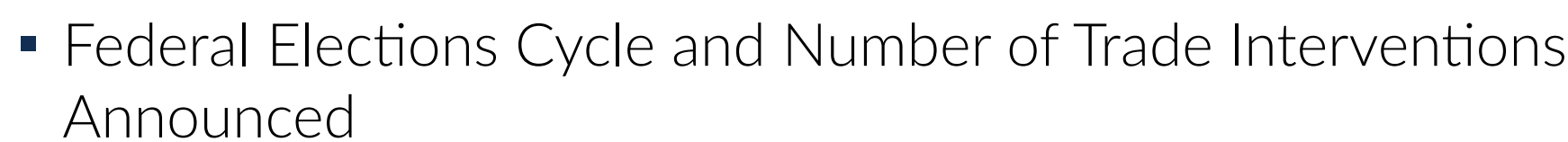


Construction of Political Power Exposure

- Cumulative Number of Trade Interventions over time



- How does the political power of congressional representatives, such as in the majority party or align with the party of president affect the allocation of industrial policies?
 - Through which mechanisms?
 - Employment dominance vs. campaign finance (donor influence)
 - Which policy tools are most politically sensitive (e.g., tariffs, subsidies, procurement mandates)?

Political power matters when combined with economic motivation.

- **Channel 1: Local Employment Dominance** — Representatives protect industries that employ a large share of their voters (jobs, re-election incentives).
- **Channel 2: Campaign Finance** — Industries contribute money, legislators return favors via policy; we find this substitutes, not complements, employment incentives.
- **Institutional Power** — Majority-party legislators have agenda control, committee power, and informal influence over agencies (letters, hearings, media pressure).

- **(1) Political economy of trade policy** Voting, elections, and lobbying shape trade protection (Grossman and Helpman, 1994; Conconi, Facchini and Zanardi, 2014).
Existing work studies protection at the aggregate or tariff–industry level, but less is known about how institutional political power shapes the broader allocation of industrial policies across industries.
- **(2) Party alignment and distributive politics** Majority-party districts receive more federal funds (Clemens and Veuger, 2021; Albouy, 2013; Cohen, Coval and Malloy, 2011).
Few studies examine industrial policy allocation at the congressional district–industry level.
- **(3) Industrial policy outcomes** Focus on effects on productivity, exports, firm performance (Juhász et al., 2022; Rotunno and Ruta, 2024).
The determinants of sectoral allocation especially political determinants remain underexplored.

OpenSecrets	Congressional Record from GovInfo	County Business Patterns from US Census Bureau	Global Trade Alerts
Campaign financing donations information from Political Action Committees (PACs) to Candidates, such as amount, candidate ID, industry (identified at 5-digit Catecode/Real/code). (2008-2022)	Congressmen/Senators' individual-level information such as party, congressional district and corresponding zipcodes, election year, committees, education and so on. (2009-2022)	Number of establishments of various size and corresponding number of employees over detailed industries identified by 6-digit NAICS code. (2008)	Industrial policy changes including the implementing country, intervention type, targeted industries (identified at the 3-digit cps1 code) and products, targeted countries, and various dates. (2009-2024)
Campaign Contribution Amounts by congressional district/state, 5-digit Catecode/Real/code and year.	Political Power constructed from congressmen/senators' party, election year and congressional district by year, congressional District/State (and zipcodes).	Number of Employees by zipcodes, 6-digit NAICS code.	Various Policy Indicators and number of interventions in 318 industries identified at 3-digit cps1 code and year.
Industry Exposure to Political Power weighted by campaign financing contribution		Industry Exposure to Political Power weighted by local industrial dominance	Industrial Policies Outcomes

- Political Power Exposure

$$PPExposure_{i,t}^{Emp} = \sum_c PP_{c,t} \times \frac{Employment_{i,c,0}}{TotalEmployment_{c,0}}$$

- Time variation comes from $PP_{c,t}$; exposure shares are fixed from the year prior to the base year.
- A (Bartik-style) shift-share structure.

A First Glance at Data

- Treemap of Weighted Political Power in Tradeable Sectors



Political Power Exposure and Industrial Policies

- Model Specification

$$IP_{i,t} = \alpha + \beta_1 \cdot PPE_{i,t}^{Emp} + \beta_2 \cdot TradeableSectors_i + Controls_{i,t}\gamma + \phi_t + \epsilon_{i,t}$$

$PP_{c,t}$ is a series of measures for political power which includes $CongressMajority_{c,t}$, $CongressPresident_{c,t}$, $SenatorCongressMajority_{s,t}$, $SenatorMajority_{s,t}$ and $SenatorPresident_{s,t}$. These are indicator variables set to be 1 if the representative is in the majority party or in the same party as the president.

Political Power Exposure and Industrial Policies

Table 3: Political Power Exposure, Import Penetration Ratio and Industrial Policy Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
Political Power Measure	FPC	Congress Majority	Congress President	Senator Majority	Senator President	Senator Senate Majority
<i>Panel A: Dependent Variable = Policy_{it}</i>						
<i>PPEExposure^{Emp}</i>	0.0154*** (2.6688)	0.0140*** (2.5984)	0.0162*** (2.6065)	0.0136*** (2.2400)	0.0995*** (3.2389)	0.1598*** (2.9298)
tradeable	0.4034*** (37.4749)	0.4047*** (36.6413)	0.4037*** (36.3051)	0.4093*** (39.4241)	0.4017*** (39.5715)	0.4056*** (35.6814)
$\log(\text{Output})_{it}$	0.0354*** (2.7122)	0.0361*** (2.7433)	0.0360*** (2.7406)	0.0449*** (3.1971)	0.0452*** (3.2087)	0.0358*** (2.7247)
Import Penetration Ratio	0.0004 (1.3984)	0.0004 (1.4108)	0.0004 (1.4086)	0.0004 (1.5590)	0.0004 (1.5592)	0.0004 (1.4025)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,668	3,668	3,668	3,500	3,500	3,668
<i>Panel B: Dependent Variable = $\log(\#\text{policy})_{it}$</i>						
<i>PPEExposure^{Emp}</i>	0.0783*** (3.0349)	0.0872*** (2.9073)	0.0982*** (2.9532)	0.3780*** (3.5112)	0.3668*** (3.5692)	0.9396*** (2.9316)
tradeable	3.7917*** (24.2867)	3.8011*** (24.0023)	3.8085*** (23.9979)	3.7963*** (23.8147)	3.7970*** (23.8494)	3.8707*** (24.0221)
$\log(\text{Output})_{it}$	0.2391*** (2.9330)	0.2400*** (2.9422)	0.2400*** (2.9409)	0.2940*** (3.3099)	0.2942*** (3.3125)	0.2391*** (2.9314)
Import Penetration Ratio	0.0027*** (2.7468)	0.0027*** (2.7487)	0.0027*** (2.7539)	0.0029*** (2.9042)	0.0029*** (2.8962)	0.0077*** (2.7501)
Constant	-0.1914 (-0.7474)	-0.2765 (-1.0662)	-0.2794 (-1.0788)	-0.3610 (-1.2983)	-0.3619 (-1.3012)	-0.2805 (-1.0814)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,668	3,668	3,668	3,500	3,500	3,668
R-squared	0.6264	0.6263	0.6265	0.6343	0.6342	0.6266

Alternative Channels of Political Preference

- Political Power Exposure based on Campaign Financing Contribution

$$PPE_{i,t}^{ExposureCampaign} = \sum_c PP_{c,t} \times \frac{CampaignFinancingContribution_{i,c,t}}{CampaignFinancingContribution_{c,t}}$$

Alternative Channels of Political Preference

Political Power Measure	(1) FPC	(2) Congress Majority	(3) Congress President	(4) Senator Majority	(5) Senator President	(6) Senate Majority
Panel A: Dependent Variable = $Policy_{i,t}$						
$PPE_{i,t}^{Congress}$	0.0093*	0.0205**	0.0198**	0.1591	0.0724	0.0720
tradeable	(1.8572)	(2.2165)	(2.3135)	(1.6054)	(1.2214)	(1.1358)
$log(Imports)_{i,t}$	0.3872***	0.3831***	0.3842***	0.3844***	0.3804***	0.3901***
	(330.429)	(37.2290)	(37.6646)	(37.7581)	(37.7198)	(40.6507)
Import Penetration Ratio	0.0492***	0.0415***	0.0424***	0.3056***	0.3109***	0.0492***
	(3.2921)	(3.1201)	(3.1557)	(3.6447)	(3.6686)	(3.2238)
Year FE	0.0004	0.0003	0.0003	0.0025	0.0024	0.0004
Observations	(1.3257)	(1.2131)	(1.2150)	(1.4925)	(1.5024)	(1.4334)
	Yes	Yes	Yes	Yes	Yes	Yes
	2,746	2919	2919	2,760	2,760	2,974
Panel B: Dependent Variable = $log(Hipolicy)_{i,t}$						
$PPE_{i,t}^{Congress}$	0.0554**	0.0915**	0.1003**	1.0317**	0.5512	0.5437
tradeable	(2.1627)	(2.1770)	(2.5229)	(2.1196)	(1.4873)	(1.3572)
$log(Imports)_{i,t}$	3.5540***	3.5775***	3.5864***	3.5373***	3.5445***	3.5913***
	(22.2819)	(22.2819)	(23.3294)	(22.0752)	(21.9058)	(22.0000)
Import Penetration Ratio	0.3695***	0.3322***	0.3339***	0.3611***	0.3655***	0.3632***
	(3.9784)	(3.8312)	(3.9589)	(3.9011)	(3.9471)	(3.9337)
Constant	0.0032***	0.0030***	0.0030***	0.0035***	0.0035***	0.0036***
	(3.1361)	(2.9642)	(2.9757)	(3.3979)	(3.4131)	(3.4286)
Year FE	-0.4915*	-0.4334*	-0.4454*	-0.5149*	-0.5008*	-0.5254*
Observations	(-1.6984)	(-1.6547)	(-1.6999)	(-1.7941)	(-1.7383)	(-1.8303)
	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.2746	0.2919	0.2919	0.7670	0.7670	0.2974
	6.224	6.274	6.280	6.197	6.188	6.210

A Substitution Effect

Political Power Measure	(1) FPC	(2) Congress Majority	(3) Congress President	(4) Senator Majority	(5) Senator President	(6) Senator Senate Majority
<i>Panel A: Dependent Variable = Policy_{it}</i>						
$PPE_{it}^{ExposureEmp}$	0.0286*** (3.5081)	0.0273*** (3.0575)	0.0311*** (3.1972)	0.1628*** (3.4101)	0.1665*** (3.1383)	0.2807*** (2.9601)
$PPE_{it}^{ExposureComp}$	0.0104 (1.3787)	0.0344** (2.0000)	0.0372** (2.0898)	0.1647 (1.2768)	0.0381 (1.0801)	0.0816 (1.1979)
$PPE_{it}^{ExposureEmp} \times$ $PPE_{it}^{ExposureComp}$	-0.0017*** (-3.1816)	-0.0029*** (-2.9739)	-0.0033*** (-3.0415)	-0.1835*** (-2.602)	-0.1268*** (-2.975)	-0.2162** (-2.5380)
tradeable	0.4143*** (31.9800)	0.413*** (28.8625)	0.4158*** (29.2476)	0.396*** (35.3435)	0.3961*** (34.9414)	0.404*** (31.5123)
log(Output)	0.0438*** (3.0958)	0.037*** (2.9305)	0.0362*** (2.8993)	0.0442*** (3.1325)	0.0449*** (3.1475)	0.0459*** (3.1160)
Import Penetration Ratio	0.0004 (1.2608)	0.0003 (1.1679)	0.0003 (1.1157)	0.0004 (1.3467)	0.0004 (1.3405)	0.0004 (1.4046)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,746	2,919	2,919	2,760	2,760	2,974
<i>Panel B: Dependent Variable = log(<i>ip</i>_{it}/policy_{it})</i>						
$PPE_{it}^{ExposureEmp}$	0.1201*** (2.9297)	0.1742*** (4.1102)	0.1834*** (4.2250)	0.4302*** (2.5214)	0.4205*** (2.3702)	1.4864*** (3.4959)
$PPE_{it}^{ExposureComp}$	0.0628 (1.3735)	0.1416* (1.7315)	0.1549** (2.1025)	1.1210 (1.4587)	0.4920 (1.0650)	0.5441 (1.1510)
$PPE_{it}^{ExposureEmp} \times$ $PPE_{it}^{ExposureComp}$	-0.0067* (-2.4968)	-0.0159*** (-3.4041)	-0.0165*** (-3.7981)	-0.4604 (-1.6300)	-0.2683 (-1.4334)	-1.0137*** (-2.6130)
tradeable	3.7096*** (21.9033)	3.7912*** (23.1297)	3.7936*** (23.3260)	3.6161*** (22.3416)	3.6046*** (22.1862)	3.7707*** (21.8092)
log(Output)	0.3546*** (3.7999)	0.3165*** (3.7246)	0.3199*** (3.7819)	0.3528*** (3.7972)	0.3586*** (3.8744)	0.3512*** (3.7984)
Import Penetration Ratio	0.0031*** (3.0869)	0.0028*** (2.9137)	0.0029*** (2.9407)	0.0035*** (3.3682)	0.0035*** (3.3799)	0.0035*** (3.4009)
Constant	-0.5266* (-1.8043)	-0.6676** (-2.4973)	-0.6720** (-2.5239)	-0.5567* (-1.9471)	-0.5424* (-1.8808)	-0.7072* (-2.4231)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,746	2,919	2,919	2,760	2,760	2,974
R-squared	0.6276	0.6343	0.6351	0.6220	0.6212	0.6263

Disaggregated Policies Outcome

Table 6: Industrial Policy Outcomes Categorized based on Intervention Types
Dependent Variable: $Policy_{i,t}$

Intervention Types	(1)	(2)	(3)	(4)	(5)	(6)
Subsides			Tariff and Quota Measures	Trade Ban	Non-Tariff Measures, NTMs	Public procurement localisation
<i>FPC of PPEzone^{imp}</i>	0.0564 (1.2814)	-0.0187 (-1.0806)	0.3224** (3.2952)	0.0450 (1.5575)	-0.0431 (-0.9822)	0.0181*** (2.6591)
Tradeable Sectors	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year level Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,946	3,500	1,946	1,668	3,250	3,500
	(7)	(8)	(9)	(10)	(11)	(12)
	Grants	Loan Guarantee	State loan	Trade finance	Trade License Measures	Trade Licensing Requirement
<i>FPC of PPEzone^{imp}</i>	0.0170*** (3.7420)	0.0215*** (3.2838)	0.0026** (2.0947)	0.0207** (1.9900)	0.656*** (5.2960)	-0.0496 (-1.5721)
Tradeable Sectors	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year level Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,300	3,500	3,500	3,500	1,946	3,000
	(13)	(14)	(15)	(16)	(17)	(18)
	State Aid	Localisation	Other Public Procurement	Instrument unclassified	Export Incentive	FDI and Investment Control
<i>FPC of PPEzone^{imp}</i>	0.0276** (5.6701)	0.0039 (1.2866)	-0.0608 (-0.0804)	0.0597** (1.6746)	-0.0728 (-0.5084)	0.0026 (0.6529)
Tradeable Sectors	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year level Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,250	3,500	3,500	834	834	3,500

Heterogeneity Tests

- Industry-Level Heterogeneity
 - Tradable Sectors v.s. Non-tradable
 - Intensity of Lobbying Activities
 - District-Level Heterogeneity
 - party affiliation
 - Key Committees members
 - Swing Districts
 - educational background
 - alumni connections
 - incumbency status
 - Seniority
-
- ## Robustness Checks
- One-on-one match between industries and districts
 - Industrial Policies Exposure and Political Power
 - Placebo Test - Political Power Exposure and Industrial Policies in Subsamples
 - Additional Policies outcome
 - Aggregate Power
 - Continuous Political Power

Robustness Checks

- One-on-one match between industries and districts
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- Placebo Test - Political Power Exposure and Industrial Policies in Subsamples
- Additional Policies outcome
- Aggregate Power
- Continuous Political Power

Extensions

- PPE as an IV ●
- Network Power: Democrat, Alumni, Law Education, Key Committees, Incumbents, Age, Swing Districts ●

Concluding and Remarks

- **Political power matters.** Industries with larger employment shares in politically powerful districts are significantly more likely to receive industrial policy support—and receive more interventions.
- **Mechanisms.** Two channels drive policy targeting:
 - Employment dominance (jobs/voters in key districts)
 - Campaign finance (donor-dependent industries)
 These channels substitute for each other rather than reinforce.
- **Policy tools differ.** Political influence is strongest for discretionary and redistributive instruments—tariffs, state loans, grants, trade finance, loan guarantee, state aids, procurement mandates—not for technocratic tools like taxes or NTMs.
- **Beyond this paper.** The Political Power Exposure measure can also serve as a Bartik-style instrument to study the causal effects of industrial policy in future work.

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