

Laboratories of Autocracy: Landscape of Central–Local Dynamics in China's Policy Universe

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Introduction

- ▶ Selecting which policies to implement is a core function of government (Hayek 1945; North 1990; Roland 2000; Mukand and Rodrik 2005)
- ▶ A key question concerns the appropriate level for making policy decisions, sparking a long-standing debate on centralization vs. decentralization (Rueschemeyer, Skocpol, and Evans 1985; Bardhan 2002; Besley and Coate 2003; Mookherjee 2015)

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- ▶ A key question concerns the appropriate level for making policy decisions, sparking a long-standing debate on centralization vs. decentralization (Rueschemeyer, Skocpol, and Evans 1985; Bardhan 2002; Besley and Coate 2003; Mookherjee 2015)
- ▶ Centralization may streamline adoption, internalize spillovers, and enhance efficiency, but often sacrifices the local suitability that bottom-up policy initiatives provide (Tiebout 1956; Oates 1972; Alesina and Spolaore 1997; Bolton and Roland, 1997)

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 - ▶ Assessing the impacts on policy outcomes is even more challenging: requires linking policies to both local conditions and desired policy outcomes
- ▶ This paper studies the landscape of policymaking in China, and its impacts on policy suitability and effectiveness. We ask three questions:
 1. What determines the local policy portfolios? How is it affected by bureaucratic incentives and central involvement?
 2. Is policymaking becoming more centralized or decentralized? What's driving those changes?
 3. What are the implications of centralizing policymaking for policy suitability and effectiveness?

Policymaking in China: data infrastructure

We identify and trace all policies — national and local — implemented in China during the past two decades

- ▶ We combine two datasets of the Chinese government:
 1. 422 thousand laws, regulations, policy directives issued by the central government
 2. 3.3 million local (prefecture) government policy documents and annual work reports
- ▶ We extract (and synthesize) policy keywords, and cross-match them among all central and local government documents
- ▶ Over 2003-2023, we identify 115,000+ distinct policies, and trace all stages of their life cycles

Definition of a “policy”

1. Origin and diffusion of policymaking

Decentralized landscape of policymaking

- ▶ Among the universe of policy ideas, 20,994 (18.15%) were first introduced by the central government.
 - ▶ Example of central policy: Full tuition waivers for primary and secondary education in rural areas (Ministry of Education, 2005)
 - ▶ Example of local policy: Domestic waste management system (Zhejiang, 2007)
 - ▶ On average, a locally initiated policy is adopted by 3.76 other prefectures within its first three years; an average top-down policy reaches 15.74.
- ▶ In a given year, 62.9% of the policies implemented in a prefecture originated from bottom-up sources and never involved any central-government endorsement.
- ▶ Intensive margin local tailoring: the average similarity between a central government document and its local follow-up is only 0.141.

Local policy innovation

Measurement

$$\text{Innovation}_{i,t} = \frac{1}{|U|} \times \sum_{p \in U} \frac{\text{totalAdopt}_p}{\text{ranking}_{i,p}}$$

where U is set of bottom-up policy that prefecture i carried out at year t . They capture how fast you are moving \times how important a policy is.

(akin to Gerrish and Blei 2010; Kelly et al. 2021)

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- ▶ Example: local policy innovation spiked during Xi Jinping's tenure as Zhejiang's Party Secretary ($I = 3.31$), as compared with a national average of 1.1. New policies initiated during 2005 include:
 - ▶ Fiscal expenditure performance evaluation (became national policy in 2011)
 - ▶ Subsidized hospitalization (diffused to 9 other provinces)
- ▶ If we replace U by the set of top down policies, then we can capture local politician compliance.

Local policy innovation

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$$\text{Innovation}_{i,t} = \frac{1}{|U|} \times \sum_{p \in U} \frac{\text{totalAdopt}_p}{\text{ranking}_{i,p}} \quad \text{Compliance}_{i,t} = \frac{1}{|V|} \times \sum_{p \in V} \frac{\text{totalAdopt}_p}{\text{ranking}_{i,p}}$$

where U (V) is set of bottom-up (top-down) policy that prefecture i carried out at year t . They capture how fast you are moving \times how important a policy is.

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Local policy innovation

Innovative politicians or innovative localities?

Was Xi innovative, or is Zhejiang always innovative?

- ▶ We answer this question using a mover design (Abowd, Kramarz, and Margolis 1999). With politician-prefecture matched data, we estimate:

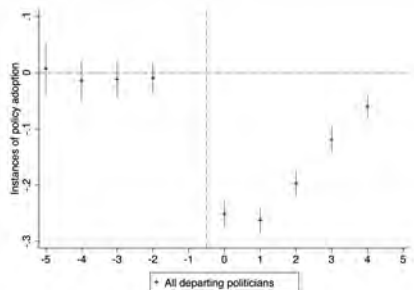
$$Y_{ijt} = \alpha_i + \Psi_{j(i,t)} + \gamma_t + \varepsilon_{it}$$

Decomposing innovation			
	$\tau_{\text{politician}}$	$\tau_{\text{prefecture}}$	τ_{year}
Variation of Y explained	0.304*** (0.037)	0.059* (0.033)	0.132*** (0.014)

- ▶ Bureaucrats, not local governments, drive bottom-up policy innovation each year
- ▶ Year fixed effects also significantly influence this process, indicating evolving policymaking dynamics
- ▶ We see similar results if we decompose compliance Decomposing compliance

Policy attention fades away after politician departure

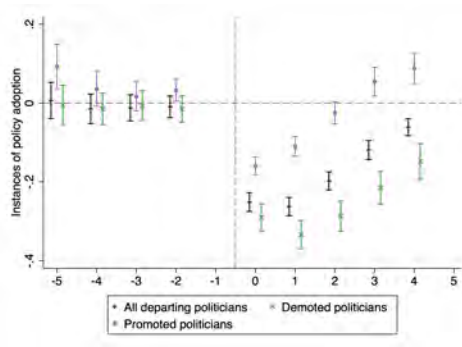
- $Y_{p(i)t} = \sum_T \beta_T T_{it} + \phi_p + \lambda_t + \varepsilon_{p(i)t}$, where $Y_{p(i)t}$ is the instances of adoption of policy p , initiated by politician i , in year t



- A same policy receives 25% less attention immediately after politician departure.

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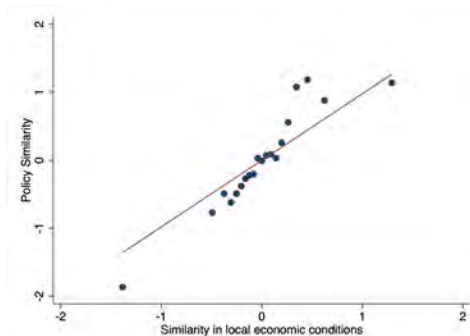
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Political competition obstructs policy learning

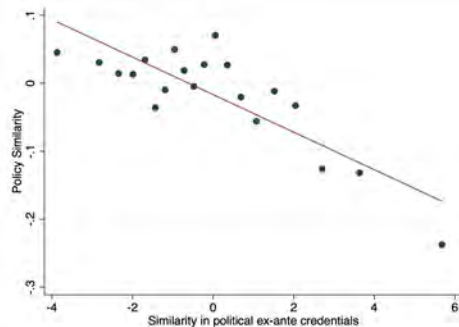
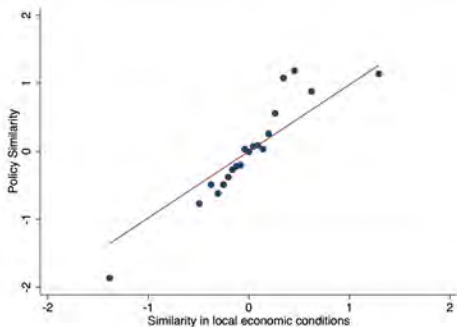
Who do politicians learn from?



- ▶ Similarity in policy portfolio = $-||v_{it} - v_{jt}||_2$. v_{it} is policy vector implemented by prefecture i in year t .
- ▶ Economic proximity: $-\Delta$ GDP per capita;

Political competition obstructs policy learning

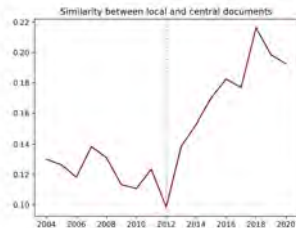
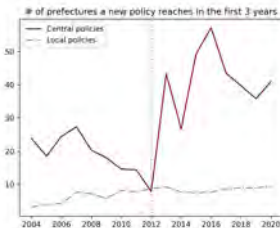
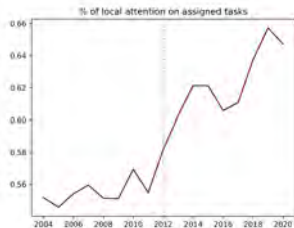
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- ▶ Economic proximity: $-\Delta$ GDP per capita;
- ▶ Politician proximity: Mohalanobis distance using all observable *ex-ante* characteristics.
- ▶ In both panels, we control for origin, destination, year FE. Results robust with prefecture-pair FEs.

2. Centralization of policymaking after 2012

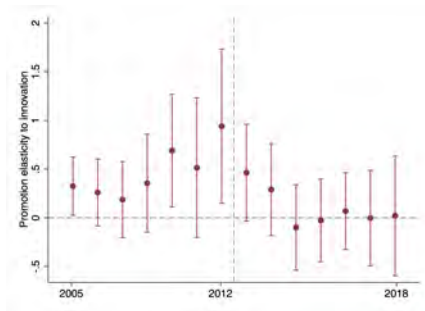
Top-down central policies attract increasing attention



- ▶ The % of attention implementing policies endorsed by the central government increased from 30% to 44%;
- ▶ the number of early followers almost tripled;
- ▶ the similarity between central and local policies almost doubled.

What may explain the change?

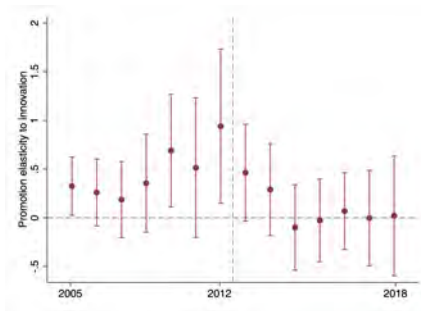
Declining incentives for innovation, increasing incentives for compliance



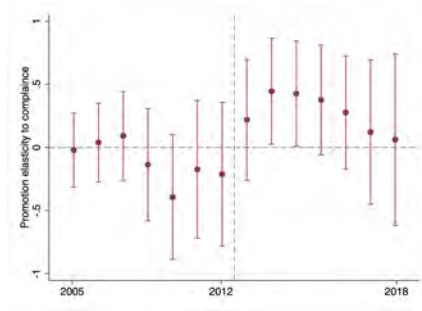
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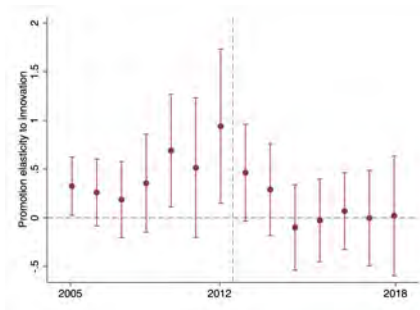
Reward for innovation



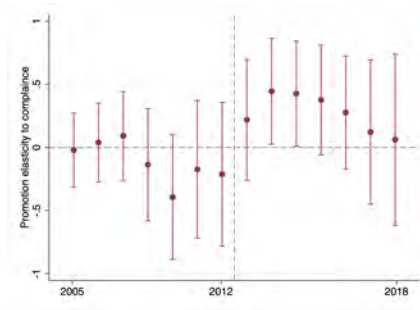
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Reward for innovation



Reward for compliance

- ▶ Consistent with Beijing's own critique in 2013 that "government orders never leave Zhongnanhai", a problem Xi made resolving a top priority upon taking office;
- ▶ Carrot or the stick? Corruption investigation
- ▶ Tournament is only part of the incentive structure Another driver: working group

3. Implications: policy suitability & effectiveness

Tradeoffs of centralization vs. decentralization

So far, we have documented that:

1. Policy learning in China was highly decentralized before 2013
2. This process got substantially centralized over the past decade

What are the potential consequences of centralized vs. decentralized policy making?

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- ▶ We document the association between policy-locality compatibility and policy effectiveness

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- ▶ We focus on industrial policies that are aimed at promoting industrial growth and innovation
- ▶ We measure each industry's compatibility with local economic conditions
- ▶ We document the association between policy-locality compatibility and policy effectiveness
- ▶ Through the lens of policy-locality compatibility, we examine the tradeoffs associated with centralized policymaking

Policy compatibility measures

- ▶ We use input-output table to define regional compatibility based on *ex ante* local supply chain strength
 - ▶ A locality is defined as compatible with an industry if it has more *pre-existing* firms in that industry's key upstream sectors
- ▶ *Supply-chain compatibility* $_{cp} = \frac{S_{cp} / \sum_{p' \in P} S_{cp'}}{\sum_{c' \in C} S_{c'p} / \sum_{c' \in C, p' \in P} S_{c'p'}}$
 - ▶ S: key upstream firms, c: city, p: industry

Policy compatibility measures

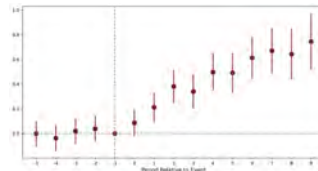
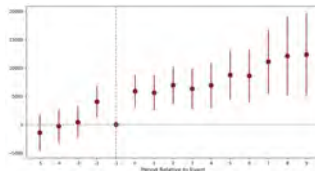
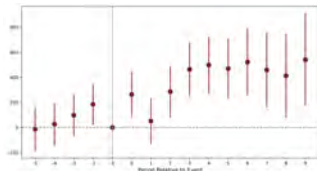
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 - ▶ S: key upstream firms, c: city, p: industry
- ▶ Similarly, we also measure compatibility using business registration data (Fang, Li, Lu, 2024)
 - ▶ Reflects *pre-existing* industry-city-year level variation in market “bullishness”
 - ▶ Separately done for private firms and SOEs
- ▶ *Investment compatibility* $_{cp} = \frac{I_{cp} / \sum_{p' \in P} I_{cp'}}{\sum_{c' \in C} I_{c'p} / \sum_{c' \in C, p' \in P} I_{c'p'}}$
 - ▶ I: investment, c: city, p: industry

Two compatibility measures highly correlated

Compatibility strongly predicts policy adoption

Higher policy-locality compatibility \Rightarrow larger treatment effects

supply-chain compatibility measure:



investment compatibility measure:

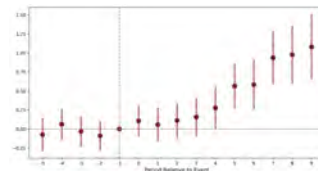
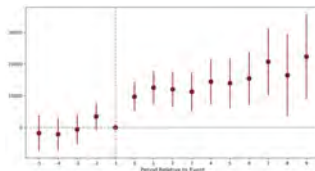
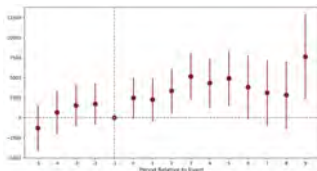
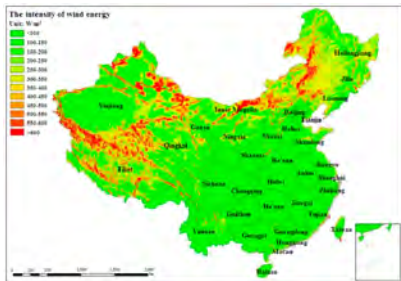


Figure: Export

Figure: Sales

Figure: Patent

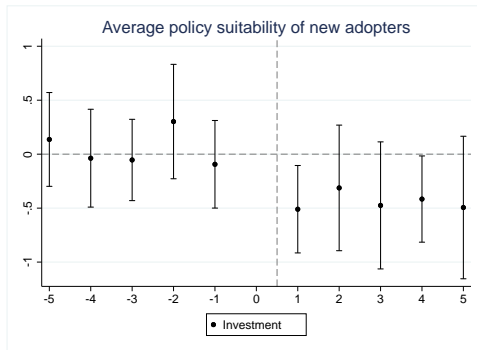
3.1 Perils of centralized policy making



Top-down policies might be less compatible with local conditions, compared to bottom-up ones. For example:

- ▶ Under decentralization, Northwest China (Gansu) capitalized on rich wind resources to build efficient wind farms
- ▶ When central government started promoting wind power, inland regions blindly adopted the policy, creating “ghost wind farms” with unsustainable costs

3.1 Perils of centralized policymaking

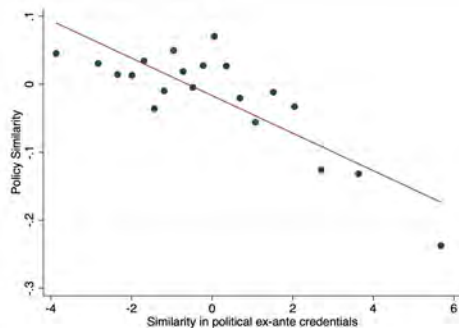


	Investment suitability	
	Continuous (1)	Top 10% (2)
Panel A: Economic policies about industries		
Central government involvement	-0.357*** (0.0839)	-0.0445*** (0.00823)
Mean of DV	1.23	0.23
Prefecture × Year FE	Yes	Yes

- ▶ Top-down industrial policies less aligned with local conditions
- ▶ Results robust with supply-chain suitability Results
- ▶ This, combined with the differential effectiveness of top-down vs. bottom-up industrial policies, points to the cost of policy centralization

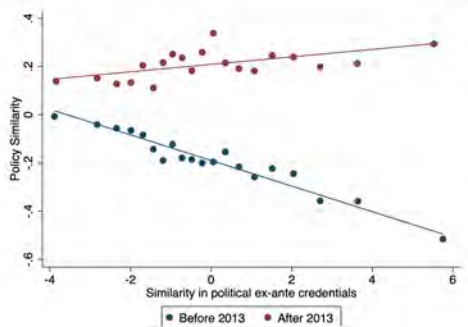
3.2 Benefits of centralized policymaking

Competition among peers



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Competition among peers



	Investment suitability	
	Continuous	Top 10%
	(1)	(2)
# of 30 top political competitors	-0.0074*** (0.0022)	-0.0024** (0.0011)
# × 1{post 2013}	0.0077*** (0.0027)	0.0014 (0.0013)
Mean of DV	1.23	0.23
Prefecture FE	Yes	Yes
Year FE	Yes	Yes

- ▶ Politically-biased diffusion lowers the compatibility between policies and localities
- ▶ Results robust with alternative cutoffs
- ▶ Results robust with supply-chain suitability
- ▶ # policy adoption is uncorrelated with political competition (extensive margin)

3.3 Quantitative comparison: centralization vs. decentralization

We have shown the tradeoffs associated with the centralization of policy making:

1. **Cost:** reducing compatibility between policies and localities by promoting industries that do not fit everywhere
2. **Benefit:** increasing compatibility between policies and localities by overcoming strategic distortions in decentralized policy diffusion

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Leveraging our estimates, we calculate that the yearly cost of the post-2013 centralization in policy making is 404.1 billion RMB in industrial output, 31.6 billion in export and 715 patent filings, while the yearly benefit is 84.5 billion RMB in industrial output, 6.6 billion in export and 157 patent filings.

- Overall, cost significantly exceeds benefit

[Calculation details](#)

3.4 Alternative goals of centralized policymaking?

While this paper focuses on policy-locality compatibility, we also examine several other potential benefits of centralized policymaking:

1. Central govt promoting more ambitious industries? Industry size
2. Central govt having longer horizon? Long-run potential
3. **Central govt promoting sectors pertinent to national security?** Sanction list
4. Central govt accounting for spillovers through supply chains? Supply chain
5. **Central govt promoting industries with economies of scale?** Economy of scale
6. **Central govt internalizing pollution externalities?** Pollution externalities

Robustness

Conclusion

- ▶ We uncover salient features of an institutional setup once characterized by decentralized experimentation;
- ▶ We observe substantial centralization in policy making after 2013, fueled by incentive changes;
- ▶ We quantitatively estimate tradeoffs in centralization vs. decentralization in policy learning
 - ▶ Centralized policies less tailored to local conditions
 - ▶ Decentralized policies create strategic distortions in policy diffusion
- ▶ Quantitatively, the cost of centralized policy making significantly outweighs its benefit in China over the past decade

Thank you!

Appendix

Policy centralization in China: importance and generalizability

- ▶ China's move from post-1979 decentralization—key to its rapid growth—to renewed centralization, given its size, diversity, and history of planning failures, makes it a critical case
- ▶ The universal trade-off between local tailoring and national coordination, as seen in China, applies to any country balancing efficiency and coherence
- ▶ Strategic competition among subnational actors in China mirrors dynamics in federations (e.g., U.S. states), showing how political rivalry can block decentralized diffusion

Contribution to Centralization Literature

- ▶ Shows bottom-up policies better match local conditions, empirically validating decentralized-information theories (Tiebout 1956; Oates 1972; Alesina et al. 2004).
- ▶ Reveals strategic biases in policy diffusion due to regional competition, highlighting distortions of decentralization (Blanchard & Shleifer 2001; Sonin 2003).
- ▶ Offers a holistic analysis of entire policy portfolios across government levels, unlike prior studies focused on single dimensions (e.g., pollution, safety).

- ▶ Collected policy-related keywords from annual prefectural government reports (2003–2020), focusing on Section 1 (“recap”) to capture only implemented policies.
- ▶ Applied a custom stop-word list and two-stage validation (manual review + ChatGPT o4-mini) to ensure each term stands alone as a meaningful policy keyword.
- ▶ Searched the extracted keywords across the full corpus to identify each policy’s initiation date and track its diffusion.
- ▶ Reconstructed every locality’s yearly policy portfolio. The average policy shows up in 22 policy documents nationwide.

一年来,我们主要做了以下工作。

Over the past year, our work included:

(一) 全力实施“三大任务、一六平台”, 实现改革开放新作为

上海自贸试验区临港新片区正式设立, 落实国务院批准总体方案, 出台管理办法, 完善体制机制, 制定实施特殊支持政策, 推动重大改革优先在新片区试点, 重大项目优先在新片区布局, 重大政策优先在新片区运用, 新片区新设企业4025家, 签约重点项目168个, 总规模821.9亿美元, 深化自贸试验区“三新一高”建设, 赋予浦东新区重大改革自主权, 进一步推动浦东新区改革开放和创新发展。

Registration-based IPO system

在上海证券交易所设立科创板并试点注册制, 全力支持、全面配合科创板工作, 优化营商生态环境, 实施促进科技创新发展的“浦江之光”行动, 受理205家企业上市申请, 70家企业成功上市, 募资额达到824亿元。

Integrated Development of the Yangtze River Delta

Demonstration Zone for Ecological and Green Integrated Development

长三角一体化发展国家战略全面实施, 制定落实长三角一体化发展行动计划, 打造虹桥国际开放枢纽等实施举措, 启动建设长三角生态绿色一体化发展示范区, 开工建设交通、能源、信息等一批基础设施合作项目, 提升G60科创走廊能级, 强化生态环境联防联治, 宝应县三湾湿地入选首批国家直接融资示范区, 积极参与长江经济带生态环境保护, 扎实推进乡村振兴。

落实自贸试验区

Collaborative Environmental Governance

Direct Billing for Outpatient Medical Insurance Costs

East-West Poverty Alleviation Cooperation

第二届进博会进口博览会圆满成功, 贯彻“办好事”的总要求, 以一流的办会环境、一流的服务保障确保进口商投资便捷度、满意度、获得感、满意度、满意度。按一年计, 累计意向成交711.3亿美元, 比首届增长29%, 放大进口博览会溢出带动效应, 成功举办上海市推介活动, 实现线上线下联动常态化。

China International Import Expo

Bonded Exhibition and Sales

Reform of Regional State-owned Assets and Enterprises

City Promotion Event

Business Environment for Private Enterprises

重点领域改革开放不断深化, 启动实施《上海市推进国企改革三年行动方案》, 完成一批国企市场化重组并购, 优化民营企业营商环境, 制定《上海市优化营商环境条例》, 持续提升营商环境。在全市开展“一网通办”改革, 创新“一网通办”政务服务新模式, 新设外商投资项目数、合同外资金额、实际外资金额分别增长21.5%、7.1%和10.1%, 跨国公司地区总部、外资研发中心分别新增50家和300家。

Separation of Permits and Business Licenses

Market-Driven and Specialized SOE Restructuring

Strengthen Financial Services

Smart Customs Management and Clearance

Encourage the Establishment of Headquarters

(二) 加快建设“五个中心”四大品牌”, 全力提升城市软实力

Central Government Document

水利部关于修订印发《节水型社会评价标准》的通知(2023)

【法宝引证码】CLI4.5174718

制定机关	水利部	发布部门	水利部	Issue Department:	Ministry of Water Resources
发文字号	水节约〔2023〕245号				
公布日期	2023.06.18	施行日期	2023.06.18	Issue Year	2023
时效性	现行有效	政策属性	规范性文件		
法规类别	水利部规范性文件				

引用办法

法律法规范据文件(10)

Specific Policy: Develop a Water-Saving Society(节水型社会)

水利部关于修订印发《节水型社会评价标准》的通知

(水节约〔2023〕245号)

部机关各司局、部直属各单位，各省、自治区、直辖市水利(水务)厅(局)，新疆生产建设兵团水利局：

修订后的《节水型社会评价标准》已经部务会议审议通过，现印发给你们，请认真遵照执行。

水利部

2023年6月18日

Local Government Document

天水市人民政府办公室关于深入推进节水型社会建设的实施意见

【法宝引证码】CLI4.78932227

制定机关	天水市人民政府	Issue Department	天水市人民政府
发文字号	天政办发〔2024〕18号		
公布日期	2024.04.22	施行日期	2024.04.22
时效性	现行有效	Policy Validity	现行有效
法规类别	资源综合利用	地方属性	地方规范性文件

Issue Prefecture

Specific Policy Develop a Water-Saving Society(节水型社会)

天水市人民政府办公室关于深入推进节水型社会建设的实施意见

(天政办发〔2024〕18号)

各县区人民政府，经开区管委会，市政府各部门，市属及驻市有关单位：

为全面贯彻落实习近平生态文明思想，加强水资源节约集约高效利用，深入推进节水型社会建设，根据《甘肃省人民政府办公厅关于深入推进节水型社会建设的指导意见》(甘政办发〔2024〕1号)，经市政府同意，结合我市实际，提出以下实施意见。

一、总体要求

(一)指导思想

以习近平新时代中国特色社会主义思想为指导，全面贯彻党的二十大和二十届二中全会精神，深入贯彻习近平生态文明思想，认真落实习近平总书记关于治水的重要论述和对甘肃重要讲话重要指示精神，完整、准确、全面贯彻新发展理念，积极践行“节水优先、空间均衡、系统治理、两手发力”的新时代治水思路，把水资源作为刚性的约束，坚持以水定城、以水定地、以水定人、以水定产，精打细算用好水资源，从严从细管好水资源，持续抓好农业、工业、城镇等領域节水，促进用水方式由粗放低效向节约集约转变，形成节水型生产生活方式，加快建设节水型社会，为全市经济社会高质量发展及现代化建设提供水资源保障。

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Our definition of “policy” is robust to alternative levels of aggregation:

- ▶ Extract keywords directly from the universe of policy titles—bypassing government work reports
- ▶ Disaggregate bundled policies by domain, so that each policy–domain pair constitutes a distinct initiative
- ▶ Bundle policies with high textual similarity by computing pairwise distances using document-vector representations

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Policy compliance [Back](#)

Compliant politicians or compliant localities?

- We answer this question using a mover design (Abowd, Kramarz, and Margolis 1999). With politician-prefecture matched data, we estimate:

$$Y_{ijt} = \alpha_i + \Psi_{j(i,t)} + \gamma_t + \varepsilon_{it}$$

Decomposing innovation			
	$\tau_{\text{politician}}$	$\tau_{\text{prefecture}}$	τ_{year}
Variation of Y explained	0.196*** (0.046)	0.088** (0.043)	0.308*** (0.016)

- Bureaucrats, not localities, explain more of the variation with respect to compliance.

Political competition obstructs policy learning

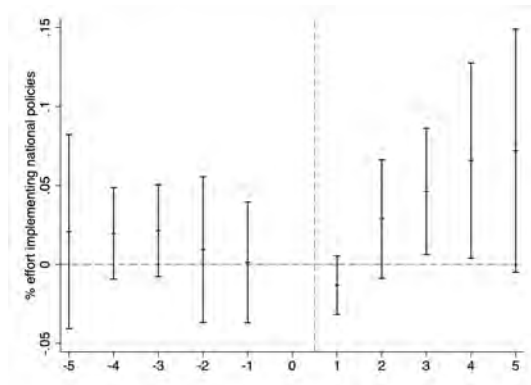


Example of strategic bias in policy diffusion: Beijing rejects Shanghai's successful innovation in automobile license plate auctions, in order to not give credit to Shanghai (Zhou and Liu, 2016)

- ▶ Shanghai: implements paid license plate auctions, using market mechanisms to control vehicle growth while generating revenue for public transport
- ▶ Beijing: rejects auctions, adopts free license lottery system, resulting in lower consumer welfare

What else may explain the change?

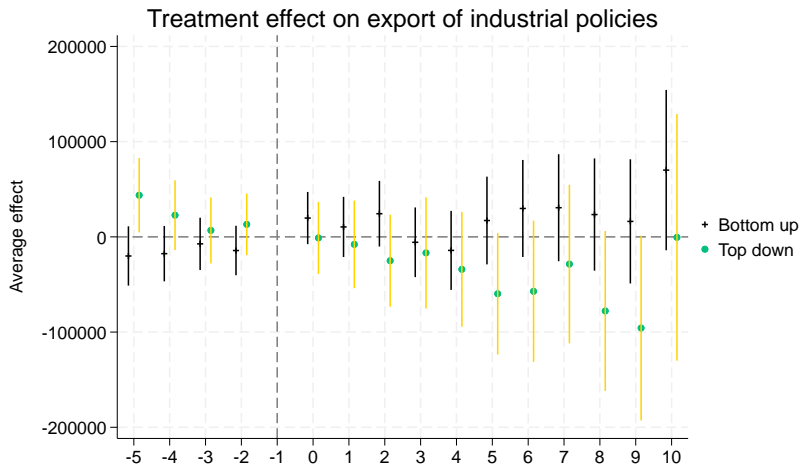
Informal institutions: central working groups



- Policy domains where working groups are established centralize faster.

	Exports	Sales	Patents
	(1)	(2)	(3)
Panel A: Investment Compatibility			
Policy \times Compatibility	34,156*** (6,042)	435,890*** (61,441)	2.412*** (0.250)
No. of observations	2,108,939	2,481,648	3,477,600
Panel B: Supply Chain Compatibility			
Policy \times Compatibility	8,719*** (1464.7)	76,140*** (12,740)	1.466*** (0.131)
No. of observations	1,720,998	2,042,456	2,884,000
Mean of DV	72,802	184,527	5.33
Prefecture \times Year FE	Yes	Yes	Yes
Prefecture \times Industry FE	Yes	Yes	Yes
Industry \times Year FE	Yes	Yes	Yes

Top-down industrial policies are less effective than bottom-up ones



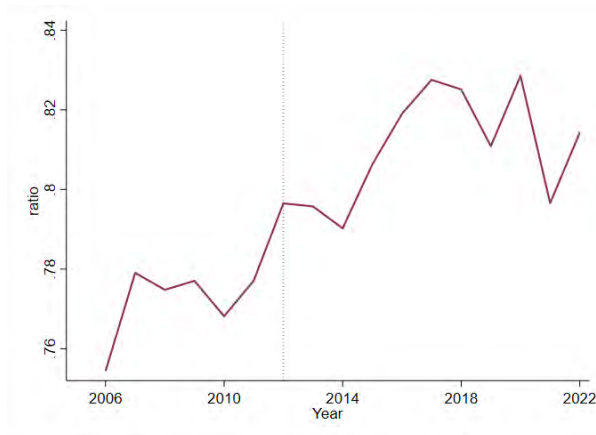
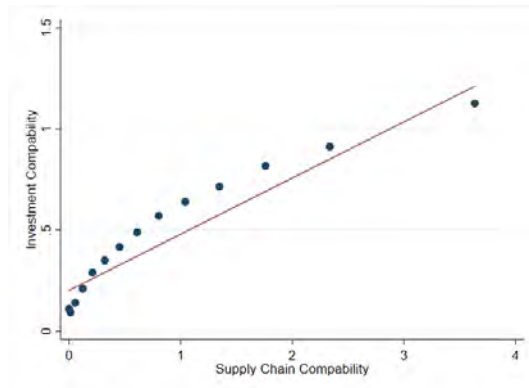


Figure: top down local industrial policies ratio (3-year Centered MA)

	Investment		Supply-chain	
	% compatible		% compatible	
Central endorsement	-0.0528*** (0.0154)	-0.178*** (0.0184)	-0.0788*** (0.00969)	-0.119*** (0.0148)
# relative years	-0.00909*** (0.00123)	-0.00999*** (0.00124)	-0.00718*** (0.00116)	-0.00747*** (0.00116)
Central endorsement \times # relative years		0.0223*** (0.00328)		0.00717*** (0.00181)
# of obs.	15,028	15,028	15,028	15,028
Prefecture FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes

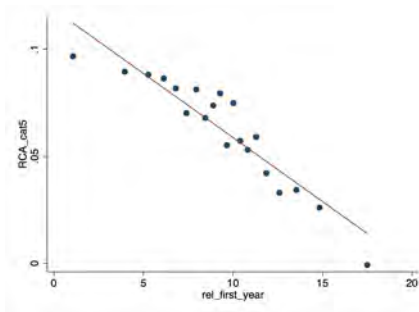
- Within the same policy, central endorsement leads to a salient drop in compatibility for subsequent adopters

Two compatibility measures highly correlated

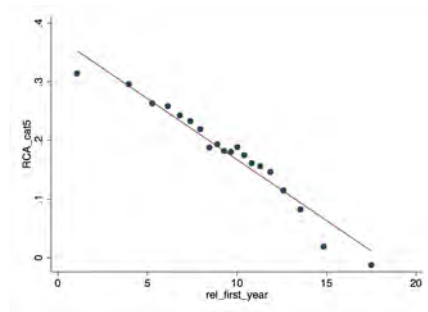


- Supply chain compatibility measure highly correlated with investment compatibility measure

Compatibility predicts policy adoption



(a) Supply chain compatibility



(b) Investment compatibility

- ▶ Regions more compatible with an industry are early adopters of the corresponding industrial policy
- ▶ Compatibility measures capture meaningful variations across industry-locality pairs

	% fit investment suitability	investment suitability	% fit IO table suitability	IO table suitability
Central policies				
Competitors among econ-neighbors	-0.00190** (0.000751)	0.00375 (0.0168)	0.000212 (0.000999)	-0.00462 (0.00362)
Observations	3,987	3,987	3,985	3,985
R-squared	0.449	0.368	0.385	0.254
Local policies				
Competitors among econ-neighbors	-0.00578*** (0.00152)	-0.00914* (0.00507)	-0.00144** (0.000628)	-0.0288** (0.0141)
Observations	3,101	3,101	3,064	3,064
R-squared	0.233	0.152	0.219	0.294
Comparison between central & local policies				
t-value	-2.288	-1.781	-2.47	-1.666
p-value	0.024**	0.078*	0.015**	0.099*

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

- ▶ Distortions in decentralized policy diffusion driven by bottom-up policies
- ▶ Consistent with strategic political competition

Table: Competition in pre and post 2013 period

	Investment Compatibility			Supply-Chain Compatibility		
	All Policy	Local Policy	Central Policy	All Policy	Local Policy	Central Policy
Competitors× Post 2013	0.00772*** (0.00201)	0.0164*** (0.00525)	0.00627*** (0.00212)	0.00658* (0.00367)	0.0185** (0.00751)	0.00359 (0.00284)
Competitors	-0.00794*** (0.00210)	-0.0144*** (0.00388)	-0.00623*** (0.00211)	-0.00862*** (0.00327)	-0.0187*** (0.00593)	-0.00602** (0.00270)
# of obs	93,726	18,477	75,247	90,154	17,072	73,080
Prefecture FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

	% fit investment suitability	investment suitability	% fit IO table suitability	IO table suitability
Central policies				
Competitors among Province-neighbors	-0.00453 (0.00286)	-0.0735 (0.0545)	0.00205 (0.00341)	-0.0101 (0.0121)
Observations	3,987	3,987	3,985	3,985
R-squared	0.448	0.369	0.385	0.254
Local policies				
Competitors among Province-neighbors	-0.0112* (0.00676)	-0.0648 (0.174)	-0.00407** (0.00207)	-0.110* (0.0656)
Observations	3,101	3,101	3,064	3,064
R-squared	0.230	0.151	0.218	0.294
Comparison between central & local policies				
t-value	-0.909	0.047	-2.08	-1.499
p-value	0.366	0.962	0.040**	0.137

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table: Competitors in Province Neighbors

	% fit investment suitability	investment suitability	% fit IO table suitability	IO table suitability
Central policies				
Competitors among Distance-neighbors	-0.00163 (0.00140)	-0.0503 (0.0328)	-0.00138 (0.00241)	-0.0181** (0.00881)
Observations	3,987	3,987	3,985	3,985
R-squared	0.448	0.369	0.385	0.254
Local policies				
Competitors among Distance-neighbors	-0.00389 (0.00385)	-0.00620 (0.102)	-0.00286** (0.00137)	-0.0645** (0.0312)
Observations	3,101	3,101	3,064	3,064
R-squared	0.239	0.151	0.218	0.294
Comparison between central & local policies				
t-value	-0.551	0.411	-1.85	-1.431
p-value	0.583	0.682	0.067*	0.155

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table: Competitors in Distance Neighbors

Panel A: Investment Compatibility

	N	α	β	Yearly Cost/Benefit
Export				
Cost	2,562	0.134	34,156	15.442
Benefit	9,376	0.031	34,156	10.126
Sales				
Cost	2,562	0.134	435,890	197.066
Benefit	9,376	0.031	435,890	129.232
Patents				
Cost	2,562	0.134	2.412	1,090
Benefit	9,376	0.031	2.412	715

Panel B: Supply Chain Compatibility

	N	α	β	Yearly Cost/Benefit
Export				
Cost	2,562	0.139	8,719	4.147
Benefit	9,376	0.026	8,719	2.221
Sales				
Cost	2,562	0.1394	76,140	35.917
Benefit	9,376	0.026	76,140	19.240
Patents				
Cost	2,562	0.1394	1.466	691

$$\text{Cost}_y = \Delta N_{\text{topdown}} \times \alpha_{\text{cost}} \times \beta_y$$

$$\text{Benefit}_y = \Delta N_{\text{localpolicy}} \times \alpha_{\text{benefit}} \times \beta_y$$

- ▶ $\Delta N_{\text{topdown}}$: the number of additional top-down policies introduced due to centralization after 2013.
- ▶ $N_{\text{localpolicy}}$: the number of policies adopted through diffusion from other local governments after 2013.
- ▶ α_{cost} : the degree to which top-down policies defy local compatibility, compared to bottom-up policies.
- ▶ α_{benefit} : the degree to which local policies better fit local compatibility due to reduced intergovernmental competition after 2013.
- ▶ β_y : the impact of defying local compatibility on economic indicator y .

Table: Targeting Future Market Outcomes

VARIABLES	Market Value(2000-2024)	Future Market Value(2024)
Panel A: All Local Policies		
Central initiation	46.49 (38.25)	88.69 (72.15)
Central endorsement	28.75 (29.36)	63.17 (59.98)
Bottom up	31.99 (21.86)	55.12 (42.98)
# of obs.	427	427
Panel B: Equal Number of Local and Central Policies		
Central initiation	46.49 (38.43)	88.69 (72.50)
Central endorsement	65.34* (37.20)	139.9* (75.01)
Bottom up	279.7*** (65.08)	543.1*** (111.8)
# of obs.	210	210

Table: Targeting China's Long Run Potential

VARIABLES	RCA (2000)	RCA (2024)	Δ RCA
Panel A: All Local Policies			
Central initiation	-0.412 (0.330)	-0.452** (0.222)	-0.0395 (0.288)
Central endorsement	-0.942*** (0.284)	-0.416** (0.206)	0.526** (0.247)
Bottom up	-0.213 (0.288)	0.0581 (0.194)	0.271 (0.241)
# of obs.	427	427	427
Panel B: Equal Number of Local and Central Policies			
Central initiation	-0.412 (0.330)	-0.452** (0.223)	-0.0395 (0.290)
Central endorsement	-0.544** (0.236)	-0.228 (0.223)	0.862*** (0.245)
Bottom up	0.144 (0.224)	0.879*** (0.233)	1.573*** (0.257)
# of obs.	210	210	210

Table: Targeting Strategically Important Industries

VARIABLES	Sanction List
Panel A: All Local Policies	
Central initiation	0.0137 (0.0692)
Central endorsement	0.139** (0.0707)
Bottom up	0.00445 (0.0533)
# of obs.	427

Sanction List is a dummy variable indicating whether an industry is included in the U.S. sanction list against China.

Table: Targeting Market Distortion

VARIABLES	Market Distortion
Panel A: All Local Policies	
Central initiation	0.896*** (0.0937)
Central endorsement	0.930*** (0.0991)
Bottom up	0.969*** (0.0784)
# of obs.	1,109
Panel B: Equal Number of Local and Central Policies	
Central initiation	0.896*** (0.0938)
Central endorsement	1.302*** (0.0882)
Bottom up	1.965*** (0.0748)
# of obs.	747

Table: Targeting Industries with Economics of Scale

VARIABLES	Economics of Scale
Panel A: All Local Policies	
Central initiation	0.293 (0.220)
Central endorsement	0.616*** (0.201)
Bottom up	0.361* (0.189)
# of obs.	472
Panel B: Equal Number of Local and Central Policies	
Central initiation	0.293 (0.222)
Central endorsement	1.007*** (0.197)
Bottom up	1.349*** (0.189)
# of obs.	195

Table: Targeting Pollution-Intensive Industries

VARIABLES	Pollution
Panel A: All Local Policies	
Central initiation	0.00203 (0.0395)
Central endorsement	0.202*** (0.0516)
Bottom up	0.0426 (0.0329)
# of obs.	646

Pollution is a dummy variable indicating whether the industry is classified as pollution-intensive in the 2021 Comprehensive Directory of Environmental Protection published by the Ministry of Ecology and Environment of China.

Table: Robust Check

VARIABLES	% fit investment suitability	investment suitability	% fit IO suitability	IO suitability
Central endorsement	-0.0167* (0.00922)	-0.0936*** (0.0306)	-0.00188 (0.00879)	-0.0333* (0.0198)
Sanction	0.0347** (0.0157)	0.220*** (0.0678)	0.0543** (0.0243)	0.199*** (0.0511)
Pollution	0.0525*** (0.0172)	0.221*** (0.0634)	0.0844*** (0.0298)	0.247*** (0.0570)
Economics of Scale	-0.00113 (0.00763)	0.0227 (0.0287)	-0.0267*** (0.00900)	-0.0353* (0.0199)
# of obs.	118,104	118,104	116,333	116,333

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