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research production,
circulation and use in
Bolivia, Paraguay and Peru:
a comparative study**

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The dynamics of social research production, circulation and use in Bolivia, Paraguay and Peru: a comparative study

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Abstract

The paper presents the results of a comparative study of the social research production environments of three Latin-American, low- and middle-income countries: Bolivia, Paraguay and Peru. It draws from three case studies – one of each country – based on in-depth interviews with key informants (policymakers, researchers, leaders of higher education and research institutions) conducted under a common thematic protocol. The comparative examination of the three case studies shows important commonalities such as the weak or null presence of the state in social research policy and funding. All three countries are also marked by a common instrumentalist approach to social research production, albeit of a technocratic kind in Peru and Paraguay, while in Bolivia it is of a political/populist nature. Together, these factors have a strong impact on the low research outputs of these countries as compared to other countries in the region, as well as on the types and quality of the research produced and on the circulation of research in academic journals. While there are important differences too, for instance in the degree of institutional development and the profesionalization of research work – where Peru stands out as the more developed of the three countries – the bottom line is that research is still experienced as a solitary pursuit which suffers from the lack of research communities and critical mass.

Keywords Research policy frameworks • social research production • knowledge circulation • knowledge use • low- and middle-income countries • science and technology policy

Introduction

The importance of social research in promoting public policies that are more transparent, democratic, and sustainable over time is widely acknowledged. Despite contextual differences and important variations as to how the research-policy link is conceptualized, the need to strengthen the links between policy and social research is also recognized in many developing countries as a core element for the development process and for the consolidation of democratic systems of governance. There is, however, much less emphasis in policy debates on core capacities required to boost the production of high-quality social research, the conditions conducive to achieving this outcome, and the policies necessary for creating those conditions.

One point of growing consensus is that the indicators used to assess the research environments of developed countries might not be quite suitable within developing contexts, where institutions tend to be weaker, patterns of social organization are less differentiated and research production often operates in different ways (Cetto and Vessuri, 1998). Hence, before establishing any policies to strengthen the systems of social research production it is important to understand how they work in developing countries.

This study seeks to contribute towards achieving this goal by providing insights into the working of social research production systems in developing countries. The research on which this paper is based is a comparative study of three of the least known research

1. The study was carried out with the support and within the context of “Doing Research: Assessing the Environment for Social Science Research in Developing Countries” by Global Development Network

contexts of South America, namely, Bolivia, Paraguay and Peru.¹ The case studies of these three countries were conducted using a common research design and protocol and were elaborated based on documentary analysis, in-depth interviews with key actors, and the analysis of available secondary research. These studies were jointly analyzed so as to systematically compare the structure of the three research environments and the kind of research dynamics they would generate.

Studying the Research Environments of Bolivia, Paraguay and Peru: Theoretical and Methodological Approach

The way in which research is conducted in a given country depends not only on its level of institutional, political, and economic development, but also on the type of regime. Thus, countries with more or less strong states and institutions, with different types of governance structures (centralized or decentralized) and political regimes (liberal, social, democratic, populist, authoritarian, etc.) will have different rules for research production.

Since this study focuses specifically on “social research”, it is necessary to delimit this field before presenting some of the main findings of the research. A definition of the social sciences that focuses on its constituting disciplines is certainly a starting point, but it is also limited in that the disciplines included in the field vary across countries. Hence, a pragmatic solution would be to adopt the definition proposed by the World Report on Social Science (UNESCO, 2010), which includes all the disciplines “whose professional association is part of the International Council of Social Science.”

Beyond a disciplinary definition, the social sciences are also defined by the issues and social phenomena that they study, as well as by the theoretical and methodological frameworks and tools they use. But such a definition also faces complications, because

different conceptual perspectives define and approach social phenomena in different ways. While, for some, the aim of the social sciences may be to investigate social reality, for others these sciences have an important role in identifying and defining new research problems (Apter, 2010). Vessuri and López (2010) identify the construction of up-to-date theoretical approaches precisely as one of the challenges faced by Latin American countries in promoting research and action. Social research, like any other type of research, is also sensitive to the economic, political, and social context in which it is being pursued. Tyfield (2012) points out that Science and Technology (S&T) policies are currently undergoing big changes. Firstly, science is required to confront global problems; second, both the production and circulation of knowledge are geographically scattered. For example, the global financial recession of 2008 affected research production as funding for the same decreased; higher education performance was affected, and science and technology policies were adjusted as a result. This may contribute to the paradoxical outcome which the authors point out: it is precisely in those countries where research is most needed to solve social problems that the least public resources are allocated for research.

Even if a clear definition of *research systems* is lacking in existing literature, some common elements which can be identified are:

(i) the institutional framework that structures the production of research (policies, norms, and, especially, research funding formulas); (ii) the actors involved in the production, use, and circulation of knowledge; (iii) the scientific capital and/or characteristics of the researchers, and iv) the types and quality of the outputs that are produced.

Campbell and Pedersen (2011) show how research systems also differ according to state structures. Knowledge regimes, that is the

interaction among actors, organizations, and institutions that produce and disseminate ideas, are influenced by the economic policy of different states, by their methods of governance, as well as by the policies and development models that are predominant in different countries. Nonetheless, in countries like the ones studied – where development models are not so clearly defined – such relationships between governance structures and political regions, and the nature of research environments might not be so clear.

Although it is very important to highlight the relevance of the state when it comes to generating knowledge, Mouton and Waast (2009) have pointed out that, in middle- and low-income countries, it is difficult to identify coherently structured research systems. In fact, it is difficult to talk of a system per se since institutions are fragile and susceptible to political changes and these countries usually lack funding. Under these conditions, knowledge production tends to occur in a precarious or “subsistence” mode. Nevertheless, it is possible to find institutions – such as universities, laboratories and institutes – that produce and disseminate knowledge through journals and editorials and promote the use of these among government agencies, patent and technology transparency offices. Mouton and Waast (2008) describe this as a “national model of scientific production.”

In their study, the authors compare the scientific outputs, funding and other characteristics of 52 countries and seek to explain the differences in research capacities of these. Among the potential causes of these differences are factors such as the history of the university and science systems, the developmental strategies of each country that condition the “demand for research”, confidence in science that has to do with “social value” of research, the social

environment of research in terms of the “prestige” associated with science among its users and society in general, and the “popularization” and degree of applicability of science.

The World Science Report (UNESCO, 2010) also highlights major differences in the condition of research systems around the world. The report acknowledges that research systems in less developed countries have an early-stage character which is the result of certain critical factors present in low-income countries. Among these factors are, (i) insufficient public subsidies, (ii) decline of the scientific profession due to the lack of incentives to continue with research careers, (iii) change in methods of knowledge production, and (iv) brain drain. This report emphasizes that 90 percent of Latin American universities do not produce any kind of research, while two-thirds of post-graduate programs – which is where more of research takes place – are located in the public universities of two countries: Mexico and Brazil. All these are critical factors that contribute to the current trend in the region whereby consultancy tends to prevail over academic research, leading to what Mouton and Waast (2009) describe as the “de-institutionalization of science”, in view of the absence of long-term research agendas and quality-control mechanisms.

In a more detailed analysis of the Latin American systems, Cetto and Vessuri (1998) examine the experiences of Brazil, Mexico, Chile, and Argentina to determine the factors that contribute to the more coherent systems of research in these countries in comparison to others in the region. Among these factors are, for example, the orientation of universities towards research production, and not just training; the existence of consolidated and specifically designated government bodies that set benchmarks that drive research policies; and,

institutionalized political systems which can withstand political instability and foster the consolidation of longterm projects.

The country cases considered for this study took into account the different elements suggested by the literature, which were organized as follows: factors structuring research production in each of the studied countries (norms, policies, institutions, funding characteristics); the characteristics of the demand and supply of research (who are the producers and users of knowledge and what kind of research do they produce/demand); and, lastly, the dynamics that the above factors lead to in terms of research production, circulation and use. In addition, the case studies considered a number of transversal issues such as the quality criteria, the nature (fragmented or consolidated) and the kinds of research (applied, academic) produced in each country.

More specifically, the common protocol used for the case studies focused on:²

- The historical background of research production in each country: development models, political context, history of science policies, university traditions
- Structural aspects: the role of the state through specific regulations, policies, and funding
- The institutional basis from which research is produced: the role of universities and research centers
- The characteristics of the research supply: the kind of research produced
- The experience of doing research: a more individual insight in the three cases

2. The complete version of the protocol can be found on the Annex 1.

- The characteristics of the research demand: for example, from the state, civil society, and academia itself
- The quality of research produced, and dynamics of research circulation and use within each case

Given the scarcity of public research and hard data on this topic in the three studied countries, as well as the aim of understanding the *processes* of research production circulation and use, indepth interviews played a central role in developing the case studies. In total, 70 key actors (both male and female) were interviewed: 23 in Bolivia, 28 in Paraguay, and 19 in Peru. Among these were policymakers, researchers, heads of research departments in universities and research institutes, as well as members of the international cooperation community and civil society organizations. The density of interviewees in each category varied to reflect the different country contexts.

Characterizing Social Research in Bolivia, Paraguay and Peru

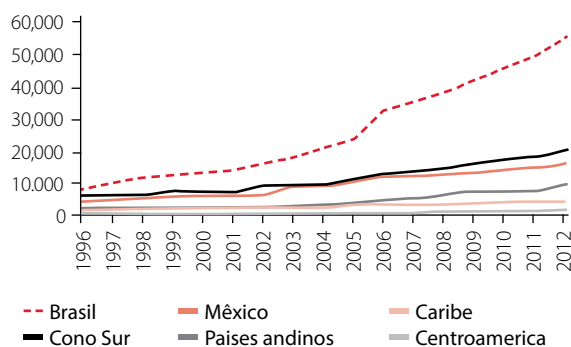
Before analyzing the case studies, it is important to locate the three countries in the broader regional context. Mouton and Waast (2009) provide a starting point. In their comparative analysis of 52 countries from Africa, the Middle East, Asia, and Latin America, they find a growing gap between a reduced number of countries with high knowledge production and a high number of countries whose interest or commitment to research production is weaker. Based on research production as measured by the number of publications issued between 1987 and 2006, the authors locate the different countries within a typology consisting of seven categories that account for the size of their scientific environments: emerging; candidates to emerging; higher intermediate; middle intermediate; lower intermediate; small science countries; and very small science countries.

In Latin America, only Brazil is among the countries considered as “emerging”, while Chile, Mexico and Argentina are in the “candidate to emerging” group. This group is followed by “higher intermediate” production and growth research milieus, under which Venezuela and Colombia fall. Peru is in the “middle intermediate” level group, Bolivia in the “lower intermediate” group, while Paraguay is among those countries whose research production is “very small.” Since Mouton and Waast’s study dates back to 2006 it is possible that the current situation of the three countries has changed.

In another study of research production in the region, Hernández (2014) analyzes bibliometric information available from SCImago Journal & Country Rank, which

in turn uses information available from the Scopus database. Even though it is known that this database is limited – especially for a region like Latin America where research production is generally carried out in Spanish and is consequently excluded from Scopus – and although there are better sources such as Redalyc and Scielo, Hernández’s analysis does account for major current trends in the region. The author shows that there has been an accelerated growth in scientific production in Latin America and The Caribbean during the last two decades. There has been an almost fivefold increase in the volume of scientific production between 1996 and 2012. When looking at the region, however, it shows that Brazil has a clear hegemony in scientific production, followed – although from a distance – by Mexico. According to the author’s categorization, the group of Andean countries, namely Bolivia, Peru, Colombia, Ecuador, and Venezuela, is the fourth in the region as its participation increased from 8.1 percent to 8.8 percent.

Graphic 1 The evolution of the scientific production in Latin America and The Caribbean



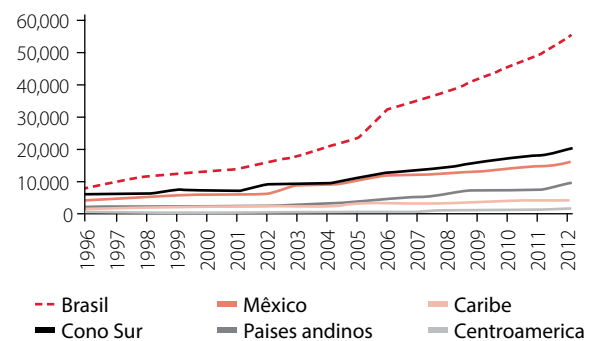
Source: Hernández Asencio (2014)

Buquet (2013) also conducted a bibliometric analysis and found that in six Latin American countries (Brazil, Mexico, Chile, Argentina, Venezuela, and Colombia), 94 percent of total knowledge production was in the social sciences. The remaining 13 countries,

therefore, play a marginal role in the production and publication of articles in the social sciences. These differences highlight the marked differences in knowledge production between “emerging” countries, and “intermediate” and “small” countries.

Finally, aside from the role played by countries in the production of knowledge in the social sciences, it is interesting to examine data on the total output of articles in different fields of knowledge in order to weigh the relative importance of the social sciences in each country. As shown in the following graphic, between 2011 and 2012, in Bolivia, the social sciences contributed substantially to the total output of articles, followed by Peru (5.3 percent) and Paraguay (3.3 percent). The output of social science articles as a percentage of total output of both Bolivia and Peru is above the world average (4.4 percent) as well as the regional average (4.1 percent) (Hernandez 2014).

Graphic 2 Importance of the social sciences on the total output of articles in each country (%) 2011- 2012

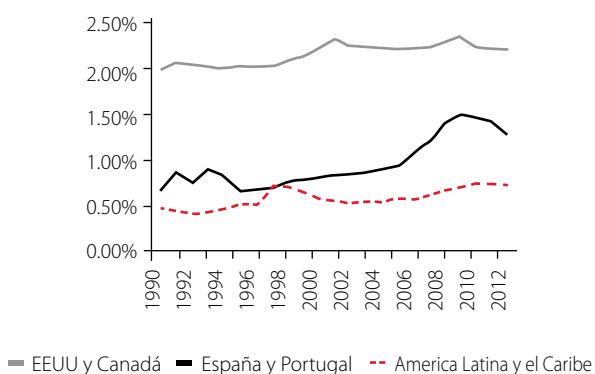


Source: Hernández Asencio (2014)

The weak standing of many countries in the region can largely be traced down to their low level of public investment in Science and Technology (S&T) as a percentage of GDP. Investment in these countries is evidently much lower than in countries like the US and Canada, but it is also much lower than in

countries like Spain and Portugal and other emerging regions such as Southeast Asia, where national development policies have been spearheaded by policies seeking to strengthen scientific production. Available data from RICYT shows that the average investment in S&T as a percentage of GDP for 2012 in the US and Canada was higher than 2 percent, and in Spain and Portugal it fluctuated around 1.5 percent in 2008, while in LAC countries, it stayed around 0.8 percent.

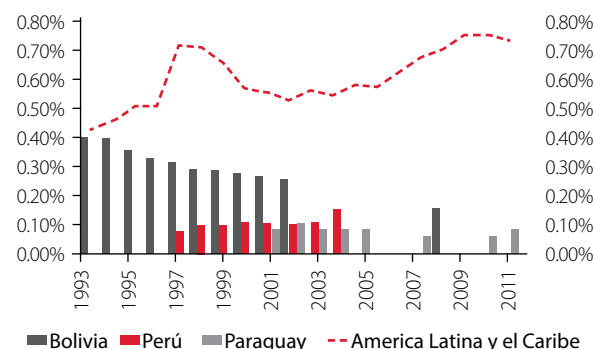
Graphic 3 Investment in science and technology in selected Latin American and The Caribbean countries:



Source: Network for Science and Technology Indicators-Ibero-American and Inter-American (RICYT)

Expenditure on research and development in the region increased from just over 0.4 percent of GDP in 1993 to more than 0.7 percent in 2011. Bolivia, Paraguay and Perú spend systematically less than the regional average. The expenditure trend in these three countries (dominated by data from Bolivia, for which there is a longer time-series) suggests that the disparity within the region is increasing. Data for Bolivia indicates that over the past 16 years, there has been a drastic decrease in expenditure from 0.4 percent in 1993 to 0.16 percent in 2009; and in Paraguay investment in S&T has stagnated at around 0.10 percent.

Graphic 4 Expenditure in R&D as % of the GDP. Graphic comparing LAC and the three countries of the study



Source: Network for Science and Technology Indicators-Ibero-American and Inter-American (RICYT)

The low levels of public investment in science and technology are a starting point that explains a characteristic common to the three case studies, which is, the weakness or eventual absence of the state in these three countries in matters relating to science policies. It is, moreover, important to highlight the fact that the amount of national investment in S&T does not account for the much lower and often non-existent investment – in particular for social science research – in the official national budgets for R&D in the studied countries.

The Social Research Environments of Bolivia, Paraguay and Peru: A Comparative Synthesis

The historical trajectory and the absence of state in research policies and funding.

When reviewing the case studies of Bolivia, Paraguay, and Peru one of the first points to be made has to do with the influence of historical and political dynamics on the developmental trajectory and current configuration of social research policies and practices. These three countries are characterized by a marked and historical absence of public funding for research and a lack of state presence in the development of policies for scientific and technological development. In this regard, the selected countries contrast with many other countries of the region (such as Argentina, Mexico, Chile, Brazil, Uruguay, Colombia, Costa Rica, Venezuela), where the presence of the state in research is manifested in public funding and active policies to stimulate knowledge production. The reason for this is probably found in these countries' history of state development, which unlike other countries in the region is marked by a weak or non-existent presence of developmentalism during the second half of the 20th Century. With slight differences, the state in the three studied countries never took up an active role in the industrialization and modernization processes (Filgueira, 2005), and this fact can also explain why they never included a policy agenda for scientific and technological development.

Peru, where developmentalism did have some presence – although it arrived late in comparison to the rest of the region and when the model was entering its final crisis (Sagasti, Prada, and Bazán, 2004; Stepan, 1985) – is, of the three countries, precisely the one with the earliest experience of developing science and technology policies. These policies were limited as the developmentalist project ended in the mid-1970s, and in the 1980s the deep recession and hyper-inflation made public funding disappear almost completely. In Bolivia, the presence of the state in S&T policies was even weaker, while in Paraguay developmentalism was completely absent and the role of the state during Stroesner's dictatorship was almost non-existent (Nickson and Lambert, 2002).

The different historical trajectories of the three countries placed them in very different starting points when neoliberal policies and structural reforms arrived in the region in the 1990s. Paraguay's case is particularly interesting as state development had been extremely weak and when neoliberalism started "there was no 'over-developed state' and no 'crisis of the welfare state' to contend with" (Nickson and Lambert, 2002:162). Reform prescriptions of multilateral organizations in this period actually contributed towards building the state and allowing it to extend its presence despite the regulations imposed on it.

In the 1990s decade, through the influence of neoliberal reforms, the three countries shared a similar agenda to the social sciences: providing empirical support for the emerging technocracies. This led to the creation of new research centers and think tanks, and some universities too set themselves in the path of providing evidence for policymaking. While the state's greater demand for research is clearly having important and positive impacts, it has entailed a shift towards a more instrumental-technocratic mode of social research

Recent transformations in the knowledge production environments

The policy frameworks for research			
	Bolivia	Paraguay	Perú
Policies	The current science and technology strategy seeks to contribute to changes in the production matrix and the industrialization of natural resources. Its aims include the development of post-graduate science, dissemination programs, and the promotion of traditional knowledge. The strategy does not explicitly include the social sciences, whose development is limited to sporadic interventions promoted by the state or by research centers themselves.	Although funding is mostly directed towards the hard sciences, after the National Council for Science and Technology (CONACYT) created PROCENCIA, Paraguay's Program for Science and Technology, there has been more state support to boost research in general, including support for the social sciences. Nonetheless, the effects and sustainability of this commitment have yet to be seen.	National strategies (led by CONCYTEC - the National Science and Technology Council) are directed towards developing a national system of innovation (rather than a national system of research) geared towards changes in the country's production matrix. Current funding portfolios exclude funding for the social sciences. The progressive implementation of a results-based public budgeting system since 2007, however, has led to a higher demand (and non-programmatic funding) for social research from the state.
	Bolivia	Paraguay	Perú
Funding	The new strategy does not translate into meaningful changes in the budget for science and technology policies. In fact, the lack of official data regarding this prevents the monitoring of public expenditure for science and technology. In any case, funding for the social sciences has not been adjusted in the last few years.	There has been a marked increase in the public budget for S&T, but with only marginal funds being allocated for the social sciences.	Since 2013, there has been a noticeable increase in public investment in science and technology. This is evident in CONCYTEC's increased budget, which translated into capacity-building programs through scholarships, etc.

production (Tyfield, 2012). This contrasts with the modes of social research production that existed in the developmentalist period. It is when the social sciences were somewhat more autonomous and focused on identifying social problems and contributing to the establishment of autonomously defined national and regional development agendas rather than merely providing evidence for policymaking (Cetto and Vessuri, 1998; Palma, 2014). The instrumental-technocratic mode of social research production translates, above all, into a predominance of consultancies and evaluations aimed at providing information

and data for the decision-makers, and in the lack of any kind of programmatic funding, enabling the development of long-term research agendas.

In Paraguay, where a democratic regime was emerging, the general public as well as specific sectors were eager to access information and knowledge. This helped research institutions to work with evidence in an applied way, without letting the "technocracy" of the multilateral organizations push their own agendas. In the 1990s, social science production in Paraguay was mostly

directed by agendas set autonomously by research institutions that were supported by international foundations or bilateral aid agencies. Research institutions enjoyed a degree of autonomy because of the country's political situation. Nonetheless, autonomy became more restricted in the 2000s, when the neoliberal period gradually faded, and also when multilateral organizations grew in importance as a client for consultancy and research. These organizations created their own teams of professionals in Washington and organized calls for papers that responded to their own perception of knowledge gaps and development needs. The same happened with bilateral agencies.

In Bolivia, the Movement towards Socialism (MAS), led by Evo Morales and Álvaro García Linera, interrupted the neoliberal development trajectory. Social science research was pushed towards another form of instrumentalism, geared not towards technocratic modes of policymaking, but to feed indigenous populism. Thus, the Bolivian state increasingly linked social science research to the provision of ideas that support the government's official discourse. The idea of policy, especially social policy, based on evidence became an anathema, and the climate even became slightly hostile towards independent research institutions and those harboring views which were critical of or diverged from the state's official discourse. This also translated into the creation of a government center for social research, which re-introduced a model of state-led research production.

Such developments contrast with what was happening in Paraguay, and perhaps even more so, in Peru, where technocratic instrumentalism had gained momentum and, according to some researchers, was even starting to have a negative impact

on social science research as it fragments agendas and narrows down the scope of research to merely providing evidence or information for decision-making. This is particularly the case in Peru. In Paraguay, the effects of a more technocratic approach to social research production are being countered to a certain extent by the rise in public funding for research, which includes funding for the social sciences, although this is still at an early stage. Bolivia also contrasts with Peru and Paraguay in that although science and technology policies have emerged in recent years, these are not only limited to funding the hard sciences, but they also lack the marked rise in public funding that is seen in Peru and Paraguay.

When comparing Peru and Paraguay during the second decade of the 21st Century, we notice important differences in the long-term aims, and – crucial to this study – in the inclusion or exclusion of the social sciences from science and technology policies and public funding strategies. While Peru excludes the social sciences from its national portfolio for research funding, Paraguay includes them, albeit on a small scale. The reason for this exclusion in Peru is subject to interpretation, but some interviewees have suggested that it could be due to the potentially uncomfortable role that the social sciences could play in the political process, given their historical association with leftist – and sometimes extreme – ideas.

In Bolivia, although recent science and technology policies share features similar to those in Peru and Paraguay, such policies are not financially supported in a similar way and, as in Peru, they do not include funding for the social sciences. In the case of Bolivia, policies include a focus on encouraging the participation of

The demand for research		
Bolivia	Paraguay	Peru
There isn't any "demand for research" in Bolivia. There are specific, disorganized and sporadic demands coming from different actors such as the state, the international donor community, NGOs, or the media. Research agendas are consequently weak and research does not feed into policy debates and decisions.	The demand for social research comes from the international donor community and, to some extent, from the government. Much of this demand translates into consultancy projects. Research institutions have played a key role in promoting demand for social research, especially from the State.	Demand comes from the international donor community and there is an increasing and non-programmatic demand from the state for applied social research. Research mostly takes the form of consultancy and evaluation work where the relationship between research and policy is often narrowly understood as providing information for decision-making. Research therefore does not often contribute to conceptual ideas nor does it always conform to accepted academic quality parameters.

social actors as a means to "democratize knowledge". Lastly, the Bolivian state seeks to reorient the production of social research towards building and validating its political model instead of having a public sector demanding more independent research (technocratic or other).

The role of universities and research institutions or think tanks in the production of social knowledge

The role played by universities in the production of social research is similar in the three countries. In all three of them, there is a clear influence of Cordoba's model of the university, in which universities are teaching-oriented and they place a strong emphasis on their autonomy, which often becomes an excuse to preserve the status quo. Thus, as described in Bolivia's case, universities become "states within states" with little or no external or internal pressure to produce research. In all these three cases, there has also been an increase in the number of private educational institutions since the 1990s, leading to the emergence of a large number of private universities, many

of which are low quality and committed to teaching rather than to the production of knowledge.

Of late, there have been regulatory efforts in Peru to re-structure and improve the quality of higher education and to stimulate research production in universities. Some private non-profit universities have also made intra-institutional efforts to promote research in a move to distinguish themselves from other universities and to consolidate their elite status. This has led to some institutional transformations even before the beginning of the current university reform. In Bolivia, there have been no comparable efforts to reorganize the higher education sector, which is also characterized by an increased number of private universities (many of low quality) and the absence of public universities in development policy discussions. In contrast to Peru and Paraguay, as part of the process to democratize knowledge production, three indigenous universities were created in the Aymara, Quechua, and Guarani regions to serve traditionally excluded groups within the framework of the new Education Law (2010). Even though it is not clear how these measures will achieve their aim, it is still an improvement leading towards a fairer country.

The institutional context from which research is produced		
Bolivia	Paraguay	Peru
<p>Universities have historically been more oriented towards teaching than research. Nowadays, universities have “simple and conditioned” organizational structures that limit their capacity for research.</p> <p>Research is produced by state research centers or by university-based research centers and private institutes.</p> <p>There is a strong degree of institutional dispersion, which contributes to the loose research agendas.</p>	<p>The knowledge supply in Paraguay comes from research centers and private think tanks, public and private universities, together with some public research centers.</p> <p>In a context where universities have not had a clear orientation towards research production, private research centers, NGOs and some public institutions are formed in key spaces for research development.</p>	<p>Historically, universities have been devoted to teaching, and not research production.</p> <p>Research is carried out at several specialized independent centers.</p> <p>In recent years the HE sector has diversified as some universities have tried to consolidate their position through a clearer commitment to research.</p> <p>The New University Law (2014) seeks to improve quality and places greater emphasis on research by mandating the creation of vice-directorates of research at universities.</p> <p>These reforms have not considered the need to revise public funding for research.</p> <p>There is also more institutional diversity than in Bolivia and Paraguay as shown by the number of research societies and a social and economic research consortium.</p>

In view of the weak role played by universities in the production of social research, there has been – in the three countries studied – a historic predominance of independent research centers as the main institutional basis from which social science research is produced. In Bolivia, apart from independent centers – which in the current politically adverse context are just a few – state research centers have played a central role in social science production.³ In Paraguay, research is produced almost exclusively by independent centers. In Peru, in contrast, research is produced from a more diverse institutional base; there is a comparatively higher number of social

research institutions, and there are some important universities that also play an important role in the production of social knowledge. The tendency towards a more advanced or developed institutional base in Peru, compared to Bolivia and Paraguay, is also noticeable in the internal structure of research centers and universities which have managed to establish institutional consolidation mechanisms, including mechanisms for generational turnover, the establishment of career development trajectories, and incentives for quality. In Paraguay, in contrast, there is still a predominance of individuals and important figures who direct the activities of research centers.

3. The study looks in detail at the case of UDAPE (Unidad de Análisis de Políticas Sociales y Económicas) and CIS (Centro de Investigación Social) in Bolivia.

Career and experience in research		
Bolivia	Paraguay	Peru
<p>There are no policies to encourage researchers' careers or provide incentives systems in the social sciences, whether at universities or at public and private research centers.</p> <p>The lack of promotion and work security makes research more of a personal than institutional effort. This gives rise to an informal/ precarious system of knowledge production whereby individuals play a fundamental role in generating ideas, circulating them, and using them.</p>	<p>Universities do not promote researchers' career development.</p> <p>The effects of PROCENCIA, a program designed to boost researchers' careers, are yet to be determined. The lack of incentives and the small size of the research community contribute to the perception of research as not only as a solitary but almost anheroic endeavor.</p>	<p>Universities do not promote research as a career. Only a few universities have begun to offer research as a career option.</p> <p>In research institutions, the career structure for researchers is underdeveloped and it is not linked to economic or promotion incentives.</p> <p>Research is a solitary experience due to the lack of a critical mass of researchers or a researcher community. Researchers do not have adequate support for knowledge production, and quality control mechanisms such as the peer-review process are absent.</p> <p>Those who are the most productive in terms of quantity and quality usually rely on their own networks many of which are overseas.</p>

The influence of contextual factors on the quality, circulation and use of social research

The quality, circulation and use of social research			
	Bolivia	Paraguay	Peru
Quality	<p>Quality is not a major concern for researchers, since quality standards have not been established. Instead, various measurements, such as the Publishing in Science Citation Index, use of data, relevance, empirical basis, or even the prestige or acclaim of researchers are used as proxies of quality.</p>	<p>There are difficulties in defining accepted quality standards for social research. Currently, more empirical and applied research is carried out. This new focus has given rise to standardized formats for the production, presentation, and circulation of knowledge, which have an impact on the quality of research.</p>	<p>The lack of research communities and a critical mass of researchers negatively affects the quality of knowledge production.</p> <p>Added to this is the empiricist-technocratic orientation of research produced on demand.</p> <p>The result is fragmented research agendas and research that is not always consolidated through quality-control mechanisms, such as peer-review and publishing.</p>
Circulation and use	<p>Even if the volume is expanding, research is not disseminated or circulated among key actors because of the lack of funding and strategies for dissemination, communication, as well as due to the difficulties faced by researchers to translate their work into a language accessible to the general public.</p>	<p>Technical reports, newspaper articles, briefs, and political notes have become the primary formats through which the products of research and consultancy projects are circulated.</p>	<p>Academic publications in the social sciences are scarce and the research community faces difficulties in integrating itself into global circuits of knowledge production.</p>

By comparing the three cases, we can learn how the historical development and the current dominance of certain structural factors lead to particular characteristics in the supply of research.

In Bolivia, despite the adverse research environment, the case study shows that, over time, knowledge production has improved: there are more documents, reports, studies, or evaluations, albeit with diverse quality standards. This can be attributed partly to efforts made in previous years to promote research production, which have now borne fruit. The increase in the number of private organizations (NGOs, research centers, and think tanks) with a focus on generating ideas for development, together with an important inflow of resources from the international aid community during the 1990s, have all contributed to this improved situation. While these conditions have faded under the current political regime, there is an ongoing interest among certain state sectors to promote social research that can provide support for current public policies.

In Peru, the lack of research policies, together with a marked increase in the demand for non-programmatic and consultancy-type research on the part of the state, has led researchers to focus largely on producing knowledge 'on demand' for decision-making. This has had adverse effects on academic production, reducing research to technocratic forms, moving it away from an academic orientation and academically accepted mechanisms of quality control (peer-review) and dissemination.

In Paraguay, both during the dictatorship as well as through the country's initial transition to democracy, private institutions have set the research agenda in the social sciences with some influence over the generation of public policies. There was a greater academic orientation in the production of knowledge

in the social sciences during the dictatorship and at the beginning of the democratic period, which later transitioned to an orientation towards research that is more applied and targeted towards public policies. In the latter period, knowledge production has also been driven by the demands of the international donor community as well as of the state. With the establishment of CONACYT, more opportunities have been created for both conceptually oriented and applied policy-oriented research, although there is greater emphasis on the latter.

Another common characteristic of the three countries is the high level of fragmentation of their research agendas. In general, research agendas emerge from the interstices between funding opportunities, personal interests, and their relevance to current economic, political and social situations, as researchers engage in "academic consultancy". This, as seen before, is not only the result of the diverse needs of funding agencies, but also of the lack of coordination in consolidating autonomous research agendas among researchers in each of the countries. Such agendas are crucial to moving the research focus from specific problems to larger, structural processes and towards conceptual development. In this sense, the low level of academic debates between academics and research centers did not allow the creation of an academic community that has the relevant sway in constructing more consolidated agendas and influencing structural processes in the three countries studied.

A point on which these countries differ is in the processes of institutional development and in existing mechanisms to promote (good quality) research in universities and research centers. In the case of Peru, we found important processes of institutional development, change, and consolidation that have been pushed forward by institutions

themselves, and that speak of stronger vision in this respect.

In Bolivia and Paraguay, in contrast, research centers are less institutionalized than in Peru, and their sustainability is still dependent on the leadership of key figures. This might also explain why, in these two countries, associative or second-tier institutions – which play an important role in Peru – have not emerged. In Paraguay, there was an attempt to create an academic network of social research centers – the Association of Paraguayan Studies (AEP) – but this was not conceived as a second-tier institution. AEP organized two conferences on specific topics, yet it was later discontinued due to the lack of interest from its members.

The stronger orientation towards institutional development in Peru, which, above all, is the result of the agency of researchers and research institutions, has translated into incentives for improving research quality (for example, the setting of high academic qualifications as prerequisites for filling research positions, as well as awarding of prizes, opportunities, etc.) that have enabled a greater professionalization of the social science research career. In Paraguay and Bolivia, in contrast, research career paths are less professionalized, and the portrayal of the research career as a heroic act that is the result of a “personal calling” continues to dominate the public imagination.

Another point where the three countries converge again is in the training of new researchers, which takes place outside rather than within research centers, and which does not constitute a clear career option for young university graduates in social science degrees. This might be due to the fact that research degrees are not fully institutionalized, and because the mentoring processes in universities and research centers remain very informal. Furthermore, there is

an open question as to whether the science, technology, and scholarship policies in these countries – which focus largely on the hard sciences and on responding to market demands – will tend to further discourage young social scientists from pursuing research careers.

One last common element among the three countries is that the supply of social research stems mostly from research centers that are generally located in capital cities, and not from universities or institutions in the provinces.

The elements highlighted here have influenced the experience of researchers in all the three countries. These researchers, despite variations in their institutional contexts, agree that their experiences, as described, are isolated and even solitary. This is explained by the weak presence of a research community, the lack of critical mass, of spaces for conversation and exchange, as well as of standardized quality parameters and models of social research production.

Beyond policies and regulations, the demand for research plays a strong structuring role on the research environments of the three countries. It is here that we find some of the biggest differences between the three cases. In Bolivia, demand for research is almost non-existent, and the little demand that does exist comes mainly from the international donor community seeking consultancy products. In Paraguay, demand is quite diverse, and comes from both the state and the international donor community, advocacy organizations, grassroots organizations, and, to some extent, from businesses which, rather atypically have public policy concerns. In Paraguay research centers have also played a key role in generating greater demand for research from the state and other key institutions. Since stronger incentives have now been established through the policies

of CONACYT, it is likely that there will be stronger motivation to produce research. In Peru, the main actors are the state and the international donor community, and, especially in the case of the state, they have played an important role in structuring a supply of more instrumental-technocratic research.

The interaction between the supply and demand for research generates specific dynamics in each country that we explore below. For now, it is important to highlight the fact that, across the three cases, the biggest absence is that of academia itself as a driver of research.

Final Reflections

The case studies and the comparative synthesis provide an image of the social sciences in Bolivia, Paraguay and Peru as a “blind spot” in the development of science and technology policies, which in turn leads to the lack or scarcity of public funding for social research. In the three countries, this is accompanied by the predominance of an instrumental vision of social research, especially on the part of the state, where the aim of research is understood either as the provision of information for decision-making or of ideas for specific political projects. In this context, the possibility of developing critical and relatively independent social sciences – capable of identifying and problematizing social issues and not just limited to answer to top-down agendas dictated by the state or by international donors – is considerably weakened.

As Palma (2014) points out, critical perspectives such as dependency theory or CEPAL’s developmentalist views, which sought to understand regional development from the perspective of the global South, were common in the region. These perspectives came into crisis partly as a consequence of the general crisis of the Keynesian welfare model (Jessop, 1999), and also as a consequence of the internal inconsistencies of dependency and structuralist theories of development. Palma attributes these to their marked ideologization and growing disconnect with reality, but they could also be linked to the growing influence of post-structuralism and post-modernism. The result is a social science field that focuses on more specific problems through more fragmented research agendas.

With the neoliberal turn in the 1990s, a new agenda on research and policy was established. It emphasized the need to create information and evidence for decision-making and for public policy evaluation.⁴ This created a positive environment, especially for research centers, as demand for research from the state increased.

However, in some of the studied countries, with no established tradition of funding for the development of social science research with a strong conceptual orientation – aimed not only at resolving but also identifying social problems – the increasing demand for information and evidence from the state and the international donor community has contributed to deepen the fragmentation of research agendas, and has further weakened critical perspectives. This has come about through the establishment of an instrumental-technocratic model of social research production, whereby social research is largely at the service of the decision-makers to which it provides information and evidence. By understanding the relationship between knowledge production and policymaking as a linear, often mechanistic process, the normative and interpretive nature of problem definition and analysis, as well as of policy solutions, is often forgotten. When this happens, the contribution of the social sciences also tends to be understood in a specific way, and not as a contribution to public deliberation and debate (Fischer, 1990; 2003).

The situation of social research in the three countries has recently become more differentiated. In Peru, the instrumental-technocratic model has deepened through

the spread of discourses and practices of evidence-based policymaking, through policy instruments such as results-based budgeting. In Paraguay, where this perspective is also important, recent science and technology policies, which have increased public funding for the social sciences, have raised the possibility of a different developmental trajectory that might allow for a greater degree of autonomy in social research production. The effects and sustainability of these policies, however, remains to be seen. In Bolivia, in contrast, the technocratic model has weakened since the rise of MAS, but it has been substituted by another version of instrumentalism, which seeks to put social science at the service of a specific political project.

The lack of programmatic funding as well as of shared standards of quality that go beyond the specific and immediate relevance of social research is both a cause and a consequence of this tendency. The idea of public funding for independent social research, guided by quality criteria that do not focus exclusively on immediate relevance but rather on the contribution that research can make to a bigger theoretical or conceptual body of knowledge – to problematizing and explaining social phenomena, and not just to their description – is absent in the three studied countries.

A symptom of the current situation is the lack of a clear discourse as to why and for what purposes social science research is produced. Such a situation calls for the need to generate discussions and debates on this matter. These debates should raise questions about the implications of a merely instrumentalist (technocratic and populist) vision of the social sciences, and emphasize the role that the social sciences can play in the identification and definition

4. It is not a new relationship, but a new way of understanding the relationship between research and policy.

of problems, as well as in the generation of critical ideas.

The study also raises a series of questions regarding the relationship between research centers or think tanks and universities in the production of knowledge. If research centers in these countries emerged partly in response to the weak research orientation of universities, what happens now that some of these countries are trying to re-orient their universities towards research production at the same time that research centers are being pushed towards assuming the role of think tanks, more oriented towards the production of applied, policy-relevant research? What will be the gains and losses in this process? One idea raised by this study is that current institutional dynamics and capacities need to be considered in any reform process, so as to capitalize on the already existing capacities for research.

The differences found in the three countries also suggest the need to consider contextual specificities when attempting to generate policy debates about these matters. In Peru and Paraguay, there seems to be a growing interest in the topic. In Peru, for example, the negative influence of having an exclusively empiricist-technocratic model of research is a concern for many researchers who feel that the consultancy-heavy model of knowledge production has had a negative impact on research quality. In Paraguay, the discussion has focused more strongly on institutional development and priorities of public funding. In Bolivia, the current political context is adverse to an open or public discussion on these matters.

In any case, the development of a set of common indicators capable of measuring as well as promoting the development of

more robust social research environments should take into account these kinds of interactions between the supply and demand of research, universities and research centers, the fluid identities of researchers as academics and consultants, and their effects on the nature and quality of knowledge produced.

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Annex

1 - Common Protocol Used in the Case Studies

General layout of the protocol used in the case studies	
Dimensions	Categories
Background and context	<ul style="list-style-type: none"> Historical background of knowledge production in the social sciences Political and institutional contexts in each historical period
Structural aspects of research production in each country	<ul style="list-style-type: none"> Relevant regulatory aspects Policies aimed at strengthening research capacities and promoting research production Mechanisms to set research priorities Existing resources for social research Changes in the research milieu in the country in the last ten years Political context and policy design: importance of evidence for the decision-taking
The institutional context in which social research is produced	<ul style="list-style-type: none"> Role played by different institutions, their contribution to the production and circulation of knowledge Processes by which research agendas are defined Main topic areas different institutions work on The role of private and public universities The Think tanks Relationship between think tanks and universities
The supply of research	<ul style="list-style-type: none"> Production of research at universities and think tanks Structuring of the research in the different institutions Ways and kind of funding for research Support mechanisms for researchers in each institution Institutional strategies to promote research Balance between time invested in research and teaching or consultancies Remuneration for researchers Access to international knowledge (journal, data bases, etc.) Participation in national and international circuits and networks Structure of the researchers' career Type of research produced: academic/applied; consultancy, etc. Organizational climate in the institutions carrying out research: joint decision-making, interdisciplinary work, regular exchange opportunities, etc. Gender balance in the different institutions Main difficulties to produce research Strategies to improve research production
The experience of carrying out research in each country	<ul style="list-style-type: none"> Selected cases of researchers working in different institutions Way of functioning: institutional framework, demand and supply
Research demand in each country	<ul style="list-style-type: none"> Constitution of demand, types of use of research Type of research required for the decision-makers Type and degree of demand for policy based on evidences Other uses of research Interaction between political and scientific communities

Dimensions	Categories
Quality of research	Main focus of research: disciplinary, interdisciplinary, theoretical, descriptive, parochial, cosmopolitan Main methodological approaches: quantitative, qualitative and mixed. Characteristics of research: academic, applied, consultancy, etc. Main type of research products: articles in magazines, work documents, consultancy reports Quality control and improvement mechanisms
Knowledge circulation and use of social research	Main ways of knowledge circulation: science citations indexes, research and consultancy reports, work documents, etc. Main problems of knowledge circulation Strategies to improve knowledge circulation

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The Global Development Network

The Global Development Network (GDN) is a public international organization that supports high quality, policy-oriented, social science research in developing and transition countries to promote better lives. It supports researchers with financial resources, global networking, and access to information, training, peer review and mentoring. GDN acts on the premise that better research leads to more informed policies and better, more inclusive development. Through its global platform, GDN connects social science researchers with policymakers and development stakeholders across the world. Founded in 1999, GDN is currently headquartered in New Delhi.

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