 2012 in 576 economics journals. They find a sharp decline in articles with sole-U.S. authors from 61% in the 1990s to 31% between 2000 and 2012. The overall contribution rate (including collaborations) for the U.S. and Canada declined from 64% during 1990-1999 to 35% in 2000-2012. Glötzl and Aigner (2019) report that authors from the U.S. and Canada participated in 47 percent (and Western European authors in an additional 27 percent) of 310,-000 articles published between 1980 and 2014 in economics. Waltman, Tijssen, and Eck (2011) analyse geographic distances between collaborators in 21 million scientific articles across countries and disciplines published between 2000 and 2009, finding an overall increase in the mean geographic collaboration distances (MDGC), with economics being the discipline with the fifth highest MGDC.[5]

Much of the previous research has focused on select top journals. Fontana, Montobbio, and Racca (2019) report that from 1985 to 2012 the share of U.S. publications in seven top economic journals fell from 75% to 64%, with a corresponding increase in publications by authors in Europe. Hamermesh (2013) takes a narrower but longer-term perspective, reporting that the share of articles in three top journals by authors from the U.S. and Canada declined from 92% over the 1963-1993 period to 83% in 2003 and 2011. Other work has focused on the "top five journals." Ek and Henrekson (2019) find that the share of authors in these journals based in the U.S. or Canada declined from 82% in 1994 to 65% in 2017 while the share of European authors doubled to 30% over this period. The share of authors based in Asia increased as well, but only to 5% of top five journal articles in 2017. They argue that these trends are driven by increased co-authorship by authors outside the U.S. with American researchers. In addition to this focus on top journals, Orazbayev (2017) documents some statistics on authorship of articles and working papers as recorded in the Research Papers in Economics (RePEc) database. He finds that the vast majority of co-authored works are between researchers in the same country and that most international collaborations are among authors in developed countries.

Some work focuses on the institutional level and relate it the overall geographic concentration. Aistleitner, Kapeller, and Kronberger (2023) analyze the institutional affiliation of authors in 30 economics journals and find a decrease from 70% in 1990 to 40% in 2018 in U.S. affiliations. They also analyze a random sample of authors' PhD-granting institutions and find that 44% of authors received their PhD from 10 institutions, of which nine where located in the U.S. (one in the UK). Similarly, Glötzl and Aigner (2019) find that 16 percent of articles in economics (receiving 42 percent of citations) have

[5] Only Astronomy and Astrophysics, Earth Sciences and Technology, Multidisciplinary and Statistical Sciences have higher MGDCs.

been written by authors from only 20 institutions, of which 18 are located in the U.S. Furthermore, three out of four authors of the 100 most cited articles are from these 20 institutions.

There is also some research on the geographical distribution of economics research authorship that focuses on specific subfields. Amarante et al. (2022) find that in development economics and policy, researchers from the global south are vastly underrepresented among presenters at prestigious international conferences and authors of articles in the top 20 development journals; they also receive fewer citations per article published. Earlier research by Cummings and Hoebink (2017) on development journals finds that only 14% of articles are authored by researchers from developing countries, while Chelwa (2021) reports that researchers in Africa are specifically underrepresented in development journals focused on Africa. Complementing this work on development economics, Cloos et al., (2023) document an increased share of Europeans publishing in experimental economics with a decline in publishing from authors based in North America. Similarly, the share of articles in economic history from the U.S. and UK has declined in the last 30 years, while the share of continental European articles and articles from other countries has continuously increased (Cioni et al., 2019).

Studies that take a comprehensive perspective on the geographic distribution of citations are rarer. Glötzl and Aigner (2019) report that articles in which authors from the U.S. or Canada participated received 72% and those with Western European authors 24% of all citations among articles published between 1980 and 2014. Trends reported for articles and citations show a decline for the U.S. and Canada and an increase for European and Asian countries (staring from a very low level). A similar analysis by Merigó, Rocafort, and Aznar-Alarcón (2016) of 650,000 articles listed in Business and Economics in WoS published before 2012 confirms the dominance of the U.S. in economics in terms of the overall shares of articles, citations and most influential institutions, most cited articles as well as articles in the most popular journals.

In addition, citations also point to a home-country effect. Hellmanzik and Kuld (2020) investigate scientific citations to articles written in the 20 top economic research countries and cited by 126 citing countries between 1970 and 2016. They find a 50% higher propensity to cite domestic articles ("home-country effect") when controlling for other factors. Further, they find that an increase in geographic, cultural, and linguistic distance negatively affects the number of cross-border citations between countries. Moreover, in one of their model specifications they also find a positive effect of the GDP of the citing country on the number of cross-border citation flows.

b. Our data on journals, fields and rankings

We base our analysis on data from Clarivate World of Science (WoS) on articles published in economics and business journals. [6] The complete dataset includes 451,029 articles published between 1980 and

[6] A previous version of this analysis used data from Fontana et al. (2019), generously made available by Fabio Montobbio. Our updated dataset, obtained directly from World of Science, includes wider coverage of journals and longer time coverage, which allows us to generate additional results of interest, with a finer geographical and journal classification.

2021 in 486 journals.[7] The articles within our dataset contain a total of 4,725,143 citations to each other.[8] For several analyses we use the 2016 journal rankings of the SJR2 indicator computed from citation networks weighted by impact factor, available from SCImago Journal & Country Rankings, the same rankings used in Fontana, Montobbio, and Racca (2019). We also assign each journal to a field of specialization based on information on their websites and the content of recent articles.

The volume of economics research published has increased over time. As Figure 1 shows, there was a large increase in the number of articles and journals published per year in the dataset, particularly in the mid-2000s and mid-2010s. The number of publications has increased across most fields, and in most fields there has also been a corresponding increase in the number of journals (with the exception of Theory, Macro, Regional/Urban and Development). The largest increases have been in Accounting, Finance, Econometrics, and Area Studies journals (Figure 2).

[7] To ensure comprehensive coverage of all years we (1) have decided for the time period of 1980 to 2021 as due to data availability (see Table A.1, A.2 and Figure A.1 for details) and (2) exclude 348 journals for which we can identify that our data covers less than 1/3 of the years they were published, according to records of publication periods from JSTOR. Notably, the latter step results in the exclusion of a large majority of accounting and finance journals from the dataset

[8] Citations have some shortcomings as a quality metric, for example related to path-dependencies and network effects (Kapeller, 2010a; 2010b). Citation metrics also affect the type of economic research conducted (see England Stockhammer et al., (2021) for the UK) and economists promoted (see Corsi et al., (2019) for Italy). In addition, there are numerous known instances of misapplications of (citation-based) bibliometric indicators in research evaluation (Hicks et al., 2015). Citations are nonetheless the best data available in our case and are also widely used in similar research, for example to gain insights into hierarchies and social relations (Aistleitner et al., 2019).

Figure 1: Total journals and articles in dataset

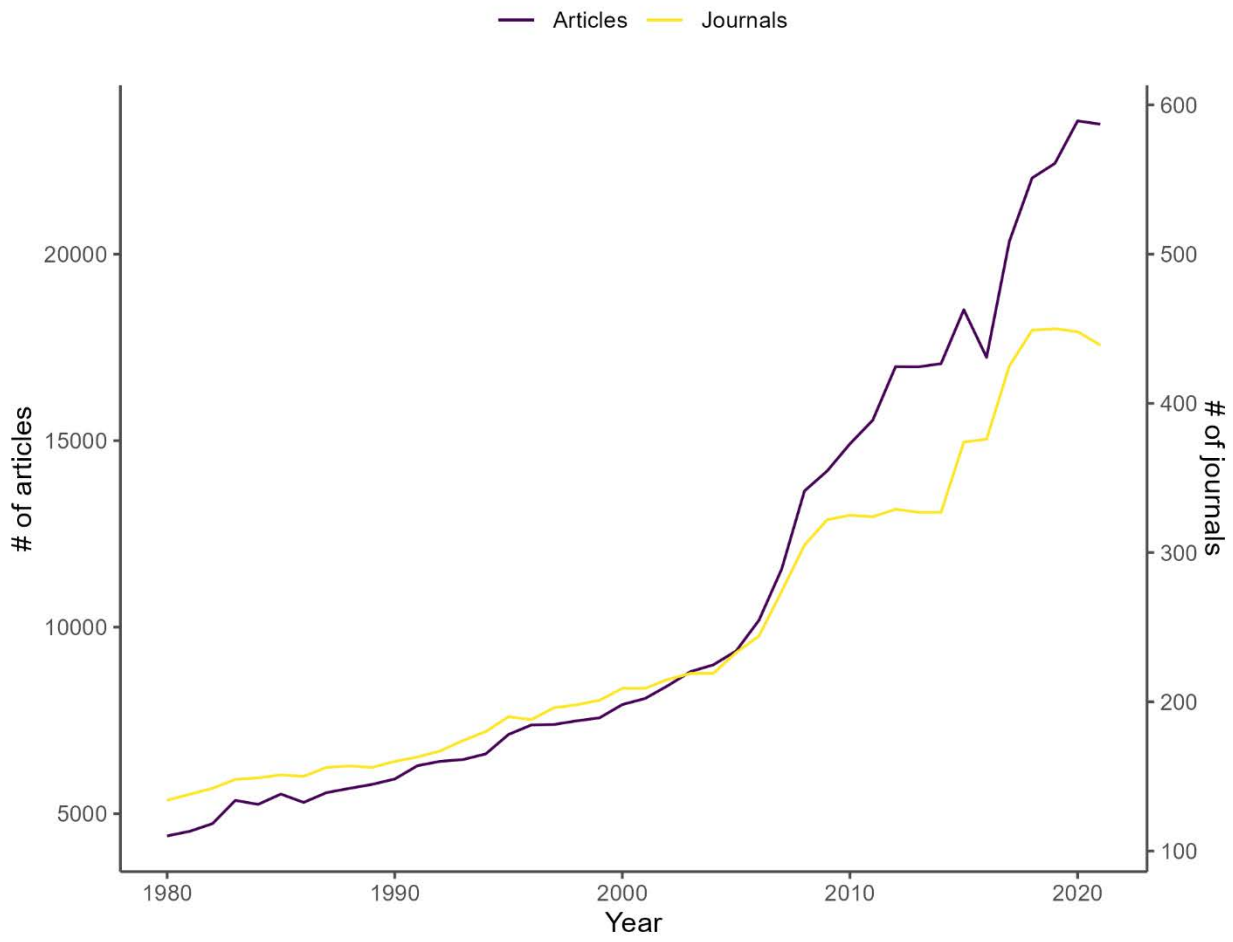
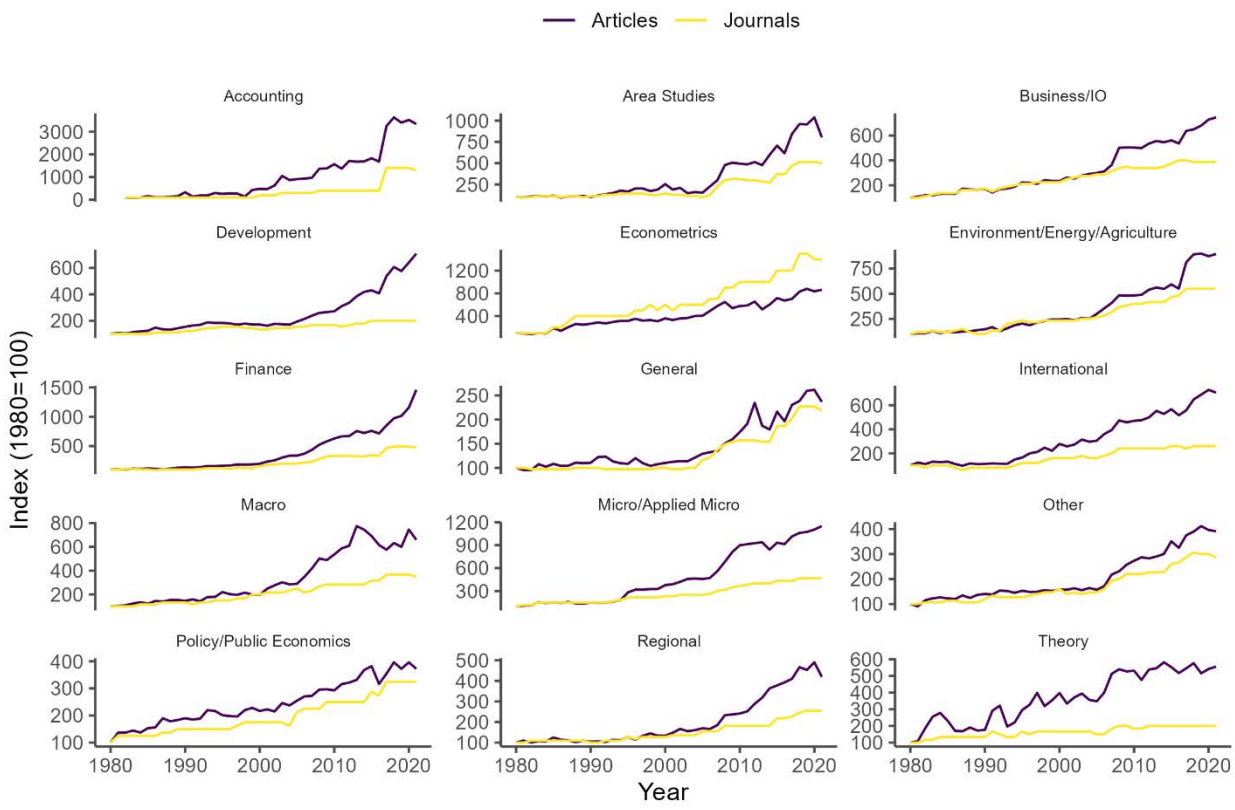


Figure 2: Growth of journals and articles by journal field (1980=100)



Note: The first observation for accounting is 1982, when the first journal appears in the dataset.

Our analysis focuses on the distribution of authorship in economics, using data on the institutional affiliations of authors of journal publications. Across the 451,029 articles included in our dataset there are 1,044,288 unique article-author affiliations, due to both multi-authored articles and authors with multiple affiliations.

c. Localization of articles

Articles are assigned to countries (and the geographic regions in which they are located) based on the affiliations listed for all authors of the article.[9] This includes academic, corporate, government, international organization, and other affiliations. However, we exclude from these calculations authors' affiliations to research networks such as NBER, IZA, and BREAD (included in 3.5 percent of articles) since such affiliations are typically not indicative of a particular author's actual geographic location.[10]

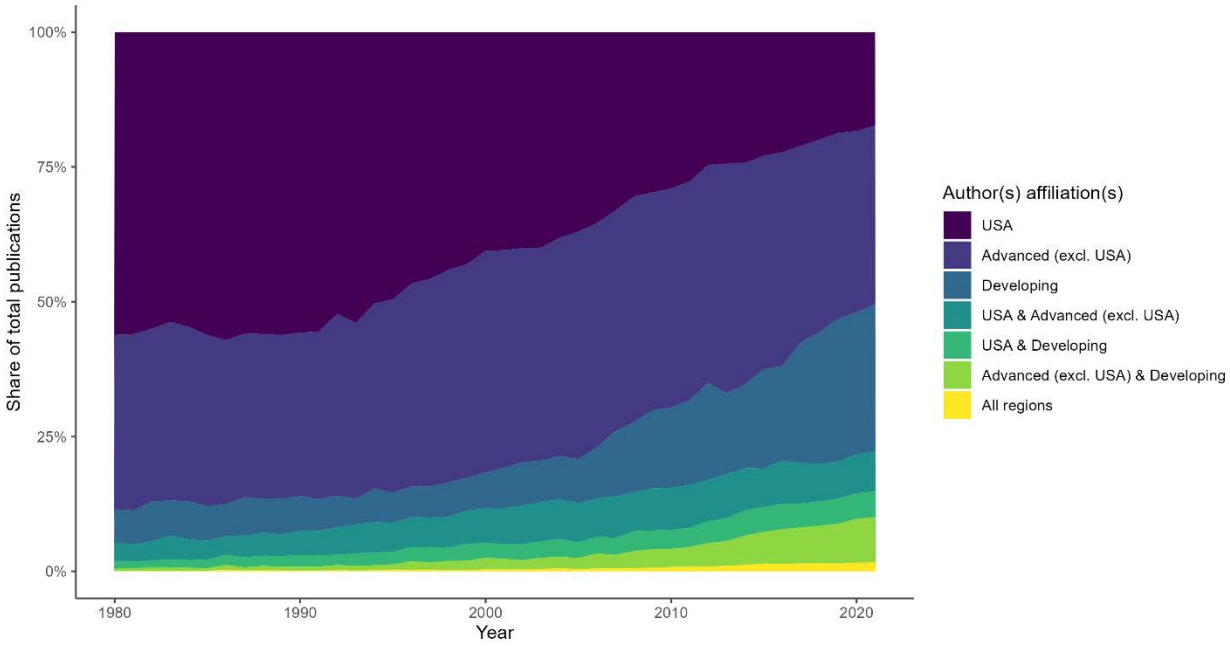
[9] Note that we observe the names of all authors on an article and all of their affiliations, but we cannot observe in our data exactly which country or institutional affiliation is associated with each author on an article.

[10] NBER affiliates are drawn from U.S.-based institutions, but this is not always the case for other research networks. Institution types were manually assigned for all institutions with at least 50 author-publication observations in our dataset. In addition, institutions containing a string associated with common research networks (e.g. NBER, CEPR, IZA) were assigned as such. A similar process was used for strings associated with

In much of our analysis we group countries where an author's affiliated institution is located into one of three regions: the USA, an advanced (excluding USA) economy, and a developing economy.[11] Given these three possible regions for an author's affiliation and the possibility of both multi-authored articles and authors with multiple affiliations, there are seven possible combinations of authorship for an article: all authors (including a sole author) are affiliated only with institution(s) in the USA, or in an advanced (excluding USA) economy, or in a developing economy; there are multiple authors/affiliations in both the USA and an advanced (excluding USA) or developing economy, or in both an advanced (excluding USA) and developing economy; or there are multiple authors/affiliations in all three regions.

Figure 3 shows the number of all publications with each possible authorship regional affiliation combination. The share of all publications with only USA-affiliated author(s) has decreased over time and was no longer the largest group after 1995. This confirms of findings of Guo and Zhang (2019). Collaborations by authors between regions have also increased, from 5% of all publications in 1980 to 22% in 2021, with the share of collaborations with authors in developing economies increasing from 2% in 1980 to 15% in 2021.

Figure 3: Share of all publications by author regional affiliation(s)



In our analysis below, we use fractional weights for cases where there are multiple authors for an article and/or multiple institutional affiliations. Since our analysis focuses on the (share of) total number of publications (or citations) by authors in a particular country or region (or its share in total publications), we calculate the total number of publications as the sum of all publications by authors with an

academic institutions (eg. UNIVER, INST), governments (eg. MINIST), corporations (eg. LLP, INC), and healthcare (eg. HOSP). There remain 31,020 institutions that were not assigned an institution type, however these together make up only 6.9% of all article-author affiliation observations in our data.

[11] Advanced (excluding USA) economies include Western Europe, Canada, Japan, Australia, and New Zealand.

institutional affiliation in that country, where each author affiliation-publication is given a weight that equals 1 divided by the total number of author affiliations for that publication (excluding research network affiliations).[12]

d. Data on citations

We also use data on citations between articles within our dataset, during the period 1980-2021.[13] These citations are highly right-skewed, as earlier work has found (e.g., Glötzl & Aigner, 2019 or Hamermesh, 2018). The average number of citations per article is 10.48 but the median article has only 2 citations. Nearly one-third (28%) of the articles in our dataset have zero citations from other articles in the dataset.

In addition, more recent publications have fewer citations on average, because less time has passed for them to be cited. We therefore focus on two alternative measures: citations per year since publication and citations in the first five years following publication.[14] Figure 4 shows the trends in these citation measures as an average for all articles published in each year. As an artefact of our dataset ending after 2021, there is a large drop after 2016 in the average of citations received in the five years following publication. (For articles published after 2016 this statistic is calculated as the total number of citations received in only the four, three, etc. years following publication.)

[12] This approach potentially leads to certain biases, for instance when one author has two US affiliations and another author one Developing country affiliation. In that case the article is assigned by two-thirds to the US and one-third to the respective developing country. However, our data set only allowed for that option (in difference to a two-step approach which weights each author equally as adopted by Aistleitner et al 2023).

[13] Note that citation counts for each article in our dataset may differ from other data on citation counts due to the exclusion of under-covered journals from our dataset and the unavailability of data on citations by article in non-economics journals.

[14] These citation measures are still highly right-skewed: an article in a top ten journal has over twice as many citations per year on average as an article in a journal ranked 11-50, over 4 times as many as a journal ranked 51-100, and nearly 9 times as many citations per year as an article in a journal outside the top 100.

Figure 4: Average citations received, by year of cited article publication

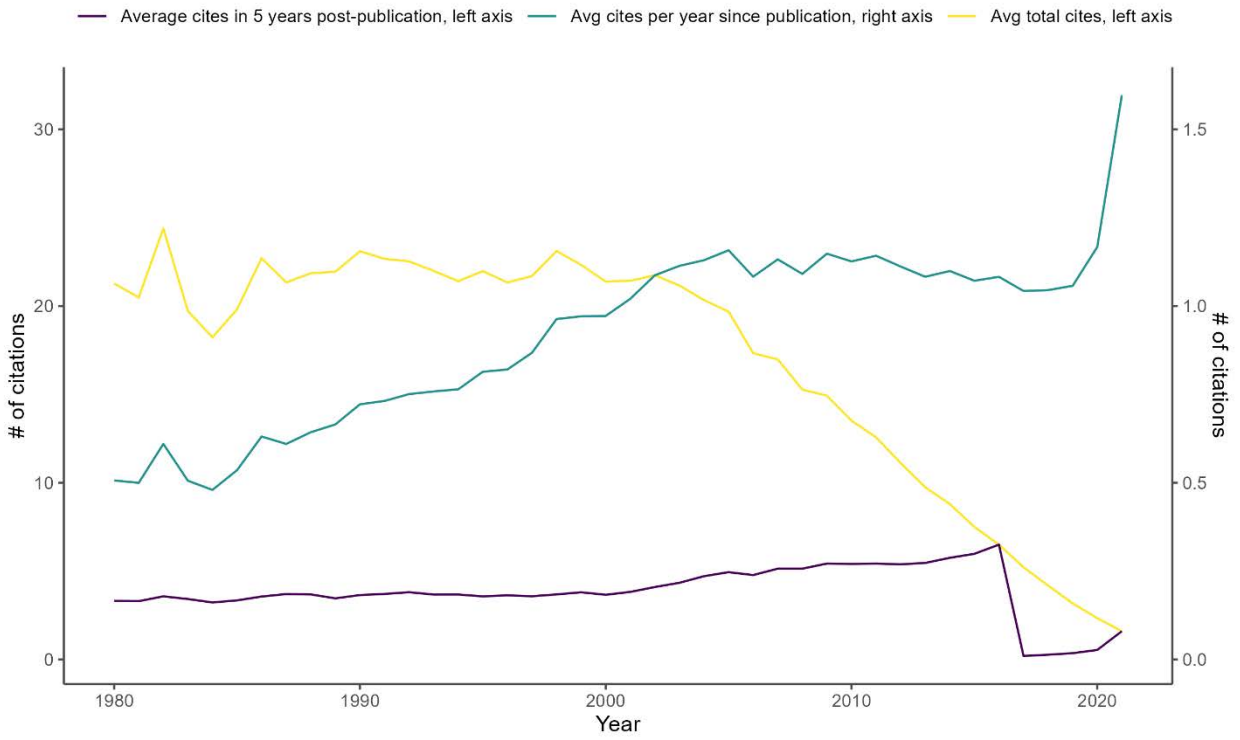


Table 1 lists these citation metrics for the top ten publications in our data with the most total citations. Many of the most heavily-cited publications are generally related to econometrics (see average citations by journal field, **Table A.3**) though several are published in generalist journals rather than econometrics journals. Most of the most highly-cited papers are by authors located in the U.S. or United Kingdom, with only one article, Engle (1982), a "collaboration" as it was written while the author was visiting the London School of Economics from the University of California, San Diego. The most highly-cited article in our data from a developing economy is Myers and Majluf (1984) (3,343 citations), with the latter author affiliated with the Universidad Catolica de Chile, while the most highly-cited in terms of citations per year is Levin et al., (2002), with two authors located at National Taiwan University.

Table 1: Top ten most cited publications in dataset

Authors	Year	Institutional affiliations	Country	Journal	Journal field	Journal rank group	Total citations	Citations per year	Citations, 5 years post-publication
Arellano, M and Bond, S	1991	London School of Economics and University of Oxford	United Kingdom	Review of Economic Studies	General	Top 10	6,838	220.6	50
Engle, RF and Granger, CWJ	1987	University of California, San Diego	USA	Econometrica	General	Top 10	6,284	179.5	510
Fama, EF and French, KR	1993	University of Chicago	USA	Journal of Financial Economics	Finance	Top 10	6,028	207.9	53
White, H	1980	University of Rochester	USA	Econometrica	General	Top 10	5,875	139.9	63
Blundell, R and Bond, S	1998	Institute for Fiscal Studies, University College London, and University of Oxford	United Kingdom	Journal of Econometrics	Econometrics	Top 26-50	5,599	233.3	76
Newey, WK and West, KD	1987	Princeton University	USA	Econometrica	General	Top 10	5,571	159.2	157
Jensen, MC	1986	Harvard University and	USA	American Economic Review	General	Top 10	4,261	118.4	88

		University of Rochester							
Arellano, M and Bover, O	1995	Bank of Spain and CEMFI	Spain	Journal of Econometrics	Econometrics	Top 26-50	4,237	156.9	33
Laporta, R, Lopez-de-silanes, F, Shleifer, A and Vishny, RW	1998	Harvard University and University of Chicago	USA	Journal of Political Economy	General	Top 10	4,108	171.2	164
Engle, RF	1982	University of California, San Diego and London School of Economics	USA and United Kingdom	Econometrica	General	Top 10	3,828	95.7	68

3. Trends in the global distribution of published economics research

a. Frontier economics research and GDP

We first discuss regional contributions in top economics publications, comparing them to their publication potential proxied by each region's share in global GDP, population, and researchers.

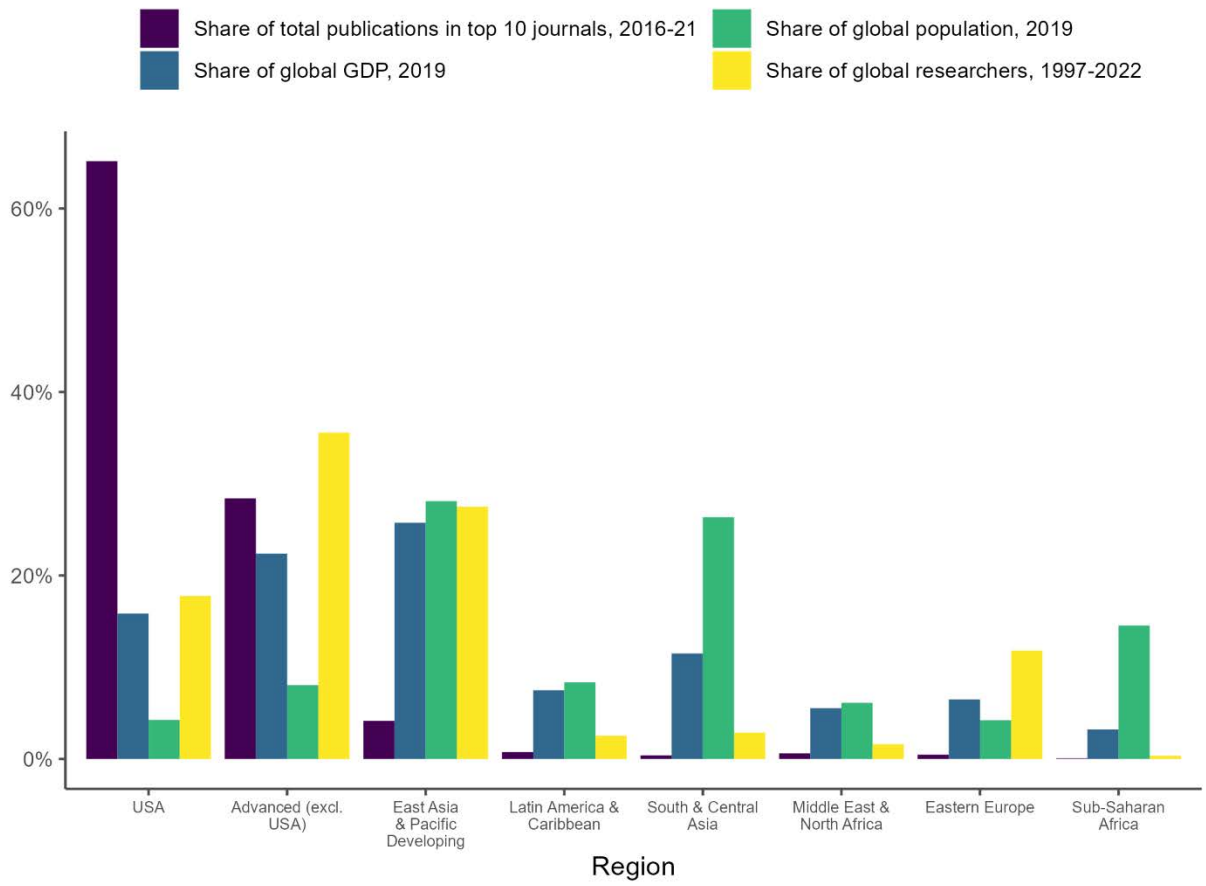
Figure 5 shows the regional distribution of authorship in top-10 journals during the latest sub-period for which we have data (2016-2021).[15] The distribution is highly skewed towards the rich regions of the world; the U.S. and other rich nations together account for a whopping 93% of authorship. It may not be surprising that research institutions in the rich nations produce the bulk of frontier research. But the degree of concentration is difficult to explain with reference to economic resources alone. The figure also shows the global distribution of economic output (GDP), which is far less skewed. In particular, the U.S. produces 65% of research output in top-10 journals whereas its share of global output is only 16%. Advanced (excluding U.S.) economies produce only a slightly larger share of top research (28%) than of global GDP (22%). Meanwhile developing countries' research output is way below their economic weight in the global economy. The imbalance is striking across all developing country regions, but is perhaps greatest for East Asia and South Asia. The imbalance can also be observed with regard to the share of researchers: except for USA, each region's global share of researchers is greater than its share of publications in top journals.[16] This evidence suggests that the imbalance cannot be explained simply lack of research (investments) in the lagging regions.

Further, there are even more striking imbalances between regional shares of population and regional share in total publications. The biggest gap can be observed in the case of global population, where the U.S. has the lowest share of global population (4 percent) but the highest share of total publications (66 percent). In other advanced regions the share of population is only 8 percent, compared to 28 percent in the share of publications. The picture is flipped when we look at other countries, where the share of population is between 7 (East Asia & Pacific Developing) and 221 (Sub-Saharan Africa) times higher than the share of total publications.

[15] The top 10 journals are (in order): *Quarterly Journal of Economics, Journal of Finance, Review of Economic Studies, Econometrica, Journal of Political Economy, Journal of Financial Economics, Review of Financial Studies, American Economic Journal: Macroeconomics, American Economic Review, and American Economic Journal: Applied Economics*

[16] We use share of researchers as a proxy for share of economists, as we have not found data on the number of economists by country.

Figure 5: Distribution of frontier economics research and research potential

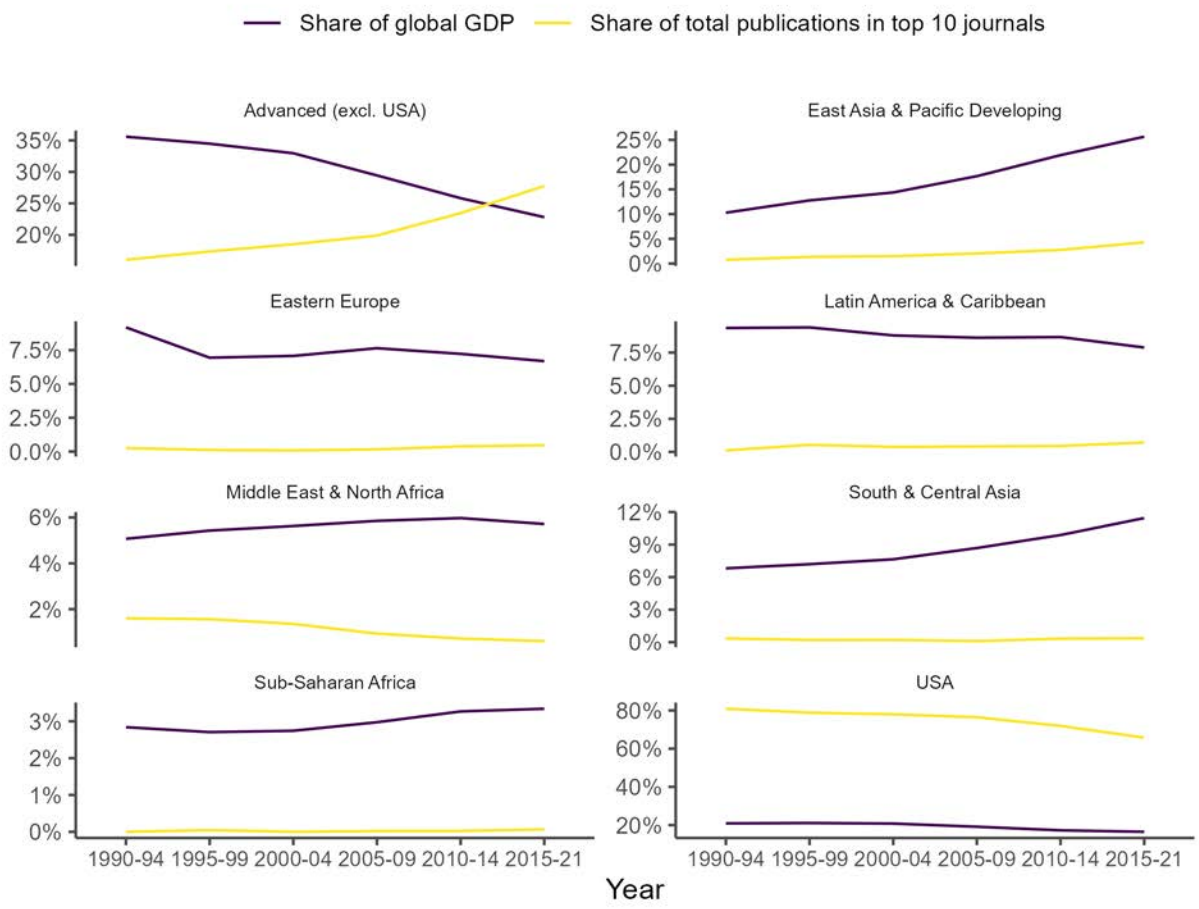


World Development Indicators GDP at PPP. 2017-2018 average GDP used where 2019 unavailable. Population statistics from World Bank Group. Share of researcher based on nearest to 2019 available year (between 1997 and 2022) from World Bank Group (141 countries). Advanced (excl. USA) includes Western Europe, Canada, Japan, Australia, and New Zealand.

The evolution of regional shares in GDP and frontier economics research over time since the 1990s is depicted in Figure 6.[17] The U.S. has always been a distinctive over-achiever in research. But what also stands out in the figure is the significant gains made by other advanced economies since the late 1990s. Before that time, Advanced (excluding USA) economies were distinctly under-represented in top research and looked not too dissimilar to developing regions. But since then, the gap between GDP and research shares has closed and (in the most recent period) been essentially erased. Some of this was due to declining global GDP shares, but a significant uptick in research is also visible in the chart.

[17] We average authorship over five-year intervals to smooth out annual fluctuations in publication.

Figure 6: Regional shares of global output vs. frontier economics research



In developing regions, meanwhile, the gap between GDP and research shares has generally increased over time. Where it has been somewhat reduced (as in Latin America and Eastern Europe), it is the result of declines in GDP shares rather than an increase in research shares. In other words, the problem of under-representation of developing countries in top research publications has been getting worse over time, rather than better.

b. A deeper look at journals and geography

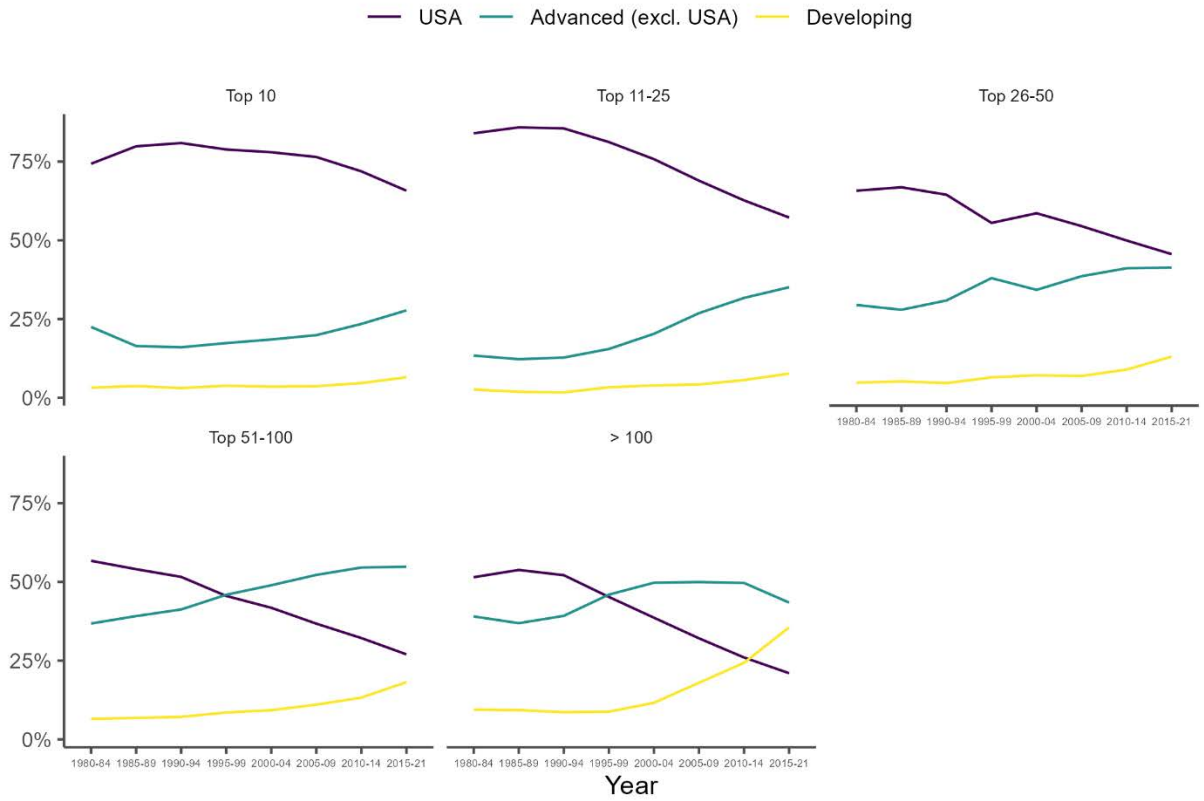
The previous results pertain to publications in top-10 journals. We now look at lower-ranked journals to ascertain whether trends in geographical concentration differ across categories of journal quality. We have separated journals in the database into five categories: top-10, top 11-25, top 26-50, top 51-100, and journals ranked below 100. Figure 7 shows the shares over time in these five categories of journals. There are interesting differences across categories both in levels and time trends. When we look at the latest period (2016-2021) we see that non-U.S. representation is significantly higher in journals ranked 50 or below (the two lowest categories) and stands at over 70%. The corresponding share for the two

top categories is 34% and 43%, while the middle-category of journals stands at 54%. In other words, the lower the quality ranking of a journal, the higher non-U.S. representation.

Figure 7 disaggregates the share of total publications into USA, advanced (excluding the USA) and developing countries. The U.S. has the largest share of top-10, top 11-25 and top 26-50 journal publications, despite losing ground in all categories over time. Figure 7 and Figure 8 (a) indicate that non-U.S. representation has generally increased in all journal categories (mainly due to gains made by other rich nations, as we have seen). However, the asymmetry just noted has generally widened over time, with an increase in the segmentation of U.S. and non-U.S. authors into top-ranked and lower-ranked journals, respectively.

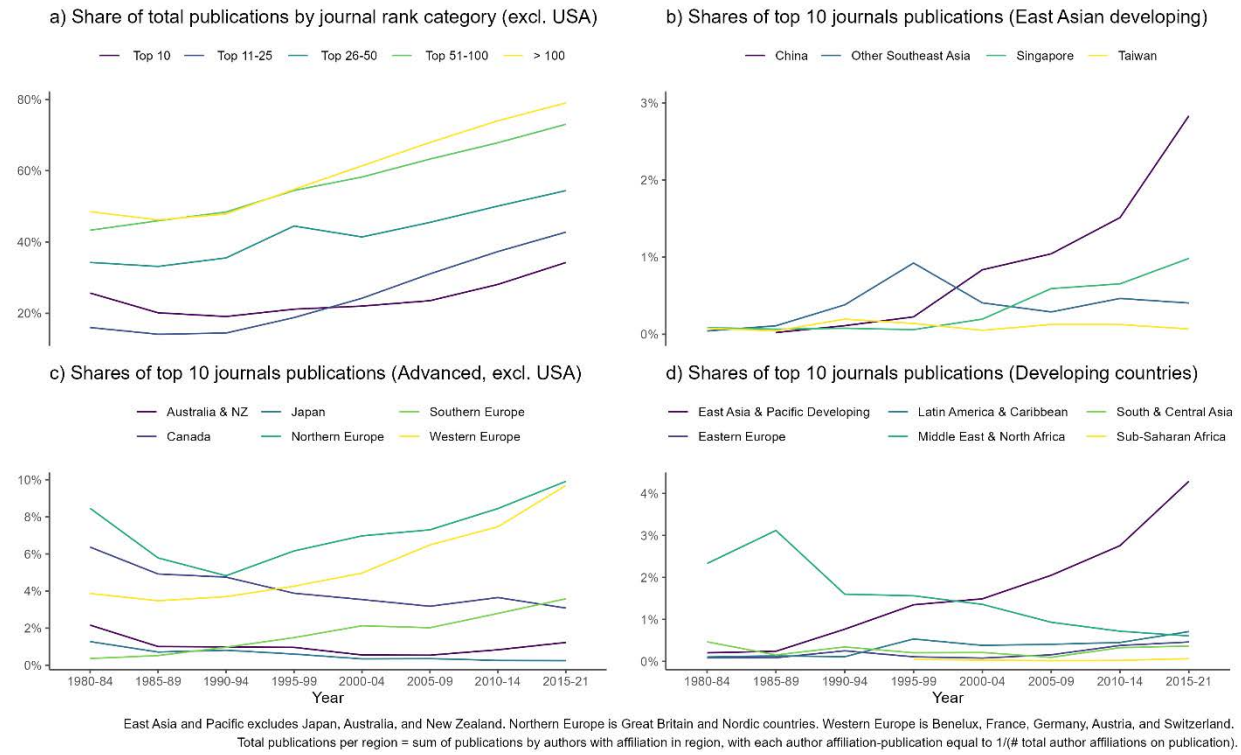
Advanced (excluding USA) economies have generally made progress across all journal categories. The gains in top-10 journals are due largely to authors based in Europe, with Japan experiencing a decline (as shown in Figure 8 (c)). But for developing nations it is difficult to see any gains over time in publication shares unless we start looking at lower-ranked journal categories. Indeed, the most visible rise (from 9.4% to 26.6%) has taken place in the lowest-category journals, ranked below 100 (**Table A. 4**).

Figure 7: Disaggregation of share of total publications by category of journal and year



Note: Advanced (excl. USA) includes Western Europe, Canada, Japan, Australia, and New Zealand
Total publications per region = sum of publications by authors with affiliation in region, with each author affiliation-publication equal to 1/(# total author affiliations on publication).

Figure 8: Share of publications in top 10 journals for different regions.



East Asia and Pacific excludes Japan, Australia, and New Zealand. Northern Europe is Great Britain and Nordic countries. Western Europe is Benelux, France, Germany, Austria, and Switzerland.
Total publications per region = sum of publications by authors with affiliation in region, with each author affiliation-publication equal to 1/(# total author affiliations on publication).

The picture we have therefore is dramatically different for advanced (excluding USA) economies (especially Europe) versus developing countries. The former group has been able to make significant progress in penetrating journals across the board. Whatever progress developing nations have made is limited to the least prestigious, lowest-ranked journals.

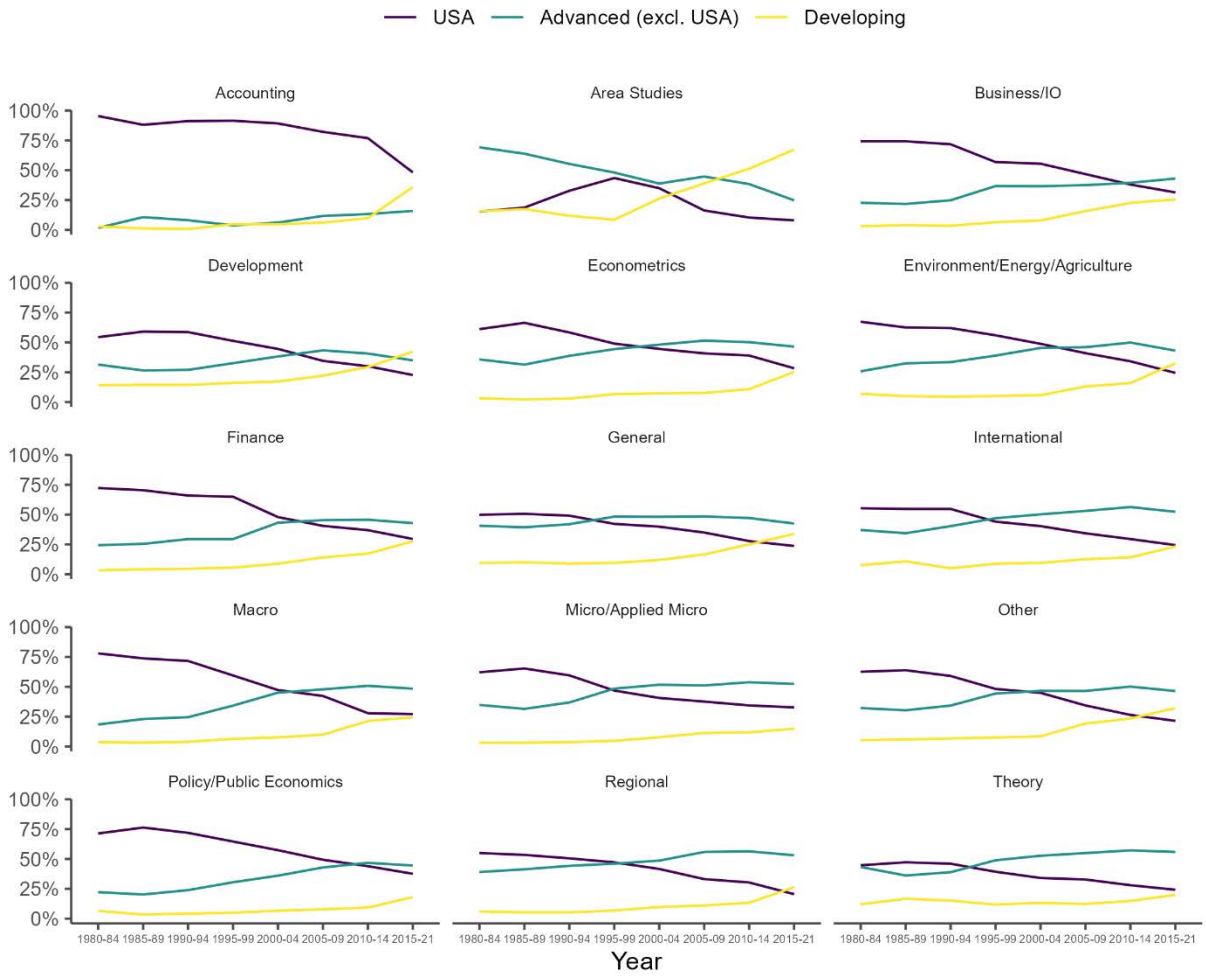
Performance has not been uniform across all developing countries, however. As Figure 8 (d) shows the East Asia and the MENA (Middle East & North Africa) regions have experienced sharply divergent fortunes, the former experiencing a steady rise in top-10 journal representation (albeit from a very low level) and the latter seeing a sharp drop. The rise in East Asia is due largely to China's increased prominence, and to a lesser extent, a larger footprint for Singapore (Figure 8 (b)). So the developing country aggregate hides a reversal of fortune for these two regions. For East Asia, the rise reflects, in a moderated fashion, the economic rise of the region. The decline of MENA's research prominence is harder to explain.

c. Levels and trends in economic fields

We now look at all journals in aggregate, classified by field of specialization. Figure 9 displays the trends across different fields for authors based in the USA, advanced (excluding USA) countries, and developing countries. The general picture is one of declining shares for U.S. authors and increasing shares for advanced (excluding USA) country authors, with the latter overtaking the former in almost all fields. However, while advanced (excluding USA) country researchers now produce near or slightly above 50%

of all journal articles in these fields, as we noted previously the gains to advanced (excluding USA) countries are concentrated in journals that are ranked relatively low.

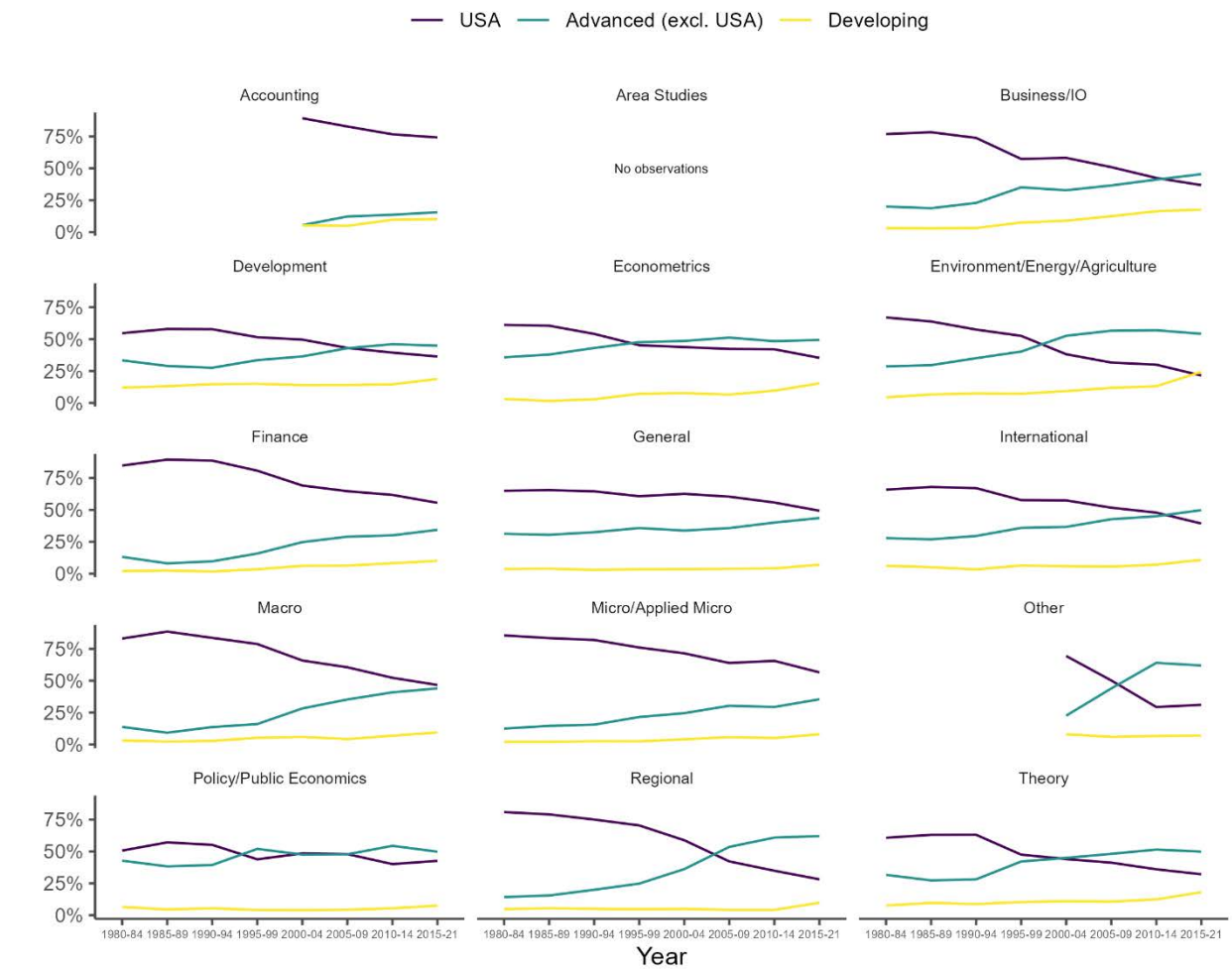
Figure 9: Disaggregation of share of total publications by journal field (all journals)



Advanced (excl. USA) includes Western Europe, Canada, Japan, Australia, and New Zealand. Total publications per region = sum of publications by authors with affiliation in region, with each author affiliation-publication equal to 1/(# total author affiliations on publication).

Figure 10 presents similar trends by field for top 100 journals only. When looking only at these higher-ranked journals only, some of these trends by journal field categories differ. The share of top 100 journal publications by U.S. authors has still decreased across all fields, but in several fields (including Accounting, Finance, General, Macro, and Micro/Applied Micro) U.S. authors continue to have the largest share. In all other fields, authors from advanced (excluding USA) economies have the largest shares of top 100 journal publications.

Figure 10: Disaggregation of share of total publications by journal field (top 100 journals)

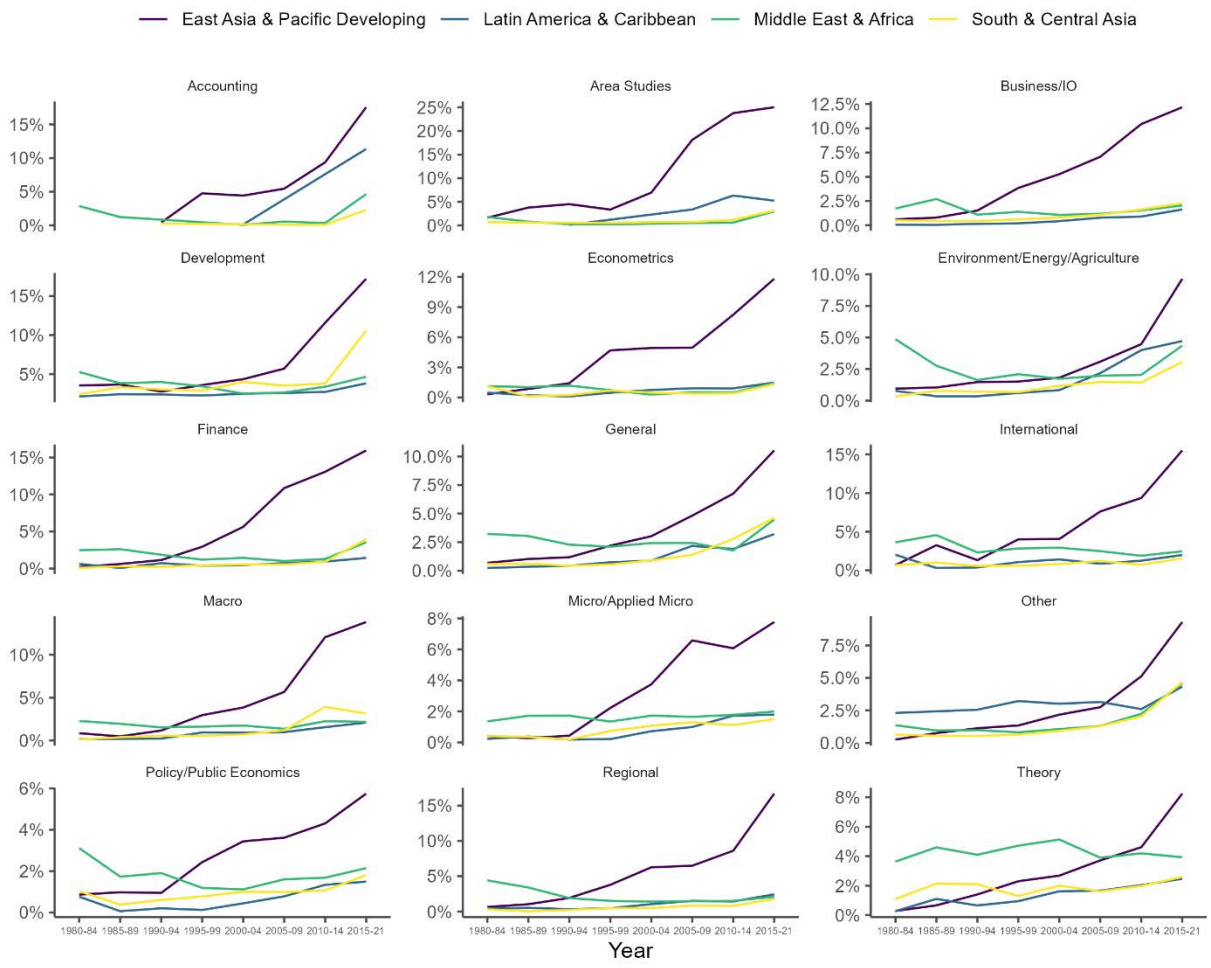


Advanced (excl. USA) includes Western Europe, Canada, Japan, Australia, and New Zealand. Total publications per region = sum of publications by authors with affiliation in region, with each author affiliation-publication equal to 1/(# total author affiliations on publication).

As for developing countries, there are no fields where they seem to have made significant gains. Notably, the developing country authorship shares remain quite low even in fields such as development and international where the discipline might have been expected to globalize and diversify. Some improvements are visible in business/IO, environment/energy, and finance (see also **Table A.4**).

Finally, Figure 11 disaggregates developing countries into different regions. Once again, we see important differences among regions. In general, the gains are overwhelmingly concentrated in East Asia. The shares of most other regions are generally static, with the notable exceptions of increases for South & Central Asia in development and Latin America & Caribbean in accounting and environment/energy/agriculture (**Figure A.2** shows similar trends for top 100 journals only).

Figure 11: Disaggregation of developing country shares of total publications by journal field (all journals)



Note: East Asia and Pacific excludes Japan, Australia, and New Zealand. Total publications per region = sum of publications by authors with affiliation in region, with each author affiliation-publication equal to 1/(# total author affiliations on publication).

4. Trends in citations

a. Citation flows between regions

We calculate average citations per region using the same approach we followed for articles, with the fractional weighting for each author affiliation-publication equal to 1 divided by the total number of author affiliations on the publication. Table 2 provides some summary statistics on this: articles by U.S.-affiliated authors receive more citations and a substantially higher share of these are published in top-10 journals. In terms of mean citations, collaborations between USA and other advanced (excluding USA) countries receive the most with 17.3, followed closely by articles solely by authors from the USA with 17.0. Also above the global mean (10.5 mean citations) are collaborations between the USA and Developing countries. Articles from other regions or collaborations between other regions receive between 2.6 (only Developing country) and 10.3 citations (all regions).

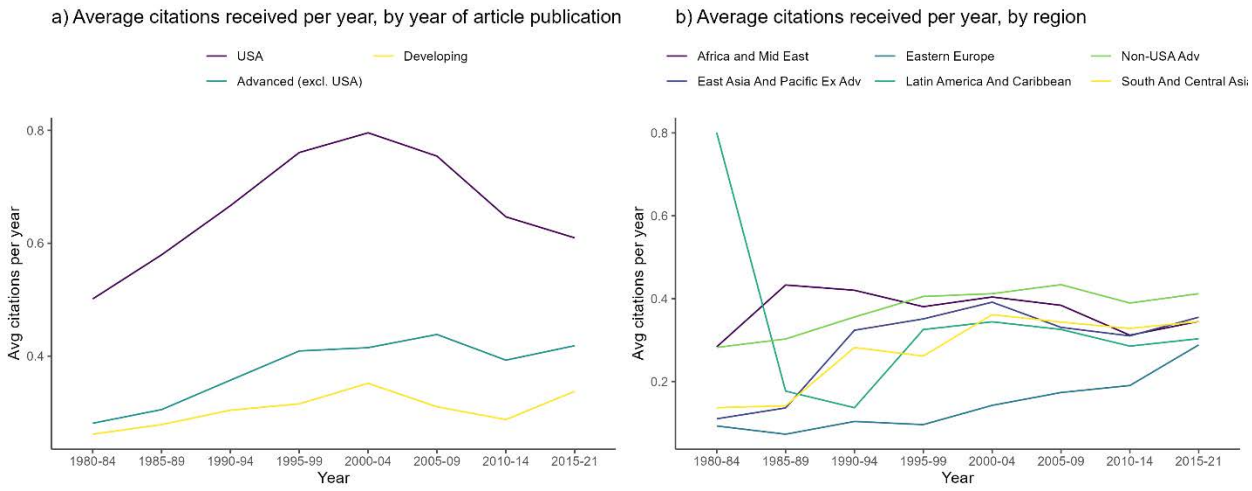
Table 2: Summary statistics by regional location of author affiliation(s)

Affiliation(s) location	Total pubs.	% Pubs. in top 10 journals	Mean citations	Mean citations per year
Developing	65,476	0.6%	2.6	0.3
Advanced (excl. USA) & Developing	17,829	1.4%	4.9	0.6
Advanced (excl. USA)	168,546	2.0%	7.0	0.5
USA & Developing	15,843	6.7%	11.1	0.9
USA & Advanced (excl. USA)	30,172	10.8%	17.3	1.3
USA	149,349	10.1%	17.0	1.0
All regions	3,814	7.5%	10.3	1.1

Note: Multiple affiliations for either co-authored articles with authors located in different regions or sole authors with multiple affiliations. Advanced (excl. USA) includes Western Europe, Canada, Japan, Australia, and New Zealand. Calculated over sample of 451,029 economics journal publications from 1980 to 2021.

Figure 12(a) shows citation trends by region. On average, authors in the U.S. receive more citations (here adjusted for years since the article was published), although the gap seems to have narrowed over the past two decades after increasing before. Figure 12(b) shows these same citation trends at a more detailed regional level outside the U.S.. The average number of citations per year has increased over time across all regions, and are relatively closely clustered together, though all remain below the average for advanced (excluding USA) economies since the mid-1990s.[18]

Figure 12: Average citations for different by area over time

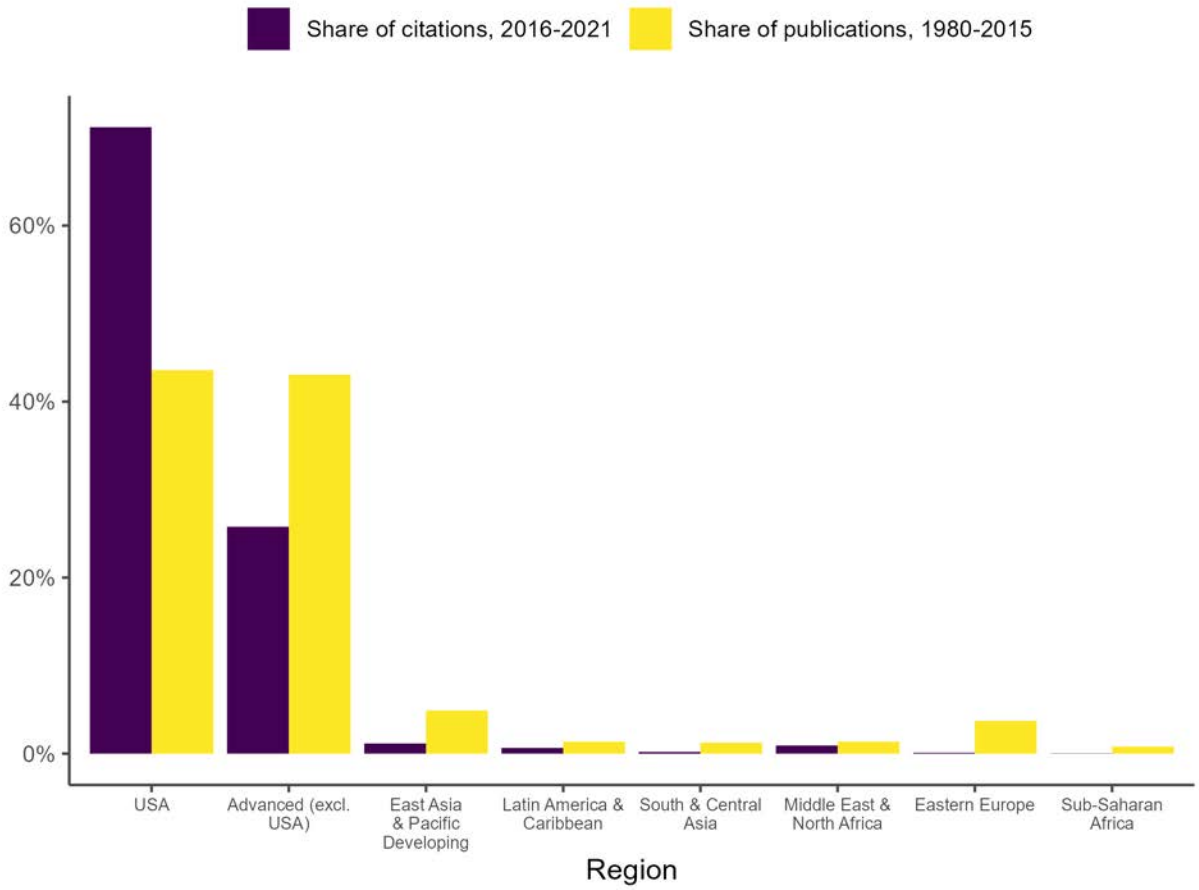


Another way of viewing citation patterns is by comparing the share of citations received by authors in each region to the share of publications by authors in that region. Figure 13 compares each region's

[18] Note that the spike in Latin America and Caribbean in 1980-1984 is largely due to one very highly-cited article, Myers and Majluf (1984).

share of publications from 1980 to 2015 with each region's share of all articles over this period that were cited by articles published since 2016 (adjusting for the number of citations received by each article). Between 1980 and 2015, a similar share of all publications was by authors located in the USA as for advanced (excluding USA) economies, but publications in the first group was cited far more often. For authors located in developing economies, their share of citations is far lower than their share of publications.

Figure 13: Distribution of economics citations vs. publications



Advanced (excl. USA) includes Western Europe, Canada, Japan, Australia, and New Zealand. Right-hand bar is share of all publications (in 1980-2015) by authors from each region while left-hand bar is these publications' share of citations in later articles (published from 2016 to 2021).

5. Results from econometric analysis

As shown in the preceding charts, top journal publications and citations are skewed disproportionately toward articles by authors in more advanced economies. Table 2 provides some additional summary statistics on this: articles by U.S.-affiliated authors receive more citations and a substantially higher share of these are published in top-10 journals. However, these differences could be driven in part by selection effects: for example, authors in advanced economies could submit higher quality articles or

differences in average citation counts by region could be due to differences in average citation counts by journal rank and journal field (e.g., see Table A.3).

We investigate the possibility of selection effects by estimating two models of the associations between author location and journal of publication or citation counts, controlling for potential confounding factors. We first estimate the probability of an article being published in a top-10 journal (as defined above) based on authors' location and controls:

$$\text{Prob}\left(\widehat{Top10Publication}_{igt}\right) = \beta_0 + \beta_g Location_g + \beta_1 CitationsPerYear_i + \beta_t Year_t \quad (1)$$

where the dependent variable $\text{Prob}\left(\widehat{Top10Publication}_{igt}\right)$is the probability that article *i* was published in a top-10 journal. The explanatory variable of interest is $Location_g$, an indicator of the region(s) g where authors of the article are located. This variable can take one of seven values (as listed in Table 2) based on the location of the institutions all authors of article *i* are affiliated with (institutions in the USA, only non-USA advanced economies, only developing economies, or affiliated with institutions in two or all three of these regions). We also include a proxy control for article quality via $CitationsPerYear_i$, the number of citations article *i* has received divided by the number of years since publication, as well as year of publication *t* fixed effects. Equation (1) is estimated both via OLS as a linear probability model and via logistic regression.

We next explore the association between author affiliation(s) and the count of citations their article receives:

$$\ln\left(\widehat{Citations}_{igjt}\right) = \beta_0 + \beta_g Location_g + \beta_j JournalField_j + \beta_r JournalRankGroup_r + \beta_t Year_t \quad (2)$$

where the dependent variable $\ln\left(\widehat{Citations}_{igjt}\right)$ is the natural logarithm of the number of citations received by article i, with authors located in region(s) g, published in journal field *j* in year t.[19] The explanatory variable of interest is again $Location_g$, an indicator variable for author(s) location as described above. We include $JournalField_j$ to control for the field of specialization j of the journal the article was published in, as well as the year the cited article was published ($Year_t$), given differences across journal fields and over time in citation counts, as shown in Table A.3 and Figure 4. We also include in some specifications $JournalRankGroup_r$ to control for the possibility that authors in certain regions publish less in high quality journals and to explore whether authors in one region receive fewer citations even when publishing in the same high-quality journals as authors from another region. This equation is estimated using negative binomial regression, with this modelling method used due to the over-dispersion of the citation count variable (the unconditional sample mean is 10.5 compared to a variance of 1,796.4).

The results of the regressions are presented in Table 3, with estimates reported in reference to the baseline of article authors only affiliated with U.S. institutions. (All standard errors are heteroskedasticity-robust.) These results show that articles by authors located outside the U.S. have a

[19] Note our dependent variable is citation counts rather than citations per year given the inclusion of year-of-publication fixed effects.

substantially lower probability of being published in a top 10 journal—even controlling for article quality (citations received)—and receive fewer citations from other economics publications, with the strongest results for articles by authors in developing economies.

The first set of results, in columns (1) through (4), show estimates for the probability of publishing in a top-10 journal based on the geographic affiliations of authors. In estimates from both the linear probability model (columns (1) and (2)) and logit model estimates (columns (3) and (4)) the largest negative coefficients are on indicators for the article authors being affiliated with institutions in developing economies (with smaller coefficients when only *some* of the authors are from developing economies, i.e. international collaborations), even after controlling for article quality (via the proxy of citations per year). In our preferred specification with year fixed effects (column (4)), an article by authors affiliated only with institutions in the U.S. has a 15.5% probability of being published in a top 10 journal (odds of 0.183 = $= e^{-1.696}$), compared to a probability of only 1.4% for an article by only developing economy authors with the same number of citations per year (corresponding to an odds ratio of 0.078 $= e^{-2.555}$). In comparison, an article by only authors affiliated with institutions in advanced (excluding USA) economies has a 4.0% probability (odds ratio of 0.229 $= e^{-1.476}$) of top 10 journal publication. Inter-regional collaborations between authors in the U.S. and those in developing economies have a far higher probability of top 10 journal publication (11.8%; odds ratio of 0.730 $= e^{-0.316}$) compared to similar-quality articles by authors only in the developing economies. There is a much lower probability of an article that is a collaboration by authors located in developing and advanced (excluding USA) economies being published in a top 10 journal (2.9%; odds ratio 0.163 $= e^{-1.811}$), which suggests that there is a large value to developing country authors collaborating with authors in the U.S. as it may signal higher article quality (noting this holds constant the number of citations per year) or facilitate journal submission and review processes.

The final set of results in columns (5), (6) and (7) illustrate the decrease in citations associated with articles being written by authors outside the U.S.. Articles written only by authors in developing economies have on average 1.1 fewer log citations than articles by only authors in the U.S. even when holding constant the article publication year and field of the journal (column 6), though this gap declines to 0.682 fewer log citations when also controlling for the rank-group of the journal that article *i* is published in (column 7). Inter-regional collaborations between developing economy authors and authors located in the U.S. or other advanced economies also receive fewer citations, though this difference disappears when controlling for the journal rank group. On the other hand, inter-regional collaborations between authors in the U.S. and an advanced (excluding USA) economy are predicted to receive slightly *more* citations on average—with a log citation count 0.21 (column 7) higher than articles by U.S. authors alone—and a similar positive (though slightly smaller) association (0.16) (column 7) for articles with authors in all three regions—in the USA, an advanced (excluding USA) economy, and a developed economy. This suggests that there is some additional value to collaborations between authors from multiple different regions.

Table 3: Regressions of top 10 journal publication and citation counts on author(s) geographic location

	Dependent variable and model description						
	Prob(Top 10 journal) (LPM)		Log(Top 10 journal) (Logit)		Citations count (Negative Binomial)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Advanced (excl. USA)	-0.068 ***	-0.063 ***	-1.571 ***	-1.476 ***	-0.884 ***	-0.606 ***	-0.211 ***
	(0.001)	(0.001)	(0.021)	(0.022)	(0.014)	(0.011)	(0.010)
Developing	-0.074 ***	-0.067 ***	-2.671 ***	-2.555 ***	-1.879 ***	-1.148 ***	-0.682 ***
	(0.001)	(0.001)	(0.054)	(0.055)	(0.021)	(0.015)	(0.012)
USA & Advanced (excl. USA)	-0.005 **	0.001	-0.100 ***	0.011	0.014	0.200 ***	0.205 ***
	(0.002)	(0.002)	(0.023)	(0.023)	(0.020)	(0.014)	(0.013)
USA & Developing	-0.032 ***	-0.025 ***	-0.437 ***	-0.316 ***	-0.427 ***	-0.142 ***	-0.035
	(0.002)	(0.002)	(0.035)	(0.036)	(0.029)	(0.021)	(0.022)
Advanced (excl. USA) & Developing	-0.075 ***	-0.067 ***	-1.944 ***	-1.811 ***	-1.245 ***	-0.450 ***	-0.080 ***
	(0.001)	(0.001)	(0.067)	(0.069)	(0.022)	(0.017)	(0.016)
All regions	-0.031 ***	-0.023 ***	-0.443 ***	-0.311 ***	-0.502 ***	0.051	0.155 ***
	(0.004)	(0.004)	(0.068)	(0.069)	(0.044)	(0.028)	(0.030)
Citations per year	0.032***	0.033***	0.354***	0.381***			
	0.001	0.001	0.007	0.008			
(Intercept)	0.071 ***	0.138 ***	-2.661 ***	-1.696 ***	2.835 ***	3.024 ***	4.665 ***
	(0.001)	(0.005)	(0.013)	(0.049)	(0.009)	(0.079)	(0.071)
Journal field FE	No	No	No	No	No	Yes	Yes
Journal rank group FE	No	No	No	No	No	No	Yes
Year FE	No	Yes	No	Yes	No	Yes	Yes
N. obs.	451,029	451,029	451,029	451,029	451,029	451,029	451,029
Adj. R squared	0.118	0.122	-	-	-	-	-

Note: Columns (1) and (2) regression estimates are from a linear probability mode, Columns (3) and (4) are from a logit model, and Columns (5), (6) and (7) estimates are from negative binomial regression. Sample is economics journal publications from 1980 to 2021. Standard errors are heteroscedasticity-robust. See text for details on variable construction.

6. Concluding remarks

The geographic concentration of publications in economic journals is very high – indeed, much more extreme than global income disparities. Many rich nations have made considerable progress relative to

the United States. But authors based in developing countries have made little gains, despite significant rates of economic growth in low-income regions and economic convergence in recent decades. Where there are gains, they are limited to the lowest-ranked journals. The evidence on citations reinforces these findings, showing authors based in developing countries are significantly less likely to publish in top journals even controlling for one measure of article quality (number of citations). We hope this paper will stimulate further research on the underlying causes, including barriers to access such as asymmetric information or exclusionary practices such as closed networks.

7. Appendix A: Tables and figures

Table A.1: Shares of observations missing author affil. by journal rank group

Rank Group	# Articles without author affil.	% Missing author affil.
Top 10	199	0.83
Top 11-25	226	1.24
Top 26-50	325	0.87
Top 51-100	1,005	1.66
> 100	15,017	4.38

Table A.2: Shares of observations missing author affil. by journal field

Journal Field	# Articles without author affil.	% Missing author affil.
Accounting	9	0.22
Area Studies	1,285	7.38
Business/IO	513	1.27
Development	765	2.73
Econometrics	336	2.79
Environment/Energy/Agriculture	339	0.90
Finance	851	2.11
General	3,423	3.13
International	548	4.35
Macro	401	1.65
Micro/Applied Micro	438	1.18
Other	2,482	6.76
Policy/Public Economics	4,677	14.69
Regonal/Urban	283	0.97
Theory	422	1.94

Table A.3: Average number of citations per year by journal field

Journal Field	Avg citations per year
Accounting	1.2
Area Studies	0.2
Business/IO	0.7
Development	0.6
Econometrics	1.1
Environment/Energy /Agriculture	0.6
Finance	1.1
General	1.0
International	0.6
Macro	0.8
Micro/Applied Micro	0.6
Other	0.3
Policy/Public Economics	0.6
Regional	0.6
Theory	0.5

Table A.4: Change over time in publication shares of different groups of countries, by rank of journal

	1980-99			2000-21			Perc. point change		
	Developing	**Advanced (excl. USA)**	**USA**	**Developing**	**Advanced (excl. USA)**	**USA**	**Developing**	**Advanced (excl. USA)**	**USA**
Top 10	3.4	18.1	78.4	5.0	23.5	71.5	1.5	5.4	-6.9
Top 11-25	2.4	13.5	84.2	5.8	29.9	64.3	3.4	16.5	-19.9
Top 26-50	5.3	31.9	62.8	9.7	39.5	50.8	4.4	7.6	-12.0
Top 51-100	7.5	41.9	50.6	14.4	53.5	32.1	6.9	11.6	-18.5
>100	9.0	40.7	50.3	26.9	46.8	26.2	17.9	6.1	-24.0

Table A.5: Change over time in shares of different groups of countries, by field of journal

	1980-99			2000-21			Perc. point change		
	Developing	Advanced (excl. USA)	USA	Developing	Advanced (excl. USA)	USA	Developing	Advanced (excl. USA)	USA
Accounting	2.6	6.4	91.0	23.2	13.8	63.0	20.6	7.4	-28.1
Area Studies	12.6	57.3	30.1	55.7	32.1	12.2	43.2	-25.2	-18.0
Business/IO	4.5	27.8	67.7	20.7	40.3	39.0	16.2	12.5	-28.7
Development	14.9	29.4	55.8	33.5	37.9	28.6	18.6	8.5	-27.2
Econometrics	4.1	38.7	57.1	15.8	48.6	35.6	11.7	9.8	-21.5
Environment/ Energy/Agriculture	5.3	33.8	60.9	22.2	45.4	32.3	17.0	11.6	-28.6
Finance	4.6	27.6	67.8	21.1	44.0	34.9	16.6	16.3	-32.9
General	9.5	42.6	47.9	25.2	45.6	29.2	15.8	3.0	-18.7
International	8.2	40.9	50.9	17.1	53.2	29.7	8.9	12.2	-21.1
Macro	4.5	26.3	69.3	18.8	48.6	32.6	14.3	22.3	-36.7
Micro/Applied Micro	3.9	40.1	56.0	12.5	52.4	35.1	8.6	12.3	-20.9
Other	6.4	35.7	57.8	24.5	47.4	28.1	18.1	11.6	-29.7
Policy/Public Economics	4.6	24.5	70.8	11.8	43.2	45.0	7.1	18.7	-25.8
Regional	5.9	42.9	51.3	18.8	53.8	27.4	13.0	10.9	-23.9
Theory	13.6	42.8	43.6	15.8	55.4	28.7	2.2	12.7	-14.9

Figure A.1: Share of articles without author country affiliation

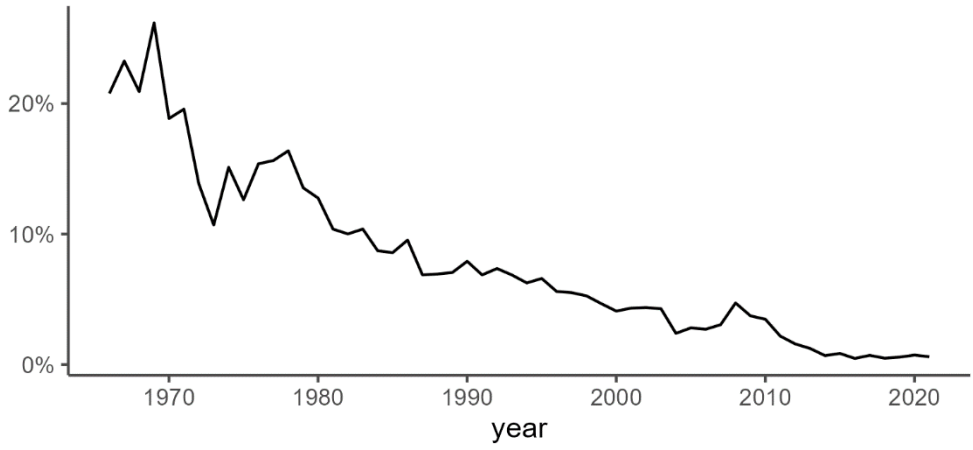
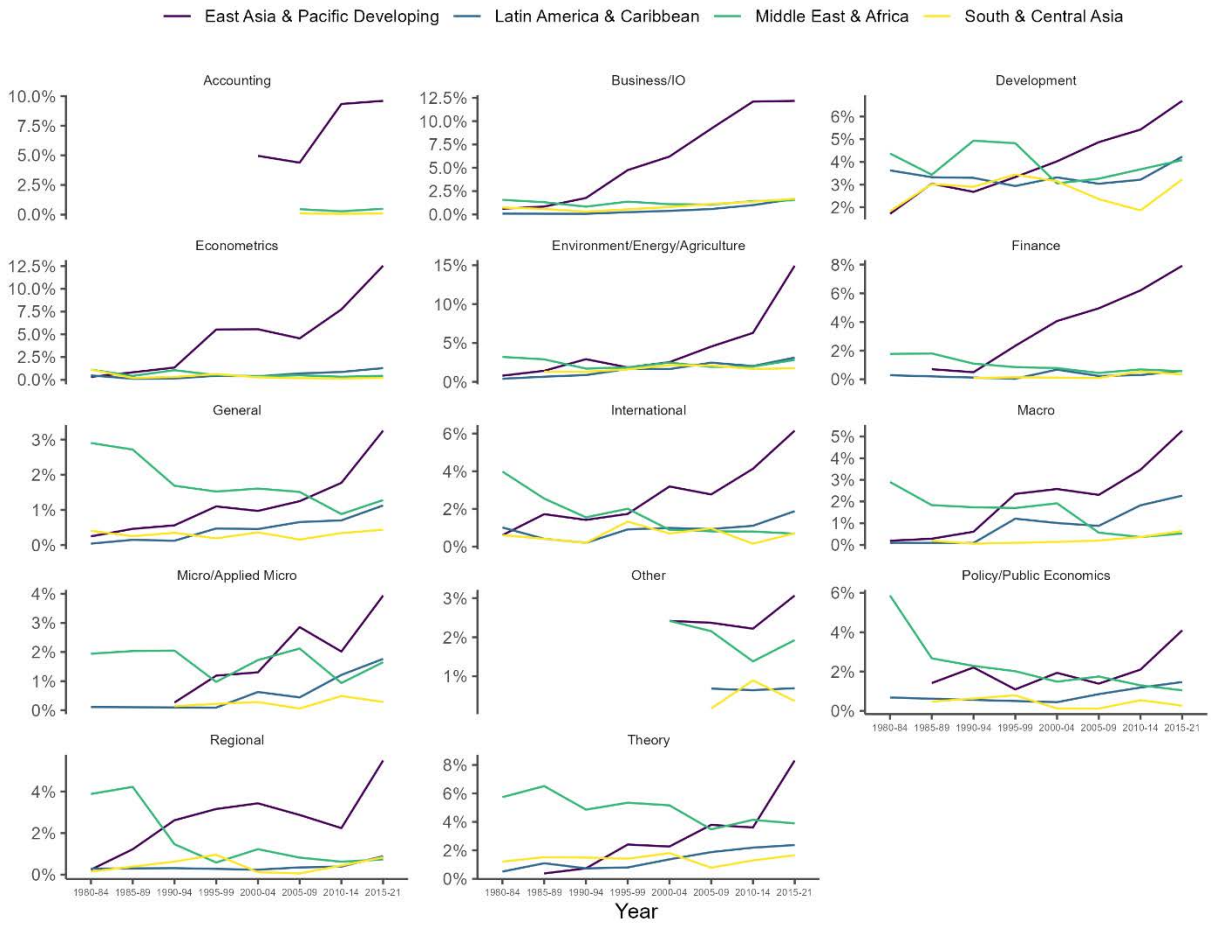


Figure A.2: Disaggregation of developing country shares of total publications by journal field (top 100 journals)



Note: East Asia and Pacific excludes Japan, Australia, and New Zealand. Total publications per region = sum of publications by authors with affiliation in region, with each author affiliation-publication equal to 1/(# total author affiliations on publication).

8. References

Aistleitner, M., Kapeller, J., & Kronberger, D. (2023). The authors of economics journals revisited: Evidence from a large-scale replication of Hodgson and Rothman (1999). *Journal of Institutional Economics*, *19*(1), 86–101. https://doi.org/10.1017/S174413742200025X

Aistleitner, M., Kapeller, J., & Steinerberger, S. (2019). Citation patterns in economics and beyond. *Science in Context*, *32*(4), 361–380. https://doi.org/10.1017/S0269889720000022

Amarante, V., Burger, R., Chelwa, G., Cockburn, J., Kassouf, A., McKay, A., & Zurbrigg, J. (2022). Underrepresentation of developing country researchers in development research. *Applied Economics Letters*, *29*(17), 1659–1664. https://doi.org/10.1080/13504851.2021.1965528

Chelwa, G. (2021). Does economics have an 'Africa problem'? *Economy and Society*, *50*(1), 78–99. https://doi.org/10.1080/03085147.2021.1841933

Cioni, M., Federico, G., & Vasta, M. (2019). The long-term evolution of economic history: Evidence from the top five field journals (1927–2017). *Cliometrica*. https://doi.org/10.1007/s11698-019-00186-x

Cloos, J., Greiff, M., & Rusch, H. (2023). Editorial favoritism in the field of laboratory experimental economics. *Journal of Behavioral and Experimental Economics*, *107*, 102082. https://doi.org/10.1016/j.socec.2023.102082

Corsi, M., D'Ippoliti, C., & Zacchia, G. (2019). On the evolution of the glass ceiling in Italian academia: The case of economics. *Science in Context*, *32*(4), 411–430. https://doi.org/10.1017/S0269889720000046

Cummings, S., & Hoebink, P. (2017). Representation of Academics from Developing Countries as Authors and Editorial Board Members in Scientific Journals: Does this Matter to the Field of Development Studies? *The European Journal of Development Research*, *29*(2), 369–383. https://doi.org/10.1057/s41287-016-0002-2

Ek, S., & Henrekson, M. (2019). The Geography and Concentration of Authorship in the Top Five: Implications For European Economics. *Scottish Journal of Political Economy*, *66*(2), 215–245. https://doi.org/10.1111/sjpe.12208

Engle, R. F. (1982). Autoregressive Conditional Heteroscedasticity with Estimates of the Variance of United Kingdom Inflation. *Econometrica*, *50*(4), 987–1007. https://doi.org/10.2307/1912773

Fontana, M., Montobbio, F., & Racca, P. (2019). Topics and Geographical Diffusion of Knowledge in Top Economic Journals. *Economic Inquiry*, *57*(4), 1771–1797. https://doi.org/10.1111/ecin.12815

Glötzl, F., & Aigner, E. (2019). Six Dimensions of Concentration in Economics: Evidence from a Large-Scale Data Set. *Science in Context*, *32*(4), 381–410. https://doi.org/10.1017/S0269889720000034

Guo, S., & Zhang, G. (2019). Social network analysis of international collaboration in the economic research from 1900 through 2012. *The Social Science Journal*. https://doi.org/10.1016/j.soscij.2019.02.006

Hamermesh, D. S. (2013). Six Decades of Top Economics Publishing: Who and How? *Journal of Economic Literature*, *51*(1), 162–172. https://doi.org/10.1257/jel.51.1.162

Hamermesh, D. S. (2018). Citations in Economics: Measurement, Uses, and Impacts. *Journal of Economic Literature*, *56*(1), 115–156. https://doi.org/10.1257/jel.20161326

Hellmanzik, C., & Kuld, L. (2020). No place like home: Geography and culture in the dissemination of economic research articles. *Empirical Economics*. https://doi.org/10.1007/s00181-020-01860-0

Hicks, D., Wouters, P., Waltman, L., de Rijcke, S., & Rafols, I. (2015). Bibliometrics: The Leiden Manifesto for research metrics. *Nature News*, *520*(7548), 429. https://doi.org/10.1038/520429a

Hirschman, A. O. (1972). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Harvard university press.

Kapeller, J. (2010a). Citation Metrics: Serious Drawbacks, Perverse Incentives, and Strategic Options for Heterodox Economics. *American Journal of Economics and Sociology*, *69*(5), 1376–1408. https://doi.org/10.1111/j.1536-7150.2010.00750.x

Kapeller, J. (2010b). Some Critical Notes on Citation Metrics and Heterodox Economics. *Review of Radical Political Economics*, *42*(3), 330–337. https://doi.org/10.1177/0486613410377855

Laslier, J.-F. (2018). The consequences of internationalization on research topics in economics. *European Political Science*, *17*(3), 349–357. https://doi.org/10.1057/eps.2016.8

Levin, A., Lin, C.-F., & James Chu, C.-S. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, *108*(1), 1–24.

Liu, J., Song, Y., & Yang, S. (2020). Gender disparities in the field of economics. *Scientometrics*, *125*(2), 1477–1498. https://doi.org/10.1007/s11192-020-03627-x

Kvangraven, I.H. & Kesar. S. (2023). Standing in the way of Rigor? Economics' meting with the Decolonization Agenda. *Review of International Political Economy,* 30(5), 1723–1748. https://doi.org/10.1080/09692290.2022.2131597

Lundberg, S., & Stearns, J. (2019). Women in Economics: Stalled Progress. *Journal of Economic Perspectives*, *33*(1), 3–22. https://doi.org/10.1257/jep.33.1.3

Merigó, J. M., Rocafort, A., & Aznar-Alarcón, J. P. (2016). Bibliometric Overview of Business & Economics Research. *Journal of Business Economics and Management*, *17*(3), 397–413. https://doi.org/10.3846/16111699.2013.807868

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, *13*(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Orazbayev, S. (2017). *Exploring the world of Economics through RePEc data* (No. 81963; MPRA Paper No.). https://mpra.ub.uni-muenchen.de/id/eprint/81963

Stansbury, A., & Schultz, R. (2023). The Economics Profession's Socioeconomic Diversity Problem. *Journal of Economic Perspectives*, *37*(4), 207–230. https://doi.org/10.1257/jep.37.4.207

Stiglitz, J. (2001). *The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2001*. NobelPrize.Org. https://www.nobelprize.org/prizes/economic-sciences/2001/stiglitz/biographical/

Stockhammer, E., Dammerer, Q., & Kapur, S. (2021). The Research Excellence Framework 2014, journal ratings and the marginalisation of heterodox economics. *Cambridge Journal of Economics*, *45*(2), 243–269. https://doi.org/10.1093/cje/beaa054

Waltman, L., Tijssen, R. J. W., & Eck, N. J. van. (2011). Globalisation of science in kilometres. *Journal of Informetrics*, *5*(4), 574–582. https://doi.org/10.1016/j.joi.2011.05.003