



# Political Economy of Higher Education: Research and Science in Contemporary Brazil

João dos Reis Silva Júnior<sup>1</sup>, Everton Henrique Eleuterio Fargoni<sup>2</sup>

<sup>1</sup>Department of Education (DEd), Federal University of Sao Carlos (UFSCar), Sao Carlos, Brazil

<sup>2</sup>Education by the Graduate Program in Education (PPGE) of the Federal University of Sao Carlos (UFSCar), Sao Carlos, Brazil

Email: evertonfargoni@gmail.com, jr@ufscar.br

**How to cite this paper:** dos Reis Silva Júnior, J. and Fargoni, E.H.E. (2020) Political Economy of Higher Education: Research and Science in Contemporary Brazil. *Open Access Library Journal*, 7: e6082.

<https://doi.org/10.4236/oalib.1106082>

**Received:** January 16, 2020

**Accepted:** February 14, 2020

**Published:** February 17, 2020

Copyright © 2020 by author(s) and Open Access Library Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

This article discusses how the economic forces since the Brazilian State Apparatus Reform structure higher education policies and, consequently, how they order the form of science production in Brazil. With the reduction of the State in the Public Sphere, Public Higher Education in Brazil started to be guided by economic activities, so the structuring policies for knowledge production also began to accompany such a milestone of change in the logic of work and research production, development and innovation. In this broad conjuncture, Brazil has been a part of the process of globalization of Higher Education and has been intensifying academic and scientific work since the 1990s under the logic of the international market.

## Subject Areas

Economics, Education, Political Economy, Politics

## Keywords

Economic Policies, Higher Education, Research

## 1. Introduction

Brazilian science, in the transition from the twentieth to the twenty-first century, is translated by complex and expressive transformations, sometimes by the significant technological development, sometimes by the public policies, which have engendered important changes in the productive process and, consequently, in the forms of the knowledge production work process. These are modifications that affect the entire arrangement of the public sphere, including the geopolitical scope of the country under the protection of the globalization of the economy, bringing to the national configuration, social exclusion through the

intensification of work and its respective loss of social rights over it—ideology that invades the system of Brazilian political organization by offering itself as the only way out of economic adjustment and maintenance. That is, in this new process of capitalist restructuring, Brazil is being marked by centralization policies that lead to the reduction of state participation in the public sphere.

These transfigurations are entirely concatenated with the managerial reform of the state and need to be understood at the level of two major forces that regulate contemporary society in the twentieth century: globalization, due to capitalism becoming globally dominant, and open markets because of capitalist competition. This has made nations more competitive and the state in this context managed to achieve greater efficiency. On the other hand, emerging particularly in Europe, social democracy has moved to secure social rights by promoting the creation of important social and scientific services in various areas such as health, research, education and social assistance, requiring that public administration to be satisfactory to all, but also efficient.

## 2. Brazilian Economy, Policies and Higher Education

Quoting John Maynard Keynes, Bresser-Pereira states that failures in the economic and social structuring of a country, occur due to the deficiency of the free market in meeting, with balance and equity, the demands of the populations at the most diverse social levels and of productive interaction with the market taking from the worker to the scientist hostage in an ideological way in which the crucial interest is to consolidate the dominance of finance capital without considering how its agents survive. This reform model has occurred in almost all developed countries.

According to Keynes, quoted by Bresser-Pereira [1]:

The free market has led capitalist economies to chronic insufficiency of aggregate demand. As a consequence, the Liberal State also entered into crisis, giving rise to the emergence of the Social-Bureaucratic State: social because it assumes the role of guaranteeing social rights and full employment; bureaucratic because it does so by directly hiring bureaucrats. It was recognized thus complement the role of the state in economic and social terms.

Begun in 1995, the reform of the Brazilian state was guided by the intentions of multilateral organizations, such as the World Bank, which was responsible for defining the direction of economic and social policy, concerned with the inability of state management. This opened a large space for finance capital to establish control and regulation of the nation, through payment of its services.

Brazil, historically regulated through the patrimonial state, in the face of state reform, is now undergoing adjustments in the direction of the commodification of its productions, from the field to the academic knowledge, further worsening the field of social achievements, because instead of worrying about social welfare, it transforms citizens' rights into commodities, commodifies struggles and achievements. This new political and economic paradigm caused Brazil, in the

1990s and 2000s, to increase the concentration of wealth, while reducing the public sphere, triggering other consequences, such as the growth of corruption and a strong process marked by social exclusions.

In this context, the State Apparatus Reform Master Plan became an important reference in the history of the country, evaluated as a document that overcame the “Vargas Era” at the institutional level, outlining fundamental guidelines in the changing relations between State, Government and the Society, articulating them in a new format of development and redefining a series of historical functions of the Brazilian state. In this perspective, [2] and [3] analyze this Plan, point out the connection of four processes that dialogue with various sectors of society: 1) the strategic core; 2) the exclusive activities of the state; 3) non-exclusive state services and 4) the production of goods for the market. The government, in this case, reserves the organization of the first two; however, in the last two, the state works indirectly, promoting, in whole or in part, the financing of these sectors—including education.

Although the government acts indirectly in the education sector, from basic to higher education, the ties of proximity with other managerial views have intensified, with the purpose of strengthening the involvement of Brazilian education with the productive sector. [4] analyzed the policies recommended by the World Bank for education, showing that the reduction of the state facilitates the decentralization of systems, causing the disruption of organized sectors. In the early grades of schooling, emphasis is placed on the basic cognitive capacities of the learning process because of the flexibility of work, and the reallocation of public resources to this level takes as a parameter the efficiency, measured by evaluation processes—that is, opening competition between school units in the fight for more resources.

This process revealed the World Bank’s intentions for the country’s education, an inalienable social right that deepens into a metamorphosis through an ideological mechanism that is very close to a neoliberal ideology, configuring the Brazilian student to a vision guided by instrumental rationality, correlated with vocational training in a growing course of privatization of education, especially higher education. Educational policies in this context, such as the Guidelines and Bases Law (LDB) and the National Education Plan (PNE), are key steps in these changes, as they are also in tune with multilateral organizations. The LDB, for example, reserves to higher education a sum of principles that present modifications for this level of education, such as decentralization and flexibility, consolidating new forms of control through standardized evaluation processes.

[3] demonstrated that such a movement was a sign of the existence of progressive reform in academia, given the tendency to reduce the role of the Brazilian state in the financing of higher education institutions, combined with the clear incentive for privatization and commercialization of this educational level. Science, the knowledge produced in universities, experiences a resignification: what was once a study of solution, is intensifying as a commodity. This scenario ends by affirming itself:

Publications have become commodities produced by a publishing industry that is a monopoly on the sale of copyright. Around the world, many universities sell their teachers' productions in this market. Universities sell copyright for productions by their professional researchers. Researchers are paid additional to their salaries by selling their copyright for a reasonable amount to the universities in which they work [5].

The political design of Brazilian science<sup>1</sup> and knowledge production has been constituted in this way since the 1990s. The university undergoes the organization of its research nuclei under the logic of the market and, as a result, two types of state institutions coexist: public and mercantile. In this context, higher education experiences a new organizational paradigm involving its institutional role in society, that is, of transforming social reality, in which concepts are expanded to share knowledge, becoming units of formation with the central intention of generate economically profitable knowledge. In the reformed third sector of the state are the universities directed to the production of *materia-prima*<sup>2</sup> knowledge, with the purpose of shaping the Brazilian state university as a strong means of moving the new international division of scientific work to produce value for the economies, placed as a strategic institution for the increase of the productive forces of the country, either by technological innovations or by the form of the workforce production, considering that the market is made up of demanding consumers in the most different levels, especially in the USA.

As this process unfolds a profound institutional change in the identity and social function of the university, the locus in which research fosters scientific production takes a commodified form, science is no longer just a search for sociable ends to humanity because of a politics tied to consumption. The university, like a factory, becomes a provider of marketable products, making the knowledge generated by academic intellectuals, become part of a complex system of production. According to [7], this operational university "is facing itself as a contract management and arbitration structure. In other words, the university is turned inward, but (...) this does not mean a return to itself, but rather a loss of itself". Still, according to Chauí [7], "this university does not form and create thought, it strips the language of meaning, density and mystery, destroys the curiosity and admiration that lead to the discovery of the new, nullifies all preten-

<sup>1</sup>In the 1980s, in the United States, the Bayh-Dole Act contributed to the expansion of patent production by US universities in partnership with companies. In Brazil, a very similar law sanctioned by Dilma Rousseff in 2016 called the "Milestone of Science, Technology and Innovation" boosted Brazilian universities for the same reason as US law. The text altered a series of actions on encouraging research and crucial points for scientific and technological development by regulating the relationship of academic research centers of state universities with private enterprise. In addition, by regulating long-term co-payments between the public and private sectors, it has increased the flexibility of action for Scientific, Technological and Innovation Institutions (ICTs) and their support organizations [6] (p. 45).

<sup>2</sup>This is raw material knowledge. In a free translation, knowledge as a material prima to be transformed into products, processes or services in order to increase economic productivity (SILVA JUNIOR, 2017, p. 65).

sion of transformation. As the conscious action of human beings under certain material conditions” (p. 222).

This configuration of the Brazilian state university places academic institutions in the light of the planetary market—so science in Brazil is intensively organized for the market, which brings together all areas of knowledge that compete with each other, whether to employ graduates or for competition in raising research funding. In the humanities domain, as is well-known, funding patterns are usually well below other areas such as health, pharmaceuticals and the exact sciences—which mainly involve engineering, mathematics and computer technology.

Brazilian academic organizations, classified as non-exclusive state services, are constantly compared with their US counterparts, especially universities. Commenting on such organizations in that country, [1] writes:

In the United States, all universities are non-state public organizations. They may be considered “private” or “state-controlled”, but strictly speaking they are not intended for profit and do not employ public servants. They are partially financed or subsidized by the state—their “private” side is smaller than the “state-controlled” side, but they are independent entities, jointly controlled representing civil society and in a minority position by the state. In the United Kingdom, universities and hospitals have always been under state control; it is not like that now: today they are “almost non-governmental organizations”. They were not privatized: they went from state control to public control.

In a convergent perspective, British sociologist Michael Burawoy [8] analyzes similar aspects in the crises that surround universities in various parts of the globe amidst the process of commodification in the production and circulation of knowledge. Critically enough, Burawoy comments on the “selective withdrawal of public funds” at European universities, placing them increasingly “in the hands of “private clients”, whether they are large companies or wealthy clients”. The author understands that “privatization and rankings go hand in hand”, leading to an articulated series of financial, governance, identity and legitimacy crises” [8] (p. 44).

[9] in turn, speaks of the sharp process of competition between educational institutions within each country and on the international scene in search of academic and social recognition, driven by a wide variety of rankings. “Teachers are increasingly encouraged to value indexed publications; teaching activities, which have ceased to be relevant criteria in terms of prestige, tend to take a secondary role”. He adds that a significant part of higher education has become “the object of lucrative economic enterprise in many countries. Internationally renowned universities such as Columbia, Stanford and Chicago in the USA and the London School of Economics in England have formed a consortium to commercially exploit the supply of their services on a global scale” [9] (p. 4).

Reviewing some authors who are dedicated to examining the ways in which universities act, currently Martins writes that it is a strong tendency that he un-

derstands that higher education institutions “should privilege research that has an incremental character in the economic process”, which diversify funding resources for the collection of annuities, “through partnerships with governments and corporations and by setting up companies to commercially exploit new technology products or services” [9]. It is also suggested a series of “changes in the academic culture and behavior of leaders, teachers and students, through the practice of a managerial and entrepreneurial attitude” [9] (p. 5).

In the Brazilian case, at the undergraduate level, only about 25% of enrollments are in public institutions, with the system expanding at a faster rate than most nations, and “as this affects the public sector puts great strain on university budgets, regardless of whether or not there are cuts” [8] (pp. 44-45).

One of the alternatives constantly discussed is the privatization of the public university, which enters the list of arguments to charge tuition at postgraduate and also undergraduate courses. This debate is updated through the inductive attempt to modify the productive and financial management system of universities, as in the United States, but ignoring the complex disparate history built by both countries. In this context, the University of São Paulo appears constantly in news and discussions about the financing of education, often with comparisons of academic production in the state in relation to the rest of Brazil, highlighting the deep regional inequality in which knowledge production finds itself.

At this juncture, the work of the teacher in higher education, as a teacher and researcher that generates new knowledge, changes, taking different form due to the transformations of the nature of his activity. His work, conditioned on the changes experienced by universities, will be directed to the economy, to the market, as already mentioned in previous lines. Thus, the professor-researcher is positioned in the front line of a doing that is launched in the sciences under a political logic that has its genesis in the financialization of research and the legal system of a system that is doubly adverse, because besides worsening its work, induces it to collaborate with private corporations.

These changes manifest themselves in the university in different ways, including the naturalization of the knowledge-commodity union; the institution’s complete adherence to the mercantilist process as an alternative to survival; the weight of the market place peers and universities in fierce disputes, in a process of increasing bondage to external pressures. This set of transformations will include, for those who adhere to the new work culture, extra remuneration for agents, equipment purchases, funding of part of their research, sponsorship of trips to other countries, etc.

About this set of transformations involving the Brazilian university, its professors, researchers and students, configured by the commercialized scientific production, Gramani [10] writes the following:

[...] when it comes to an educational institution with commercial values or market principles there may be situations such as: hiring and firing employees of the institution based on market needs, recruiting students for the

most profitable purpose, creating programs rapid in order to maximize gain, judgment of teacher performance according to consumer demand, standardization of curricula for economic efficiency, among others.

Thus, Brazilian science, articulated by public and educational policies, leans toward academic capitalism [11] in a socially commodified manner. The teacher's work cannot be detached from this context, because the subjective conditions of this professional are correlated with the new regulation, which includes forms of financing, management and evaluation of institutions. The configuration of work and the relationships that are now established, according to the political movement that interferes in the educational sector, make the teacher-researcher, producer of science, not immune to exhaustion through the Taylor-Fordist model. Such metamorphoses in the context of Brazilian scientific production directly affect teachers and their students, as they are intertwined with the reform of higher education based on state reform, as the format of teaching work is increasingly integrated into the management model. A dominant market logic in most Higher Education Institutions.

This political form not only contributed to reconfigure the academic organism in the process of approximation with the new economy, but also changed the ethos of the work of professor-researcher in Brazilian state universities by virtue of the new research promotion policies of the main federal and state agencies. , aiming to produce knowledge, inducing it to a new way of being and working in the university's daily life, with consequences for its sociability and subjectivity, especially regarding its mental health. Such changes reveal the propensity for knowledge production at the heart of academic capitalism, to the point that "knowledge itself becomes a key commodity to be produced and sold to those who pay more, under conditions that are themselves increasingly organized on a competitive basis" [12] (p. 151).

In this sense, the production of knowledge in a university turns out not to be autonomous, it is historically built in the combination of industry and academia, given the great impetus that occurred in the 1980s in the United States and Europe for new patents and licensing. The reconstruction of the academic format took place, resulting in the enactment of the Bayh-Dole Act, which, according to Silva Júnior [5], is the consequence of the union between universities, industry and state, convinced that this coalition will elevate the nation's economy. Faced with the predominant financial regime, Brazilian public universities are reorganizing themselves into a new institutional paradigm regarding the production of knowledge in the global market, sometimes by governments bringing academy closer to companies, sometimes by inducing the work of the professor-researcher because of the interests of world corporations.

Considering these changes, the new modes of regulation of Brazilian higher education are concatenated with the discourses that underlie the development and financing of postgraduate research in the last twenty years, as already pointed out by [13] (p. 28):

The great R&D challenge in Brazil today is to create an environment that encourages the company to invest in knowledge to increase its competitiveness. The Brazilian state is already making huge investments in the training of qualified personnel (the country currently trains 4000 doctors a year) and in fundamental and applied research projects. It is up to the company to take advantage of these conditions and convert them into competitiveness, wealth and development.

Brito Cruz himself, FAPESP's scientific director, in his text "Indicators on University-Company Research Interaction in São Paulo" [14], analyzes the amount of scientific studies published by the three São Paulo state universities (USP, Unicamp and Unesp) in co-authored with companies from 2011 to 2017, based on Web of Science academic journals, stating to *Folha de S. Paulo* reporter Sabine Righetti [15] "We are talking about a real scientific partnership", adding that "these are studies made by joint way. It's not about the company putting money into the university to paint a lab wall". From the list of the ten companies with the most scientific articles published in this modality, eight are foreign. They are, with their edited work numbers: Petrobrás (199 studies), Novartis (118), Roche (73), Merck (59), Westat (53), Astrazeneca (52), Pfizer (51), GSK (50), Agilent (49), Embraer (47) [14].

[14] explains that the amount of studies done with companies in the total of publications from the three universities "has been increasing at a frenetic pace and compares with that of developed countries" [15] being that at USP and Unicamp Almost 3% of all scientific studies published between 2015 and 2017 have partnered with a company, which is slightly higher than the University of California (Silicon Valley). He concludes by considering that such indicators serve to "dismantle a recurring discourse that public universities do not do research with industry" [15].

The opening of the Brazilian economy through the reform of the state apparatus placed the legislation in the offer of tax incentives and subsidies, creating conditions for the industry to intensify its investments in R&D (research and development) in all public universities, even though with inversion discrepancy between them. "In Brazil, it should be pointed out, preliminarily, that this movement of commodification of knowledge production is not found in all universities and not in all public institutions, and this is because only some of them have fully institutionalized research and postgraduate studies. It is these HEIs, or groups within them, that have been urged to produce new knowledge: commodity knowledge that can be transformed into products, processes, and services" [16] (p. 216).

Another factor that directs universities in the scientific field is the set of their productions, represented by the number of articles in journals of great relevance in academia and also by partnerships with major corporations worldwide. In this process, the application of funding policies that contribute to the scientific production of universities are conducted by broad evaluations of research proposals

and programs to which scientific work centers are linked. A highlight is the rankings, which show IES's position on the science radar, in line with world demand. This "ranking" through indicators puts the university in the perspective of World Class University<sup>3</sup>:

The arrival of higher education rankings is not surprising (...) they are seen to provide a clue to a wide range of stakeholders about the quality of the educational product. (...) For government and policy makers they can suggest the level of quality and international standards as well as their impact on economic capacity [17] (p. 4).

This set of information becomes vital for the definition of the allocation of funds through the scientific framework of the HEIs, formalizing the political plan that organizes the incentive for the production of new knowledge. [18], quoting Charles-Albert Michalet, asserts that this structure represents a part of the internationalization of the economy based on foreign trade and the flow of financial capital to the globalized economy, which, in turn, rests on the internationalization for the added-value producing capital—circumstance in which the Brazilian university is hypothetically located, since investment requires less time in order to gain new knowledge through academic-scientific work. This will generate new patents derived from the reorganization of national and international economies, especially through large corporations that contributed decisively to the change of the traditional university paradigm and the political form of scientific production in Brazil. According to Michalet, quoted by Chesnais, "in the traditional paradigm, productive capital falls outside the globalization of capital". Define:

The transformation of the international economy into the world economy coincides with the end of this dichotomy. The globalization of productive capital becomes an integral part of the globalization of capital [...] more precisely, it becomes the center of it [18].

It is important to understand how this is triggered in the form of science production in Brazilian HEIs. The predominance of finance capital, vitally money, is part of a market that sucks in news daily and craves the new through constant innovation to respond to shareholders in lightning-fast times to meet consumer demands and fuel the needs of consumers basic needs of the market (pharmacy, health, fuel, food, etc.). For this reason, science within the public sphere is not treated merely as another device of human intelligence produced throughout history and in research laboratories. Science, as well as technology and education, are strategic areas for industry and society, given that research in the Brazilian case is predominantly funded by the public fund. However, the return of

<sup>3</sup>According to Silva Júnior [5] (p. 157), World Class University is the classification of universities within the scope of the globalization of capital whose work by the professor and his research provide marketable results on demand of the "new economy" or "globalization", or of "academic capitalism".

this knowledge itself is not seen in social causes or in the articulation of specific and free improvements for the population.

It is to be considered that in the form of knowledge production, Brazil can stand out in the world scientific scenario with relevant indexes, often receiving awards for excellence. However, in world geopolitics, the technical importance given to science is strengthened by the mutual work between academic research centers with the involvement of the scientific community with the industrial complex. If scientific development is trapped within the Brazilian capitalist system under the domination of the international market, Brazilian science will continue to be held hostage by investments arising from the conditions established by international policies, due to the new condition of science, the productive nature of which is linked to the economic order of the new world university.

In a provocative and insightful text, [19] argues that, in Brazil, “innovationism” becomes the movement “that seeks to establish the production of innovations as the primary objective of scientific research, being an innovation”, in particular. In his view, “defined as a profitable invention, that is, that can be implemented by a company, contributing to the maximization of its profits. It is a facet of the process of commercialization of science promoted by neoliberalism”, and in the country there is a practice “typical of former colony, importing from the metropolis, in an uncritical and subservient way, ideas, values, fashions, customs, words, etc., thereby placing the theme in the broader context of center-periphery relations”. Much of what the author comments next converges with what we have said so far.

By way of illustration only, in Argentina there is a situation similar to that experienced at the time by Brazil, as shown by [20]: back to the national production system. Evidence of local agony in the context of neoliberal globalization. The authors discuss the contradiction in a country that stands out for allowing massive access to public universities, but which simultaneously has an economic structure that periodically returns to primarization practices, a model that neoliberal postures believe they should never have abandoned. That is, there is a whole process of deindustrialization, such as “the indifference to the strategic character that has the production of knowledge and the fiscal crisis that generated the decision of the State not to participate in funding constitute the binomial that threatens the scientific system”.

The picture is completed, the researchers add, with the devaluation of wages and the constant cuts in budgets of the National Agency for Scientific and Technological Promotion, which is the main institution for the promotion of scientific research in Argentina. This causes her to rapidly lose her ability to support projects. Describe the dramatic situations experienced by the National Institute of Agricultural Technology (INTA) that, if confirmed the cuts, will emit 700 people; INVAP, which “wins international bids and produces nuclear reactors, radars and satellites and is forced to interrupt several of its projects”; by nine other agencies that list, dedicated to the most varied scientific and technol-

ogical domains. National universities, which account for a significant part of knowledge production, are also facing serious problems involving non-replacement of wages, eroded by the vigorous inflationary process.

[20] concludes by stating that they understand the dismantling of the Argentine scientific system as one more step of the government's "voluntary and ideological adhesion to the mermaid corners of global inequality, discursively structured around serious, rich, true and others who present themselves as peripheral misfortunes inexorably condemned to subordinate positions". And they make the final disturbing question that Argentine creative sectors, including the scientific and university, have some place in this new neoliberal route.

### 3. Final Considerations

Brazil's post-2000 economic and political crises led the coup government to make a series of budget cuts for universities and agencies responsible for fostering science, technology, and innovation. [21], dean of the Federal University of Rio de Janeiro (UFRJ), in "The catastrophe approaches the federal universities and the science and technology system", says that the institution's budget for 2018, originally planned for R\$341 million, had contingencies of over R\$50 million, being reduced to R\$282 million, and new cuts are being announced. "And with that, the buildings are interrupted, the finished buildings are without power supply, student housing is delayed, fueling the evasion of students. And the debt stock just doesn't grow because of the sharp cut in costing expenditures undertaken since 2015, harvesting over 1300 outsourced jobs".

August 1, 2018, Abílio A. Baeta Neves, President of CAPES (Coordination for the Improvement of Higher Education Personnel), sends a letter to the Minister of Education expressing the concern of the Higher Council of the agency regarding the agency's budget announced for 2019, "which represents a significant cut from the budget of 2018 itself, setting a much lower level than that set by the Budgetary Guidelines Act". It is considered that if the cut is maintained, they will have serious impacts on CAPES Programs, citing some consequences:

a) Suspension of the payment of all master, doctoral and postdoctoral fellows from August 2013, "reaching more than 93,000 students and researchers, interrupting the programs to promote postgraduate programs in the country, both institutional (continued action), as well as strategic ones (induction notices and partnership agreements with states and other government agencies)";

b) Suspension of the payment of 105,000 fellows from August 2019, causing "the interruption of the Institutional Program for Teaching Initiation Scholarships (Pibid), the Pedagogical Residency Program and the National Training Program for Basic Education Teachers (Parfor)";

c) "Interruption of the functioning of the Open University of Brazil System (UAB) and the professional masters of the Professional Master Program for Qualification of Teachers of the Public Primary Education Network, causing the suspension of payments also from August 2019, affecting more of 245,000 bene-

ficiaries (students and scholars—teachers, tutors, assistants and coordinators) who are enrolled in approximately 110 HEIs, offering around 750 courses (professional masters, bachelors, bachelors and specializations) in more than 600 cities house face-to-face support poles”;

d) Impairment to the continuation of almost all Capes promotion programs abroad. “A budget cut of such magnitude will surely be a major loss for Brazilian diplomatic relations in the field of higher education and could damage Brazil’s image abroad”.

The reaction of the scientific community to this situation was immediate and, as of August 3, 2018, the *Jornal da Ciência*, published by the Brazilian Society for the Progress of Science (SBPC), published an “Open Letter to the President of the Republic”, also sent to the Ministers of Education, Science, Technology, Innovation and Communications, Planning and Finance. In addition to the SBPC, the document signed more than 30 entities representing the scientific, technological and academic communities and the state and municipal systems of science, technology and innovation in the country. In one of the Open Letter passages, it reads: Several previous demonstrations, addressed to the Federal Government and the National Congress, affirm the importance of the progressive recovery of resources for the federal funding agencies for the CT&I-CNPq, Capes and FINEP—as the drastic cuts that affected them, coupled with financial difficulties. Research Support Foundations threaten the survival of the national CT&I system. In addition to the imperative need to maintain capes resources, it is essential not to contingent resources from the National Fund for Scientific and Technological Development (FNDCT) and the preservation and expansion of CNPq resources, which are also in difficult situation, with reduced capacity of investment”.

Also noteworthy is the Open Letter from the National Association of Graduate Studies and Research in Education (ANPEd), dated August 9, 2018, and addressed to the same addressees of the document headed by the SBPC, commented in the previous paragraph. In this letter, it is noteworthy that in 2015 CAPES’s budget was R\$7.43 billion and, in 2018, it does not exceed R\$3.97 billion, *i.e.*, it experienced a reduction of 46.5%. It concludes by mortgaging solidarity with the CAPES Superior Council and calls for “that there be no decrease in resources for CAPES, CNPq, education and health; on the contrary, to look for ways to expand the resources of these areas, otherwise we will jeopardize the future of the Brazilian people”.

A year later (2019), this situation was largely corrupted by the contingency of funds, demonstrations took place on the streets and in universities. Students and teachers protested against government measures that instead of dialoguing with the academic community, they took unpopular attitudes without dialogue with the people. Cuts of undergraduate and postgraduate scholarships entered the contingency package among other actions, which preceded the, at that time, presentation of the FUTURE-SE program in July 2019, which resumes the intent

of reorganizing the university under the guidance of the market, mainly linked to the technoscience that finds good shelter among many of the professor-researchers who defend the new institutional model: The Entrepreneurial University. This situation we believe should undergo major changes in the short term. It is a state of affairs that depends on current and new reforms.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

### References

- [1] Bresser-Pereira, L.C. (1998) A reforma do estado dos anos 90: Lógica e mecanismos de controle. *Lua Nova Revista de Cultura e Política*, No. 45, 49-95.  
<https://doi.org/10.1590/S0102-64451998000300004>
- [2] Barreto, M.I. (1999) As organizações sociais na reforma do Estado brasileiro. In: Pereira, L.C.B. and Grau, N.C., Eds., *O público não-estatal na reforma do Estado*, Editora Fundação Getúlio Vargas, Rio de Janeiro, 12-52.
- [3] Sguissardi, V. and Silva Júnior, J.R. (2001) As novas faces da educação superior no Brasil—reforma do Estado e mudança na produção. 2nd Edition, Cortez, Bragança Paulista. <https://doi.org/10.5585/eccos.v2i1.216>
- [4] Coraggio, J.L. (1996) Propostas do Banco Mundial para a educação: Sentido oculto ou problemas de concepção. In: Warde, M.J., et al., Eds., *O Banco Mundial e as políticas educacionais*, Cortez, São Paulo, 75-123.
- [5] Silva Júnior, J.R. (2017) The New Brazilian University: A Busca por resultados comercializáveis: Para quem? Projeto Editorial Praxis, Bauru.
- [6] Silva Júnior, J.R. and Fargoni, E.H.E. (2019) Mundialização da Educação Superior: Notas sobre economia, produção de conhecimento e impactos na sociedade civil. *Revista Trabalho & Educação*, **28**, 35-49.  
<https://doi.org/10.17648/2238-037X-trabedu-v28n3-15366>
- [7] Chauí, M. (1999) A universidade em ruínas. In: Trindade, H., Ed., *Universidade em ruínas na república dos professores*, Vozes, Petrópolis; CIPEDES, Porto Alegre, 211-222.
- [8] Burawoy, M. (2015) Ensino superior em crise: O contexto global. *Margem Esquerda: Ensaios marxistas, São Paulo*, No. 25, 43-51.
- [9] Martins, C.B. (2015) Notas sobre a formação de um sistema transnacional de ensino superior. *Cadernos CRH. Salvador*, **28**, 291-308.  
<https://doi.org/10.1590/S0103-49792015000200004>
- [10] Gramani, M.C.N. (2008) A influência da qualidade na atratividade de instituições de ensino superior com capital aberto. *Ensaio. Avaliação e Políticas Públicas em Educação, Rio de Janeiro*, **16**, 437-454.  
<https://doi.org/10.1590/S0104-40362008000300007>
- [11] Slaughter, S. and Rhoades, G. (2010) *Academic Capitalism and the New Economy*. The Johns Hopkins University Press, Baltimore.
- [12] Harvey, D. (1993) *Condição Pós-Moderna*. Loyola, São Paulo.
- [13] Brito Cruz, C.H. (1999) A Universidade, a Empresa e a Pesquisa. *Revista Humanidades. Brasília, UnB*, **45**, 15-29.
- [14] Brito Cruz, C.H. (2018) Indicadores sobre interação Universidade-Empresa em

Pesquisa em São Paulo. In: Marcovitch, J., Ed., *Repensar a Universidade. Desempenho acadêmico e comparações internacionais*, FAPESP, São Paulo, 17.

- [15] Righetti, S. (2018) Estudo analisa parcerias das universidades de São Paulo. “Cotidiano”, Folha de S. Paulo, p. 6-11.
- [16] Mancebo, D., Silva Júnior, J.R. and Schugurensky, D. (2016) A educação superior no Brasil diante da mundialização do capital. *Educação em Revista*, **32**, 205-225.  
<https://doi.org/10.1590/0102-4698162033>
- [17] Hazelkorn, E. (2013) World-Class Universities or World-Class Systems? Rankings and Higher Education Policy Choices. In: *Rankings and Accountability in Higher Education: Uses and Misuses*, UNESCO, Paris, 2-23.
- [18] Chesnais, F. (1996) A mundialização do capital. Xamã, São Paulo.
- [19] Oliveira, M.B. (2018) Ciência no Brasil: Entre “inovacionismo” e declínio.  
<http://outraspalavras.net/brasil/ciencia-no-brasil-entre-inovacionismo-e-declinio>
- [20] Chavez Molina, E. and Unzué, M. (2018) La innovación reducida a la franquicia. In: *Revista Anfibia*. Universidad Nacional de San Martín.  
<https://www.revistaanfibia.com/ensayo/la-innovacion-reducida-a-la-franquicia>
- [21] Leher, R. (2018) A catástrofe se aproxima das universidades federais e do sistema de ciência e tecnologia.  
<http://www.andifes.org.br/catastrofe-se-aproxima-das-universidades-federais-e-sistema-de-ciencia-e-tecnologia/>