Where Are the Poor in Mainstream International Economics?

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The present article assesses the scientific attention given by mainstream international economics to poverty and poor countries. We apply bibliometric techniques to analyze 1,800 articles published over a 40-year period (1971–2010) in the most orthodox journal in the field of international economics, the Journal of International Economics (JIE). We found that authors who have published articles in the JIE have mostly developed studies focused on “Meso” (industry, region) and microeconomic policies and issues of “International Trade” and “International Finances,” and, are usually of the “Formal” and “Formal and Empirical” types. As a topic, poverty is very marginal: only 13 articles published in the JIE, less than one percent of the total, address this matter in any of its dimensions. Furthermore, in the empirical articles, no country among those included in the group “Less Developed Countries” received particular attention. The excessive focus on mathematical accuracy (i.e., formalization), and the concomitant limited capacity to deal with the social problems of the real world, are effective challenges to authors in the field of international economics and, in particular, to those who publish in the JIE, which must be overcome if we do not want international economics to become a “cyborg” science.

KEY WORDS: international economics, poor countries, poverty, bibliometrics

Introduction

Most of the people in the world are poor, so if we knew the economics of being poor we would know much of the economics that really matters.

—Theodore W. Schultz, 1979, Nobel Prize Lecture

The human population is about seven billion people, of which about four billion live on annual incomes below US\$2,000 per year (Prahalad & Hammond, 2002), and one billion live in 49 countries with per capita incomes below US\$938 (Lorentzen & Mohamed, 2010). Although in the last century average life expectancy and living standards have increased, convergence of productivity between rich countries and poor countries has been absent (Boltho & Toniolo, 1999).

Despite the numerous and important contributions made by international organizations (e.g., UNCTAD, UN, World Bank, EU) in the field of poverty, very few scientific studies in certain areas of economics (Ehrlich, 2008), especially international economics (Feenstra & Rose, 2000), have addressed this issue or countries with low per capita incomes.

Given the intimate relationship between globalization, development, and poverty (Boltho & Toniolo, 1999; Irogbe, 2013), it becomes important to measure the attention paid by economic science, and in particular by international economics, to the poorest countries and poverty-related matters in both the latter countries and in other, more developed ones.

Thus, in methodological terms, and to answer the research question—Where are the poor in international economics?—we rely on bibliometric techniques to classify and analyze all 1,800 articles published in the most important journal in international economics, the *Journal of International Economics* (Feenstra & Rose, 2000). According to the *ISI Web of Knowledge*, the *Journal of International Economics* had, in 2012, an impact factor of 2.086, reflecting its quality and influence (Vieira & Teixeira, 2010) and emphasizing its growing value in recent years, as its impact factor increased from 1.167 in 2005 to 2.086 in 2012. Having searched the *ISI Web of Knowledge* bibliographic database for the citations made (*Journal Citations Reports*), ordered according to the impact factor for 2012 and in the *Economics* category only, we see that the *Journal of International Economics* ranked 41st among the 333 publications in the area, proving its importance.

In this study, we intend to assess which type of analyses international economics has dedicated to the issue of poverty in the last few decades, classifying, in certain periods of time, the articles published in the *Journal of International Economics* according to topics (including poverty) and types (empirical versus conceptual), and ascertaining which countries have been examined. This pioneering study in the field of international economics, by its focus (poverty and poor countries) and techniques used (bibliometrics), intends to be a discussion paper that will promote the need for future lines of research in the area.

The following section consists of a review of the literature on poverty and the poor in international economics. The methodological considerations on the work are presented in the third section, and the fourth section describes the empirical results of the analysis, focusing particularly on the issue of poverty. Finally, in the conclusion, we outline the main contributions of the study and its limitations.

Poverty, the Poor, and Topics Related to the Literature of International Economics: A Literature Review

Concept of Poverty and Subtopics in the Context of Economics

In recent decades, the concept of poverty has seen a very significant evolution (M. Silva, 2010). This evolution involves not only the acquisition of knowledge about the complexity of the phenomenon of poverty amid an abundance of

resources, but also the need to equip ourselves with the appropriate instruments to measure this phenomenon and to support and assess the strategies leading to its eradication (Rodrigues & Andrade, 2010).

Despite this noteworthy evolution, the most common concept of poverty in academic studies (e.g., Ferreira, 2000) or in institutional reports (Eurostat, 2010) is still monetary poverty: the “poor” are the individuals or households whose income or expenses are below a certain threshold. Accordingly, for Brandolini, Magri, and Smeeding (2010), poverty is usually defined as insufficient income or expenses. The concept of monetary poverty has an unquestionable advantage: the clarity of definition, coupled with the ease of quantifying the phenomenon and the possibility of making comparisons in time and space (M. Silva, 2010). Nevertheless, Brandolini et al. (2010) stress that the economic situation of families also depends on their real and physical assets. Thus, the analysis of income is not enough because it does not show all the resources available, given that the individuals can also count on financial and real assets to meet daily needs and unexpected events.

According to Eurostat (2010), poverty and social exclusion are interrelated, with social exclusion tending to be perpetuated from generation to generation, causing difficulties in accessing income, employment, education, information, childcare services, health services, living conditions, and social participation. Disparities in living standards are also evident when we analyze the lack of some items, such as telephone, color television, washing machine, personal car, or a week of annual vacation, but they can also be measured by access to certain services, such as banking services, postal services, public transport, basic health services, and primary school.

It is important to note here the definition of poverty presented by Sen (1983), which employs the concept of “empowerment.” According to Sen (1983), it is not the characteristics of the assets themselves and their deprivation that define poverty, but rather the lack of the inherent capacity to lead a life according to current standards in society. In addition to better accommodating the complexity of the phenomenon of poverty in its various dimensions, this concept also has the advantage of conveying the idea that poverty is not fought only with compensation measures to counteract monetary income (in other words, subsidies), but rather by enhancing the allocation of resources available to individuals and families in poverty, so that they can gain the capacities to ensure a dignified life. Hence, this explains the current emphasis on fighting poverty through educational policies and professional training (Alves, 2009), the promotion of health (Schultz, 1979), participation in the productive system and in the labor market (Machado, Ribas, & Penido, 2007), and payment for services to families and the community (Cardoso, 2010).

In this context, and combining both settings (that of Sen and of monetary poverty), we can define poverty as lack of income, insufficient access to the basic necessities of life (e.g., food, clean water, shelter, and health), limited future opportunities (due to illiteracy or no education), and limitations in social terms (e.g., lack of rights, freedom or active voice, and access to information), with a

poverty rate set at US\$1.25 (PPC) per day, that is, all people considered poor are all those who live on less than this daily amount (UNCTAD, 2010). Regarding countries, their classification as “poor” is established for those with gross national incomes per capita below US\$938 (Lorentzen & Mohamed, 2010). Samuelson and Nordhaus (2005) presented as characteristics for these countries rapid population increases, low levels of literacy, and poor health, with the largest part of the population dedicated to agricultural activities.

Aspects related to poverty have also been analyzed according to certain fundamental dimensions, including family composition, the application of income, education, and the labor market (Banerjee & Duflo, 2007). Several authors (e.g., Couch, Smeeding, & Waldfogel, 2010; Skidmore, 2009) emphasize the need for government intervention in the fight against poverty.

Other authors point out some measures of international action with implications for poverty reduction and its consequences, such as social clauses relating to labor issues (Nkowani, 2009), environmental objectives (Sachs & Reid, 2006), coordination between entities (multinational companies, international organizations, global communities, governments) in developing and investing in impoverished regions (Bardhan, 2006; Sachs, 2005), and redistributive policies to be implemented by the most developed countries (Labonte & Schrecker, 2004).

The multidisciplinary of poverty is clear. As noted by Skidmore (2009, p. 5), “[m]any factors are involved: cultural, economic, environmental, geographic, historical, political, ideological, biological, meteorological, psychological, and probably more.” The author stresses the need for additional scientific research in all areas, including economics. In fact, in this latter area, particularly in mainstream economics, the debate on poverty remains excessively focused on the issue of measurement and causes “close” to poverty (Ehrlich, 2008). Taking the words of Alfred Marshall (1890, Livro IV, Cap.I, IV.I.2) seriously, “[k]nowledge is our most powerful engine of production; it enables us to subdue Nature and force her to satisfy our wants,” it seems relevant to assess the topics that are more commonly examined in the area of international economics, and the relevance that the issues of poverty and the poor have in this scientific field.

*The Scientific Area of International Economics:
What Has Been Investigated in Recent Decades?*

International economics combines world events with economic analysis and is an area of great relevance as we continue through the second wave of globalization, which began in the 1950s, and in which products, capital, and labor are intertwined with the countries (Pugel, 2007).

Defining main research topics in international economics is a complex task because they have developed differently and received differing levels of attention over the past few decades. Therefore, compiling a list of topics from the most influential works (*Handbooks*) published in the area of international economics, covering a period of time from the 1950s to the present, is an appropriate approach toward achieving this task.

Thus, we built Table 1 after analyzing the various chapters that make up each of the eight selected works (one per decade). In this table, each column corresponds to a work and the topics illustrated represent chapters or sections within the work. The topics were organized and arranged to obtain an aggregate similarity. According to this aggregation, we have reclassified each group of topics into a main theme (see column "Our Proposal"). For example, in the new theme "Business and direct foreign investment and multinational companies," we found that works by Walter (1975), Ethier (1995), and Pugel (2007) contained chapters that addressed multinational companies and/or direct foreign investment, having defined a main theme with this designation in the column "Our Proposal."

Historical and Conceptual Approaches. Studies on this issue (Ethier, 1995; Krugman & Obsfeld, 2009; Pugel, 2007; Walter, 1975) seek to explain why the existence of trade between countries is beneficial. They focus mostly on the theories of international economics, particularly the classical theory, which analyzes the comparative advantage as well as the competitive advantage and competitiveness of a country (Lee & Wilhelm, 2010).

Business and International Investment and Multinational Companies. This theme shows the contribution of multinational companies to economic development, particularly in recipient nations. It also shows the role of public policies in improving the economic contribution of direct foreign investment, as well as changes in political attitudes over time and between countries regarding issues such as liberalization versus regulation, attraction versus control, and foreign government-investor relations (Young, 2004).

International Macroeconomic Policies: Balance of Payments and Exchange Policies. In this section, we study the links between instruments and macroeconomic indicators, including not only, according to Agénor (2004), exchange rates, trade openness, inflation rates, growth rates, and per capita income, but also, and according to Hoover (1992), unemployment rates, pricing, monetary policy, fiscal policy, and public debt.

International Trade Policies. The theory of international trade is essentially a branch of microeconomics, concerned with the study of economies in which their markets go beyond national borders (Neary, 1955a, 1955b).

Poverty. Although it is not in itself a core topic of international economics, we argue that by its nature this scientific area has significant impacts on the dimension and dynamic of poverty. Still, the few papers that have arisen within international economics have explored matters such as globalization (Harrison, 2006), informal barriers to exports (Porto, 2005), child labor (Edmonds & Pavcnik, 2006a), and unemployment (Keuschnigg & Ribi, 2009).

Table 1. Main Themes Addressed in International Economics

Enke and Salera (1950)	Mundell (1968)	Waller (1975)	Lindert (1986)	Ehler (1995)	Pugel (2007)	Appleyard et al. (2008)	Krugman and Obstfeld (2009)	Our Proposal
Mercantilism and classical theories of international trade	The theory of exchange	The theory of international trade	The theory of international trade	Why and how nations trade	The theory of international trade	The classical and neoclassical theory of trade	International trade theory	Historical and conceptual approaches
	Trade, growth, and multinational enterprise	Direct foreign investment and the multinationals	The multinational firm	Multinationals and migration: international factor movements				Business and international investment and multinational companies
Balance-of-payments analysis	The balance of payments	Balance of payments	The balance-of-payments accounts	Balance of payments	Payments among nations	The balance-of-payments accounts	National income accounting and the balance of payments	Macroeconomic, meso (industry and region), and microeconomic policies and issues in international trade
The rate of exchange	Foreign exchange	Foreign exchange	Foreign exchange market and what determines exchange rates	The exchange rate	What determines exchange rates?	The foreign exchange market	Exchange rates and the foreign exchange market: an asset approach	
	Flexible exchange rates and employment policy	Equilibrium adjustment systems: flexible exchange rates	Floating exchange rates and international balance		Floating exchange rates and internal balance	Economic policy in the open economy under flexible exchange rates	Macroeconomic policy and coordination under floating exchange rates	
Making international payments	The monetary dynamics of international adjustment under fixed and flexible exchange rates	Equilibrium adjustment systems: fixed exchange rates	International and external balance with fixed exchange rates		Internal and external balance with fixed exchange rates	Economic policy in the open economy under fixed exchange rates	Fixed exchange rates and foreign exchange intervention	
	A theory of optimum currency areas	International transmission of economic conditions	Income and foreign exchange	Incomes and adjustment	The foreign exchange market	National income and the current account	Money, interest rates, and exchange rates	
The cost of exchange crises and the problem of sterling		International liquidity	The changing nature of world money	Prices and capital and adjustment	Forward exchange and international financial investment	International financial instruments: an introduction	Optimum currency areas and the European experience	
			Factor movements: labor and international lending and the world debt crisis		International lending and financial crises	The international monetary system: past, present, and future	The global capital market: performance and policy problems	

(Continued)

Enke and Salera (1950)	Mundell (1968)	Walter (1975)	Lindert (1986)	Ethier (1995)	Pugel (2007)	Appleyard et al. (2008)	Krugman and Obsfeld (2009)	Our Proposal
Trade control: the tariff		The theory of tariffs	The basic analysis of a tariff and arguments for and against a tariff	Tariffs and trade theory	Analysis of a tariff	The instruments of trade policy	The instruments of trade policy	International trade, economic integration, and labor market; international finances; international relations
Trade control: import quotas and exchange control		Nontariff distortions	Other national policies affecting trade	Why and how nations restrict trade	Nontariff barriers to imports			
An evaluation of trade controls		The political economy of trade policy	The political economy of trade barriers		Trade blocs and trade blocks	The impact of trade policies	The political economy of trade policy	
Freer trade through commercial treaties		Trade liberalization			Arguments for and against protection	Arguments for interventionist trade policies		
Commercial policy of the United States and the United Kingdom						Political economy and U.S. trade policy		
			Trade policies and developing countries	The south and the east in transition	Trade policies for developing countries	International trade and the developing countries	Trade policy in developing countries	
							Developing countries: growth, crisis, and reform	
					Poor workers in poor countries		Controversies in trade policy	Poverty
International cartels			OPEC and other international cartels					Others
The trade policy of the Union of Soviet Socialist Republics								

Source: Authors' compilation.

Others. Remaining topics include, among others, scientometrics (Kim, Morse, & Zingales, 2006), the cartels, and the centrally planned economies (Samuelson & Nordhaus, 2005).

The Problems of Poverty and the Poor in International Economics: An Unexplored Issue?

Existing studies in international economics focus mainly on developing countries, often also called low-income countries, addressing in particular the methods recommended for their development (Krugman & Obsfeld, 2009), the causes of underdevelopment (Choi, Hummels, & Xiang, 2009), the consequences of the strategies used (Krugman & Elizondo, 1996), and the market flaws that affect their competitiveness and development (Young, 2004).

Krugman and Obsfeld (2009) conclude that in all cases of successful development, the countries have been involved in outward-oriented industrialization, based on exports of manufactured goods. In a complementary perspective, Choi et al. (2009) analyze the perception that developing countries may have limited access to the markets of developed countries, given that the goods they produce do not have the quality required by consumer demand or high performance. Krugman and Elizondo (1996) point out that many of the world's largest cities are located in developing countries, mainly due to policies of import substitution for industrialization, which means that the population is concentrated around the major centers to serve as manpower to the industries supplying the domestic market. Young (2004) argues that in most developing countries, there are major market failures that act as constraints on the improvement of competitiveness and sustained development of the market economy, in particular policies related to the development of technological capabilities, human resources, and industrial and rural development.

The measures with major implications in reducing poverty are also addressed by several studies in international economics, focusing, in particular, on the liberalization of barriers against direct foreign investment (Rutherford & Tarr, 2008), the implications of international trade (Balat, Brambilla, & Porto, 2009), and the impacts of informal export barriers (Porto, 2005).

The liberalization of barriers against direct foreign investment in the business sector and services seems to prove beneficial to the poorest families, according to a study by Rutherford and Tarr (2008), which dealt with Russia's accession to the World Trade Organization. International trade also has major implications for poverty reduction, being formed by the complementarity between export opportunities and domestic factors (Balat et al., 2009), emphasizing, among the latter, the improvement of infrastructures, appropriate competition policies, greater access to credit, better education and health, and lower brokerage costs. The impacts of informal barriers to exports on the poor have also been noted (Porto, 2005), including transport costs, complex customs practices, and bribery. In low-income countries, these informal barriers act as export taxes, distorting the efficient application of resources, lowering salaries and productive income, and, consequently, increasing poverty.

Notwithstanding the important contribution of the aforementioned studies, there seems to be scant representation on the issue of poverty in international economics. Nevertheless, this assumption lacks a more objective analysis that unambiguously and quantitatively elucidates on the real importance of the poor and poverty in the scientific field of international economics. To this end, bibliometrics seems to be an indispensable instrument, as shown in the following section.

The Pertinence of Bibliometrics in the Study of Poverty and the Poor in the Scientific Area of International Economics

That which is considered the first definition of *bibliometrics* was presented in the *Journal of Documentation* and defined by Prichard (1969, p. 348) as “the application of mathematical and statistical methods to books and other media.” A more recent author, Broadus (1987, p. 376), prepared a study on the concept of bibliometrics and presented his own definition as “the quantitative study of physical published units, or of bibliographical units, or substitutes for each.”

Thus, bibliometrics enables the application of any quantitative measurement or analysis to physical items (e.g., a number of volumes in a collection), to the number of titles (of bibliographical units), to the number of articles published (e.g., in a given area within a certain period of time or published by a person in one journal), to citations (included in the works of other authors), to studies by authors, to editors, and to subjects, dates, languages, and formats, among others (Broadus, 1987). In this way, several authors have used bibliometric methods to analyze the evolution of scientific knowledge, particularly through the analysis of scientific areas (e.g., E. Silva & Teixeira, 2008; Teixeira, 2014) and publications (e.g., Du & Teixeira, 2012; Kim et al., 2006; Wouters & Leydesdorff, 1994), and through the study of the intellectual development of a scientific field (e.g., Lorentzen & Mohamed, 2010; Teixeira, 2011).

Scientometrics is defined as the quantitative study of science, a term introduced by Vassily V. Nalimov in 1960 and recognized with the foundation of the journal *Scientometrics* in 1978 (Wouters & Leydesdorff, 1994). It has been used to study all aspects of the literature on science and technology, including all quantitative aspects of the science of science, communication in science, and political science (Hood & Wilson, 2001). Despite the similarity between the concepts, bibliometrics deals with the various measures of literature and other media, whereas scientometrics has to do with scientific production and utility (Broadus, 1987).

Bibliometric studies in the context of poverty and economics, to the best of our knowledge, have only recently been examined by Lorentzen and Mohamed (2010), with the study “Where Are the Poor in Innovation Studies?” Nevertheless, this study only focuses on the area of innovation.

Thus, since bibliometrics is an objective way to assess a relatively unexplored subject from a scientific point of view, and there are no bibliometric works that address the issue of poverty and poor countries in international economics, we

propose to address the matter through bibliometric techniques, developing work as a basis for future lines of research in the area.

Where Are the Poor in International Economics? Methodological Considerations

In order to properly frame/classify the articles to be analyzed, we have combined the elements collected from the *Handbooks* with the classification system of the *Journal of Economic Literature* (JEL), codified for international economics (category F). Eight major topics have therefore been defined. In addition to Poverty (Topic 8), which is the focus of this study, seven other topics have been added (plus the miscellaneous Others): (1) Historical and conceptual approaches; (2) Business and international investment and multinational companies; (3) Macroeconomic policies and issues in international trade; (4) Meso (industry and region) and microeconomic policies and issues of international trade; (5) International trade, economic integration, and labor market; (6) International finances; (7) International relations; (8) Poverty; (9) Others.

Having defined the various topics in detail in last section, their operationalization has been further specified by identifying the corresponding JEL codes. Because the systematic classification in the last section is based on *Handbooks*, this operation is not limited to include *ipsis verbis* the topics mentioned in Section 1.3. As the analysis made here is based on journal articles, it was necessary to adapt the proposed categorization, including in some cases new categories in addition to those listed above.

Historical and Conceptual Approaches

This combines the topic with the same previously defined name (in the last section), with the JEL codes F01—*Global Outlook* and F02—*International Economic Order*.

Business and International Investment and Multinational Companies

As in previous topics, we combined the topics systematized in in the last section with their operationalization via the JEL codes F21—*International Investment; Long-Term Capital Movements*, F23—*Multinational Firms; International Business*, and F24—*Remittances*.

Macroeconomic Policies and Issues in International Trade

This topic combines the one previously defined as “International macroeconomic policies: balance of payments and exchange policies” with the JEL codes F41—*Open Economy Macroeconomics*, F42—*International Policy Coordination and Transmission*, F43—*Economic Growth of Open Economies*, and F44—*International Business Cycles*.

Meso (Industry and Region) and Macroeconomic Policies and Issues of International Trade

This consists of the topic presented in the last section as “International trade policies,” combined with the JEL codes F13—*Trade Policy; International Trade Organizations* and F14—*Country and Industry Studies of Trade*.

International Trade, Economic Integration, and Labor Market

This is a new topic, compared to the one proposed the last section, that aims to include content in international trade that is not defined for Topic 5. We consider therefore JEL codes F15—*Economic Integration*, F16—*Trade and Labour Market Interactions, Trade and Environment*, and F22—*International Migration*.

International Finances

This is also a new topic covering the JEL codes F31—*Foreign Exchange*, F32—*Current Account Adjustment; Short-Term Capital Movements*, F33—*International Monetary Arrangements and Institutions*, F34—*International Lending and Debt Problems*, F35—*Foreign Aid*, and F36—*Financial Aspects of Economic Integration*, and it will focus mainly on issues of international finances.

International Relations

This topic was not considered previously, and it corresponds to JEL codes F51—*International Conflicts; Negotiations; Sanctions*, F52—*National Security; Economic Nationalism*, F53—*International Agreements and Observance; International Organizations*, F54—*Colonialism; Imperialism; Postcolonialism*, and F55—*International Institutional Arrangements*. It will focus on the subject of international relations, content not covered in previous topics.

Poverty

This topic covers the contents described in the last section and is normally identified in articles by the JEL code I3—*Welfare and Poverty*.

Others

This covers all remaining issues that are not included in the topics indicated above. In line with E. Silva and Teixeira (2008) and S. Silva and Teixeira (2009), the articles selected were classified into one of six types of research methodology: (1) Formal; (2) Formal and Empirical; (3) Empirical; (4) Appreciative; (5) Appreciative and Empirical; (6) Surveys.

Articles classified as Formal develop analytical models, and the theoretical explanations are expressed in mathematical terms (through modeling) or simulation. When articles classified as Formal include data tests, they are

classified as Formal and Empirical. The classifications referred to as Empirical involve econometric or statistical tests. Those considered Appreciative refer to theoretical articles, of nature of discussion. Whenever articles defined as Appreciative include appreciations or comments based on empirical data, they will be classified as Appreciative and Empirical. Finally, when the articles involve an overview of the literature, they are called Surveys.

In a different way than E. Silva and Teixeira (2008) and S. Silva and Teixeira (2009), whose bibliometric technique involved reading the abstracts of each article, in this study we have read each of the 1,800 articles for two reasons: (1) In most articles, a reading of the abstract alone did not allow the classification of articles into topics and types; (2) to carry out the analysis of the countries, we need to identify which countries, if any, were under study in the article.

Based on the classification of the nine topics and the six types established previously, a simple exploratory statistical analysis is made, divided into five-year periods.

Specifically, the analysis of the distribution in terms of topics and types in each five-year period and for the overall period (1971–2010) of the articles published in the *Journal of International Economics* enables us to assess how the topics have evolved, and in particular to assess the importance/weight of poverty within international economics.

Additionally, the ranking in terms of unit of analysis of the empirical articles provides us with knowledge about the countries under analysis, highlighting the weight of articles that focus on the “low-income countries,” in line with Lorentzen and Mohamed (2010).

Empirical Results

Exploratory Analysis of the JIE Articles by Topic and Type

Analyzing the articles revealed that the topic “Meso (industry, region) and microeconomic policies and issues of international trade” received the most attention, representing 28.1 percent of the total articles published (cf. Figure 1). This topic has had a regular weight over the years, with a peak in the 1986–1990 period, accounting for 38.3 percent of the articles published, but falling to 22.3 percent of the total articles in the most recent period (2006–2010).

The topics “International finances,” “International trade, economic integration, and labor market,” and “Macroeconomic policies and issues in international trade” featured significantly. In the first case, the weight more than tripled from the period 1971–1975 to 1976–1980, from 9.7 percent to 30.2 percent of the articles published, respectively, ultimately representing 25.1 percent of the total number of articles published.

The topic “Macroeconomic policies and issues in international trade” has lost the interest of researchers, dropping from 35.4 percent of articles published in 1971–1975 to 12.8 percent in the most recent period (2006–2010). “International trade, economic integration, and labor market,” registering 18.0 percent of the

Figure 1. Distribution (Percent) of Articles by Topic.

Source: Authors' Compilation, Based on the Articles Published in the JIE, 1971–2010 ($n = 1,740$).

total articles surveyed, had periods of less interest, particularly in the period 1991–1995, with only 9.8 percent.

“Poverty” has virtually no expression in the scientific area of international economics, representing only 0.6 percent of the total articles published in the JIE, corresponding to one article published in the period 1996–2000, three in the period 2001–2005, and six in the most recent period (2006–2010), which shows a growing interest.

Regarding the type of methodology used in the articles published in the JIE, the enormous weight of formalism in these articles is obvious (cf. Figure 2)—more than 80 percent of the articles published are “Formal,” 61.4 percent are exclusively “Formal,” and 22.2 percent are “Formal and Empirical.”

It should be noted, however, that the “Formal” type has lost relevance since the 1981–1985 period, during which it represented 83.3 percent. In 2006–2010, it only accounted for 38.3 percent of articles. In contrast, “Formal and Empirical” and exclusively “Empirical” articles have significantly increased in weight, from a modest 9.8 percent (“Formal and Empirical”) and 5.1 percent (“Empirical”) in the 1981–1985 period to 33.0 percent and 28.7 percent in the most recent period (2006–2010), respectively.

Figure 2. Distribution (Percent) of Articles by Type.
Source: Authors' Compilation, Based on the Articles Published in the JIE, 1971–2010 (*n* = 1,740)

In the early years, there was some interest in “Appreciative” works, with 3.5 percent in the period 1971–1975, and “Appreciative and Empirical,” with 7.8 percent in 1976–1980. However, after these periods, these categories lost significance, with the “Appreciative” type used in only two articles in the 1996–2000 period.

By analyzing the intersection of topics by type (Figure 3), we see that “Formal” and “Formal and Empirical” types have great relevance in all topics; in the most analyzed one, “Meso (industry, region) and microeconomic policies and issues in international trade,” they represent 68.7 percent and 17.8 percent, respectively.

Regarding “Poverty,” the articles analyzed are one of the “Empirical” type, three of the “Formal” type, and six of the “Formal and Empirical” type.

Exploratory Analysis of the Articles by Country

The classification of countries by degree of development was done based on the classification of “Rankings by income” of *The World Bank—Doing Business*, in which each country is identified individually. Hence, countries that appear in the ranking as “High income” were named here as “Developed Countries,” those that appear in the ranking as “Upper middle income” were called “Middle Developing Countries,” and those that appear in the ranking as “Low income” and “Lower middle income” were called “Less Developed Countries.”

As our preliminary analysis showed, only 26 articles were dedicated to low-income countries, which would prevent obtaining significant conclusions about the evolution of their study over time. We therefore chose to include the countries

Figure 3. Distribution (Percent) of Articles by Topic and Type.

Source: Authors' Compilation, Based on the Articles Published in the JIE, 1971–2010 ($n = 1,740$).

classified by the World Bank as “Lower middle income” in the category “Less Developed Countries.” With a national gross income per capita from \$996 to \$3,945, their inclusion is justified, providing us with more robust conclusions on the study of lower-income countries.

Until the early 1990s (1991–1995 period), the analysis of articles published in the JIE focused mainly on “Developed Countries,” thereafter indicating a growing interest in “Middle Developed Countries” and “Less Developed Countries” (cf. Figure 4). The interest in “Less Developed Countries” is emphasized from the 1996–2000 period on, although the growth of published articles dealing with these countries is lower than that recorded for “Developed Countries” and “Middle Developed Countries,” especially for the 2006–2010 period.

The articles researching countries do so both on an individual basis and per groups of countries. Increasingly, over the period under analysis, a significant number of articles analyzed 10 or more countries (Figure 5). The growth is sharper after 2000, with 64 articles published in the period 2006–2010.

Among the countries analyzed individually or in groups of fewer than 10 countries, the most analyzed were the United States of America (USA) and Germany, with 237 and 113 studies, respectively. As can be seen in Figure 6, Germany had peaks of interest especially in the years 1996 and 2000, always remaining among the most researched countries. The USA is the most widely mentioned country in the JIE, with references increasing significantly since 1991.

Among the countries with more references, excluding those classified as “Developed Countries,” were Argentina, with three references, and Mexico, with 24. These countries were classified as “Middle Developed Countries.” Argentina was mentioned for the first time in 1982, appearing regularly in articles since

Figure 4. Growth in Number of References to Countries, by Level of Development, in the Articles Published in the JIE.
Source: Authors' Compilation, Based on the Articles Published in the JIE, 1971–2010 ($n = 1,740$).

Figure 5. Number of References per Group of More Than 10 Countries, 1971–2010.
Source: Authors' Compilation, Based on the Articles Published in the JIE, 1971–2010 ($n = 1,740$).

Figure 6. Number of References to the USA and Germany, 1971–2010.

Source: Authors’ Compilation, Based on the Articles Published in the JIE, 1971–2010 ($n = 1,740$).

then. References to Mexico began in 1977, remaining equally among the countries mentioned, and attracted greater interest in the 1996–2000 period, with eight references (Figure 7).

Note that no country considered individually and classified as a “Less Developed Country” received more than 10 references over the period under analysis (1971–2010).

Where Are the Poor in International Economics? An Attempt at a Qualitative Overview of Studies That Focused on Poverty

In a population of 1,740 articles, only 13 addressed poor countries or poverty in some of its dimensions. These articles were published mainly during a more recent period (1996–2000).

Only one article regarding poverty was published in the 1996–2000 period, three in the 2001–2005 period, and nine in the 2006–2010 period. Before 1996, authors in the field of international economics did not show any particular interest in the subject.

Note that among these articles, only one was classified under the main topic of “Poverty” (Balat et al., 2009), nine were classified under the secondary topic “Poverty” (Asiedu, Jin, & Nandwa, 2009; Chamon & Kremer, 2009; Feeney & Hillman, 2004; Foellmi & Oechslin, 2010; Harrison & McMillan, 2003; Kim & Kim, 2000; Porto, 2005, 2006; Rutherford & Tarr, 2008), and the remaining three, although indeed considering poverty to some degree, did not have this issue as the focus of the work (Edmonds & Pavcnik, 2006a, 2006b; Papageorgiou, Savvides, & Zachariadis, 2007).

Figure 7. Number of References to Argentina and Mexico, 1971–2010.
Source: Authors’ Compilation, Based on the Articles Published in the JIE, 1971–2010 ($n = 1,740$).

Within this latter group of studies, poverty is mentioned *en passant* via, for example, the positive effects that globalization and technological innovation in medicine have had not only on the developed nations that created them, but also on the less developed countries (Papageorgiou et al., 2007). Focusing on labor market issues, Edmonds and Pavcnik (2006b) report that a major feature of the labor market in poorer economies is that a large share of individuals work outside the formal labor market, pointing out that market liberalization leads to a decline in family work and an increase in formal work. The same authors found elsewhere (Edmonds & Pavcnik, 2006a) that countries that trade more have a lower incidence of child labor. Thus, the increase in trade openness will correspond to a decline in child labor and, consequently, to a lower risk of poverty.

Imminently formal studies focus primarily on “Modeling, methodologies, and analysis tools,” and secondly on poverty, particularly on issues related to the impact of trade liberalization (Feeney & Hillman, 2004; Foellmi & Oechslin, 2010; Kim & Kim, 2000; Rutherford & Tarr, 2008), income inequality (Porto, 2006), and informal barriers (Porto, 2005) in poverty; direct foreign investment (Asiedu et al., 2009) and integration (Chamon & Kremer, 2009) as tools to fight poverty; or the imperfections of the capital market (Harrison & McMillan, 2003).

According to Kim and Kim (2000), trade liberalization allows a poor economy to transform into an economy that promotes education and higher productivity growth. In this argument, the joint effort of international trade and education in economic growth will improve education and, consequently, the ability of workers to adapt to new jobs that, combined with international trade, will allow

them to specialize in sectors with high rates of technological progress. The technological aspect is also highlighted by Feeney and Hillman (2004), who analyze why governments of poor countries without sufficiently developed financial markets have failed to liberalize trade. The latter could be enhanced by technological and institutional changes that facilitate transactions of assets, such as reductions in transaction costs in financial markets, a decrease of information asymmetry, and the improvement of the protection of private property rights. Capital market imperfections play, according to Harrison and McMillan (2003), an important role in determining investment decisions in local firms, and the difficulties in financing are a major obstacle to business expansion in poor countries. These authors also alert us to the fact that the entry of foreign firms in the market will reduce the credit available to local companies because they are a better investment (risk) for local banks, with local companies facing greater restrictions in accessing credit. On this basis, companies owned by local entrepreneurs in poor countries face greater difficulties in accessing credit than multinational companies.

The positive aspect of trade liberalization in the distribution of income is also highlighted by Rutherford and Tarr (2008) and Foellmi and Oechslin (2010). The latter authors argue that the liberalization of trade generally benefits the poorest, whereas the former confirm a positive impact on the distribution of income and on the poor resulting from the accession of a country to the World Trade Organization. In this last line of argument, Porto (2006) shows that low-income households gain more from the reforms of international trade than middle- and high-income families; thus, the liberalization of trade has a pro-poor effect in the distribution of income. In a previous work (Porto, 2005), the same author notes that in low-income countries, informal barriers such as transport costs, heavy customs practices, bureaucracy, costly regulations, and bribes act as export taxes that distort the efficient allocation of resources, generate low salaries and low farming incomes, and increase poverty.

According to Chamon and Kremer (2009), economic integration was the driver that transformed poverty into wealth for some East Asian countries, with learning and the economic effects of trade policies contributing to this growth and learning pathway. Direct foreign investment is, for Asiedu et al. (2009), an essential tool to fight poverty, and its absence deprives poor countries of some of its advantages, namely, sources of capital, creation of jobs, increase in wages, increase in productivity of companies and domestic workers, and promotion of economic growth.

The only study that focuses explicitly on poverty, written by Balat et al. (2009), states that certain costs associated with exports, and consequently with trade impacting income and poverty, depend on the complementarity of domestic factors such as improvement of infrastructures, adequate competition policies, access to credit, better education and health, and lower marketing or brokerage costs. In this context, since transaction costs, particularly marketing costs or brokerage costs, are still powerful barriers to imports and exports, they cause greater poverty.

Conclusions

This study aimed to assess the attention paid by international economics to the issue of poverty and of poor countries in recent decades. In the absence of bibliometric works that address poverty and poor countries in international economics, and since bibliometrics is an objective way to measure a relatively unexplored subject from the standpoint of science, bibliometric techniques were used to answer the question “Where are the poor in international economics?” All the articles published in the *Journal of international economics* (JIE) between 1971 and 2010 were read thoroughly and classified according to topics and types.

We found that authors who published in the JIE dealt mainly with the topics “Meso (industry, region) and microeconomic policies and issues in international trade” and “International finances,” representing 28.1 percent and 25.1 percent of all published articles, respectively. With regard to “Poverty,” it is disturbingly clear that authors in the field of international economics, especially those who publish in the JIE, pay little attention to this matter, representing only 0.6 percent of all articles, which corresponds to the absolute value of 13 in a total of 1,740 articles.

The lack of analyses regarding the issue of poverty is not immune to the type of methodologies followed by the authors who publish in the JIE. Specifically, the vast majority (more than 80 percent) of articles are based on “Formal” and “Formal and Empirical” methodologies. Despite the downward trend in the weight of articles with exclusively “Formal” methodologies, the articles that used this methodology still represented about 40 percent of published articles in the more recent five-year period (2006–2010).

The debate on formalization in economics is long-standing and far from reaching consensus. According to some authors, for example, McCann (2007, p. 1215), “simple rhetorical [appreciative] devices” should be avoided and, instead, deep and comprehensive analyses should attempt to use analytical approaches (i.e., formal), making the microeconomic foundations explicit and clearly defined. Failure to achieve a more consistent internal methodology would result, according to McCann, in poorly defined policy and assessment designs. McCann emphasizes the need for different areas of economics to provide increasing support to formalization. In contrast, Barnes (2003, p. 14) stresses the need for the transition from “rationalist, formal and universal explanations, to ones that are relativistic, eclectic, and local.” Along this line, Partridge (2006, p. 2) acknowledges that the “economics profession continues ... more enamoured by mathematical technique rather than social and policy relevance” and that the excessive focus on mathematical rigor can prevent the impact of science on politics due to an inability to deal with the social problems of the real world.

The rise in the weight of “Formal and Empirical” articles within the field of international economics—a substantial increase from a modest 10 percent (1981–1985) to more than a third in the most recent period (2006–2010)—seems to indicate that this scientific area is trying to make its methodology apparatus more overarching, in order to allow scientific progress and, at the same time, to not

lose sight of the reality it wishes to analyze. Therefore, this trend seems to show that international economics has found an adept way of improving its “good theory” status (Cook & Brown, 1999), with a pragmatic focus on triggering action and developing reliable skills for decision making. Nevertheless, the infinitesimal weight of the subject of poverty and of empirical analyses on the less developed countries indicates that international economics, at least through the lens of JIE, is still far from a science progressing toward action, “a tool at the service of knowing” (Cook & Brown, 1999, p. 388), requiring a real investment in the themes of poverty and the poor if the aim is to prevent research in economics from becoming “a profession on a rapid plunge to insignificance” (Ehrlich, 2008, p. 16).

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