On the determinants of political polarization

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HIGHLIGHTS

- We study the determinants of political polarization using a BMA approach.
- Trust and income inequality are robust determinants of political polarization.
- Higher trust decreases political polarization.
- Higher income inequality increases political polarization.

ARTICLE INFO

ABSTRACT

In this article, we aim to identify the main determinants of political polarization using Bayesian Model Averaging to overcome the problem of model uncertainty. We find that the level of trust within a country and the degree of income inequality are the most robust determinants of political polarization.

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1. Introduction

Political polarization has a major influence on economic performance and has been shown to significantly affect investment rates (Azzimonti, 2011), fiscal policy (Lindqvist and Östling, 2010; Song, 2012), legislative productivity (Hacker, 2004; McCarty et al., 2006), macroeconomic volatility (Alt and Lassen, 2006; Azzimonti and Talbert, 2014), income inequality (McCarty et al., 2006), and, eventually, the development path of the economy (Frye, 2002). Political polarization reflects the degree of the divergence of attitudes toward political matters in a society and might in turn depend on the evolution of economic outcomes. Whether political polarization is a historical, cultural, or economic phenomenon is an empirical question.

In this paper, we address this question by studying the determinants of political polarization in a sample of 66 countries. Given that little is known about the main underlying factors that affect political polarization, we use the Bayesian Model Averaging (BMA) method of estimation to account for model uncertainty. To estimate political polarization, we use measures based on voters' self-reported political preferences as constructed by Lindqvist and Östling (2010). We extend their variables to include more countries, relying on data from the World Values Survey. We consider three groups of potential explanatory variables: economic, socio-historical, and geographic. The variables are selected from related discussions in the political science literature.

We find that the most robust determinants of political polarization are trust and income inequality in a country. A lower level of trust and higher income inequality contribute to higher political polarization. This implies that political polarization is a socio-historical and an economic phenomenon.

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2. Data

2.1. The measures of political polarization

We construct the political polarization measures using data from the World Values Survey (WVS).[1] The WVS consists of nationally representative surveys conducted in waves once every five years, on average, using a common questionnaire, and includes about 1000 respondents per country-wave. We include countries from different survey waves to maximize the number of observations. Thus, we use information from five waves of this survey covering the time period 1990–2013, for 66 countries for which all necessary data is available.

For each wave and for each country in the sample, we construct the political polarization measures by computing the standard deviation of the scores the responders assign in response to the question "How would you place your views on this scale [from 1 to 10]?" for the following statements:

1. 1 means that you completely agree with the statement, "People should take more responsibility to provide for themselves", and 10 means that you completely agree with the statement, "The government should take more responsibility to ensure that everyone is provided for".
2. 1 means that you completely agree with the statement, "Incomes should be made more equal", and 10 means that you completely agree with the statement, "We need larger income differences as incentives".
3. 1 means that you completely agree with the statement, "Private ownership of business should be increased", and 10 means that you completely agree with the statement, "Government ownership of business should be increased".

These questions reflect attitudes to different policy problems: government spending, income inequality, and private–state ownership. We denote the respective polarization measures as GOV, ININ, and PRST; their descriptive statistics are reported in Table 1.

2.2. Potential determinants of political polarization

We distinguish three groups of potential determinants of political polarization: economic, socio-historical, and geographic. Below we describe each potential determinant of political polarization in detail.

Economic determinants

1. **The real gross domestic product (GDP) per capita**. We want to study whether political polarization is (at least partially) determined by a country's economic conditions. The GDP is the most common measure of economic performance and has been shown to be a significant factor promoting the emergence of democratic political institutions (see Londregan and Poole, 1996). We expect higher GDP to decrease political polarization. Data Source: World Bank.

2. **Income inequality**. This variable is the most frequently discussed correlate of political polarization in the literature (see Garand, 2010; Londregan and Poole, 1996; McCarty et al., 2006; Pontusson and Rueda, 2008, among others). We consider the Gini coefficient after redistribution as the measure of income inequality. Data Source: World Income Inequality Database.

3. **Globalization**. Similar to GDP, globalization, or the openness of a country to foreign capital flows, is a proxy for economic development. Globalization can be affected by political frictions within

a country, and can influence the evolution of political frictions. We measure globalization as the foreign direct investment share of the GDP. Data Source: Sturm and De Haan (2015).

4. **Government expenditure** (% of GDP). The size of the public sector depends on political frictions, in particular, on political polarization (Lindqvist and Östling, 2010). However, government expenditures can affect the evolution of political attitudes in society. A government that spends a significant fraction of its revenues on public goods, such as schools or medical care, can improve the overall social attitude toward politicians in society and decrease political polarization. We use the general government final consumption expenditure. Data Source: World Bank.

Socio-historical determinants

5. **Media status**. The degree of proliferation, independence, and overall quality of the media can have a nontrivial effect on political polarization in a country through a direct influence on public opinion. Bernhardt et al. (2008), DellaVigna and Kaplan (2007), Gerber et al. (2009), and Prior (2013) study the relationship between the media and political polarization. As a measure of media quality, we use the indicator of freedom of the press, defined as follows: (1) free, (2) partly free, and (3) not free. Data source: Freedom House.

6. **Ethnolinguistic fractionalization**. This variable accounts for cultural diversity, which can influence the distribution of attitudes to political matters. Esteban and Ray (2011) consider fractionalization and inequality as proxies for polarization and determinants of conflict in a country. Data source: We use the ethnolinguistic fractionalization measure constructed by Desmet et al. (2012), variable ELF(1).

7. **Trust (a proxy for social networks)**. Political polarization can be a consequence of social interactions and discussions. An individual's opinion about a particular party or policy can be affected by the opinions of his or her neighbors, relatives, or friends. Axelrod (1997), Baldassarri and Bearman (2007), and Iversen and Soskice (2015), among others, study the role of social networks in political polarization. As a proxy of social networks, we use the measure of trust in the country, computed as the inverse of the average value of the responses to the statement "Most people can be trusted" ("yes" is counted as 1, "no" is counted as 2) for each country and wave in the WVS survey. Data source: WVS.

8. **Democracy**. Democratic societies have more freedom in defining, discussing, and adjusting their political attitudes. As a measure of democracy in the country, we use the Freedom House indicator, which ranges from 0 to 10 where 0 is the least democratic and 10 is the most democratic. Data source: Freedom House.

Table 1
Summary statistics.

Variable	Mean	SD	Correlation with:		
			GOV	ININ	PRST
Polarization measures					
GOV	2.810	0.363	1.000		
ININ	2.799	0.364	0.755	1.000	
PRST	2.684	0.441	0.831	0.836	1.000
Time-invariant variables					
Fractionalization	0.132	0.149	0.267	0.263	0.322
Absolute latitude	0.378	0.181	−0.534	−0.391	−0.435
Time-varying variables					
Media status	1.780	0.777	0.243	0.325	0.466
Trust	0.575	0.055	−0.465	−0.455	−0.556
Income inequality	37.409	9.359	0.605	0.568	0.572
FDI (% of GDP)	17.600	16.921	−0.325	−0.222	−0.287
Gov. Exp. (% of GDP)	15.422	5.104	−0.578	−0.351	−0.420
Real GDP (Ln)	8.451	1.491	−0.403	−0.386	−0.620
Pop. density	115.377	142.105	0.098	−0.071	0.045
Democracy	7.539	2.553	−0.174	−0.291	−0.408

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[1] Other authors relied on the political polarization measures constructed from surveys; see, for example, Alt and Lassen (2006), Lindqvist and Östling (2010), and Iversen and Soskice (2015).