

Data Descriptor

Relational Data on Members of Portuguese Governments (1976–2014)

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Abstract: A data set containing information on the explicit connections concerning all members of Portuguese governments from 1976 until July 2013 is presented. This information was collected through a one-year research carried out by the authors using public records and official information (public and private institutions). The data set was collected during the process of elaborating a book [1]. This database is the first open-access source of information on a specific type of community which enables a wide range of research in areas such as social and political sciences and economics.

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1. Summary

Data on the connections of all members of government in Portugal since 1976 was collected during the course of an exhaustive research by the authors. This information was used for an unique study [1] in Portugal, proceeding previous work [2] on the political history of the accumulation of wealth for a century (1910–2010). This database includes information on 776 persons, ministers and secretaries of state (junior ministers) in the 19 governments since 1976 until July of 2013, who occupied 1281 governmental positions. It describes 6670 explicit connections between members of government and organizations/institutions.

The social and economical evolution of Portugal since the Carnation Revolution in April of 1974 provided the motivation and the context for the referred study. The work of Martins [3] provides a careful analysis of the Portuguese society under the aegis of the final years of the dictatorial regime (1969–1974). The author provides evidence for the claim that the access to the political elite, one of the centers of power of the regime, was determined by social origin and recruitment processes targeted at military and prestigious educational institutions. Currently, considering factors such as the internationalization of the economy, the reconfiguration of the industrial sector, the agricultural sector dereliction and the broadening of services, the democratic period with the growth of social sectors is characterized by an extensive transformation in the social class structure in Portugal, extensively discussed by Almeida *et al.* [4], Mendes and Estanque [5], Queiroz [6], Carmo [7], Costa *et al.* [2] and Louçã *et al.* [1].

Research concerning connections and their outcome, along the intersection of politics and business, has been developed for decades in areas such as finance, economy, accounting, social studies

and others. Results and claims have been presented on many specific cases concerning specific data sets of business and politics. We find that there are three main avenues in this area of research: the study of the influence of (i) politically-connected actors in corporations, of (ii) interest groups and corporate-connected actors in governments and of (iii) influences on actors within the scope of political parties or governments. One of the main issues concerning investigations such as that described is data availability, as mentioned by Siegel [8]. Nonetheless, examples of such research are found in the work of Agrawal and Knoeber [9] where the authors designed three tests in order to evaluate the importance of outside directors with background in politics and law on the boards of firms, for the US. In Brazil, Bandeira-de-Mello and Marcon [10] studied the influence of corporations in politics. The authors used political contributions to proxy for firm connections, gathering a sample of 778 observations, claiming that affiliation to groups moderates the effect of the political connections concerning preferential lending. In a more global overview, Boubakri *et al.* [11] used a sample of 245 privatized firms of 41 countries (27 developing and 14 developed) between 1980 and 2002 to investigate political connections in recently privatized firms. Results show that 87 of these firms have a politician or ex-politician in their boards. Also regarding Brazil, Claessens *et al.* [12] show that an increase in bank leverage is exhibited for corporations which contribute significantly to political campaigns. Concerning China, the work of Li [13] confirms these claims, by finding evidence that affiliation with the ruling Communist Party of China helps in obtaining loans from banks and other institutions. To our knowledge, the most extensive work done on political networks concerns the case of Mexico, carried out by Gil Mendieta and Schmidt [14,15]. Their research motivated further work (see [16–18]) concerning Mexico's government network.

The data set presented in this paper allows for the identification and study of the careers of each government member including his or hers direct corporate connections. It also contains information of several other dimensions such as education, professional background and political path. Due to the lack of reliable and structured information regarding groups of interest and clubs, open or private, secret or semi-secret, were not included. Additionally, descriptive metadata was added to the connections to describe links to big economic and financial groups, to top companies indexed in the Portuguese stock market index (PSI20) and those connected to public-private partnerships (PPP). A social network analysis was performed on this data at three levels of granularity (network-level, subnetwork-level and node-level) and a discussion based on the results is presented in Moniz *et al.* [19].

By publishing this data set we wish to diffuse the work concerning political networks and its overlap with business and corporate power, by contributing with a extensive available source of information on 40 years of these type of connections. Additional information such as educational connections extends the research possibilities (e.g., Bertrand *et al.* [20]). Furthermore, the business connections are highlighted to enable the study of different types of such connections. Furthermore, as to the benefits of publicly releasing the data set, it is important that in addition to the dissemination of knowledge, it should enable the consequent process of keeping the information up-to-date and draw new conclusions or gather new data for additional research efforts.

2. Data Description

This data set contains relational data of all government members since the first constitutional government in Portugal after the Carnation Revolution (1976) until July 2013, comprising 19 governments. We establish that relational data comprehends a connection between two entities, where in our case it is established between a given actor and an organization or institution. The importance of using this relational approach in the process of understanding political networks and its shortcomings is well discussed by McClurg and Young [21].

Our database comprises 6670 entries of relational data (person-organization) on the 776 members of Portuguese governments over a timespan of nearly 40 years. Of this total, there were 78 (10%) members for whom no relational information was found, besides their presence in a given

government. Concerning the members who have corporate-connections, the total is 415 (53,5%), and there are 283 members (36,5%) for whom we did not find any connection of that sort.

Some members in our database were part of governments lead by different political parties. In that case, our criteria as to political affiliation was set according to the party leading the last government in which the member participated. Additionally, there were cases for which public information portraying a posterior change of affiliation was found, evidence that we took into consideration. Concerning the number of positions played in all governments (1281 in total) we observe that those who refer corporate-connected actors are the majority, with 719 of the positions (56%).

The data set contains 20 columns, which we will refer to as variables. The variables are divided into data and descriptive metadata. The first set contains 7 variables and the second set is composed of 13 variables. The following sections describe in detail each of them according to their designation. The data set is represented in a Comma-Separated Values (CSV) file.

2.1. Data

The data variables described in this section portray the basis of each connection. They specify the actor and the organization/institution to which it is connected, as well as the position held. The political party/group to which the actor is associated, as well as the party or group that in a specific relation the actor is representing, are also presented. Additionally, the year that the connection begun and ended is added. Table 1 describes these variables detailing the name used in the data set, the type of data and a short description.

Table 1. Name, type of data and description of data variables. Some of these variables have their information represented in Portuguese, and as such are indicated with [PT] in the respective description.

Variable	Type	Description
Name	<i>string</i>	Name of the member of government
Party	<i>string</i>	Political party/group
RepParty	<i>string</i>	Political party/coalition (<i>i.e.</i> , elected in representation of...)
Begin	<i>numeric</i>	Year that a connection starts; “-1” means no date or that it was not possible to obtain the exact date
End	<i>numeric</i>	Year that a connection ends; “-1” means no date or that it was not possible to obtain the exact date
Organization	<i>string</i>	Name of the organization [PT]
Position	<i>string</i>	Position in the organization [PT]

Some of these variables are described in Portuguese, as illustrated by the referred table. Nevertheless, some of its information specifically concerning one of them are explained in order to facilitate the use of this data in other language contexts. Concerning the variable *Position*, the acronyms *CA*, *CF* and *AG* translate as Board of Directors, Fiscal Council and General Assembly.

2.2. Metadata

This section describes the descriptive metadata variables in the data set. In some of the data dimensions (e.g., educational, governmental, business) additional information is added in order to provide further detail. With the purpose of facilitating the understandability of this information some of the variables were encoded. This is the case with variable *Econ_Sector*, *MajorEconGroup* and *PSI20*. Concerning the first, in order to study the influence of economical sectors we have established a list of each of these sectors. This list is explained as such:

1. Banks and Finance and Monetary Intermediation except Insurance
2. Insurance, Pension Funds and Complementary Activities

3. Manufacturing except Construction
4. Utilities concerning Natural Resources (e.g., Power, Oil, Water)
5. Real Estate and Construction
6. Communications
7. Media

Regarding the second mentioned variable, concerning major economical groups, we established a list of the major groups in Portugal, with the respective denomination according to the data set in parenthesis, as follows: Mello Group (Mello), Champalimaud Group (Champ), Espírito Santo Bank (BES), Portuguese Comercial Bank (BCP), Santander (Santander), Mota-Engil Group (Mota-Engil), Portugal Telecom (PT), Portuguese Investment Bank (BPI), Caixa Geral de Depósitos (CGD), SONAE Group (SONAE), Jerónimo Martins Group (JM), Américo Amorim Group (Amorim) [22]. It should be noted that in the turn of the millennium the Champalimaud Group sold their corporate participations to Santander, and as such, a small group of connections (5) during this time frame was labelled in the data set as *Champ/Santander*.

Finally, concerning the third variable, regarding the Portuguese stock market index (variable *PSI20*), a list of the companies indexed at the time of the research work was made, contemplating the following entities: Portuguese Comercial Bank, Espírito Santo Bank, International Bank of Funchal, Portuguese Investment Bank, Energias de Portugal, GALP Group, Jerónimo Martins Group, Mota-Engil Group, Portucel, Portugal Telecom, National Energy Networks, Semapa Group, SONAE Group and Zon Group [23].

Table 2 describes the metadata variables providing the name used in the data set, the type of data and a short description. Additionally, it is specified if the metadata is applied to a single connection or to all of the connections of a given actor.

Table 2. Name, type of data and description of descriptive metadata variables. Some of these variables have their information represented in Portuguese, and as such are indicated with *[PT]* in the respective description. The superscript ¹ and ² specify if the metadata concerns a given connection or all connections of a given actor, respectively.

Variable	Type	Description
<i>N_Years</i> ¹	numeric	Number of years between the begin and end year; “-1” means not available and is applied when one of the two previous variables or both are unknown.
<i>Econ_Sector</i> ¹	numeric	Connection to a given economic sector [0–7]. The list of economic sectors was previously described in this section. “0” translates as not being connected to any of the sectors in the list.
<i>ThreeMore_Econ_Sector</i> ²	boolean	Flag [0,1] to indicate that a given person has connections to three or more economic sectors.
<i>Course_University</i> ¹	string	Course attended/completed. “N.a.” translates as not available. “?” means that there was no specific information found on the course. <i>[PT]</i>
<i>Place_University</i> ¹	string	City of the university. “N.a.” translates as not available. “?” means that there was no specific information found on the city. <i>[PT]</i>
<i>Privatized_Company</i> ¹	boolean	Flag [0,1] to indicate that a given connection involves a privatized company.
<i>Gender</i> ²	string	Gender of the person [“M”, “F”].
<i>MajorEconGroup</i> ¹	string	Connection to a given major economic group.
<i>PPP</i> ¹	boolean	Flag [0,1] to indicate that a given connection involves a company involved in public-private partnerships.
<i>Angola</i> ¹	boolean	Flag [0,1] to indicate that a given connection involves a company with capital from Angola.
<i>PSI20</i> ¹	string	Connection to a company indexed in the Portuguese Stock Market Index.
<i>Government</i> ¹	numeric	Connection to a given government [0,1,2,3,...,19] where “0” translates as not a government connection.
<i>BusinessConnected</i> ²	boolean	Flag [0,1] to indicate if a given person is connected to businesses.

Similar to the previous section, two of these variables are described in Portuguese. In order to help the use of the data set in a different language context we specify three of the most common courses (*Course_University*) and cities (*Place_University*) concerning educational background. Regarding the first, three of the most common courses and their respective translation (in parenthesis) are Law (Direito), Economy (Economia) and Engineering (Engenharia). As to the second referred variable, three of the most common cities are Lisbon (Lisboa), Oporto (Porto) and Coimbra.

3. Methods

The information portrayed in the data set was collected during a one-year research conducted by the authors of this paper. The collection of information resorted exclusively to public information

available in the Internet and other public sources. The list of members of government was obtained from a governmental public source. Concerning the other connections, information was found mainly in media, public records of public and private institutions, and from the public registry of the Ministry of Justice [24] which publishes mandatory reports of companies and other types of organizations, including the composition of their boards and councils.

We applied a cross-validation process to ensure the veracity of the data collected by each of the authors (*i.e.*, one author verifies the sources and the content of each connection found by the other author and conversely) and the credibility of the information sources. The data was then treated mainly through a process of standardization (e.g., same companies with slightly different names, same position in different companies with different nomenclature). Also, to facilitate this process, descriptive metadata described in Section 2.2 was added.

Concerning data quality, we should note that some connections are incomplete given that the data of some variables were not found. The following table (Table 3) depicts the weight of information available in each of the variables where this occurred. As shown, most of the lack of data occurs in variables regarding the year that a connection started and/or ended.

Table 3. Rate [0–1] of information available in variables which information is missing.

Variables	Available Information
Begin	0.75
End	0.80
N_Years	0.71
Course_University	0.94
Place_University	0.96

4. User Notes

In order to facilitate the quick use of the data set a file with basic operations was designed in the programming language **R**. This file is located in the data set archive.

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23. The acronyms used in the data set are as follows, by order of presentation: BCP, BES, BNF, BPI, EDP, GALP, JM, MTE, PRT, PT, REN, SMP, SNE, ZON.
24. Public Registry of the Ministry of Justice: <http://publicacoes.mj.pt/>.



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