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## ACADEMIC RANKINGS AND PLURALISM: THE CASE OF BRAZIL AND THE NEW VERSION OF QUALIS

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# UNIVERSIDADE FEDERAL DE MINAS GERAIS FACULDADE DE CIÊNCIAS ECONÔMICAS CENTRO DE DESENVOLVIMENTO E PLANEJAMENTO REGIONAL

## ACADEMIC RANKINGS AND PLURALISM: THE CASE OF BRAZIL AND THE NEW VERSION OF QUALIS

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#### **ABSTRACT**

The paper approaches the theme of the relatively higher level of pluralism in Brazilian economics, when compared to the other countries, from a different approach used in the literature. Considering the *Qualis* as an instrument of great impact in the research of the Brazilian graduate education centers, mainly because of its impact in the CAPES evaluation of the centers, we analyze the abrupt change in the journal ranking that occurred in 2016. Before presenting this data, we first focused in understanding the metrics that are part of the *Qualis*, and how relevant the biases from other indexes than the Impact Factor are. Afterwards, we present a review of the national literature concerning the academic production in economics, showing how some problems due to incentives and structure still persist. We, then, present our results: we found out that the increase of journals in the higher strata of the *Qualis* without a research agenda bias, and with a great inclusion of specialized sub-fields of the discipline. Besides, the impact that this change will cause in the 2017 CAPES' evaluation cannot be seen as favoring centers by their division in mainstream and non-mainstream. Having this in mind, we argue that the modifications keep incentives to pluralism, besides correcting many problems in the ranking.

Keywords: Qualis, academic production, pluralism, bibliometrics, mainstream economics, heterodox economics

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#### **RESUMO**

Esse artigo busca analisar o já apontado maior pluralismo da academia brasileira da área de economia, se comparada a outros países, de forma diferente do que é encontrado na literatura.. Considerando o *Qualis* como instrumento de grande influência na pesquisa dos centros de pósgraduação brasileiros, principalmente por ser uma métrica importante na avaliação quadrienal que a CAPES faz dos programas, identificamos e analisamos uma mudança significativa no ranking dos periódicos ranqueados em economia em 2016. Antes de apresentar esses dados, procuramos entender as métricas que formam o *Qualis*, bem como os vieses que se procura evitar com a utilização de alguns índices como o Fator de Impacto (FI), por exemplo. Após isso, apresenta-se a literatura nacional a respeito do *Qualis* e da produção acadêmica em economia e, por fim, os nossos resultados. Constatamos um aumento das revistas que compõe os estratos mais altos do *Qualis* que não possuem viés de agenda de pesquisa e com grande inclusão de subáreas de especialização da disciplina. Ademais, o impacto que a mudança causará na nota dos programas, que serão avaliados em 2017, não pode ser vista como favorecendo centros por sua divisão em mainstream e não mainstream. Com isso, argumentamos que a modificação ocorrida mantém incentivos ao pluralismo, além de corrigir diversos problemas existentes na classificação.

Palavras-chave: Qualis, produção acadêmica, pluralismo, economia mainstream, economia heterodoxa

#### 1. INTRODUCTION<sup>1</sup>

Ever since bishop Azeredo Coutinho and the Viscount of Cairu wrote their first economic treatises in the turn of the XVIII<sup>th</sup> century (Paula, 1942), the Brazilian scientific production in the economic area has been developing through many different ways to the point of becoming a strong player in South America, capable of having names of international projection. Our paper studies the development and current traits of the Brazilian scientific production in economics.

A definitive trait of the Brazilian economics academy is its high degree of pluralism, with the presence of heterodox economists<sup>2</sup> in relevant positions. Dequech (2014) and Fernández and Suprinyak (2016) show how the pluralism of economics in Brazil is a combination of (i) historical factors, related to the contact of the first economics, that came from Law and Engineering, with different approaches abroad and (ii) institutional factors, related to the construction of a standard curriculum that always favored history of economic thought (HET) and alternative macroeconomic approaches, the refusal of the National Association of Graduate Centers in Economics (ANPEC) to change its organizational directives in face of the protest of the Getulio Vargas Foundation of the Rio de Janeiro (FGV-RJ), the action of National Association of Undergraduate Courses of Economics (ANGE) in building undergraduate courses minimally pluralistic, and, lastly, the high classification of heterodox journals in *Qualis*.

As a result, Brazilian heterodox economists have a greater prestige in academy when compared to other countries, and they are capable of occupying important positions in the best universities of the country, coexisting with mainstream researchers. Dequech (2014) emphasizes that economists outside the mainstream can receive grants from research agencies and even compete and win national prizes such as the "Haralambos Simeonides Prize", the most prestigious award in Economics in the country. Some of them even managed to occupy command positions in the government (Codato *et al.*, 2016).

Amongst the institutional factors that fuel pluralism in Brazil, the *Qualis* ranking is one of the most important highlights. We argue that the presence of heterodox journals in high positions in the *Qualis* ranking and the presence of heterodox economists in the meetings to revise the *Qualis* are important features for the maintenance of pluralism in economics in Brazil.

<sup>&</sup>lt;sup>1</sup> The authors thanks Ana Maria Hermeto Camilo de Oliveira and Hugo da Gama Cerqueira for the contributions and elucidations regarding the *Qualis* system. We also thank Celso Neris and Pedro Mendes Loureiro for comments on a previous draft.

There are controversies related to the definition of "heterodoxy". Guimarães (2011, p. 4, 8) considers "heterodox" researchers whose research challenge or propose alternatives to the current research of the profession; they work in what Dobusch and Kapeller (2012) called "Colander's edge". As examples, he cites Daron Acemoglu and his research in political economy and institutional economics, John List and experimental economics, among others (and these are amongst the most productive economists in the United States). This definition clashes with the definition of heterodoxy as the one that includes researchers with completely alternative methodologies to the mainstream, proposed by Dequech (2007) and Dobusch and Kapeller (2012). In our paper, we use the second definition, upon saying that the Brazilian academy is receptive to heterodox researchers, we are saying that it allows economists from different approaches (be them post-Keynesian, Marxist, Austrian, among others) to conduct their researches without much institutional sanctions and to have certain prestige in academia. Dobusch and Kapeller (2012) make an important distinction between the terms "orthodoxy" (which Dequech links to neoclassical economists) and "mainstream", showing that there is a non-orthodox component in the mainstream, which is the one referenced by Guimarães (2011). Also, for the purposes of this paper, we consider the terms "orthodox" and "mainstream" as interchangeable, showing when caveats apply in the text. Thus, "heterodox" is defined negatively related to "mainstream" or "orthodox".

This text discusses these questions in four sections, besides this introduction. Section 2 exposes the *Qualis* metrics, i.e., how many different measures of academic production influenced its constructions, their strengths and weaknesses, and how the *Qualis* evolved through the years. Section 3 does a literature review of bibliometric research about the Brazilian academic production in economics, showing the relevant problems of academic production and evaluation in economics. Section shows how the new evaluation metrics change the environment of the Brazilian graduate schools in economics. In the end, we conclude that *Qualis* is an important instrument for the maintenance of pluralism in Brazil.

#### 2. EVALUATION METRICS FOR SCIENTIFIC PRODUCTION

Currently there are many different forms to define *quasi*-objectively the qualitative performance of scientific journals. The most famous and used measure is the *Impact Factor* (IF), created by Eugene Garfield, a linguist, in 1975 and published annually in the *Journal Citation Reports* (JCR), which was based in the quantity of citations that the papers in a journal receive. Although the IF was not Garfield's first index, that would be the *Science Citation Index*, in 1961(Garfield, 2006). As we will show later, the JCR publishes other indexes than the IF, that might have different purposes.

The use of these metrics is fundamental to the *quasi*-qualitative measuring of the academic publication. Through them, it is possible access with greater objectivity the information about thousands of publications and, thus, ranking both journals and individual researchers. However, their increasing use for different objectives creates a series of biases. Dobusch and Kapeller (2009), for example, argue that the current metrics can create path dependence in economic research. For the authors, this could be one reason why there was no transformation in economic theory after the 2007-8 crisis (*a la* post-1929 changes). This path dependence is result of a strong institutionalization of the mainstream, powered by the measurement systems. Some problems are triggered from the direct (and negative) relation between publishing, financing and career positions. Dobusch and Kapeller, for example, emphasize the concomitance of the increase of the neoclassical scope (the so-called economics imperialism) with diversification of the metrics usage. Lawrence (2008), on the other hand, shows that this relation has as its trigger a possible diminishment of the quality of the scientific work, as well as a probable discouragement of the scientific creativity.

The questions that gravitate toward the use of publication metrics are legion, but what we intend to present in this section, specifically, are the different rankings of journals by quality, presenting their strong and weak points discussed in the literature. The focus remains on themes related to this paper, such as when the metrics in question can induce or difficult the plurality of scientific production. Focusing in the Brazilian case, we characterize the *Qualis* system and we present the great change that occurred in 2016.

#### 2.1. Different methodologies for citation measurement

The IF is the most used metric by the researchers, being calculated in the following way: the IF of a journal, in a specific year, will be the sum of all citations that it obtained in this year for the articles published in the previous two years, divided by the number of citable sources published in these same last two years. The referred citable sources include both original articles as well as reviews and editorial letters<sup>3</sup>, using the Web of Science (WoS) as the base of calculation. The JCR itself publishes another less used index, the Immediacy Index (II), that has its focus the speed of citation of the average publication of a journal. The difference between the II and the IF is the limitation of the citation counting time to the same year of its publication (Glänzel, Moed, 2002, p. 172-3). The authors discuss attempts to avoid problems presented by the IF, such as *Consumption Factor*, *Adjusted Impact Factor* e *Influence Weight*. In general, these attempt focus in the "choice of publication period and citation window, the calculation of separate indicators for different document types, the development of 'relative', field-normalised measures, and the use of supplementary measures and the clarification of the technical correctness of the processed indicators" (p. 178).

The JCR and the WoS-based indexes are part of the Institute for Scientific Information (ISI), founded in 1960 and incorporated to Thomson Reuters in 1992. In 2016, it was dismembered from Thomson (along with other of its intellectual property departments) and sold to private equity funds under the name of Clarivate Analytics (Clavirate Analytics, 2016). After years as the only option of citation index, the WoS earned two competitors: the *Scopus*, from Elsevier and the *Google Scholar* (GS), both in 2004<sup>4</sup>. Given the inclusion of the GS in the discussion, we can see that the competition between them happens in the scope of search engines of articles and journals. With the great popularity attained by the GS (the only free of them), the relations between the functions performed by the platforms can become less clear, especially because the GS has its metric option even less used and known than the IF.

All the three competitors provide search tools for peer-reviewed academic articles, annals, book series, etc. The publishing houses, that have their works indexed in these platforms, provide the necessary information (abstract and keywords) and the users are redirected to their sites to download (free of charge or not) the searched work, when available in electronic format. When one subscribes to the WoS or the Scopus (as well as using the GS), they have no access to the integral material, which must be acquired independently.

The Elsevier's alternative is the *CiteScore*, calculated similarly, but using the Scopus base and with the horizon of three years, instead of two. Another well-known index is the *SCImago Journal Rank* (SJR), that weights the CiteScore according to the journals (organized in a relevance ranking) where the articles are cited (Elsevier, 2017). Lastly, the indexes developed by Google are the H5-index and the H5-mean, based in the h index $^5$ . These indexes are not as straightforward as the others. In the H5-index, the h index of a journal will be the h number of papers cited h times in the last five years. Using the example presented by Mering (2017), if (hypothetically) a journal published five articles in

<sup>&</sup>lt;sup>3</sup> This difference between the numerator and the denominator of this index is presented as a criticism in Harzing and Wal (2009). The next section will be more detailed about some weaknesses of the literature.

<sup>&</sup>lt;sup>4</sup> The competition among the businesses did not limit itself to the indexes, but also to the searching tools (Bar-Ilan, 2008).

<sup>&</sup>lt;sup>5</sup> The h index was developed by Jorge Hirsch (2005) to measure the individual production in the theoretical physics area. In the same year, the index started to be adapted by Braun, Glänzel and Schubert (2005; 2006) to rank journals.

the last five years and its citations were, respectively, 15, 9, 6, 3 and 2, the h index of this journal will be 3. This happens because, even if there are 4 articles that were cited 3 times or more, the h index cannot be 4 because there are not more than 4 articles that were cited 3 or more times in the last 5 years.

All these metrics present biases (that can be related to the database or the construction of the index) and the literature seeks to correct them constantly. The next subsection presents this question.

#### 2.1.1. Problems involving these metrics

The metrics have their own advantages and disadvantages and it is fundamental to understand them. One of the main issues is that the databases, from which the citations are extracted and computed in the indexes (WoS, Scopus and GS). The WoS, for example, presents a lack of journals in the areas of humanities, as well as a low count for citations in books, annals and journals not indexed in the base in general (Harzing, Wal, 2009). Besides, publications in English (especially from the United States) are favored (Mering, 2017). And yet, according to Mering, in spite of the GS overcoming these problems, it presents a much larger number of false citations or double counting than the WoS or the Scopus. The use of the h index, however, attenuates this problem in the GS, in addition of overcoming an intrinsic problem concerning the calculation method of the impact indexes (IF, CiteScore, etc.), where excessively cited articles in a volume can bias significantly these indexes (Harzing, Wal, 2009).

Other studies point the weaknesses of these three main indexes and their databases, as well as the advantages and disadvantages of each (e.g. Bar-Ilan, 2008; Glänzel, Moed, 2002; Hodge, Lacasse, 2011). Harzing and Alakangas (2016), for example, show that, using the different indexes in each of the bases here discussed, both the bases and the indexes create some type of bias according to the knowledge area (social sciences, humanities, engineering, science and life sciences)<sup>6</sup> under analysis. The authors suggest that the best combination would be using the Scopus base or the GS with the annual *hI index* (a modification of the h index). This type of evaluation, however, is not in the focus of our work. Our interest is for the possibility of bias for the economics area, and/or of a dominant theoretical approach in an area that has as its result the diminishment of pluralism inside economics and, beyond that, by specificities that impact the Brazilian case.

Questions closer to our discussion are raised by Bordon, Fernández and Gómez (2002). The authors start from the problem of the low presence of Spanish journals in the WoS base to point how the registering of the scientific production of peripheral countries can be problematic when using this base. From this perspective, trusting the measurement of production of a peripheral country to this type of index would bring a great distortion, harming works with focus in regional questions and areas that depend of local publications to disseminate their studies<sup>7</sup>.

<sup>&</sup>lt;sup>6</sup> Mongeon and Paul-Hus (2015), for example, indicate a negative bias for humanities and social sciences both in the WoS and Scopus.

<sup>&</sup>lt;sup>7</sup> Concerning the evaluation of national production, the low quantity of journals from peripheral countries in the WoS causes a peculiar effect: when an important journal from one of these countries is added to the base, it is badly ranked, and that general quality of the national production gets technically worse. In other words, it would be "better" if these journals remained outside the base (Bordon, Fernández, Gómez, 2002, p. 199). It should be noted that, when their article was

In the Brazilian case, over 80% of the national journals in the area of social sciences were exclusive to Scopus, while in the United States this exclusivity was less than 60% (Mongeon, Paul-Hus, 2015). The Scopus base is sensibly larger than the WoS and this would indicate a problem in trusting only in the IF as a quality measurement to the academic production. And, concerning the measurement of national publications in the area of social sciences, this would be an even bigger problem. If we consider Mongeon and Paul-Hus's comparison between the sum of all bases with the *Ulrich's data base* (the most extensive database available), the covering of peripheral countries is even more problematic. The problems we cited here in the construction of impact metrics led, for example, Lee *et al* (2010) to propose an alternative ranking for heterodox economics journals, since they would be underevaluated using only the WoS base.

Related to the possibility that some metrics and rankings can "railroad" the research toward a particular area, besides the discussion in Dobusch and Kapeller (2009), Lee (2007) discussed the role of the *diamond list* (a list comprised of the most relevant economic journals) in determining (neoclassical bias) in publication, teaching and hiring of new faculty in British universities. This happens due to the bias created toward publication according to a certain ranking or metric can be equated with merit. In a related topic, it has been argued likewise that using metrics can have a negative effect for interdisciplinary research (Rafols *et al*, 2012).

Part of the questions raised has relations with the degree of hierarchization of economics. As showed by Aistleitner, Kapeller and Steinerberger (2017), the main economic journals, besides being easily recognizable, have a high degree of self-citation, greater than other areas of social science<sup>8</sup> (in their own journals and between the top five<sup>9</sup>). They also resort less frequently to works from other areas. This can turn the concentration problem caused by the metrics even more sensitive. The authors, referring to the argument by Dobusch and Kapeller (2009), show that the citation patterns of these top journals kept the same even after the 2007-8 economic crisis. Meanwhile, the heterodox journals (such as the *Cambridge Journal of Economics* and the *Journal of Post Keynesian Economics*) had a more diversified pattern before the crisis, and they reacted to it reducing citations to the mainstream journals<sup>10</sup>. If we reconsider the assumption of Lee *et al* (2010) that the heterodoxy can be considered as a subfield inside economics, we have a justification for the new index proposed by these authors.

The discussion up to this point intended to present some of the problems in the current metrics for the measurement of academic production in general and in economics, which have an increasingly relevant weight in the structure of this community. The evaluation system we analyzed, the *Qualis*, is based in studies that use different metrics with the intention of presenting a ranking the less distorted possible. Some of the biases found in the economic academic environment were also

published, the competitors to the WoS were not available yet, which could have smoothed out the problem, especially with the GS.

<sup>&</sup>lt;sup>8</sup> The authors also point a proximity of the self-citation behavior from the 5 main (multidisciplinary) journals of economics with the specialized journals of physics (*Physical Review A-E*).

<sup>&</sup>lt;sup>9</sup> American Economic Review, Econometrica, Journal of Political Economy, Quartely Journal of Economics and Review of Economic Studies.

<sup>&</sup>lt;sup>10</sup> The call of Dobusch and Kapeller (2012) for an "interested pluralism" might have been an attempt to avoid the heterodox journals to follow this tendency.

taken in consideration. In the next section, we present the *Qualis*, trying to show, basically, how it was built, its limitations and how the great modification of 2016 happened, which motivated this work.

#### 2.2. The Qualis of economics

The *Qualis* is an instrument of evaluation of the scientific production of the graduate schools in Brazil. It became important when it became one of the seven criteria of evaluation for graduate programs, in 1998 (Barata, 2016). Since then, it is an evaluative instrument and not a bibliographical base<sup>11</sup>, the journal rankings where the publications occurred in each area are only known *a posteriori*, to allow the evaluation and comparison of programs (in other words, its objective is *not* to evaluate individual researchers). The strata, which correspond to a ranking system (A1 = 100; A2 = 80; B1 = 60; B2 = 40; B3 = 25; B4 = 15; B5 = 5 and; C = 0), are filled by the area commissions<sup>12</sup> with their own criteria, obeying some pre-established rules enforced by CAPES, such as a limit of 50% concentration in the highest three levels.

We will analyze in further detail how the modification of these criteria for the *Qualis* economics ranking can represent greater or smaller incentives for the economic pluralism. We shall focus in the change of factors of the *Qualis*, the questions related to the literature produced about the ranking will be in the next section.

As discussed before, whatever the method used to objectively classify the quality of publications, it will create distortions, be it because of the reach of the bibliographical base or the index used. With this in mind, the very choice of the criteria has the intention of avoiding distortions of others, such as using solely the IF.

The concern of the representatives of the economics area with distortions can also be noticed in earlier rankings. In the 2001-2003 triennium<sup>13</sup>, when the competitors to the WoS had not been created, they used the JCR index and Barret, Olia and Bailey (2000), which allowed a better classification of the subfields of economics. In addition, of course, of the indications of the members of the commission concerning the classification of some specific journal. In the 2003-2006 triennium, there was a greater concern in separating the evaluation of the international articles (using Kalaitzidakis, Mamuneas and Stengos (2003)) and national ones. For the 2007-2009 triennium, the commission used Kodrzycki and Yu (2006) in order to distinguish the impact of economic journals in its own area, in the social sciences as a whole, and in those journals related to economic policy. It continued both the *ad hoc* modifications in the ranking and the harmonization with earlier years (CAPES, 2009). One of these adjustments is the inclusion of important journals for Brazilian researchers through "grafts" in the higher strata. In this evaluation, the following journals were added to the A1 stratum: the *Cambridge Journal of Economics, History of Political Economy, Journal of Economic Methodology*, and the *Journal of Post Keynesian Economics*; to the A2 stratum: the

<sup>&</sup>lt;sup>11</sup> This confusion is one of many misunderstandings among researchers and journal editors in Brazil (Barata, 2016).

<sup>&</sup>lt;sup>12</sup> The area's representative is selected by CAPES. S/he has to choose six other researchers, recognized by their peers, which are responsible for formulating the ranking. The same representative elects another comission that is responsible for evalutaing the departments every three or four years (see note 13).

 $<sup>^{13}</sup>$  The evaluation happened in trienniums until the modification for the quadriennium 2013-2016.

Economic Geography, Economic Inquiry, Industrial and Corporate Change, Journal of Health Economics, and the National Tax Journal.

In the 2010-2012 triennium, the commission started to use the method proposed by Combes and Linnemer (2010). It consists in classifying the 1202 journals in the *EconLit* list, property of the American Economic Association, according to the CL index, built on the combination of JCR indexes and the h index of Google. To classify the journals from areas other than economics, they based on the strata that these journals were present in classifications of other areas, always obeying a ceiling of A2. For the classification of national journals, it was used the decision of the commission, obeying a ceiling of B1 (previously B2) for journals in the area of economics and B2 for other areas (CAPES, 2013a). In spite of this criteria, it is important to emphasize that the evaluation of the 2010-2012 triennium preserved the classification of all journals that had been classified between A1 and B4 in the previous triennium. With this, it was taken in consideration to the CL index only the classification of the journals that had not been previously listed, in other words, those in which the Brazilian researchers had published in the 2010-2012 triennium but not in the 2007-2009 one.

As we could observe, in spite of the constant modifications in the classification criteria of the journals, there has always been an attempt to maintain a stability in the ranking. However, in 2015, the commission signaled intentions of deeper modifications in the *Qualis*, in an attempt to approach it from the procedures of the other areas and allow more research diversity (CAPES, 2015). Even so, in 2016, the idea of perdurance and continuity of earlier evaluations returned being highlighted (CAPES, 2016). How these two question are contemplated in a modification that, we consider, was so significant?

What happened was that the CL and the *Qualis* were synthetized. We can notice that this synthesis started to consider all journals that were in the same CL stratum from those which were previously "grafted" in the list, like the ones cited before, of the same *Qualis* stratum. The CL classification is composed by strata AAA, AA, A, B, C and D. Upon considering all journals at strata AAA (5 journals), AA (15), A (82) and B (156) as A1, the commission solves the distortion of grafting and also increases the number of those which can be considered A1<sup>14</sup>. In this new format, only the *History of Political Economy* had to be grafted. It should be reminded that it is not enough that a journal must be present in the CL list in order to appear in the *Qualis*, it is also necessary that Brazilian faculty publish in these journals during the triennium evaluated.

The C stratum (304 journals) of the CL became equivalent to A2, while D (606) to B1. This method solved another question: the place of the Brazilian journals. Since there are some Brazilian journals in the CL list, such as *Nova Economia*, *Economia e Sociedade*, *Revista Brasileira de Economia* and *Economia Aplicada*, all in the D/B1 strata, the limit criteria of the national journals follow the evaluation of international journals.

What interests us, in this work, is the way this harmonization allowed an increase of the number of journals in the highest strata, allowing the attainment of better evaluations for centers and researchers that publishes in a greater variety of journals. We will evaluate this in section 4. Before,

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<sup>&</sup>lt;sup>14</sup> It is also common knowledge that the economics area does not completely fill the highest strata quota of *Qualis*, contrary to other areas. Only 5% of the journals are A1, and 10% if we sum A1 and A2 (CAPES, 2015).

we must present the national literature on the bibliometrics of the economic academic production and its relation with *Qualis*.

#### 3.QUALIS AND THE NATIONAL BIBLIOMETRIC LITERATURE

When the organization of the economic research started in Brazil, before the *Qualis*, the existing journals always published indexes of articles and thesis published in the country and, until the end of the 1990s, it was common to see, in these journals, indexes and article lists from other journals. This was necessary to publicize the work of the economists in the pre-internet era and allow the researchers to know what each of them is researching, especially when the Brazilian production was relatively small.

Thus, bibliometric studies were realized to evaluate in a deeper way the Brazilian scientific production in economics. Among them are Azzoni (1998, 2000), Gonçalves & David (1982), Guimarães (2011), Faria (2000, 2004, 2009), Faria, Araújo Jr. & Shikida (2007a, 2007b), Haddad, Mena-Chalco & Sidone (2016), Issler & Pillar (2002), Issler & Ferreira (2004), Loureiro & Lima (1994), Novaes (2008) and Silva (2009). These articles investigated different dimensions of the Brazilian bibliographic production in economics, but some patterns emerge, that help not only to explain the tendencies of the academic production, but also the evolution of economics in Brazil.

Amongst the main traits are the concentration of the production in Rio de Janeiro and São Paulo. Gonçalves and David (1982) reported that the great part of the authors published from institutions based in the Rio de Janeiro. Issler and Pillar (2002) mentioned only the FGV-RJ and the PUC-RJ as having publication ranking comparable to American and European departments. This result is corroborated by Faria (2000), whose studied showed that only the FGV-RJ attained the highest degree of productivity, followed by PUC-RJ, UnB and USP. Faria, Araújo Jr. and Shikida (2007a) included, measuring the productivity as the number publications/faculty, FGV-RJ, PUC-RJ, UCB, UnB, USP, IBMEC-RJ and IBMEC-SP as centers of excellence, two of them in the Distrito Federal. Still, according to Faria, Araújo Jr. and Shikida (2007b), there was a diminution of the concentration in the RJ-SP axis. Guimarães (2011, Table 2) related the presence of three researchers of the Distrito Federal among the 20 most productive researchers in the country. The collaboration networks also expanded beyond the RJ-SP axis, according to Haddad, Mena-Chalco and Sidone (2016, Figure 6).

In spite that comparisons with the American departments might be little complimentary, Novaes (2008) found out that the researchers with productivity grants from the National Council of Scientific and Technological Development (CNPq) have a publication average greater than the American ones, for the 1999-2004 period. Brazilian orthodox researchers published 5.2 articles, and Brazilian heterodox, 5.1; meanwhile American orthodox researchers published 4.6 and American heterodox, 1.8. Novaes (2008, p. 470) uses this result to argue that "the incentives for economic research in Brazil induce a quantity bias against quality." In other words, "there are signs the evaluation mechanisms of CNPq and CAPES are inducing a sacrifice of quality to increase the quantity of publications" (p. 484). On the other hand, Faria (2004) argues that a greater absolute number of articles is fundamental to form a critical mass of human capital when the research is

incipient. Even so, Faria argues that the Brazilian academia must take a qualitative leap, in the sense of seeking more relevant journals.

The publication incentives are a recurring theme in almost the entire literature cited. Issler and Pillar (2002) argue that there is an academic protectionism in Brazilian journals. In fact, Loureiro and Lima (1994) wrote that many leftist economists resisted the internationalization because they saw in it a subordination to a research method alien to Brazilian problems. The major part of the literature is very critical towards it. Issler and Ferreira (2004) blame the academic protectionism and the lack of contact with the international literature for the crises in the 1980s and 1990s, because it deprived economists from important foreign criticism that could have avoided greater problems. Faria, Araújo Jr. and Shikida (2007a) criticize the Unicamp for its lack of internationalization, which means that the production of the center does not correspond to its national prestige, classifying it as "overrated" (p. 392). However, the thesis of national bubble loses some of its effect when Loureiro and Lima (1994, p. 47) argue that "two thirds of the works cited in [Brazilian] economic journals were written abroad."

The question of the incentives is considered, by great part of the literature, a reason why the Brazilian production does not take off. Azzoni (2000, p. 788-9) wrote that "at the same time the foreign production became impressively more available to our researchers, it was clear that even the publication in Portuguese in national journals condemned our works to the almost international anonymity." The international anonymity thesis is corroborated by Faria (2009) by showing that few international authors cite articles published in Brazilian journals (in an apparently idiosyncratic results, the most internationally cited Brazilian article is not cited by any another Brazilian one). Lastly, for the 1977-1997, in the top 15 journals, Brazilian authors corresponded to only 0.03% of the published articles (Issler, Ferreira, 2004).

The question of the incentives is also related to question of how the weight of the journals is distributed throughout the *Qualis*. Faria (2000; 2004), Issler and Pillar (2002), Faria, Araújo Jr. and Shikida (2007b), Silva (2009) and Guimarães (2011) consider that the weight given to the national journals is excessive, and that there is an excess of national journals. The national journals, for having the majority of its articles published in Portuguese, invoke little interest for a non-Brazilian audience and, for this reason, their IF is near zero. According to Silva (2009), if the *Qualis* reflected with more precision international measures of impact factor, the maximum ranking of a national journal should be B3 and not B1. However, as we showed in the last section, the gap between the international and national ones is lessened by the modifications done for the *Qualis* 2015.

Both Issler and Pillar (2002, p. 371) and Novaes (2008, p. 484) are concerned with the incentives of the *Qualis* for the "boldness" of the Brazilian research. In other words, for the authors, the *Qualis* does not capture the risk of trying a journal from the diamond list. The publication process in a diamond list journal, such as the *Econometrica*, for example, is longer due to the time of the peerreview process and the high level of rejection (that Conley (2012) considers harmful to the development of the economic science). This must be taken in consideration. Otherwise, the necessity of maintaining the classification of the center and guarantee productivity grants incentivize the researchers to publish in less prestigious journals and with a smaller impact factor, but that have the same weight in the *Qualis* system. However, as affirmed above, the *Qualis* is an instrument of evaluation of the scientific production of the graduate schools in Brazil, not an effort measure.

For Silva (2009), ultimately, with impact factors available, the *Qualis* system is redundant. However, he defends that the *Qualis* should be kept due to the extreme difficulty in publishing in diamond list journals (that he calls of "publication impossibility theorem system"), and that the *Qualis* should converge to international impact factors. According to him, there are four biases in the *Qualis*: 1) leftist bias<sup>15</sup>, 2) anti-British bias (inherited from the IF), 3) anti-transdisciplinary bias (which is corroborated by Guimarães (2011) but it is a bias of economic journals in general), and 4) national journals bias (discussed above).

Silva can be criticized for doing a naïve aggregation surround the IF. The presence of the grafts in the *Qualis* was important because economists from different areas, such as HET and methodology do not base their publication decisions the same way as macroeconomists or regional economists. An author that publishes in the *History of Political Economy* will not compete with an author that publishes in the *American Economic Review*<sup>16</sup>. Not putting these grafts could be a disincentive to the quality of the area itself. Besides, it must be considered that a historian of thought, Mauro Boianovsky, is among the most productive in the country, according to Guimarães (2011). Upon not offering an equivalent gain (only the dubious achievement of imitating another academic culture), it would harm the economic research as a whole in Brazil. Lastly, the current modifications to the *Qualis* solved most of the alleged "leftist bias", remaining only one grafted journal.

Concerning the national journal bias, the last modification of the *Qualis*, with the adaptation of the CL index, solved this issue, so the only remaining question is how it competes with international publications. It should be noted that most of the comparative literature is comparing Brazil with the United States. Although the simplification is necessary, it should be reminded that Brazilian researchers are competing not only with American researchers, but with researchers from over 190 countries. A good part of the literature (Novaes, p. 471; Faria, Araújo Jr., Shikida, 2007a) attributes the American leadership not only to the quantity of resources, but also to the flexibility of the American market, in which the hiring practices are more flexible and the productivity rewards are more generous. However, this ignores institutional factors, such as the fact that the English is the *lingua franca* of economics. As Bordon, Fernández and Gómez (2002) argued, peripheral journals and researchers are in a natural disadvantage related to English-based ones. The difficulty of a researcher with English as second language has to face when trying to publish in a high impact factor journal is beyond the scope of this paper, but it should be a suggestion for future research.

Taking this in consideration, the reason why a Brazilian orthodox economist publishes more than an American is because not only he has to cover publications in national journals, but also in international ones as well. This can be corroborated by the literature finding that the productivity of the departments is, usually, sustained by a small number of researchers (Faria, Araújo Jr., Shikida, 2007a; Haddad, Mena-Chalcol, Sidone, 2016) and that the ones that publish internationally end up specializing in it (Issler, Ferreira, 2004).

<sup>&</sup>lt;sup>15</sup> He attributes this to the fact that heterodox journals, of HET and methodology are given higher weights artificially (the grafts). On the other hand, there are some historians of the thought and post-Keynesian economists that would be offended if they were called "leftists.". Labeling those professionals as leftists is inaccurate and useless.

<sup>&</sup>lt;sup>16</sup> On the other hand, Issler and Ferreira (2004) argue that the areas that are more relevant, that is the quantitative methods, received proportionally less resources than less relevant areas, and that would make the allocation of grants a question to be discussed more punctually.

Lastly, it is necessary to improve the national journals. In the 1980s, the main problem was the "predominance – in view of many, excessive – of articles whose authors were linked to the institution responsible by the journal" (Gonçalves, David, 1982, p. 295), together with the low supply of articles that obliged the editors to seek translations or "commissions" (p. 305). Faria (2004) verifies the same problem, due to the domestic network effects and low competition. Thus, in order to improve the international insertion of national journals, Faria (2009) suggests inviting well-known authors to write papers, the publication of articles that create ample discussion with many points of view and to publish articles only in English<sup>17</sup>, and the international diversification of the editorial boards.

However, it must be reminded that, in spite of the continuity of many themes and problems, many of these empirical analyses are outdated. Since 2010, the publication of Brazilian authors in international journals has grown exponentially and game changer centers were established, as it is the case of the FGV-SP, as we shall see. Future researches, allied with the greater easiness of obtaining data, must update the bibliometric literature.

#### 4. MEASUREMENT OF IMPACT OF THE NEW QUALIS AND PLURALISM

In this section, we intend, firstly, to verify if the inclusion of new journals in the higher strata of *Qualis* interfere in the pluralism. This relates to a trait of *Qualis* of being a "moving goalpost". If we consider the planning of the graduate schools, and further if we take in consideration the decision of the individual researcher<sup>18</sup>. It is important to remind that only journals that had publications from Brazilian faculty in the previous quadriennium enter in the *Qualis*. However, given that the new rule harmonizes with a more comprehensive list, the effects over this question do not stop whence we discussed, since now we can have access to the possible classification of journals that are not in the *Qualis*, through Combes and Linnemer (2010). This second question will not be dealt with here. We limit to analyze the journals that have been potentially chosen by the researchers for publication which stratum was modified until the closure of the quadriennium. Besides the question whether it belongs in the mainstream, we also verified the inclusion of specialized areas inside economics.

After this, we evaluate the real impact of said modification in the *Qualis* ranking for the area of economics in the short run: the indicators of evaluation of the centers. We focused on how the modification of the *Qualis* rules in the higher strata impacts each center of our sample, seeking to understand if there are more significant modification for centers considered mainstream, non-mainstream or hybrid. Each modification corresponds to an accidental benefit or demerit to the publication volume of each center, given that none has complete knowledge of the list before the closure of the quadriennium.

We present in the following pages an evaluation of the new journals included after the modification of the *Qualis*. It is important having in mind that the meeting that decided about the

<sup>&</sup>lt;sup>17</sup> An example is the journal *EconomiA*, published by ANPEC, that only publishes articles in English and has an international editorial board, and having a partnership with Elsevier. The establishment of a minimal share of articles in English or giving preference for articles in English in the submission line seems to be a more viable strategy for other journals.

<sup>&</sup>lt;sup>18</sup> We will not enter in the discussion of the *Qualis* through the view of the individual researcher, because we already mentioned how the use of this ranking for individual evaluation is a distortion in itself.

change was in 2016, but it referred to the production in 2015, thus we evaluate the *Qualis* 2015, in relation to the *Qualis* 2014. Afterwards, we will evaluate what it implied to the centers.

#### 4.1. Traits of the new journals included in the strata A1 and A2

The inclusion of new journals in the strata A1 and A2 encompassed both orthodox and mainstream journals as heterodox ones. From the 103 that were once classified in some B or C stratum and were promoted to the highest strata (in other words, not considering those which were already A1 and A2), a little less than a fourth can be considered heterodox or that heterodox articles have fewer less barriers to overcome in order to be published (according to the criteria in note 1). Almost all the international journals that were underestimated in Silva (2009), with exception of some physics journals, were promoted to superior strata of the *Qualis*.

Amongst the most emblematic promotion examples, there is the *Review of Keynesian Economics* (ROKE). The ROKE was founded in October 2012, with the intention of publishing papers based on the Keynes's and the Post-Keynesian methodology, thus outside the mainstream. It was listed as B5 in the 2012 and 2014 *Qualis*, but promoted to A2 in the last one. Another examples of apparent idiosyncrasies there is the *Economics Bulletin* (EB), that is a journal that publishes notes, comments and preliminary research results, in order to provide quick interchange of ideas in the community of economic researchers. The EB is an A1 journal, that can be considered mainstream, and it has an alternative method of scientific publications. *Challenge*, on the other hand, is a scientific review, not a journal, of heterodox orientation, and thus it does not practice peer-review, only editorial triage. It is an A2 review.

In spite of the number of heterodox journals have grown in absolute number, they still remain a small proportion of the journals in the A1 and A2 strata, roughly 15%. This shows the expected dominance of the mainstream in the Brazilian economic research. Even so, the *Qualis* mechanism allows the heterodox approaches to have a real space of growth and discussion. The comparison made by Novaes (2008) shows this, in which American heterodox researchers produce 1.8 articles per year, while the Brazilian ones produce 5.1 – even though Novaes use the result to corroborate the thesis that the structure of Brazilian publishing privileges quantity over quality, it is also possible to say that Brazilian heterodoxy suffer less institutional pressure against their research. Besides, even if it is small, this participation allows the possibility of real influence of the heterodoxy in post-graduate centers.

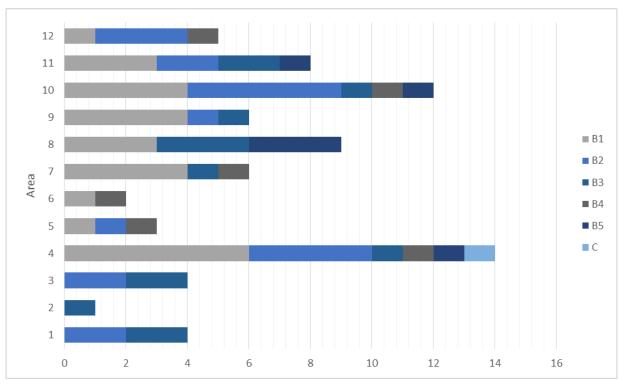


FIGURE 1

Journals promoted to A1 and A2 in Qualis 2015

Academic Rankings and Pluralism: the case of Brazil and the new version of Qualis- Cedeplar/UFMG-TD 569(2017)

Source: Elaborated by the authors

Areas' Correspondence: (1) HET, Political Economy and Economic History; (2) Macroeconomics and Monetary Economics; (3) Public Sector; (4) Growth, Development and Institutions; (5) International Economics, (6) Industrial Economics, Technology and Innovation; (7) Regional and Urban Economics; (8) Agricultural, Environmental Economics and Energy; (9) Social, Labor and Demographic Economics; (10) Finance; (11) Microeconomics and Quantitative Methods; (12) Area other than Economics.

Another analysis we make here is whether specialized areas had greater changes. This fragmentation of the discipline, with strong specialization in areas such as "Regional Economics", "Ecological Economics", etc., is a central discussion nowadays, for example, concerning a possible new format of the mainstream (e.g. Cedrini, Fontana, 2017; see also note 2). By the multiplicity of possible specialization areas, we decided to create a classification that approaches the concentration areas of the ANPEC congress, that can be shown in Figure 1.

The figure shows how the previous *Qualis* ranking of the newly promoted A1 and A2 journals. The new ruled promoted 83 journals, from which 9 can be said to be generic, accepting a wide range of subjects. In other not to increase too much the number of areas, some adjustments have been made, such as including the only Tourism journal in the Social Economics area. The appendix shows all the journals which appears in Figure 1.

We can observe that there has been significant inclusion of specialized journals in the A1 and A2 strata, and that the areas 4 and 10 were the ones that received most additions. Since their area journals used to have a lower classification in previous *Qualis*, it can be said that they are a source of involuntary points (or less voluntary), concerning the objective that will be treated in the following section: on the status of obtaining the classification 6 and 7 from CAPES. In this case, we can point

some areas that were involuntarily "benefited". We can evaluate that the new journal classification seems to follow the tendency of specialization of the discipline, as well as the possibility of interdisciplinary, which is one of the deficiencies of the metrics pointed before.

#### 4.2. Impact of the modifications for the graduate schools

The centers of our sample are the ones classified as 5, 6 and 7 according to the evaluation of the 2010-2012 triennium: EESP/FGV-SP (São Paulo School of Economics/Getulio Vargas Foundation), EPGE/FGV-RJ (Graduate School of Economics/Getulio Vargas Foundation) and FEA/USP (University of São Paulo) are graded 7; Cedeplar/UFMG (Federal University of Minas Gerais), PPGDE/UFPR (Federal University of Paraná), PPGE/Unicamp (University of Campinas), PUC-RJ (Pontifical Catholic University of Rio de Janeiro) and UNB (University of Brasília), are graded 6; and, lastly, PPGE/UFRJ (Federal University of Rio de Janeiro), PPGE/UFSC (Federal University of Santa Catarina), PPGEA-UFV (Federal University of Viçosa), UCB (Catholic University of Brasília), UFC (Federal University of Ceará), UFF (Fluminense Federal University), UFPB (Federal University of Paraíba), UFPE (Federal University of Pernambuco), UFRGS (Federal University of Rio Grande do Sul) and USP-ESALQ (Luiz de Queiroz College of Agriculture – USP) are graded 5.

We consulted the Sucupira Platform looking for the faculty enrolled for each year of the quadriennium as part of their "permanent faculty", given that only their publications count for the calculation of the CAPES grade. Their publications were accounted through the ISSN of each journal in which the published articles were registered in their respective *lattes* curricula. However, given that the score of each article is accounted in function of the center and not of the author, articles that have co-authorship with professionals from the same center could be accounted more than once. We avoided this through a Python code with two filters: (1) same center, year, title and ISSN; and (2) same center, year, ISSN, volume, series, initial page and final page. This procedure also seeks to avoid possible filling mistakes in the *lattes* (such as incorrect filling by one of the authors). Manual checking was used as well, in order to avoid that filling errors interfere in the study<sup>19</sup>.

Our focus in this paper is on the A1 and A2 strata. This happens because they are fundamental to reach the grades 6 and 7 given by CAPES<sup>20</sup>. There are different parameters to determine the grade of the centers, however, some are more relevant for the distribution of the centers with grades between 3 and 5. The grades 6 and 7 are reserved to centers considered with a high degree of "internationalization" and follow a different process stipulated by CAPES. For this (based in the 2010-2012 evaluation, with possibility of changing rules), all faculty of the programs must have a minimal score, there must be a minimal percentage of faculty with A1 and A2 publications, besides

<sup>&</sup>lt;sup>19</sup> The manual checking also served to correct errors from CAPES itself. The Sucupira Platform for the year of 2014 wrongly informed the classification of a journal and put other in two different strata. This happened, respectively, with the *Análise Econômica*, that was B2 but it was listed as B5 in the site, and the *Revista Brasileira de Estudos Populacionais*, that was in both in the A2 and the B2 strata (due to the limit for the area of Economics, its correct stratum was B2).

<sup>&</sup>lt;sup>20</sup> An example of the benefits of a high grade would be the number of available grants for the program to allocate between its students. In the case of the downgrading of the UFRJ, the program had its number of grants diminished.

being made an evaluation by the members of the commission on the impact of the publications of the center. Lastly, factors not related to publication, such as participation in international institutions and interchange of faculty and students abroad are also evaluated (CAPES, 2013b).

We start our initial separation with the distinction of whether the center can be considered mainstream or not, following Codato *et al* (2016). We can classify as unambiguously *mainstream*, the FGV-RJ, PUC-RJ, FGV-SP, UCB and UFPE. All the others are considered *non-mainstream*. In the non-mainstream category, there are both centers that have a majorly heterodox production (UFRJ and Unicamp) and the ones that do not have their production highly concentrated either in the mainstream or in the heterodoxy. We considered the homogeneity of the permanent faculty (taking in consideration mainly if their *alma mater* can be considered mainstream) and research lines (again, considering its proximity with the previous distinctions). Those departments, no matter how close they are from any approach, are considered *hybrid*.

Some adjustments had to be done in the presented data. We consulted the CL index table to adjust any article that could have been published in a journal not present in the Qualis 2015 (which accounts for the publications until middle 2016 at best). In the case of the Qualis 2014, another problem emerges: as it is seen in the Table 1, we show the publications A1, A2 and B1 in both estimations, trying to infer how much they changed. However, in case of a journal appearing as A1, A2 or B1 in 2015, but not accounted for in 2014, it does not mean to say that the change in the rules promoted it. In order to better evaluate these questions, we decided to use the 2010-2012 Qualis evaluation to fill the previous journal classification of journals that did not have publications of Brazilian faculty until the Qualis 2014. This procedure is accordingly with the CAPES procedures, since the Qualis has interest in keeping stable the already given evaluations (also because the 2012 evaluation was based in the same rules as the 2014 one). Lastly, some journals still had no equivalent evaluation for the 2014 rule. In these cases, we filled with the same stratum in the 2015 evaluation, given that there was no other safe rule to classify them. For some non-economic journals that had not been classified, we used the committee's reference: the statistical mode of the strata that the other evaluation areas of CAPES established (e.g. the Journal of the Association for Information Science and Technology), with the ceiling of A2. In this way, we nulled the overestimation effect for the change of rule that could happen.

As we can observe in Table 1, all centers had increment of articles in the strata A1 and A2. The center that was less positively affected was Unicamp, with 4 additional A1, same number of A2. Then, UFC and Cedeplar, with 5 and 7 new A1, respectively, and 2 new A2 each. In spite of them being considered non-mainstream, the UFC is much closer to the mainstream than the others. On the other hand, the PUC-RJ increased to 22 the number of A1 articles, at the cost of 8 A2 publications. Three of these new A1 happened because of publications in the *Econometric Reviews*, previously considered B2. The case of this journal would be a good example of a significant change for the grades 6 and 7.

TABLE1

Permanent Faculty publications in A1, A2, B1 strata according to 2014 and 2015 rules

	2015	2014	2015	2014	2015	2014	
Department	A1		А	2	B1		
CEDEPLAR	12	9	6	2	55	45	
FGV-RJ	46	24	2	17	17	19	
FGV-SP	56	19	21	21	46	46	
PUC-RIO	22	7	0	8	16	17	
UCB	13	1	17	15	27	22	
UFC	5	0	4	6	39	33	
UFF	16	3	15	9	42	37	
UFPB	13	1	1	2	31	26	
UFPE	10	2	8	10	36	37	
UFPR	11	2	6	8	48	41	
UFRGS	11	3	10	6	74	62	
UFRJ	21	9	13	8	50	50	
UFSC	17	2	9	11	35	28	
UFV	5	0	6	7	35	35	
UNB	21	11	15	10	28	27	
UNICAMP	9	5	12	12	47	34	
USP	23	10	25	18	46	46	
USP-ESALQ	10	0	6	6	47	46	

Source: Sucupira Platform - Elaborated by the authors

The centers that had greater increase of A1 and A2 publications were both the FGVs, being that the growth of the FGV-SP was even more significant given that it kept the number of A2s (FGV-RJ diminished in 15), and increased in 37 the A1s (against 22 of the FGV-RJ). In the case of the FGV-RJ, 18 of the new A1 and A2 only 9 were previously classified in B strata in *Qualis* 2014. Concerning the FGV-SP, it was 25 that were previously in some B strata. None of them published in a journal that emerged from B4 and, and FGV-SP published one paper in a previously B5 (now A2) journal. USP, UCB, UFRJ and UFF also had a large number of papers published in journals that were B in 2014 and are A in the 2015: 20, 14, 14 and 19, respectively. The other centers that were not nominally cited also had a significant increase in their publications in superior strata, independently of being considered mainstream, closer to the heterodoxy or any other classification. A more detailed analysis can be observed in the Table 2, where we show that the per capita average each year. This is a closer measure to the one used in the excellence grades.

We can observe, analyzing the "average" column (the one linked to the ranking we presented) of the table for the *Qualis* before and after the change, that only the UFF (a hybrid program) had a significant improvement of position, going from 13<sup>th</sup> to 5<sup>th</sup>. It publish nineteen papers in journals that were not considered in A1 or A2 strata in the previous classification. From those, three

papers were in *Applied Economic Letters* and three in *Economic Modelling*. And, from the 31 papers published in those strata, 15 had professor Helder Ferreira de Mendonça as the first author. The most negative change belongs to the Unicamp, one of the two fully heterodox graduate programs, which falls from the 8<sup>th</sup> place with the previous rule to the 14<sup>th</sup> position. Unicamp, which, as said before, was known for a high concentration in its international publishing, had a considerable well-distributed publication pattern. David Dequech, who published the most in A1 and A2, had four (from 21) papers in those strata during the evaluated period. The other heterodox department, UFRJ, had an improvement in one position. This analysis, compared to the positions in the *Qualis* 2015, can differ a little from the one made by CAPES. This happened because we could correct many filling errors and double counting that existed in the *lattes* of the faculty, something that is not completely possible during an evaluation, especially because of the short period of time that the CAPES makes available to the commission.

In sum, this modification did not cause greater impact in the centers considered outside or inside the mainstream. This implies that it did not alter significantly the comparative evaluation of the heterodox and more pluralistic centers, in this first moment. One of the reasons for this is that in the previous ranks the main heterodox/generalistic journals in which Brazilians published were "grafted", such as *Cambridge Journal of Economics*, *Journal of Post-Keneysian Economics* and the *Review of Radical Political Economics*. As we could observe by what has been previously said, good part of the changes comes, actually, from the inclusion of specialized journals in the superior strata, such as from ecological economics, health economics, or history of economic thought, and that dilutes the effect of this change in the orthodox/heterodox relation, without minimizing the significance for pluralism. Besides, the inclusion of heterodox journals was significant enough to reaffirm the this type of pluralism in the *Qualis* classification.

TABLE 2
Permanent Faculty per capita publication score (year to year and average) in A1 and A2 strata according to 2014 and 2015 rules

			Qualis 2015			Average's		(	Qualis 2014			
2013	2014	2015	2016	Average		Ranking		Average	2016	2015	2014	2013
80.00	96.000	120.000	100.000	99.000	FGV-SP	1	FGV-RJ	60.737	70.588	54.667	70.000	47.692
69.23	1 68.750	72.000	98.824	77.201	FGV-RJ	2	FGV-SP	55.963	44.444	70.588	82.667	26.154
94.00	26.000	78.000	68.000	66.500	UCB	3	USP	36.007	27.778	40.000	50.000	26.250
66.25	85.000	47.778	56.667	63.924	USP	4	UCB	32.500	32.000	32.000	16.000	50.000
65.45	5 56.364	68.333	53.333	60.871	UFF	5	PUC-RIO	28.651	51.667	9.091	40.000	13.846
69.41	2 26.667	64.706	33.750	48.634	UNB	6	UNB	27.813	11.250	37.647	20.000	42.353
23.07	7 63.636	18.182	83.333	47.057	PUC-RIO	7	UFPE	21.780	6.667	35.000	14.545	30.909
65.33	18.889	49.524	39.000	43.187	UFRJ	8	Unicamp	21.212	12.000	31.000	4.706	37.143
57.33	30.667	49.333	27.692	41.256	UFSC	9	UFRJ	21.179	15.000	25.714	13.333	30.667
43.63	6 16.364	50.000	31.667	35.417	UFPE	10	UFSC	18.205	6.154	21.333	22.667	22.667
32.72	7 16.667	36.667	48.333	33.598	UFPR	11	UFPR	17.841	20.000	20.000	15.000	16.364
17.33	38.571	28.750	45.714	32.592	UFRGS	12	CEDEPLAR	17.167	6.250	23.750	13.333	25.333
42.66	7 18.667	30.000	17.500	27.208	CEDEPLAR	13	UFF	15.754	14.444	20.000	17.143	11.429
40.00	10.588	40.000	16.000	26.647	UNICAMP	14	UFRGS	13.396	11.429	6.250	18.571	17.333
0.000	23.077	28.571	48.571	25.055	UFPB	15	UFV	12.121	6.667	20.000	14.545	7.273
21.42	24.286	16.250	36.250	24.554	USP-ESALQ	16	UFC	8.901	17.143	12.308	6.154	0.000
7.273	25.455	45.000	6.667	21.098	UFV	17	USP-ESALQ	7.679	10.000	15.000	5.714	0.000
0.000	13.846	21.538	25.714	15.275	UFC	18	UFPB	4.780	5.714	5.714	7.692	0.000

Source: Sucupira Platform - Elaborated by the authors

This increase in diversification has the potential to allow an even greater pluralism in Brazilian departments, since more research lines are able to publish in highly ranked journals. From that, departments with different theoretical focus or specialization can access more research funds and increase its research as well as the number of graduate students. Obviously all the *Qualis*' problems are not solved, and a new one has the potential of emerging: the lack of differentiation between the journals considered A1 and A2. Since the strata are fixed, there are too many journals considered as equal, and as said previously, even journals that accept unfinished research or have no peer-review process. This may have been solved with a new rule created in the last meeting for the classification of the departments (CAPES, 2017). There it was established that a report should be given regarding the impact of the publications. This actually means that the departments would select the main publication that should be published in the main journals of each field (regional economics, macroeconomics, social economics, etc.).

A further major question here is the weight that the *Qualis* has on the evaluation process of Brazilian graduate center, which some consider excessive. Although there are other rules that should be followed, they are not relevant when it comes to the evaluation for grades 6 and 7. This questions and how the evaluation interfere in the academic culture, encouraging "salami science" for example, can be discussed in a further study.

#### 5. CONCLUSION

As we showed, the available metrics for the quantitative evaluation of the academic production, be it from WoS, Scopus or GS, present biases that the related literature have been seeking to correct ever since. The *Qualis* of economics, in turn, was always based on works that had the objective of ranking the graduate programs in Brazil, something that influences directly not only the academic prestige, but also the availability of resources. For this reason, it has been criticized, especially because of the subjectivity of allocation of journals inside its strata.

With the modifications of 2016, *ad hoc* changes in the classification of journals were kept to a minimum, and the quantity of journals in the superior strata was significantly increased. These strata not only score higher, but also are the base to assign grades 6 and 7 to the centers. Having this in mind, we evaluate here how these included journals can be understood: mainstream, non-mainstream or hybrid. This allowed us to evaluate that the modification kept the pluralism of economics in the country, something constantly pointed by the literature (e.g. Fernández and Suprinyak (2016)). Besides, we divided these journals in specialized subfield, with the intention of observe a diverse mode of pluralism, coming from an increased weight of the specialization in economics. We concluded that not only this modification contemplated a good number of subfields, but also more interdisciplinary journals. These two characteristics are important, because may metrics have pointed out the deficiency of including both.

Lastly, we compared the average publication of the faculty in the centers graded 5, 6 and 7 by CAPES with what it could be if the 2014 classification was kept. Here, only two centers changed their position significantly and we did not observe negative or positive bias concerning belonging or not to the mainstream. This excludes a drastic short run effect caused by the modification, not previously announced, in favor of a research agenda.

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#### **APPENDIX**

TABLE A

Journals classified as A1 and A2 in Qualis 2015 (but not previously), its strata in previous Qualis and field

JOURNAL	QUALIS	AREA	JOURNAL	QUALIS	AREA
agribusiness (new york, n.y. print)	B5	8	journal of financial econometrics	B1	10
agricultural economics	B5	8	journal of financial stability	B2	10
american journal of agricultural economics	B1	8	journal of forecasting	B2	12
annals of finance (print)	B5	10	journal of institutional economics	B2	4
applied economics (online)	B1	GN	journal of international agricultural trade and developments	B5	8
applied economics letters	B2	GN	journal of international development	С	4
biofuels bioproducts & biorefining-biofpr	B1	12	journal of international economics	B2	5
computational economics	B1	11	journal of optimization theory and applications	B2	12
desarrollo económico (buenos aires)	B1	4	journal of policy modeling	В3	3
ecological economics (amsterdam)	B1	8	journal of productivity analysis	B2	11
econometric reviews	B2	11	journal of public economic theory	B1	3
economía (washington, d.c.)	В3	GN	journal of regional science	В3	7
economic development and cultural change	B2	4	journal of the history of economic thought	В3	1
economic history review	B2	1	land use policy	B1	7
economic modelling	В3	11	metroeconomica	B1	4
economic systems	B1	4	open economies review	B4	5
economics bulletin	B2	GN	oxford development studies	B2	4
economics of education review	B1	9	oxford economic papers	B1	GN
economics of innovation and new technology	B1	6	oxford review of economic policy (print)	B1	3
emerging markets finance & trade	B2	10	papers in regional science	B4	7
emerging markets review	B2	10	regional science and urban economics	B1	7
empirical economics	В3	11	regional studies	B1	7

Table A: Continued

JOURNAL	QUALIS	AREA	JOURNAL	QUALIS	AREA
energy economics	В3	8	resources policy	В3	8
energy policy	В3	3	review of development economics	B1	4
environment and development economics	B1	8	review of international economics	B1	5
financial history review	B2	1	review of keynesian economics	B5	4
Finanzarchiv	B2	10	revue d'économie politique	В3	GN
health economics (print)	B1	9	revue de la regulation: capitalisme, institutions, pouvoirs	B4	4
innovation (north sydney)	B4	6	rivista di economia agraria	В3	8
insurance. mathematics & economics	B5	11	structural change and economic dynamics	B1	4
international journal of finance & economics	B2	10	telecommunications policy	B4	12
international journal of forecasting	B2	12	the annals of regional science	B1	7
international journal of social economics	B1	9	the b.e. journal of macroeconomics	В3	2
international review of applied economics	B2	GN	the journal of developing areas	В3	4
international review of economics & finance	B1	10	the north american journal of economics and finance	B1	10
international review of financial analysis	B4	10	the quarterly review of economics and finance	В3	10
investigación económica	B2	GN	the review of black political economy	В3	1
journal of applied economics	B2	GN	the review of income and wealth	B1	9
journal of comparative economics (print)	B2	4	theoretical economics	B1	11
journal of cultural economics	B2	9	tourism economics	В3	9
journal of economics & management strategy	B1	11	world bank economic review	B1	4
journal of empirical finance	B1	10			

Source: Sucupira Platform - Elaborated by the authors

Areas: (1) HET, Political Economy and Economic History; (2) Macroeconomics and Monetary Economics; (3) Public Sector; (4) Growth, Development and Institutions; (5) International Economics, (6) Industrial Economics, Technology and Innovation; (7) Regional and Urban Economics; (8) Agricultural, Environmental Economics and Energy; (9) Social, Labor and Demographic Economics; (10) Finance; (11) Microeconomics and Quantitative Methods; (12) Areas other than Economics; (GN) Generic.