

Policy Positions in Mixed Member Electoral Systems: Evidence from Japan

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Joint work with

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“Best of Both Worlds”?

- Mixed member electoral systems:
 - Single member districts (SMDs)
 - Proportional representation (PR)
- “Best of both worlds” (Shugart and Wattenberg 2001):
 - SMD legislators represent geographically narrow interests
 - PR legislators represent wider range of voters
- Conflicting evidence in the existing literature:
 - SMD legislators focus more on constituency services (Germany, Hungary)
 - SMD and PR legislators behave similarly in roll call voting (Russia, Ukraine)
- **Question:** Do policy positions of SMD legislators differ from those of PR legislators?
- **Challenge:** Estimate policy positions in parliamentary systems

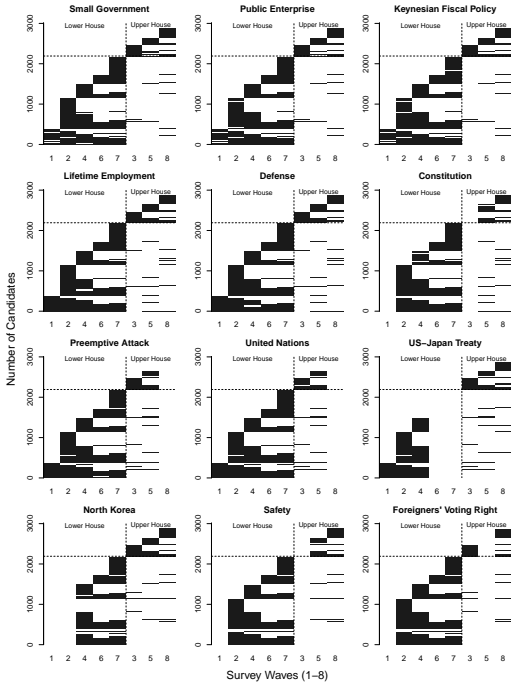
Japanese Case

- Japan's mixed member electoral system:
 - Upper House: 146 MMDs (regional), 96 PR seats (nationwide)
 - Lower House: 300 SMDs, 180 PR seats (regional)
- Parliamentary system: strong party discipline, few roll call votes
- Asahi-Todai Survey 2003 – 2010:
 - 1 Panel data with 8 waves for all 6 elections
 - 2 Common policy questions across multiple survey waves
 - 3 Both incumbents and challengers
 - 4 Both Upper and Lower House candidates
 - 5 Extremely high response rate (average 85%)
 - 6 9 cross-section/panel surveys of voters (not analyzed yet)
- Strategy: analyze these survey data to estimate policy positions of candidates (and voters) across chambers and time periods

Data at Glance

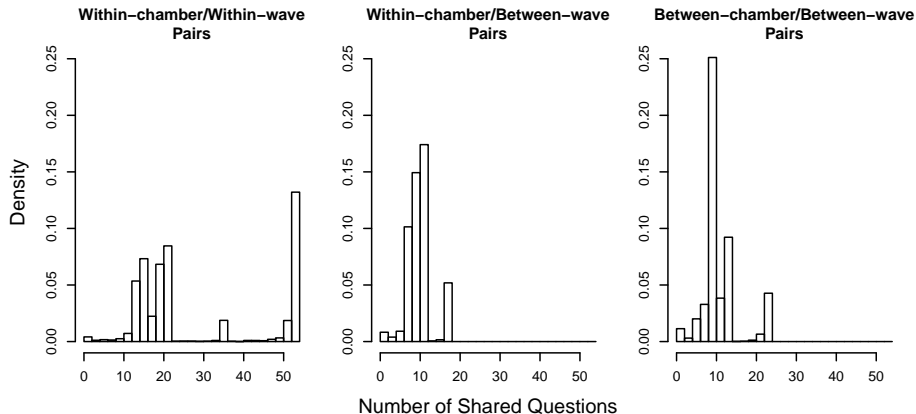
Wave	1	2	3	4	5	6	7	8
Year	2003	2003	2004	2005	2007	2008	2009	2010
House	L	L	U	L	U	L	L	U
Pre-election survey?	No	Yes	Yes	Yes	Yes	No	Yes	Yes
# of policy questions	13	22	14	19	18	20	35	36
# of politicians	476	1159	482	1132	533	884	1333	558
incumbents		418	90	457	84	463	448	83
challengers		741	230	671	293	421	885	312
Response rate	0.82	0.95	0.76	0.91	0.81	0.83	0.98	0.82

- A total of 3025 candidates
- A total of 90 distinct policy questions



Survey Waves (1-8)

Overlap across Chambers and Time Periods



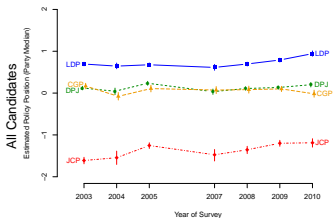
Estimation of Policy Positions

- Bayesian factor analysis for ordinal response (Quinn 2004; Treier and Jackman 2008) via MCMCpack
- i : politician
- j_i : j_i th wave for politician i
- k_j : k th question in the j th wave
- x_{ij_i} : policy position of politician i at the time of wave j_i
- $y_{ij_i k_{j_i}}$: politician i 's answer to question k_{j_i} in survey wave j_i
- The model for the latent response variable:

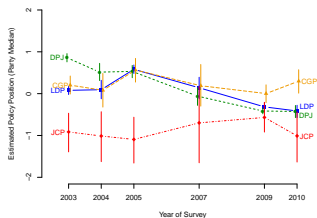
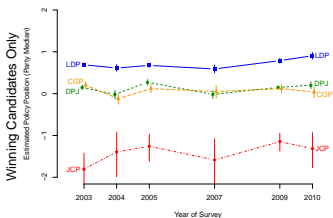
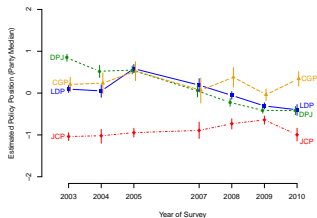
$$y_{ij_i k_{j_i}}^* \sim \mathcal{N}(\alpha_{k_{j_i}} + \beta_{k_{j_i}}^\top x_{ij_i}, 1)$$

- Proper conjugate prior distributions
- Two models: one and two-dimensional

First Dimension



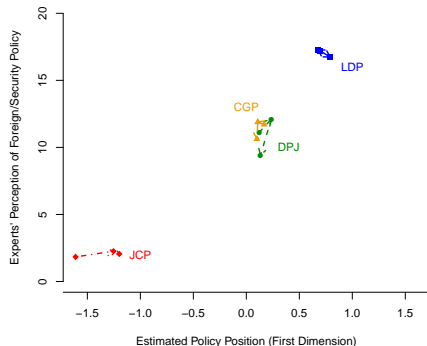
Second Dimension



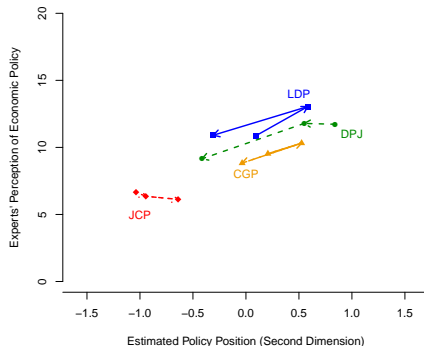
- One-dimensional model gives estimates almost identical to the first dimension estimates (corr. = 0.99)
- Highly correlated with self-reported ideology (corr. = 0.82)
- Constraints and interpretation:
 - First dimension = security/foreign policy
 - Second dimension = economic policy

Comparison with Expert Survey Estimates

First Dimension and Foreign/Security Policy

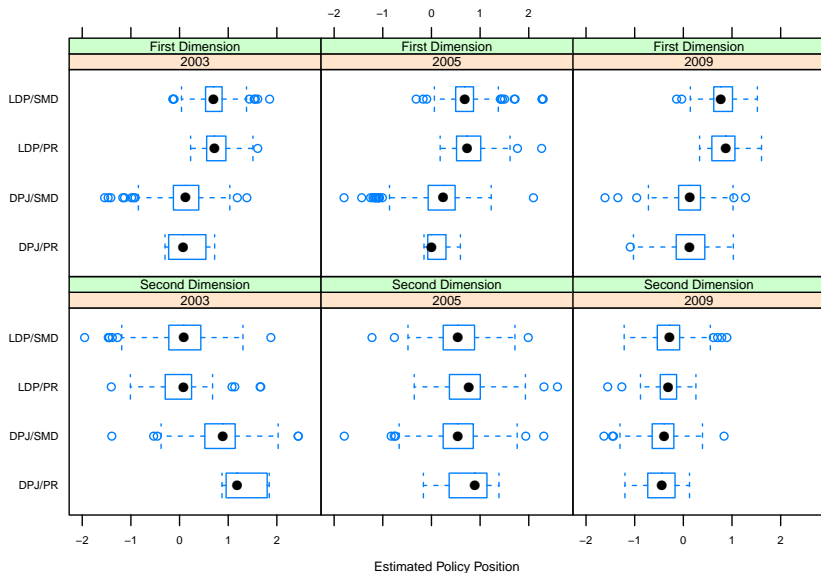


Second Dimension and Economic Policy

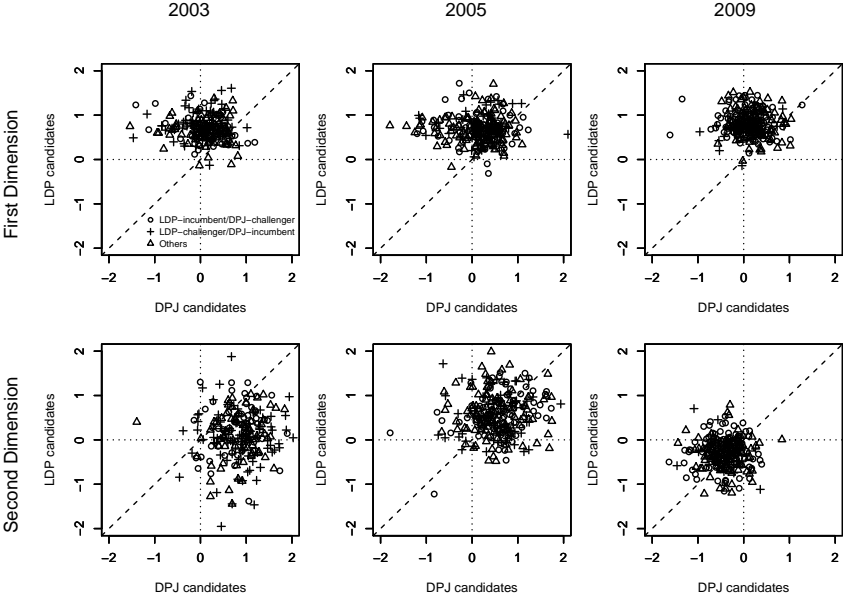


- Kato and Laver (2003) estimate parties' positions from expert survey
- Party medians in the 1st dimension are similar
- Shifts of party medians in the 2nd dimension for LDP and DPJ are consistent

Are SMD Candidates More Dispersed?



Do SMD Candidates Converge within Districts?



Concluding Remarks and Next Step

- Do mixed member electoral systems offer the “best of both worlds”?
- Bayesian factor analysis of comprehensive panel survey of Japanese politicians
- Evidence is mixed: SMD candidates are more dispersed than PR candidates, but no obvious convergence within SMDs
- Our next step is to incorporate voter survey to estimate voter preferences