# **Impact of Political Polarization on Economic Conditions**

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### Abstract

This study investigates the impact of political polarization on output growth, capital formation, and foreign direct investment (FDI) across 139 economies via a panel Local Projections (LP) model. We examine whether the effects of political polarization vary by income group (advanced [AEs], emerging markets [EMs]) and by political regimes (democracy, autocracy). Our findings reveal that political polarization negatively affects output growth and capital formation, with adverse effect on FDI in EMs and autocracies, highlighting "hidden" economic costs of polarization.

*Keywords:* Political Polarization, Panel Local Projections, Economic Development. *JEL:* E02, E23, O43.

### 1. Introduction

Political polarization has become a defining feature of many contemporary political systems, characterized by a growing ideological divide between political parties or groups, often leading to fragmentation. Political leaders, traditionally considered as unifying figures, may become more entrenched, prioritizing loyalty to their parties over the broader public interest. In such an environment, political leaders may struggle to bridge divides, build consensus, and pursue policies supported by a large part of the population.

As political polarization increases, it fosters uncertainty and instability, making it difficult for governments to implement consistent and effective economic policies. Frye (2002) finds that political polarization negatively impacts economic growth for a panel of 25 post-communist countries. Azzimonti (2018) finds that partisan conflict depresses investment in the US. Alesina and Tabellini (1989) argue that political risk—which stems from political uncertainty or instability—can lead to capital flight, reducing domestic capital formation, and, thus, hindering economic growth. Alesina and Perotti (1996) show how political instability, caused by heightened polarization via income inequality, can discourage investment. Lastly, we can discuss how polarization affects FDI. While FDI is driven by economic growth, FDI is also negatively associated with political risk, especially government stability (Dutta and Roy, 2011). Le and Zak (2006) find that out of three types of risk considered - economic risk, policy variability and political instability - the latter is the most important factor associated with capital flight.

The central hypothesis of this paper is that polarization may hinder economic conditions by disrupting effective governance, creating policy uncertainty and reducing investor confidence. This paper seeks to address this gap by investigating the potential impact of political polarization on output growth, capital formation and FDI. Using a panel LP model, developed by Jordà (2005), we estimate the effects of polarization on these variables and assess heterogeneity across income groups and by political regimes. We define income groups consistent with the IMF's World Economic Outlook classification (AEs, EMs) and political regime (autocracy, democracy) consistent with the V-Dem<sup>1</sup> classification. While previous studies often focus on specific regions or limited set of countries, this study examines 139 countries. We hypothesize that increased polarization disrupts effective governance and investor confidence, with more significant consequences in EMs due to weaker institutions. EMs exhibit higher volatility of output growth may be due to numerous factors including combination of large external shocks, volatile macroeconomic policies and weak institutions (Loayza et al., 2007). We also hypothesize that the economic consequences of political polarization will differ by political regimes. In democracies, while political polarization can lead to policy gridlock and decreased

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effectiveness of government, the presence of institutional checks and balances (e.g., independent courts, free media, elections) might mitigate the economic consequences of polarization. In autocracies, polarization may lead to power struggle, exacerbating governance issues and economic instability. We therefore expect the effects of polarization on economic conditions to be more pronounced in autocracies.

Our main results are highlighted as follows:

- Aggregate panel indicates polarization reduces output and private capital formation, with no effect on FDI.
- Results reveal that all heterogeneous panels are not immune to the adverse effects of polarization, leading to lower output and capital formation.
- EMs and autocratic countries are more vulnerable to "capital flight" as a result of polarization.

The rest of the paper is structured as follows: Section 2 describes the data. Section 3 presents the empirical results. Section 4 concludes.

### 2. Data

This study utilizes an unbalanced panel of 139 countries from 1987 to 2023. Variables include real GDP growth, real capital growth, aggregate inflation and FDI (as % of GDP), political polarization<sup>2</sup> and Electoral Democracy Index.<sup>3</sup> The data is summarized in Table 2. The Figure 1 plots polarization for G7 countries, which has been on the rise since the Global Financial Crisis. The Figure 2 plots the mean of global ("World"), decomposed by income and regime<sup>4</sup> and Table 1 provides the descriptive statistics<sup>5</sup>.

Figure 1: Polarization Data for G7



## Figure 2: Global Polarization Data



 $<sup>^{2}</sup>$ The data on political polarization is obtained from the Varieties of Democracy (V-Dem) project dataset and converted to latent scores that offer a continuous, interval-based representation of polarization. We use the v2cacamps mnemonic. The polarization scores are derived from expert assessments, which are initially recorded on an ordinal scale ranging from 0 to 4. These ordinal ratings reflect the degree of polarization in a country's political environment: a score of 0 indicates no polarization (complete political consensus), 1 represents very low polarization, 2 signifies moderate polarization, 3 corresponds to high polarization, and 4 indicates very high polarization.

 $<sup>^{3}</sup>$ Electoral Democracy Index is used as a proxy for quality of democracy by assessing the extent to which all citizens have the right to vote and free and fair elections.

<sup>&</sup>lt;sup>4</sup>We define autocracy (democracy) as "closed autocracy" and "electoral autocracy" ("electoral democracy" and "liberal democracy") based on the V-Dem dataset.

<sup>&</sup>lt;sup>5</sup>In Appendix A, we provide descriptive statistics and data visualization for the political polarization and the electoral democracy index.

Туре	Min	Max	Mean	StD
AE	-1.51	-0.557	-1.23	0.267
EM	-0.352	0.547	-0.0516	0.248
Autocracy	-0.217	0.605	0.0799	0.227
Democracy	-1.150	-0.108	-0.852	0.302
WORLD	-0.641	0.285	-0.376	0.285

Table 1: Descriptive Statistics for Polarization

 Table 2: Data Description

Item	Symbol	Source	Description
Output	$ \ln Y_{i,t} \\ \ln K_{i,t} $	World Bank	Real GDP
Capital		World Bank	Real Private Capital Formation (menmonic NE.GDI.TOTL.KD)
Aggregate CPI	$\frac{\ln P_{i,t}}{FDI_{i,t}}$	World Bank	CPI: All items
FDI		World Bank	FDI (% of GDP) (menmonic BX.KLT.DINV.WD.GD.ZS)
Polarization	$\begin{array}{c} POL_{i,t} \\ D_{i,t} \\ R_{i,t} \end{array}$	V-Dem	Political polarization (mnemonic v2cacamps)
Democracy Index		V-Dem	Electoral Democracy Index (mnemonic v2x_polyarchy)
Political regimes		V-Dem	Political regime classification (mnemonic v2x_regime)

#### 3. Empirical Model

We estimate the impact of a shock to polarization ( $POL_{i,t}$ ) on output ( $\Delta \ln Y_{i,t}$ ), capital formation growth ( $\Delta \ln K_{i,t}$ ) and FDI ( $\psi_{i,t}$ ) via system panel LP Generalized Method of Moments (GMM) model (Blundell and Bond, 1998):<sup>6</sup>

$$\Delta \ln Y_{i,t+h} - \Delta \ln Y_{i,t} = \alpha_i + \gamma_t + \beta_h POL_{i,t-k} + \nu X_{i,t-1} + \epsilon_{i,t+h}$$
(1)

$$\Delta \ln K_{i,t+h} - \Delta \ln K_{i,t} = \alpha_i + \gamma_t + \beta_h POL_{i,t-k} + \nu X_{i,t-1} + \epsilon_{i,t+h}$$
(2)

$$FDI_{i,t+h} - FDI_{i,t} = \alpha_i + \gamma_t + \beta_h POL_{i,t-k} + \nu X_{i,t-1} + \epsilon_{i,t+h}$$
(3)

where  $\alpha_i$  an  $\gamma_t$  are country and time fixed effects, respectively;  $X_{i,t-1}$  is a vector of lagged controls (real output growth, inflation, democracy index, polarization, and the response variable); and  $\epsilon_{i,t}$  relates to the error term. The coefficient  $\beta_h$  in the above equations traces out the effect of the shock at the time *t*. The cumulative impulse response functions (IRF) are presented using a 90% confidence band.

### 3.1. Aggregate Panel LP Model

The Figure 3 plots the aggregate panel LP model IRFs.<sup>7</sup> Accordingly, the findings highlight that a one standard deviation increase in polarization leads to a decline in GDP growth, capital growth and FDI (% GDP) by 1.3, 2.3 and 0.1 percentage points on impact. The findings on capital growth align with the findings from Azzimonti (2018) who finds a negative relationship between partisan conflict and private investment for the US economy. *3.2. Heterogeneous Panel LP* 

We further explore whether there are heterogeneous effects of polarization by income type and political regime. Each is discussed in turn.

#### 3.2a Heterogeneous Panels: Country Income

The Figure 4 illustrates the differential impact of polarization on output growth, capital growth, and FDI across AEs and EMs. Polarization is shown to significantly reduce both output and capital growth in EMs at the onset of the shock. Notably, the impact on FDI is markedly different: it is negative and statistically significant for EMs, whereas no statistically significant effect is observed for AEs.

<sup>&</sup>lt;sup>6</sup>This approach mitigates the potential risk of bidirectional causality between polarization and economic outcomes. For example, high levels of polarization may negatively affect economic performance, but conversely, poor economic conditions could exacerbate polarization. The LP-GMM with model mitigates these concerns by using lagged values of the variables as instruments, which helps isolate the causal impact of polarization on economic outcomes.

<sup>&</sup>lt;sup>7</sup>The number of countries (139) is based on data availability.



Figure 3: Aggregate Panel LP Cumulative IRF

Figure 4: Heterogeneous Panel LP Cumulative IRFs (Income Type)



Panel includes 111 and 28 countries for EM and AE, respectively.

Polarization exacerbates vulnerabilities by deterring FDI inflows. The heightened uncertainty and perceived instability deter foreign investors, amplifying the economic costs of polarization. While polarization still hinders output growth and capital investment in AEs, its impact on FDI is likely less severe due to stronger governance, deeper financial markets, and more diversified sources of capital.

## 3.2b Heterogeneous Panels: Political Regimes

Polarization in democracies tends to manifest through elections, public discourse and institutional checks and balances. While this can lead to policy gridlock or inefficiency, democratic structures often provide avenues for conflict resolution. However, in autocratic regimes, polarization is more likely to related with power struggle. We posit that the lack of electoral accountability and institutional checks in autocracies makes these systems more susceptible to governance breakdowns and repression, which may reduce investor confidence. The Figure 5 presents the shares of political regimes. The share of "Closed Autocracy" has dropped from 50 percent to less than 15 percent.

The Figure 6 reveals a decline in output growth by -1.3% and 0.5% for autocracies and democracies, respectively. Capital growth also deteriorates, where autocratic and democratic regimes display a negative response of -2.1% and -5.0%, respectively. The effect on FDI is statistically significant for autocracies by -0.5%, reflecting their vulnerability in attracting foreign investment.

## 3.2c Model Robustness

In Appendix B, We consider 18 alternative LP models by county income (Fig. B.1) and political regime (Fig. B.2) estimated prior to the global pandemic (i.e., 1985 to 2019). Accordingly, all 27 LP models are consistent.





Figure 6: Heterogeneous Panel LP Cumulative IRFs (Political Regime)



#### 4. Conclusion

This paper analyzes the effect of political polarization on economic conditions via panel LP model based on 139 countries from 1987 to 2023. This paper provides new empirical evidence that, while real output and capital investment by income type and political regime are negatively impacted by polarization, EMs and autocracies are particularly vulnerable to declines in FDI as an additional source of capital flight. These findings underscore a "hidden" vulnerability of the increasing polarization, emphasizing the need for global policies to address the systemic risks associated with rising polarization.

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## Appendix A. Data visualization and descriptive statistics



Figure A.1: Ridge density plot for change in polarization in Autocracies

Data source: V-dem database (v2cacamps). Higher values mean society is polarized into antagonistic political camps.





Data source: V-dem database (v2cacamps). Higher values mean society is polarized into antagonistic political camps.



Figure A.3: Panel graph for Mean Polarization (Country Income)





Variables	Count	Mean	SD	Min	Max
GDP growth	4,003	3.314	4.615	-69.99	62.50
Capital growth	4,003	3.953	19.68	-314.6	229.0
FDI	4,003	4.636	21.13	-360.4	452.2
CPI inflation	4,003	23.92	446.8	-16.86	23,773
EDI (v2x polyarchy)	4,003	0.581	0.252	0.0700	0.922
POL (v2cacamps)	4,003	-0.325	1.288	-3.806	3.432
Change in POL	3,850	0.0185	0.288	-2.447	2.562

 Table A.3: Descriptive Statistics for Polarization

## Appendix B. Robustness checks



## Figure B.1: Heterogeneous Panel by Income Groups Cumulative IRFs (pre-COVID-19)



# Figure B.2: Heterogeneous Panel Political Regimes Cumulative IRFs (pre-COVID-19)