The Ideology of Brazilian Parties and Presidents: A Research Note on Coalitional Presidentialism Under Stress[1]

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— Supplemental Information —

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Appendix A Brazilian parties and their acronyms

This list is alphabetized by acronym, mirroring Table C1 below which shows the ideological estimates for each party/year. To help resolve ambiguities resulting from similar names, name changes, and mergers, wherever possible we have included the official party registration number from the Tribunal Superior Eleitoral (TSE).

- ARENA/PDS: the official party of the 1964-1985 military dictatorship, founded as the National Renovating Alliance (ARENA) in 1966 and renamed the Democratic Social Party (PDS) in 1979. The PDS split during the democratic transition in 1984-1985, with moderates forming the Party of the Liberal Front (PFL) and hardliners continuing under the PDS name, which they retained until 1993. (This party is not in the dataset in Table C1 but is mentioned here for genealogical reasons.)

- CID: Cidadania (Citizenship), TSE number 23, renamed 2019, previously known as Popular Socialist Party (PPS). Founded in 1992, the PPS was a rebranding of the historic Brazilian Communist Party (PCB) dating from 1922.

- DEM: Democratas (Democrats), TSE number 25, founded by PDS dissidents in 1985 as Party of the Liberal Front (PFL), changing its name to DEM in 2007. Dissolved in 2022 (merged with PSL to form the União Brasil).

- MDB: Movimento Democrático Brasileiro (Brazilian Democratic Movement), TSE number 15, founded in 1966 as the only legal opposition party under military rule. Known as Party of the Brazilian Democratic Movement (PMDB) between 1981 and 2017.

- NOVO: Partido Novo (New Party), TSE number 30, founded 2011.

- PC do B: Partido Comunista do Brasil (Communist Party of Brazil), TSE number 65, refounded in 1985. Dates itself from 1962 as a breakaway from the historic Brazilian Communist Party (PCB) during the Sino-Soviet split.

- PDC: Partido Democrata Cristão (Christian Democratic Party), TSE number 17, founded in 1985, claiming to be a refounding of the party of the same name that existed from 1945 to 1965. Merged with the PDS in 1993, creating the forerunner of the current Progressistas (PP). The party number 17 was recycled by the TSE and given to the PSL in 1994.

- PDT: Partido Democrático Trabalhista (Democratic Labor Party), TSE number 12, founded 1979.

- PL: Partido Liberal (Liberal Party), TSE number 22, founded 1985 as PL, incorporating the Party for the Reconstruction of National Order (PRONA) in 2006 to form the Party of the Republic (PR). Reverted to original name in 2019.

- PODE: Podemos (We Can), TSE number 19, founded in 1995 as the Partido Trabalhista Nacional (PTN) and changing its name to Podemos in 2016.

- PP: Progressistas (Progressives), TSE number 11, founded in 1995 as Brazilian Progressive Party. Has undergone various name changes and mergers, but is the direct descendant of ARENA/PDS.

- PP (old): Partido Popular (Popular Party), TSE number 39, founded in 1993 by the merger of two smaller parties, the PST and the PTR. (This PP is not to be confused with a party of the same name that existed briefly from 1980 to 1982.) The 1993 PP lasted less than two years before being absorbed by what is now called Progressistas (see above).
- PRN: Partido da Reconstrução Nacional (Party of National Reconstruction), TSE number 36, founded in 1985 as the Partido da Juventude (Youth Party). Used successfully by Fernando Collor for his 1989 presidential run.
- PROS: Partido Republicano da Ordem Social (Republican Party of Social Order), TSE number 90, founded in 2010. Absorbed by Solidariedade (SD) in October 2022 and formally dissolved in February 2023.
- PSB: Partido Socialista Brasileiro (Brazilian Socialist Party), TSE number 40, founded 1985.
- PSC: Partido Social Cristão (Social Christian Party), TSE number 20, founded 1985.
- PSD: Partido Social Democrático (Social Democratic Party), TSE number 55, founded 2011. Not to be confused with Partido Democrático Social (PDS), the official party of the military regime.
- PSDB: Partido da Social Democracia Brasileira (Party of Brazilian Social Democracy), TSE number 45, founded 1988.
- PSL: Partido Social Liberal (Social Liberal Party), TSE number 17, founded 1994. Party used by Jair Bolsonaro to win the presidency in 2018. Dissolved in 2022 (merged with DEM to form the União Brasil).
- PSOL: Partido Socialismo e Liberdade (Socialism and Freedom Party), TSE number 50, founded 2004. Split from the Workers' Party (PT) in protest against the moderation of the PT during Lula's first government.
- PSTU: Partido Socialista dos Trabalhadores Unificado (Unified Socialist Workers' Party), TSE number 16, founded 1994. Successor to Convergência Socialista, the Brazilian affiliate of the Fourth International, which had previously functioned as a faction of the Workers' Party (PT) until 1992.
- PT: Partido dos Trabalhadores (Workers' Party), TSE number 13, founded 1980.
- PTB: Partido Trabalhista Brasileiro (Brazilian Labor Party), TSE number 14, founded 1981.
- PV: Partido Verde (Green Party), TSE number 43, founded 1986.
- REDE: Rede Sustentabilidade (Sustainability Network), TSE number 18, founded 2013.
- REP: Republicanos (Republicans), TSE number 10, founded 2005. Known as Brazilian Republican Party until 2019.
- SD: Solidariedade (Solidarity), TSE number 77, founded 2012.

- UNIÃO: União Brasil (Union Brazil), TSE number 44, founded 2022 by the merger of DEM and PSL (see above). This party was formed at the end of the field research for BLS 9, so it was not rated by respondents and does not appear in Table C1. However, in the computations for Figure 3 we estimated its position for 2023 as 0.66, which is an average between the positions of the DEM (0.43) and the PSL (0.8), weighted by each party's size at the time of the merger.

Appendix B Diagnostics of the estimation

We estimated the model using `rjags` using three parallel chains with 10,000 simulations each. Figure B1 compares estimates across chains. The top row presents the party position estimates (*pp*) as well as individual legislator estimates (*mstr*). The bottom row reports estimates for the individual stretch and scale parameters (a and b). The R^2 is extremely high for each set of estimates between each pair of chains, indicating stability in the estimation.

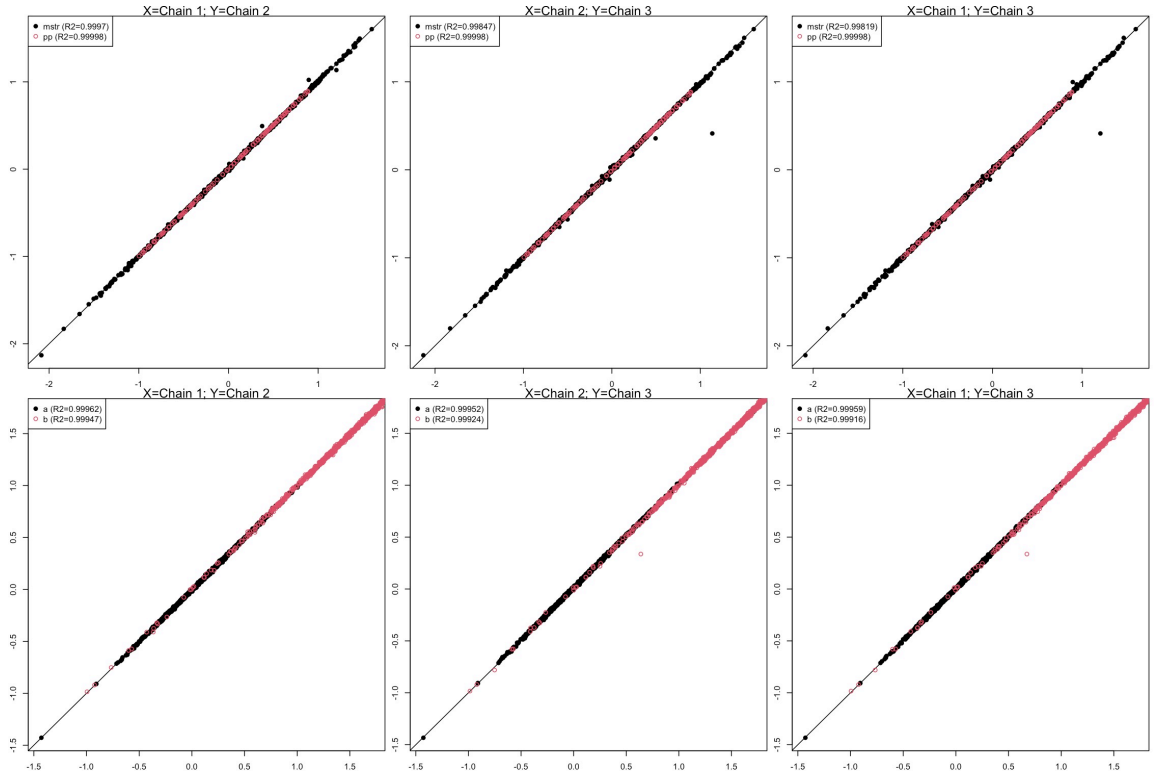


Figure B1: Consistency of estimates across chains

Figure B2 shows estimates for the first 36 party/presidents estimates (identified simply as *pp*[1]–*pp*[36], but which correspond to items that were rated by respondents) as the chain progressed. Variation in the estimates is much smaller at the end of the estimation, indicating convergence. While we do not report these figures for all parameters and for all chains (i.e. there is one *pp* for each party/president/wave), they follow exactly the same pattern shown here.

In Figure B3 we compare estimates from after BLS 6 with the estimates for the same party/waves (left) and individual/waves (right) computed after BLS 9. Recall that we do not

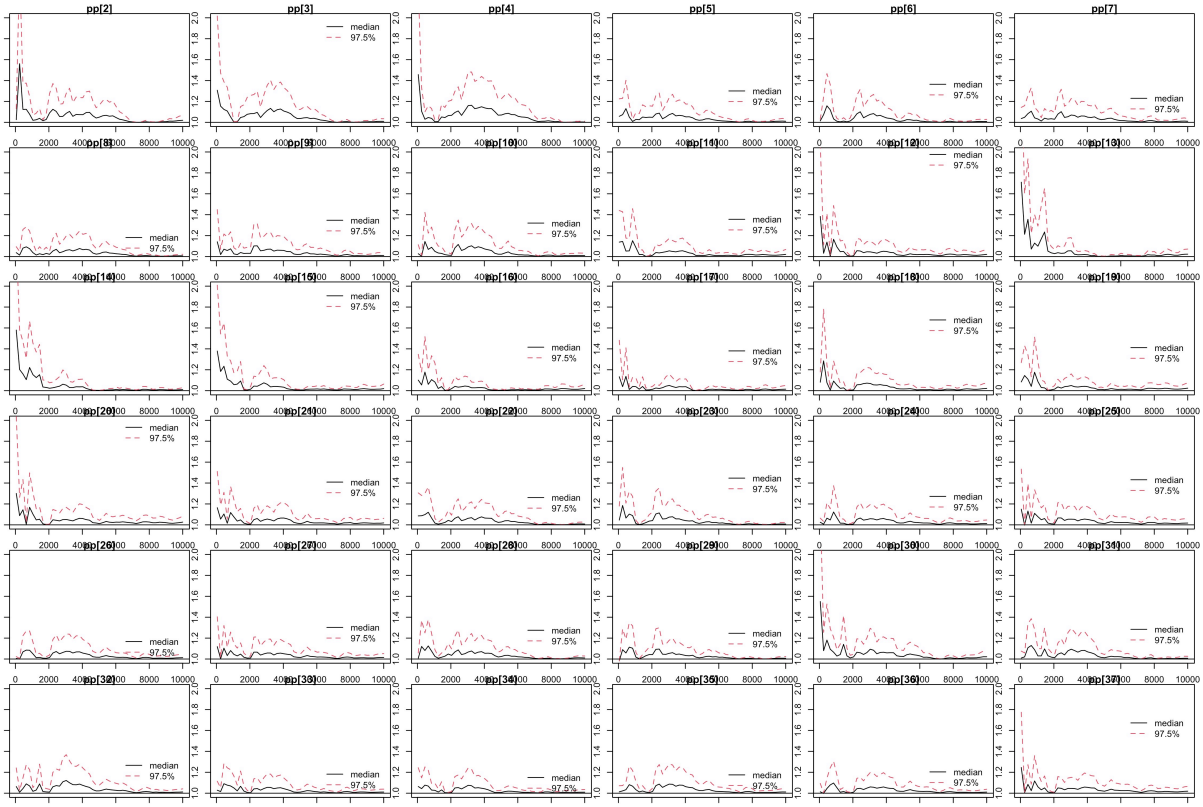
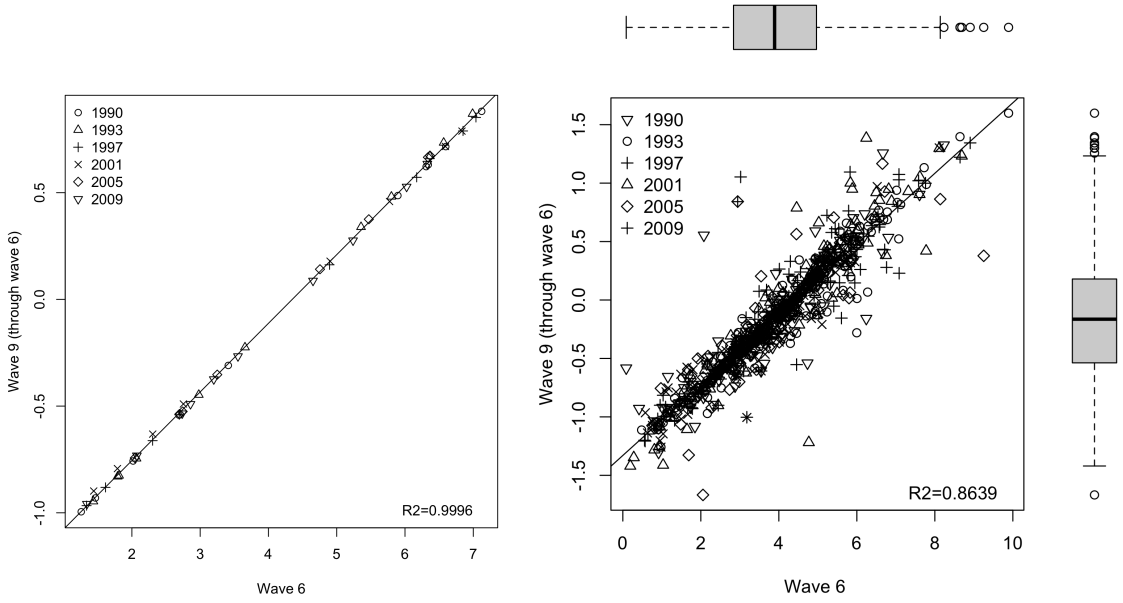


Figure B2: Variation in (selected) party position estimates as the chain progresses

simply attach the newer estimates to the older ones, but we redo the whole procedure and re-estimate all parameters using the all the data available. The figure shows that estimates of party positions are all but identical. We also see slightly more variation at the individual level (which we do not analyze in this note), but estimates are still very similar, with an R^2 close to 0.87.



(a) Parties (b) Legislators

Figure B3: Comparing BLS 9 with earlier waves

Appendix C Complete sets of estimates

The relatively large number of parties in Brazil make reporting them graphically a challenge, so Figure 1 does not include results for all parties for which we have estimates. In order to complement the reporting, we present the full set of party-position estimates in Table C1 and those of presidents in Table C2. These estimate will be made permanently publicly available in electronic format upon publication of this note.

As discussed in the main body of the paper, three presidents (who served in four presidencies) were rated contemporaneously, by legislators that were serving in a legislature that overlapped with the president being rated. The other five presidents were rated retrospectively in 2013. Lula had finished his second term a little over two years before being rated, so his in an intermediate case. The distance between when the ratings were made and the end of the previous presidencies is considerably greater.

Table C1: Complete estimates of party positions (1990–2021)

Party		1990	1993	1997	2001	2005	2009	2013	2017	2021
CID	Est.	-0.830	-0.597	-0.609	-0.399	-0.407	-0.191	-0.217	-0.129	-0.014
	SE	0.038	0.036	0.038	0.036	0.040	0.036	0.037	0.035	0.037
DEM	Est.	0.716	0.671	0.789	0.717	0.666	0.635	0.793	0.739	0.431
	SE	0.037	0.038	0.042	0.040	0.046	0.041	0.043	0.040	0.038
MDB	Est.	-0.069	-0.022	0.063	0.151	0.116	0.054	0.179	0.385	0.137
	SE	0.030	0.034	0.035	0.035	0.040	0.036	0.037	0.037	0.037
NOVO	Est.									0.711
	SE									0.041
PCDOB	Est.	-0.995	-0.946	-0.966	-0.898	-0.743	-0.732	-0.744	-0.737	-0.822
	SE	0.040	0.040	0.042	0.041	0.043	0.040	0.040	0.039	0.101
PDC	Est.	0.622								
	SE	0.036								
PDT	Est.	-0.542	-0.447	-0.541	-0.490	-0.353	-0.374	-0.336	-0.405	-0.356
	SE	0.033	0.035	0.036	0.036	0.041	0.037	0.038	0.036	0.038
PL	Est.	0.574	0.643	0.627	0.422	0.416	0.328	0.409	0.434	0.493
	SE	0.035	0.037	0.040	0.038	0.042	0.037	0.038	0.037	0.039
PODE	Est.								0.269	0.386
	SE								0.067	0.039
PP	Est.	0.881	0.734	0.853	0.789	0.674	0.528	0.610	0.577	0.510
	SE	0.039	0.040	0.043	0.041	0.045	0.039	0.040	0.038	0.040
PP (old)	Est.		0.339							
	SE		0.035							
PRN	Est.	0.631	0.869							
	SE	0.035	0.042							
PROS	Est.								0.020	0.032
	SE								0.065	0.097
PSB	Est.	-0.757	-0.746	-0.662	-0.631	-0.537	-0.490	-0.428	-0.171	-0.427
	SE	0.036	0.037	0.038	0.037	0.041	0.038	0.037	0.035	0.038
PSC	Est.								0.541	0.596
	SE								0.038	0.071
PSD	Est.							0.373	0.399	0.296
	SE							0.039	0.037	0.037
PSDB	Est.	-0.309	-0.225	0.162	0.179	0.141	0.087	0.219	0.477	0.157
	SE	0.031	0.033	0.035	0.036	0.040	0.036	0.036	0.037	0.037
PSL	Est.									0.803
	SE									0.043
PSOL	Est.						-0.958	-0.968	-0.898	-0.874
	SE						0.043	0.044	0.041	0.045
PSTU	Est.		-0.826							
	SE		0.043							
PT	Est.	-0.931	-0.830	-0.881	-0.793	-0.525	-0.534	-0.532	-0.668	-0.691
	SE	0.039	0.039	0.040	0.039	0.040	0.038	0.039	0.039	0.042
PTB	Est.	0.487	0.482	0.572	0.459	0.375	0.276	0.323	0.198	0.455
	SE	0.034	0.036	0.038	0.038	0.040	0.037	0.037	0.035	0.039
PV	Est.						-0.267	-0.230	-0.069	
	SE						0.037	0.037	0.034	
REDE	Est.								-0.555	
	SE								0.037	
REP	Est.								0.425	0.550
	SE								0.037	0.040
SD	Est.								0.153	0.190
	SE								0.068	0.064

Table C2: Complete estimates of presidents positions (1990–2021)

	President	Year rated	In office	Estimate	SE
Retrospective	SARNEY	2013	1986–1990	0.50	0.04
	COLLOR	2013	1990–1992	0.62	0.04
	ITAMAR	2013	1992–1995	0.13	0.04
	FHC (I and II)	2013	1995–2003	0.18	0.04
	LULA (I and II)	2013	2003–2011	-0.41	0.04
Contemp.	DILMA I	2013	2011–2015	-0.41	0.04
	DILMA II	2017	2015–2016	-0.50	0.04
	TEMER	2017	2016–2019	0.55	0.04
	BOLSONARO	2021	2019–2023	0.87	0.04

Appendix D Comparison with PREPPS data

In the main body of the note we mention a comparison between the BLS data and estimates of the positions of presidents and parties with those made available through the Political Representation, Executives, and Political Parties Survey (PREPPS) Wiesehomeier, Singer & Ruth-Lovell (2021). PREPPS is an expert survey that focuses on the positions of parties and presidents as well as the linkage strategies of parties throughout Latin America.

PREPPS data was collected in four waves: 2006/07, 2011, 2015 and 2018/2019. In all waves, we consider only the 20 point left-right score on of each party on the "the general left-right dimension".

The 2006/2007 wave positioned 14 Brazilian parties and president Lula and was conducted around the transition between the legislatures covered by BLS5 and BLS6. The 2011 wave positioned 14 parties as well as president Dilma. The 2015 wave positioned 18 parties as well as president Dilma was fielded in the same legislature as BLS8. Finally, the 2018/19 wave positioned 17 parties as well as presidents Temer and Bolsonaro on and was fielded in the transition between legislatures covered by waves 8 and 9 of the BLS.

For the PREPPS waves that straddled two different legislatures, we first averaged the BLS scores for all items in the two relevant BLS waves. The merged dataset of four PREPPS and five BLS waves yielded estimates for 62 party/waves and 5 president/waves.[2] Table D1 lists the PREPPS and BLS waves used in this analysis.

PREPPS Year	BLS Year	BLS Wave	President
2006/07	2005	BLS 5 & 6	Lula I & II
2011	2013	BLS 7	Dilma I
2015	2017	BLS 8	Dilma II
2018/19	2021	BLS 8 & 9	Temer & Bolsonaro

Table D1: PREPPS–BLS Correspondence

[2]PREPPS contains 4 party/waves not rated by BLS (PROS, PSC, REP and SD, all in 2011), and BLS has 8 party/waves not rated by PREPPS (PSC in 2006, PODE and REDE in 2015, CID, PCDOB, PROS, PSC, and SD in 2018/19). President Lula was rated retrospectively by BLS 8, but we used this score in the comparison with the Lula estimate for the PREPPS 2006/07 data.

Figure D1 compares all items that were rated in both survey projects. We averaged BLS 8 and BLS 9 estimates for parties rated in both, but this decision does not change our conclusions. As reported in the main text, the two sets of estimates coincide dramatically ($r = 0.97$). The figure also shows that both place Bolsonaro as the right-most item rated, and put Temer very close to the extreme right as well and place other presidents very close to the direct correspondence line. The positions of the PT and the PSDB, arguably the main parties on the left and center-right in the period, are all almost perfectly coincident too.

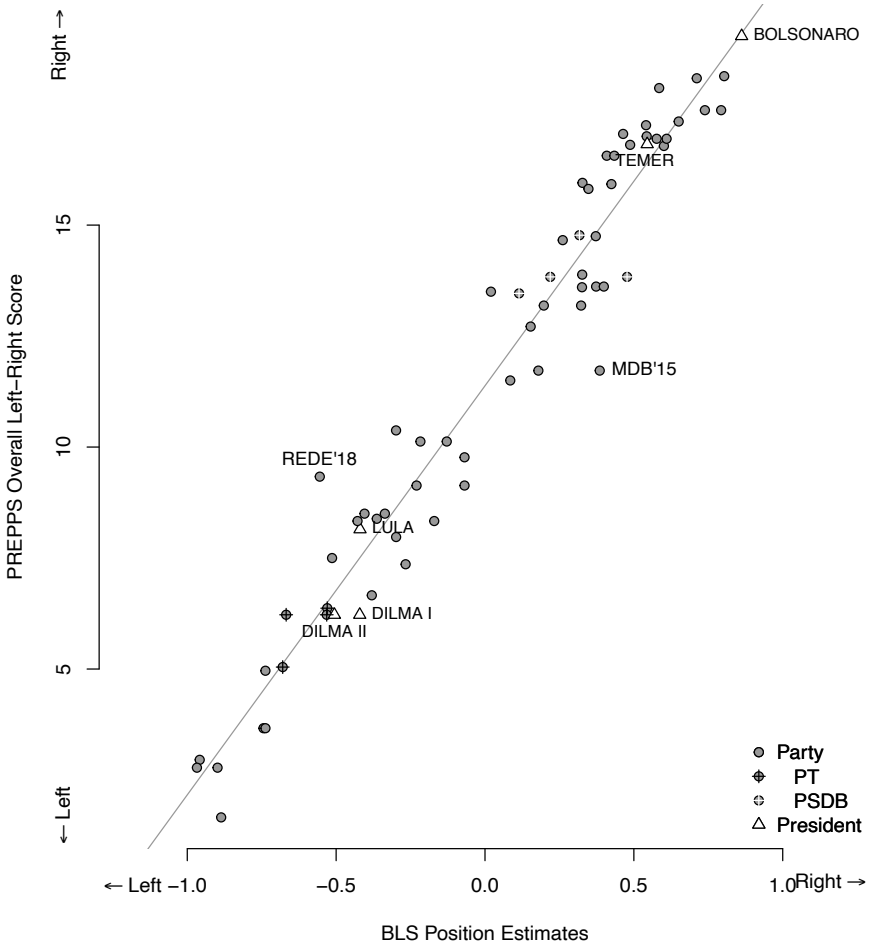


Figure D1: Comparing BLS and PREPPS estimates

The greatest discrepancy between the two sets of estimates correspond to one rating of REDE and another of the MDB (formerly PMDB). REDE, a small party that was intended as an electoral vehicle for Marina Silva's presidential bid and which never really established itself and essentially disintegrated between the 56th and 57th legislature is the biggest outlier, but an insignificant one for most practical applications. The MDB is a more relevant case. Politicians, it seems, rated the party in 2015 more to the right than experts. This might be a function of the timing of the fielding of both surveys. President Dilma was impeached in 2016, in a process that was masterminded by furture president Temer and conducted by the speaker of the house Eduardo Cunha, both of whom were leaders of the MDB. The BLS was fielded after the impeachment proceedings while PREPPS was fielded before, in a period in which the MDB was still an ally of the PT.

Appendix E The Emptying of the Center

In Section 4 we reported on the "emptying of the center". Our definition of a centrist party, namely those whose rescaled ideological position was estimated to fall between -0.25 and 0.25, is obviously arbitrary. Hence, we show in Figure E1 we shows how four other alternative definitions of centrist parties (dashed gray lines) compare to the one we presented in the main body of the text (solid black line). The punchline is that the substantive message we presented in the main body of the text is not particularly sensitive to this arbitrary definition. In all definitions, the center has been shrinking for at least the last five legislatures, and onder the more encompassing definitions, the emptying of the center is even more pronounced than what we reported.

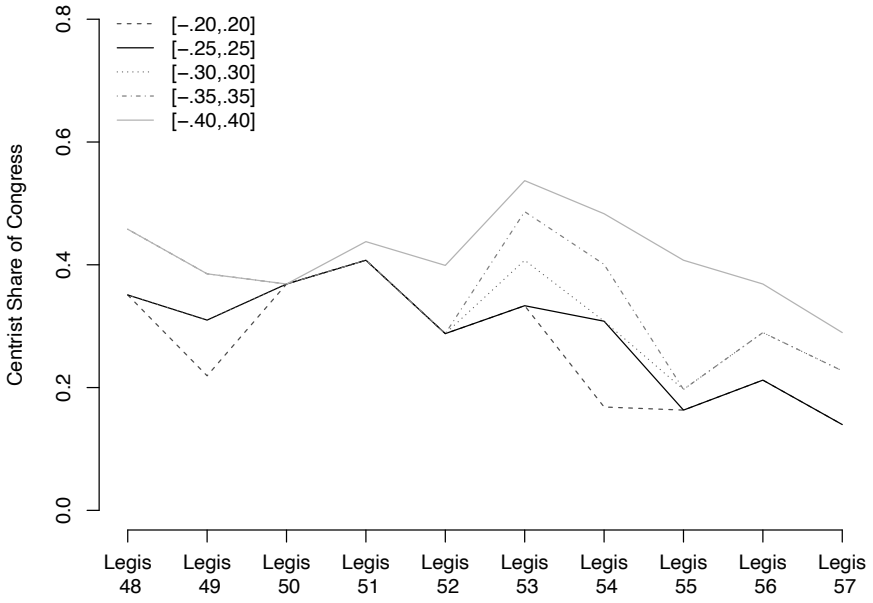


Figure E1: Emptying of the Center with Different Definitions