

Veto Player and Fiscal Policy Stability *

Hao Wang

Department of Political Science

Arizona State University

haowang@asu.edu

April 12, 2017

Keywords: veto player, public policy

Abstract: Veto player theory (Tsebelis 2002) predicts that the number of veto players influencing policy stability. While studies in OECD countries have shown supportive evidence (Tsebelis & Chang 2004), there is few work on policy stability in nondemocracies. This project uses a new data-set from GSRE (Global State Revenues and Expenditures data-set) and perform an empirical test on veto player and budget stability in authoritarian countries. Preliminary analysis show that even in authoritarian countries, institutional constraints (veto players) lead to incremental budget changes.

*Replication files are available on the author's Github account (<http://github.com/haowang666>)

1 Introduction

Veto player theory (Tsebelis 2002) defines ‘veto players’ as individuals or institutions whose agreement is required for a change of the status quo. This theory predicts that: when the number of veto players increase, the winning set that can defeat status quo will shrink, which in turn leads to higher policy stability. Since veto player is ultimately related to the level of institutional constraints, a corollary is that institutional checks leads to more stable, incremental policy outcomes. With many checks and balances in the government, it will be harder to move policies from status quo equilibrium.

Tsebelis and Chang (2004) apply veto player theory in the budget changes of the 19 OECD countries. In their analysis, parties with more polarized positions are modeled as potential veto players who could have blocked the policy proposals. Their results show that countries with more veto players have more stable budget policies.

On the other hand, veto player theory also implies that more veto players make politicians harder to adjust current policies. This is particularly salient in countries with multiple veto players (e.g. the United States). During some time periods with exogenous shocks, the policy stability can be harmful and politicians may react to the long-time stability with rapid changes of policies, which forms a policy punctuation.

Punctuated Equilibrium Theory (PET) (John and Bevan 2012, Jones and Baumgartner 2012) argues that government budget shifts over and under attention to certain policy areas lead to long periods of stability and short periods of radical changes. Most empirical evidence, however, is drawn from developed democracies. Following Baumgartner et al. (2015) and Lam and Chan (2015), we explore the determinants of policy stability in different authoritarian regimes. We extend the existing theory by examining the variations among authoritarian countries. Our results suggest that institutionalization in the policy

making process is an important factor that explains cross national variation.

2 Argument

2.1 Institutional Constraints

Veto player \Rightarrow unable to change policy rapidly \Rightarrow long term incremental changes and short-term rapid changes \Rightarrow punctual equilibrium (Epp & Baumgartner 2016).

2.2 Policy Punctuations

3 Data

Data in this project comes from various sources. The dependent variable comes from the GSRE project (Global State Revenues and Expenditures dataset). GSRE is a comprehensive budget dataset based on the previous released historical documents from the International Monetary Fund (IMF). Comparing with the IMF [COFOG]() dataset, GSRE increases coverage and accuracy of budgeting data for most authoritarian regimes and some democratic regimes. Since GSRE is built on IMF historical documents, it covers all independent states that have been or are the members of the IMF and are being coded as an authoritarian regime in the (Geddes, Wright & Frantz 2014) dataset.

Data on deliberative democracies and other regime-related variables come from the Varieties of Democracy (Vdem) project (Coppedge et al. 2016). Unlike the widely used democracy index like Polity (Marshall, Gurr & Jaggers 2015), Vdem provides multidimensional measurements of regimes, including both democracies and autocracies.

Data on institutional constraints come from the political constraints index (Henisz 2000). Henisz develops a measure of institutional commitment that is objective, extensive, and based in positive political theory. He uses a quantitative model to capture the competitiveness portion of the definition of democracy (competitiveness and participation) with a proxy of number of independent veto points over policy outcomes and distribution of preferences of those actors. The measure is objective, with clear rules for measurement and aggregation, however it incorporates some of the Polity data coding for independent judiciary that gives it a slight subjective bias. POLCON is based on strong assumptions about each actors veto power. The measures are strongly correlated with the ICRG indexes and the Polity Executive Constraint index. The new release of the political constraint dataset expands the scope of coverage to as many as 234 countries over the period 1800-2001. It also corrects a small number of computational, coding and factual errors in the previous release. The new database also includes country codes from the Cross-national time series data archive, Polity and the World Bank to facilitate matching this dataset to other international datasets that you may have. Finally, it contains the component variables used to construct the political constraint indexes.

Data on decentralization draws from the Political Institution Index (Beck et al. 2001).

3.1 *Measuring Dependent Variables*

I measure the budget stability as the simple euclidean distance of the between-year percentage differences. It can be written in the following equation: S_t is the stability index of a certain year t . Since government budget has various categories: p_{it} denotes the percentage of i th category of total expenditure. S_t will increase as the difference between p_{it} and p_{it-1} increases.

$$S_t = \sqrt{\sum_{i=1}^i (p_{it} - p_{it-1})^2} \quad (1)$$

3.2 *Independent Variables*

4 **Results**

4.1 *Pooled OLS with Panel Corrected Standard Errors*

4.2 *Fixed Effect Panel Data*

4.3 *Fixed Effect with Two Way Effects*

4.4 *OLS with L-Kurtosis*

Table 1: Fixed Effect Model

	<i>Dependent variable:</i>			
	stability_0	stability_1	stability_2	stability_3
	(1)	(2)	(3)	(4)
v2x_delibdem	0.002 (0.037)	0.028 (0.044)	−0.013 (0.042)	−0.041 (0.044)
e_h_polcon5	−0.024 (0.019)	−0.042* (0.022)	−0.037* (0.021)	−0.003 (0.022)
e_autoc	−0.002 (0.002)	−0.005** (0.002)	−0.002 (0.002)	−0.002 (0.002)
v2mecenefm	0.013** (0.006)	−0.003 (0.007)	0.012* (0.006)	0.009 (0.007)
e_peaveduc	−0.011*** (0.004)	−0.008* (0.005)	−0.004 (0.004)	−0.008* (0.005)
e_migdppln	0.035*** (0.013)	0.030* (0.015)	0.019 (0.015)	0.036** (0.015)
e_migdpgro	0.0002 (0.0005)	0.0001 (0.001)	−0.001 (0.001)	0.0002 (0.001)
e_peginiwi	0.0001 (0.0005)	−0.001 (0.001)	−0.001 (0.001)	−0.0005 (0.001)
e_Civil_War	−0.005 (0.011)	−0.013 (0.013)	−0.006 (0.013)	−0.001 (0.013)
v2x_corr	−0.008 (0.034)	−0.105*** (0.040)	−0.067* (0.039)	−0.098** (0.041)
Observations	2,904	2,904	2,904	2,904
R ²	0.011	0.008	0.007	0.007
Adjusted R ²	−0.031	−0.034	−0.035	−0.035
F Statistic (df = 10; 2784)	3.141***	2.367***	2.076**	2.024**

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 2: OLS Regression with L-Kurtosis as DV

	<i>Dependent variable:</i>			
	y_lk0	y_lk1	y_lk2	y_lk3
	(1)	(2)	(3)	(4)
v2x_delibdem	0.038 (0.073)	0.126 (0.142)	0.087 (0.147)	0.078 (0.140)
e_h_polcon5	0.011 (0.046)	−0.002 (0.089)	0.036 (0.092)	−0.007 (0.088)
e_autoc	0.006 (0.004)	0.005 (0.008)	0.007 (0.008)	0.005 (0.008)
v2mecenefm	0.002 (0.008)	0.002 (0.016)	0.001 (0.017)	0.002 (0.016)
e_peaveduc	0.008*** (0.003)	0.004 (0.006)	0.006 (0.006)	0.005 (0.006)
e_migdppln	−0.026** (0.011)	−0.025 (0.020)	−0.021 (0.021)	−0.022 (0.020)
e_migdpgro	0.002 (0.003)	0.0002 (0.006)	−0.002 (0.007)	0.001 (0.006)
e_peginiwi	0.0001 (0.001)	−0.003*** (0.001)	−0.003*** (0.001)	−0.003*** (0.001)
e_Civil_War	0.049 (0.036)	0.061 (0.069)	0.048 (0.072)	0.058 (0.069)
v2x_corr	0.013 (0.030)	−0.027 (0.059)	−0.020 (0.061)	−0.045 (0.058)
Constant	0.205*** (0.078)	0.487*** (0.151)	0.460*** (0.156)	0.484*** (0.149)
Observations	112	112	112	112
R ²	0.115	0.136	0.137	0.144
Adjusted R ²	0.027	0.050	0.052	0.059
Residual Std. Error (df = 101)	0.049	0.095	0.098	0.094
F Statistic (df = 10; 101)	1.308	1.589	1.606	1.693*

Note:

*p<0.1; **p<0.05; ***p<0.01

5 Appendix

5.1 Descriptive Statistics

Here I provide summary statistics of the variables I used in this study

5.1.1 summary statistics of deliberative democracy

Table 3: Deliberative Democracy Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Deliberative Democracy	6,373	0.201	0.225	0.001	0.881
Justification on Public Policy	6,382	-0.067	1.226	-3.125	3.415
Justification on Common Goods	6,382	0.083	1.153	-3.394	2.868
Respect for Counterarguments	6,382	-0.526	1.297	-3.257	2.726
Range of Consultation	6,382	-0.194	1.267	-3.211	3.713
Range of Engagement	6,382	-0.266	1.311	-3.244	3.159

5.1.2 summary statistics on institutional constraints

Table 4: Institutional Constraints

Statistic	N	Mean	St. Dev.	Min	Max
Judicial Constraints	6,382	0.450	0.269	0.006	0.979
Legislative Constraints	6,354	0.385	0.282	0.024	0.959
Institutionalization of Party	6,381	0.492	0.273	0.006	0.986
Institutionalized Democracy	5,904	2.874	3.609	0	10
Institutionalized Autocracy	5,904	4.403	3.517	0	10
Political Constraints Index-3	5,296	0.222	0.290	0.000	0.890
Political Constraints Index-5	6,079	0.147	0.196	0.000	0.688

5.1.3 *summary statistics on federalism*

Table 5: Division of Power (centrl-regional) Index

Statistic	N	Mean	St. Dev.	Min	Max
Division of Power	5,774	0.304	0.330	0.000	0.991
Regional Government Power	5,782	−0.325	1.286	−2.664	2.775
Local Government Power	5,852	0.013	1.249	−2.733	2.326

5.1.4 *summary statistics on other control variables*

Table 6: Other Control Variables

Statistic	N	Mean	St. Dev.	Min	Max
Media Censorship	6,382	−0.311	1.434	−3.036	3.316
Education	6,184	4.470	2.691	0.004	13.285
GDP pp(logged)	5,839	7.629	0.886	5.315	10.667
GDP growth	5,807	1.763	6.388	−61.493	86.946
Income Inequality	4,137	42.720	10.359	15.000	73.900
Civial War	6,200	0.090	0.286	0	1
Oil Production Per Capita	6,164	347.425	2,506.486	0.000	78,588.800
Corruption Index	6,382	0.552	0.232	0.028	0.946

5.1.5 *dependent variable components*

In the following table I report the components of dependent variables. It is measured as the percentage expenditure of total expenditure. Two indicators are dropped out in the further analysis due to technical concerns. The variable ‘subpentrans’ contains too few points, and the variable ‘pensions’ must be dropped due to the convergence issue in multiple imputation.

Table 7: Components of Budget Stability Measurements

Statistic	N	Mean	St. Dev.	Min	Max
expend_security_EXP	3,034	0.166	0.123	0.000	0.712
expenddefence_EXP	2,418	0.143	0.119	0.00001	0.712
exp_public_order_EXP	1,300	0.059	0.034	0.000	0.248
wagessalaries_EXP	3,981	0.293	0.128	0.00000	0.859
pensions_EXP	1,131	0.058	0.065	0.000	0.392
total_welfare_EXP	2,927	0.238	0.127	0.00003	0.920
education_EXP	2,624	0.133	0.061	0.00002	0.388
health_EXP	2,337	0.058	0.032	0.00001	0.212
social_protection_EXP	1,451	0.055	0.073	0.000	0.599
housing_EXP	1,084	0.035	0.036	0.000	0.420
owelfarespend_EXP	1,334	0.067	0.077	0.00000	0.510

5.1.6 *dependent variable statistics*

Table 8: Dependent Variable Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Original	5,299	0.103	0.144	0.00000	1.110
Imputation 1	5,299	0.249	0.176	0.00001	1.318
Imputation 2	5,299	0.256	0.172	0.00001	1.085
Imputation 3	5,299	0.245	0.171	0.00001	1.810
Imputation 4	5,299	0.253	0.173	0.00001	1.121
Imputation 5	5,299	0.249	0.169	0.00001	1.064

Table 8 is

5.2 *Missing Cases*

GSRE contains lots of missing cases. To avoid losing statistical powers and potential bias due to list-wise deletion, this article employs multiple imputation of the GSRE part data. Results reported in the paper are from the first imputation. Appendix includes the rest 4 imputations.

The total missing map is showing in the corresponding figure. In this table, the components represent the percentage expenditure of each sector in terms of total expenditure.

I also calculated results without multiple imputation: points that are missing in the GSRE database is set to be 0. Theoretically in this situation missing cases will contribute zero effects to the policy stability indicator. I calculate dependent variable while filling missing cases as 0. After the DV is imputed, I re-coded observations with 0 values as missing (This is because a completely missing case will yield 0 as the outcome).

The density plot of stability index without imputation is shown in the following figure

The relationship between the raw DV and the imputed DV is shown in the following graph. Due to the page limits only the relationships between the original dependent variable and the first two imputed dependent variables are displayed here.

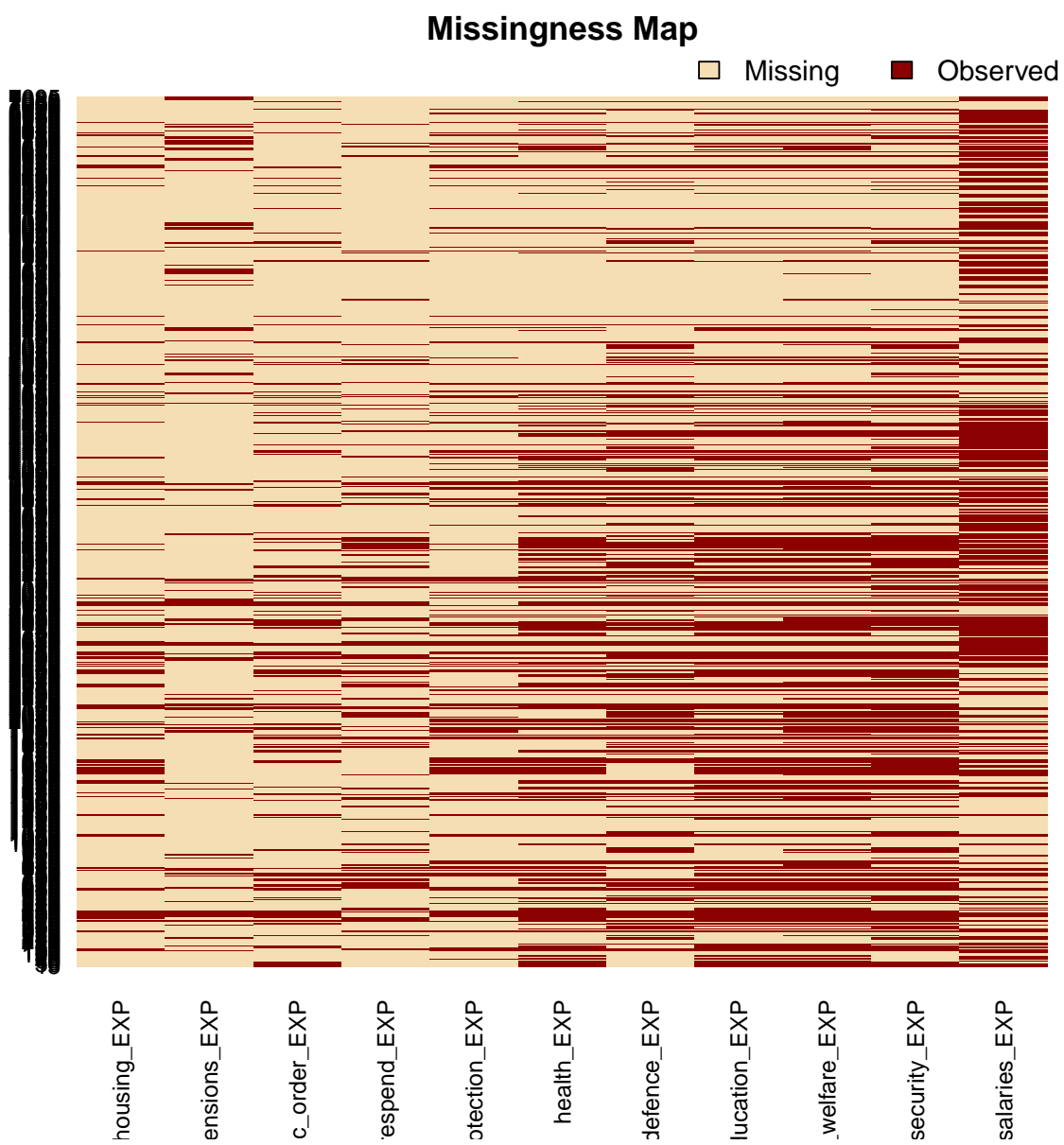


Figure 1: Missingness Map of GSRE Data

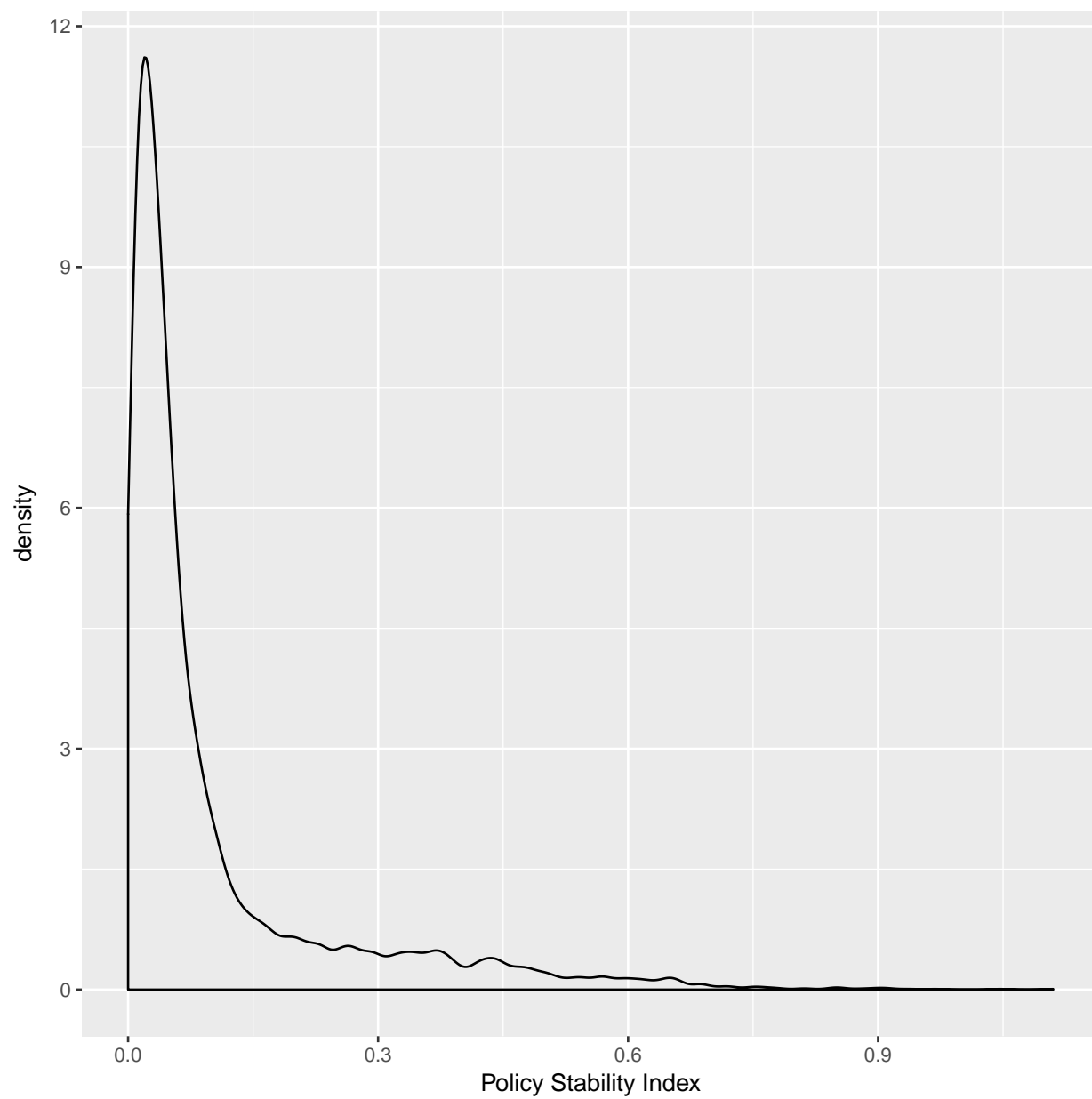


Figure 2: Density Plot of Volatility Index

References

- Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer & Patrick Walsh. 2001. "New tools in comparative political economy: The Database of Political Institutions." *World Bank Economic Review* 15(1):165 – 176.
- Coppedge, Michael, John Gerring, Staffan I. Lindberg, Svend-Erik Skaaning, Jan Teorell, David Altman, Frida Andersson, Michael Bernhard, M. Steven Fish, Adam Glynn, Allen Hicken, Carl Henrik Knutsen, Kelly McMann, Valeriya Mechkova, Farhad Miri, Pamela Paxton, Daniel Pemstein, Rachel Sigman, Jeffrey Staton & Brigitte Zimmerman. 2016. V-Dem Codebook v6. Technical report Varieties of Democracy (V-Dem) Project.
- Epp, Derek A. & Frank B. Baumgartner. 2016. "Complexcity, Capacity and Budget Punctuations." *Policy Studies Journal* 00(00):1–16.
- Geddes, Barbara, Joseph Wright & Erica Frantz. 2014. "Autocratic Breakdown and Regime Transitions: A New Data Set." *Perspectives on Politics* 12(2):313 – 331.
- Henisz, Witold. 2000. "The Institutional Environment for Economic Growth." *Economics and Politics* 12(1):1 – 31.
- John, Peter & Shaun Bevan. 2012. "What Are Policy Punctuations? Large Changes in the Legislative Agenda of the UK Government, 1911-2008." *Policy Studies Journal* 40(1):89–106.
- Jones, Bryan D. & Frank B. Baumgartner. 2014. "From There to Here: Punctuated Equilibrium to the General Punctuation Thesis to a Theory of Government Information Processing." *Policy Studies Journal* 40(1):1 – 19.
- Keefer, Philip & David Stasavage. 2003. "The Limits of Delegation: Veto Players, Central Bank Independence, and the Credibility of Monetary Policy." *American Political Science Review* 97(3):407 – 423.
- Lam, Wai Fung & Kwan Nok Chan. 2015. "How Authoritarianism Intensifies Punctuated Equilibrium: The Dynamics of Policy Attention in Hong Kong." *Governance* 28(4):549–570.
- Marshall, Monty G., Ted Robert Gurr & Keith Jagers. 2015. "Polity IV Project: Dataset Users' Manual." Center for Systemic Peace.
- Tsebelis, George. 2002. *Veto Players: How political institutions work*. Princeton: Princeton University Press.
- Tsebelis, George & Eric Chang. 2004. "Veto players and the structure of budgets in advanced industrialized countries." *European Journal of Political Research* 43(3):449 – 479.