Producing Knowledge in the Global South:
The Political Economy of Social Science in Argentina, Colombia, and Peru

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Abstract: How do international inequalities in funding, institutional support and research capacity affect the production of social science knowledge? New data on the political economy of research in Latin America shows that funding for social science is organized in sharply contrasting ways across countries, with three types of capital -- foreign, domestic public, and domestic private -- playing distinct roles. This cross-national variation in the role played by each type of capital, in turn, has contrasting consequences for (1) who produces knowledge, that is, for the professional credentials and networks needed to gain access to funding for research; and (2) for the kind of knowledge produced, especially for the comparative scope and policy relevance of research. A focus on cross-national variation in how social science is funded provides a stronger understanding of knowledge production in the Global South.

During the previous half century, social science has emerged as a truly global enterprise. Fifty years ago, professional social science existed in just a handful of rich countries. Today, it exists across the world, including in many poor countries, where financial and institutional support for research are weak. The globalisation of the social sciences raises questions about how international inequalities in research capacity affect the production of knowledge. How does cross-national variation in funding and institutional support for social science influence the content and scope of research? Do resource constraints produce dependence on foreign funding and, if so, do foreign sponsors have the power to determine the intellectual agenda? What factors determine who gets access to the funding required to carry out research? What strategies do researchers adopt to cope with scarce funding and how do these strategies affect the quality and impact of their research?

To address these questions about social science in the Global South, this paper analyzes new data on the political economy of research in Argentina, Colombia, and Peru. We find that funding for social science is organized in sharply contrasting ways across these countries, with three types of capital -- foreign, domestic public, and domestic private -- playing distinct roles. In Peru, foreign funding is the dominant type, resulting in what we call foreign-sponsored social science. Although foreign funding also plays a large role in Argentina and Colombia, domestic financial support for research is also quite important. However, in Argentina domestic public funding plays the dominant role, resulting in state-sponsored social science, whereas in Colombia domestic private and public funding are both significant, resulting in mixed economy social science. This cross-national variation in the role played by each type of capital, in turn, has contrasting consequences for (1) who produces knowledge, that is, for the professional credentials and networks needed to gain access to funding for research; and (2) for the kind of knowledge produced, that is, different types of capital have distinct effects both on the comparative scope of research and on the production of research that aims to shape public policy. A focus on cross-national variation in how social science is funded thus sheds new light on knowledge production in the Global South.

The next section explores the role of foreign funding for social science in Argentina, Colombia, and Peru, highlighting cross-national variation in reliance on external funding as well as the surprisingly diverse and plural set of external funding sources, which forms a complex web of transnational ties and capital flows. The following section proposes a new conceptual framework for analyzing the political economy of research. The framework focuses on the varieties of capital that fund research, and it provides a basis for generating hypotheses about the contrasting consequences of each type of capital not only for who produces knowledge but also for the knowledge that is produced. A subsequent section tests hypotheses about how different types of capital affect research by presenting a statistical analysis of bibliometric data from Argentina, Colombia and Peru. A concluding section summarizes the results and offers suggestions for future work on the political economy of research in the Global South.

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1 The data are drawn from the Snyder Data Set on Social Science Research in Latin America. The data set includes 740 social science books published recently in Latin America: 292 books published in Argentina between 2000-2008; 280 books published in Colombia between 2000-2008; and 168 books published in Peru between 2000-2006. Books published in anthropology, economics, political science, and sociology were coded on 23 variables. See Appendix II for a summary of how the sample of books was constructed. We focus on books rather than journal articles, because the former provide far richer information about the crucial matter of how the research was funded. The bibliometric data is supplemented by surveys with social scientists from the three countries, though we do not draw on the survey data in the present paper. We thank Francisco Resnicoff for his work collecting the data on Argentina and Erika Cuba for her work collecting the data on Peru.
I. Complex Dependence: Funding Social Science in the Global South

Bibliometric data on funding for social science in Argentina, Colombia and Peru highlight an important commonality: in all three cases, foreign funding plays an important, if varying, role. Moreover, each country is connected to foreign funding through a surprisingly complex and diverse web of external ties and links. For example, in Peru, a sample of 168 books yields a total of 149 distinct funding sources, a ratio of nearly one funding source per book.\(^2\) 120 (80.5\%) of these are foreign institutions located across sixteen countries and ranging from government agencies, to private, secular organizations, to private, non-secular organizations.\(^3\) Similarly, in Colombia, a sample of 283 books yields 265 funding sources, of which 119 (45\%) are foreign.\(^4\) Figure 1 illustrates the globalized field of funding for social science in which these countries are embedded.

Despite this important similarity, striking differences can be observed across the three cases. In Peru, as seen in Table 1, foreign funding plays a crucial role supporting social science.\(^5\) Foreign funding comes mostly from a handful of donor countries, with more than half (55.5\%) of books receiving support from just six countries: the United States, the Netherlands, Canada, Germany, Switzerland and Spain. Funding from sources in the United States plays a major role, nearly equivalent in weight to all Peruvian funding.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|}
\hline
 & Books funded, by country (percentage) & Books exclusively funded, by country (percentage) \\
\hline
Peru & 34.5 & 18.5 \\
United States & 31 & 17.9 \\
Netherlands & 7.7 & 4.2 \\
Canada & 6 & 2.4 \\
Germany & 5.4 & 2.4 \\
Switzerland & 3 & 0.6 \\
Spain & 2.4 & 0.6 \\
Other Countries & 12.5 & 4.2 \\
International Organizations & 11.3 & 3.6 \\
\hline
\end{tabular}
\caption{Foreign Funding for Social Science in Peru}
\end{table}

\textbf{Note:} The total number of books is 168. Some books are funded by more than one country, so the left column adds to more than 100\%. Funding institutions are coded based strictly on the location of their headquarters. Books that are funded by an equal number of domestic (i.e. Peruvian) and foreign sources are coded as funded by Peru. The category \textit{other countries} includes Belgium, Bolivia, Brazil, Britain, Ecuador, Finland, France, Japan, Mexico, and Sweden.

\(^2\) Many books have multiple funding sources. Hence, there is not, in fact, a different funding source for each book in Peru.

\(^3\) These include some strange linkages, such as the Berlin Senate funding a book on \textit{paqarina moderna} in Cuzco (El Cuzco, paqarina moderna: Cartografía de una modernidad e identidades en los andes peruanos (1900-1935) – given the German electorates recent umbrage regarding financial assistance to Greece, it would be interesting to see the reaction of Berlin taxpayers to this factoid regarding the overseas use of their tax dollars!

\(^4\) In Argentina, a sample of 292 books yields 167 funding sources, of which 84 (50.3\%) are foreign.

\(^5\) For an analysis of foreign funding and social science in Peru that draws on the bibliometric data analyzed here, supplemented by survey data, see Bay, Perla and Snyder (2010).
Table 2, which shows the weight of funding from each country across themes, reveals that almost half of all research on “political order” (45.8%) and on “political actors, institutions, and processes” (41.4%) is funded from the United States. Likewise, almost half (44.1%) of the work on “societal actors, institutions, and processes” is funded by the United States. Put starkly, without funding from the United States, a very large share, on the order of 50%, of the book-based knowledge generated by Peruvian social science about Peruvian politics and society would probably not exist. In sum, with the exception of the study of culture, where half (45.0%) the research receives domestic funding, foreign funding is critical to the production of social science in Peru.

Table 2. The Weight of Country Funding in Peru, by theme

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Culture and Identity</th>
<th>Economic Processes and Policy</th>
<th>Societal Actors, Institutions and Processes</th>
<th>Political Actors, Institutions and Processes</th>
<th>Political Order and Disorder</th>
<th>Transnational Relations and Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Peru</td>
<td>45</td>
<td>26.8</td>
<td>20.6</td>
<td>20.7</td>
<td>12.5</td>
<td>29.2</td>
<td>25</td>
</tr>
<tr>
<td>United States</td>
<td>18.3</td>
<td>22</td>
<td>44.1</td>
<td>41.4</td>
<td>45.8</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8.3</td>
<td>7.3</td>
<td>8.8</td>
<td>13.8</td>
<td>8.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Canada</td>
<td>1.7</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.2</td>
<td>0</td>
</tr>
<tr>
<td>Germany</td>
<td>6.7</td>
<td>3.7</td>
<td>11.8</td>
<td>0</td>
<td>12.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.7</td>
<td>4.9</td>
<td>5.9</td>
<td>3.4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spain</td>
<td>1.7</td>
<td>3.7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other Countries</td>
<td>11.7</td>
<td>6.1</td>
<td>2.9</td>
<td>13.8</td>
<td>12.5</td>
<td>20.8</td>
<td>20.8</td>
</tr>
<tr>
<td>Intl. Organizations</td>
<td>5</td>
<td>14.6</td>
<td>5.9</td>
<td>6.9</td>
<td>8.3</td>
<td>20.8</td>
<td>20.8</td>
</tr>
</tbody>
</table>

Note: The sample includes 168 books, but some books address multiple themes, hence there are a total of 253 themes funded. The percentages are calculated on the basis of total themes funded. The category other countries includes Belgium, Bolivia, Brazil, Britain, Ecuador, Finland, France, Japan, Mexico, and Sweden.

In Argentina and Colombia, by contrast, the role of foreign funding, while important, is less significant. In both cases, nearly 40% of the books in the sample are funded exclusively by domestic resources (see Table 3 and 4). Moreover, as seen in Tables 5 and 6, in contrast to Peru, foreign funding does not play a dominant role in research on particular themes. Although the overall weight of domestic funding in Argentina and Colombia is similar, the composition of this funding across the two cases differs starkly. As seen in Figure 2, domestic funding in Argentina comes overwhelmingly from the public sector, whereas domestic funding in Colombia is
supplied in roughly equal proportions by both the public and private sectors.\(^6\) Moreover, the role of the public sector in supporting social science in Argentina and Colombia, though comparable in magnitude, differs considerably in qualitative terms.

Two key differences stand out. First, the national science agencies in Argentina and Colombia are organized and operate according to distinct institutional models. In Argentina, the [Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)](https://www.conicet.gov.ar/) was modeled on the French system of centralized state sponsorship of scientific research, in particular on the [Centre National de la Recherche Scientifique (CNRS)](https://www.cnrs.fr/).\(^7\) Consequently, CONICET, like the CNRC, offers researchers the possibility of becoming salaried state employees who enjoy publicly funded retirement benefits ("carrera de investigador científico"). Thus, the researcher, not the research, is the target of public funding. By contrast, the [Departamento Administrativo de Ciencia, Tecnología e Innovación (Colciencias)](https://www.colciencias.gov.co/) is modeled on the National Science Foundation (NSF) of the United States, which funds research projects, not researchers.

Another difference between Argentina and Colombia concerns the presence of a second national science agency in Argentina, the [Agencia Nacional de Promocion Cientifica y Tecnologica (Agencia)](https://www.agencia.gob.ar/). While CONICET and Colciencias were both created as part of the general developmental wave in the 1950-1960s, Agencia was founded far more recently, in 1996. One explanation for the presence of two national science agencies in Argentina involves the intent of the government of Carlos Menem (1989-1999) to dismantle the CONICET scheme.\(^8\) The goal was to have public universities replace CONICET as full-time employers of researchers, while Agencia would follow the "American Model" of funding research projects. However, because the universities lacked the financial and infrastructural capacity to play such a role, this initiative failed, and CONICET continued to exist, playing its previous role alongside the new state agency. Thus, an attempt to reduce the role of the state in funding social science ironically led to an expansion of that role. This helps explain the greater presence of public domestic funding in Argentina.\(^9\)

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\(^6\) The relative role of private domestic funding in Argentina is even weaker than in Peru. Similar funding patterns for Argentina and Colombia are evident in data compiled by the Red de Indicadores de Ciencia y Tecnologia (RICYT), which includes the natural sciences, in addition to the social sciences, and uses quite different sources and measures (data on Peru are not available). See Appendix IV, Table 4. This congruence increases our confidence in the validity of our descriptive findings.


\(^8\) Interviews with Argentine colleagues.

\(^9\) See Appendix 3, which lists the top funding institutions in Argentina, Colombia and Peru, for data on the magnitude of the roles played by the different national science agencies.
### Table 3. Foreign Funding for Social Science in Argentina

<table>
<thead>
<tr>
<th>Books funded by country (%)</th>
<th>Books exclusively funded by country (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>53.1</td>
</tr>
<tr>
<td>United States</td>
<td>12.7</td>
</tr>
<tr>
<td>International Organizations</td>
<td>11.6</td>
</tr>
<tr>
<td>Sweden</td>
<td>8.9</td>
</tr>
<tr>
<td>Germany</td>
<td>2.7</td>
</tr>
<tr>
<td>Canada</td>
<td>2.4</td>
</tr>
<tr>
<td>Other Countries</td>
<td>2.4</td>
</tr>
<tr>
<td>France</td>
<td>1.7</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.4</td>
</tr>
<tr>
<td>Other Latin American</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Note: The total number of books is 283. All books with total or partial funding from a country are considered. Some books are funded by more than one country. The category Other Latin American countries includes Argentina, Brazil, Chile, Mexico, Peru, Venezuela and Guatemala. The category Other Countries includes Belgium, Netherlands, Sweden, Norway, and Japan. 70 books (24%) do not report funding.

### Table 4. Foreign Funding for Social Science in Colombia

<table>
<thead>
<tr>
<th>Books funded by country (%)</th>
<th>Books exclusively funded by country (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>72.1</td>
</tr>
<tr>
<td>International Organizations</td>
<td>14.5</td>
</tr>
<tr>
<td>United States</td>
<td>10.2</td>
</tr>
<tr>
<td>Germany</td>
<td>7.1</td>
</tr>
<tr>
<td>France</td>
<td>6.7</td>
</tr>
<tr>
<td>Other Latin American</td>
<td>6.0</td>
</tr>
<tr>
<td>Britain</td>
<td>2.8</td>
</tr>
<tr>
<td>Spain</td>
<td>2.8</td>
</tr>
<tr>
<td>Other Countries</td>
<td>2.8</td>
</tr>
<tr>
<td>Canada</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Note: The total number of books is 283. All books with total or partial funding from a country are considered. Some books are funded by more than one country, so the left column adds to more than 100%. The category Other Latin American countries includes Argentina, Brazil, Chile, Mexico, Peru, Venezuela and Guatemala. The category Other Countries includes Belgium, Netherlands, Sweden, Norway, and Japan.
Table 5. The Weight of Country Funding in Argentina, by theme

<table>
<thead>
<tr>
<th>Country</th>
<th>Culture and Identity</th>
<th>Economic Processes and Policy</th>
<th>Societal Actors, Institutions and Processes</th>
<th>Political Actors, Institutions, and Processes</th>
<th>Political Order and Disorder</th>
<th>Transnational Relations and Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>52.8</td>
<td>50.4</td>
<td>52.4</td>
<td>73.5</td>
<td>75.6</td>
<td>63.0</td>
</tr>
<tr>
<td>United States</td>
<td>13.8</td>
<td>12.4</td>
<td>13.4</td>
<td>10.8</td>
<td>13.3</td>
<td>2.7</td>
</tr>
<tr>
<td>International Organizations</td>
<td>10.6</td>
<td>17.1</td>
<td>11.7</td>
<td>3.6</td>
<td>4.4</td>
<td>6.8</td>
</tr>
<tr>
<td>Sweden</td>
<td>13.0</td>
<td>7.8</td>
<td>13.4</td>
<td>2.4</td>
<td>2.2</td>
<td>12.3</td>
</tr>
<tr>
<td>Germany</td>
<td>1.6</td>
<td>1.6</td>
<td>2.9</td>
<td>2.4</td>
<td>2.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Canada</td>
<td>0.8</td>
<td>4.7</td>
<td>1.0</td>
<td>1.2</td>
<td>0.0</td>
<td>8.2</td>
</tr>
<tr>
<td>Other Countries</td>
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<td>3.4</td>
<td>1.9</td>
<td>1.2</td>
<td>0.0</td>
<td>1.4</td>
</tr>
<tr>
<td>France</td>
<td>1.6</td>
<td>0.8</td>
<td>1.0</td>
<td>2.4</td>
<td>0.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Brazil</td>
<td>2.4</td>
<td>0.8</td>
<td>1.0</td>
<td>0.0</td>
<td>2.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Latin American</td>
<td>0.8</td>
<td>0.8</td>
<td>1.0</td>
<td>2.4</td>
<td>0.0</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Note: The sample includes 292 books, but some books address multiple themes, hence there are a total of 556 themes funded. The category Other Latin American Countries includes Ecuador, Mexico and Venezuela. The category Other Countries includes Italy, Netherlands, Spain, Norway, and Korea.

Table 6. The Weight of Country Funding in Colombia, by theme

<table>
<thead>
<tr>
<th>Country</th>
<th>Culture and Identity</th>
<th>Economic Processes and Policy</th>
<th>Societal Actors, Institutions and Processes</th>
<th>Political Actors, Institutions, and Processes</th>
<th>Political Order and Disorder</th>
<th>Transnational Relations and Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>58.3</td>
<td>59.3</td>
<td>52.5</td>
<td>51.3</td>
<td>51.1</td>
<td>50.0</td>
</tr>
<tr>
<td>USA</td>
<td>5.3</td>
<td>7.6</td>
<td>14.8</td>
<td>10.4</td>
<td>9.8</td>
<td>11.3</td>
</tr>
<tr>
<td>International Organizations</td>
<td>9.9</td>
<td>14.4</td>
<td>8.2</td>
<td>10.4</td>
<td>12.6</td>
<td>17.7</td>
</tr>
<tr>
<td>France</td>
<td>6.6</td>
<td>4.2</td>
<td>11.5</td>
<td>2.6</td>
<td>6.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Germany</td>
<td>2.6</td>
<td>4.2</td>
<td>3.3</td>
<td>8.7</td>
<td>5.2</td>
<td>9.7</td>
</tr>
<tr>
<td>UK</td>
<td>3.3</td>
<td>1.7</td>
<td>3.3</td>
<td>3.5</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>3.3</td>
<td>1.7</td>
<td>3.3</td>
<td>4.3</td>
<td>2.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Canada</td>
<td>2.6</td>
<td>1.7</td>
<td>2.3</td>
<td>0.9</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Other Latin American Countries</td>
<td>6.0</td>
<td>5.1</td>
<td>3.3</td>
<td>6.1</td>
<td>4.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Other Countries</td>
<td>2.0</td>
<td>1.7</td>
<td>1.7</td>
<td>2.3</td>
<td>2.3</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Note: The sample includes 280 books, but some books address multiple themes, hence there are a total of 498 themes funded. The category Other Latin American Countries includes Argentina, Brazil, Chile, Mexico, Peru, Venezuela and Guatemala. The category Other Countries includes Belgium, Netherlands, Sweden, Norway, Japan.

Because of these differences in how social science is funded across the three countries, each country can be considered an example of a distinct political economy of research: foreign-sponsored social science in Peru; state-sponsored social science in Argentina; and mixed-
economy social science in Colombia. The following sections explore the consequences of these different types of political economies for who gets funding for research as well as for the kind of knowledge produced.
Figure 1.
Complex Dependence: Foreign Funding of Social Science in Argentina, Colombia and Peru

Based on bibliometric datasets. Shaded circles represent books that have any domestic funding from the country; inner circles represent the percentage of books exclusively funded by the country. The width of arrows represents the percentage of books that have funding from a given country (i.e., in Peru 31% of books have funding from the United States). The numbers within each box refer to the number of funding institutions from each country in the dataset.
II. Knowledge Production in the Global South: A Comparative Political Economy Framework

Research requires money. Without funding either directly to scholars or to institutions that pay their salaries, research is not possible. Disseminating the results of research through publications, especially books, is a costly activity that also requires financial support. At the most general level, there are three possible sources of funding for research: foreign, domestic public, and domestic private. It is plausible to expect that access to each type of capital depends on distinct professional capabilities, credentials, and networks. For example, holding a foreign degree could make it easier to get access to foreign funding, either because authors keep the personal and institutional relationships forged while studying abroad, or because a foreign degree is a proxy for skills that help establish connections abroad, such as fluency in a foreign language,
capacity to navigate the administrative and scholarly environments in other countries, or the range and depth of a researcher’s overseas professional network. The type of capital may also have consequences for the kind of research produced, for example, domestic public funding may be directed toward research that produces policy-relevant results. We present hypotheses about how each type of capital may affect both who gets access to funding and the kind of knowledge that is produced.

With its focus on the contrasting consequences of varieties of capital, this study extends a longstanding line of research in the field of comparative political economy concerning how different types of foreign capital, including loans, direct foreign investment (DFI), and private and public aid, affect the developmental fortunes of countries. Cardoso and Faletto (1979) argue that foreign and domestic capital have contrasting consequences for economic development in Latin America, with the former promoting “enclave” situations that cause stagnation, whereas the latter can lead to “nationally-controlled” economies with dynamic possibilities for development. Stallings (1991) explores how the distinction between foreign loan capital and direct foreign investment (DFI) helps explain the divergent fortunes of Latin American and East Asian “developmental states.” Because they tended to rely more heavily on loan capital than DFI, East Asian countries like South Korea and Taiwan had more freedom to invest these resources in growth-enhancing ways than did their Latin American counterparts. Finally, the current “aid debate” centers on the question of whether public aid from foreign governments or, alternatively, private aid from foreign foundations, is more conducive to economic growth and development (Easterly, Damboso, Alesina and Dollar, Birdsall, Rodrik). We build on this earlier research by harnessing the insight that different types of capital can have distinct consequences to a new subject: the production of scientific knowledge.

A. Access to Resources: Who Gets Funding?

How does the location of training affect access to the three types of capital? As discussed, foreign training may facilitate access to foreign funding. An important implication of this hypothesis, which we elaborate below, concerns situations like that in Peru, where foreign funding is essentially “the only game in town.” Under such conditions, which we label foreign-sponsored social science, scholars lacking foreign credentials will face high barriers to entry, and knowledge production may therefore become the exclusive preserve of foreign-trained scholars. Alternatively, scholars lacking foreign credentials, and thus facing strong disadvantages with regard to getting the money required for research, may find themselves dependent on their foreign-trained colleagues. To get resources, domestically-trained scholars may need to find ways to affiliate with foreign-trained colleagues. Hence, North-South collaboration, as well as South-South collaboration linking scholars with and without foreign training, should be promoted.

The likely effect of location of training on access to domestic funding, both public and private, is harder to pin down. On one hand, foreign training may signal greater prestige and

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10 See Dezalay and Garth (2002).
11 See the essays collected in Heller, Rueschemeyer and Snyder (2009) on the continuing relevance Cardoso and Faletto’s work for understanding the contemporary political economy of globalization. See especially Conning and Robinson (2009) for a test of the “enclave thesis.”
12 We thank Ruth Ben-Artzi for calling to our attention the literature on the effects of different types of foreign aid.
13 See Ubfal (2009) for a study of how government funding for research in Argentina affects collaboration, including foreign-domestic collaboration.
standing in the profession, which may make it easier to get domestic funding. Also, the easier access to foreign funding that foreign training presumably offers, may enhance access to domestic funding as well, perhaps because foreign-trained scholars, in contrast to their domestically-trained colleagues, need only seek partial funding from domestic sponsors, or because access to foreign funding provides the resources required to prepare more competitive applications for domestic funding. Conversely, the very experience of training abroad, while expanding and strengthening a scholar’s international network, may have the opposite effect on her home network, thereby creating a disadvantage in competing against domestically-trained colleagues for domestic resources. Moreover, foreign-trained scholars may face a nationalistic bias that makes it harder for them to get access to domestic funding, especially from public sources. Domestic public funding may be used by the state as an incentive for scholars to stay in the country. And government officials who determine the allocation of public resources, and may have not trained abroad themselves, can be suspicious or even jealous of foreign-trained scholars. Finally, the location of training can have an indirect effect on access to funding by generating a segmented market in which foreign-trained scholars, because they have access to foreign funding, which may be of greater magnitude and paid out in attractive “hard currency,” may choose not to devote little effort to seeking domestic funding in the first place. The resulting reduction in competition for domestic funding might make it easier for scholars without foreign training to get access to these resources.

In sum, while there is good reason to expect that foreign training will enhance access to foreign capital, the likely effect of the location of training on access to domestic capital is not clear.

B. Output of Research: What Kind of Knowledge is Produced?

We consider the effects of the type of capital on two key dimensions of knowledge production: the scope of research, that is, whether a study encompasses just the home country, or, alternatively, includes multiple countries; and policy relevance, that is, whether a study explicitly aims to shape public policy.

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14 This effect would presumably weaken over time: the more time elapsed since the return to the country, the weaker the effect.

15 One example of this practice is CONICET’s “Becas Reinserción,” a two-year scholarship for young postdoctorates with the objective of repatriating foreign-trained scholars. See http://www.conicet.gov.ar/webfiles/2010/07/Basesactualizadas15-7-10REINS.pdf (accessed on 08/19/2010). Another example is Colombia’s COLFUTURO, a joint public and private sector initiative created in 1991 aimed at facilitating access of Colombians to foreign graduate education through loans. If the student returns to Colombia they only have to pay 50% of the loan, while if they stay abroad they must pay 100% of the loan. See http://www.colfuturo.org/ (accessed on 08/24/2010). For an analysis of “brain drain” in political science in Argentina, Brazil and Uruguay, see Malamud and Freidenberg (2010).

16 There are, of course, many other interesting and important dimensions of knowledge production that could be considered, including the methodologies employed, productivity, the range of foreign versus domestic references and sources, not to mention the actual impact of the work, as measured by number of copies sold, number of citations, classroom usage, and uptake in the media and policy making circles. Systematic cross-national data on these issues, if not non-existent, is in extremely short supply. See, for example, Altman (2010) for a study of the productivity and impact of research produced by political scientists across Latin America. See also Rivera and Rodrigo Salazar (2010) for a study using new data on the comparative scope as well as the methodologies employed in political science research in Mexico to assess whether there has been an “Americanization” of political science there.
i. Scope

Do foreign, domestic public, and domestic private funding have parochial or cosmopolitan effects on research? That is, are they associated with an empirical scope limited to the home country, or with a broader scope encompassing multiple countries? The scope of research has important scientific and extra-scientific implications. Parochialism limits the impact of research by making it harder for social scientists to reach a broad, international audience.\(^{17}\) Parochialism also means that the external validity of research beyond the home country is less likely to be tested; this, in turn, reduces the potential impact of work in the international social science community. Moreover, cross-national research plays a key role in theory-building, and without such studies it may be harder to produce new theoretical contributions. And a vibrant social science community may require a mix of scholars doing both domestic and cross-national studies. Finally, the capacity to forge an effective foreign policy may depend on the production of cosmopolitan knowledge. On the other hand, an adequate supply of scientific knowledge about the home country is clearly a necessary, if not sufficient, condition both for effective domestic policy and for forging a capable and informed citizenry and even a coherent national identity. Producing cosmopolitan knowledge may be a luxury of wealthy countries with sufficient resources to satisfy the internal demand for parochial knowledge and still have a surplus with which to fund studies of foreign places.

The expected effect of foreign funding on the scope of research is not self-evident. On one hand, foreigners may prefer to fund scholars in the Global South to produce knowledge about their countries, thereby taking advantage of their presumed “comparative advantage” of possessing deep local knowledge. According to this logic, for example, foreigners do not fund Argentines to study Peru, they fund Peruvians to study Peru. Conversely, foreign funding could have a cosmopolitan effect, because the kinds of scholars who are presumably most likely to gain access to foreign funding, those with foreign training, for example, may have a more “cosmopolitan outlook,” making them more likely to do research that extends beyond their home countries. Alternatively, foreign funding may promote cosmopolitan research by providing incentives for scholars in the Global South to form cross-national coalitions around collaborative projects, perhaps even involving colleagues from different countries in the South who met during graduate school in the North.\(^{18}\)

Domestic capital, especially public funding, will probably have a parochial effect. In the face of scarce domestic resources, it will likely be difficult to justify spending public resources on studies of foreign countries. Still, the expected parochial effect may be mitigated if there is significant funding from another source, say foreigners, that covers much of the demand for resources to produce knowledge about the home country. In this case, domestic resources might be freed to fund cosmopolitan research. In the case of “emerging powers,” like Brazil and China, there may be greater resources available for and devoted to cosmopolitan research – one of the

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\(^{17}\) This point certainly applies to Americanists in the US-based social sciences, though the parochialism of a hegemonic superpower is probably projected more easily as (false) universalism, than is the parochialism of a second or third-tier power.

\(^{18}\) We use the term cosmopolitan, rather than comparative, because (1) comparative studies are not necessarily cross-national, they may employ subnational comparisons in a single country (Snyder 2001); and (2) cross-national studies are not necessarily comparative. Indeed, much of the cosmopolitan book output from our three cases consists of edited volumes that probably offer “parallel” studies of a common theme across multiple countries, without making what are conventionally considered comparisons across the cases. These works, while cosmopolitan in scope, are not comparative in the sense of a Barrington Moore, Jr. (1966) or Theda Skocpol (1979) wrestling with multiple country cases “under one skull.”
trappings of modern global power status is precisely the ability to make a legitimate claim to “study the world.” And this may not be just a trapping: superpowers operating on the global stage in economic and military terms probably require a certain amount of knowledge about the rest of the world to achieve their goals, as the colonial roots of anthropology and other scientific fields, which have served at various stages as handmaidens for imperialism, suggest.\textsuperscript{19}

\textbf{ii. Policy Relevance}

Domestic capital will likely be oriented toward promoting policy-relevant research. State funding may tend to support research on issues of public interest, both because officials may value the input of this research on policy-making issues, and because it may be easier to justify financial support for research with public relevance.\textsuperscript{20} Likewise, private domestic capital should also support policy-relevant research, because private associations and organizations will seek to promote research oriented toward their interests and agendas.

Table 7 summarizes our hypotheses about how the three types of capital, foreign, domestic public and domestic private, will affect access to funding for research and the production of knowledge.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
\textbf{Access to funding} & \textbf{Research outputs} \\
\hline
Location of training & Location of training \\
\hline
Foreign training facilitates access to foreign capital (H1) & Foreign capital has an indeterminate effect on scope (H4) \\
Foreign training has an indeterminate effect on access to domestic capital (H2) & Domestic capital, especially public, has a parochial effect (H5) \\
Collaboration & Policy recommendations \\
\hline
North-South collaboration facilitates access to foreign capital (H3) & Domestic capital, both public and private, promotes policy-relevant research (H6) \\
\hline
\end{tabular}
\caption{Hypothesized Effects of Types of Capital on Access to Funding and Research Outputs}
\end{table}

\textsuperscript{19} On the impact of superpower agendas on social science in the United States, see Gilman (2003); and Engerman (2009).

\textsuperscript{20} For a recent vivid example of the political opposition that may be encountered by public officials who fund research that lacks obvious public relevance, see the recent efforts by US Senator Tom Coburn to cut funding for the NSF’s political science program.
III. Results

To test our hypotheses about the relationship among the different types of capital, access to funding, and the production of knowledge, we carry out a statistical analysis of bibliometric data from Argentina, Colombia and Peru using linear regression models. For all the regressions estimated we include country fixed effects and collaboration, that is, whether the book is single authored or co-authored, as control variables for each main independent variable. It bears emphasis that the statistical analysis only allows us to make claims about correlations among the different variables, not to establish causal relationships.

A. Access to Funding

i. Location of Training

To test our hypotheses about the association between the location of training and access to different types of funding, we estimate regressions where the main dependent variable is foreign funding, a categorical variable that contains information about the type of funding (foreign, domestic public, domestic private), and the main independent variable is whether the highest degree of the author was obtained outside her home country. Table 8 presents the correlation between foreign training and access to foreign capital. The results support our first hypothesis, that foreign training facilitates access to foreign funding. The coefficient for the variable foreign training is positive and statistically significant, even when we control for the nationality of the author (Column 2).

Table 9 presents the results when the dependent variable is a dummy variable indicating the presence of domestic public funding. The results show that foreign training has a negative relationship with domestic public funding, because the coefficient for foreign training is negative and statistically significant even when controlling for the nationality of the author. This correlation remains robust when we disaggregate domestic funding into funding by national science agencies and by public universities, although the effect is smaller and less significant when we estimate these regressions for each type of institution separately. Based on the first column in Table 9, an author with foreign training is about 10% less likely to have public funding than one trained in the home country.

The correlation between foreign training and domestic private funding is presented in Table 10. The results show that foreign training does not have a consistent relationship with domestic private funding, because the coefficients change signs and do not achieve statistical significance. The coefficient is positive when the dependent variable is a dummy variable that indicates the presence of domestic private funding, but it turns negative when we look only at domestic private universities. This may suggest that private universities, in contrast to other private institutions, like NGOs and corporations, have a domestic bias in allocating funding for research, but the correlations are not statistically significant. Hence, we find little evidence of that location to training affects access to domestic private funding.

Table 11 presents results concerning access to funding from national science agencies. In these regressions the dependent variable is a dummy indicating the presence of funding from each of the four science foundations, Agencia and CONICET in Argentina, Colciencias in Colombia and CONCYTEC in Peru. The regressions illustrate a clear difference between the American and French models of state support for social science. The American model, as seen in

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21 Coding details for each variable are provided in Appendix I.
the results for Agencia and Colciencias in Columns 1 and 3, is associated with collaborative work, as indicated by the negative and significant coefficient of the variable *single author*, which suggests that these agencies are more likely to fund research by teams. By contrast, the French model, as seen in the results for CONICET in Column (2) seems more focused on funding individuals, as suggested by the positive and significant coefficient for single authors.
Table 8. Location of Training and Foreign Funding

<table>
<thead>
<tr>
<th>Dependent Variable: Categorical variable Foreign Funding (1-5)</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Training (1-0)</td>
<td>0.420***</td>
<td>0.333**</td>
</tr>
<tr>
<td></td>
<td>(0.145)</td>
<td>(0.147)</td>
</tr>
<tr>
<td>Level of Education (1-4)</td>
<td>-0.198**</td>
<td>-0.226**</td>
</tr>
<tr>
<td></td>
<td>(0.095)</td>
<td>(0.095)</td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td>-0.180</td>
<td>-0.190</td>
</tr>
<tr>
<td></td>
<td>(0.119)</td>
<td>(0.121)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td>0.608***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.196)</td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>-1.184***</td>
<td>-1.061***</td>
</tr>
<tr>
<td></td>
<td>(0.173)</td>
<td>(0.180)</td>
</tr>
<tr>
<td>Colombia</td>
<td>-1.726***</td>
<td>-1.639***</td>
</tr>
<tr>
<td></td>
<td>(0.152)</td>
<td>(0.161)</td>
</tr>
<tr>
<td>N</td>
<td>753</td>
<td>730</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.153</td>
<td>0.156</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.

Table 9. Location of Training and Domestic Public Funding, by type of institution

<table>
<thead>
<tr>
<th>Dependent Variable: Dummy Domestic Public Funding (1-0)</th>
<th>Domestic Public</th>
<th>National Sci Agency</th>
<th>Public University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Foreign Training (1-0)</td>
<td>-0.101**</td>
<td>-0.062**</td>
<td>-0.052*</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.031)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Level of Education (1-4)</td>
<td>0.105***</td>
<td>0.040**</td>
<td>0.038**</td>
</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td>(0.018)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td>-0.068**</td>
<td>-0.047*</td>
<td>0.026</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.024)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td>-0.132***</td>
<td>-0.029</td>
<td>-0.041</td>
</tr>
<tr>
<td></td>
<td>(0.049)</td>
<td>(0.035)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.320***</td>
<td>0.205***</td>
<td>0.163***</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.023)</td>
<td>(0.031)</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.406***</td>
<td>0.181***</td>
<td>-0.018</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.020)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>N</td>
<td>899</td>
<td>899</td>
<td>899</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.122</td>
<td>0.055</td>
<td>0.093</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.
Table 10. Location of Training and Domestic Private Funding

<table>
<thead>
<tr>
<th>Dependent Variable: Dummy Domestic Private Funding (1-0)</th>
<th>Domestic Private Universities</th>
<th>Domestic Private Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Training (1-0)</td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>0.024</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td>(0.036)</td>
</tr>
<tr>
<td>Level of Education (1-4)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td>-0.005</td>
<td>-0.007</td>
</tr>
<tr>
<td></td>
<td>(0.021)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>Single Author (1-0)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>0.037</td>
<td>0.032</td>
</tr>
<tr>
<td></td>
<td>(0.029)</td>
<td>(0.030)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.093*</td>
<td>0.075</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.048)</td>
</tr>
<tr>
<td>Argentina</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.127***</td>
<td>-0.125***</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.042)</td>
</tr>
<tr>
<td>Colombia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.176***</td>
<td>0.174***</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.044)</td>
</tr>
<tr>
<td>Observations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>925</td>
<td>899</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.094</td>
<td>0.096</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.

Table 11. Collaboration and Funding from National Science Agencies

<table>
<thead>
<tr>
<th>Dependent Variable: Dummy Domestic Public Funding (1-0)</th>
<th>Agencia (Argentina)</th>
<th>CONICET (Argentina)</th>
<th>Colciencias (Colombia)</th>
<th>CONCYTEC (Peru)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Training (1-0)</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td>0.049</td>
<td>-0.067</td>
<td>-0.083*</td>
<td>-0.028</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.044)</td>
<td>(0.046)</td>
<td>(0.030)</td>
</tr>
<tr>
<td>Level of Education (1-4)</td>
<td>(3)</td>
<td>(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.023</td>
<td>0.049**</td>
<td>0.031</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.024)</td>
<td>(0.029)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td>(5)</td>
<td>(6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.060*</td>
<td>0.126***</td>
<td>-0.143***</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td>(0.033)</td>
<td>(0.040)</td>
<td>(0.037)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td>(7)</td>
<td>(8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.095*</td>
<td>-0.092</td>
<td>0.004</td>
<td>0.027</td>
</tr>
<tr>
<td></td>
<td>(0.055)</td>
<td>(0.059)</td>
<td>(0.067)</td>
<td>(0.032)</td>
</tr>
<tr>
<td>Argentina</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>N</td>
<td>353</td>
<td>353</td>
<td>392</td>
<td>154</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.021</td>
<td>0.047</td>
<td>0.040</td>
<td>0.026</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.
ii. North-South Collaboration

We hypothesize that scholars in the Global South who collaborate with peers based in the North will be more likely to get foreign funding. The results in Table 12, where the dependent variable is the categorical variable foreign funding, do not support this hypothesis. The coefficient for North-South Collaboration lacks statistical significance, and the negative sign suggests that, if anything, North-South collaboration actually reduces access to foreign funding. Domestic collaboration, that is, collaboration among scholars in the same country, has a statistically significant negative relationship to foreign funding. The size of this effect is large, even when we control for the nationality of the author.

<table>
<thead>
<tr>
<th>Table 12. Collaboration and Foreign Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable: Foreign Funding (1-5)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Domestic Collaboration</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>North-South Collaboration</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Foreign Training (1-0)</td>
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<td></td>
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<tr>
<td>Level of Education (1-4)</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Argentina</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Colombia</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

N 361 351
R-squared 0.250 0.251

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.

B. Research Outputs

i. Scope

This section explores the effect of different types of funding on the output of research. We are especially interested in identifying whether certain types of capital correlate with “parochial” research that includes just the home country or, alternatively, with “cosmopolitan” research that encompasses foreign countries. Tables 13 through 16 estimate regressions where the main dependent variable is the scope of research and the main independent variable is the type of funding.

We hypothesize that foreign capital has an indeterminate effect on the scope of research. Table 13 shows that there is a positive and significant relationship between foreign funding and
the scope of research. This relationship is significant across the five models, including one that controls for foreign training. Foreign capital thus seems to have a cosmopolitan effect.

<table>
<thead>
<tr>
<th>Table 13. Foreign Funding and the Scope of Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable: Scope of Research (Cosmopolitan =1)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Foreign Funding (1-5)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Single Author (1-0)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Edited (1-0)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Foreign Training (1-0)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Academic Degree (1-4)</td>
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</tr>
<tr>
<td>Foreign Author (1-0)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Argentina</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Colombia</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>R-squared</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%

Model 1 in Table 14 seeks to test whether domestic public capital is correlated with a more parochial scope. We find a statistically significant and negative relationship between scope of research and domestic public funding. Next, we unpack the category *domestic public funding* by testing the hypothesis first for national science agencies and then for public universities. As seen in Column 2, the relationship between national science agencies and the scope of research is negative, but it is not statistically significant. By contrast, as seen in Column 3, the relationship between funding from public universities and the scope of research is both negative and statistically significant. This result suggests that the parochial effect of domestic public funding is driven not by national science agencies, but by public universities, because the coefficient for public universities is nearly twice the size of the coefficient for all domestic public funding.
Table 14. Domestic Public Funding and the Scope of Research

<table>
<thead>
<tr>
<th>Dependent Variable: Scope of Research (Cosmopolitan=1)</th>
<th>All Domestic Public (1)</th>
<th>National Science Agencies (2)</th>
<th>Public Universities (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Public Funding (1-0)</td>
<td>-0.065**</td>
<td>0.028</td>
<td>-0.117***</td>
</tr>
<tr>
<td></td>
<td>(0.028)</td>
<td>(0.037)</td>
<td>(0.038)</td>
</tr>
<tr>
<td>National Science Agency (1-0)</td>
<td>0.025</td>
<td>0.028</td>
<td>0.284***</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.027)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Public University (1-0)</td>
<td>-0.019</td>
<td>-0.018</td>
<td>-0.013</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>(0.027)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td>0.288***</td>
<td>0.285***</td>
<td>0.284***</td>
</tr>
<tr>
<td></td>
<td>(0.028)</td>
<td>(0.029)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Edited (1-0)</td>
<td>0.298***</td>
<td>0.303***</td>
<td>0.298***</td>
</tr>
<tr>
<td></td>
<td>(0.047)</td>
<td>(0.047)</td>
<td>(0.047)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td>0.282***</td>
<td>0.265***</td>
<td>0.279***</td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td>(0.035)</td>
<td>(0.033)</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.238***</td>
<td>0.216***</td>
<td>0.207***</td>
</tr>
<tr>
<td></td>
<td>(0.033)</td>
<td>(0.032)</td>
<td>(0.031)</td>
</tr>
<tr>
<td>N</td>
<td>978</td>
<td>978</td>
<td>978</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.187</td>
<td>0.182</td>
<td>0.189</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.

Table 15 tests whether funding from distinct types of national science agencies, those operating along the lines of the American or, alternatively, the French model, correlate with differences in the scope of research. We find a significant and negative relationship between funding from CONICET and the scope of research. This suggests that the French model of funding researchers rather than research projects may promote parochial research. Yet there is no evidence to support the converse proposition, that is, that the American model of funding research projects provides incentives for more cosmopolitan research. As seen in Columns 1 and 3, the relationship between funding from the two American-style science agencies, Agencia and Colciencias, and the scope of research is both indeterminate and insignificant.\(^{22}\)

\(^{22}\) CONICYTEC in Peru also operates along the lines of the American model. But it devotes most of its resources toward supporting the hard sciences, not the social sciences. Indeed, only 2 (1.2%) of the 168 books from Peru in our sample report support from CONICYTEC. Hence, we do not include this agency in our analysis of the statistical results.
Table 15. Funding from National Science Agencies and the Scope of Research

<table>
<thead>
<tr>
<th></th>
<th>Agencia (Argentina) (1)</th>
<th>CONICET (Argentina) (2)</th>
<th>Colciencias (Colombia) (3)</th>
<th>CONCYTEC (Peru) (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agencia (1-0)</td>
<td>-0.037</td>
<td>-0.253***</td>
<td></td>
<td>-0.247*</td>
</tr>
<tr>
<td></td>
<td>(0.074)</td>
<td>(0.047)</td>
<td></td>
<td>(0.140)</td>
</tr>
<tr>
<td>CONICET (1-0)</td>
<td></td>
<td></td>
<td>0.086</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.052)</td>
<td></td>
</tr>
<tr>
<td>Colciencias (1-0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONCYTEC (1-0)</td>
<td></td>
<td></td>
<td></td>
<td>-0.247*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.140)</td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.009</td>
<td>0.022</td>
<td>-0.065</td>
<td>0.080</td>
</tr>
<tr>
<td></td>
<td>(0.047)</td>
<td>(0.047)</td>
<td>(0.041)</td>
<td>(0.054)</td>
</tr>
<tr>
<td>Edited (1-0)</td>
<td>0.307***</td>
<td>0.309***</td>
<td>0.330***</td>
<td>0.149***</td>
</tr>
<tr>
<td></td>
<td>(0.048)</td>
<td>(0.047)</td>
<td>(0.046)</td>
<td>(0.053)</td>
</tr>
<tr>
<td>Foreign author (1-0)</td>
<td></td>
<td>0.442***</td>
<td>0.284***</td>
<td>0.216***</td>
</tr>
<tr>
<td></td>
<td>(0.096)</td>
<td>(0.097)</td>
<td>(0.083)</td>
<td>(0.073)</td>
</tr>
<tr>
<td>Observations</td>
<td>369</td>
<td>369</td>
<td>415</td>
<td>194</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.160</td>
<td>0.196</td>
<td>0.205</td>
<td>0.117</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.

Table 16 tests the relationship between domestic private funding and the scope of research. In Column 1, we find that although the relationship between domestic private capital and the scope of research is positive, it is not significant. As seen in Column 2, focusing just on domestic private universities, produces the same result.
Table 16. Domestic Private Funding and the Scope of Research

<table>
<thead>
<tr>
<th>Dependent Variable: Scope of Research (Cosmopolitan=1)</th>
<th>All Domestic Private (1)</th>
<th>Domestic Private University (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Private (1-0)</td>
<td>0.027</td>
<td>0.060</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(0.041)</td>
</tr>
<tr>
<td>Domestic Private University (1-0)</td>
<td></td>
<td>0.060</td>
</tr>
<tr>
<td></td>
<td>(0.041)</td>
<td>(0.041)</td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td>-0.018</td>
<td>-0.021</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>(0.027)</td>
</tr>
<tr>
<td>Edited</td>
<td>0.283***</td>
<td>0.278***</td>
</tr>
<tr>
<td></td>
<td>(0.029)</td>
<td>(0.029)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td>0.302***</td>
<td>0.301***</td>
</tr>
<tr>
<td></td>
<td>(0.047)</td>
<td>(0.048)</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.262***</td>
<td>0.268***</td>
</tr>
<tr>
<td></td>
<td>(0.033)</td>
<td>(0.033)</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.205***</td>
<td>0.200***</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.032)</td>
</tr>
<tr>
<td>Observations</td>
<td>978</td>
<td>978</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.183</td>
<td>0.184</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.

ii. Policy Relevance

Tables 17 and 18 present results concerning the hypothesis that domestic public and private funding both promote policy-relevant research. Table 17 shows that, contrary to our expectation, public domestic funding is not correlated with policy recommendations. Although the relationship is not statistically significant, Column 1 shows that when domestic public funding is measured at the aggregate level, the coefficient is negative. In Column 2, which unpacks domestic public funding by only measuring funding from national science agencies, we find a significant and negative relationship. Finally, in Column 3, which only considers funding from public universities, the relationship with policy recommendations is also negative, yet not statistically significant.

---

23 The bibliometric data from Peru does not include information concerning policy relevance. Hence, we exclude Peru from this part of the analysis.
Table 17. Domestic Public Funding and Policy-Relevant Research

<table>
<thead>
<tr>
<th>Dependent Variable: Policy Recommendations (1-0)</th>
<th>All Domestic Public Funding (1)</th>
<th>National Science Agencies (2)</th>
<th>Public Universities (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Public Funding (1-0)</td>
<td>-0.008 (0.021)</td>
<td>-0.072*** (0.021)</td>
<td>-0.014 (0.027)</td>
</tr>
<tr>
<td>National Science Agency (1-0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Universities (1-0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td>-0.047** (0.022)</td>
<td>-0.050** (0.022)</td>
<td>-0.046** (0.022)</td>
</tr>
<tr>
<td>Edited (1-0)</td>
<td>-0.050** (0.021)</td>
<td>-0.047** (0.022)</td>
<td>-0.050** (0.022)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td>-0.074** (0.030)</td>
<td>-0.077** (0.030)</td>
<td>-0.074** (0.030)</td>
</tr>
<tr>
<td>Argentina</td>
<td>-0.107*** (0.021)</td>
<td>-0.105*** (0.021)</td>
<td>-0.104*** (0.022)</td>
</tr>
<tr>
<td>N</td>
<td>837</td>
<td>837</td>
<td>837</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.044</td>
<td>0.053</td>
<td>0.044</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses:** significant at 5%; *** significant at 1%.

Turning to domestic private funding, Column 1 in Table 18 shows a positive and significant relationship between domestic private investment and policy recommendations. Still, Column 2, which only takes into account funding from private universities, indicates a significant and negative relationship between private university funding and policy recommendations. This suggests that policy-driven research is stimulated by other kinds of private actors, such as NGOs, think tanks and interest associations.
Table 18. Domestic Private Funding and Policy-Relevant Research

<table>
<thead>
<tr>
<th>Dependent Variable: Policy Recommendations</th>
<th>All Domestic Private (1)</th>
<th>Private Universities (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Private (1-0)</td>
<td>0.068**</td>
<td>-0.139***</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(0.030)</td>
</tr>
<tr>
<td>Domestic Private University (1-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Author (1-0)</td>
<td>-0.049**</td>
<td>-0.041*</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>Edited (1-0)</td>
<td>-0.057**</td>
<td>-0.034</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>Foreign Author (1-0)</td>
<td>-0.079***</td>
<td>-0.059*</td>
</tr>
<tr>
<td></td>
<td>(0.030)</td>
<td>(0.030)</td>
</tr>
<tr>
<td>Argentina</td>
<td>-0.086***</td>
<td>-0.151***</td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.025)</td>
</tr>
<tr>
<td>Observations</td>
<td>837</td>
<td>837</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.053</td>
<td>0.066</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses; ** significant at 5%; *** significant at 1%.

IV. Conclusion: National Models of Social Science and Questions for Future Research

This paper explores cross-national variation in how social science research is funded. Across countries located in the same region and with similar levels of economic development, such as Colombia and Peru, we find striking differences in the role of foreign, domestic public, and domestic private capital in funding research. These cross-national differences in funding for research, in turn, have important consequences for knowledge production, affecting both who produces research, that is the kinds of professional credentials, skills, and networks required to gain access to funding, as well as the kind of knowledge produced, for example, whether research is parochial or cosmopolitan in scope, and whether it aims to shape public policy. As seen in Table 19, our results suggest that each of the three types of capital has distinct consequences for who produces knowledge and the type of knowledge that is produced. Foreign funding is associated with researchers who have foreign training and with research that has a cosmopolitan scope, encompassing countries beyond the home of the researcher. Domestic public funding, by contrast, is associated with researchers who have domestic training and with research that is parochial in scope, covering only the home country of the researcher. In terms of who gets access to funding and the scope of research, foreign and domestic public capital are thus mirror images of one another. Finally, domestic private capital, while it has no statistically significant association with either the location of training or the scope of research, does have a strong and positive relationship with policy-relevant research.

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24 In 2009, GDP per capita was $5,056 in Colombia, $4,345 in Peru, and $7,666 in Argentina. From: World Development Indicators Database, World Bank.
Table 19: Types of Capital, Access to Funding, and Research Outputs: Summary of Findings

<table>
<thead>
<tr>
<th>Access to funding</th>
<th>Location of training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign training facilitates access to foreign capital.</td>
</tr>
<tr>
<td></td>
<td>Foreign training has a negative effect on access to domestic public capital.</td>
</tr>
<tr>
<td></td>
<td>Foreign training has no effect on access to domestic private funding.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>North-South collaboration has no effect on access to foreign capital.</td>
</tr>
<tr>
<td></td>
<td>Collaboration facilitates access to funding from national science agencies modeled on the American (NSF) system. Collaboration has a negative effect on access to funding from national science agencies modeled on the French (CNRS) system.</td>
</tr>
<tr>
<td>Research outputs</td>
<td>Scope of research</td>
</tr>
<tr>
<td></td>
<td>Foreign capital has a cosmopolitan effect, broadening the scope of research.</td>
</tr>
<tr>
<td></td>
<td>Domestic public capital has a parochial effect, narrowing the scope of research. This parochialism is driven by funding from public universities and from national science agencies modeled on the French (CNRS) system, not the American (NSF) system.</td>
</tr>
<tr>
<td>Policy recommendations</td>
<td>Domestic private capital promotes policy-relevant research. This effect is driven by NGOs, not private universities.</td>
</tr>
<tr>
<td></td>
<td>Domestic public capital does not promote policy-relevant research.</td>
</tr>
</tbody>
</table>

These three types of capital can be combined in different ways within countries, resulting in distinct national models of social science.\(^{25}\) In situations we call foreign-sponsored social science, as seen in Peru, both public and private domestic funding is minimal, making foreign

\(^{25}\) The seminal work on national models of capitalism is Shonfield (1965). For a more recent formulation, see Hall and Soskice (2001). Locke (1995) provides a compelling critique of the national models approach, arguing that it overlooks subnational variation across regions in how capitalism is organized. Likewise, there may also be an important subnational dimension to the political economy of social science, with certain locales specializing in a particular kind of research, for example, regional studies, though this intriguing possibility lies beyond the scope of the present paper.
funding the “only game in town.” The results of our study suggest that under such conditions of foreign sponsorship, which likely exist in many lower and lower-middle income countries across the Global South, researchers will require foreign training to get funding for their work. This, in turn, may pose high barriers to entry to domestically-trained researchers, thereby preventing the formation of a strong national sector of knowledge producers. Moreover, because foreign funding is associated with cosmopolitan research that encompasses multiple countries, dependence on foreign funding may produce an undersupply of parochial knowledge about the home country. Such knowledge is probably necessary for effective domestic policy and for forging a capable and informed citizenry and even a coherent national identity. Finally, without domestic private funding, which our results show is associated with policy-relevant research, the production of knowledge that could inform public policy may be curtailed. At the limit, foreign-sponsored social science may lead to a situation where foreign-trained researchers produce knowledge with limited local content and relevance.

Yet foreign-sponsored social science is not the only option in the Global South. As seen in Argentina and Colombia, public and private domestic capital can play a significant role in supporting social science research. In Argentina, public domestic funding plays the dominant role, resulting in state-sponsored social science. State sponsorship helps generate and sustain a strong national sector of domestically-trained and domestically-funded scholars, something that seems difficult to accomplish in situations of foreign-sponsored social science. The national sector relies heavily on domestic public funding to support its research, and we find that this type of funding has a strong association with parochial research focusing on the home country.26 Hence, in addition to providing a potential source of indigenous ideas and innovations, the national sector should produce an ample supply of knowledge about the home country, something that will likely be absent in countries where social science is foreign sponsored.27 On the other hand, the state-sponsored model may be prone to pernicious politicization of research and even partisan meddling in knowledge production. These risks may be exacerbated by too much centralization of funding for research: the potential benefits of research coordination offered by centralization of funding may be offset by the threat to the autonomy of scholarship posed when funding is concentrated in the hands of a hegemonic government agency. A further weakness of the state-sponsored model concerns the limited role of domestic private capital: without such support, the production of policy-relevant research may be curtailed.

It is thus tempting to conclude that the mixed economy model, as exemplified by Colombia, is the most desirable, because it combines all three types of funding and thus draws on the strengths of each. We resist this temptation for several reasons. First, despite the presence of strong domestic public funding, there is evidence that Colombia lacks the robust national sector observed in Argentina. This can be seen in Table 20, which shows the composition of human capital for social science research in Argentina, Colombia and Peru. Although the share of foreigners in Colombia (9%) is comparable to that in Argentina (5.3%), the share of domestically-trained authors is far less in the former case (39.5%). Care should therefore be taken in drawing inferences about how the amount of different types of funding shapes the

26 Indeed, the national sector of researchers likely relies on domestic public employment. See Table 2 in Appendix IV, which highlight the large share, on the order of 25%, of researchers employed by the public sector in Argentina, compared to the far smaller share (2%) employed by the public sector in Colombia. This difference probably reflects the larger role of public universities in Argentina than in Colombia.

27 Moreover, when a large foreign-trained sector exists alongside the national sector, this may open possibilities for creative interactions between the two sectors that may enhance both the available resources and the resulting knowledge that is produced.
human capital profile in the knowledge production sector: not just the level of funding, but also how that funding is distributed, determines the human capital profile. Moreover, factors besides funding for research, such as the amount of domestic infrastructure for doctoral training, which is far larger in Argentina than Colombia (see Appendix IV, Table 1), may have a more important impact on the size of the national sector.

Table 20. Human Capital for Social Science Research in Argentina, Colombia, and Peru

<table>
<thead>
<tr>
<th>Nationality</th>
<th>National</th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>94.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Colombia</td>
<td>90</td>
<td>9</td>
</tr>
<tr>
<td>Peru</td>
<td>77.6</td>
<td>22.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of Training</th>
<th>Domestic Degree</th>
<th>Foreign Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>57.8</td>
<td>42.1</td>
</tr>
<tr>
<td>Colombia</td>
<td>39.5</td>
<td>60.4</td>
</tr>
<tr>
<td>Peru</td>
<td>38.3</td>
<td>61.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest Degree</th>
<th>Phd</th>
<th>Master</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>54</td>
<td>27.4</td>
<td>18.3</td>
</tr>
<tr>
<td>Colombia</td>
<td>45.8</td>
<td>36.3</td>
<td>17.3</td>
</tr>
<tr>
<td>Peru</td>
<td>56.4</td>
<td>22.2</td>
<td>17.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disciplinary Training</th>
<th>Political Science</th>
<th>Sociology</th>
<th>Economics</th>
<th>Anthropology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>9.7</td>
<td>23.9</td>
<td>14.7</td>
<td>5.2</td>
</tr>
<tr>
<td>Colombia</td>
<td>19.5</td>
<td>10.2</td>
<td>21.7</td>
<td>7.7</td>
</tr>
<tr>
<td>Peru</td>
<td>6.9</td>
<td>25.7</td>
<td>23.5</td>
<td>23.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>37.8</td>
<td>61.5</td>
</tr>
<tr>
<td>Colombia</td>
<td>33.1</td>
<td>65.5</td>
</tr>
<tr>
<td>Peru</td>
<td>24.1</td>
<td>75.8</td>
</tr>
</tbody>
</table>

Note: For Argentina there are a total of 292 books and 452 authors; for Colombia there are a total of 280 books and 473 authors; for Peru there are a total of 168 books and 257 authors for all books. Percentages are based on the number of authors with available information for each variable.

Second, the findings presented about the effects of different types of funding on knowledge production are tentative and require further testing, especially in other cases. One issue involves scale. Argentina, Colombia, and, to a lesser degree, Peru, can be considered
“medium-size” producers of knowledge in the context of Latin America. Do the three types of capital have the same effects in countries with far larger knowledge sectors, like Mexico and Brazil? Alternatively, are the effects the same in countries with far smaller sectors, like Bolivia, Uruguay, or Costa Rica? Moreover, are there other feasible models of social science besides the foreign-sponsored, state-sponsored, and mixed possibilities? Private-sponsored social science would seem an obvious additional option meriting consideration. Another issue concerns interactions and “system effects” among the different types of capital. For example, the parochial effect of domestic public capital may be attenuated if there is enough funding from another source, either domestic private or foreign funding, to satisfy the demand for knowledge about the home country. In this case, perhaps domestic public resources would be freed to fund more cosmopolitan research.

In addition to further testing, another key task concerns collecting more and better data about social science in the Global South, including developing ways to assess in a rigorous manner the quality and impact of research. We have analyzed bibliometric data generated through content analysis of academic publications. Besides making it possible to produce a systematic map of the complex domestic and transnational fields of funding for social science, bibliometric data offer further advantages for studying the political economy of research: they are drawn from accessible, public sources (i.e., books) and, hence, studies employing these data can be replicated with relative ease; books, in contrast to journal articles or working papers, contain richer information about the authors and especially about the funding that supported the research; moreover, bibliometric data lend themselves to large-N statistical analysis. Still, like all types of data, bibliometric data have limitations: in addition to relying on self-reporting by authors and publishing houses, they offer only an indirect means of assessing key issues such as the work habits and professional strategies of researchers and the motives and agendas of funding institutions. To help get beyond these limitations, we have gathered survey data on the attitudes, behavior, and strategies of researchers in Argentina, Colombia and Peru, and we will use these data in future work to supplement the bibliometric analysis on which this paper focuses. Other kinds of data that shed light on the motives of funding institutions, for example interviews with their staffs and analyses of documents from their archives, would provide an even stronger foundation for understanding the political economy of knowledge production. Likewise, studies of specific funding agencies and programs, which may be able to include both funded and unfunded projects, thus mitigating problems of bias introduced when only observing funded books, would also be desirable.29

This paper shows some of the consequences for knowledge production of different ways of organizing and funding social science. A related matter concerns the causes of this variation.

28 Argentina, which has a larger knowledge production sector in terms of several measures, is perhaps best regarded as a “medium-large” case. The role of state sponsorship is notable among the large and medium-large Latin America cases, that is, Brazil, Mexico and Argentina.
29 For such a study, see Ubfal (2009). However, the scope of such studies is probably limited to specific funding sources and particular programs: getting access to information about both which research proposals receive funding and which do not probably requires a level of access that is difficult to achieve across more than a small number of funding sources. It may therefore be difficult to scale this research design up to the national and cross-national level. Moreover, even studies that consider projects that receive funding from a source together with those that applied for the funding yet did not receive it are still unable to observe the set of projects whose researchers considered applying for the funding, yet chose not to, not to mention the set of researchers who did not even consider applying.
Given their similar levels of economic development, why is the role of foreign funding so much greater in Peru than in Colombia? Why is the role of private domestic capital in Argentina so small? More generally, what are the roots of different public and private sector roles in supporting social science? Answers to questions such as these could provide valuable insights about the options faced by policymakers and stakeholders who aim to improve how knowledge is produced.

References


Skocpol, Theda. 1979. States and Social Revolutions: A Comparative Analysis of France, Russia, and China. New York: Cambridge University Press.


Appendix I. Coding of Variables

Foreign Funding: This is a categorical variable that takes the value of 1 when the book is funded exclusively by domestic organizations; 2 when it is funded mostly by domestic organizations; 3 when it is funded equally by domestic and foreign organizations; 4 when it is funded mostly by foreign organizations; and 5 when it is funded exclusively by foreign organizations. The variable is based on a measure of the number of funding institutions of each type (i.e., foreign, domestic public, domestic private) associated with each book. We do not measure the actual amount of funding for the research from each of these sources, because information about this amount is not reported in the books.

Foreign Training: This is a dummy variable that takes the value of 1 when the author of the book obtained her highest degree outside her country of origin and 0 otherwise.

Level of Education: This variable takes the value of 1 when the highest educational level of the book’s author is high school, 2 when it is college, 3 when it is Master and 4 when it is PhD.

Single Author: This is a dummy variable that takes the value of 1 when the book is authored by a single person and 0 otherwise.

Foreign Author: This is a dummy variable that takes the value of 1 when the author is a foreign person and 0 otherwise.

Domestic Public Funding: This is a dummy variable that takes the value of 1 when the book has funding from any domestic public source and 0 otherwise.

National Sci Foundation: This is a dummy variable that takes the value of 1 when the book has funding from a National Science Foundation and 0 otherwise.

Domestic Private: This is a dummy variable that takes the value of 1 when the book has funding from any domestic private source and 0 otherwise.

Domestic Private Universities: This is a dummy variable that takes the value of 1 when the book has funding from a domestic private university and 0 otherwise.

Agencia: This is a dummy variable that takes the value of 1 when the book has funding from Agencia Nacional de Promocion Cientifica y Tecnologica and 0 otherwise.

CONICET: This is a dummy variable that takes the value of 1 when the book has funding from Consejo Nacional de Investigaciones Cientificas y Tecnicas (CONICET) and 0 otherwise.

Colciencias: This is a dummy variable that takes the value of 1 when the book has funding from Deparamento Administrativo de Ciencia, Tecnologia e Innovacion (Colciencias) and 0 otherwise.

CONCYTEC: This is a dummy variable that takes the value of 1 when the book has funding from Consejo Nacional de Ciencia, Tecnologia e Innovacion Tecnologica (CONCYTEC) and 0 otherwise.
Domestic Collaboration: This is a dummy variable that takes the value of 1 when all the authors of the book have affiliations with domestic organizations (exclusively or partial) and 0 otherwise.

North_South Collaboration : This is a dummy variable that takes the value of 1 when some authors have affiliations with organizations in the Global North and others have affiliations in the Global South. It takes the value of 0 otherwise.

Public Universities: This is a dummy variable that takes the value of 1 when the book has funding from a domestic public university and 0 otherwise.

Scope of Research (Cosmopolitan): This is a dummy variable that takes the value of 1 when the book studies multiple countries (including or excluding the home country, Argentina, Colombia or Peru, depending in each case) and 0 when the book studies only the home country.

Policy Recommendations: This variable takes the value of 1 if the book contains recommendations aiming to shape public policy and 0 otherwise.
Appendix II. The Bibliometric Sample

We focus on books rather than journal articles because the former provide far richer information about the crucial matter of how the research was funded.

Argentina: The data set codes 292 books published between 2000 and 2008. Based on an informal survey of Argentine social scientists, we determined that the six most important social science publishers in Argentina are: Centro de Estudios de Estado y Sociedad (CEDES); Editorial de la Universidad de Buenos Aires (EUDEBA); Prometeo Libros; Siglo XXI; Universidad Nacional de Quilmes; and Consejo Latinoamericano de Ciencias Sociales (CLACSO). Books published by these six organizations between 2000-2008 in anthropology, economics, political science, and sociology were coded on 23 variables. The data set does not include all social science books published in Argentina during 2000-2008, nor does it include all books published by these six institutions during this period. Still, the data set encompasses a large sample of the output of the major social science publishing houses in Argentina. Because books are often have multiple publishers, and because the six publishers distribute books published by smaller editorial houses, the data set also includes books published by smaller publishers, such as Ediciones al Margen; Ediciones CICCUS; Editorial Altamira; Editorial Sudamericana; Editorial de la Universidad de Salta; and Editorial Universitaria de la Universidad Nacional del Nordeste.

Colombia: The data set codes 280 books published in Colombia between 2000 and 2008. To establish the percentages of books edited by the different universities and organizations, we looked at what we considered the closest population estimate we could obtain. The source of this database is Colciencias. This organization asks every university or educational organization to submit all types of publications that have been produced by the faculty. In our first approximation to this database, we found 30,827 titles of books and chapters in books that were the products of research by scholars from all disciplines (natural science and social science) between 2000 and 2008. From this population we decided to exclude chapters in books and include only books. From this subsample we extracted only the books that were on social science. The selection criteria was to look at the titles of the books and eliminate those that were obviously not on social science topics, for example: “Pediatric Orthopedics”, “Clinical Engineering in Colombia,” or “Stratigraphical and Sedimentological Constraints in Western Colombia: Implications for the Evolution of the Caribbean Plate”. However, there were cases when the title did not offer substantive information about the content of the book (e.g. “The Jaguar Agony,” or “La Fleur Du Café”). In these instances, we looked for more information about the book on the Internet and in the Colciencias database. The final number of books published in social science from 2000 to 2008 was 3,691. We categorized the books by publisher and found that 986 (26%) did not report the publisher. From those books that did report the publisher, we concluded that Universidad Nacional, Pontificia Universidad Javeriana, Universidad del Externado, Universidad de los Andes, Universidad de Antioquia and Universidad del Valle were the leading publishers (see Table 1).

One problem with the data gathered by Colciencias is that the quality in terms of accuracy and detail varies significantly, because the data are not systematically collected directly by

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30 No comparable database was available for Argentina or Peru.
Colciencias itself, but by the professors of the universities. So, the quality of this information will depend on the time and dedication that each professor devoted to completing the questionnaire from Colciencias. Although our sample does not match perfectly the distribution in the Colciencias database, we used this distribution as a guide to determine the proportion of books that we included in our sample from each of the main university publishers. Moreover, we included in our sample books from organizations that although they are not universities, and thus are not included in the Colciencias database, are conventionally seen as playing an agenda setting in social sciences in Colombia, such as Fedesarrollo and Centro de Investigacion y Educacion Popular (CINEP).

<table>
<thead>
<tr>
<th>Publisher</th>
<th>Number of Books</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No publisher acknowledge</td>
<td>986</td>
<td>26.7</td>
</tr>
<tr>
<td>Universidad Nacional de Colombia</td>
<td>253</td>
<td>6.9</td>
</tr>
<tr>
<td>Universidad Externado de Colombia</td>
<td>164</td>
<td>4.4</td>
</tr>
<tr>
<td>Pontificia Universidad Javeriana</td>
<td>157</td>
<td>4.3</td>
</tr>
<tr>
<td>Universidad de los Andes</td>
<td>90</td>
<td>2.4</td>
</tr>
<tr>
<td>Universidad de Antioquia</td>
<td>69</td>
<td>1.9</td>
</tr>
<tr>
<td>Universidad del Rosario</td>
<td>68</td>
<td>1.8</td>
</tr>
<tr>
<td>Universidad del Valle</td>
<td>56</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3691</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Peru:** The data set codes 168 books published between 2000-2006. Based on an informal survey of Peruvian social scientists, we determined that the five most important social science publishers in Peru are: Centro de Estudios de Promoción y Desarrollo (DESCO); Instituto de Estudios Peruanos (IEP); Pontificia Universidad Católica del Perú (PUCP); Universidad del Pacífico; and Universidad Nacional Mayor de San Marcos (UNMSM). All books published in anthropology, economics, political science, and sociology were coded on 18 variables. The data set does not include all social science books published in Peru during 2000-2006, nor does it include all books published by these five institutions during this period. Still, the data set encompasses a large sample of the output of the major social science publishing houses in Peru.
### Appendix III. Top Funding Institutions in Argentina, Colombia and Peru

<table>
<thead>
<tr>
<th>Institution</th>
<th>% of Books funded by a domestic Institution</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>No funding acknowledged</td>
<td>24%</td>
<td>*</td>
</tr>
<tr>
<td>Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)</td>
<td>17%</td>
<td>Argentina</td>
</tr>
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<td>Agencia Nacional de Promocion Cientifica y Tecnologica (ANPCyT)</td>
<td>9%</td>
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</tr>
<tr>
<td>Universidad de Buenos Aires Ciencia y Tecnologia (UBACyT)</td>
<td>9%</td>
<td>Argentina</td>
</tr>
<tr>
<td>Agencia Sueca para el Desarrollo Internacional - ASDI</td>
<td>9%</td>
<td>Sweden</td>
</tr>
<tr>
<td>FORD Foundation</td>
<td>5%</td>
<td>United States</td>
</tr>
<tr>
<td>Universidad Nacional de Quilmes</td>
<td>4%</td>
<td>Argentina</td>
</tr>
<tr>
<td>Fundacion Antorchas</td>
<td>4%</td>
<td>Argentina</td>
</tr>
<tr>
<td>Universidad de Buenos Aires</td>
<td>4%</td>
<td>Argentina</td>
</tr>
<tr>
<td>Universidad Nacional de la Plata</td>
<td>4%</td>
<td>Argentina</td>
</tr>
<tr>
<td>Consejo Latinoamericano de Ciencias Sociales - OSDF</td>
<td>3%</td>
<td>International</td>
</tr>
<tr>
<td>Secretaria de Ciencia y Tecnologia (Ministerio de Educacion)</td>
<td>2%</td>
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</tr>
<tr>
<td>Universidad Nacional de General Sarmiento</td>
<td>2%</td>
<td>Argentina</td>
</tr>
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<td>Centro Internacional de Investigaciones para el Desarrollo (IDRC)</td>
<td>2%</td>
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</tr>
<tr>
<td>UN-PNUD</td>
<td>2%</td>
<td>Organization</td>
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<td>Fundación Konrad Adenauer</td>
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</tr>
<tr>
<td>UNESCO</td>
<td>2%</td>
<td>Organization</td>
</tr>
<tr>
<td>Social Science Research Council (SSRC)</td>
<td>2%</td>
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</tr>
<tr>
<td>Banco Interamericano de Desarrollo</td>
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<td>International</td>
</tr>
<tr>
<td>Rockefeller Foundation</td>
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<td>United States</td>
</tr>
<tr>
<td>Gobierno de la Ciudad Autonoma de Buenos Aires</td>
<td>1%</td>
<td>Argentina</td>
</tr>
<tr>
<td>Ministerio de Educacion, Argentina</td>
<td>1%</td>
<td>Argentina</td>
</tr>
<tr>
<td>Comparative Research Programme on Poverty - CROP</td>
<td>1%</td>
<td>International</td>
</tr>
<tr>
<td>Fondo de Poblacion de las Naciones Unidas</td>
<td>1%</td>
<td>International</td>
</tr>
<tr>
<td>NORAD (Agencia Noruega de Cooperacion para el Desarrollo)</td>
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<td>Norway</td>
</tr>
<tr>
<td>Guggenheim Foundation</td>
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<td>United States</td>
</tr>
<tr>
<td>Institution</td>
<td>% of Books funded by a domestic Institution</td>
<td>Country</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------</td>
</tr>
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<td>Universidad Nacional de Colombia</td>
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<td>Colombia</td>
</tr>
<tr>
<td>Pontificia Universidad Javeriana</td>
<td>9</td>
<td>Colombia</td>
</tr>
<tr>
<td>Universidad del Rosario</td>
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</tr>
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<td>Fundación Konrad Adenauer</td>
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<tr>
<td>Banco de la Republica</td>
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<tr>
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<td>3</td>
<td>France</td>
</tr>
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<td>United States</td>
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</tr>
<tr>
<td>Centro de Investigacion y Educacion Popular</td>
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<td>Colombia</td>
</tr>
<tr>
<td>Instituto Frances de Estudios Andinos</td>
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<td>France</td>
</tr>
<tr>
<td>Alto Comisionado de las Naciones Unidas Para los Refugiados</td>
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</tr>
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<td>USAID</td>
<td>2</td>
<td>United States</td>
</tr>
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</tr>
<tr>
<td>London School of Economics</td>
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<td>Britain</td>
</tr>
<tr>
<td>Centro internacional de investigaciones para el desarrollo (IDRC)</td>
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<td>Instituto Colombiano para la Educacion en el Exterior</td>
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</tr>
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<td>Universidad del Norte</td>
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<td>Colombia</td>
</tr>
<tr>
<td>Ministerio de Cultura de Colombia</td>
<td>1</td>
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</tr>
<tr>
<td>Instituto para la Investigacion y la Preservacion del Patrimonio Cultural y Natural del Valle del Cauca</td>
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<tr>
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<tr>
<td>Fundacion para la Educacion superior y el desarrollo</td>
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<tr>
<td>Corporacion Observatorio del caribe Colombiano</td>
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<td>Asociacion Nacional de Instituciones Financieras</td>
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<td>Novib (Oxfam Netherland)</td>
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</tr>
<tr>
<td>Embajada de los Estados Unidos</td>
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<td>United States</td>
</tr>
</tbody>
</table>

Note: the table lists all 34 of the 261 institutions that fund three or more books.
<table>
<thead>
<tr>
<th>Institution</th>
<th>% of Books funded by a domestic Institution</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ford Foundation</td>
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<td>United States</td>
</tr>
<tr>
<td>Universidad Católica</td>
<td>12</td>
<td>Peru</td>
</tr>
<tr>
<td>Universidad de San Marcos</td>
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<td>Peru</td>
</tr>
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<td>Rockefeller Foundation</td>
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</tr>
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<tr>
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</tr>
<tr>
<td>Universidad del Pacífico</td>
<td>4</td>
<td>Peru</td>
</tr>
<tr>
<td>IEP</td>
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<td>Peru</td>
</tr>
<tr>
<td>Inter-American Foundation (IAF)</td>
<td>2</td>
<td>United States</td>
</tr>
<tr>
<td>The Japan Center for Area Studies</td>
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<td>Japan</td>
</tr>
<tr>
<td>The John D. and Catherine T. MacArthur Foundation</td>
<td>2</td>
<td>United States</td>
</tr>
<tr>
<td>MISEREOR: German Catholic Bishops’ Organization for Development Cooperation</td>
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<td>Germany</td>
</tr>
<tr>
<td>Social Science Research Council (SSRC)</td>
<td>2</td>
<td>United States</td>
</tr>
<tr>
<td>US Agency for International Development (USAID)</td>
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<td>United States</td>
</tr>
<tr>
<td>US Department of Education Fulbright-Hays Doctoral Dissertation Fellowship</td>
<td>2</td>
<td>United States</td>
</tr>
</tbody>
</table>

**Note:** The table lists all 15 of the 143 institutions that fund three or more books. The entries for the four publishing institutions – i.e., Universidad Católica, Universidad de San Marcos, Universidad del Pacífico, and IEP – reflect self-financing, that is, books published and also funded partly or completely by these institutes. DESCO does not report any self-financing.
## Appendix IV. Science and Technology Sectors in Latin America

### Table 1. PhDs in Social Science (per 100,000 habitants)

<table>
<thead>
<tr>
<th>Country</th>
<th>PhDs</th>
<th>Total Population</th>
<th>PhDs per 100,000 habitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>161</td>
<td>39105347</td>
<td>0.41</td>
</tr>
<tr>
<td>Brazil</td>
<td>890</td>
<td>188158438</td>
<td>0.47</td>
</tr>
<tr>
<td>Chile</td>
<td>34</td>
<td>16467256</td>
<td>0.20</td>
</tr>
<tr>
<td>Colombia</td>
<td>28</td>
<td>43704486</td>
<td>0.06</td>
</tr>
<tr>
<td>Mexico</td>
<td>689</td>
<td>104221361</td>
<td>0.66</td>
</tr>
<tr>
<td>United States</td>
<td>8576</td>
<td>298363000</td>
<td>2.87</td>
</tr>
</tbody>
</table>

Notes: Data for 2006. Data for Peru are not available. Source: Red de Indicadores de Ciencia y Tecnología.

### Table 2. Researchers by Employment Sector (as a percentage of total employment)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Argentina</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>24.1</td>
<td>24.8</td>
<td>25.6</td>
<td>25.0</td>
<td>26.4</td>
<td>28.7</td>
<td>28.8</td>
<td>29.9</td>
</tr>
<tr>
<td>Enterprises</td>
<td>9.7</td>
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Table 3. Expenditure in Science and Technology (as a percentage of GDP).

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Note: Includes Science and Technology Activities (STA) and Research and Development activities (R&D)


Table 4. Expenditure in Science and Technology by Funding Source (as a percentage).

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Notes: Includes Science and Technology Activities (STA) and Research and Development activities (R&D). Data for Peru are not available. Source: Red de Indicadores de Ciencia y Tecnologia. “9. Expenditure on R&D by Funding Source” in Comparative Indicators (accessed 08/20/2010).