Jam-barrel politics: Road building and legislative voting in Colombia

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Motivation

- Clientelism is prevalent across developing countries
- Most research on clientelism looks at the relationship between politicians and voters
- One potentially overlooked form of clientelism: between the executive and the legislature
- Clientelism is one potential tool through which the executive can build legislative support

Research question

What is the relationship between centrally allocated grants and legislative support for the ruling party?

- Setting: Colombia between 2010-2014
- Data on road construction projects, politicians' roll-call voting records, and a leaked database of government projects
- Exploit details on projects including timing and individual assignment
- Panel FE with continuous treatment

Background

- In Colombia, the non-programmatic distribution of public funds has been colloquially named "mermelada" (jam)
- 2010-2014 government was accused of "jam spreading" to boost both electoral and legislative support
- Opposition leaked **"palace computer" document** outlining the assignment of road construction projects to specific legislators

timeline

- President and congressmen said that *sponsoring* these projects was part of their duty as politicians

Background

Santos salió en defensa de la llamada 'mermelada'

Política 21 Mar 2014 - 9:17 AM

El presidente dijo que es legítimo que un congresista busque inversión para su región.

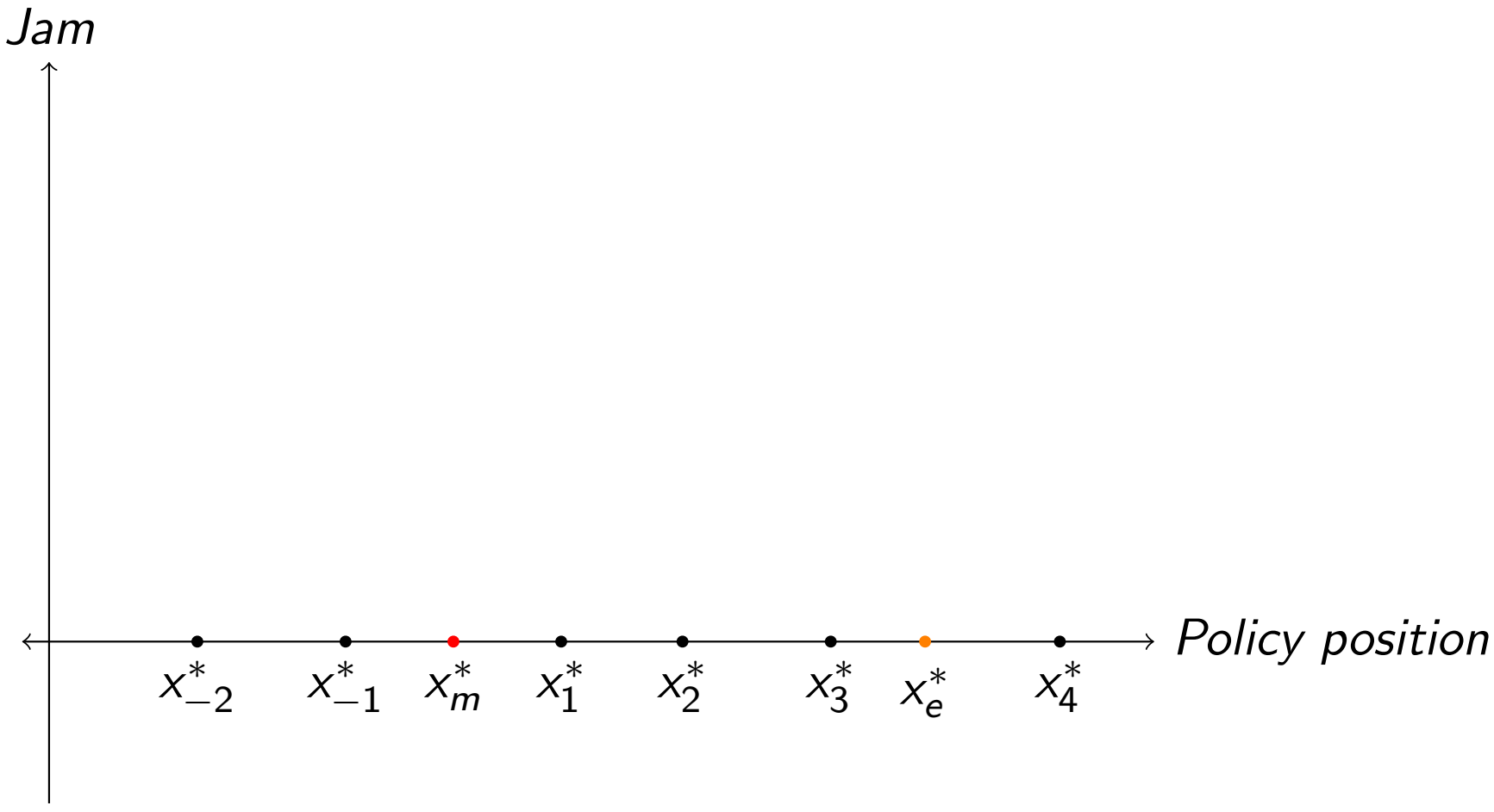
Source: El Espectador

Related literature

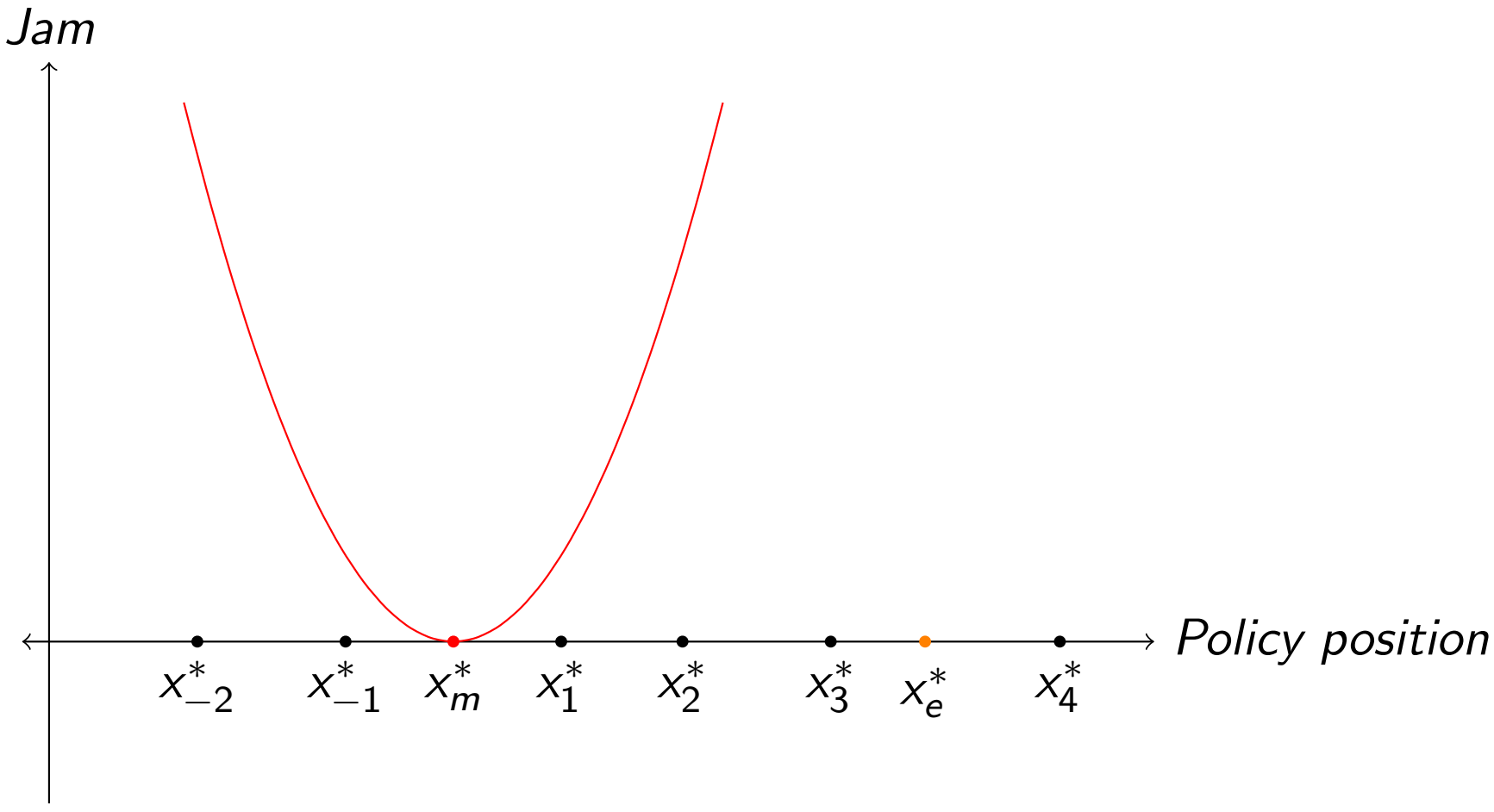
- Clientelism and vote-buying in developing countries: Finan and Schechter (2012), Stokes et al (2013), Anderson et al (2015), Bobonis et al (2018)
- Distributive politics and pork-barrel: Snyder (1991), Alston and Mueller (2005), Dekel et al (2009), Cann and Sidman (2011), Alexander et al (2015)

more

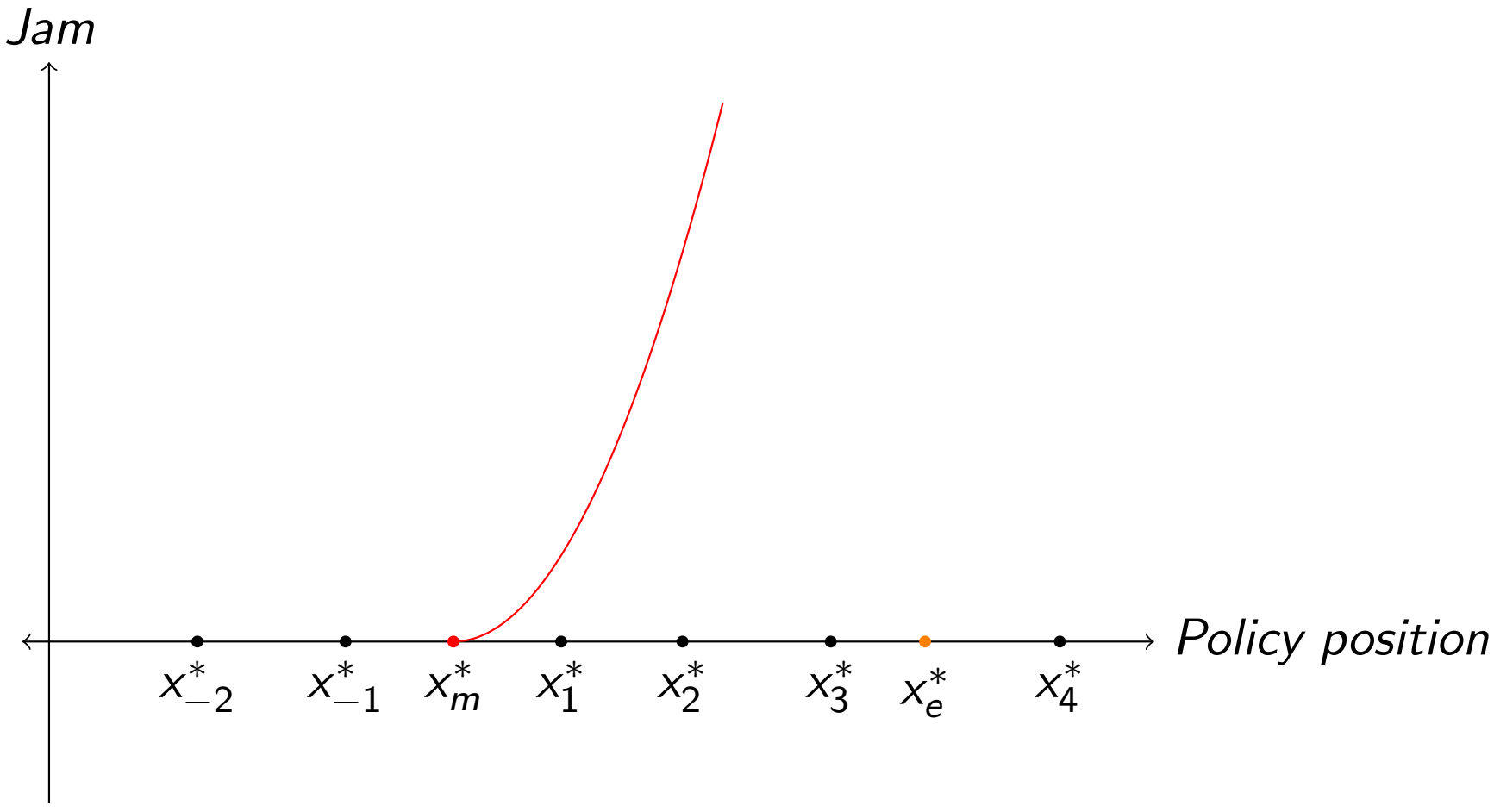
Legislators and the executive have unidimensional policy preferences



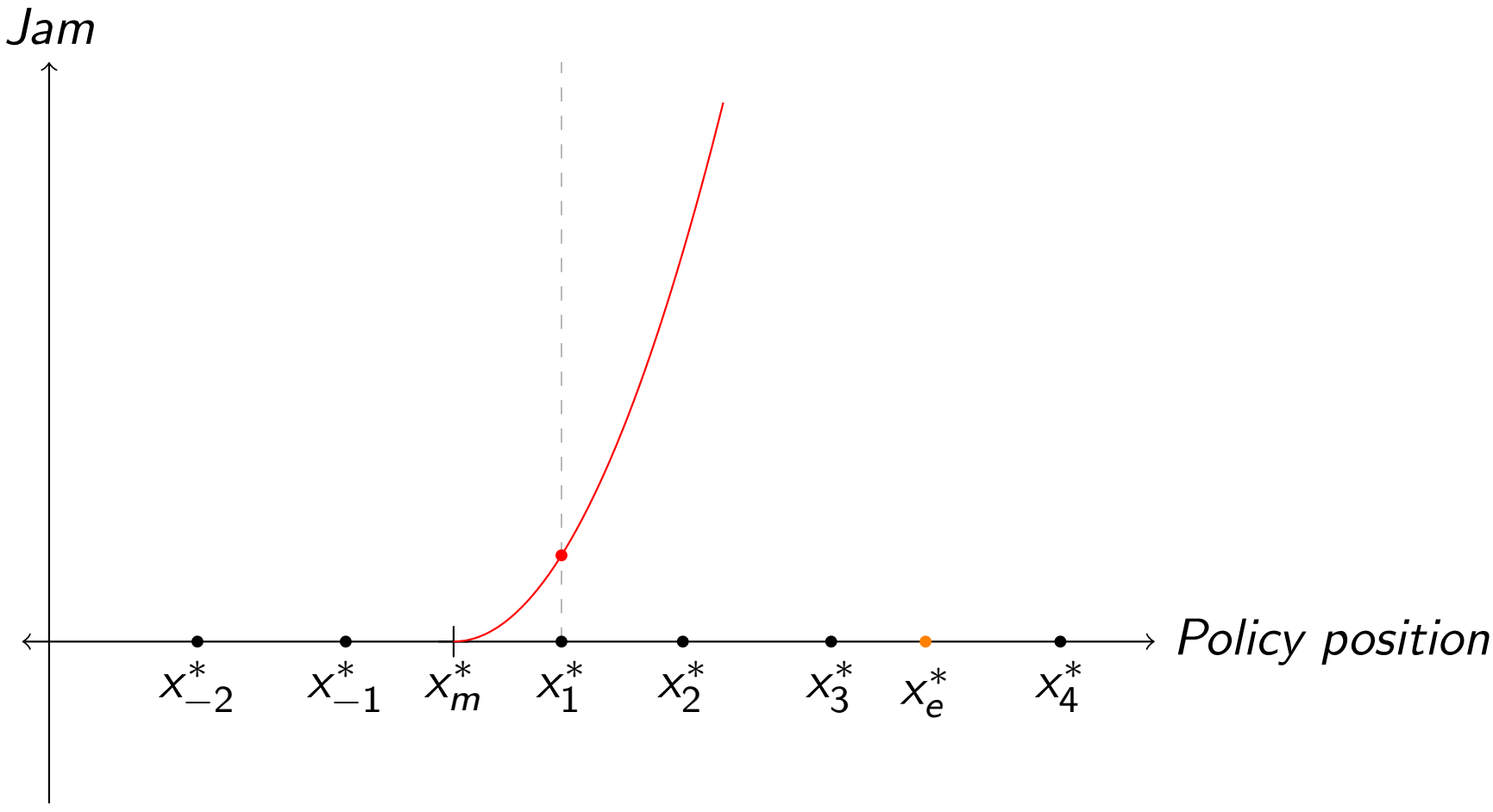
Legislators' indifference curves



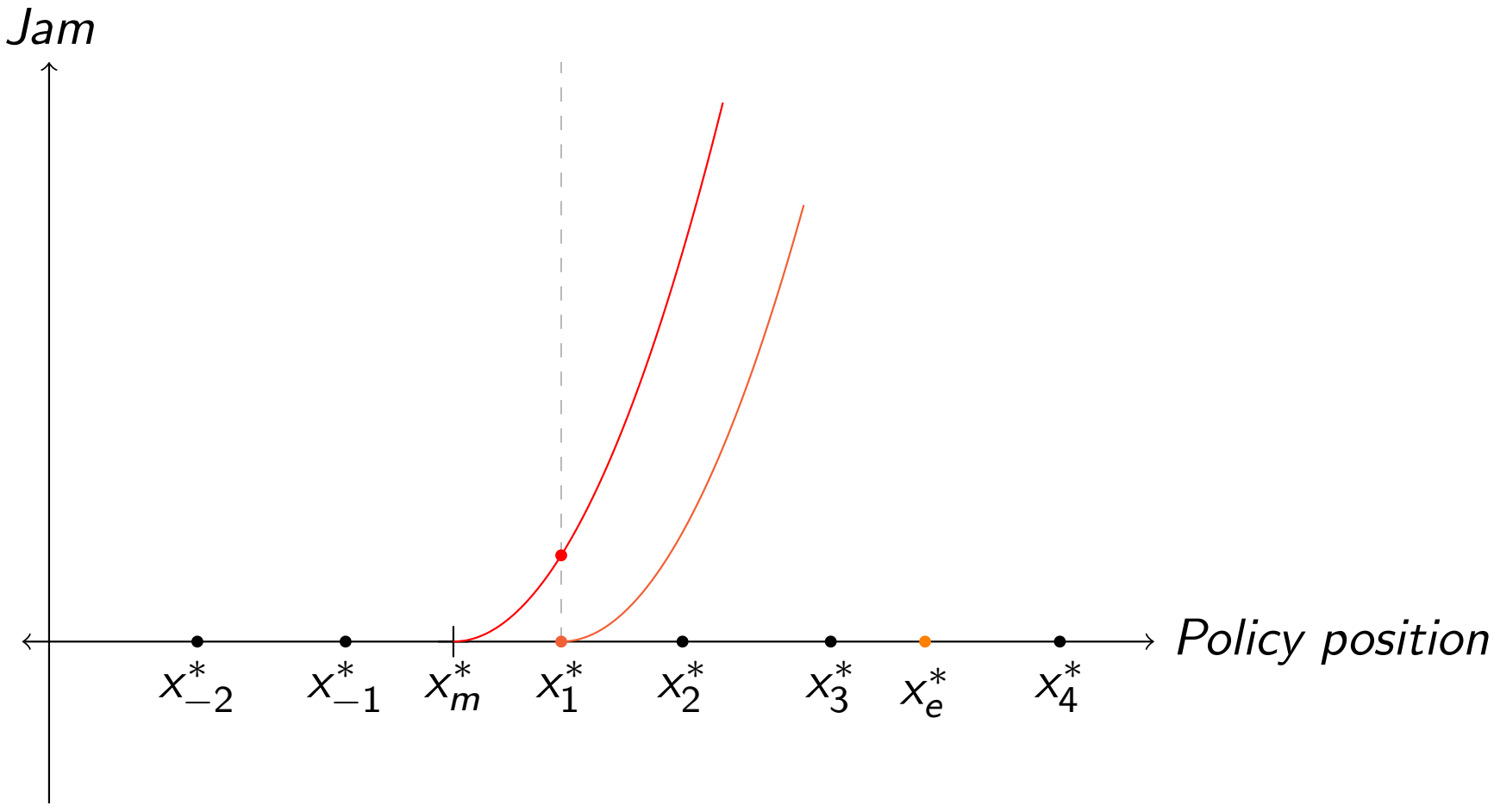
The executive targets legislators to build a strong coalition



The executive offers "jam" in exchange for "closer" policy choices



It targets legislator's according to their policy bliss points



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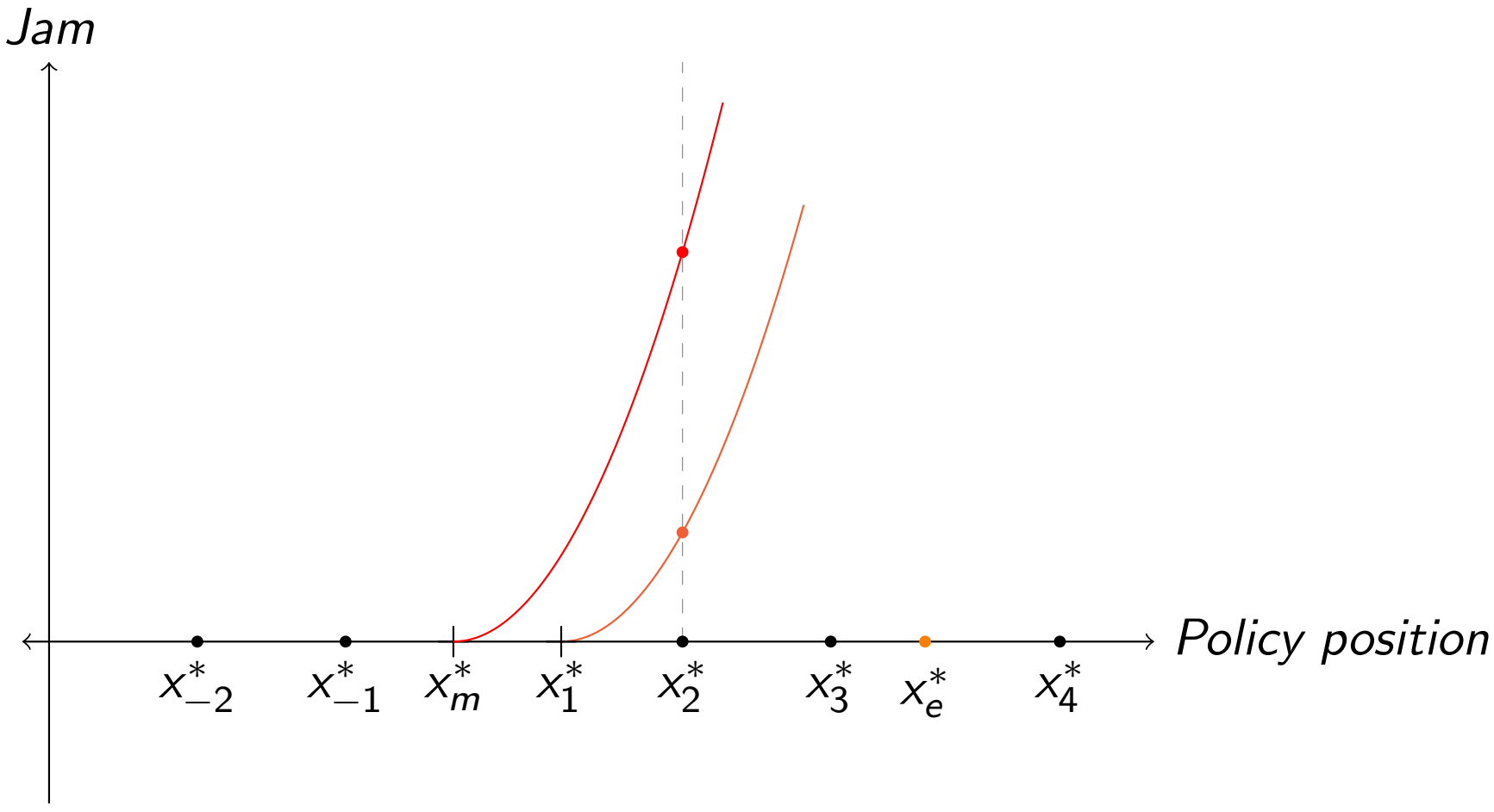

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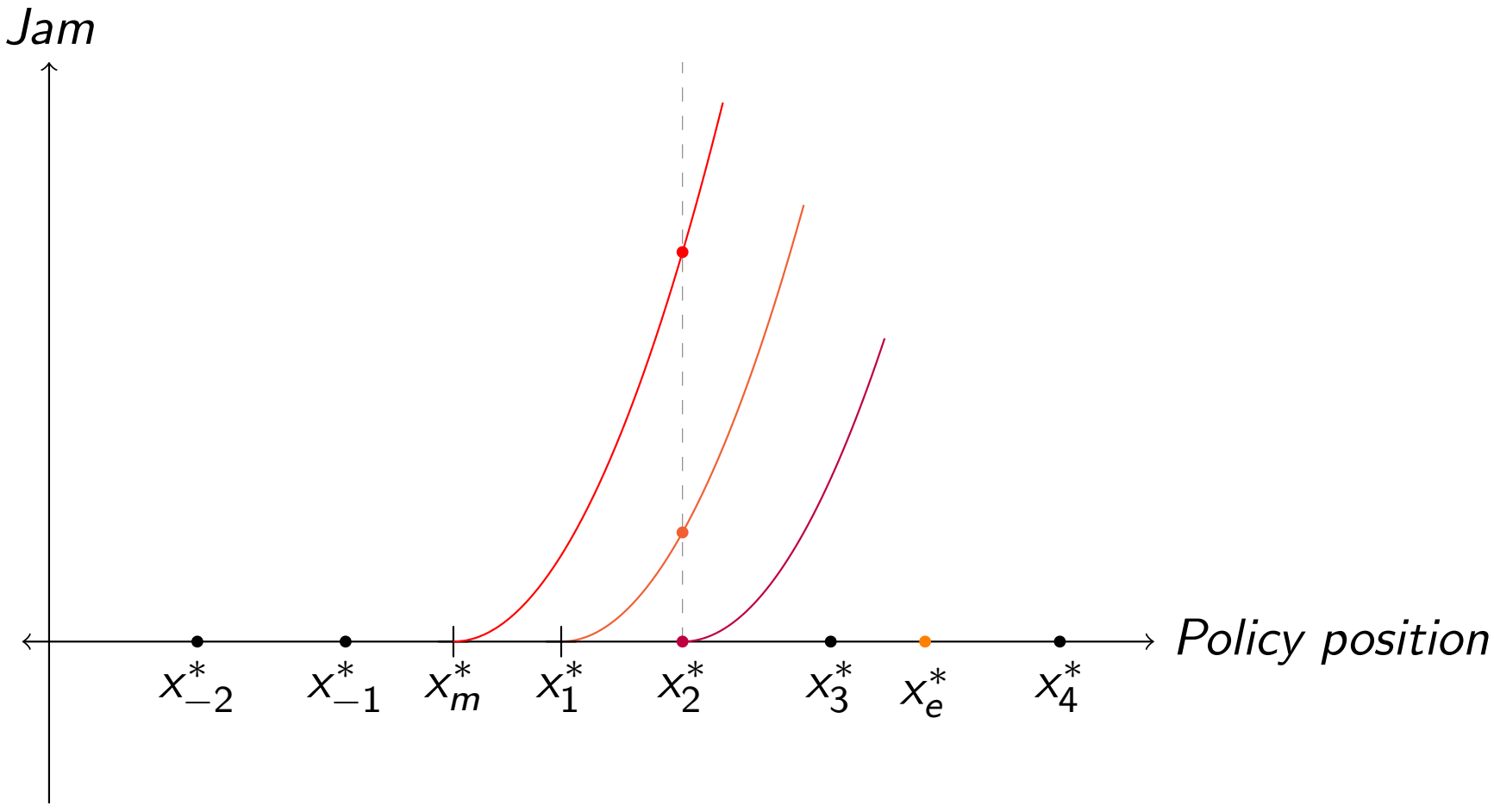

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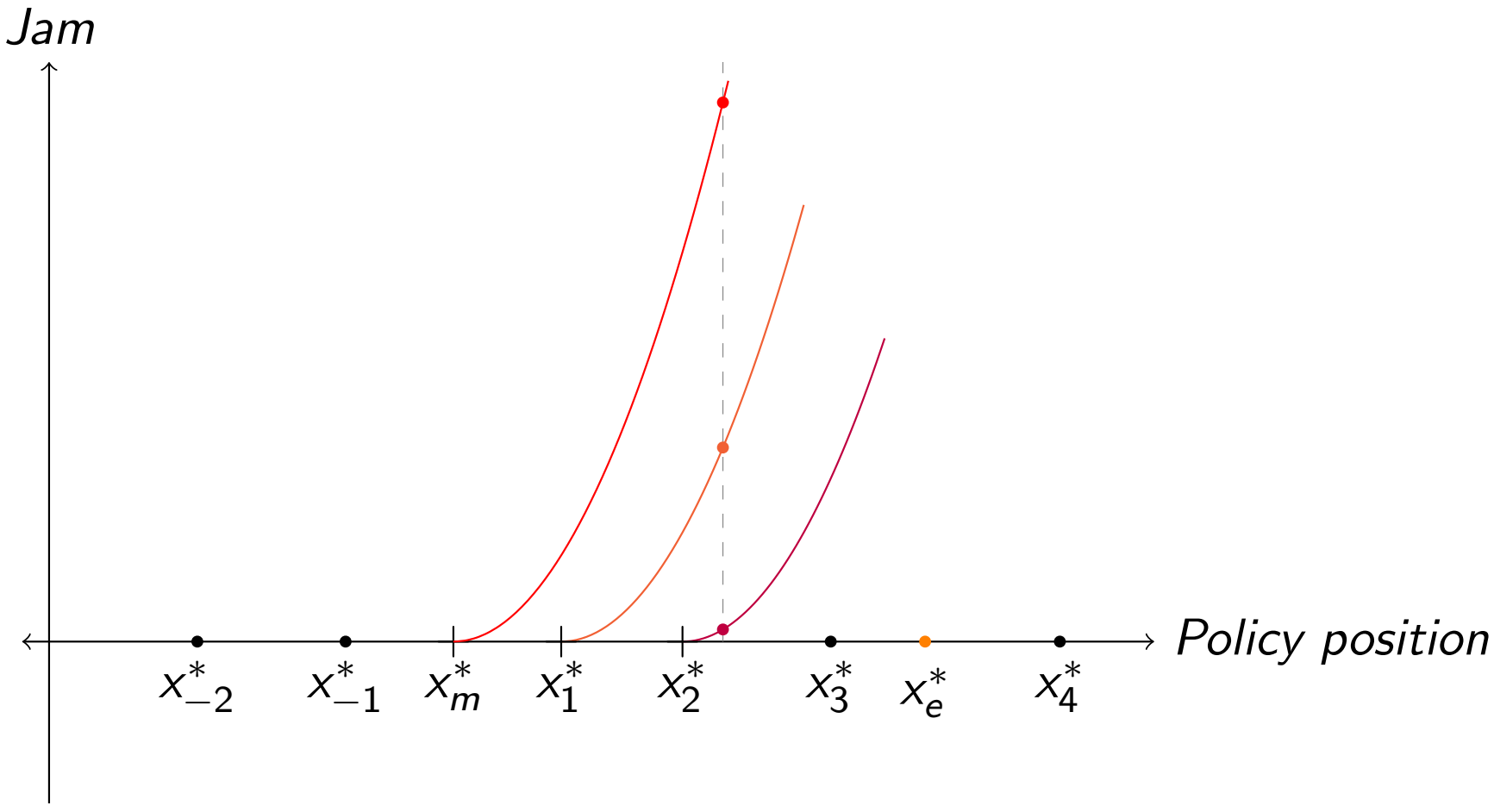
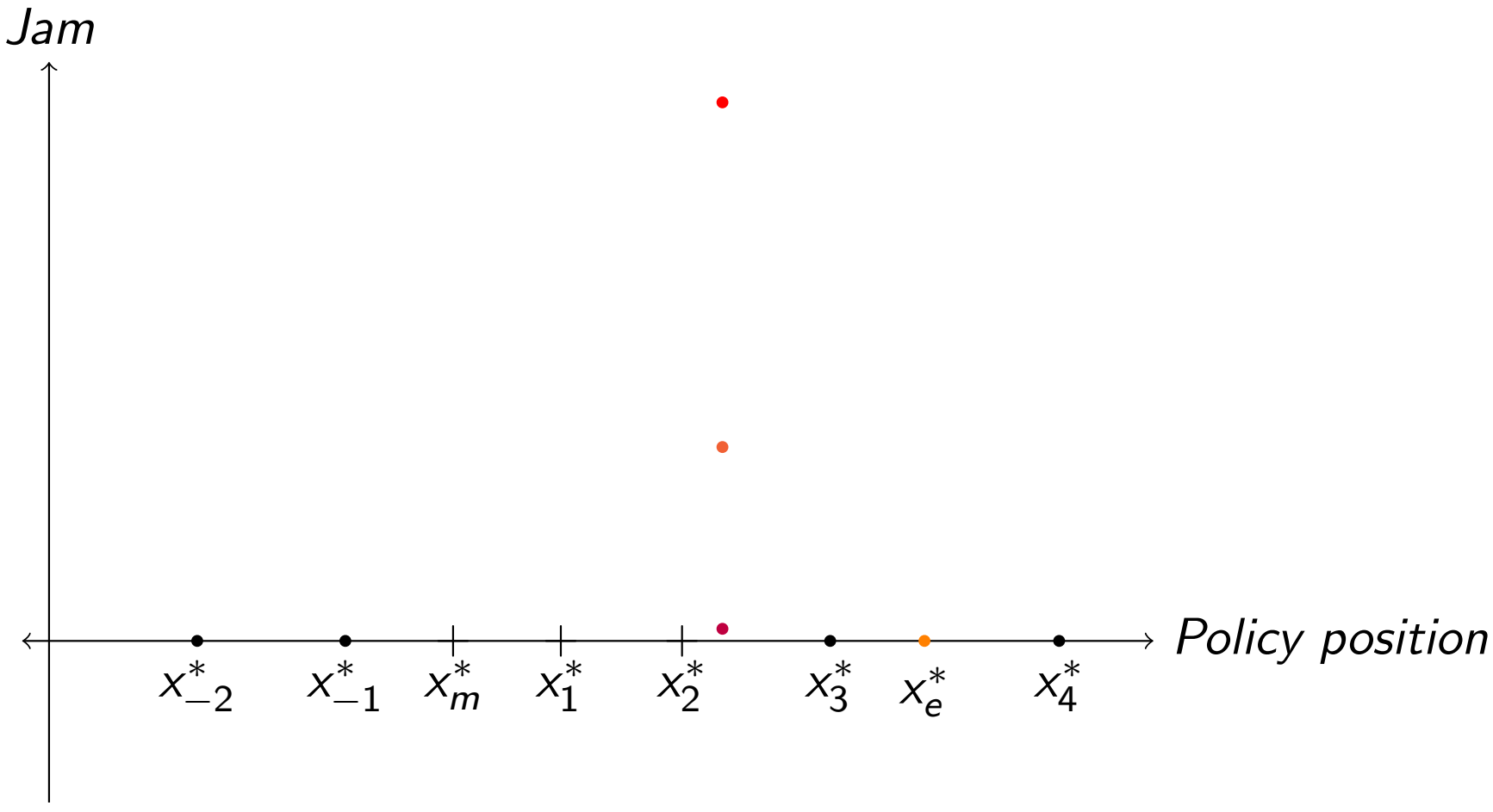


To satisfy a budget constraint



Observations

1. Legislators closer to the median are more likely to receive transfers / receive more jam

2. Conditional on receiving jam, the further the legislators start from the incumbent, the more they shift

3. The more jam a legislator receives, the more they shift their policy position

extensions

Data Sources

Road construction projects (INVIAS, SECOP)

- Tertiary roads: discretionarily assigned, financed by the national government, executed by local governments
- Location, length, total cost of roads, signature dates of each contract
- 3,500 road construction contracts signed between 2010 and 2014 (1,524 with road length)

Congresovisible.org (Universidad de los Andes)

- Congress vote for 2010-2014 government
- 291 legislators, 6,200 congressional votes, 465,000 individual votes
- Information on votes (type and chamber of vote, keywords)
- Politician information (election year, age, place of birth, party)

Leaked database

- Allegedly reveals government's assignment of projects to members of congress
- 644 projects, 129 legislators in the database

Road contracts descriptive statistics

	Non-sponsored		Sponsored		
	Mean	SD	Mean	SD	Diff p-value
Contract year	2011.418	.494	2011.981	.135	.000
Municipality area (log)	5.761	1.198	5.676	1.129	.160
Altitude (log)	6.477	1.524	6.59	1.474	.146
Ruggedness (log)	4.704	1.298	4.862	1.263	.017
Population (log)	9.732	1.079	9.674	1.018	.289
Distance to dep capital (log)	3.956	1.011	3.931	1.023	.642
Distance to Bogota (log)	5.626	.702	5.666	.698	.275
Poverty rate	42.94	20.069	44.448	20.284	.151
Road length (log)	2.246	.82	2.212	.797	.425
Total cost (log)	19.819	.844	20.149	.832	.000
Cost/km (log)	17.573	1.1	17.937	.96	.000
Unexplained cost/km (log)	-.153	.939	.209	.806	.000
Executed by municipality	.883	.322	.882	.323	.954
Executed by department	.1	.3	.115	.319	.356
N	880		644		

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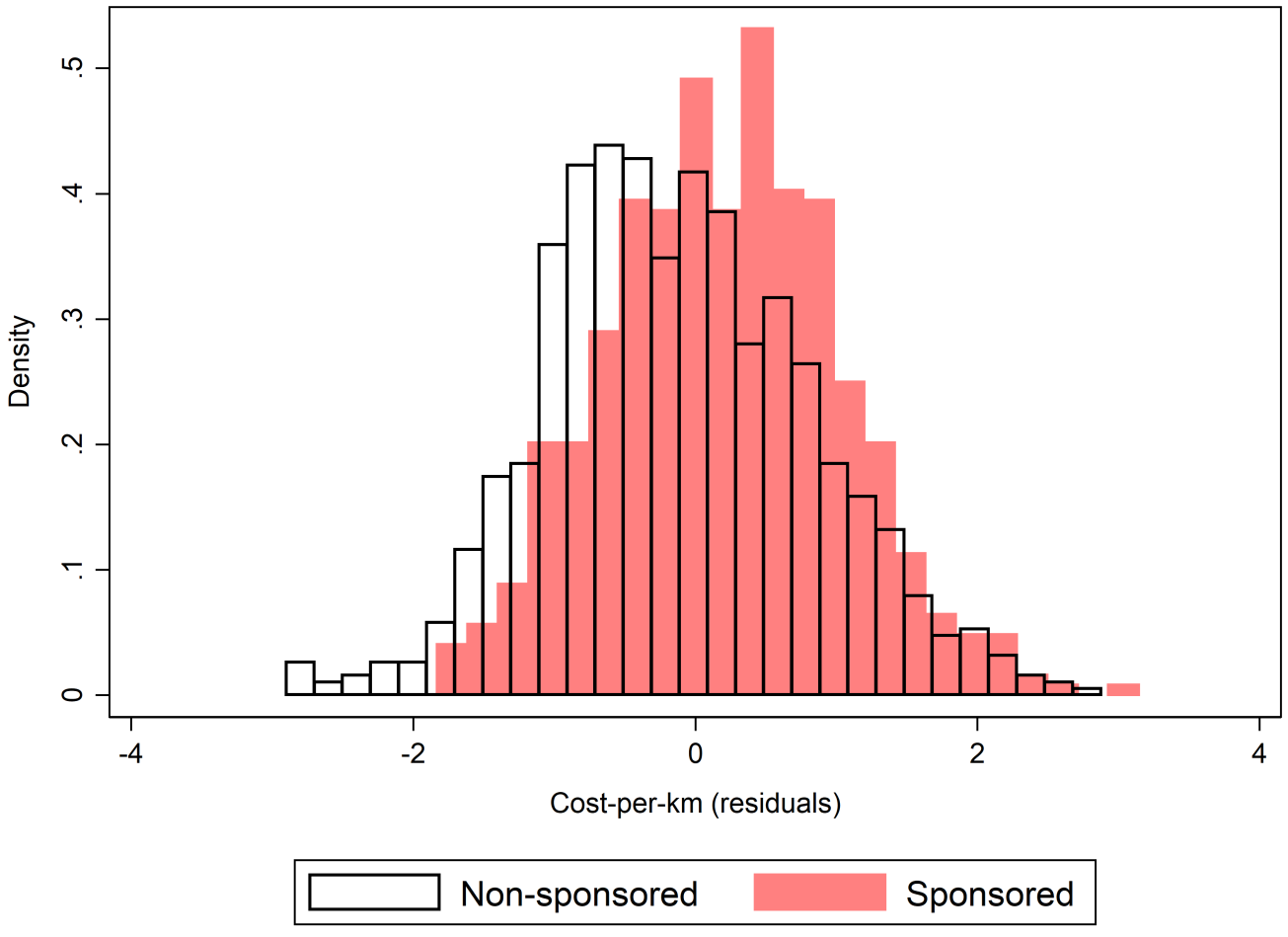
Unexplained cost-per-km



Politicians descriptive statistics

	Non-sponsors		**Sponsors**		
	Mean	SD	Mean	SD	Diff p-value
Age	48.428	9.591	47.822	8.528	0.589
Female	0.148	0.356	0.140	0.348	0.836
President's party	0.288	0.454	0.287	0.454	0.977
Government coalition	0.742	0.439	0.845	0.363	0.030
First term in Congress	0.540	0.500	0.473	0.501	0.257
Senate	0.385	0.488	0.372	0.485	0.821
Running in 2014	0.636	0.483	0.775	0.419	0.009
Reelected in 2014	0.389	0.489	0.481	0.502	0.118
N	162		129		

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Measuring political support for the incumbent party

$$voteValue_{rv} = \begin{cases} 1 \text{ if approved} \\ 0 \text{ if abstained} \\ -1 \text{ if rejected} \end{cases}$$

$$alignedVote_{rv} = \mathbb{1}\left(sgn(voteValue_{rv}) = sgn(\frac{\sum_{\forall j \in PU_v} voteValue_{jv}}{|PU_v|}) \right)$$

across parties

Estimating political alignment index

- We create a time-invariant index of political-alignment with the incumbent party
- Ideally we would like the policy "bliss point" of each politician (in terms of alignment with the PU)
- But we only observe "equilibrium" outcome after political process, including distribution of jam

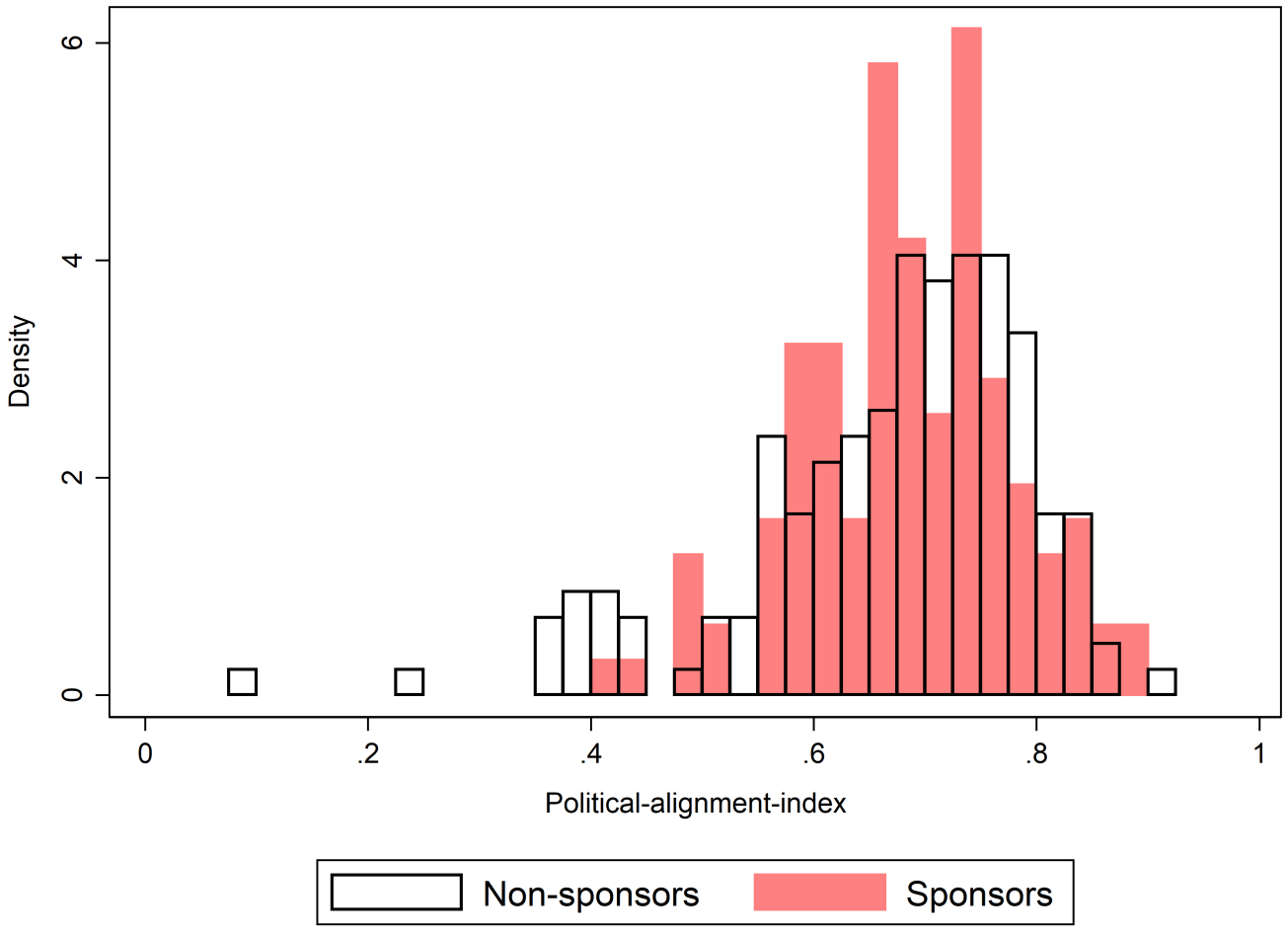
Estimating political alignment index

We estimate the political alignment index ($alignmentIndex_r$) using fixed effects:

$$alignedVote_{rvt} = \gamma_r + \gamma_v + \varepsilon_{rvt} \mid jam_{rvt} = 0$$

- For politician r, congressional vote v, at time t
- $jam_{rvt} = 1$ if the vote occured within 10-month window of contract signed
- Dealing with mechanical mean-reversion: We estimate using half of the data set (randomly selected) and use the rest for analysis
- Alternative measures: 1) using all votes, 2) using only votes (5 months) before the first contract is signed

Political alignment index by contract sponsorship



alternative indeces

Table: Relationship between political-alignment-index and being a contract sponsor

	Is sponsor			Num. contracts		
	(1)	(2)	(3)	(4)	(5)	(6)
Political-alignment-index	0.303	3.364***		-0.642	17.76***	
	(0.222)	(1.195)		(1.614)	(6.471)	
Political-alignment-index (sq)		-2.517**			-15.13***	
		(1.025)			(5.268)	
Distance to median			-0.956***			-3.907*
			(0.299)			(2.216)
N	292	292	292	292	292	292

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

alternative indeces

Research design (baseline)

Is the overall alignment of legislators different after the date of contract signature?

$$alignedVote_{rvt} = \alpha + \beta post_{rt} + \gamma_r + \gamma_v + \varepsilon_{rvt}$$

$alignedVote_{rvt}$: 1 if vote aligned with incumbent position

$post_{rt}$: 1 if vote occurs in the period after contract signed

γ_r : politician fixed effects

γ_v : congressional-vote fixed effects

Baseline analysis

Table: Relationship between contract signature and vote-alignment

	(1)	(2)	(3)
post contract signed	0.00756	0.00981	0.00980
	(0.0109)	(0.0120)	(0.0126)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Heterogeneity across political alignment

Do legislators who are less aligned with the incumbent increase their support *more* after being assigned these contracts?

$$alignedVote_{rvt} = \alpha + \beta_1 post_{rt} + \beta_2 post_{rt}.alignmentIndex_r + \gamma_r + \gamma_v + \varepsilon_{rvt}$$

$alignedVote_{rvt}$: 1 if vote aligned with incumbent

pre_{rt} : 1 if vote occurs in the period before contract signed

$post_{rt}$: 1 if vote occurs in the period after contract signed

$alignmentIndex_r$: estimated political alignment of legislator r

γ_r : politician fixed effects

γ_v : congressional-vote fixed effects

Table: Relationship between contract signature and incumbent support by political-alignment

	(1)	(2)	(3)
post contract signed	0.179***	0.189***	0.192**
	(0.0668)	(0.0707)	(0.0804)
post-cs x PAindex	-0.249***	-0.261***	-0.266**
	(0.0937)	(0.0991)	(0.114)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Heterogeneity across contract characteristics

Does the alignment of legislators shift more depending on the amount of jam received received?

$$alignedVote_{rvt} = \alpha + \beta_1 post_{rt} + post_{rt}.X'_{rt}\boldsymbol{\beta}_2 + \gamma_r + \gamma_v + \varepsilon_{rvt}$$

$alignedVote_{rvt}$: 1 if vote aligned with incumbent

pre_{rt} : 1 if vote occurs in the period before contract signed

$post_{rt}$: 1 if vote occurs in the period after contract signed

X_{rt} : characteristics of contract assigned to r around time t

γ_r : politician fixed effects

γ_v : congressional-vote fixed effects

Heterogeneity across contract characteristics

- How can we measure 'jam'?
- We use two main characteristics of these projects:
  - Length of project in kilometers (social value of project)
  - Cost-per-km of project (opportunities for private rent-seeking?)

Table: Relationship between contract characteristics and vote-alignment

	(1)	(2)	(3)
post contract signed	-0.0454	-0.0480	-0.0017
	(0.0285)	(0.0296)	(0.0324)
post-cs x log KM	0.0155	0.0174	-0.0001
	(0.0105)	(0.0111)	(0.0119)
post-cs x avg. cost-per-km	0.0068**	0.0067**	0.0047**
	(0.0029)	(0.0028)	(0.0022)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Heterogeneity across both dimensions

- Are swing legislators more responsive to jam?
- Split legislators in two groups:
  - far from median ($<$25th or $>$75th percentile in the political-alignment index)
  - close to median (25th to 75th percentile in the political-alignment index)

Table: Relationship between contract characteristics and vote-alignment (far from median)

	(1)	(2)	(3)
post contract signed	0.0022	0.0002	0.0388
	(0.0402)	(0.0430)	(0.0480)
post-cs x log KM	0.0124	0.0160	-0.0028
	(0.0176)	(0.0199)	(0.0203)
post-cs x avg. cost-per-km	0.0014	0.0004	0.0018
	(0.0060)	(0.0060)	(0.0063)
N	112955	112955	112955
N-clusters	146	146	146
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (close to median)

	(1)	(2)	(3)
post contract signed	-0.1012**	-0.1007**	-0.0485
	(0.0401)	(0.0416)	(0.0450)
post-cs x log KM	0.0246*	0.0247*	0.0085
	(0.0133)	(0.0138)	(0.0145)
post-cs x avg. cost-per-km	0.0100***	0.0100***	0.0056***
	(0.0026)	(0.0026)	(0.0020)
N	119472	119472	119472
N-clusters	145	145	145
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Heterogeneity across repeat contracts

- Are legislators that sponsor more than one contract more responsive?
- Split legislators in groups:
  - receive one or zero contracts
  - receive 2+ or zero contracts

Table: Relationship between contract characteristics and vote-alignment (one contract)

	(1)	(2)	(3)
post contract signed	0.0785	0.0826	0.0409
	(0.0556)	(0.0573)	(0.0554)
post-cs x log KM	-0.0064	-0.0069	0.0030
	(0.0188)	(0.0211)	(0.0192)
post-cs x avg. cost-per-km	-0.0133	-0.0122	-0.0090
	(0.0096)	(0.0106)	(0.0106)
N	144955	144955	144955
N-clusters	189	189	189
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (2+ contracts)

	(1)	(2)	(3)
post contract signed	-0.0572*	-0.0622*	0.0102
	(0.0316)	(0.0324)	(0.0359)
post-cs x log KM	0.0170	0.0197	-0.0081
	(0.0124)	(0.0128)	(0.0140)
post-cs x avg. cost-per-km	0.0101***	0.0100***	0.0065***
	(0.0026)	(0.0023)	(0.0022)
N	213293	213293	213293
N-clusters	269	269	269
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Detecting affected congressional votes

- Which congressional votes were most affected?
- We repeat the regression 6,200 times, excluding one congressional vote each time:

$$alignedVote_{rvt} = \alpha + \beta_1 post_{rt} + post_{rt}.X'_{rt}\boldsymbol{\beta}_{post} + \gamma_r + \gamma_v + \varepsilon_{rvt}$$

- We sort votes by β^v_{post} (for cost-per-km), where v is the excluded vote
- Votes with lower β^v_{post} were more affected: (preliminary results) votes related to tax reform in December 2013

Conclusion

- Jam-barrel politics is a grey area between politician duties (as the government claimed) and corruption (as the opposition claimed)
- Sponsored contracts were 35%-39% more costly (in cost per kilometer)
- Swing legislators were more likely to be assigned contracts
- Legislators increase their support for the incumbent with cost-per-km but not with overall length
- Legislators who received multiple contracts were more responsive (increase their support more)

Thank you!

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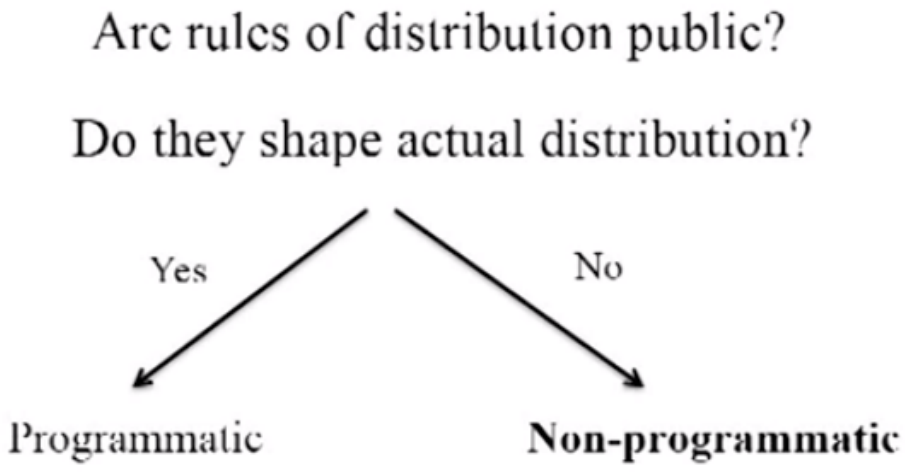
Related literature

"Representatives receive more benefits when they vote more often with their party" (Cann and Sidman, 2011)

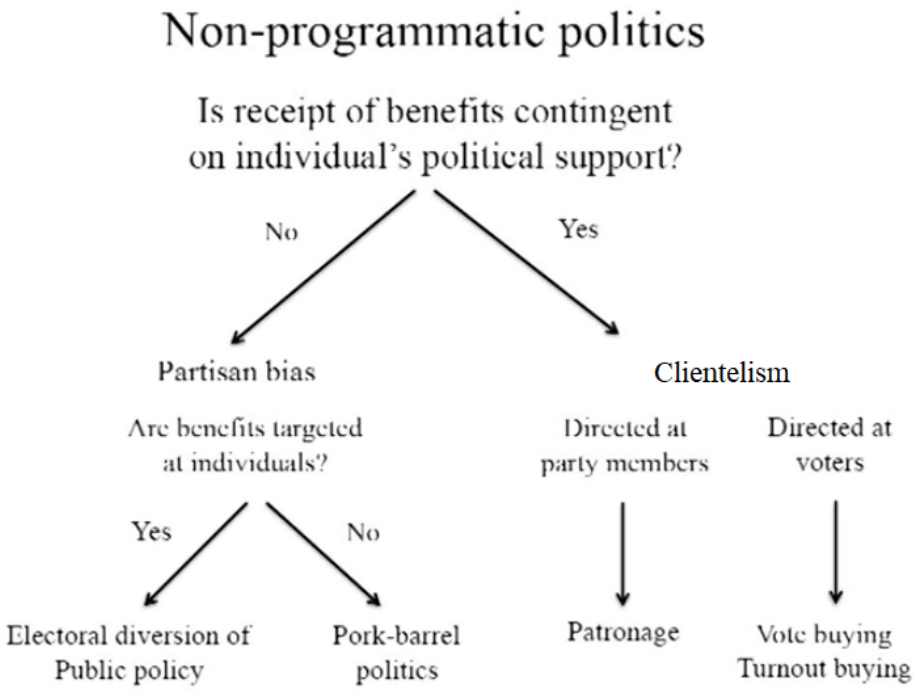
"ideological moderates receive more distributive outlays than do ideological extremists" (Alexander et al, 2015)

Distributive politics



Source: Stokes et al (2013)

Distributive politics



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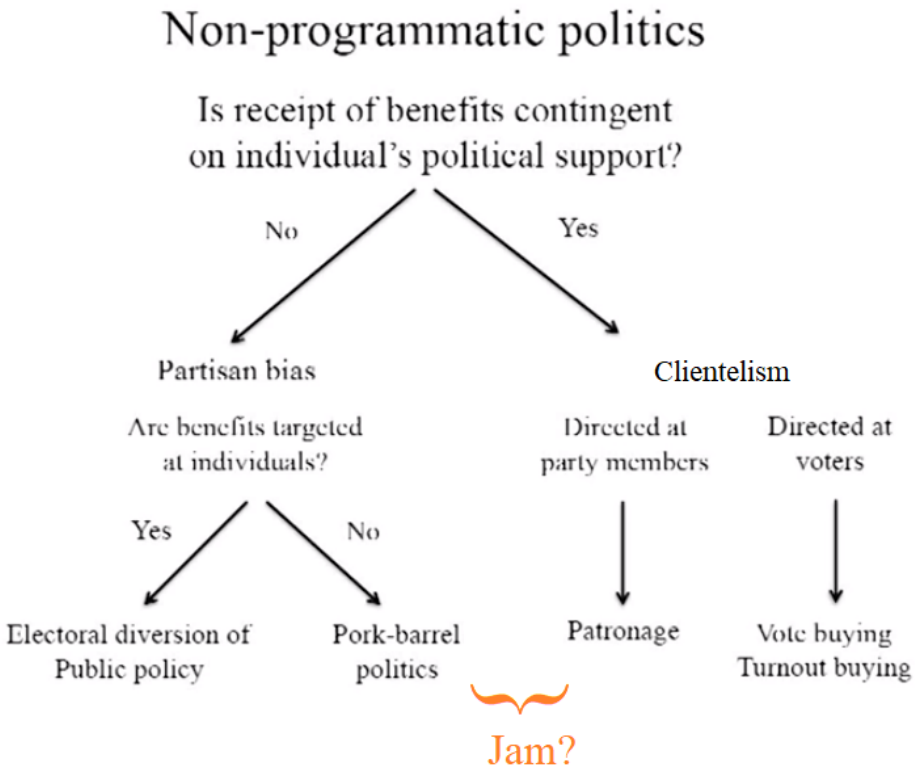
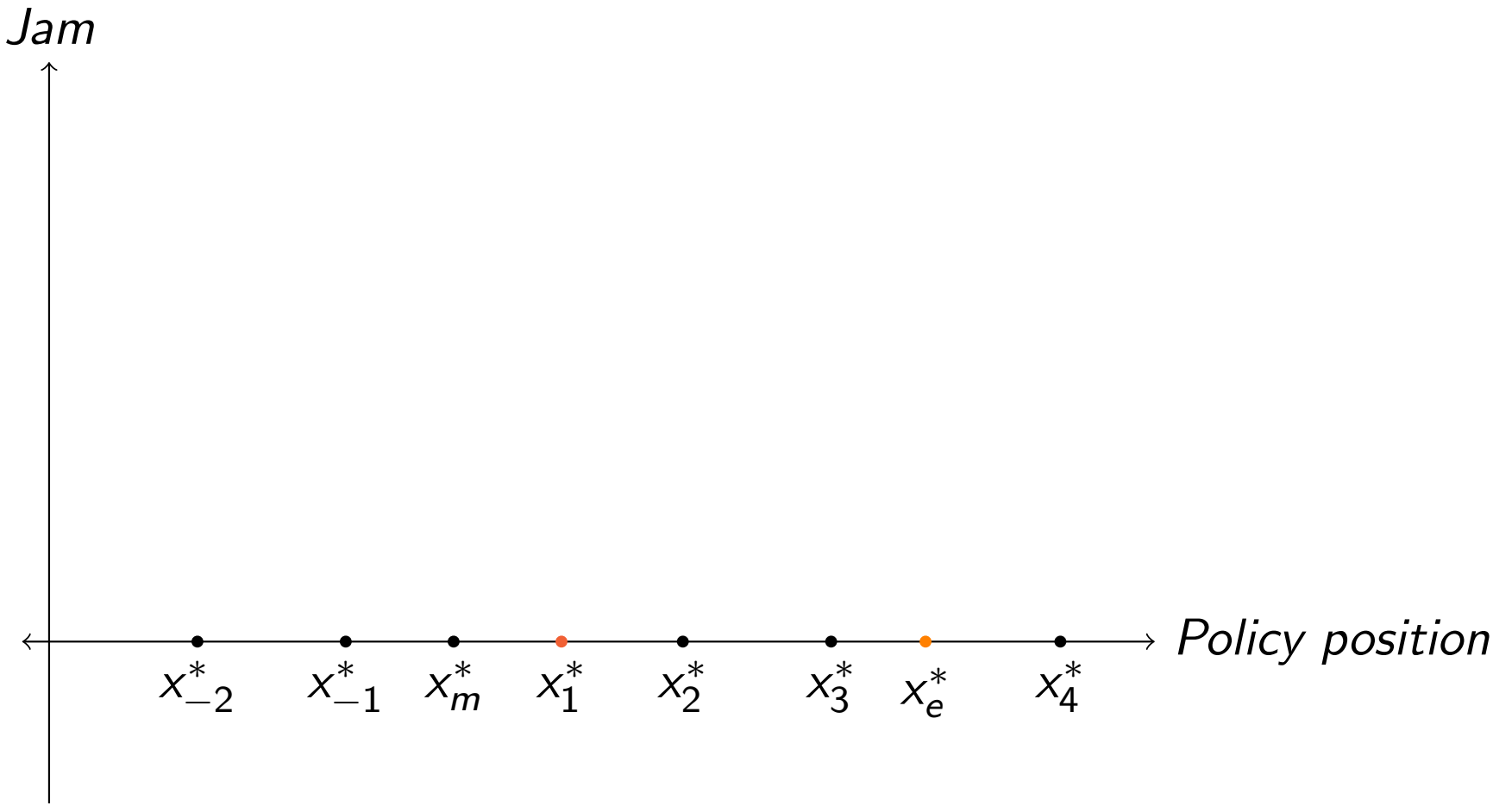
Distributive politics



Source: Stokes et al (2013)

Dynamic incentives and commitment



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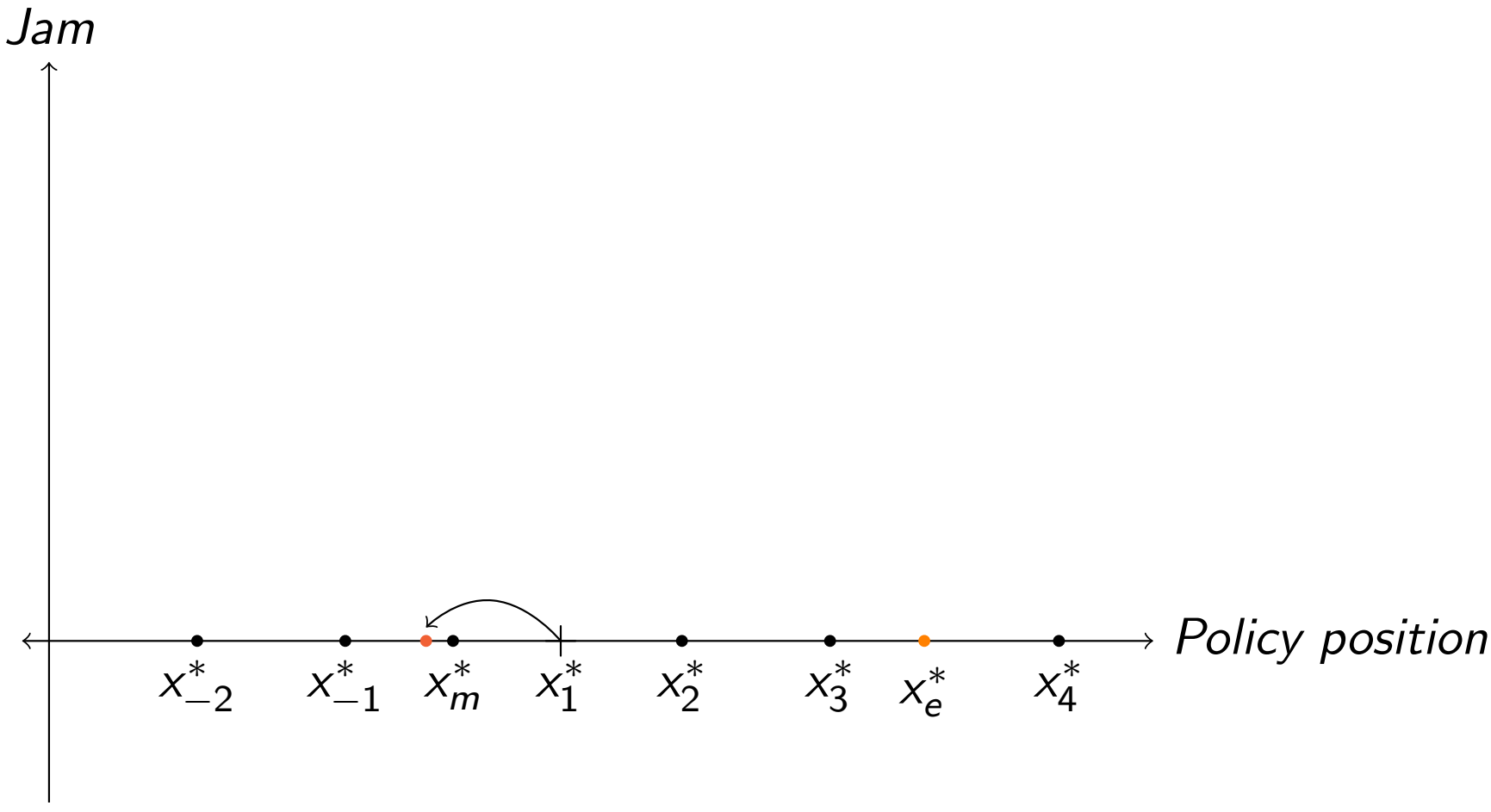

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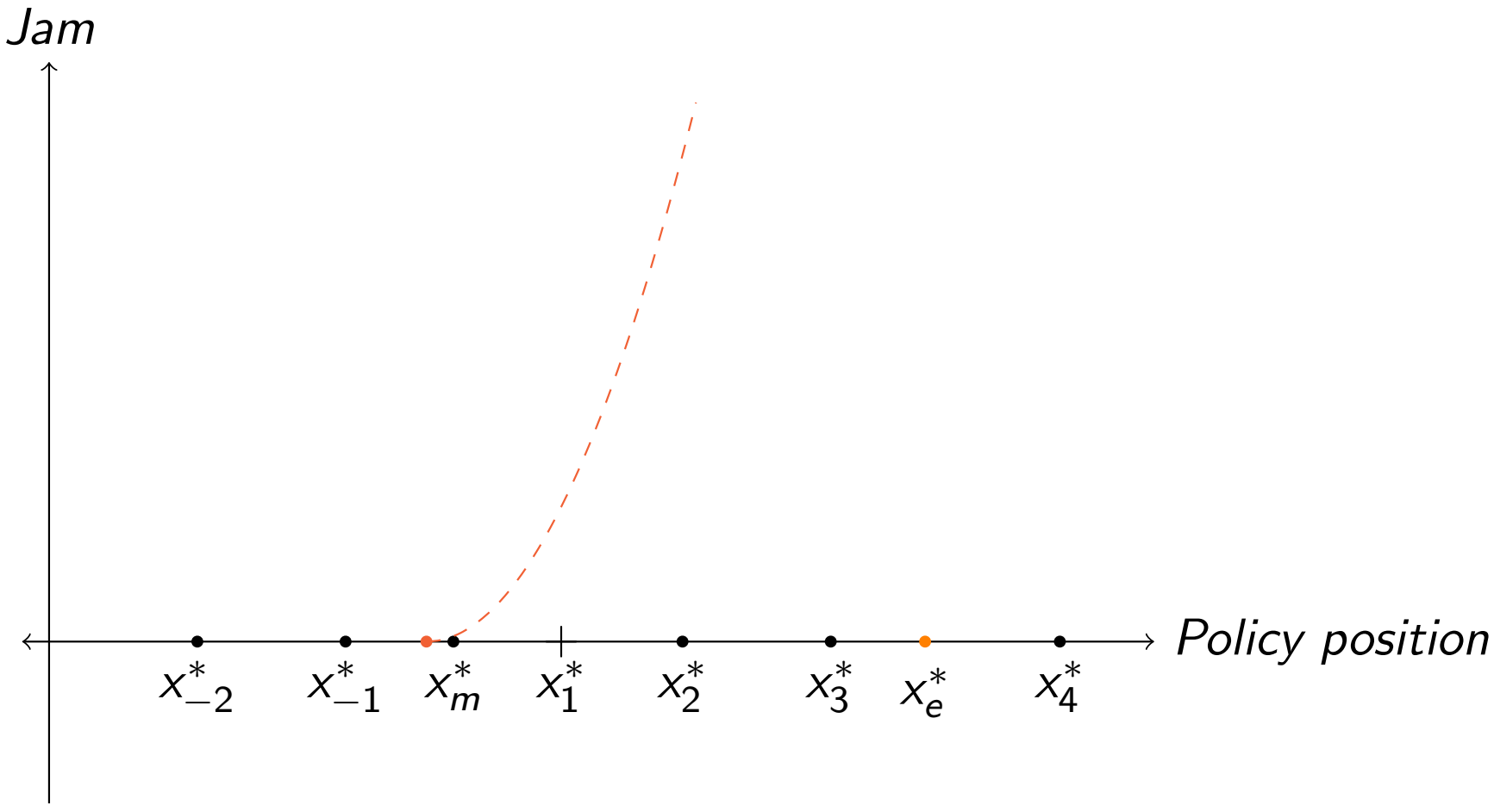

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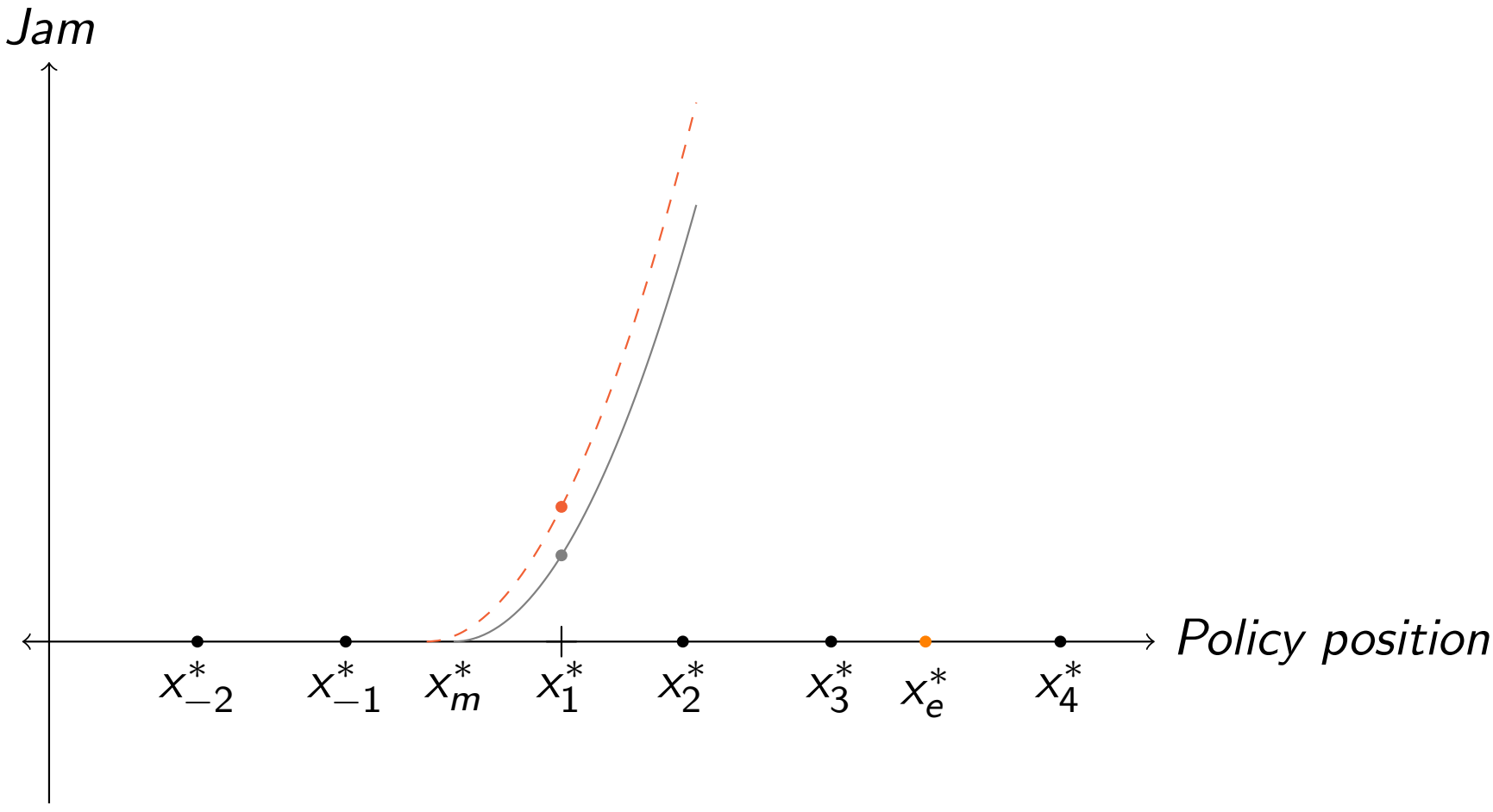

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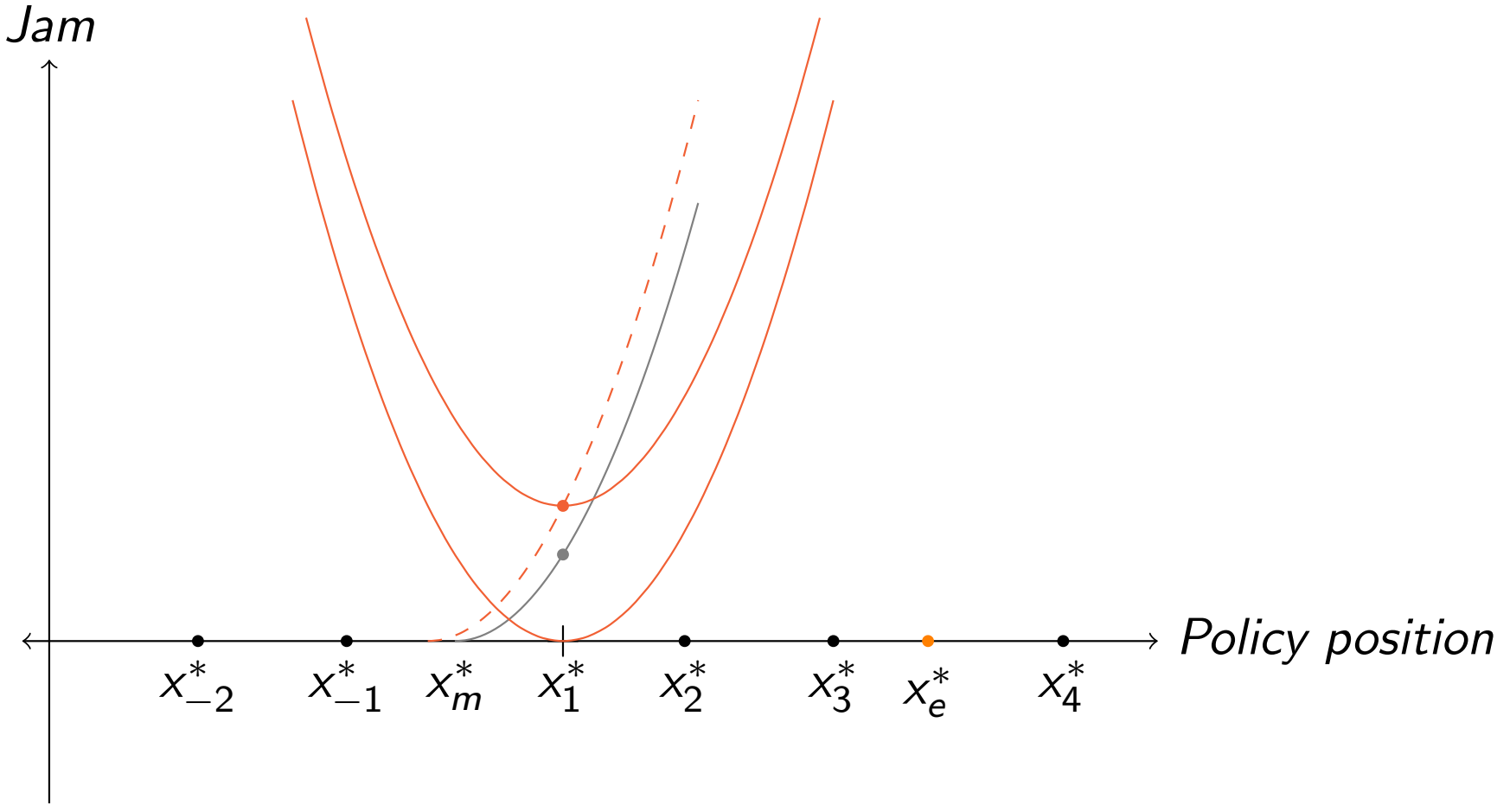
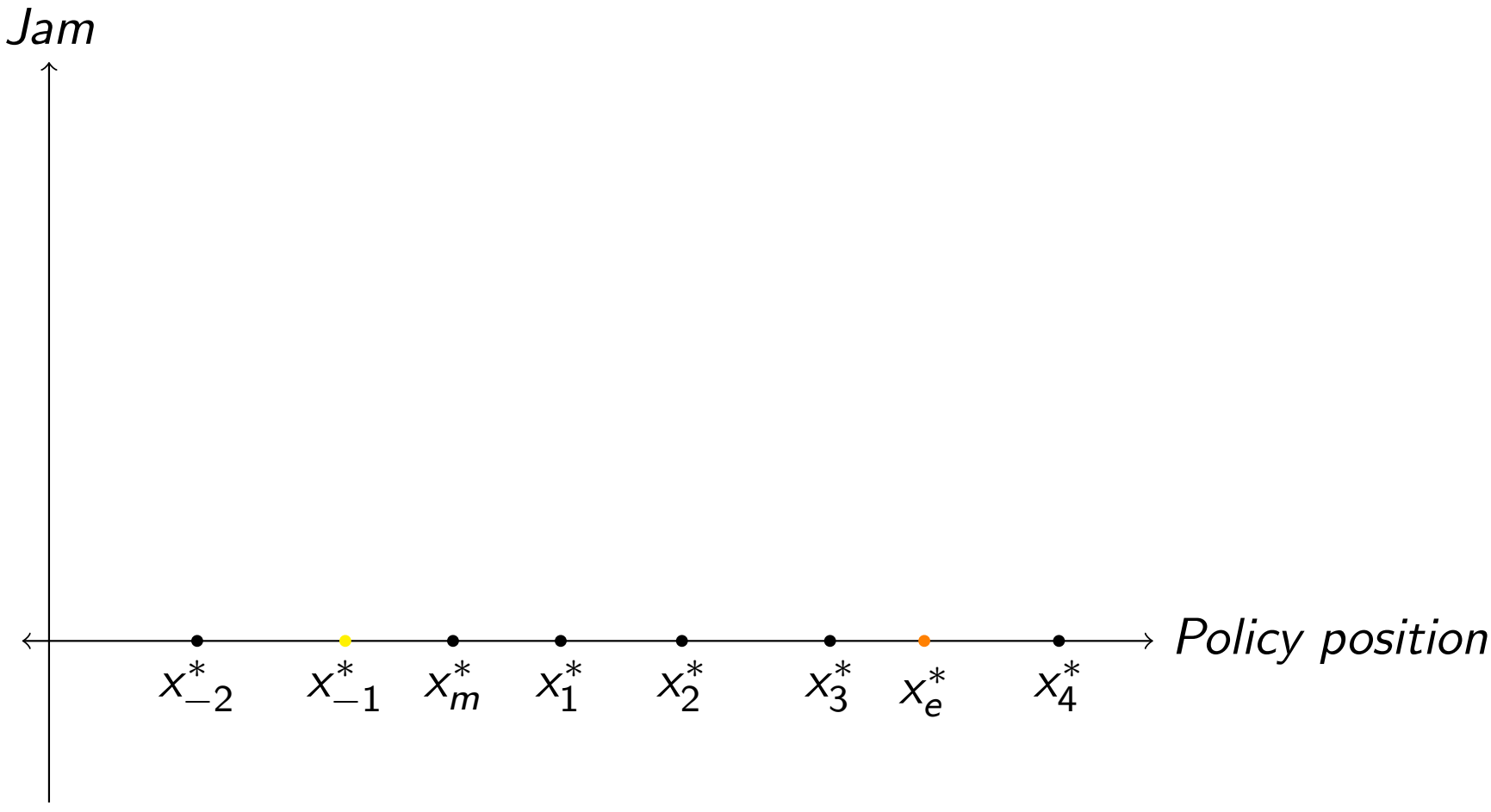
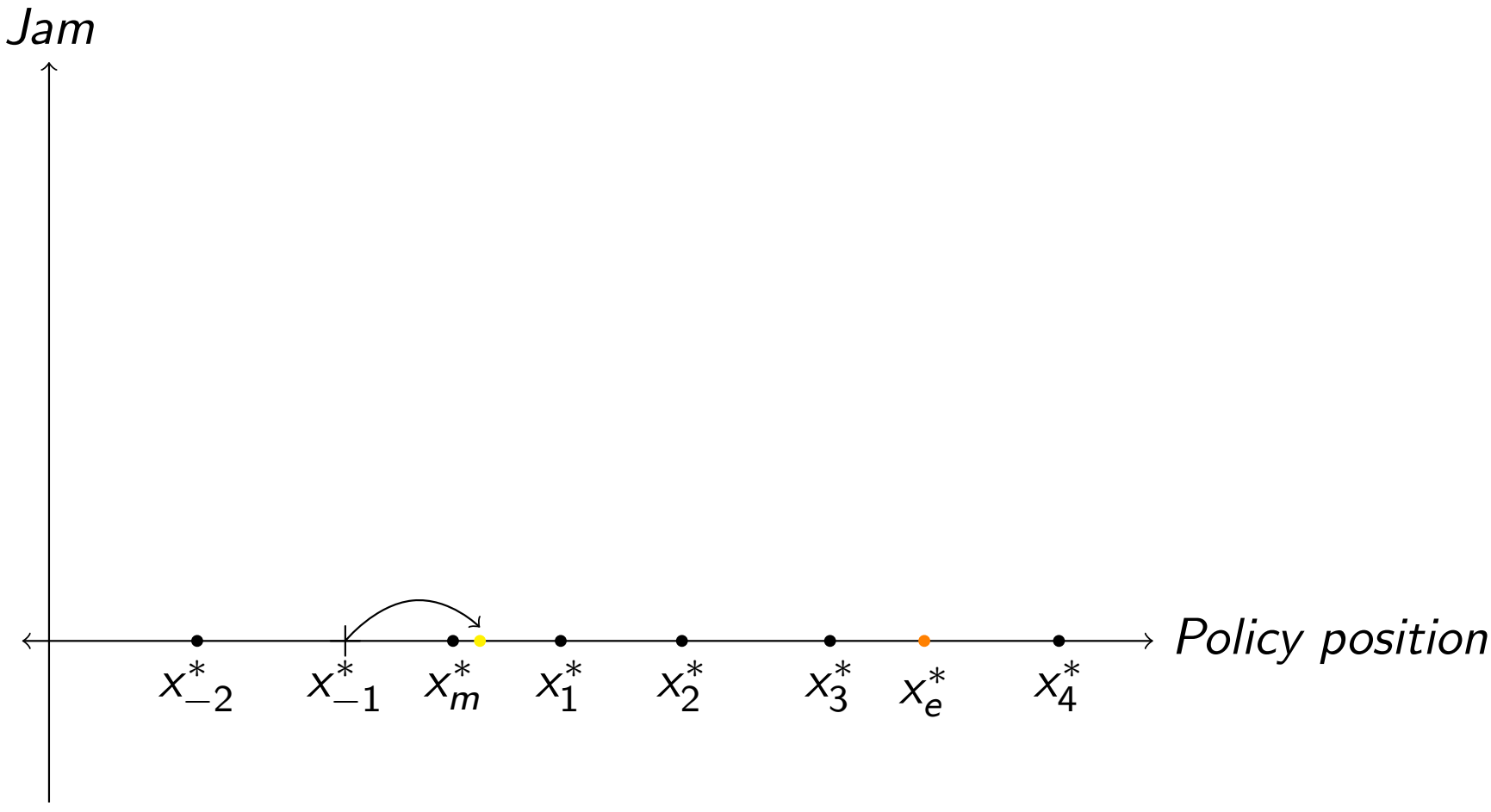


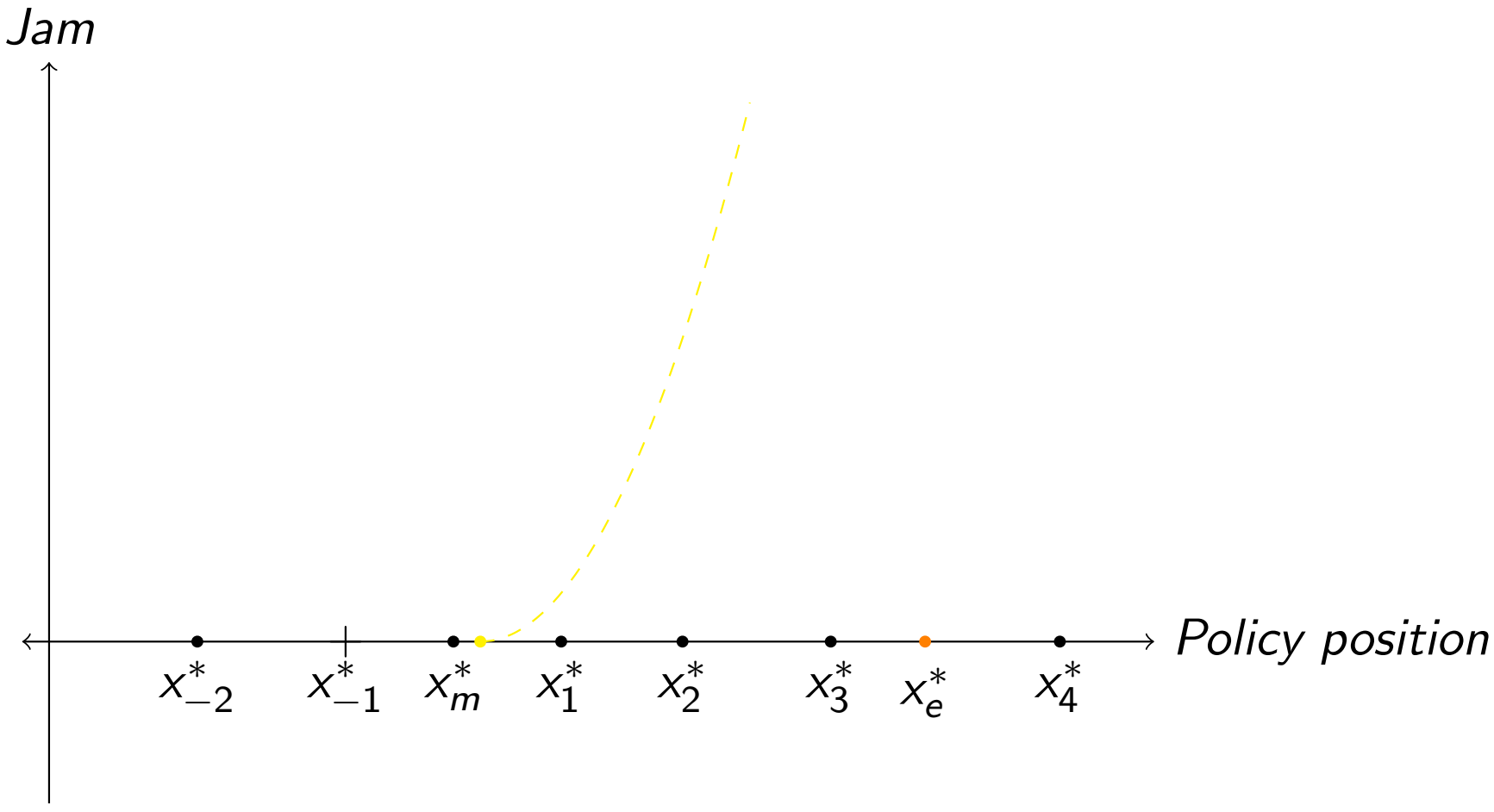
Dynamic incentives and commitment



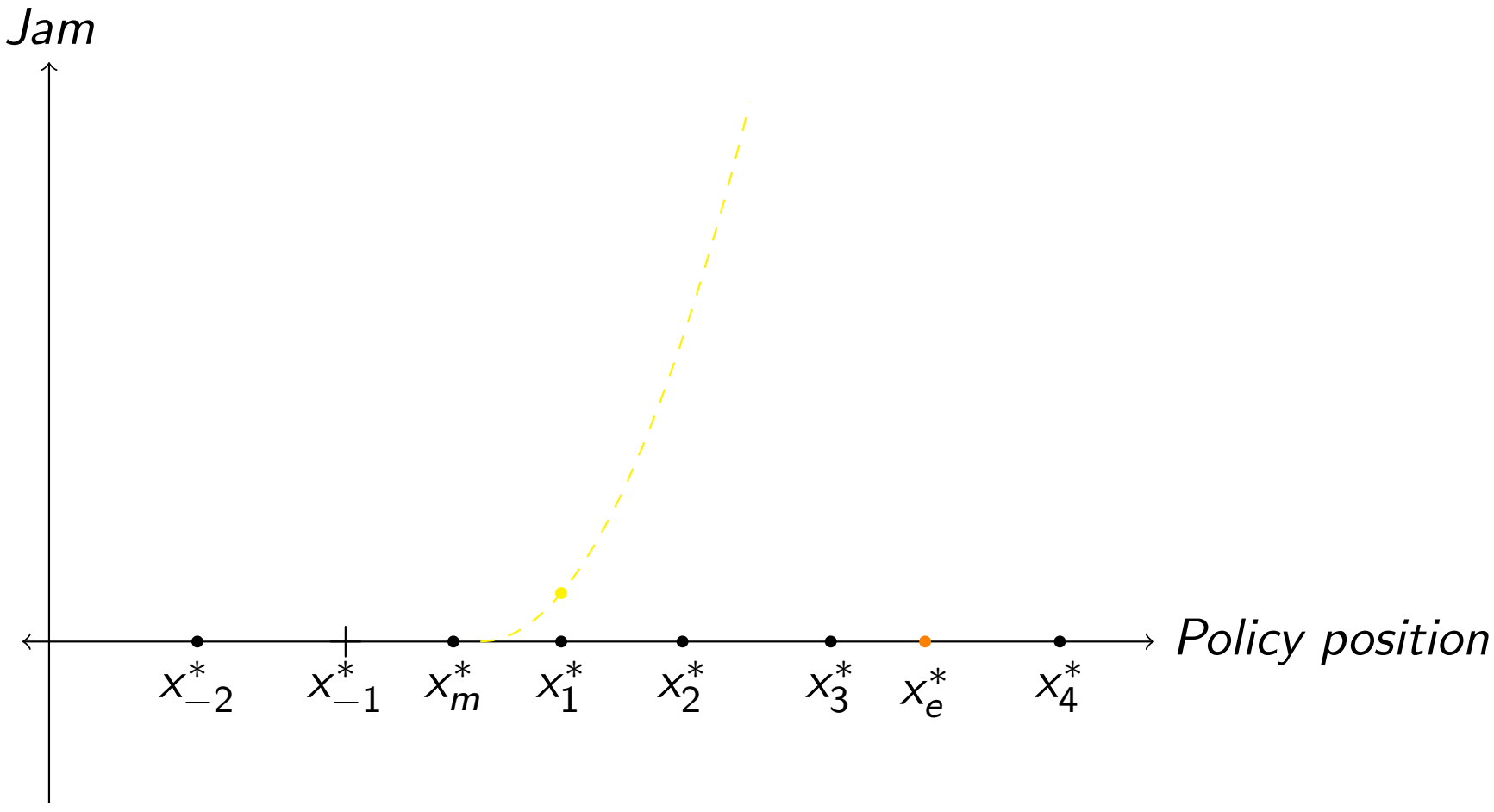
Dynamic incentives and commitment



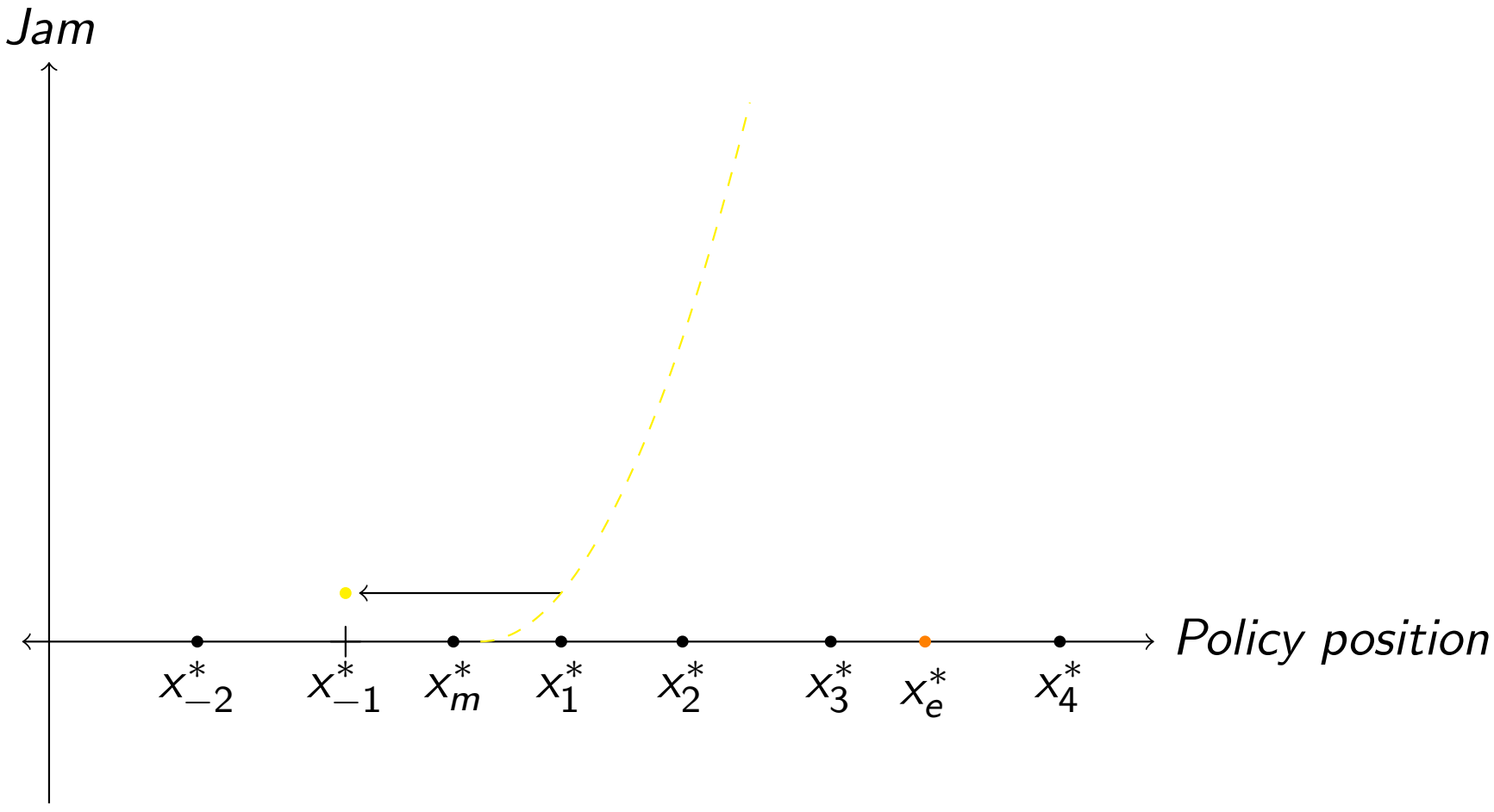
Dynamic incentives and commitment



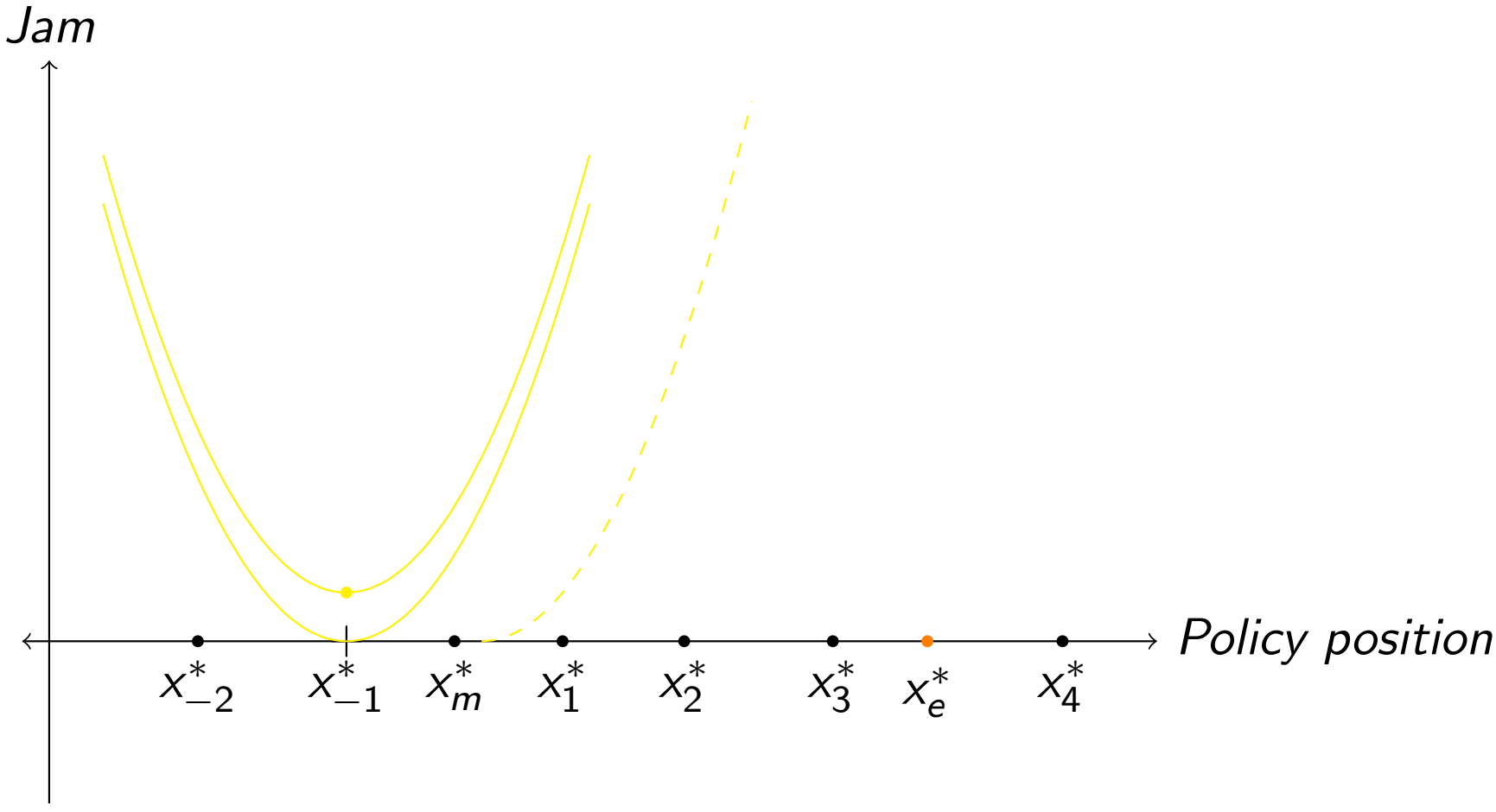
Dynamic incentives and commitment



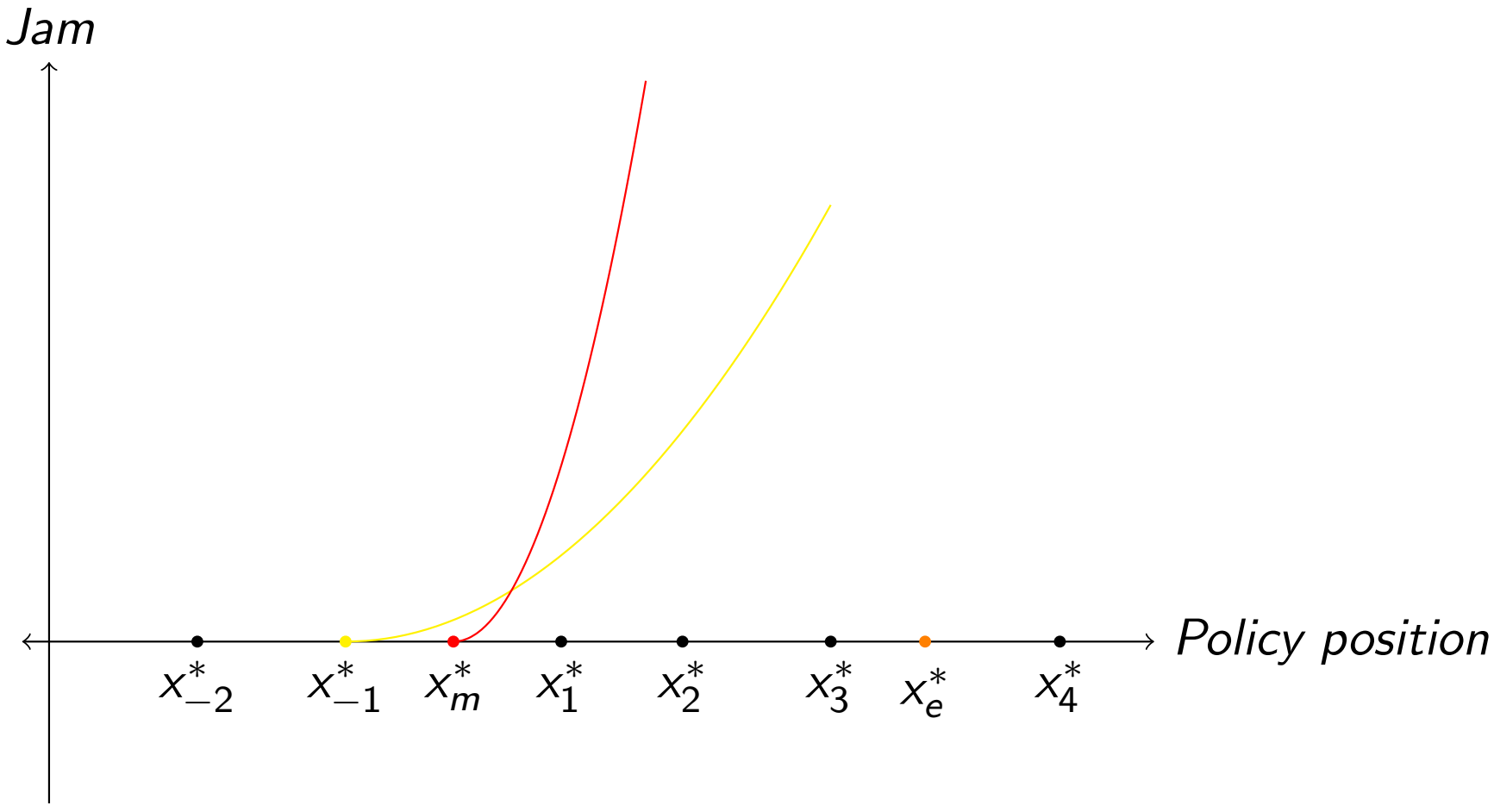
Dynamic incentives and commitment



Dynamic incentives and commitment



Dynamic incentives and commitment



Dynamic incentives and commitment

Observations:

4. Legislators have incentives to move closer to the median to receive transfers / executive may target differently across time

5. If we have repeated interactions, legislators that are more commited to transfers (or who have higher β) will get more projects

back

Historical Timeline

May 2010	President Santos elected with Uribe's support
2011-2012	Santos distances himself from Uribe (in particular in regards to FARC)
Jan 2013	Centro Democratico formed
Dec 2013	CD leaks **"palace computer" document**
2014	Santos re-elected president, Uribe elected Senator

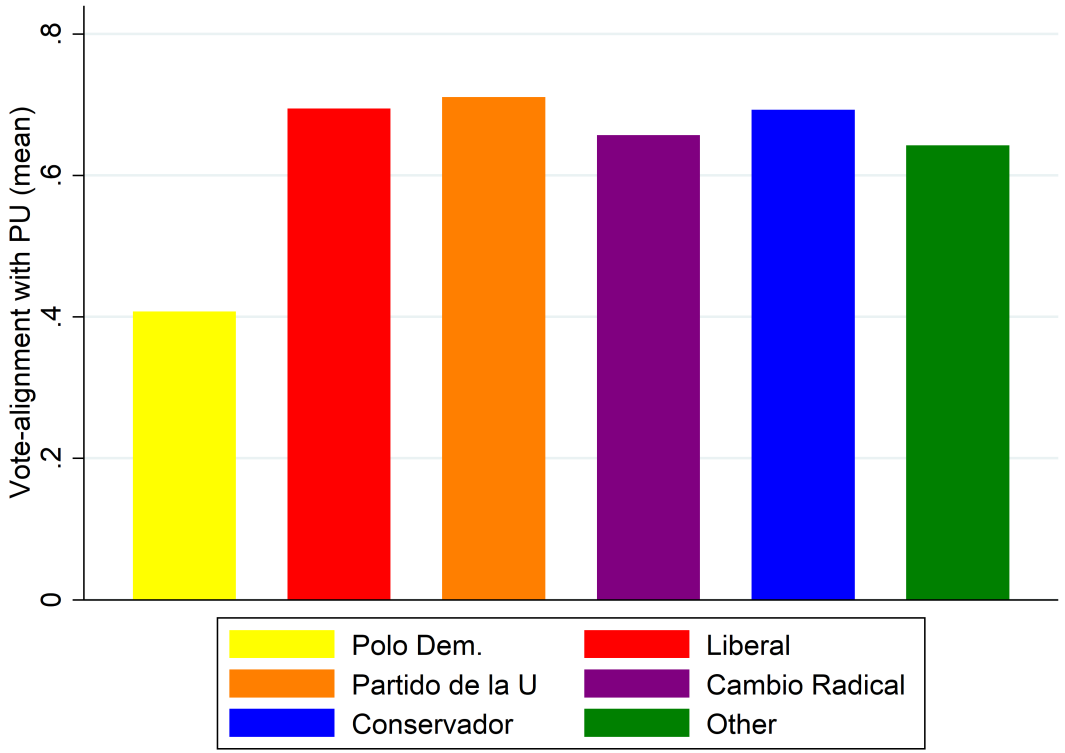
back

Congress of Colombia

- Legislative elections take place every four years (which coincide with presidential elections)
- Party-list proportional representation
- Senators:
  - 102 seats (2 reserved for indigenous communities)
  - Elected nationally
- Representatives:
  - 166 seats
  - Elected at the department level (state/province)

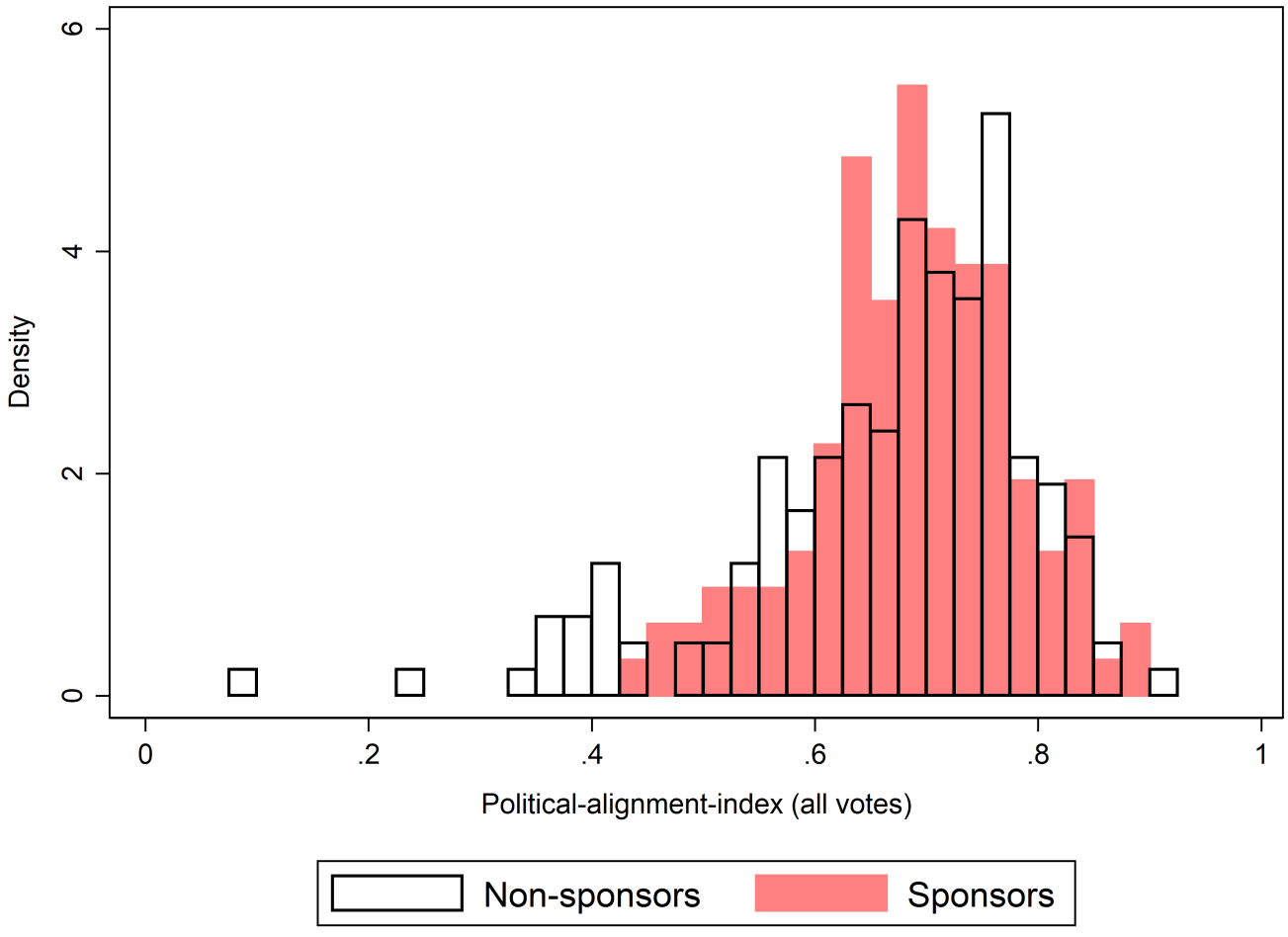
seats

Measure of *vote-alignment* across parties



definition

Political alignment index by contract sponsorship (all votes)



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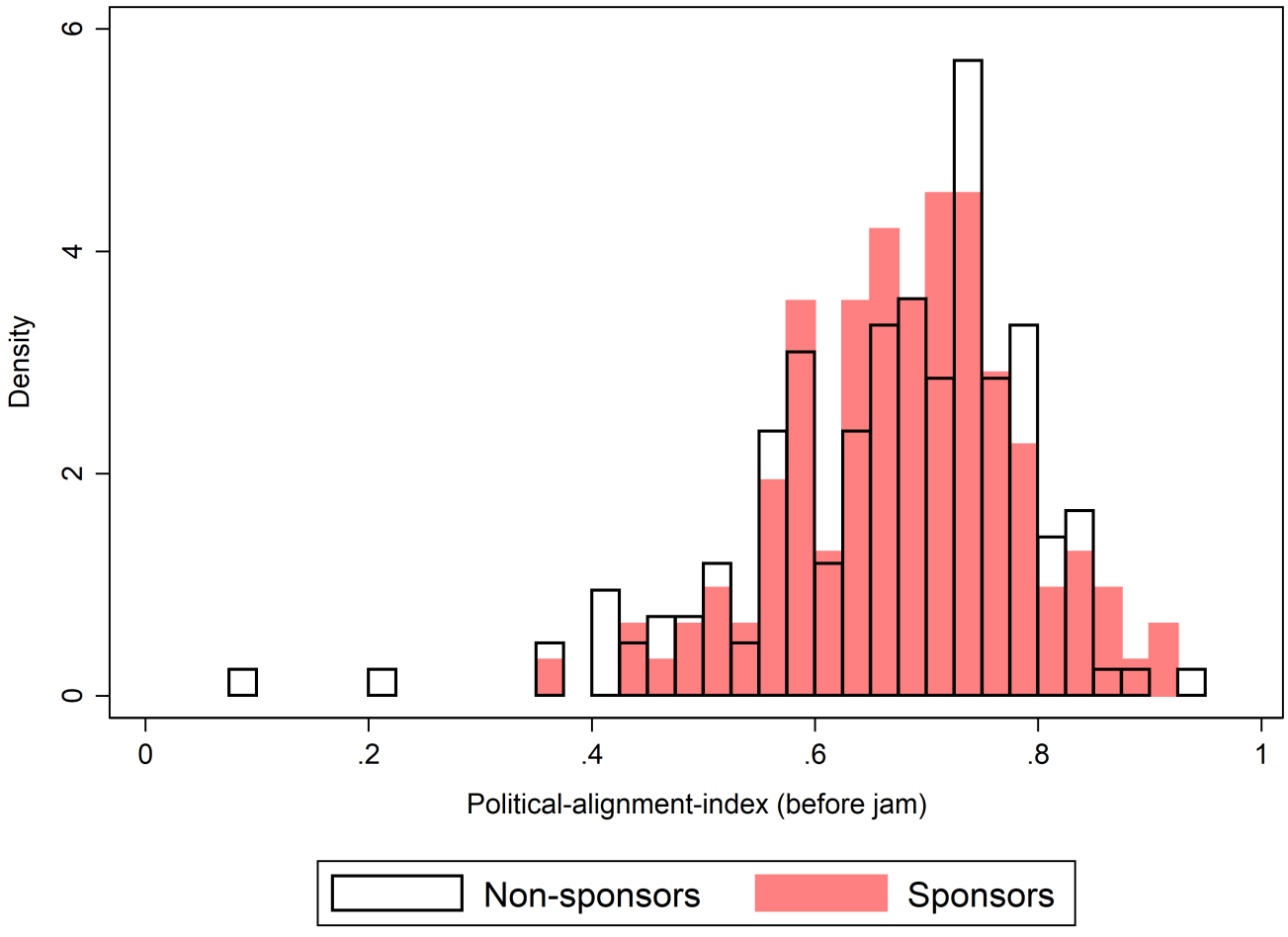
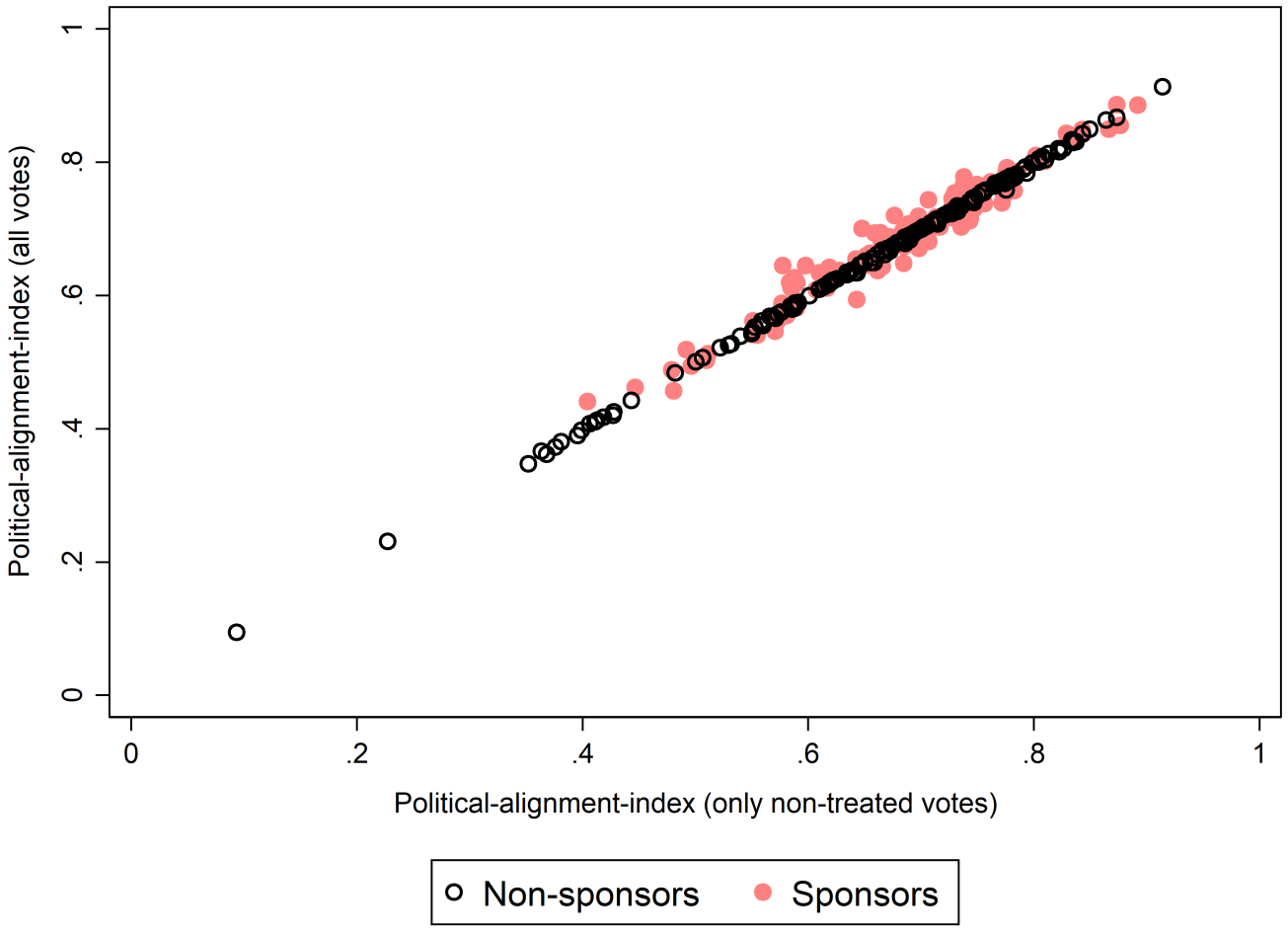
Political alignment index by contract sponsorship (before votes)



back

Relationship between political-alignment measures



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Alternative index using all votes

Table: Relationship between political-alignment-index and being a contract sponsor

	(1)	(2)	(3)	(4)	(5)	(6)
Political-alignment-index	0.398*	3.324***		-0.193	18.79***	
	(0.218)	(1.219)		(1.556)	(6.274)	
Political-alignment-index (sq)		-2.413**			-15.65***	
		(1.048)			(5.292)	
Distance to median			-1.026***			-4.186**
			(0.293)			(2.024)
N	292	292	292	292	292	292

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

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Alternative index using only before votes

Table: Relationship between political-alignment-index and being a contract sponsor

	Is sponsor			Num. contracts		
	(1)	(2)	(3)	(4)	(5)	(6)
Political-alignment-index	0.237	2.120**		-1.110	10.23	
	(0.233)	(0.987)		(1.764)	(7.507)	
Political-alignment-index (sq)		-1.528*			-9.205	
		(0.865)			(5.758)	
Distance to median			-0.652*			-2.233
			(0.337)			(2.665)
N	292	292	292	292	292	292

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

back

Table: Relationship between contract signature and vote-alignment

	(1)	(2)	(3)
pre contract signed	-0.000770	-0.00209	0.0128
	(0.0102)	(0.0112)	(0.0131)
post contract signed	0.00757	0.00992	0.00871
	(0.0109)	(0.0120)	(0.0125)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract signature and incumbent support by political-alignment

	(1)	(2)	(3)
pre contract signed	0.101	0.0987	0.177*
	(0.0701)	(0.0809)	(0.103)
post contract signed	0.173***	0.179**	0.167**
	(0.0660)	(0.0709)	(0.0827)
pre-cs x PAindex	-0.148	-0.146	-0.237
	(0.104)	(0.114)	(0.148)
post-cs x PAindex	-0.240***	-0.246**	-0.230*
	(0.0924)	(0.0994)	(0.117)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract signature and incumbent support by political-alignment

	(1)	(2)	(3)
pre contract signed	0.0525	0.0597	0.164
	(0.0778)	(0.0922)	(0.113)
post contract signed	0.0684	0.0679	0.0623
	(0.0710)	(0.0759)	(0.0869)
pre-cs x PAindex	-0.0774	-0.0895	-0.218
	(0.116)	(0.131)	(0.164)
post-cs x PAindex	-0.0883	-0.0840	-0.0778
	(0.0989)	(0.106)	(0.122)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract signature and incumbent support by political-alignment

	(1)	(2)	(3)
pre contract signed	0.0904	0.0960	0.178**
	(0.0635)	(0.0709)	(0.0894)
post contract signed	0.207***	0.211***	0.186**
	(0.0613)	(0.0661)	(0.0785)
pre-cs x PAindex	-0.133	-0.142	-0.239*
	(0.0945)	(0.0998)	(0.128)
post-cs x PAindex	-0.291***	-0.294***	-0.259**
	(0.0867)	(0.0936)	(0.113)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment

	(1)	(2)	(3)
pre contract signed	-0.0073	-0.0144	0.0245
	(0.0337)	(0.0313)	(0.0387)
post contract signed	-0.0452	-0.0476	-0.0047
	(0.0286)	(0.0294)	(0.0321)
pre-cs x log KM	0.0030	0.0045	-0.0058
	(0.0124)	(0.0118)	(0.0147)
post-cs x log KM	0.0155	0.0173	0.0006
	(0.0105)	(0.0111)	(0.0118)
pre-cs x avg. cost-per-km	0.0000	0.0008	-0.0000
	(0.0015)	(0.0014)	(0.0012)
post-cs x avg. cost-per-km	0.0067**	0.0066**	0.0047**
	(0.0029)	(0.0028)	(0.0022)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (legislators away from median)

	(1)	(2)	(3)
pre contract signed	-0.0300	-0.0334	-0.0046
	(0.0498)	(0.0530)	(0.0746)
post contract signed	0.0018	0.0020	0.0374
	(0.0403)	(0.0418)	(0.0461)
pre-cs x log KM	0.0144	0.0159	0.0127
	(0.0193)	(0.0209)	(0.0285)
post-cs x log KM	0.0127	0.0155	-0.0028
	(0.0178)	(0.0197)	(0.0200)
pre-cs x avg. cost-per-km	0.0003	0.0012	0.0006
	(0.0039)	(0.0040)	(0.0038)
post-cs x avg. cost-per-km	0.0013	0.0002	0.0015
	(0.0061)	(0.0060)	(0.0063)
N	112955	112955	112955
N-clusters	146	146	146
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (legislators close to median)

	(1)	(2)	(3)
pre contract signed	0.0189	-0.0080	0.0310
	(0.0446)	(0.0395)	(0.0442)
post contract signed	-0.1022**	-0.1021**	-0.0508
	(0.0403)	(0.0422)	(0.0458)
pre-cs x log KM	-0.0086	-0.0004	-0.0147
	(0.0164)	(0.0146)	(0.0170)
post-cs x log KM	0.0249*	0.0252*	0.0094
	(0.0134)	(0.0140)	(0.0147)
pre-cs x avg. cost-per-km	0.0001	0.0010	-0.0002
	(0.0016)	(0.0014)	(0.0013)
post-cs x avg. cost-per-km	0.0100***	0.0100***	0.0057***
	(0.0026)	(0.0026)	(0.0020)
N	119472	119472	119472
N-clusters	145	145	145
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (one contract)

	(1)	(2)	(3)
pre contract signed	0.0580	0.0267	-0.0214
	(0.0787)	(0.0772)	(0.1166)
post contract signed	0.0789	0.0819	0.0374
	(0.0587)	(0.0600)	(0.0591)
pre-cs x log KM	-0.0136	-0.0037	0.0120
	(0.0232)	(0.0230)	(0.0354)
post-cs x log KM	-0.0062	-0.0065	0.0041
	(0.0192)	(0.0213)	(0.0197)
pre-cs x avg. cost-per-km	0.0005	0.0003	0.0015
	(0.0039)	(0.0040)	(0.0040)
post-cs x avg. cost-per-km	-0.0132	-0.0122	-0.0089
	(0.0098)	(0.0107)	(0.0108)
N	144955	144955	144955
N-clusters	189	189	189
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (repeat clients)

	(1)	(2)	(3)
pre contract signed	-0.0070	-0.0092	0.0289
	(0.0355)	(0.0340)	(0.0413)
post contract signed	-0.0565*	-0.0618*	0.0070
	(0.0317)	(0.0321)	(0.0355)
pre-cs x log KM	0.0018	0.0015	-0.0071
	(0.0137)	(0.0138)	(0.0164)
post-cs x log KM	0.0168	0.0196	-0.0074
	(0.0124)	(0.0128)	(0.0140)
pre-cs x avg. cost-per-km	-0.0005	0.0005	-0.0002
	(0.0017)	(0.0015)	(0.0013)
post-cs x avg. cost-per-km	0.0102***	0.0100***	0.0065***
	(0.0026)	(0.0023)	(0.0022)
N	213293	213293	213293
N-clusters	269	269	269
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment

	(1)	(2)	(3)
pre contract signed	-0.2677	-0.3682	-0.3624
	(0.2064)	(0.2484)	(0.3101)
post contract signed	-0.4461*	-0.5043**	-0.3236
	(0.2313)	(0.2472)	(0.2679)
pre-cs x log KM	0.0005	0.0001	-0.0101
	(0.0123)	(0.0118)	(0.0127)
post-cs x log KM	0.0033	0.0042	-0.0118
	(0.0118)	(0.0125)	(0.0132)
pre-cs x log Cost	0.0131	0.0180	0.0194
	(0.0103)	(0.0125)	(0.0150)
post-cs x log Cost	0.0220*	0.0248*	0.0177
	(0.0118)	(0.0126)	(0.0138)
N	232763	232763	232763
N-clusters	291	291	291
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (far from median)

	(1)	(2)	(3)
pre contract signed	-0.5190*	-0.5136	-0.7313
	(0.3131)	(0.3576)	(0.4602)
post contract signed	-0.4169	-0.4686	-0.3769
	(0.3646)	(0.3928)	(0.4098)
pre-cs x log KM	0.0070	0.0023	-0.0071
	(0.0187)	(0.0205)	(0.0214)
post-cs x log KM	0.0059	0.0090	-0.0102
	(0.0191)	(0.0209)	(0.0225)
pre-cs x log Cost	0.0249	0.0254	0.0380*
	(0.0157)	(0.0185)	(0.0224)
post-cs x log Cost	0.0216	0.0239	0.0214
	(0.0190)	(0.0205)	(0.0215)
N	112955	112955	112955
N-clusters	146	146	146
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment (close to median)

	(1)	(2)	(3)
pre contract signed	-0.0603	-0.2509	-0.0339
	(0.2837)	(0.3748)	(0.3977)
post contract signed	-0.4275	-0.5009	-0.2169
	(0.2900)	(0.3168)	(0.3408)
pre-cs x log KM	-0.0084	-0.0016	-0.0136
	(0.0169)	(0.0149)	(0.0164)
post-cs x log KM	0.0064	0.0043	-0.0069
	(0.0151)	(0.0155)	(0.0155)
pre-cs x log Cost	0.0039	0.0122	0.0030
	(0.0143)	(0.0184)	(0.0195)
post-cs x log Cost	0.0193	0.0233	0.0108
	(0.0144)	(0.0157)	(0.0170)
N	119472	119472	119472
N-clusters	145	145	145
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment

	(1)	(2)	(3)
pre contract signed	0.2986	0.2018	-0.1212
	(0.3725)	(0.4375)	(0.5646)
post contract signed	0.6337	0.6417	0.8426*
	(0.5305)	(0.5951)	(0.5027)
pre-cs x log KM	-0.0070	0.0012	0.0040
	(0.0207)	(0.0245)	(0.0310)
post-cs x log KM	0.0294	0.0292	0.0411
	(0.0391)	(0.0459)	(0.0389)
pre-cs x log Cost	-0.0123	-0.0089	0.0063
	(0.0187)	(0.0225)	(0.0272)
post-cs x log Cost	-0.0334	-0.0336	-0.0448
	(0.0296)	(0.0338)	(0.0290)
N	144955	144955	144955
N-clusters	189	189	189
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis.
Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.

Table: Relationship between contract characteristics and vote-alignment

	(1)	(2)	(3)
pre contract signed	-0.2910	-0.3884	-0.3272
	(0.2358)	(0.2987)	(0.3710)
post contract signed	-0.7781***	-0.8920***	-0.6253*
	(0.2693)	(0.2835)	(0.3188)
pre-cs x log KM	0.0004	-0.0013	-0.0105
	(0.0133)	(0.0133)	(0.0141)
post-cs x log KM	0.0013	0.0035	-0.0236*
	(0.0129)	(0.0133)	(0.0134)
pre-cs x log Cost	0.0141	0.0191	0.0177
	(0.0117)	(0.0149)	(0.0180)
post-cs x log Cost	0.0386***	0.0441***	0.0338**
	(0.0134)	(0.0142)	(0.0160)
N	213293	213293	213293
N-clusters	269	269	269
Individual FE	yes	yes	yes
Congr. vote FE	yes	yes	yes
Time window	5-months	3-months	1-month
Project date	Signature	Signature	Signature

Notes: Standard errors clustered at the politician level in parenthesis. Significance levels shown below *p<0.10, ** p<0.05, ***p<0.01.