

Choice, Institutions and Shifts within Budgets

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② Theoretical Framework

Budgeting as a Stochastic Process

Distinguishing Distributions

Decision-making Process

Institutional Costs

③ Evidence

Measuring Shifts

Party Manifestos

Budgets

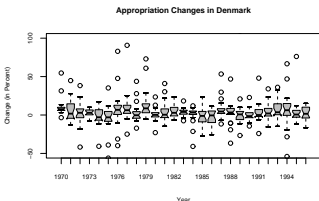
Discussion

④ Next Steps

Theoretical Intuitions

Empirical Models

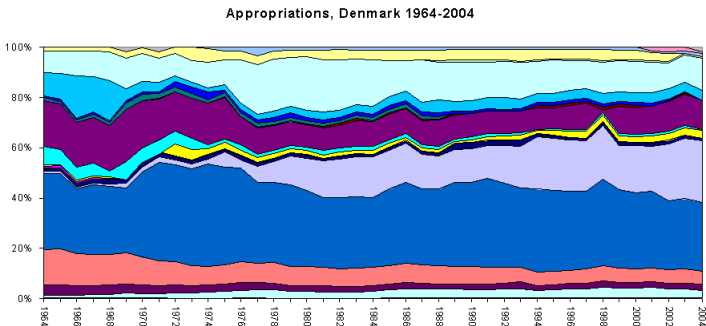
Motivation



- budgeting as conflict over scarce resources
- empirical puzzle: why do shifts within a budget occur?
- policy relevance: budgets represent gains and losses for politicians, bureaucrats and the public
- advancement of previous research: concentrate on budgeting per se and recognize multi-dimensionality and interdependence of decision-making

Motivation II

How can we explain patterns such as the Danish appropriations?



Assessing Shifts within Budgets

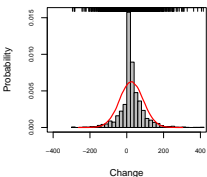
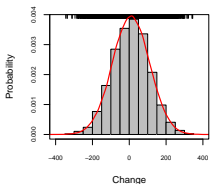
- build on literature in
 - ① political economy (Bawn 1999, Bräuninger 2003, Tsebelis and Chang 2004, Hallerberg 2004)
 - ② public policy (Baumgartner and Jones 1993, John and Margetts 2003, Soroka and Wlezien 2005)
- understand budgeting as stochastic process (Padgett 1980 and 1981, Jones et al 2003)
- conceptualize changes within budgets as probability densities

Assessing Shifts within Budgets II

$$P_t = P_{t-1} + \delta_t$$

$$P_t - P_{t-1} = \delta_t$$

- *Incrementalism*: if decision-making is based on rational updating, δ_t is Normally distributed
- *Punctuations*: if decision-making is based on boundedly rational updating, δ_t is distributed as a double Exponential or Pareto



Sources of Shifts within Budgets

Decision-making and Institutions

- Environment \Rightarrow Choice \otimes Institutions \Rightarrow Outcomes
- *Choice* is defined as cognitive demands on decision making
 - budgeting is multi-dimensional but attention is uni-dimensional and temporally limited
 - prioritization of issues
 - choice is attention-driven
- *Institutions* make cooperation costly
 - highly institutionalized process within and among branches of government
 - substantial information, decision-making, and transaction costs
- H_1 : Moving along the decision-making process produces increasingly punctuated distributions

Sources of Shifts within Budgets

Specifying Institutional Costs

- sources of institutional costs
 - ① veto players: number and range of preferences
 - ② CPR problem: fractionalization
 - ③ budget regime: bargaining, commitment, delegation
- H_2 : Rising institutional costs produce increasingly punctuated distributions

Measuring Shifts

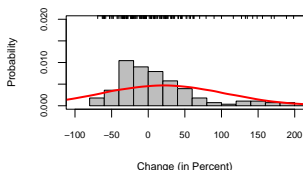
- distributional analysis is common in the natural and information sciences
- graphical analysis: frequency distributions, log-log plots
- statistical analysis: Normality tests and kurtosis
- L-kurtosis
 - ranges between 0 and 1
 - increasing values means more punctuated
 - Normal ≈ 0.123

Evidence

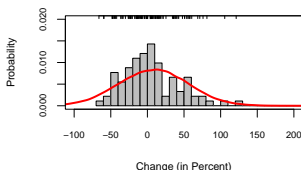
Party Manifestos

- party manifesto data (Budge et al 2001)
- pooled across the seven major issue categories, all parties, between 1969-1996
- not Normal; clearly punctuated; cross-country variation; also holds for governing parties

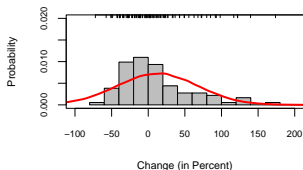
L-kurtosis= 0.312 for Denmark



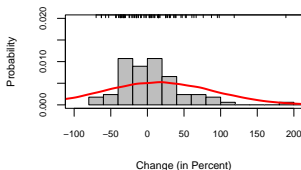
L-kurtosis= 0.225 for Germany



L-kurtosis= 0.21 for United Kingdom



L-kurtosis= 0.323 for United States

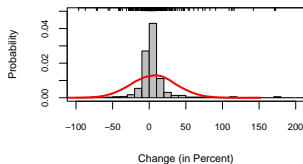


Evidence

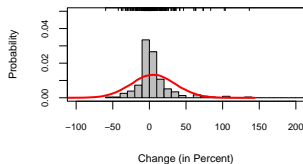
Budgets

- based on country-specific programmatic appropriations
- pooled across all categories, between 1969-1996
- not Normal; highly punctuated; cross-country variation

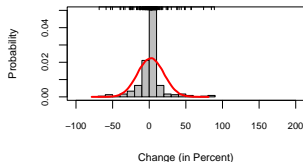
L-kurtosis= 0.493 for Denmark



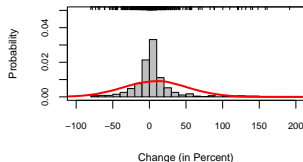
L-kurtosis= 0.393 for Germany



L-kurtosis= 0.421 for United Kingdom



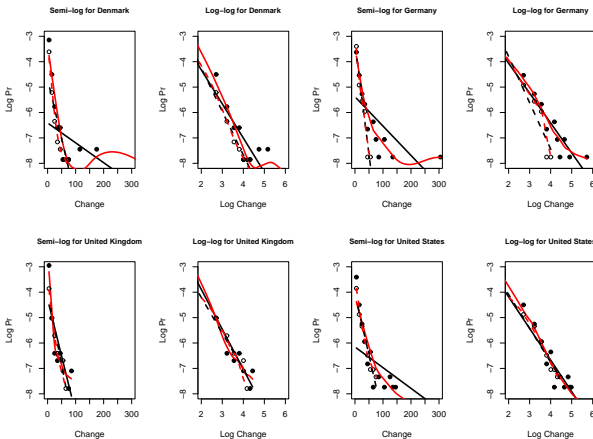
L-kurtosis= 0.456 for United States



Evidence

Budgets: Semi-log and Log-Log Plots

- Semi-log and log-log plots for each budget distribution with linear (black line) and loess (red) fitting
- Log-logs fit very well, suggesting Paretian distribution



Discussion

- evidence shows that both outcomes (party manifestos and budgets) are punctuated
- choice pattern (party manifestos) are less punctuated than shifts within budgets
- cross-national variation in the degree of punctuation corresponds to cost structure of decision-making
- Westminster < Coalition < Minority < Presidential
- interaction of institutions and attention-driven choice offers an explanation for stability *and* change in policy outcomes

Future Considerations and Questions

Theoretical Models

- formalize decision-making model
- Q: what are viable options? Agent-based modeling?
- Q: what assumptions are vital for formalization?
- Q: would simulations be a good strategy?

Future Considerations

Empirical Implications

- already in progress:
 - *time series analysis*: DV: L-kurtosis and key IVs: attention (concentration index of party manifestos), veto players (number and range of preferences), budgetary regime
 - Q: is pooling of data OK? other IVs?
 - *quantile regression* (Kroenker and Bassett (1978), Handcock and Morris 1999) tests distinct implications of stability and change
- alternative DV: composition of budget (composition data analysis: Aitchison 1986)
- another possibility: experiment (CPR problem with varying institutional costs (e.g. dictator, simple majority, unanimity) and task complexity)
- Q: existing literature on this type of experiment?