

Is Commanding Korean a Source of Competitiveness?: An Analysis of Publications in English by Korean Economics Professors Affiliated with Korean Universities

Duol KIM and Hann Earl KIM

Abstract

For the last several decades, people around the world have become increasingly interested in Korean economy and society. Along with this demand factor, the supply factor, that is, the eagerness of Korean scholars to actively interact with global academia, has encouraged Korean scholars to write more articles about the Korean economy in English. The combination of these two factors has over the last two to three decades resulted in the growth of English-language papers dealing with Korean subjects. However, the increase in English-language papers examining Korean subjects over the last two decades is largely explained by the overall growth of English-language papers in general, while the ratio of Koreanrelated subjects among those English-language publications has actually declined. More analyses should be made to understand this pattern. However, if we consider policy measures to improve the situation, it is reasonable first to think about how to enhance the availability or quality of data used for research on Korea. Even without allocating more money, the Korean government can attract scholars to study Korean subjects by making existing government data more available to scholars. Since the government is the largest data holder, a more forward-looking approach by the government can attract more scholars to study Korean subjects and to write more papers in English.

Keywords: competitiveness, Korean subjects, global academia, availability of data, quality of data

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Introduction

The tide of globalization has had a tremendous impact on Korean academia over the last two decades. One of the most important impacts has been the growing trend among Korean scholars to present and publish their research beyond Korean borders. Fluency in a foreign language, especially English, is an indispensable intermediary for this interaction. However, whether to write one's papers in Korean or in English involves much more fundamental issues than just deciding in what language to express one's ideas. As a non-Korean audience may naturally want to read and learn about something with relevance to their own society, authors writing in English may choose to pursue general topics applicable to other societies, that is, abstract, theoryoriented subjects or international issues, rather than something specific to Korea. However, an opposite argument could also be made. Since Englishlanguage research on Korea is scarce, quality studies dealing with Korean data or Korea-specific subjects can attract more attention from international readers. This means Korean scholars can derive benefits from commanding Korean in publishing outside Korea.

Does the language chosen for writing a paper affect the paper's content? If then, in what direction, and to what degree? We sought answers these questions by analyzing the research over the last two decades of Korean economics professors affiliated with Korean universities. The share of Koreans earning their PhDs abroad, especially in the United States, is relatively higher in the field of economics than other social sciences. However, until the 1990s economists in Korea did not make much effort to publish their research in English. This pattern began to change due to two exogenous factors. First, globalization motivated Korean scholars to interact more with international academia. Second, from the late 1990s the Korean government tried to make Korean academia more globalized by pushing them to publish more in English. These factors have given rise to a movement over the last two decades to publish more articles in Englishlanguage journals. Then, how much have Korean economists published in English? And in doing so, did they enjoy a comparative advantage of commanding Korean? As scholars and research grants are scarce resources

of any society, examining the relation between language and research subject has important policy implications beyond just offering a greater understanding of academia and the relationship between language and research.¹

We explored this problem by analyzing data collected by the Korean Researcher Information (KRI). KRI has comprehensive information on Korean scholars in every field and their publications. From the database, we compiled a list of publications in academic journals by Korean professors of economics who have been affiliated with Korean universities at least once. Economics is suitable for this research agenda because we can study the competitiveness of English-language writing on Korean subjects more clearly in economics than in other fields. This is because, unlike history or literature, Korean economists can choose to analyze country panel data or theoretical topics not directly related to Korea if they think that this might increase the possibility of publication in foreign-language journals. Also, Korean scholars specializing in theoretical analysis or international issues may make greater efforts to publish in English than those who investigate Korean issues. The existence of such alternatives available to scholars is a great advantage for our research agenda.

In analyzing the KRI data, we found that in 2018 Korean professors of economics published about 33.3 percent of their research in academic journals in English. Considering that this share was 18 percent in 1998, English-language publications by Korean professors of economics has almost doubled over the last two decades. Along with this change, more articles dealing with Korean subjects were published in English in 2018 than in 1998. This growth may be interpreted as reflecting Korean scholars increasingly utilizing their cultural and social endowments as advantages in global academia. However, the growth rate of English-language papers dealing with Korean subjects from 1998 to 2018 is much lower than the

^{1.} Regarding our research agenda, the term "comparative advantage" may be more suitable than "competitiveness." Use of "comparative advantage," clarifies the counterpart with whom Korean scholars compete. However, it is not easy to define or to examine empirically in this paper. Therefore, we chose to use the word "competitiveness" rather than "comparative advantage," to imply that our concern is absolute level rather than relative superiority.

growth rate of English-language papers dealing with non-Korean issues for the same period. This implies that the Korean subject may not be a source of competitiveness when writing in English. Regression analysis reveals that the growth of English-language publications dealing with Korean subjects over the last two decades is largely explained by the general increase in English-language publications and that the competitiveness of Korean subjects has actually declined.

Several factors may contribute to this pattern, but the most important is likely that the availability or quality of data on the Korean economy is not sufficient to generate quality studies publishable in renowned international journals. Considering that the government, in Korea as elsewhere, is the most important holder of data, the Korean government has the ability to ameliorate this problem. To foster empirical studies on the Korean economy published in academic journals outside Korea, the government should take a more open-minded approach to the release of government data.

This paper is related to several streams of literature. First, economists have paid increasing attention recently to how language matters in human behavior (Ginsburgh and Weber 2020; Chen 2013). However, as far as we know, few studies have systematically examined the relationship between language and subject matter of academic research. This study contributes to broadening our understanding of this research agenda. Second, the choice of language in academic research also matters in competition for publication. How economists recognize journal rankings, and whether competition for publication at more esteemed journals really promotes creative research or the production of useful knowledge, has been widely discussed (Akerlof 2020; Axarloglou and Theoharakis 2003; Combes and Linnemer 2003; Coupé 2003; Frey 2003; Heckman and Moktan 2020; Kalaitzidakis et al. 2003; Lubrano et al. 2003; Ellison 2002a, 2002b). Examining the relation between language and the choice of content can shed a light on this problem. Lastly, scholars have measured research productivity and explored their determinants in various ways (Conley et al. 2012; Conley and Önder 2014; Kim 2015, 2016; Korean Association of Public Finance 2019). We deepen our understanding on this issue by investigating the qualitative aspect of research productivity or language as a determinant of research performance.

The paper proceeds as follows. After introducing the database from KRI (section 2), we then investigate how scholars choose the language and subject matter of their research and how these choices change across time (section 3). Based on this analysis, we explore the correlation between choice of language and subject matter (sections 4, 5). After discussing some policy implications of our findings (section 6), we offer a conclusion (section 7).

Data

For our research, we collected data on academic publications by economists from the Korean Researcher Information (KRI). KRI is a database operated by National Research Foundation of Korea (NRF).² The NRF is a government-sponsored institute founded in 2006. It aims to promote academic research by allocating grants and running various programs. If a scholar applies for a grant or any support from the NRF, they should first enroll themselves with KRI. KRI requests scholars submit personal information, such as their gender, age, major, school of degree, current institutional affiliation, and publication record. Scholars are attentive in keeping their list of publications updated as this record is used in the review process for awarding research grants. As the NRF opens all data with the KRI to the public, we were able to collect a list of economics professors and their publication histories from the KRI website.

Of all the researchers enrolled with KRI as of July 2020, 5,404 scholars identified themselves as majoring in economics. Of these, 2,281 are Korean professors currently or at one point affiliated with Korean universities. Most of them belong or belonged to departments of economics, but some of them are or were in related departments, such as schools of business, public policy, and so forth. As KRI provides the publication records and personal details of these scholars, we were able to create a database of this information.

For our analysis, identifying the language of a published article and its subject matter was key. We determined the language of a paper from its

^{2.} Available at https://www.nrf.re.kr/index.

title.³ In order to identify the subject of a paper we needed to look at its content. Considering our limited resources, we chose articles published in three years—1998, 2008, and 2018, examined their content, and classified them into several categories. The choice of these three years separated by the space of a decade allowed us to determine how the choice of language and subject matter changed over time.⁴

The data also included non-academic publications, but we excluded these. Some articles appeared in the data more than once due to inputting errors or cases of coauthors also registering the article. We also removed these multiple citations. Following all of this, we obtained 4,405 papers. The number of papers increased from 1,197 for 1998 to 1,497 for 2008 to 1,711 for 2018 (Fig. 1). The Appendix provides detailed information on the breakdown of articles by language, subject, and publication year.

Although comprehensive, the data has several limitations. First, 16.2 percent of scholars (370 of 2,281) refused to disclose their publication records. This creates the potential for bias in our analysis. Second, as the KRI system started from the mid-2000s, some scholars might not have fully registered their publications that predated the starting year of the system. Third, as some article predating 2000 are not digitized and stored in the databases of academic content providers, it is hard to review the contents and categorize them. When necessary, we will consider these factors in interpreting the results of our analysis.

^{3.} Although rare, we found that some authors wrote their articles in English but registered their titles in Korean at the KRI, or vice versa. We found such cases when looking at papers to identify their contents. We reflected these cases in our database.

^{4.} We chose 1998 as the starting point because it is the earliest date we might hope to still obtain comprehensive data.

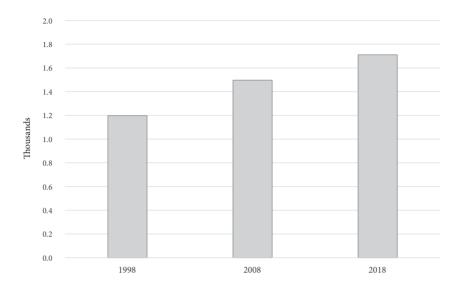


Figure 1. Number of articles by Korean professors of economics affiliated with Korean universities, 1998, 2008, and 2018

Source: Korean Researcher Information.

Note: Specific numbers for this graph can be found in the Appendix.

Lastly, choice of language is affected not only by the subject matter but also by the individual characteristics of the authors. For example, an author would be more likely to write a paper in English if his or her degree were earned in English-speaking countries. Younger scholars may be more likely to publish in English than older scholars due to requirements for promotion or a higher motivation to interact with world academia. Unfortunately, taking this factor into consideration is not easy because the database is not complete enough for us to incorporate information of every coauthor. We will prepare more complete data and examine this factor in a future study.

Choice of Language

During the period under consideration, Korean professors of economics affiliated with Korean universities published their research in various languages. Out of 4,405 articles, 72 percent were written in Korean and 27 percent were written in English (Appendix). As the total number of articles published in other languages such as Japanese, Chinese, French, German, Russian, and so on is less than 1 percent, we can focus on English in discussing publication in foreign languages without loss of generality.

Figure 2 shows the number of articles published in English and their relation to the total number of published articles for 1998, 2008, and 2018. In 1998, the number of articles published in English was 226, and they accounted for 18.8 percent of all academic publications. The number of English-language articles grew to 395 in 2008 and to 570 in 2018. From 1998 to 2018, English-language articles more than doubled.⁵

Noteworthy is that the share of English-language papers has grown at a greater rate than the total number of publications. The share of English-language papers of all publications grew from 18.8 percent in 1998 to 26 percent in 2008 to 33.3 percent in 2018. This implies that over the last two decades Korean professors of economics affiliated with Korean universities have written more and more articles in English, both in absolute amount and as a relative share of total articles.

^{5.} As the NRF was established in 2006, the data for 1998 might be incomplete, or may contain some bias. However, the patterns described in this and the following section is robust to this potential problem as they mostly hold even if we examine solely 2008 and 2018.

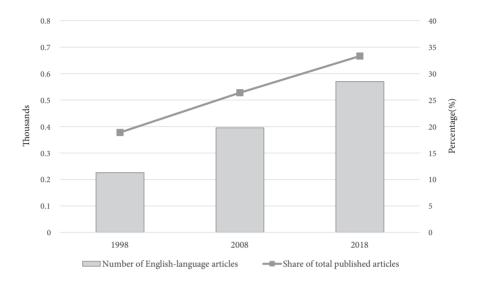


Figure 2. Number of English-language papers and their share of total publications, 1998, 2008, and 2018

Source: Korean Researcher Information.

Note: Specific numbers for this graph can be found in the Appendix.

Research Subjects

As our interest is to examine whether accessibility to information about Korean issues or data works as a source of competitiveness in publishing in English, we classified the articles conforming to this purpose (Table 1). First, we sorted out "empirical" and "non-empirical" papers. "Empirical" refers to research that analyze specific economic issues using data. "Non-empirical" denotes research that does not use data. Studies dealing with theoretical issues of economics or statistical theory (econometric theory) belong to the "non-empirical" category.

We subdivided "empirical" into "Korean" and "non-Korean." "Korean" here denotes research that examines the Korean economy as the subject or as a main part. It includes papers focusing on a specific issue of the

Korean economy or those using Korean data in testing a theory. We named these "Korean proper" as a sub-category of "Korean." In addition, studies exploring relations or interactions between Korea and other countries were classified as "inter-relation" under "Korean." If a study compared Korea with other countries, we grouped it as "comparative analysis" under "Korean."

Table 1. Categories of Subject Matter and Definitions

Categories			Definition			
Empirical	Korean	Korean proper	Analyzes issues of the Korean economy or uses Korean statistics in testing economic theory			
		Inter-relation	Examines interaction between Korean economy and that of other countries			
		Comparative analysis	Compares Korea with other countries			
	Non- Korean	Foreign	Analyzes issues of an economy other than Korea or uses statistics of a country other than Korea in testing economic theory			
		Inter-relation	Examines interaction between two economies other than that of Korea			
		Comparative analysis	Compares more than two economies other than that of Korea			
		Country panel	Performs statistical analyses using country-level panel data			
		International	Examines international economic activities or the world economic order			
Non-empirical			Undertakes theoretical analysis of economic issues or econometric theory			

Note: Specific numbers for each category can be found in the Appendix.

"Non-Korean" research explores issues of countries other than Korea as its main subject. If a study analyzed issues of a country other than Korea or used data of a country other than Korea in testing economic theory, we categorized it "foreign" under "non-Korean." If a research explored the interaction between two economies other than that of Korea, we categorized

it as "inter-relation" under "non-Korean." If a study compared more than two economies other than that of Korea, we categorized it as "comparative analysis." If a study performed statistical analysis using country-level panel data, we labeled it "country panel." And if a study dealt with the international economic order or international economic activities, we categorized it as "international."

Figure 3 shows the number of articles dealing with "Korean proper." The number of papers belonging to this category was 523 in 1998, growing to 808 in 2008 and 949 in 2018. The growth of "Korean proper" articles is faster than the growth of total publications. As a result, the share of "Korean proper" papers as a portion of the total number of papers grew from 43 percent in 1998 to 54 percent in 2008 and 55.5 percent in 2018. If we consider all papers in the "Korean" category, the share increased slightly but the general pattern across time does not change much. In sum, Korean scholars wrote increasingly more papers about Korean subjects over the course of the last two decades.

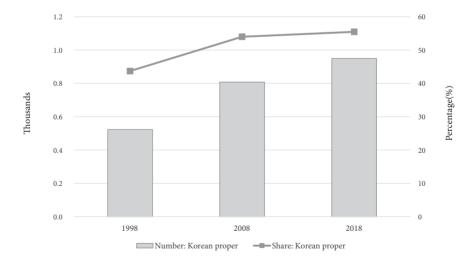


Figure 3. Number of articles dealing with Korean subjects and its share of the total number of publications, 1998, 2008, and 2018

Source: Korean Researcher Information.

Note: Specific numbers for this graph can be found in the Appendix.

Measuring Competitiveness

The discussion thus far has shown that along with the growth in publications by Korean economists over the last two decades, both the share of articles written in English and those dealing with Korean subjects have increased. Did Korean economists then write more about Korean subjects in English? We examined this question in two ways.

First, we explored the share of papers dealing with Korean subjects by language (Fig. 4). From 1998 to 2018, the number of English-language papers increased, and the share of these papers dealing with a Korean subject grew from 25.7 percent in 1998 to 33.2 percent in 2018. However, the share of papers dealing with a Korean subject among Korean-language papers increased as well, from 48.1 percent in 1998 to 67.1 percent in 2018. This means that the growth of papers dealing with Korean subject was greater among Korean-language papers than English-language ones. This does not support the possibility that Korean economists use Korean subjects as a source of competitiveness for publishing in English.

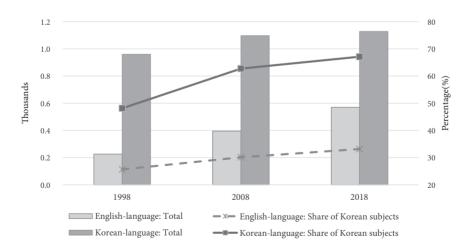


Figure 4. Number of articles dealing with Korean subjects by language and their share of total articles, 1998, 2008, and 2018

Source: Korean Researcher Information.

Note: Specific numbers for this graph can be found in the Appendix.

Second, we examined the same issue from the opposite direction, that is, we investigated the choice of language given the subject matter. Figure 5 shows the share of English-language papers broken down by subject matter. The number of articles dealing with a Korean subject increased between 1998 and 2018. The share of English-language papers as a portion of the total of Korean-subject papers grew at a faster rate than that total number of papers. In 1998, this share was 11.1 percent in 1998, and reached 19.9 percent by 2018. However, the share of English-language papers as a portion of the total number of papers dealing with a non-Korean subject grew faster, from 25.4 percent in 1998 to 54 percent in 2018.

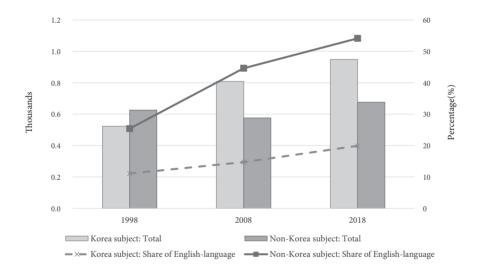


Figure 5. Number of English-language articles by subjects and their share of total articles, 1998, 2008, and 2018

Source: Korean Researcher Information.

Note: Specific numbers for this graph can be found in the Appendix.

In summary, Korean economists have increasingly written about Korean subjects in English. English-language papers dealing with Korean subjects

increased in terms of number and in relative share, of both the total of English-language papers and of those dealing with Korean subjects. However, if we compare them with English-language articles dealing with non-Korean subjects, we gain a different perspective. For the period examined, the growth of English-language papers dealing with Korean subjects was slower than the growth of English-language papers dealing with non-Korean subjects. This implies that a Korean subject may not work as a source of competitiveness for Korean scholars in global academia.

Regression Analysis

Regression analysis can nest the above discussion and demonstrate more clearly whether commanding Korean works as a source of competitiveness. We apply the following specification for this purpose.

$$y_{iT} = \beta S_{iT} + \gamma T_i + \delta S_{iT} \cdot T_i + \varepsilon_i$$
 -----(1)

 y_{iT} is the language of article i published in year T. y_{iT} is 1 if article is written in English, and 0 otherwise. S_{iT} is the subject of article i published in year T. S_{iT} is 1 if the paper deals with a Korean subject, and 0 otherwise. T_i is the dummy for publication year. We included an interaction term between S_{iT} and T_i . The error term is ε_i .

Table 2 shows the regression results, and the basic statistics or the number of observations for each category is provided in the Appendix. Equation (1) analyzed 1998 and 2008 only without the interaction term. Korean economics scholars published 9.6 percent more in English in 2008 than in 1998, while they published 20.3 percent less in English on Korean subjects than on non-Korean subjects. This implies that the growth of number of English-language papers about a Korean subject can largely be attributed to the overall increase in articles written in English across time rather than the competitiveness of the Korean subject. Equation (2) deals with 2008 and 2018, and Equation (3) deals with 1998 and 2018. Both show similar results with Equation (1). Equation (4) examined the three years

together, and it confirmed the results from Equations (1) to (3).

Table 2. Regression Analysis Dependent Variable = 1 for English, 0 otherwise

	(1)	(2)	(3)	(4)	(5)
	1998 and 2008	2008 and 2018	1998 and 2018	All years	All years
Subject					
Non-Korean	(Reference)				
Korean	-0.203***	-0.279***	-0.234***	-0.241***	-0.138***
	(0.0158)	(0.0155)	(0.0159)	(0.0128)	(0.0246)
Year Dummies					
y 1998	(Reference)		(Reference)	(Reference)	(Reference)
y 2008	0.0959***	(Reference)		0.0998***	0.151***
	(0.0159)			(0.0165)	(0.0229)
y 2018		0.0734***	0.172***	0.173***	0.251***
		(0.0154)	(0.0161)	(0.0160)	(0.0224)
Korean * y2008					-0.115***
					(0.0330)
Korean * y2018					-0.162***
					(0.0321)
Constant	0.277***	0.414***	0.291***	0.294***	0.249***
	(0.0136)	(0.0140)	(0.0141)	(0.0135)	(0.0163)
Observations	2,694	3,208	2,908	4,405	4,405
R-squared	0.065	0.097	0.093	0.090	0.095

Source: Korean Researcher Information.

 $\it Notes:$ Number of observations for each category is provided in the Appendix. Standard errors in parentheses.

Lastly, Equation (5) included the interaction term between the subject dummy and the time dummy. The time dummy shows that probability of publishing in English was 15.1 percent higher in 2008 and 25.1 percent higher in 2018 than in 1998. However, interaction terms showed that a paper dealing with Korean subject was 11.5 percent less likely to be published in

^{***} p<0.01, ** p<0.05, * p<0.1

English in 2008 and 16.2 percent less likely in 2018 than in 1998. This result implies that the increase of English written papers for the last two decades is mostly explained by time trends.⁶ Articles dealing with Korean subjects have been less likely to be written in English than those dealing with non-Korean subjects. In conclusion, Korean economists do not regard accessibility to Korean subjects or data as a source of competitiveness in publishing for global audience.

Discussion

Analysis so far has shown that Korean economists affiliated with Korean universities have increasingly chosen to publish their research in English over the last two decades. Their publications dealing with Korean subjects also increased over the same period. However, English-language papers investigating Korean topics grew at a slower rate than English-language papers concerning non-Korean subjects. Our analysis reveals that the increase in English-language papers examining Korean subjects is mostly explained by the overall growth in English-language papers, and that the number of papers on Korean subjects as a percentage of English-language articles actually declined.

Demand factors may be a cause of this pattern. Korean subjects might not be attractive to a foreign audience. If papers dealing with Korean subjects or data are not popular, and therefore less likely to be accepted by high-ranking international journals, Korean scholars may be less inclined to write about Korean subjects in English. Or scholars doing empirical analysis focusing on Korean subjects might be less motivated to write in English than those who specialize in theory or in empirical works on non-Korean subjects. However, considering the rapid growth of the Korean economy over the last several decades and that economy's recent solid performance, this explanation based solely on the unpopularity of Korean subjects is not fully satisfactory.

As mentioned in the introduction, this trend is related to the globalization of academia and the push by the Korean government from around the 1990s.

Considering both the supply-side and demand-side may help explain the phenomenon more comprehensively. Out of various factors, the self-selection of scholars can be an important one. Talented graduate students or scholars might choose to study theoretical or non-Korean subjects rather than Korean topics, and this might result in a decreasing share of English-language papers dealing with Korean subjects. This bias can originate for social or cultural reasons, but a data problem might also be a factor. If the lack of available quality data concerning Korean society and economy makes it difficult to produce high-quality research publishable with the top-rank journals, then talented graduate students or scholars might avoid studying Korean subjects.

If the availability of quality data is really a main issue, there is some hope of fixing the problem. Furthermore, since in Korea, as in other countries, the government is the major source of data, the government can contribute to ameliorating the problem in several ways.

First, the government can boost empirical research dealing with Korean subjects by providing more financial support. The quality of data is by far the most fundamental factor determining the success of empirical research. Large amounts of resources are needed to collect quality data that can generate a paper publishable at renowned international journals. In the case of the United States, it is not rare for the National Science Foundation to provide million-dollar grants for data collection in economic research, support that has resulted in various influential studies. This implies that increasing financial support for data collection can stimulate more scholars to conduct research on Korean subjects.

However, even without allocating more money to academic research, the Korean government can attract scholars to study Korean subjects by making existing government data more open to scholars. Take court rulings for instance. For a long time the Korean Supreme Court provided a ruling only to the litigants, and scholars attempting to find general patterns from statistical analysis could not easily access the data. This causes scholars conducting empirical analysis on legal issues to rely only on aggregate statistics from the *Statistical Yearbooks of Judicature* published by the Korean Supreme Court. Recently, the Supreme Court began releasing court rulings

to the public, but various restrictions remain.⁷ Compared to scholars in a country like China, where court rulings are freely accessible, scholars studying Korean legal issues are at a severe disadvantage. Recently, scholars studying legal issues in China applied various text mining methods to analyze massive amounts of court rulings and published interesting results (China Judgements Online; Liebman et al. 2020). Unfortunately, this kind of approach is simply impossible in Korea.

Tax return data is another example. Tax agencies of many countries have provided national-level samples of tax returns for researchers after linking individual characteristic information such as age, education, job, and so on, and then removing identifiable information. This data has long been widely used for studies on tax-related subjects and policy-oriented research on fiscal issues, and recently this data has also been used for analyzing patterns of inequality and its sources. Following foreign precedents, the National Tax Service of Korea established the NTS Data Lab in 2018 and began to provide tax return data to researchers. Unfortunately, this data is not useful enough because it only provides tax return information without linking individual characteristic information. Under these conditions, scholars only can describe the distribution of income or tax returns, but cannot analyze the factors behind such patterns. This has made it difficult for Korean scholars in this field to undertake research that is competitive in global academia (Woo et al. 2020).8

We could make a long list of similar examples. Of course, releasing contemporary data comes with various concerns, including privacy. However, the Korean government is reluctant even to release historical sources whose information is no longer sensitive. This problem can be highlighted if we compare the difference between Korea and the United States in disclosing census micro data.

The United States began its population census from 1790, soon after gaining independence from Britain. From that time, census agents of the

^{7.} For example, the Supreme Court provides a court ruling only after redacting all personal information of litigants.

Kim and Hyun (2007) analyzed the determinants of the level of disclosure of taxpayer information.

government have visited every household, farm, and factory, collected information, and published aggregate statistical every decade. These aggregate statistics have long served as a rich resource for understanding the US economy and society. However, the data before the aggregation, that is, the individual-level micro-data recorded by the census agents, contains invaluable information that cannot be substituted by the aggregate published statistics. Unfortunately, the raw data cannot be released freely because of privacy issues or company trade secrets. The US Census Bureau resolved this conflict between the utility of information and secrecy by allowing scholars to access to individual-level data under their supervision. They established several centers for census micro-data and allowed scholars to analyze individual-level information within the facility. The centers check the results of all resulting analysis and see whether they expose any information violating privacy.

Importantly, the aforementioned policy applies only to census data up to 72 years from present (US Census Bureau). As of 2021, census microdata from 1790 to 1940 is completely open to the public without any restrictions. The National Archives and Records Administration (NARA) created microfilm for all the census questionnaires and provides them upon request. Such ease of access has long fostered studies on the history of the US economy and society.

One problem is that due to the huge amount of census data, scholars could not exploit the entire data set to investigate the US economy but used it only for studying a specific locale. Some scholars tried to overcome this problem by creating a national sample (Atack and Bateman 1999). Further, several organizations, including the University of Minnesota, created a one-percent sample of the entire population, digitized it, and provide it through the Integrated Public Use Microdata Series (IPUMS). This project has developed further, and recently they finally digitized the entire body of census information from 1790 to 1940 and released it for research. This data includes information on hundreds of millions of people living during the 19th and early 20th century. Scholars have started to use this information

^{9.} See IPUMS USA for more detailed information.

to explore various aspects of the US economy from a long-term perspectives including intergenerational mobility, changes in social norms, and so forth.¹⁰

The Korean government has also instituted a regular census since its liberation in 1945. Like the US Census Bureau, Statistics Korea established several census micro-data centers and allowed scholars to access the raw data for research. However, the access is allowed only for data from around the 1980s onwards. Statistics Korea does not release micro-data of earlier periods despite its existence. This closedness has hindered scholars from studying the history of the Korean economy or approaching current issues of the Korean economy from a long-term perspective. Although many scholars worldwide are interested in how Korea instigated its rapid economic growth from the 1960s and what the experience was like, we cannot investigate this intriguing subject as systematically and precisely as in the United States or other countries. Such constraints have discouraged Korean scholars from studying the Korean Miracle.

This closedness not only causes problems for the development of Korean academia, but also in implementation of sound economic policies. In the case of the United States, economists have studied their own country for a long time, become experts not only in theory and data but also in the details of the system and its institutions, and then suggest policies. However, a large number of talented Korean scholars cannot use high-quality data on the Korean economy for their dissertations in domestic or foreign universities. This limits our understanding of the Korean economy and the further development of scholarship. Unavailable or low quality data is not the only reason for the relatively lack of treatment of Korean subject matter. However, correcting this data problem can ameliorate the situation significantly, and the government can accomplish this without spending additional resources. A more forward-looking attitude by the government can do much to improve the situation.

^{10.} Representative of this is Abramitzky, et al. (2020).

Conclusion

Over the last several decades, people throughout the world have been increasingly interested in the Korean economy and society. Along with this demand factor, the supply factor, that is, the eagerness of Korean scholars to actively interact with global academia, has encouraged Korean scholars to write more articles about the Korean economy in English. The combination of these two factors resulted in the growth of English-language papers dealing with Korean subjects for last two to three decades. However, by comparing this increase with the growth of English-language papers dealing with non-Korean subjects, we uncovered an aspect previously unrecognized. The increase in English-language papers examining Korean subjects for last two decades is largely explained by the overall growth in English-language papers on all subjects, and that the number of papers on Korean subjects as a portion of overall English-language publications has actually declined.

More analyses should be done to understand this pattern. However, if we consider policy measures to improve the situation, it is reasonable first to think of how to enhance the availability or quality of data used for research on Korea. The Korean government can boost empirical research dealing with Korean subjects by providing more financial support. However, even without allocating more money, the Korean government can attract scholars to study Korean subjects by making existing government data more openly accessible to researchers. Since the government is the largest data holder, a more forward-looking approach by the government can attract more scholars to study Korean subjects and to write more papers in English.

Appendix: Distribution of Languages and Subjuect Matter, 1998, 2008, 2018

Year	Category			Korean	English	Other	Total
1998	Empirical	Korean	Korean proper	462	58	3	523
			Interrelation	26	2	1	29
			Comparative analysis	11	7	1	19
		Non-Korean	Foreign	102	27	2	131
			Interrelation	2	1	0	3
			Comparative analysis	4	1	2	7
			International	56	6	1	63
			Country panel	20	9	0	29
	Non-empirical			108	85	0	193
	Not classified			169	30	1	200
	Sub-total			960	226	11	1197
2008	Empirical	Korean	Korean proper	688	119	1	808
			Interrelation	68	12	2	82
			Comparative analysis	23	7	1	31
		Non-Korean	Foreign	112	68	0	180
			Interrelation	6	0	0	6
			Comparative analysis	4	2	0	6
			International	23	13	0	36
			Country panel	41	33	0	74
	Non-empirical			74	95	0	169
	Not classified			58	46	1	105
	Sub-total			1097	395	5	1497
2018	Empirical	Korean	Korean proper	757	189	3	949
			Interrelation	44	10	1	55
			Comparative analysis	25	5	1	31
		Non-Korean	Foreign	114	100	5	219
			Interrelation	12	1	1	14
			Comparative analysis	3	0	0	3
			International	15	13	0	28
			Country panel	55	68	0	123
	Non-empirical			65	132	0	197
	Not classified			38	52	2	92
	Sub-total			1128	570	13	1711
		3185	1191	29	4405		

Source: Korean Researcher Information.

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