
WHERE ARE THE POOR IN MAINSTREAM ECONOMICS? AN EXPLORATORY
BIBLIOMETRIC ANALYSIS AT THE BLUE RIBBON

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Abstract

The growing concern with providing scientific information on how to fight poverty is nowadays evident, and seems to have been fuelled both by the increased attention that international institutions, most notably the United Nations through the setting of the Sustainable Development Goals, are giving to the poverty topic; and by the recognition that policymakers need to rely on high quality scientific knowledge to better support their policy options and resources allocation.

Scientific publications, particularly those published in top economic journals, tend to influence policymakers to a great extent. However, despite the scientific and social importance that poverty seems to hold nowadays, the attention that the top economic journals, namely the so called ‘Blue Ribbon’ (*American Economic Review*; *Econometrica*; *International Economic Review*; *Journal of Economic Theory*; *Journal of Political Economy*; *Quarterly Journal of Economics*; *Review of Economic Studies*; and *Review of Economics and Statistics*), devote to the topic of poverty is not clear.

Resorting to bibliometric techniques, we analyse all the 27322 articles published in the eight Blue Ribbon journals from 1970 to 2018 and provide an updated analysis on the evolution of the scholarly literature on Economics in the last fifty years. This is, to the best of our knowledge, the first study on the scientific attention devoted to poverty by the most influential journals in the field of Economics.

Four main findings can be highlighted: 1) between 1970 and 2018, the number of articles published in the ‘Blue Ribbon’ eight has been increasing; 2) in the last fifty years it was observed a sharp increase in the attention devoted to Microeconomics and a decline in Macroeconomics; 3) the scientific attention devoted to poverty issues by the Blue Ribbon is relatively meagre but it observed a positive tendency, increasing from a modest 0.36% of total articles published in the 1970’s to 1.92% of total publications in the 2010’s; and 4) the relative weight of particular poverty subtopics has significantly changed over the last fifty years, from a focus in the earlier decades on defining and measuring poverty, to policy related issues in the most recent period (from 2000 onwards).

JEL Codes: C89, I32, O15

Keywords: Poverty, Bibliometrics, ‘Blue Ribbon’ journals

Resumo

A crescente preocupação em produzir conhecimento científico sobre como combater a pobreza é hoje em dia evidente, e parece ser impulsionada tanto pela crescente atenção que algumas instituições internacionais, nomeadamente as Nações Unidas através da definição dos Objetivos de Desenvolvimento Sustentável, têm devotado ao tema da pobreza; como pelo reconhecimento de que os decisores de política têm de recorrer a conhecimento científico de alta qualidade de modo a melhor suportar as suas decisões e a fazer uma melhor alocação de recursos.

As publicações científicas, principalmente as que são publicadas pelas revistas económicas de topo, tendem a exercer uma grande influência sobre os decisores de política. No entanto, apesar da importância científica e social que a pobreza parece ter atualmente, a atenção que as revistas económicas de topo, nomeadamente aquelas que compõem o denominado 'Blue Ribbon' (*American Economic Review; Econometrica; International Economic Review; Journal of Economic Theory; Journal of Political Economy; Quarterly Journal of Economics; Review of Economic Studies; e Review of Economics and Statistics*), devotam ao tópico da pobreza não é clara.

Recorrendo a técnicas bibliométricas, analisamos os 27322 artigos publicados nas oito revistas desde 1970 a 2018, e apresentamos uma análise atualizada da evolução da literatura económica científica nos últimos cinquenta anos. Este é, no nosso conhecimento, o primeiro estudo sobre a atenção científica dada à pobreza pelas mais influentes revistas de Economia.

Quatro resultados principais podem ser destacados: 1) entre 1970 e 2018, o número de artigos publicados pelo 'Blue Ribbon' tem aumentado; 2) nos últimos cinquenta anos, observa-se um significativo aumento na atenção dada à Microeconomia e um decréscimo na atenção à Macroeconomia; 3) a atenção científica dada a assuntos relacionados com a pobreza é relativamente escassa, mas pode-se observar uma tendência positiva, aumentando de uma representação de 0,36% das publicações totais na década de 1970 para 1,92% na década de 2010; 4) o peso relativo de cada sub-tópico dentro da temática da pobreza tem mudado significativamente ao longo do período, passando de um foco, nas primeiras décadas, em definir e medir a pobreza, para um foco, a partir de 2000, em questões relacionadas com política.

Códigos JEL: C89, I32, O15

Palavras-chave: Pobreza, Bibliometria, revistas 'Blue Ribbon'

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1. Introduction

According to the World Bank (2016), in 2013 an estimated 767 million people, or 10.7% of the world population, were poor, that is, were living with less than US\$1.90 per day, the established poverty line. Although being a high rate, the progress at this level was significant. In 20 years, from 1990 to 2010, the global poverty rate was cut in half, with nearly 1 billion people moving out of extreme poverty. Poverty is not only associated with development issues; such situation can also pose restrictions to economic growth (Deaton, 2005; Dollar & Kraay, 2002; Škare & Družeta, 2016).

The impacts that poverty has on countries' development and economic growth have drawn the attention of the scientific community, particularly in the last decades. Indeed, resorting to the Web of Science bibliographic database, we observe an increasing tendency, with the topic 'Poverty' representing nearly 24% of the total publications within the topic 'Economics' in 2018, while this percentage was only 13% in 1970.¹

It is important to note that the first indexed studies in the field (*e.g.*, Ahluwalia, 1976; Kuznets, 1963) dealt mainly with inequality and not poverty itself. Nevertheless, after Sen's first contributions (A. Sen, 1976, 1979) the interest on the topic seems to have grown, and there has been an ongoing discussion ever since, specifically dealing with the definition and measurement of the concept. More recently, a wider set of topics within poverty have received particular scientific attention: the changing geography of poverty, with the extreme poor people being located in remote areas (Weber, Jensen, Miller, Mosley, & Fisher, 2005); the fact that a large number of people appear to escape extreme poverty only temporarily (Ward, 2016); and that, even with less poverty, inequality is still increasing (World Bank, 2018).

Notwithstanding the scientific and social importance that poverty seems to hold nowadays, the attention that the top economic journals, namely the so-called 'Ribbon Eight', which encompass *American Economic Review*; *Econometrica*; *International Economic Review*; *Journal of Economic Theory*; *Journal of Political Economy*; *Quarterly Journal of Economics*; *Review of Economic Studies*; and *Review of Economics and Statistics* (Conroy & Dusansky, 1995), devote to the topic

¹ This analysis relies on data accessed on 28 September, 2018, All years, Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI, CCR-EXPANDED, IC, refined by WEB OF SCIENCE CATEGORIES: (ECONOMICS). We searched first for TOPIC: (economics), yielding 42449 documents. Then, we searched for: TOPIC: (poverty) yielding 10339 documents.

of poverty is not clear.

Understanding the importance that the top economics journals devote to poverty is relevant mainly because of the impact that these scientific sources have amongst policymakers. According to Hirschman and Berman (2014), the indirect effect that economists can exert on policy decisions (through research and publications) is as important as the direct effect (through participation in policymaking organizations). This is particularly true in the case of technical matters, as the issue of how to fight poverty. Indeed, poverty research has already been proved important for poverty policy in the past, the most prominent example being the *War on Poverty* initiated by American president Lyndon Johnson in 1964, that caused an “unprecedented flow (...) of research on the nature and causes of, and the cures for, poverty” (Haveman, 1987, p. 4). Lahat (2018) finds that scientific knowledge about poverty is one of the main factors that affect policymakers’ perceptions about the right way to deal with the issue. In fact, knowledge on poverty is even a more important factor for perception than exposure to it, as “(...) acquaintance with (...) those living in poverty [does not] affect the perceptions about how to ameliorate it” (Lahat, 2018, p. 623), especially if there is not an experience of poverty with close family or friends of the policymakers.

Extant bibliometric studies that focus on the top economic journals (E. H. Kim, Morse, & Zingales, 2006; Wei, 2019) mainly analyse the main topics, top publishing and cited authors and institutions. The limited number of bibliometric studies that addressed poverty related topics mostly focused on specific subjects such as international economics (Teixeira & Carvalho, 2014) or health related issues in poor countries (English & Pourbohloul, 2017; Ortiz-Martínez, 2017). To the extent of our knowledge, there is no study that assesses the scientific attention devoted by top journals in economics to the topic of poverty. Although Ravallion’s (2011) wide ranging study focuses on the relevance poverty has on the scientific literature in general, his analysis is restricted to books indexed in the *Google Books* database. It is a fact that a considerable amount of research on poverty is published in books, book chapters and reports (Marsh, 2011). However, it is increasingly acknowledged the relevance of scientific studies published in indexed journals, particularly those from top tier journals, in forming and informing public policies and practices in given areas, namely in Economics (Green & Simon, 2012; Thyer, 2008). Additionally, Ravallion’s (2011) analysis documents the number of times the word poverty appears in books whereas our analysis goes further by providing a content analysis of poverty related keywords and poverty subtopics addressed in

the relevant literature.

Thus, the present study fills a gap in the literature by quantitatively analysing the scientific attention devoted to poverty by the most highly renowned journals in economics resorting to bibliometric techniques. Specifically, we constructed a database of all articles published in the eight ‘Blue Ribbon’ economics journals since 1970 until 2018, which amounts to almost 30 thousand items.

Based on this database, the empirical encompasses three main blocks: 1) it presents an longitudinal overview of the evolution of the scholarly literature in the field of economics resorting to the JEL codes; 2) combining the JEL codes and the authors’ keywords, it identifies all the articles related to poverty, and analyses the weight poverty related papers had over time in each ‘Ribbon Eight’ journal; and 3) considering seven major poverty subtopics – definition and theories of poverty; measurement of poverty; types and dimensions of poverty; trends and dynamics of poverty; poverty and inequality and long-run growth/development; poverty and economic conditions; and policy related issues regarding poverty –, it analyses the evolution over time of each of the subtopics in the eight journals globally considered and in each individual journal.

The present dissertation is organized as follows. Section 2 reviews the literature on poverty and proposes a distribution of research topics within the poverty thematic. Section 3 presents the methodology of the study, describing the research method and the main considerations about the construction of the database. The empirical results about the evolution of the scientific attention to poverty are discussed in Section 4. Section 5 concludes, outlining the main contributions of the study and its limitations.

2. Defining poverty and describing the main research topics in the economics of poverty

2.1. Defining poverty

Poverty is such a relevant topic and a common term nowadays that we tend to assume that we all agree with its definition. However, poverty as a concept has been “hotly contested and the views (...) have been far from homogeneous” (Konkel, 2014, p. 277). In fact, poverty has been perceived differently over time, and its definition and measurement techniques have become ever more complex, embracing earlier subsistence definitions of poverty, definitions based on the basic needs approach, and the more recent multidimensional definitions (see Annex 1).

One of the first seminal works in the field of poverty reports to the beginning of the 20th century, when Seebohm Rowntree, a sociological researcher born in York, decided to collect information about families in his hometown in order to assess “not only the proportion of the population living in poverty, but the nature of that poverty” (Rowntree, 1908, pp. ix-x). In the book he published reporting his findings, Rowntree provided one of the first definitions of poverty: poor families are the ones “whose total earnings are insufficient to obtain the minimum necessities for the maintenance of merely physical efficiency” (Rowntree, 1908, p. x). In order to assess which families would fall in this definition, Rowntree created an income-based poverty line – which considered the necessary money to buy food in a sufficient amount to meet the estimated nutritional needs of the family members and the minimum sums for “clothing, fuel and household sundries” (Townsend, 1979, p. 33). A family was, then, considered poor if its income was not enough to meet the poverty line, *i.e.*, Rowntree proposed an absolute measure of poverty (which defines a threshold under which a person is poor, as opposed to relative measures which consider a person to be poor in relation to the rest of the society) (Lok-Dessallien, 2000).

This vision of poverty as a failure to meet some income level of subsistence, *i.e.*, as something that can be measured in absolute terms, had a great impact in the subsequent studies in the area, influencing “scientific practise and international policies for (...) years” (Townsend, 2006, p. 5). Indeed, only in the 1970’s – mainly because of the influence of international institutions such as the World Bank (that only in this decade started to assume the fight against poverty as a major goal) or the International Labor Organization (ILO) –

did “poverty became prominent” (Maxwell, 1999, p. 2), with the interest in the topic increasing and new approaches starting to emerge. One of the main ideas developed in this decade was the notion of ‘basic needs’ as an extension to the subsistence definition of poverty. This new concept was based on two views. First, that the estimates of the minimum levels of subsistence cannot be based on subjective opinions or on the observed expenditures of the poorest families, but on the actual needs of the people (Townsend, 1979). Second, that subsistence cannot be merely associated with income, but also with the access to other basic needs such as education or health, *i.e.*, with the prevalent standards in the society (Maxwell, 1999). Measuring these standards is “much less objective than (...) for example, [measuring] the biological necessities to maintain physical nourishment” (Mowafi, 2004, p. 3). However, the goal is still to construct an absolute minimum standard of living: a family is poor if it is not capable of meeting this minimum standard of basic needs. Even though there is already, at this point, the recognition that the poverty concept cannot be solely associated with income, monetary poverty lines continued to be the most used measure on the field. This happened, mainly, because “time series data on all of these dimensions [were] not available” (Ahluwalia, 1985, p. 59) for most of the countries at the time.

The basic needs approach, although it considered various dimensions, also heavily relied on absolute measures that did not vary over time or across regions. The idea that poverty cannot be confined to absolute terms, but it “should be related to standards of a particular society at a particular time” (Botchway, 2013, p. 86) gained force in the 1980’s and led to a further extension of the concept of poverty in order to include the notion of ‘relative deprivation’. One of the most important contributions to this notion was made by Nobel laureate Amartya Sen. A. Sen (1983) argued that the minimum level of a commodity is not the same for every person (*e.g.*, people have different nutritional needs according to their sex, age or the climate conditions in their geographic zone). What matters is not the commodities themselves but their use, *i.e.*, the capability that each person has to turn the commodities into well-being. Despite his concept of poverty being clearly relative, the measurement technique proposed by Sen is also absolute: a poor person is one that fails to have a minimum of capabilities, independently of the capabilities of the other members of the society.

Later definitions, particularly in the 1990’s, followed Sen’s approach to poverty “and therefore the notion of poverty as the result of lack of material assets tended to be abandoned” (Misturelli & Heffernan, 2010, p. 44). Additionally, some new dimensions were considered

in the definition of poverty, such as the people's perceptions of their own reality (Maxwell, 1999) or the inclusion of new dimensions to the reality of poverty, such as vulnerability, isolation, powerlessness or livelihood (Chambers, 1995). The main development to the concept in the 2000's seems to be the association between poverty and human rights (*e.g.*: the identification of freedom from poverty as a right) (Misturelli & Heffernan, 2010). Concerning measurement, in the last decades new methods have also been developed (such as the Multidimensional Poverty Index, created by the United Nations, that considers three types of deprivation – in education, health and standard of living).

Nowadays, poverty tends to be defined as a multidimensional concept, and is normally measured “in the developing world (...) using absolute lines [while] most developed countries use relative poverty lines” (Ravallion & Chen, 2011), but the discussion on how to correctly define and measure it is far from over.

2.2. Main research topics in the economics of poverty

Since our research question entails the assessment and understanding of the scientific attention that has been devoted to poverty related issues, the first step towards answering it is to identify what the main research topics within the thematic are.

As poverty is such a complex phenomenon, and because new approaches to it are constantly emerging, dividing it into topics is not easy. In order to do it, we resort to five major handbooks or general books on poverty and rely on the organization of their contents to build our proposal.

We suggest a division into 7 topics: 1) definition and theories of poverty; 2) measurement of poverty; 3) types and dimensions of poverty; 4) trends and dynamics of poverty; 5) poverty and inequality and long run growth/development; 6) poverty and economic conditions; 7) policy related issues regarding poverty.

Annex 2 summarizes the proposal, presenting the topics and the corresponding chapters in each book.

It is important to note that this classification requires a certain degree of subjectivity. For example, even though only Jefferson (2012), among all the five used books, refers to “macroeconomic fluctuations and poverty”, we consider that the importance of the thematic justifies the creation of an independent topic, which we called “Poverty and economic

conditions”. A more detailed description of each topic follows.

2.2.1. Definition and theories of poverty

This category encompasses the studies that are focused on how poverty is defined (*e.g.*, Bisiaux, 2013; O’Boyle, 1999) and the theories which underly it (Hayati & Karami, 2005). This is an unavoidable issue when addressing poverty. In fact, it is often the first approached topic in any major work about poverty, as we cannot discuss any of the other topics if we do not know exactly how poverty is defined and conceptualized. Indeed, using different concepts may actually lead to conflicting results when applying policy, since different groups of people can be considered as poor in each definition (Kwadzo, 2015; Laderchi, Saith, & Stewart, 2003).

As detailed in Section 2.1. the definition of poverty has evolved from concepts merely based on monetary subsistence to an inclusion of other basic needs and, more recently, to the recognition that poverty is a multidimensional concept.

The theories of poverty, also considered in this section, are related to the causes of poverty. Two main theories prevail. First, that poverty is caused by individual characteristics, *i.e.*, that “(...) specific attributes of the impoverished individual have brought about their poverty” (Rank, Yoon, & Hirschl, 2003, p. 4), such as a lack of work ethic or their low levels of education. Second, that poverty is caused by structural failings, such as “(...) the inability of the economy to produce enough decent paying jobs” (Rank et al., 2003, p. 4).

2.2.2. Measurement of poverty

This topic is closely related to the topic of defining poverty, as measures have been evolving in order to include the new dimensions of the poverty concept (Hagenaars & van Praag, 1985; Xun & Lubrano, 2018). Moreover, there is a connection between this topic and the application of policy, because “monotoring progress and determining whether the goal of ending poverty is met crucially depends on how [it] is measured” (Lustig & Silber, 2016, p. 131).

Studies within this topic focus on discussing the ways of measuring poverty (Thon, 1979) or presenting alternative approaches that more precisely reflect reality (Pattanaik & Xu, 2018).

Some studies also focus on the data that is necessary to produce reliable estimations and how to collect it (Fields, 1994; Wright, Valenzuela, & Chotikapanich, 2015). These studies tend to be more technical, since they strongly rely on mathematics or statistics.

2.2.3. Trends and dynamics of poverty

Poverty is a social concept and, as such, it cannot be studied only in theoretical terms. In fact, even the first studies to start the debate on how to define or measure poverty had already the underlying goal of being applied to reality in order to study the levels of poverty in a certain part of the world and its evolution (*e.g.*, Rowntree, 1908).

To analyse the evolution and trends of poverty continues to be of crucial importance as reflected in the work of the World Bank, which devote annual reports to the issue. Studies on this topic can either consist in point in time comparisons (Blackburn, 1994), an analysis of the evolution of poverty over a period of time (Decancq, Goedemé, Van den Bosch, & Vanhille, 2013) or predictions of the future trends of poverty (Bradshaw, 2000). They can also be focused on a group of countries (Anthony B Atkinson, 1991; D'Ambrosio, Deutsch, & Silber, 2011) or on a single country (Fox, Bardasi, & Van den Broeck, 2005).

In this topic, besides the trends and evolution, it is included the studies that address the dynamics of poverty, which encompasses those analyses which account for the fact that poverty can be experienced in different ways by different people, especially when it comes to length or severity (Smith & Middleton, 2007), and thus consider that poverty is dynamic because the “poor are not poor all the time” (Yaqub, 2000). In fact, “(...) while some people will experience brief, one-off episodes of poverty, others will move in and out of poverty on a recurrent basis, and others still will live in poverty for a continuous, sustained duration” (Smith & Middleton, 2007, p. 15).

Hence, studies on poverty dynamics aim at tracking certain households over time in order to study the probabilities of escaping or falling into poverty (Thorat, Vanneman, Desai, & Dubey, 2017) and the reasons associated with chronic or transient poverty (Duclos, Araar, & Giles, 2010). This topic also has a close relationship with others, namely that of policy, since “who benefits, who loses from change, and what causes change are core policy questions” (Jolliffe, Ambel, Ferede, & Seff, 2016, p. i).

2.2.4. Types and dimensions of poverty

Poverty encompasses several dimensions (Jefferson, 2012) among which some of the most often referred include education, health, child development, rural poverty or vulnerability.

Typically, we can classify the studies that focus on some dimension in one of two categories: they either address the negative consequences that poverty can pose on that dimension or they try to understand why this negative link exists and suggest ways to mitigate it. For example, for the health dimension, Seccombe (2000)'s study can be included in the first category, since it describes the consequences that poverty can have on people's health, and Peters et al. (2008)'s work can be included in the second, as it proposes a better access of poor people to healthcare as a way to combat the problem.

Health is, indeed, one of the most studied dimensions. It is a known fact that wealthier people are healthier (Pritchett & Summers, 1996). Some studies, as Seccombe (2000) states, focus on proving that poor people have a "significantly lower [life expectancy], a higher infant mortality, and (...) are more likely to suffer a wide variety of acute and chronic conditions". Others go further and try to understand why this happens and what can be done to reduce the problem, mainly by linking poor households to a lack of access to healthcare (Peters et al., 2008).

Education is another one of the most important dimensions of poverty. Following Sen's capability approach, we can define education as "(...) both a means to a better life (...) as an end in itself" (Ayres & Simon, 2003, p. 212). Indeed, acquiring more education can be a way of breaking the intergenerational tendency of poverty, *i.e.*, for children from poor families to escape that condition (Duarte, Ferrando-Latorre, & Molina, 2018). However, poor children have different opportunities regarding education and different probabilities of succeeding in it. Studies show that poor children are less ready for school, since they do not develop certain cognitive skills or lack a level of knowledge appropriate for their age (Ferguson, Bovaird, & Mueller, 2007); are more likely to drop out of school (Ayres & Simon, 2003); and usually achieve lower levels of total education than non-poor classes (Lacour & Tissington, 2011). Suggested policies include interventions at an early stage, *i.e.*, programmes directed at little children that focus on developing the necessary capabilities (Ferguson et al., 2007) or interventions in poor families or neighbourhoods in order to increase awareness of the importance of education for their children (Lacour & Tissington, 2011).

Another important dimension is child development. People that experienced deprivation

during childhood often have worse physical and mental health (R. T. Jensen & Richter, 2001), tend to have lower grades and are less likely to achieve a high level of education (Seccombe, 2000), and are more likely to have unstable jobs and low salaries when they enter the labour market (Lesner, 2018). There is a significant number of dynamic studies on child development that analyse the mobility of poverty, *i.e.*, the likelihood that children from poor families remain poor for the rest of their lives, and how some variables (like the neighbourhood in which the family lives) can influence this probability (Boyden, Dercon, & Singh, 2015; Seccombe, 2000). Drawing on the findings of the previously mentioned studies, some other authors try to suggest “policies aimed at preventing either economic deprivation itself or its effects [on children]” (Duncan & Brooks - Gunn, 2000, p. 1).

Rural poverty can be considered as another dimension, since poverty tends to be higher in these areas and to present different characteristics. Several possible causes have been discussed over the years, such as the high dependence on agriculture, which has low productivity and low added value (Quang Dao, 2004) and which is a very vulnerable sector to unanticipated climate shocks (Börner, Shively, Wunder, & Wyman, 2015), or the relative isolation from important institutions such as schools or the bigger labor markets (Fitchen, 1981; Stifel & Minten, 2008). The differences between rural and urban areas are a problem for the countries’ economies because this “(...) dualism limits the prospects for growth that favours the poor” (M. H. Khan, Chaudhry, & Qureshi, 1986, p. 7).

Some dimensions are related with more subjective concepts than the ones we already referred. This is the case of vulnerability. Vulnerability “can be understood as a state of defencelessness against adverse shocks that could inflict damage to an agent” (Gallardo, 2018, p. 1075). A person can be vulnerable to poverty if, for example, a change in wages affected his capacity of buying food for his family. In fact “(...) just as deprivations in health and nutrition may be considered as part of an extended poverty concept, one could also consider a measure of lack of access to consumption-smoothing mechanisms” (Morduch, 1994, p. 224). However, since “as a practical matter, this is difficult to make precise and operational” (Morduch, 1994, p. 224), this is still a relatively unexplored dimension of poverty.

2.2.5. Poverty and inequality and long run growth/development

Poverty and inequality are two dissociable concepts. While poverty is concerned with identifying the people that are living below a certain threshold, inequality focuses on the differences in the distribution of resources between all the individuals in a certain society (Ferreira & Ravallion, 2008). However, even when measuring poverty in absolute terms, we deal with two groups of people – the poor and the non-poor – which clearly are not in equal terms.

There are some studies that focus on the relationship between poverty and inequality (Deininger & Squire, 1996; Mussa, 2013). However, these two concepts are almost never studied alone: there is a third concept that is highly related with them – economic growth.

There is a tendency to think that long run economic growth, *i.e.*, the sustained increase in a country's production or real income, will lead to a reduction of poverty (Norton, 2002). However, several factors can influence or mediate this relationship between poverty and long run growth, such as “economic reforms, political stability and private endowments” (Christiaensen, Demery, & Paternostro, 2003, p. 317), but the most important factor is inequality. In fact, “(...) the three interrelated issues [poverty, inequality and growth] are at the heart of the debate on how to achieve a rapid reduction in global poverty” (Kakwani & Son, 2018, p. xiv).

Several studies have been published on this triangular relationship (de Janvry & Sadoulet, 2000; M. A. Khan, Khan, Zaman, Hassan, & Umar, 2014). However, there is still some debate on the issue, with some studies considering that growth is indeed pro-poor (Ravallion & Chen, 2003), others imposing some constraints to this conclusion (Kraay, 2006), and others being very sceptical about it (Herzer & Vollmer, 2013).

The concept of development is broader than that of economic growth. Development implies not only an economic perspective (an increase in income), but also social, political or institutional perspectives that can have an impact in the way people live and cause a “structural transformation of the society” (Meyer, Masehla, & Kot, 2017, p. 1377). According to Farina (2015, p. 3), “poverty was not examined (...) in the development theory” for a long time. However, “(i)t is now widely recognized that (...) the continued existence of mass poverty is incompatible with (the) development concept irrespective of the overall level of income” (Potts, Ryan, & Toner, 2003, p. 3). Nowadays, the studies that focus on poverty and development are mainly concerned about ‘poverty traps’, *i.e.*, the mechanisms that cause

poverty to persist, and development to be delayed, in a certain region or country (Capasso & Carillo, 2012; Chantarat & Barrett, 2012).

2.2.6. Poverty and economic conditions

The economic activity is an important factor influencing poverty, since when an economy is in good shape, the probability of people escaping poverty rises (R.M. Blank & Blinder, 1985). Nevertheless, even though economic prosperity plays a crucial role in the evolution of poverty over time, “it is not the only channel through which the macroeconomy affects the well-being of the poor in a country” (Jefferson, 2012, p. 520). Unemployment is one of these other channels, and it seems to have a strong impact on poverty, since poor people normally have fewer skills and, thus, employers tend to fire them first when economic conditions worsen (Addabbo, García-Fernández, Llorca-Rodríguez, & Maccagnan, 2012; R.M. Blank & Blinder, 1985). Regarding other channels, most notably inflation, extant studies find that its effects are modest (Romer & Romer, 1998; Son & Kakwani, 2009). However, Balke and Slottje (1993) find that poverty may actually raise if inflation increases and the incomes of the poor grow at a lower rate than inflation. Other channels, for instance government transfers or wages, are also often considered (Jefferson, 2012).

2.2.7. Policy related issues regarding poverty

Ultimately, the main goal of studying poverty – how to define it, how to measure it, what are its different dimensions – is to understand how to fight it. Thus, studies on this topic have a close relationship with all the others, since its authors rely on studies included in other topics in order to suggest concrete policies measures/ actions.

The main focus of the studies included in the present topic is to discuss the type of policies or instruments that should be used to fight poverty – in general (Vykopalová, 2016) or one of its dimensions (Gascón, 2015) – or to prevent it (C. O. Kim, 2018). They also discuss the adequacy of implementing such policies locally or at a country level (R. M. Blank, 2005), and the effectiveness of the policies that have already been implemented (Cashin, Mauro, & Sahay, 2001).

The studies included in this topic are particularly important for the perceptions that policymakers have on poverty and for the way they approach it in their political programmes.

In fact, “(p)olicymakers have increasingly turned to the research community to track the consequences of social programmes on the economic well-being and behaviour of their citizens” (Burkhauser, 2001, p. 757). As Lahat (2018, p. 623) finds, this is true for poverty policy as well, since “knowledge about poverty-related issues (tends) to affect policy perceptions about how to deal with the problem”.

3. Methodology

To pursue the present study’s research question, “Where are the poor in mainstream economics (*i.e.*, in the ‘Blue Ribbon’ economic journals)”, the most appropriate methodological approach, following studies of E. H. Kim et al. (2006) and Teixeira and Carvalho (2014), is quantitative, most specifically bibliometrics.

Bibliometrics consists in the “use of statistical analyses to study publication patterns” (McBurney & Novak, 2002, p. 109). This technique allows a large number of examinations: the number of articles published by a given journal/by a certain author/on some subject in a period of time (Santos & Ferreira, 2017); the number of citations by an author or journal (E. H. Kim et al., 2006); or the impact of a certain journal on other publications (Ordóñez, Hernández, Hernández, & Méndez, 2009).

In this work, bibliometrics will be used to study all the articles published in the eight ‘Blue Ribbon’ journals since 1970 until 2018, which amount to almost 30 thousand items, identifying all those related to poverty, and organizing them according to the research topics categorisation proposed in Section 2.2.

Table 1 summarizes the main information about the journals, including when they first started being published, their publication frequency and the total number of articles and reviews published in each of them since 1970.

Table 1: ‘Blue Ribbon’ information

	Blue Ribbon Journals	Journal abbreviation	Publishing since	Publication frequency	Total articles and reviews since 1970
1	American Economic Review	AER	1911	Monthly	7942
2	Econometrica	ECON	1933	Bimonthly	3068
3	International Economic Review	IER	1960	Quarterly	2574
4	Journal of Economic Theory	JET	1969	Bimonthly	3815
5	Journal of Political Economy	JPE	1892	Bimonthly	2575
6	Quarterly Journal of Economics	QJE	1886	Quarterly	2032
7	Review of Economic Studies	RES	1933	Quarterly	2230
8	Review of Economics and Statistics	REStat	1919	5/year	3086
	All ‘Blue Ribbon’				27322

The database for this study was constructed resorting to the scientific citation indexing service Web of Science (WoS). However, in order to ignore the items that don't exactly reflect scientific attention, it only includes the ones classified in WoS as "articles" or "reviews", excluding all those labelled as "note", "book review", "correction", "meeting abstract", "editorial material", "letter" or "item about an individual".

For each item, WoS provides information on the title of the article or review; its authors (and their affiliated University); the year it was published; the journal that published it (including the volume, issue and pages); the abstract; and the keywords. However, there is another information that is crucial to our analysis – the JEL codes associated with each article. The JEL codes are a classification system, proposed by the *Journal of Economic Literature*, that intends to divide the economics subject into fields. This classification allows the identification of the fields in which an article is focused and makes it easier to find related studies. The JEL codes that correspond to each article were exported from EconLit, a database maintained by the American Economic Association (*Journal of Economic Literature's* publisher) and accessible through EBSCOhost.

Even though the resulting database is largely based on the WoS' database (with the addition of the JEL codes extracted from EBSCOhost), they don't exactly coincide. First, there are a few articles in WoS that are not included in the EBSCOhost database, which means that there is no information on the JEL codes of those articles, whereby we opted for excluding them. Also, EBSCOhost sometimes aggregates some items in a single entry (*e.g.*, an article and a response to it, or a response and a reply), while WoS considers all the items separately. Since we need to analyse the JEL codes, in these cases we decided for the EBSCOhost strategy. Finally, some corrections were made when the WoS' database was considered to be incomplete (*e.g.*, all the articles published in the *International Economic Review* from 1970 to 1977 were introduced in our database, despite WoS not having this information available in theirs) or wrong (*e.g.*, in the journal *Econometrica*, WoS identifies some items such as the "Annual Reports of the Treasurer/Secretary/Editors" as "articles", but we chose to exclude all of these entries).

The decision of starting the analysis in 1970 was related with the evolution of the JEL codes classification. This classification has suffered numerous revisions over time, working as a "relevant proxy to understand the transformation of economics science throughout the

twentieth century” (Cherrier, 2017, p. 545). The 1990’s revision, for example, was a necessity caused by the emergence of many specialized journals in the two previous decades, such as the *Journal of Development Economics* or the *Journal of Public Economics*, and by the realization that many fields were already, at that time, way more developed than they were in 1969, the year of the previous revision. As a result, both the number of fields and subfields were extended – instead of 10 major fields (identified by the numbers from 0 to 9), there are now 20 fields (identified by the letters from A to R, Y and Z), each with a different number of subfields (identified by numbers). In order to harmonize all the codes we used the scheme proposed by Kosnik (2018), which is detailed in Annex 3, and that makes a correspondence between the codes used in the articles from 1970 to 1990 and the current fields. The year 1970 was, then, chosen as the start year of the analysis so as to avoid the need to deal with three different classifications and two harmonizing schemes.

4. Evolution of the research in economics and in the economics of poverty through the lens of the ‘Ribbon Eight’ journals

4.1. Evolution of the number of articles

The evolution of the number of articles (including reviews) published in each ‘Ribbon Eight’ journal in the period 1970-2018 evidences a slight upward trend, although such trend is not similar for all the journals in analysis (see Figure 1).

Overall, all the journals currently publish a higher number of articles than they did in 1970, the only exception being the *Journal of Political Economy* (JPE), which was in the beginning of the period only surpassed by the *American Economic Review* (AER) but has, since, often been one of the journals with less published articles.

In the decade from 1970 to 1979, the eight journals published an average of 506 articles per year. For the period from 2010 to 2018, this number increased to 663 articles per year, the highest average in all the five considered decades. Even though there was an increase in the average number of published articles in every decade, the biggest growth was verified in the period from 1990 to 1999, with the number increasing by 22%, while in the other decades it never increased more than 3%.

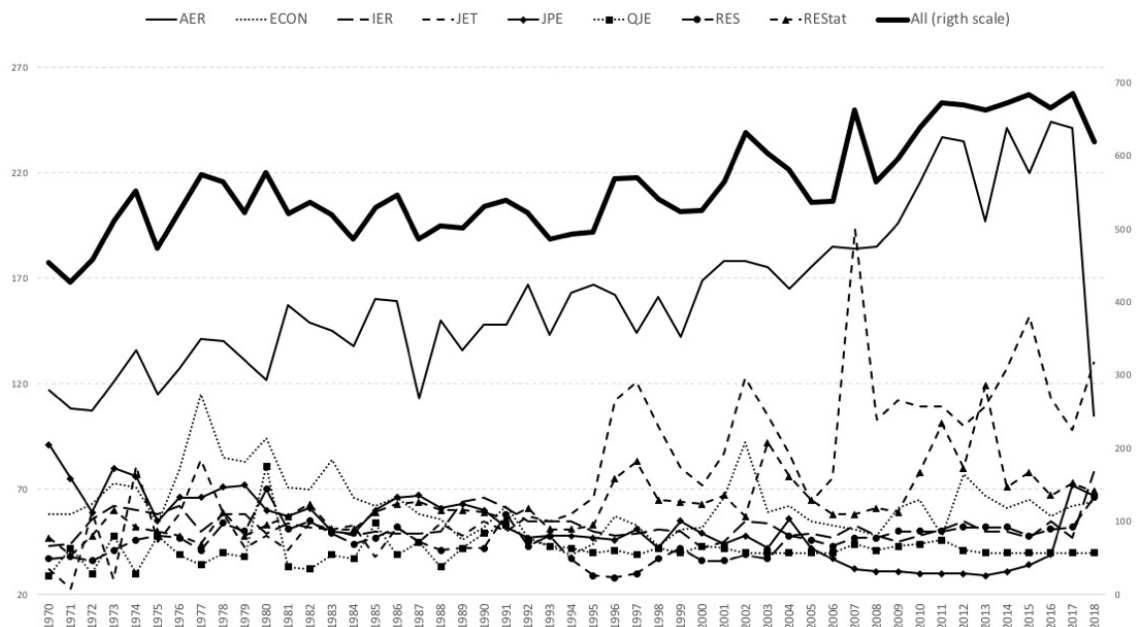


Figure 1: Evolution of the number of articles and reviews in each journal, 1970-2018

Legend: AER – American Economic Review; ECON – Econometrica; IER – International Economic Review; JET – Journal of Economic Theory; JPE – Journal of Political Economy; QJE – Quarterly Journal of Economics; RES – Review of Economic Studies; REStat – Review of Economics and Statistics; All (right scale)

Source: Own elaboration, based on 27322 articles

The database constructed includes only the items categorized as “articles” or “reviews”. Nowadays, even though some “notes”, “letters” and “corrections” are still present in most issues, the journals publish mostly articles. In previous decades, however, particularly in the 1970’s but also in the 1980’s, some journals published a large number of other items (*e.g.*, the forth issue of 1971 for *Econometrica* (ECON) is not represented in the database, since it was entirely comprised of “meeting abstracts”). As such, the transition to a higher representation of “articles” and “reviews” may be one of the explanations for the rise of the average number of articles published in the 1990’s.

The journals which most contributed to the evolution, particularly after the 1990’s, were the AER, the *Journal of Economic Theory* (JET) and the *Review of Economics and Statistics* (REStat), as the others presented smoother evolutions.

As it is the only journal which publishes monthly, the AER was always (with the exception of 2007) the journal with a higher number of articles per year. By maintaining its publication numbers so high, sometimes publishing 5 times more articles than other journals, the AER assures a significant share of the ‘Blue Ribbon’ publications (it systematically represented more than 30% of the total number of articles published by the 8 journals in the last two decades). The sudden drop, in 2018, to less than half the number of articles published in the previous year is surprising. It might be explained by editorial decisions, as the new editorial team appointed in 2017 introduced some changes to the publishing process (Duflo, 2018). First, the process that each article is put through from submission to acceptance is now more complex and, thus, slower, since it requires the clearance of not one but two co-editors before publishing. Second, with the creation, in November 2017, of *AER: Insights* (an independent journal that intends to publish articles with important contributions but expressed in concise terms, *i.e.*, in fewer pages), the AER stopped accepting short articles, which also contributed to the reduction of the number of articles published by the journal in 2018.

The irregular evolution of the JET and the REStat may too be explained by editorial choices, most notably related to the publication of special issues on particular topics, causing the sudden oscillations visible in Figure 1. For example, in 2007, 193 articles were published in JET, including a special section on “Development Theory” in the first volume, expanding its issues to 600-700 pages instead of the regular 300 pages in the previous years.

It is interesting to note that our findings go against the conclusions of Card and DellaVigna

(2013), who find that the number of items published has been declining. The discrepancy can be explained by three factors: 1) the period in analysis (their analysis only covers the period from 1970 to 2012, while ours extends to 2018); 2) the documents considered in the database (while we use the classification from WoS in order to include only items marked as “articles” or “reviews”, the authors use a text search of the titles exported from EconLit); and 3) the journals included (Card and DellaVigna include the “top five” economic journals – AER, ECON, JPE, RES and QJE – whereas we consider, beside these, others, particularly JET and REStat, which, as referred above, impacted the most in the increase in the number of published articles).

4.2. Evolution of the distribution of the number of articles

Using the JEL classification, it is possible to analyse the attention that each economic field has received by the top journals in the last five decades. From all the articles included in the database, nearly 20% were categorized as belonging to the “Microeconomics” field (letter D), followed by “Mathematical and Quantitative Methods” (C), “Macroeconomics and Monetary Economics” (E) and “Labor and Demographic Economics” (J), each representing 10-15% of the total publications (see Figure 2). These four fields combined represent more than half of the total articles published in all the journals.

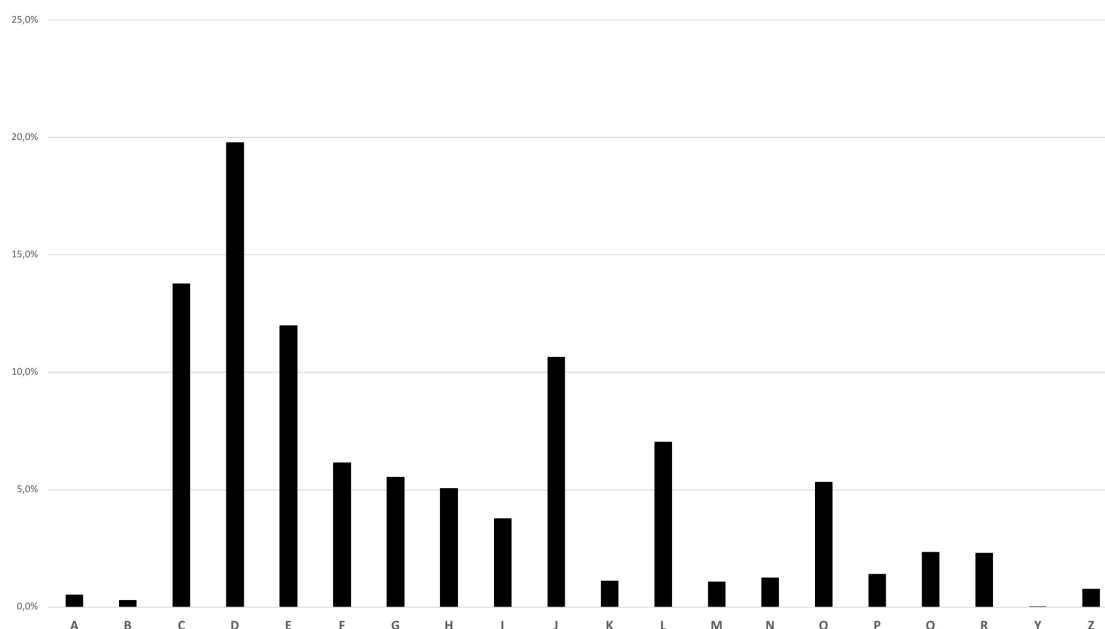


Figure 2: Frequency of use of each JEL code, 1970-2018, 'Ribbon Eight' journals

Source: Own elaboration, based on 27322 articles

The fields with a significantly low representation (less than 1%) are “General Economics and Teaching” (A), “History of Economic Thought, Methodology, and Heterodox Approaches” (B) and “Other Special Topics” (Z), closely followed by “Economic Systems” (P), “Business Administration and Business Economics/Marketing/Accounting/Personnel Economics” (M) and “Economic History” (N), which represent nearly 1% each.

Figure 3 shows the frequency of each field in each of the considered decades. Overall, most of them has maintained a relatively stable evolution. However, some exceptions are clearly visible, the most noteworthy of them being the sharp decrease in the weight of “Macroeconomics and Monetary Economics” (E), and the fast increase of “Microeconomics” (D).

Several possible explanations for the evolution of the Macroeconomics subject have been presented. Kelly and Bruestle (2011) speculate that this lower representation of the field in the general interest journals (as is the case of the ‘Ribbon Eight’ journals) might be associated with the migration of this research to specialty journals. However, the authors find no evidence for this argumentation, as the attention to the topic seems to be declining even in the specialty journals. Kosnik (2015) suggests that the explanation may be related with the decline in the number of PhD’s in Economics, particularly those specialized in the field, but finds that this is also unlikely to be the reason, since unemployment in Macroeconomics departments in universities does not seem to be dropping.

The most plausible explanation for the relative decrease of the research on “Macroeconomics and Monetary Economics” seems to be related with the increase of the research in Microeconomics. Indeed, in the absence of “ (...) any new, unifying theory that would garner attention and excitement and spark new lines of research” (Kosnik, 2015, p. 18), researchers are shifting their attention to the Microeconomic foundations of Macroeconomy. Hence, what is happening is not a decrease in the attention to Macroeconomics, but a shift of that attention to a more microeconomic based approach.

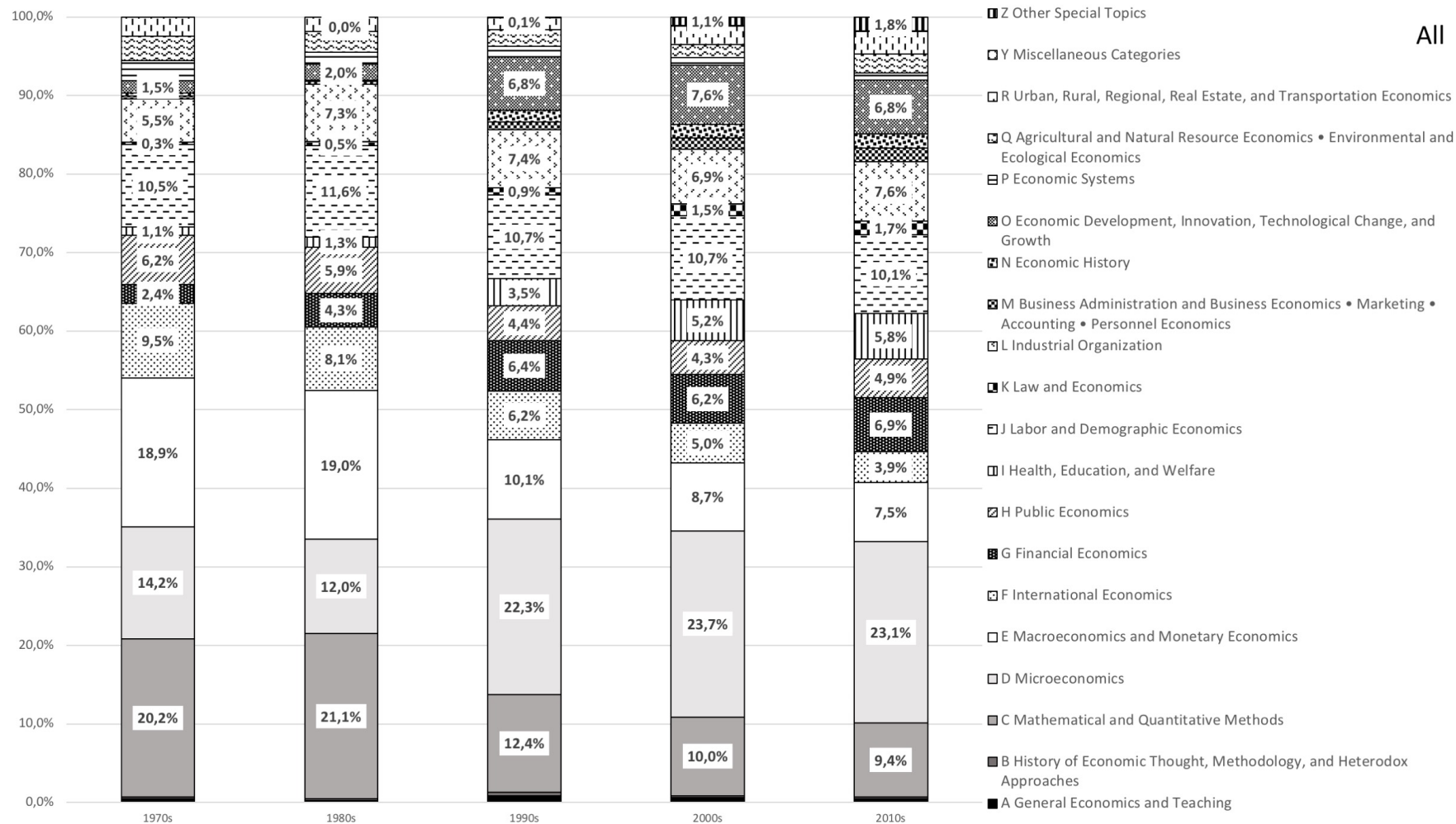


Figure 3: Evolution of the distribution of the number of articles, 1970-2018, 'Ribbon Eight' journals

Source: Own elaboration, based on 27322 articles

Figures 4 to 11 detail the evolution of the frequency of the JEL codes for each ‘Ribbon Eight’ journal. Even though there are visible differences between the eight journals, some trends can be identified in all of them. The evolution of “Macroeconomics and Monetary Economics” and “Microeconomics” is common to all the journals, with the former representing currently 5 to 10% of the total publications in each, and the latter always representing more than 20% (and roughly 40% in ECON and JET). “Financial Economics” (G) has registered an increase in attention, particularly in the most recent decades. This may be explained by the higher interest in the field after the economic and financial crises, since the lack of research in the field might be one of the reasons why experts failed to predict the crises in 2007 (Kosnik, 2015). “Mathematical and Quantitative Methods” (C) was the field which, accompanying “Macroeconomics and Monetary Economics”, lost relative importance in all the journals.

Even though all the considered journals can be classified as general, we can still find some level of specialization in some of them. Despite it being possible to find articles on any of the 20 subjects in any of the journals, *Econometrica* (ECON), *Journal of Economic Theory* (JET), *International Economic Review* (IER), and *Review of Economic Studies* (RES) clearly are focused on three main fields – “Mathematical and Quantitative Methods” (C), “Microeconomics” (D), and “Macroeconomics and Monetary Economics” (E) – which often represent nearly 50% of all the articles they publish. *American Economic Review* (AER), *Journal of Political Economy* (JPE), *Quarterly Journal of Economics* (QJE), and *Review of Economics and Statistics* (REStat) are evidently more diversified – even if some fields have a higher importance, their prevalence is not so pronounced.

In the second group of (more general) journals, attention to “Health, Education, and Welfare” (I) and “Economic Development, Innovation, Technological Change, and Growth” (O) increased considerably, jumping, respectively, from a weight of 1-2% and 1-3% in the 1970’s to 6-8% and 7-11% in the 2010’s. “International Economics” (F), that was one of the most important fields in this group of journals in the beginning of the period, lost a significant amount of relative attention over time. It is interesting to note that, against expectation, this evolution also applies to *International Economic Review* (IER), in which, currently, only 6.4% of the articles are related with the subject “International Economics”.

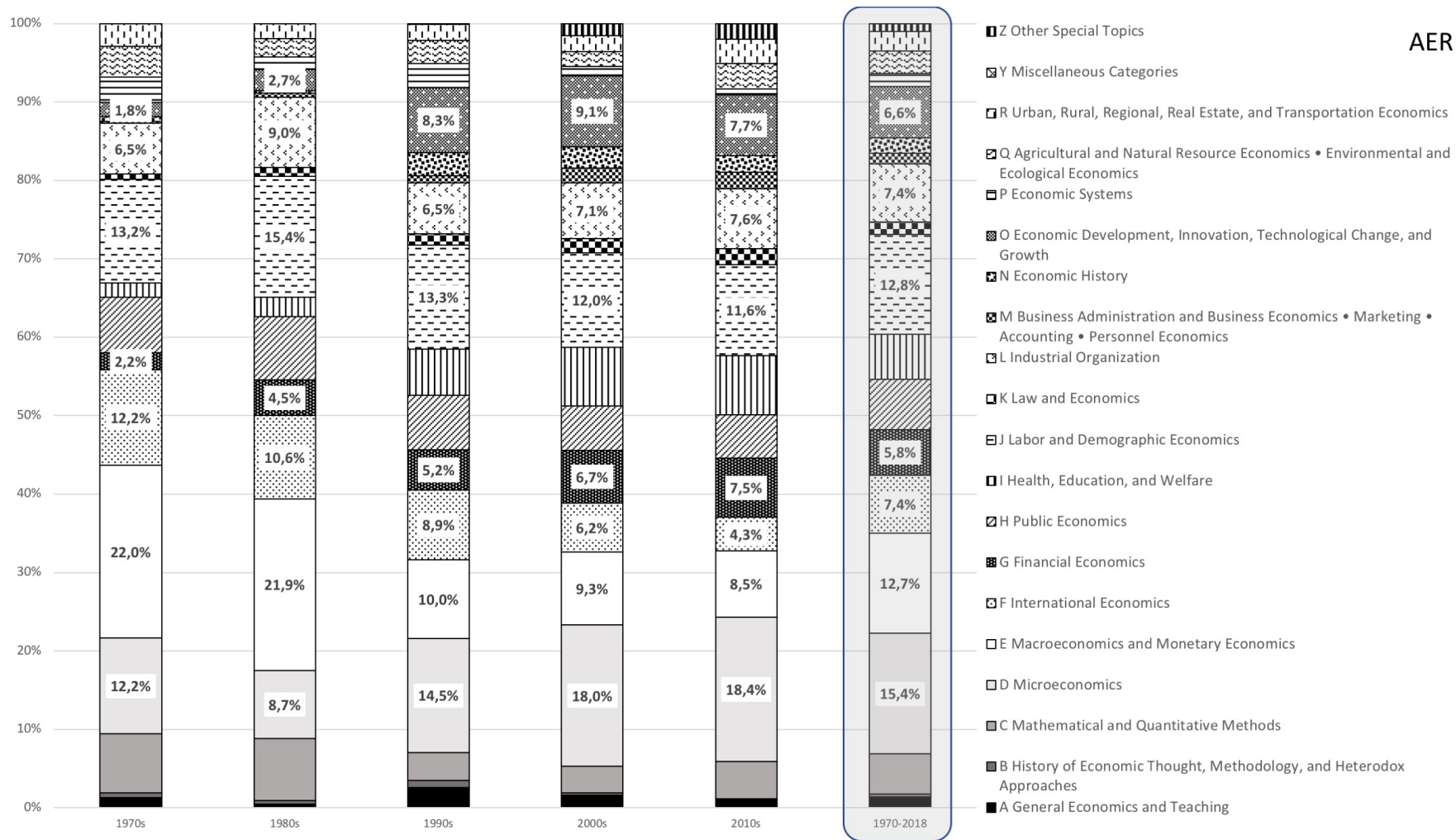


Figure 4: Evolution of the distribution of the number of articles, 1970-2018, AER

Source: Own elaboration, based on 7942 articles

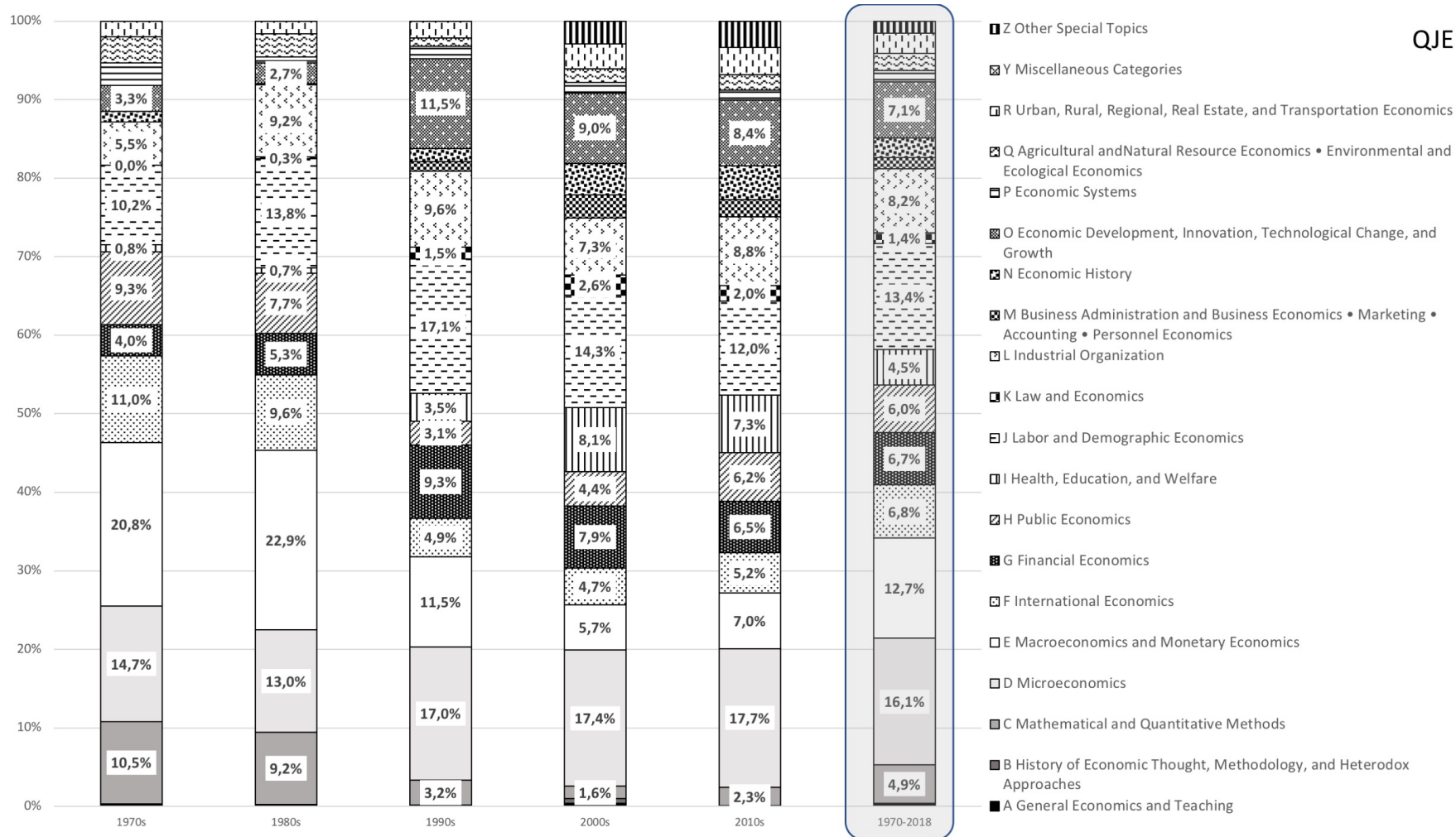


Figure 5: Evolution of the distribution of the number of articles, 1970-2018, QJE

Source: Own elaboration, based on 2032 articles

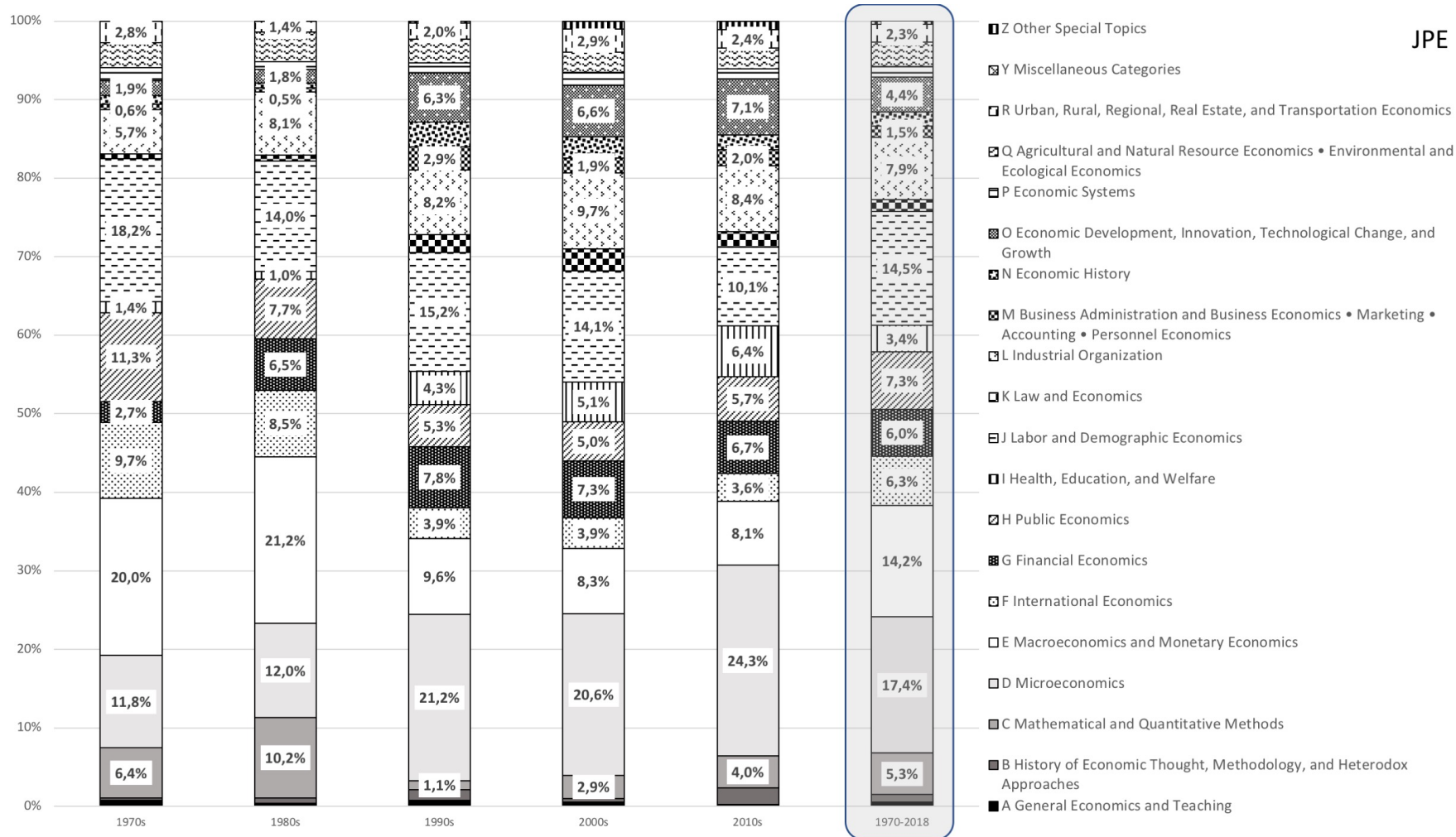


Figure 6: Evolution of the distribution of the number of articles, 1970-2018, JPE

Source: Own elaboration, based on 2575 articles

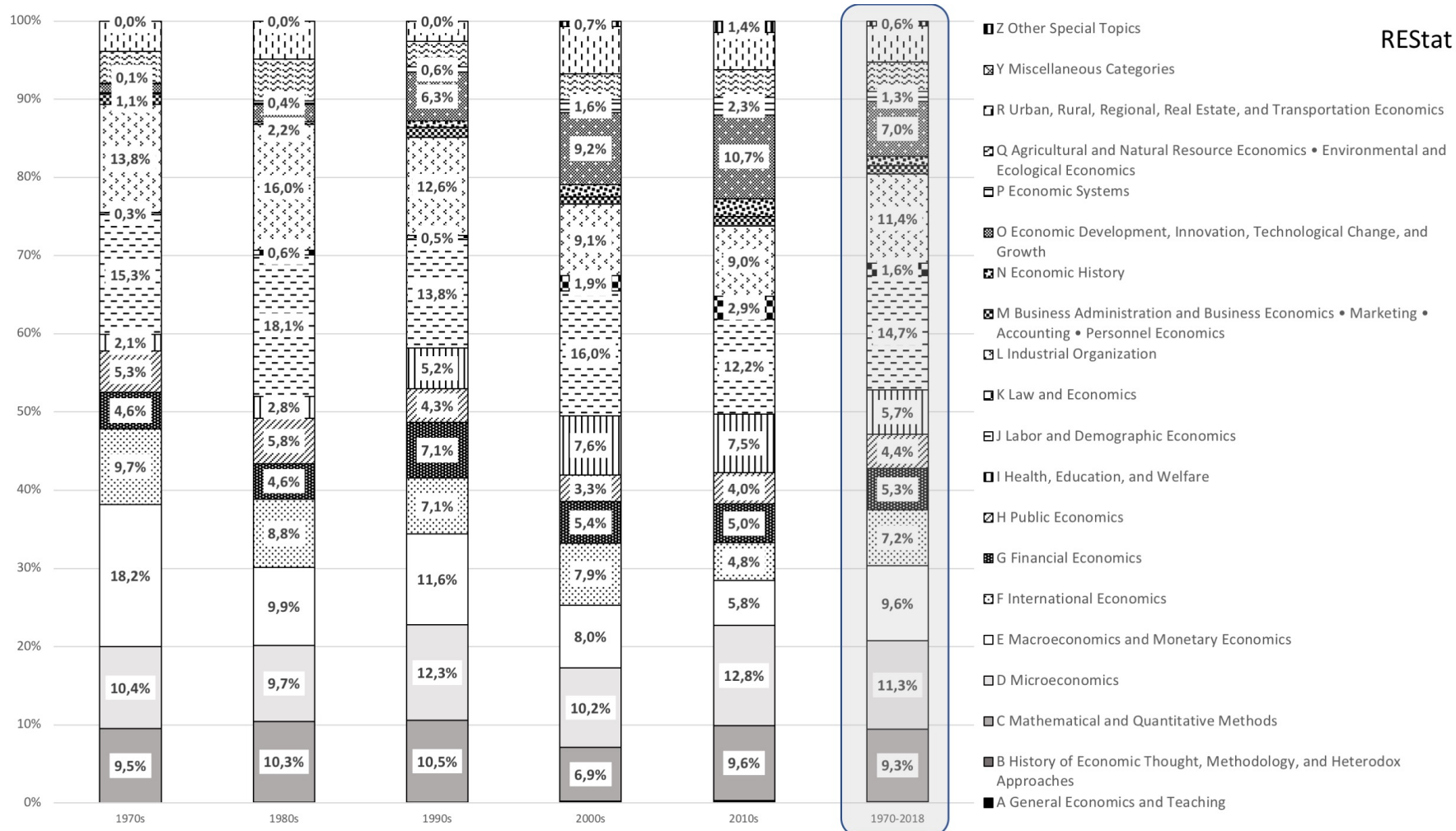


Figure 7: Evolution of the distribution of the number of articles, 1970-2018, REStat

Source: Own elaboration, based on 3086 articles

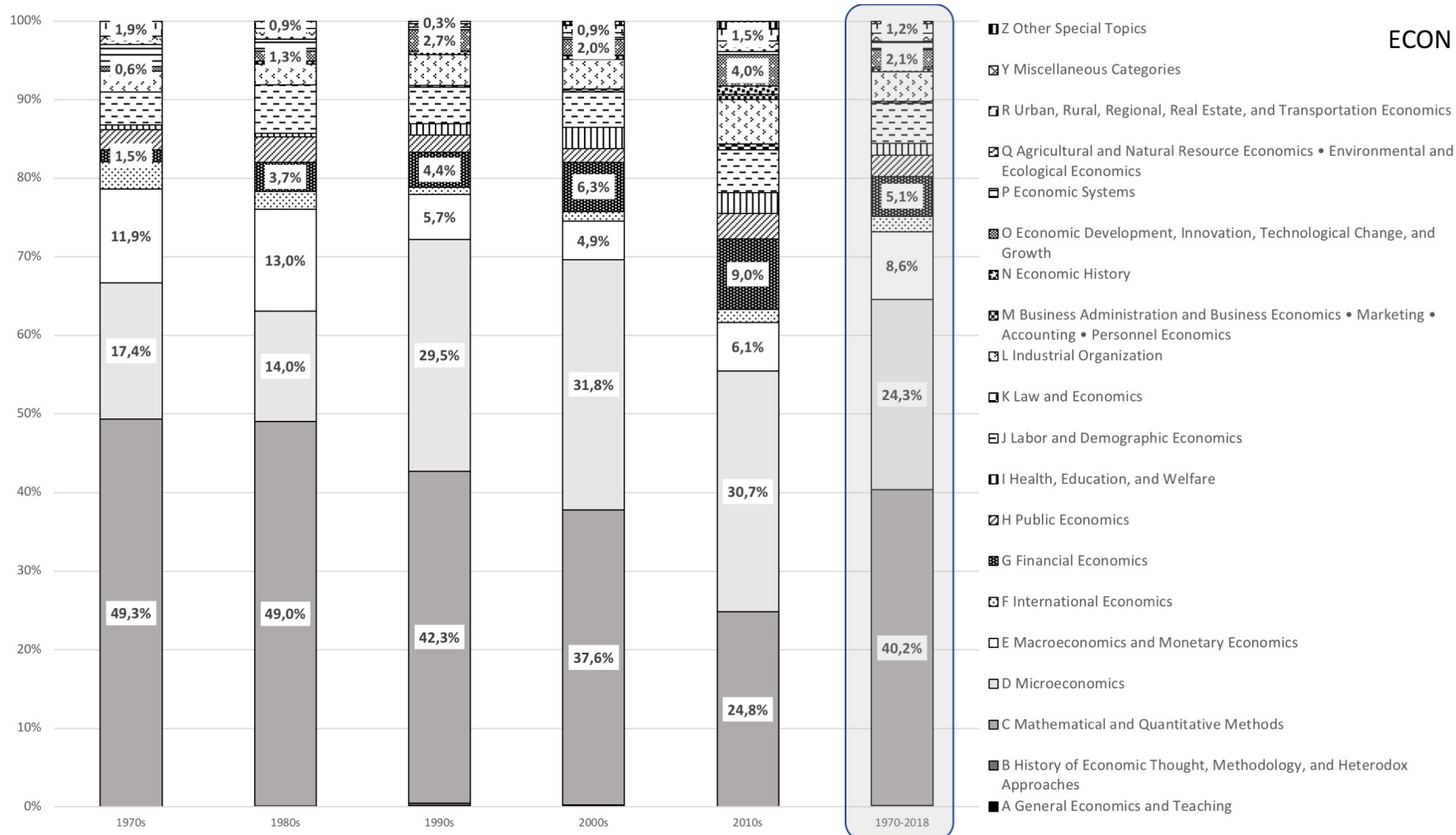


Figure 8: Evolution of the distribution of the number of articles, 1970-2018, ECON

Source: Own elaboration, based on 3068 articles

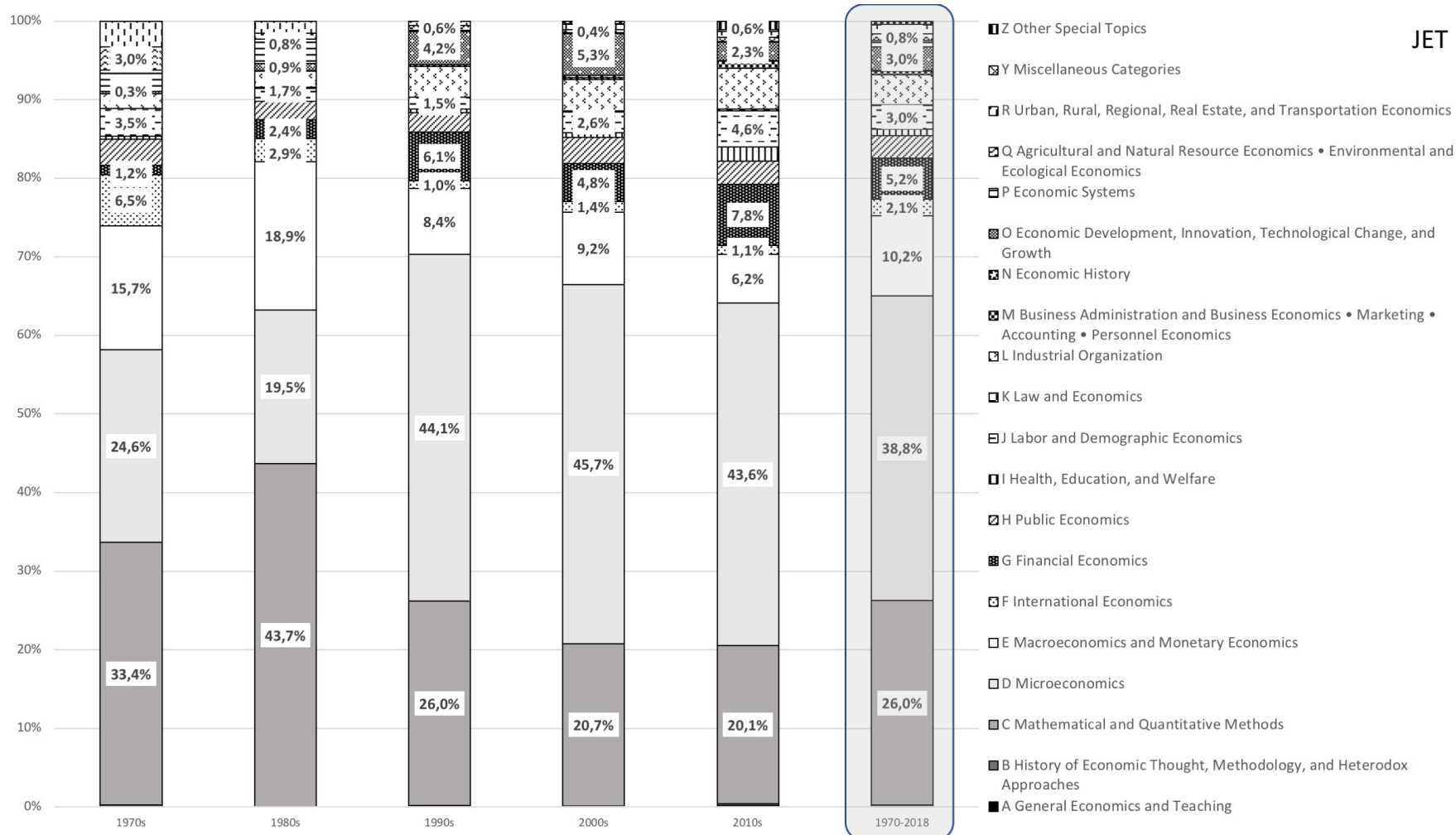


Figure 9: Evolution of the distribution of the number of articles, 1970-2018, JET

Source: Own elaboration, based on 3815 articles

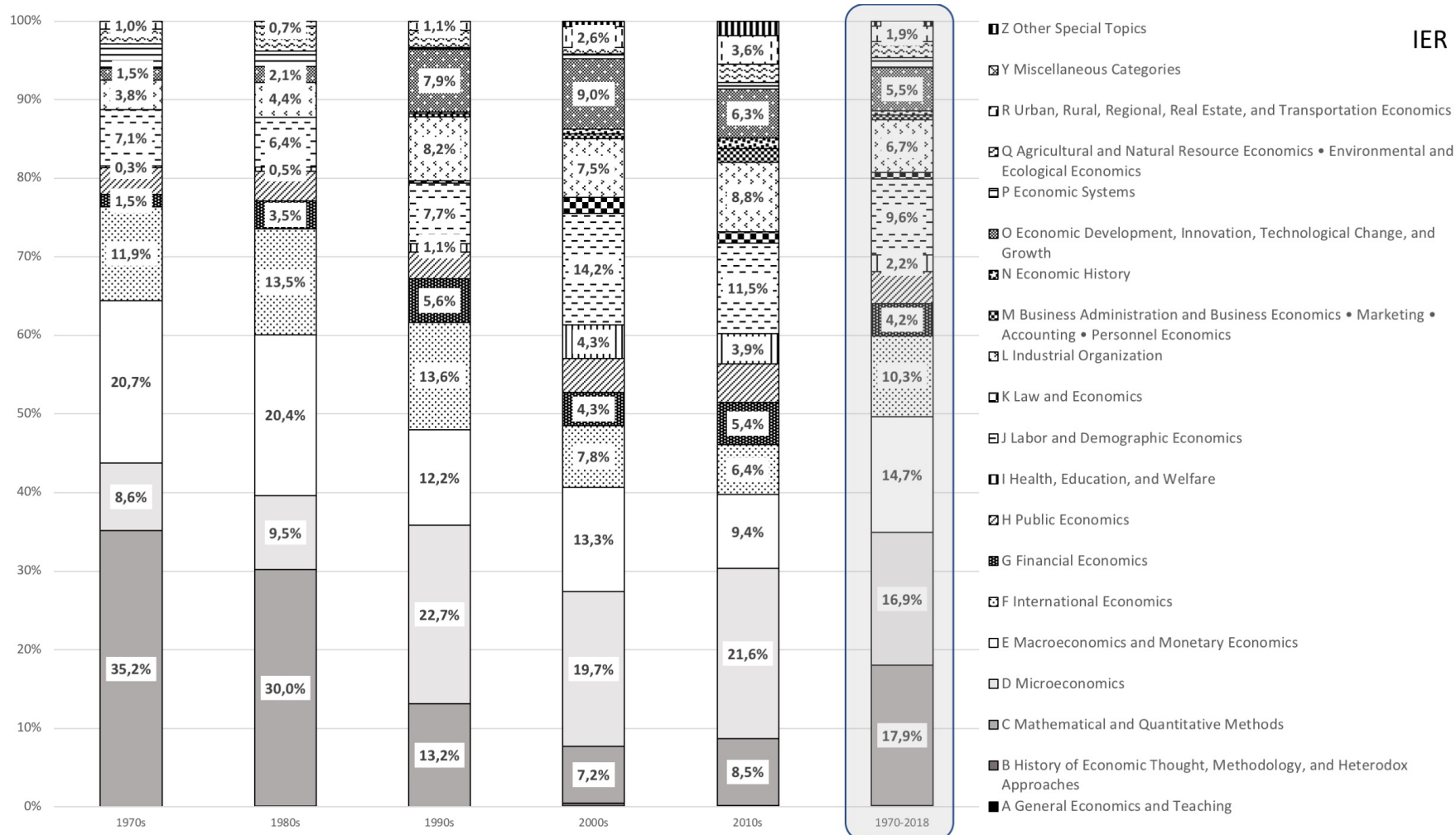


Figure 10: Evolution of the distribution of the number of articles, 1970-2018, IER

Source: Own elaboration, based on 2574 articles

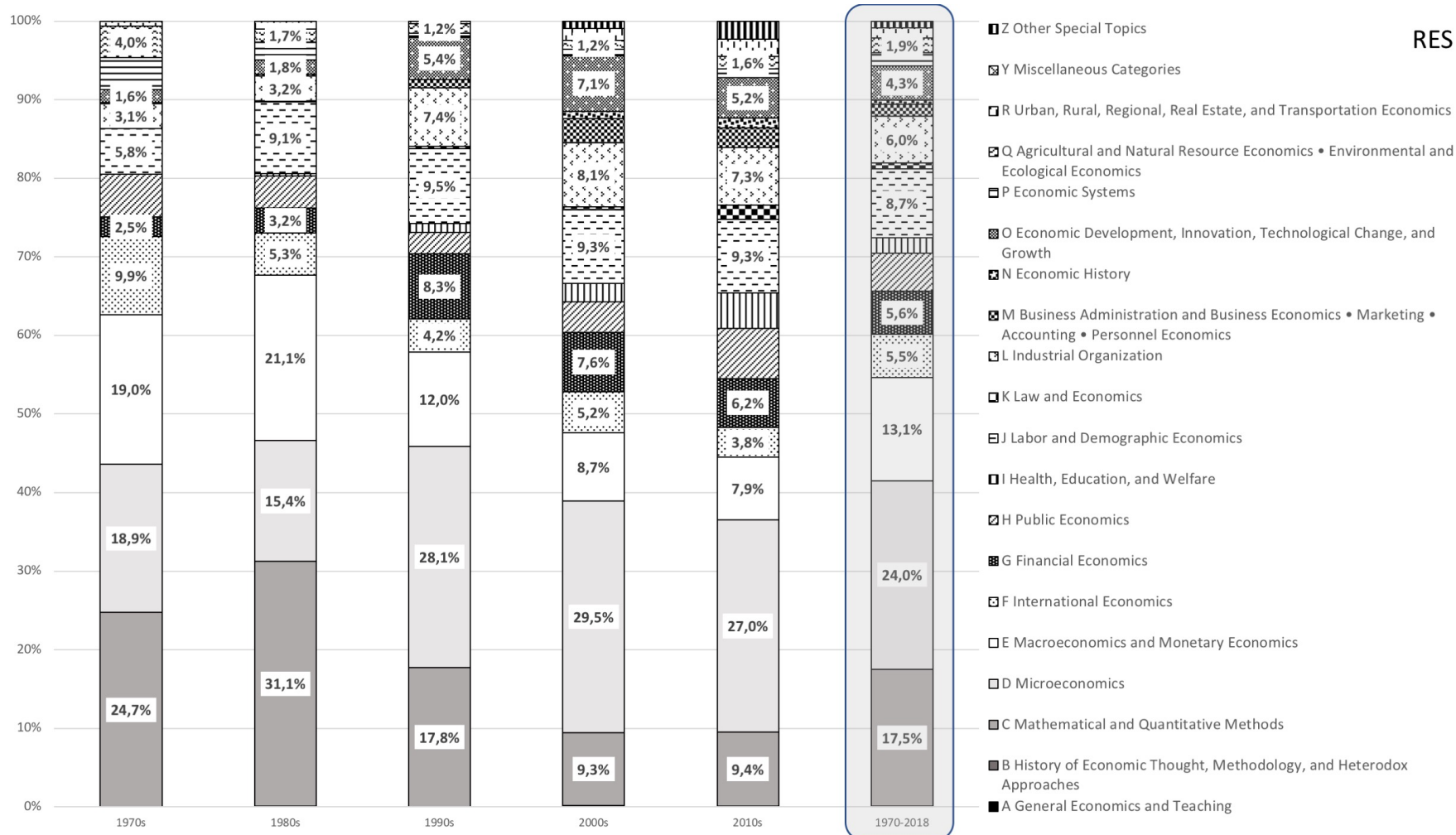


Figure 11: Evolution of the distribution of the number of articles, 1970-2018, RES

Source: Own elaboration, based on 2230 articles

4.3. Relationship between the JEL codes and poverty

In the currently used list of the JEL classification system, poverty is explicitly referred in two main topics: “Health, Education and Welfare” (I); and “Economic Systems” (P). The JEL code “I” is divided in three subtopics, the last of which (“I3”), includes studies related with “Welfare, Well-being, and Poverty”. “I3” is also divided in five more subtopics, the second of them (“I32”) concerning the “Measurement and Analysis of Poverty”. The code “P” is composed of five subtopics: “Socialist Institutions and Their Transitions” (P3) and “Other Economic Systems” (P4) both contain a subtopic (respectively “P36” and “P46”) titled “Consumer Economics • Health • Education and Training • Welfare, Income, Wealth, and Poverty”.

According to the JEL classification system, these are the codes in which the articles concerning poverty related issues should be placed. To analyse if this expectation is confirmed, we compiled the JEL codes that were used in each of the articles listed in the database as related to poverty (the compilation of this list of 308 articles is further explained in the next section).

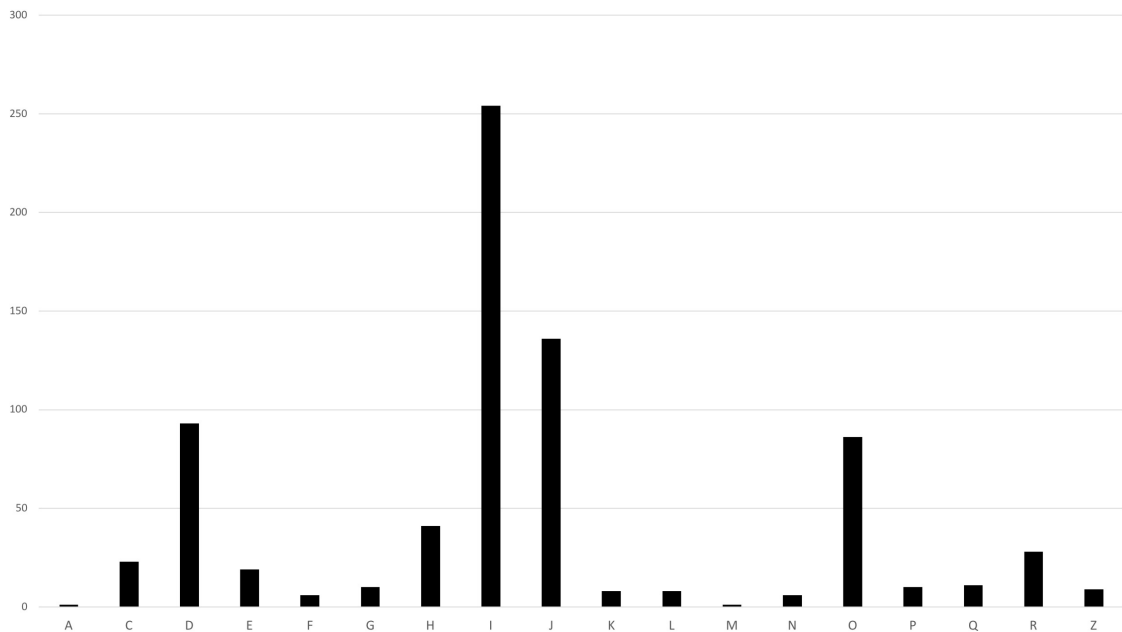


Figure 12: Number of times that each JEL code appears in the articles identified under the topic “poverty”, 1970-2018, 'Ribbon Eight' journals

Source: Own elaboration, based on 308 articles

As the majority of the articles is classified with more than one JEL code, Figure 12 shows the total number of times that each code appears in total. In fact, the code “I” appears in more than 250 of the 308 articles on the list. This is as expected, since “I” is the main topic that deals with poverty and other matters that are closely related with it, such as well-being or inequality. It also deals with two important dimensions of poverty: health and education. However, the code “P” is only used in 10 articles on the list. For those that were published after 1990, it is possible to see the subtopics they are inserted in (for the ones published before that date we can only make a correspondence to the main topic, *i.e.*, to the letter – see Section 3). As 9 out of these 10 articles were published after 2000, it is possible to see that almost all of them are classified under the subtopic “P36”.

Surprisingly, the topic “P” is actually among the less frequently used ones in poverty related articles. Other codes, such as “Labor and Demographic Economics” (J); “Economic Development, Innovation, Technological Change, and Growth” (O); or “Microeconomics” (D), have a much higher representation. “Public Economics” (H) and “Urban, Rural, Regional, Real Estate, and Transportation Economics” (R) can also be highlighted.

As each topic can comprise a high number of subtopics, a closer look on each of them should help us understand its relationships with poverty. About 66% (see Figure 13) of the articles in the list² identified with the code “Labor and Demographic Economics” (J) are under the subtopic “Demographic Economies” (J1). “J1” is divided into 10 subtopics and deals with issues such as “Family Structure” (J12), “Fertility” (J13) or “Economics of Minorities, Races, Indigenous Peoples, and Immigrants” (J15). These are, indeed, issues closely related with poverty, particularly with its dimensions (see Section 2.4.). In fact, most of the articles classified with this code coincide with the fourth (“Types and dimensions of poverty”) and seventh (“Policy related issues regarding poverty”) topics of the classification proposed in Section 2, as most of these articles focus on explaining how poverty can impact, for example, fertility or immigration, or on proposing ways of mitigating these effects. The subtopic “Demand and Supply of Labor” (J2) also has a relatively high representation, with 16% of the papers on the topic “J”. This one, although also being related with the “Policy related issues regarding poverty” topic, is more closely related with the topics of growth and

² Only the articles published after 1990, *i.e.*, under the currently used JEL code classification system, are used in this analysis, as the correspondence system explained in Section 3 only allows to identify the current topic (letter) to which the pre-1990 classification corresponds, and not the subtopics (numbers).

development and, on a more micro level, with the intergenerational mobility of poverty.

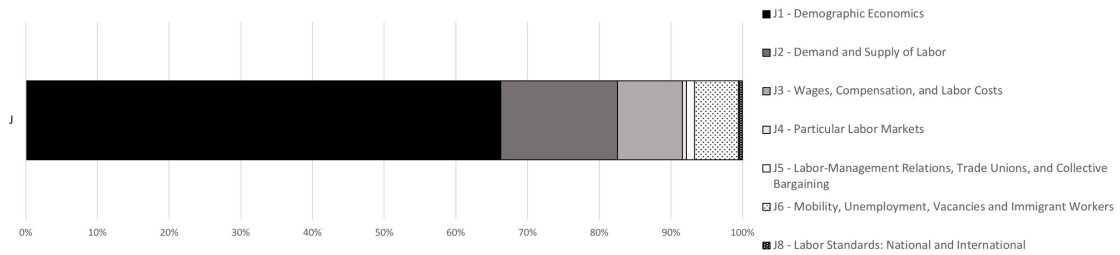


Figure 13: Distribution of poverty related articles classified under the JEL code "J - Demographic Economics and Labor", 1990-2018, 'Ribbon Eight' journals

Source: Own elaboration, based on 93 articles

This general analysis is valid for all the journals: in all of them the distribution amongst subtopics is similar. The only exception is the *Journal of Economic Theory* (JET), which did not publish any article on poverty with the JEL code "J".

In the code "Economic Development, Innovation, Technological Change, and Growth" (O) the prevalence of one of the subtopics in the list of poverty related articles is even more evident. In this case, 88% of the articles that present the code "O" are inserted in its first subtopic: "Economic Development" (O1) (see Figure 14). This subtopic is not only related with the topic "Poverty and inequality and long-run growth/development" of the proposed classification, but also with the topic "Types and dimensions of poverty", as it includes the roles of certain dimensions for development, such as "Agriculture, Natural Resources, Energy and Environment" (O13), "Human Resources" (O15) or "Financial Markets" (O16).

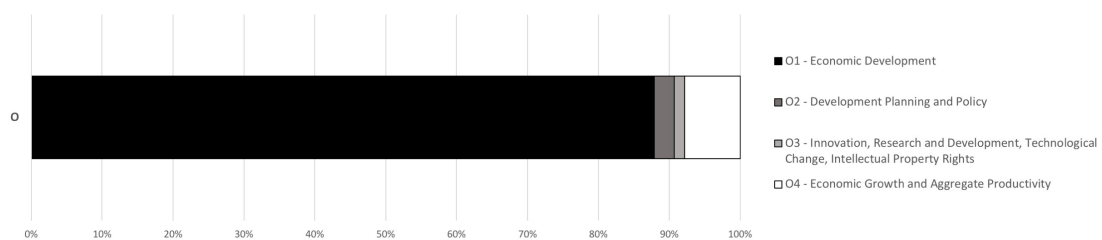


Figure 14: Distribution of poverty related articles classified under the JEL code "O – Economic Development, Innovation, Technological Change, and Growth", 1990-2018, 'Ribbon Eight' journals

Source: Own elaboration, based on 86 articles

Once again, the distribution is similar in all eight journals (all of them present articles on

poverty with the code “O1”), with the exception of JET. The majority of articles published in the *Journal of Economic Theory* under the topic “O” fall on the subtopic “Economic Growth and Aggregate Productivity” (O4). Indeed, about half of the articles with the code “O4” were published by JET and all of them focus on the relationship between poverty and “Growth Models” (O41).

“Microeconomics” (D) is a much broader topic than the above referred ones, which makes it even more important to analyse to which subtopics are the articles on poverty related to (see Figure 15). A good percentage (37%) are connected with “Household Behaviour and Family Economics” (D1). Here, we find studies on the micro characteristics of the poor families, based on the perspectives of “Consumer Economics” (D11 and D12), “Household Savings” (D14) or the “Intertemporal Household Choices” (D15). These articles should be connected with the proposed topic “Trends and dynamics of poverty”. 28% are identified with “Distribution” (D3), particularly with the subtopic “Personal Income, Wealth, and Their Distributions” (D31). Even though the approach on these articles is of a microeconomic nature, they deal with the problem of inequality and so, in the proposed classification, belong to “Poverty and inequality and long-run growth/development”. Also connected with this proposed topic are the articles classified with the subtopic “Welfare Economics” (D6), since most of them deal with “Equity, Justice, Inequality, and Other Normative Criteria and Measurement” (D63).

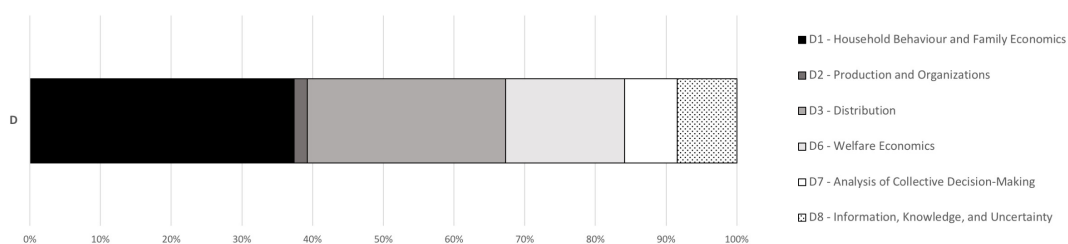


Figure 15: Distribution of poverty related articles classified under the JEL code “D – Microeconomics”, 1990-2008, ‘Ribbon Eight’ journals

Source: Own elaboration, based on 93 articles

JET is, again, the journal that should be highlighted, since it is the one which presents a higher diversity, with articles not only on the already mentioned subtopics but also on the relationship of poverty with collective decision making (“Political Processes” (D72)) or information (“Asymmetric and Private Information” (D82)).

Looking to the codes that present a lower frequency of use in the list of poverty related articles, it is also possible to see the prevalence of certain subtopics. Articles with the code “Public Economics” (H), which are closely related to the “Policy related issues regarding poverty” topic of the proposed classification, mostly present the subtopics “National Government Expenditures and Related Policies” (H5) or “State and Local Government: Health, Education, Welfare, Public Pensions” (H75). Under the topic “Urban, Rural, Regional, Real Estate and Transportation Economics” (R) two subtopics prevail: “Household Analysis: Regional Migration, Regional Labor Markets, Population, Neighbourhood Characteristics” (R23) (related with “Types and Dimensions of Poverty”) and “Real Estate Markets, Space Production Analysis, and Firm Location: Government Policy” (R38) (related with “Policy related issues regarding poverty”). Most of the articles with the code “Financial Economics” (G) are focused in either “Micro Finance Institutions” (G21) or “Insurance” (G22). In the topic “Industrial Organization” (I) the focus is mainly on the relationship of poverty and “Entrepreneurship” (I26). In “Financial Economics” (F) there is not a predominant subtopic, but we can find studies for example on “Foreign Aid” (F35) or “Trade” (F1).

4.4. Evolution of the scientific attention to poverty

In order to analyse the evolution of subtopics within poverty related issues, we selected among all the articles included in the database, those whose title, abstract or keywords included the terms “poverty” or “poor”. Furthermore, we considered all the items that, even though not identified by this search, were enumerated in WoS under the topic of poverty. As a result, a list of 458 articles was obtained. In order to guarantee that all these articles dealt with poverty related issues, all of them were read and analysed individually. Such procedure yielded the exclusion of 150 articles³. The relevant final list for further analysis is thus composed of 308 articles out of the 27322 in the database, *i.e.*, 1.1% of the total articles.

Table 2 shows the evolution of the percentage of the articles about poverty in each of the eight journals. Overall, despite the evolution not being linear, two main trends can be

³Amongst these articles, many were about inequality or income distribution. Others concerned the effectiveness of general welfare reforms. A great number of them dealt with issues, such as fertility or migrations, which are often correlated with poverty. However, as they only briefly referred poverty and its scope was not poverty itself, they were excluded from the final list.

identified: an increasing number of journals is devoting attention to the topic; and the percentage of poverty related articles in each journal is undoubtedly higher in more recent years than in the beginning of the considered period.

Table 2: Evolution of the percentage of articles on poverty in the ‘Blue Ribbon’

	1970s	1980s	1990s	2000s	2010s	Total
More general journals						
Quarterly Journal of Economics (QJE)	0.61%	0.56%	1.18%	3.13%	3.55%	1.77%
American Economic Review (AER)	0.81%	1.18%	2.46%	1.78%	2.37%	1.76%
Review of Economics and Statistics (REStat)	1.00%	0.35%	1.29%	2.60%	2.25%	1.62%
Journal of Political Economy (JPE)	0.00%	0.00%	0.48%	0.55%	0.73%	0.93%
More specialised journals						
International Economic Review (IER)	0.00%	0.60%	0.40%	2.00%	2.07%	0.97%
Econometrica (ECON)	0.50%	0.60%	0.96%	0.56%	1.24%	0.75%
Review of Economic Studies (RES)	0.00%	0.00%	0.34%	0.75%	1.25%	0.45%
Journal of Economic Theory (JET)	0.00%	0.00%	0.48%	0.55%	0.73%	0.42%
All ‘Blue Ribbon’	0.36%	0.41%	1.12%	1.64%	1.92%	1.1%
Number of articles	21	25	72	90	100	308

When it comes to the individual relative attention that each journal has been devoting to the topic, three main situations can be identified: some journals devote around 1.6-1.7% of its articles to poverty related issues; others around 1%; and the rest less than 1%.

Quarterly Journal of Economics (QJE), *American Economic Review* (AER) and *Review of Economics and Statistics* (REStat) form the group of journals, among the ‘Ribbon Eight’, with the higher percentage of articles on the topic (respectively 1.77%, 1.76% and 1.62% of their total publications). This is an expected result, since these three journals are the most general ones in scope. These are, indeed, the only journals (with the exception of *Econometrica* – ECON) which published poverty related articles in the 1970’s. The *International Economic Review* (IER) joined them in the 1980’s and the four other journals only published poverty related studies after 1989.

The attention devoted to poverty by this group is not, however, linear over the whole period. In some years, particularly until 1990, there are no articles on the subject. Nonetheless, in the last two decades the attention has been undoubtedly rising, especially in AER and QJE. In 1994, AER published a special issue on “Well-being and poverty”, which meant that 20 articles, or 12.3% of all the articles published in that year, were about the topic.

A second group of journals is formed by IER and JPE, for which about 1% (0.97% and 0.93%, respectively) of their total publications is about poverty. While the *International Economic Review* (IER) started to take interest in the topic in the 80's, the *Journal of Political Economy* (JPE) only published its first article about poverty in 1991. IER has, indeed, been more constant in its publication patterns, presenting articles on the topic in most of the recent years. Despite being a more specialised journal, IER presents a relatively high percentage of articles on poverty, which puts it closer to the percentages displayed by the more general journals than the ones displayed by the other more specialised journals. This might be explained by the interest that poverty related matters have attracted in the international economics field, particularly in the recent years of financial and economic crisis. However, even if more unstable, the interest does not seem to be dying for JPE, which, in 2018, devoted 5% of its articles to the topic, the second highest percentage in all the considered period.

Econometrica (ECON), the *Review of Economic Studies* (RES) and the *Journal of Economic Theory* (JET) present the lowest percentages of all the journals (0.75%, 0.45% and 0.43%, respectively). Again, this result is not unexpected, since these are the most technical journals of the eight, and thus are likely to publish only a small fraction of the articles that can be focused on poverty – namely related to the technical aspects of the subject, such as measurement. All three journals present an unstable evolution, with no articles on the matter in most years, but, similarly to the other two groups, higher percentages can be discerned in recent years.

This undeniable growth of the scientific attention devoted to poverty that we find when looking at the ‘Blue Ribbon’ journals in economics, mirrors the findings of other authors. In 2011, Martin Ravallion used a new tool to study the incidence of the word “poverty” among all the books present in the *Google Books* database.⁴ Although the scope of this study was

⁴ The tool is called “Google Books N-Gram Viewer” (<https://books.google.com/ngrams>).

general literature (and not, as in our case, scientific indexed publications in economics, most notably the 'Ribbon Eight' journals), it showed that since the 1960's until 2000 the incidence of the word doubled, which led the author to use the expression "Poverty Enlightenment". Some explanations for this change are presented by the author: as the world gets wealthier it becomes "harder to excuse poverty"; "expanding democracy" has given "new political voices to poor people"; and studying poverty makes it easier to understand how to fight it (Ravallion, 2011, p. 40). Kakwani and Son (2018) also attribute this increase in research to the interest in the "debate on how to achieve a rapid reduction in global poverty" (p. xiv), especially due to the influence of international institutions, such as the World Bank, that have been raising awareness for the issues of poverty and inequality in the last decades. Indeed, according to these authors, the policy reducing policies seem to be the growing challenge to poverty researchers.

4.5. Evolution of the topics within the poverty field

Taking a closer look on the topics within the poverty spectrum in which each article can be included, some interesting trends can be identified.

As Figure 16 shows, the relative importance of each topic has changed over the decades. "Measurement of poverty", the topic that attracted the most attention (28.6%) amongst the seven in the 1970's, currently occupies the third position, having lost almost 20 percentage points in total. Similarly, "Definition and theories of poverty", which comprised a significant part of the articles in the beginning of the period (9.5%), has had, in the most recent decades, a very low relevance, with many years passing without a single article on the topic being published. This may be explained by the fact that, as described in Section 2.2, all of the last five topics depend on the first two, *i.e.*, it is not possible to discuss the trends or types of poverty, the relationship of poverty with other variables, or even policy issues relating poverty without first defining what we mean by the term "poverty" and how can we measure it. Hence, the seminal works on the field were inevitably focused on the first two topics and, as the science field developed, the scope of the research extended, relegating these two topics to a secondary position in terms of relative attention.

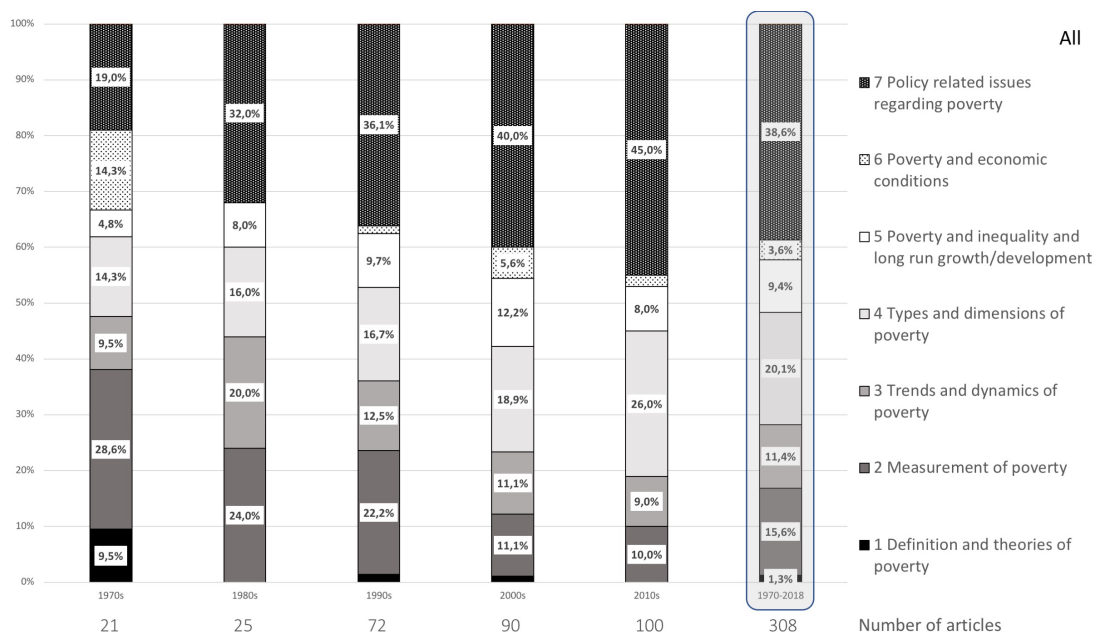


Figure 16: Evolution of the distribution of the articles in topics, 1970-2018, ‘Ribbon Eight’ journals

Source: Own elaboration, based on 308 articles

Over the years, as the first two topics lost relative attention, other topics gained it. “Policy related issues regarding poverty” presented, as is visible in Figure 16, the most significant evolution. Nowadays, 45% of all the articles published are included in this topic, almost the same as all the other six topics combined. With such a high representation of the topic, it is to be expected that there are a great variety of articles within it, which approach policy related issues from different perspectives. Most of these articles consist in empirical studies of the effects or results of a certain policy or programme that was already implemented. Within this studies we can find those whose scope are the poor in general (Darity & Myers, 1987), and those which focus on a particular segment of the poor population, such as children or the rural population, and that are closely related with the topic “Types and dimensions of poverty” (Jacob, Kapustin, & Ludwig, 2014; Pitt, Khandker, Chowdhury, & Millimet, 2003). Amongst the latter, most of the studies are indeed focused on the impacts on the younger population (Clark-Kauffman, Duncan, & Morris, 2003; Jackson, Johnson, & Persico, 2015), but we can also identify others that focus on programmes for the older (Braun, Kopecky, & Koreshkova, 2016), for the working poor (Levy & Michel, 1986), or for other more intangible dimensions such as health (Currie & Gruber, 1996), nutrition (R.T. Jensen & Miller, 2011) or consumption (Angelucci & De Giorgi, 2009). Other articles that also use this approach are closer to the topic “Trends and dynamics of poverty”, as they study the effects of certain programmes on the intergenerational transmission of poverty (Pepper, 2000). Other articles

included in this topic take not an empirical but a theoretical approach, discussing the types of policies that have been used to fight poverty worldwide (Squire, 1993) or the rationale for a certain type of policy (Feldstein, 2005; Lampman, 1970).

“Types and dimensions of poverty” also had a positive evolution and is currently the second most relatively important topic (representing 26% of all articles). This is an expected result since, as described in Section 2.2.4., given the evolution of the poverty concept, there has been a growing interest in studying the various dimensions in which poverty can affect a person’s life, and an increasing number of dimensions are being studied. Articles on this topic typically address one of three issues: the relationship of poverty with child development (Black, Devereux, Løken, & Salvanes, 2014; Dunbar, Lewbel, & Pendakur, 2013); with health (Case & Deaton, 2005); and with migrations (Angelucci, 2015; Beegle, De Weerdt, & Dercon, 2011). However, a great number of articles are starting to focus on less studied relationships. Such is the case of more subject concepts (as discussed in Section 2.2.4), such as vulnerability (Morduch, 1994) or the perceptions of the poor about their own situation (Schilbach, Schofield, & Mullainathan, 2016). The connection of poverty to crime is also worthy of note, since a considerable number of articles have been published on the matter in the ‘Ribbon Eight’ journals (Huang, Laing, & Wang, 2004; Ludwig, Duncan, & Hirschfield, 2001). Indeed, this is a topic in constant change, since researchers are always coming up with new subjects that can be linked with poverty. This is visible in our database, where we can find a few studies on the relationship of poverty with topics as varied as witch persecution (Miguel, 2005), the influence of the Islamic religion (Chen, 2010; Meyersson, 2014), or the problem of “missing women”⁵ (Anderson & Ray, 2010; Qian, 2008).

“Trends and dynamics of poverty” had a more regular behaviour over the period. This is not unexpected, since researchers often measure the poverty indexes in order to keep track of its evolution. As described in Section 2.2.3, in this topic we find articles that study the state or evolution of poverty in a certain period (Ravallion & Jalan, 1999; Sala-i-Martin, 2006), that establish comparisons among areas (Blackburn, 1994), or that study the mobility of poverty across generations (Antel, 1992; Solon, 1992). Most of the articles identified in this topic can be placed among the latter of the three possibilities.

⁵ The term “missing women” was coined by Amartya Sen (1990) and refers to the fact that in some less developed countries the number of women is lower than should be expected, and way below the number of men.

“Poverty and inequality and long run growth/development” presented a stable progression. Furthermore, there seems to exist an even distribution among the three subjects included in this topic (inequality, growth and development), as to each corresponds about a third of the total articles. As expected (see Section 2.2.5), the articles concerning development are mainly focused on poverty traps (Banerjee & Newman, 1994; Le Van, Schubert, & Nguyen, 2010). As for economic growth, the main concerns of the researchers are understanding how poverty affects growth and vice-versa (Foster & Székely, 2008) and the development of an optimal model of growth (Albin, 1970; Askenazy & Le Van, 1999). Finally, we can also find in the database articles on the relationship between poverty and inequality (Birdsall & Londoño, 1997).

The strangest behaviour, at first sight, can be observed in the topic “Poverty and economic conditions”, which represented 14.3% of the total in the 1970’s reaching significantly lower percentages in all the subsequent decades. However, we should keep in mind that the number of articles published in the first decade is low relatively to other decades. Indeed, as only 21 articles were published in the 1970’s, these 14,3% correspond to 3 articles on the topic. A higher number (5) were published in the 2000’s, but as there were 90 articles on poverty that decade, those 5 only correspond to 5,6%, a lower percentage even though the number of articles on the topic was higher. It is important to note that there is not a single article on this topic in three of the journals – *International Economic Review*, *Review of Economic Studies* and *Journal of Economic Theory*. Among the articles published in the other five journals of the ‘Ribbon Eight’, most are about the importance of wages and employment (Lagakos, Moll, Porzio, Qian, & Schoellman, 2018; Wachtel & Betsey, 1972), but there also some on trade (Bhagwati & Srinivasan, 2002) and macroeconomic stability (Coulibaly & Logan, 2009).

Turning to the attention devoted to the topics by each journal, we can distinguish a variety of situations (see Figures 17 to 24). Recalling to the distinction between more general (QJE, AER, REStat, JPE) and more specialised journals (IER, ECON, RES, JET) used in other sections, we can affirm that, as expected, the more general journals present a more diversified spectrum of topics, while the more specialized ones give more attention to certain topics.

The *American Economic Review* (AER) is the journal which presents the closest evolution to that of the ‘Ribbon Eight’ journals as a whole, explored above. In fact, as this is the journal that publishes the higher number of articles, it is normal that it is also the journal that presents the most diversity, publishing, in each decade, articles on at least four different topics

(Figure 17). The main trends identified for the ‘Ribbon Eight’ are present in this journal: a decline in “Definition and theories of poverty” and “Measurement of poverty” topics, while “Policy related issues regarding poverty” and “Types and dimensions of poverty” observe the highest increases. As AER publishes a big number of articles, it offers a good diversity of articles within each topic. This is true not only for topics with a high representation, such as “Policy related issues regarding poverty” (within the 64 articles there are empirical and theoretical ones, some focused on the general population and others on particular segments), but also for topics with lower relative importance (even though there are only 4 articles about “Poverty and economic conditions” there is diversity – two are on macroeconomic stability, one on trade and another on employment).

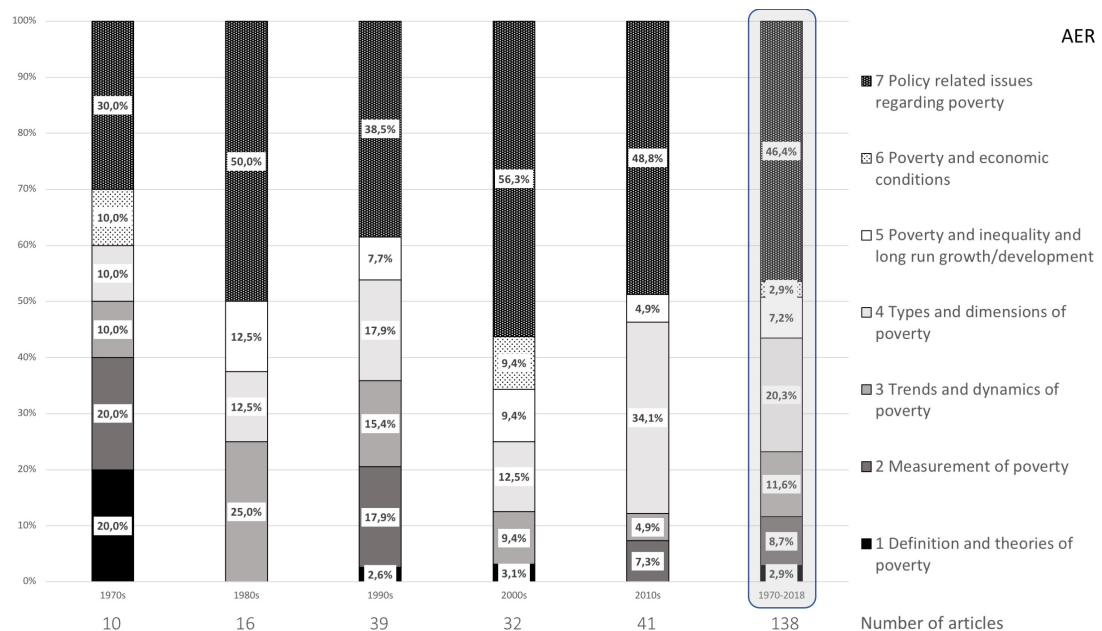


Figure 17: Evolution of the distribution of the articles in topics, 1970-2018, AER

Source: Own elaboration, based on 138 articles

In the *Quarterly Journal of Economics* (QJE) and the *Review of Economic Statistics* (REStat), as in AER, it is also possible to identify the relative predominance of “Policy related issues regarding poverty” topic in recent decades, and the low importance of the first two topics – “Definition and theories of poverty” and “Measurement of poverty” (Figures 18 and 19). However, the evolution is not so visible, due to the small number of articles published in the first decades of the considered period⁶. Similar to AER, QJE presents a good diversity of

⁶ For instance, in the 1980’s, “Types and dimensions of poverty” represents 100% of all articles, but as only one articles was published in that decade, this percentage is not significant for the analysis.

articles on “Policy related issues regarding poverty”. REStat, however, only published empirical studies on this topic, *i.e.*, analysis on the effects or results of already implemented policies or programmes.

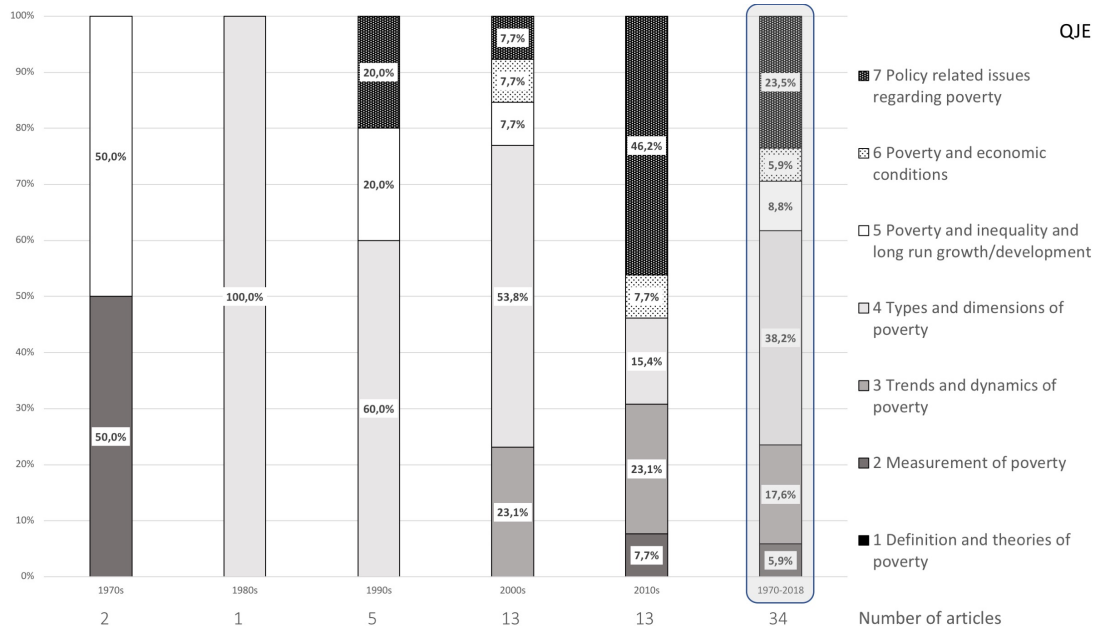


Figure 18: Evolution of the distribution of the articles in topics, 1970-2018, QJE

Source: Own elaboration, based on 34 articles

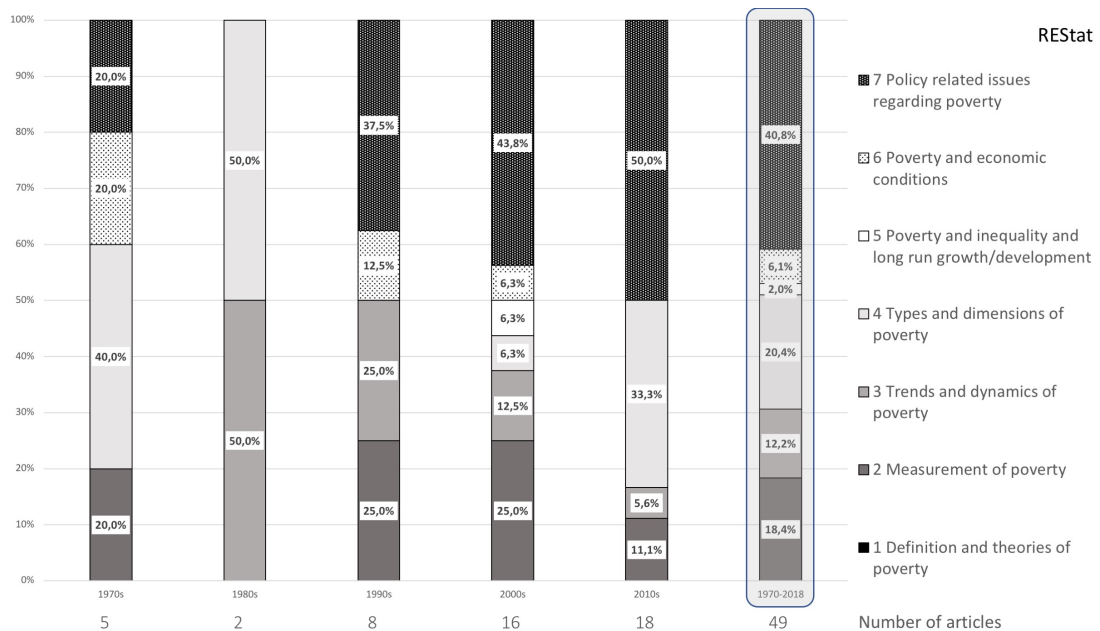


Figure 19: Evolution of the distribution of the articles in topics, 1970-2018, REStat

Source: Own elaboration, based on 49 articles

In the remaining five journals there is a lower number of topics represented, and often an evident preference for a certain topic. This is visible even in the *Journal of Political Economy* (JPE) in which, even though it is considered amongst the more general journals, there is a clear predominance of the “Policy related issues regarding poverty” topic (see Figure 20). In fact, the journal is general because it publishes articles on different fields, among them poverty, but within each field it focuses on the policy issues, as its name suggests. Within the topic, even though there is a predominance of empirical works, the journals also published more theoretical ones. Although there are articles focused on the whole poor population and others on segments, within the segments children attract the most attention.

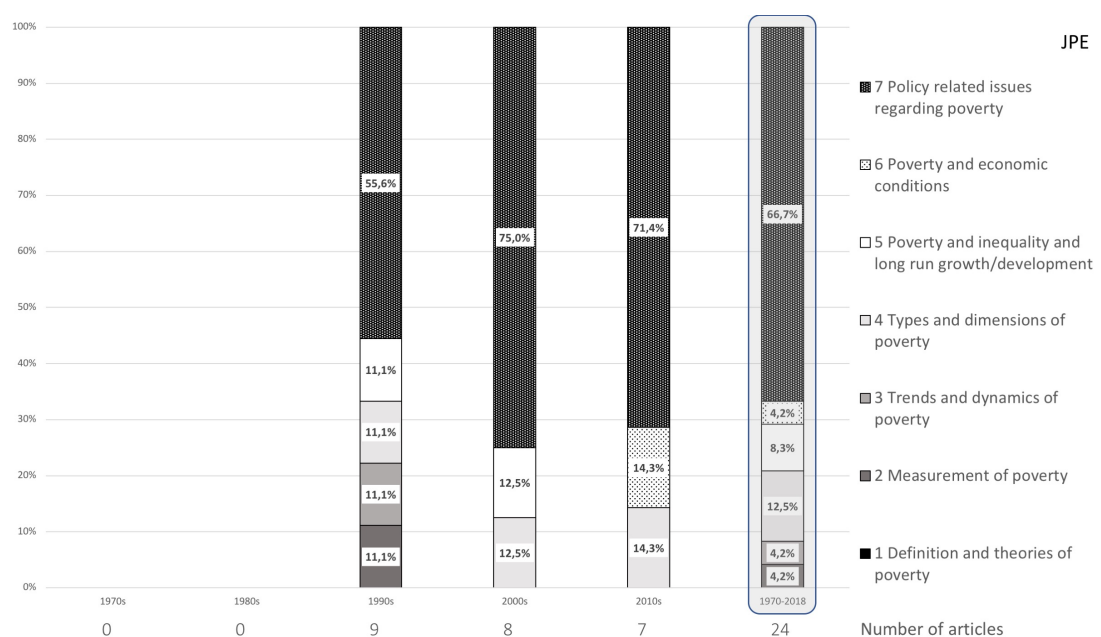


Figure 20: Evolution of the distribution of the articles in topics, 1970-2018, JPE

Source: Own elaboration, based on 24 articles

The higher attention devoted to the topic “Policy related issues regarding policy” is also somewhat visible in the *Review of Economic Studies* (RES), even though not so evident as the journal publishes such a small number of articles on poverty (see Figure 21). However, in the 2010’s, when six articles were published (more than in all the other decades together), three could be inserted in the last topic. Of the four articles published on “Policy related issues regarding poverty”, two discussed the design of poverty policies while the other two evaluated already implemented problems (one on the older population and the other on entrepreneurship). The articles considered under the topic “Poverty and inequality and long run growth/development” are more focused on the relationship with inequality.

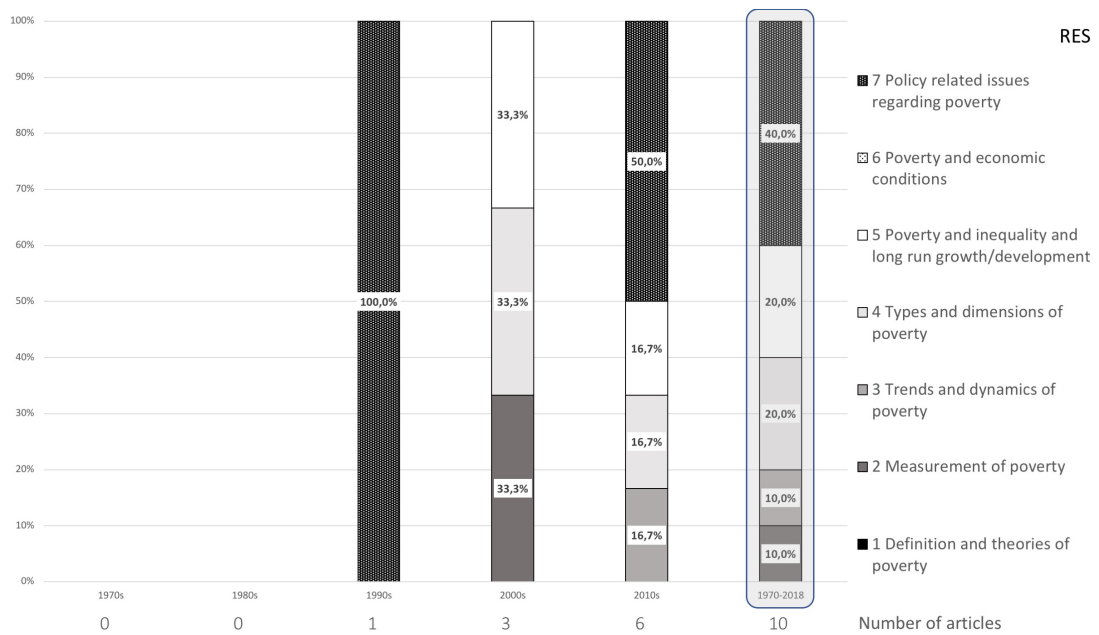


Figure 21: Evolution of the distribution of the articles in topics, 1970-2018, RES

Source: Own elaboration, based on 10 articles

In *Econometrica* (ECON) the scientific attention is on the second topic – “Measurement of poverty”. It is one of the most technical journals, so it is not unexpected that it gives more importance to the more technical topics (Figure 22). Indeed, ECON published various important seminal works on the measurement of poverty, such as “Poverty: an ordinal approach to measurement” (A. Sen, 1976) or “On the measurement of poverty” (Anthony Barnes Atkinson, 1987). The articles on this topic discuss existing models of measurement or propose new more efficient measures. Besides this topic, some importance is also given in ECON to the “Policy related issues regarding poverty”. The four articles included in this last topic are all of an empirical nature, measuring the results of some policy experience. It is, however, interesting to note that in the last decade (2010’s), the journal seems to revert the identified tendency, as it did not publish a single article related to measurement and chose to approach more topics than in the other decades.

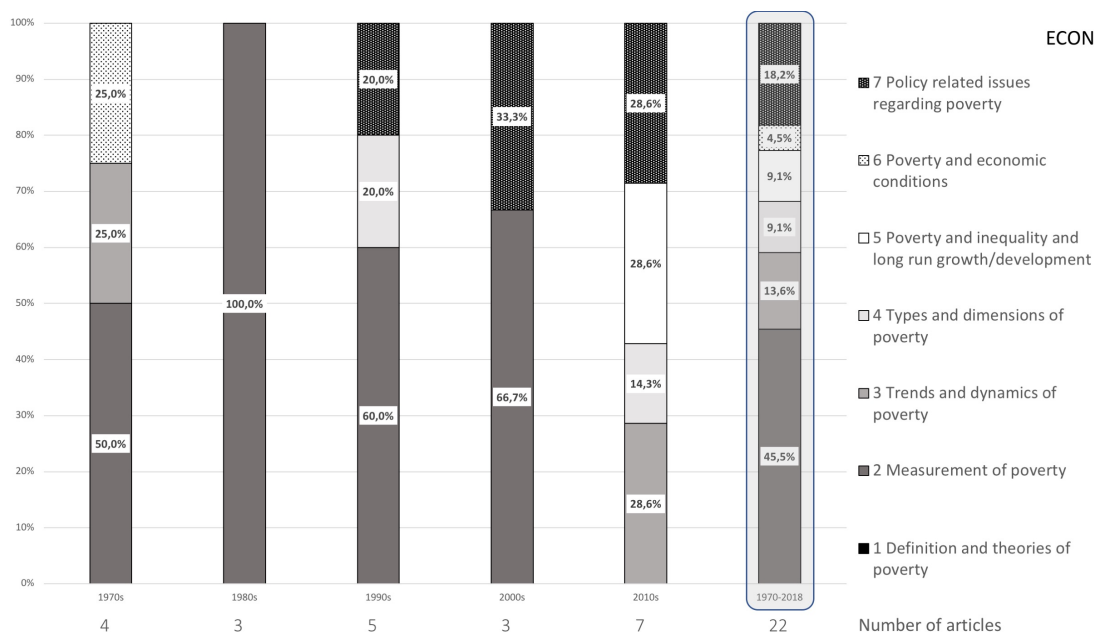


Figure 22: Evolution of the distribution of the articles in topics, 1970-2018, ECON

Source: Own elaboration, based on 22

Another technical journal – the *Journal of Economic Theory* (JET) – divides its attention through a small number of topics, the most important of them being the second and the fifth (“Measurement of poverty” and “Poverty and inequality and long run growth/development”). This journal has been publishing an increasing number of articles on measurement, contrary to the general trend of decline observed in most journals, for the reasons already discussed. In fact, half of all the articles on the topic in JET were published in 2011 and 2012. An interesting note on the articles included in the topic “Poverty and inequality and long run growth/development” is that it is not so easy to separate them into the three subjects, as most articles recognize the relationship between inequality, growth and development and focus more than one dimension – e.g., “Poverty trap and global indeterminacy in a growth model with open-access natural resources” (Antoci, Galeotti, & Russu, 2011).

The topic of measurement is also evidently predominant in the *International Economic Review* (IER), with the exception of the decade of 2000, in which the journal opted for a higher diversity of topics (Figure 24). This situation, that was rapidly reversed in the next decade, is not easy to explain. It might have been an editorial decision, as the 9 papers were published over many years, which means that the higher number was not due to a special issue on poverty. In terms of the nature of the articles, it is worthy of note the fact that two out of

the three publications under the topic “Poverty related issues regarding poverty” were focused on programmes for the younger population.

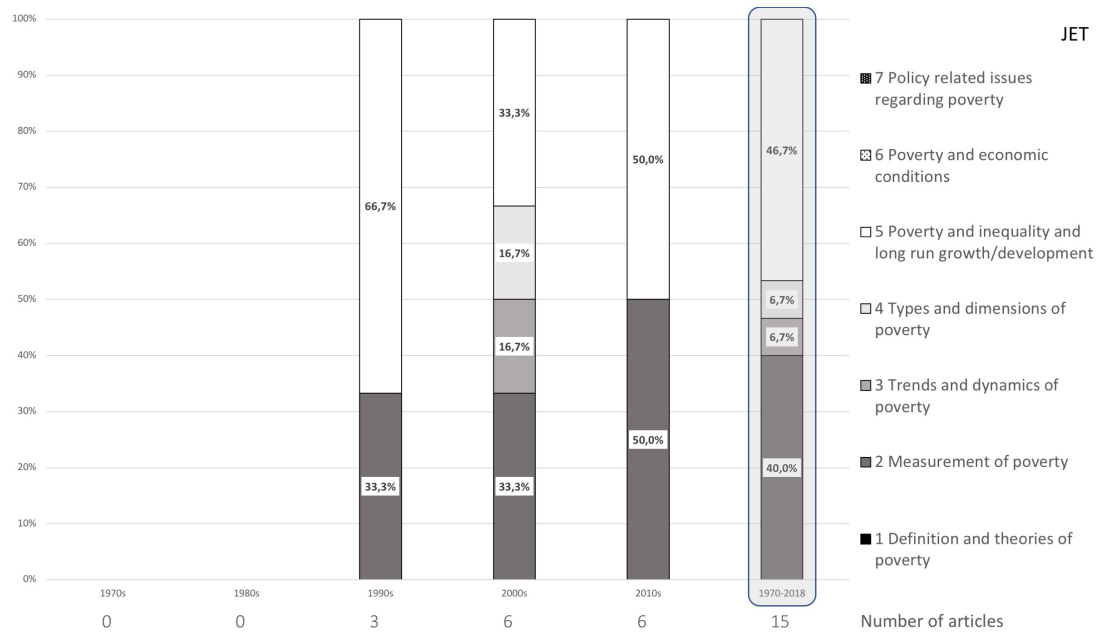


Figure 23: Evolution of the distribution of the articles in topics, 1970-2018, JET

Source: Own elaboration, based on 15 articles

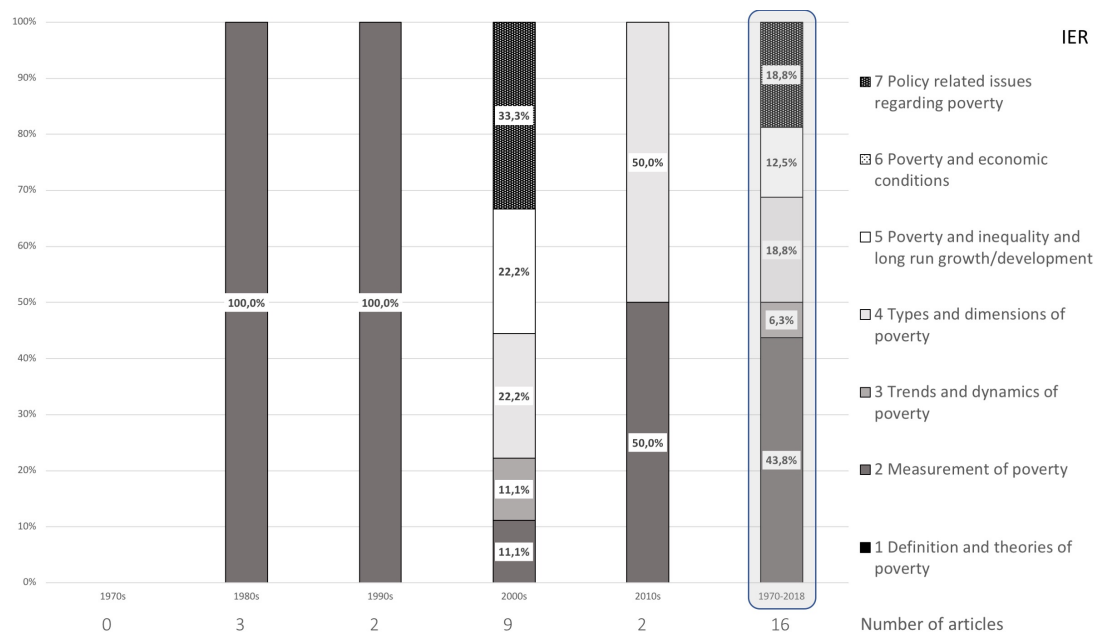


Figure 24: Evolution of the distribution of the articles in topics, 1970-2018, IER

Source: Own elaboration, based in 16 articles

5. Conclusion

Despite the widespread recognition in recent decades by the most important international institutions (such as the World Bank or the United Nations) that poverty is one of the main issues and challenges faced in the modern world, there is still little scientific work focused on assessing how the economic scientific community perceives the topic.

The present study sought to make a contribution at this level by asking “Where are the poor in mainstream economics?”, *i.e.*, by studying the scientific attention that some of the most well renowned scientific journals in economics (the so-called ‘Ribbon Eight’) have been devoting to poverty issues.

In order to respond to the question, all the articles published in the eight journals from 1970 to 2018 were classified using both the JEL codes and a proposed built classification of subtopics within the poverty spectrum. The empirical analysis involved bibliometric techniques.

The evolution of the number of articles published by the ‘Ribbon Eight’ showed a general upward trend, with an average of 663 articles being published in the present decade (an increase of 31% since the beginning of the considered period, of which 22 percentage points in the 1990’s only). This increment in the number of scientific publications is a natural consequence of the increasing importance given to journal articles (in opposition to books or reports) as a method of communication of scientific research in social sciences like Economics, since they are, as pointed by Thyer (2008), peer-reviewed, published faster, and more easily accessible.

Exploring the JEL codes associated with each of the articles published in the eight journals since 1970, we found that some codes clearly stand out: nearly 20% were categorized with the JEL code “Microeconomics” (D); and “Mathematical and Quantitative Methods” (C), “Macroeconomics and Monetary Economics” (E), and “Labor and Demographic Economics” (J) each were present in 10-15% of the total publications. The frequency of use of the JEL codes is found to remain relatively stable, except for a sharp decrease in the use of “Macroeconomics”, counterbalanced by a sharp increase in the weight of “Microeconomics”. These results are in line with those of the other studies on the matter (*e.g.*, Kelly & Bruestle, 2011; Kosnik, 2015). There is an agreement that the evolution of the relative importance of Macro and Microeconomics suggests a change in the paradigm of economic research in the last decades, even though different authors do not agree on its

causes or implications. However, since this has been happening not only in general publications but also in the more specialized ones (Kelly & Bruestle, 2011), the most plausible explanation seems to be, not a decline in the interest for Macroeconomics, but a shift of attention to the Microeconomic foundations of Macroeconomic theories. This Micro based approach is likely to remain an important aspect of future economic research and to shape the evolution of some fields, such as poverty.

Narrowing the analysis only to the articles about poverty, we observed a widespread increase of the number of articles on the topic, both in absolute and relative terms, even though there are some slight differences among the 'Blue Ribbon' journals. The *Quarterly Journal of Economics* (QJE), the *American Economic Review* (AER), and the *Review of Economics and Statistics* (REStat) devoted, from 1970 to 2018, around 1.6-1.7% of its total publication to poverty; the *Journal of Political Economy* (JPE) and the *International Economic Review* (IER) devoted about 0.9%; and *Econometrica* (ECON), the *Review of Economic Studies* (RES) and the *Journal of Economic Theory* (JET) around 0.4-0.7%. These differences are explained by the fact that, even though all the journals are considered general, some of them are more specialized, and so allocate less relative attention to poverty. However, the attention to the topic has undoubtedly been raising in all of them.

The increase in the number of publications on poverty may be explained, on the one hand, by a natural extension of the increase of the total number of journal articles, and, on the other hand, it can also be due to the growing concern with poverty related issues, associated to, for instance, the influence of transversal international projects such as the Sustainable Development Goals (SDG's) set by the United Nations (UN). The SDG's appeared as a consequence of the increasing interest in creating a more sustainable world for the future generations by addressing the global challenges presented to us today, such as inequality or climate change. It has been proven that since the approval of the SDG's in 2015, there has been a redirection of research towards these goals (Nakamura, Pendlebury, Schnell, & Szomszor, 2019), and the eradication of poverty is the presented by the UN as the number one goal. This may be explained by the fact that the achievement of the goals heavily relies on the actions of policymakers, but in order to "make the right decisions they need to "(...) draw on established science and new endeavours" (Nakamura et al., 2019, p. 1), *i.e.*, they rely on specialists on a wide range of fields, which has been fuelling the research.

Focusing on the classification of topics within the poverty spectrum, “Policy related issues regarding poverty” showed an overall prevalence, and it was, in fact, the topic with the most pronounced development during the period. This clearly illustrates the growing importance that researchers have been devoting to the debate on how to fight poverty in order to provide policymakers with the necessary knowledge to implement the most effective actions (Kosnik, 2018). The topic “Types and dimensions of poverty” also presented a significant increase, while “Definition and theories of poverty” and “Measurement of poverty” lost relative importance over time. This seems to be in line with the natural development of research in any field: in a first phase researchers focus on defining the emergent concept and to define ways to measure it; as the field develops, even though there is still the possibility of the development of new ideas on the definition and measurement, the scope of research tends to shift to other dimensions. Hence, after the seminal works on the definition and measurement of poverty, these topics lost relative attention, and the other concepts later associated with the topic gained some ground. These results are also in line with the prevalence of the JEL codes “Health, Education, and Welfare” (I), “Labor and Demographic Economics” (J), and “Economic Development, Innovation, Technological Change, and Growth” (O) among the list of poverty articles, since these codes are closely related with matters of policy or dimensions of poverty.

The present study contributes in several ways to the literature. First, it provides an updated analysis of the evolution of the scholarly literature on Economics in the last fifty years, specifically of the number of publications and the economic fields they are inserted in. When it comes to the number of articles published, we found a clear intensification along the period. While this goes against the conclusions of Card and DellaVigna (2013), who find a decrease in publications, we should note that the present study considers both a longer period of time and a wider range of journals. A surge in the number of articles published by most journals seems to be in accordance with the higher importance attributed to journal articles in recent decades (Thyer, 2008). As to the evolution of the economic fields, this study corroborates Kosnik's (2015) and Kelly and Bruestle's (2011) main findings on the evolution of the relative attention to each field – particularly the significant increase in Microeconomic research as opposed to the decrease in Macroeconomic related research – and adds that the main trends identified by the authors until 2010 were maintained in the subsequent decade. Despite these results, E. H. Kim et al. (2006) find that in terms of most cited articles Microeconomics is also losing importance over time for topics such as growth and

development, which again seems to demonstrate the growing importance of policy related issues for research.

Second, it is, to the best of our knowledge, the first bibliometric analysis of the scientific attention that top tier journals in economics devote to poverty topics. Besides confirming that the “Poverty enlightenment” identified by Ravallion (2011) for general books is also true in the most prominent indexed economic journals, it goes further by analysing the evolution of subtopics within the poverty spectrum. Thus, it provides an overview not only of the evolution of the attention that poverty has been able to attract from economic researchers, but also of the different aspects of the poverty field that have been the focus of researchers over time. Since we find a growing interest in the topic, our results seem to be promising when compared with the ones of the few bibliometric studies on poverty related matters, such as the finding that only 13 articles about poverty were published in the main journal of International Economics from 1971 to 2010 (Teixeira & Carvalho, 2014).

Overall, we confirm that the scientific attention to poverty is today higher than it was in 1970, and has, indeed, been continuously growing along the last five decades. However, scientific research is not an end in itself, *i.e.*, it does not only have academic purposes, but aims at reaching a higher level of knowledge about a certain field, making it easier to understand and to deal with in real life. Research on poverty is not an exception. On the one hand, the ever-growing concern with the living conditions of poor people all around the globe has been driving the scientific debate, which is in line with our finding that the topic of policy has been gaining more and more attention. On the other hand, the scientific debate also fuels the attention of those who have the power to “promote the state’s involvement in reducing poverty rates” (Lahat, 2018, p. 625) – the policymakers. As the ‘Ribbon Eight’ journals are the ones, in economics, with the higher scientific impact (Conroy & Dusansky, 1995), these journals increasing concern with poverty issues is expected to produce an impact on the policymakers’ perceptions and knowledge of the topic, ultimately influencing policy measures and what is actually done in the fight against poverty. This has been particularly true after the approval of the Sustainable Development Goals by the United Nations in 2015, which have been shifting the direction of research towards the achievement of a stronger framework of knowledge with the purpose of helping policymakers make the right decisions.

Although providing an overview of the evolution of the scientific attention to poverty, our study presents some limitations. The scope of the analysis is limited, both in terms of time

and sample. Considering only eight journals (and dealing only with indexed publications), we ignore other sources. Even though these are the general journals with the higher impact factor in the field of economics, there is a wide variety of other journals in economics that would deserve an encompassing analysis. Moreover, as Ravallion (2011) refers, a reasonable amount of scientific research on poverty has also been published in books. It would be illuminating and an interesting path for further research to assess the attention attribute to poverty by books and other sources besides journal articles within the economics field and the impact that they can pose to policymakers' perceptions.

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Annex

Annex 1: Definitions of poverty

Approach	Author	Date	Poverty concept	Poverty measure	Dimensions
Subsistence	S.B. Rowntree	1908	"[A family is poor if its]... Total earnings are insufficient to obtain the minimum necessities for the maintenance of merely physical efficiency"	Income based poverty line which considered the necessary money to buy food in a sufficient amount to meet the estimated nutritional needs of the family members and the minimum sums for "clothing, fuel and household sundries"	Absolute (based on income only)
	W. Beveridge	1942	"In considering the minimum income needed by persons of working age for subsistence during interruption of earnings, it is sufficient to take into account food, clothing, fuel, light and household sundries, and rent"	Relied on the poverty line proposed by Rowntree	
Basic needs	P. Townsend	1979	"Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or are at least widely encouraged or approved, in the societies to which they belong"	Proposes the "state's standard of poverty", which is an absolute measure that "recognizes the levels of need" that a certain population tries to meet in a given society	Mainly absolute (based on income and on other actual needs in a society)
	ILO	1976	"The concept of basic needs (...) in no circumstances should it be taken to mean merely the minimum necessary for subsistence; it should be placed within a context of national independence, the dignity of individuals and peoples and their freedom to chart their destiny without hindrance"		
Relative deprivation	A. Sen	2000	"There are good reasons for seeing poverty as a deprivation of basic capabilities, rather than merely as low income. Deprivation of elementary capabilities can be reflected in premature mortality, significant undernourishment (especially for children), persistent morbidity, widespread illiteracy, and other failures."	Poverty line that identifies a person as poor if it fails to meet a minimum of capabilities considered necessary in a certain society	Absolute and relative
	Oxfam	1979	"Poverty can be understood as deprivation. (...) It may be a lack of something absolutely necessary. Or it may be the lack of something one ought by ordinary civilised standards to be entitled to. Or it may be to feel deprived of something one wants and feels it reasonable to expect."		
	R. Chambers	1995	"Poverty includes, but is more than, being income-poor. Poverty can be distinguished from other dimensions of deprivation such as physical weakness, isolation, vulnerability and powerlessness with which it interacts"		
	United Nations	1993	"... poverty is a violation of human dignity and a denial of enjoyment of all human rights."	Multidimensional Poverty Index, which considers three dimensions of deprivation – in education, in health, and in the standards of living – and calculates a deprivation score	

Annex 2: Topic organization (and corresponding chapters in each book)

Topic	Cowell (2003)	Houghton & Khandker (2009)	Jefferson (2012)	Ravallion (2015)	Brady & Burton (2017)
Definition and theories of poverty	Poverty concept Relative deprivation	What is poverty and why measure it?	Theories of poverty	Origins of the idea New thinkings on poverty	Ideologies and beliefs about poverty Capability deprivation
Measurement of poverty	Poverty measure Poverty axioms and rankings	Measuring poverty Poverty lines Measures of poverty	Poverty lines across the world	Measuring welfare Poverty lines	Poverty measurement
Types and dimensions of poverty		Vulnerability to poverty	Dimensions of poverty	Dimensions of poverty and inequality	Poverty and crime, hunger, informal economics, ... Rural and urban poverty
Trends and dynamics of poverty	Dynamics	International poverty comparisons The analysis of poverty over time	Poverty dynamics		The dynamics of poverty Intergenerational mobility
Poverty and inequality and long run growth / development	Welfare, inequality and needs			Growth, inequality and poverty	Economic performance, poverty and inequality
Poverty and economic conditions			Macroeconomic fluctuations and poverty		
Policy related issues regarding poverty		Poverty reduction policies The effects of taxation and spending on poverty	Poverty policy Trends and issues in antipoverty policy	Poverty and policy: targeted interventions Economy-wide and sectoral policies	Policies and solutions: social policy, transfers, programmes, and assistance

Annex 3: Correspondence between the pre-1990 classification and the current JEL codes

Current classification (1990 revision)		Pre-1990 classification (1969 revision)
General Economics and Teaching	A	011, 012, 110, 115
History of Economic Thought, Methodology, and Heterodox Approaches	B	031, 036, 316, 317, 318, 329, 360
Mathematical and Quantitative Methods	C	021, 026, 210, 211, 212, 213, 214, 215, 220, 222, 229, 260, 261, 262, 2110, 2112, 2113, 2114, 2115, 2216, 2117, 2118, 2119, 2120, 2130, 2132, 2133, 2134, 2135, 2140, 2150, 2200, 2220, 2270, 2290
Microeconomics	D	020, 022, 024, 025, 114, 200, 224, 225, 227, 228, 240, 242, 243, 244, 250, 251, 252, 511, 512, 513, 522, 600, 921, 1140, 2240, 2280, 5110, 5120, 5130, 5131, 5220, 9210, 9211, 9212, 9213
Macroeconomics and Monetary Economics	E	023, 112, 120, 121, 122, 123, 124, 130, 131, 132, 133, 134, 221, 223, 226, 230, 231, 232, 233, 235, 239, 311, 1120, 1210, 1211, 1213, 1214, 1215, 1216, 1217, 1221, 1223, 1224, 1228, 1230, 1243, 1244, 1310, 1312, 1313, 1320, 1322, 1323, 1324, 1330, 1331, 1332, 1340, 1342, 2210, 2212, 2213, 2230, 2260, 3110, 3112, 3116
International Economics	F	111, 400, 411, 420, 421, 422, 423, 431, 432, 433, 441, 442, 443, 1110, 1112, 4000, 4110, 4112, 4113, 4114, 4200, 4210, 4220, 4230, 4232, 4233, 4310, 4312, 4313, 4314, 4320, 4330, 4410, 4411, 4412, 4420, 4430
Financial Economics	G	310, 312, 313, 314, 315, 521, 3120, 3130, 3131, 3132, 3140, 3150, 3151, 3152, 3153, 5200, 5210
Public Economics	H	320, 321, 322, 323, 324, 325, 641, 915, 3200, 3210, 3212, 3216, 3220, 3221, 3226, 3228, 3230, 3240, 3241, 3242, 3243, 3250, 6410, 9150
Health, Education, and Welfare	I	911, 913, 914, 9100, 9110, 9130, 9140, 9300
Labor and Demographic Economics	J	811, 812, 813, 820, 821, 822, 823, 824, 825, 826, 831, 832, 833, 841, 850, 851, 912, 917, 918, 8110, 8120, 8130, 8131, 8132, 8133, 8134, 8135, 8210, 8220, 8221, 8222, 8223, 8224, 8225, 8226, 8230, 8240, 8241, 8242, 8243, 8250, 8260, 8300, 8310, 8320, 8321, 8322, 8330, 8331, 8332, 8410, 8510, 9120, 9170, 9180
Law and Economics	K	916, 9160
Industrial Organization	L	514, 610, 611, 612, 613, 614, 615, 616, 619, 620, 631, 632, 633, 634, 635, 636, 5140, 6110, 6120, 6130, 6140, 6150, 6160, 6190, 6300, 6310, 6312, 6313, 6314, 6315, 6316, 6317, 6318, 6320, 6322, 6323, 6333, 6340, 6352, 6353, 6354, 6355, 6356, 6357, 6358, 6360
Business Administration and Business Economics; Marketing; Accounting; Personnel Economics	M	531, 541, 5310, 5410
Economic History	N	041, 042, 043, 044, 045, 046, 047, 048, 410, 411, 412, 420, 430, 440, 450, 451, 452, 463, 470, 473
Economic Development, Innovation; Technological Change, and Growth	O	621, 718, 6210, 6211, 6212, 7180
Economic Systems	P	027, 050, 051, 052, 053, 113, 270, 271, 272, 500, 510, 520, 530, 1113, 1114, 1130, 1132, 1136
Agricultural and Natural Resource Economics; Environmental and Ecological Economics	Q	710, 711, 712, 713, 714, 715, 716, 717, 721, 722, 723, 7110, 7120, 7130, 7140, 7150, 7151, 7160, 7170, 7171, 7172, 7210, 7211, 7220, 7230
Urban, Rural, Regional, Real Estate, and Transportation Economics	R	731, 931, 932, 933, 941, 2250, 7310, 9310, 9320, 9330, 9410, 9411, 9412, 9413