Can Rising Inequality and State of Governance Help Explain Factionalization of Elites?

Prepared as a Coursework for ECON 405: Advanced Econometrics-I

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Introduction I

- Elites or the ruling class in societies determine the major policy decisions made by the government, from budgetary allocation to drug use policies and so many others.
- The elites are grouped into different identities, either religious, linguistic, racial, ancestral or many other socio-economic indicators.
- Inequality as a measure of structure in our society is very relevant. The differences in income and accumulated wealth create social tension and give rise to various problems in our societies.
- The task of government in short is to govern. In principle, the people elect the government and the government governs the people, so it can be expressed that in ideal case people govern themselves.

Theoretical Overview I

- According to Vilfred Pareto, one of the first to propose the classical elite theory, "In every society, there is a class of people who have the highest insight in their branch of activity and to that class, can be given the name of elite."
- As defined by the fragile states index methodology (FFP 2017), factionalization of elites is the fragmentation of state institutions among various socio-economic dimensions. The index specifies the factionalization happens along these dimensions,
  - Ethnicity,
  - Economic Class,
  - Clan,
  - Race,
  - Religion,
  - Brinkmanship and
  - Gridlock Among Elites in Society.
- In broader terms, inequality can be of different types from social inequality to racial, gender or related to many different aspects of social lives.

Theoretical Overview II

- (Rein and Miller 1974) distinguishes nine separate ways to interpret the standard of equality. They

1. One-hundred-percentism,
2. The social minimum,
3. Equalisation of lifetime income profiles,
4. Mobility,
5. Economic inclusion,
6. Income shares,
7. Lowering the ceiling,
8. Avoidance of income & wealth crystallization and lastly
9. International yardsticks.

- UN also defines (Welch et al. 2006) governance as set of actions comprising of "traditions, institutions and processes" that determine how the power is being exercised, how the normal citizens get a voice and decisions on important public concern issues are made.

Theoretical Overview III

- According to United Nations (Welch et al. 2006), core characteristics of good governance are,

1. Participation,
2. Rule of Law,
3. Transparency,
4. Responsiveness,
5. Consensus Oriented,
6. Equity,
7. Effectiveness & Efficiency,
8. Accountability and
9. Strategic vision.

Related Literature I

- (Lister 2007) using inequality data as proxy for welfare state, finds negative relationship between election turnout and inequality thus confirming the public political behavior changing due to the role of welfare states.
- (Hellman and Kaufmann 2004) develops a proxy measure of inequality of influence for both firm and country level termed "crony bias" in politics. Firm behavior changes towards public institutions (courts and regulatory bodies) and influential firms actively weaken state institutions.
- Economic and Political inequality and their relationship with institutions according to (Savoia, Easaw, and McKay 2010) is some kind of inverse relationship.
- (Asongu and Odhiambo 2020) studies inequality threshold levels with the help GMM method. The findings provide inequality levels that nullify positive impacts of governance on female labor force participation.
- Ethnic issues and structure in Lithuania are discussed in (Kasatkina and Beresnevičiūtė 2010). The ethnic composition in politics and government roles in Lithuania and the inequality distribution across ethnic groups are discussed.
- he Malthusian dynamic model developed to explain productivity, inequality, property rights and population in (Dow and Reed 2013) matches with the historical and archaeological evidence in search of "Origins of Inequality".

Related Literature II

- (Iyekekpolo 2020) researches the birth of Boko Haram insurgency group in Nigeria. It mentions a number of potential reasons for such an event. Few of the factors relevant for our study would be economic poverty, historical north-south identity fractionalization and inequality causing grievances in northern Nigeria. The study differs from these factors and argues in favor of the statement that factions of political elites gave relevance to the insurgent group.
- (Gould 1989) investigates the power and position in a social structure specially for community elites. The study draws conclusion that position in a social network structure provides influence irrespective of other significant factors.

Data set and Variables

- Fragile States Index
- Positive Peace Index
- Freedom in the World Report

Variable Name	Indicator	Score Range	Source
$FactionalizedElite_{it}$	Factionalized Elites	0-10	Fragile States Index
$EconInequality_{it}$	Uneven Economic Development	0-10	Fragile States Index
$ExcluSocioEcon_{it}$	Exclusion by Socio-Economic Group	1-5	Varieties of Democracy (V-Dem)
$EqualOpp_{it}$	Equality of Opportunity	0-4	Freedom House
$GenderEqual_{it}$	Gender Inequality Index	1-5	United Nations Development Programme
$GroupGrievance_{it}$	Group Grievance Indicator	0-10	Fragile States Index
$LawSupportEqual_{it}$	Law to Support Equal Treatment of Population Segments	0-4	Freedom House
$ElectProcess_{it}$	Electoral Process	0-12	Freedom in the World
$GovEffective_{it}$	Government Effectiveness: Estimate	0-4	World Bank
$RuleLaw_{it}$	Rule of Law	0-16	Freedom House
$StatePopRel_{it}$	State Legitimacy	0-10	Fragile States Index
$PubServ_{it}$	Public Services	0-10	Fragile States Index
$AccesstoPubServ_{it}$	Access to Public Services	0-4	Varieties of Democracy (V-Dem)
$Region_{i}$	Region	Categorical	World Bank Development Indicators
$IncomeGroup_{i}$	Income Group	Categorical	World Bank Development Indicator

Econometric Models I

$$
\begin{aligned}
FactionalizedElite_{it} &= \beta_0 + \beta_1 EconInequality_{it} + \beta_2 GenderEqual_{it} + \beta_3 EqualOpp_{it} \\
&\quad + \beta_4 LawSupportEqual_{it} + \beta_5 ExcluSocioEcon_{it} + \beta_6 GroupGrievance_{it} \\
&\quad + \epsilon_{it} \qquad (1) \\
_i &= {}^{th}_{i} \text{ number of country} \\
_i &= 1, \ldots, 158 \\
_t &= {}^{th}_{t} \text{ time period, } (_t = 2009, \ldots, 2020) \\
\epsilon_{it} &= \text{Stochastic Disturbance Term.}
\end{aligned}
$$

$$
\begin{aligned}
FactionalizedElite_{it} &= \gamma_0 + \gamma_1 ElectProcess_{it} + \gamma_2 GovEffective_{it} + \gamma_3 RuleofLaw_{it} \\
&\quad + \gamma_4 StatePopRel_{it} + \gamma_4 PubServ_{it} + \gamma_5 AccesstoPubServ_{it} + \upsilon_{it} \qquad (2)
\end{aligned}
$$

Econometric Models II

$$\begin{aligned} FactionalizedElite_{it} = {} & \alpha_0 + \alpha_1 EconInequality_{it} + \alpha_3 GenderEqual_{it} + \alpha_4 EqualOpp_{it} \\ & + \alpha_5 LawSupportEqual_{it} + \alpha_6 ExcluSocioEcon_{it} + \alpha_7 GroupGrievance_{it} \\ & + \alpha_8 ElectProcess_{it} + \alpha_9 GovEffective_{it} + \alpha_{10} RuleofLaw_{it} \\ & + \alpha_{11} StatePopRel_{it} + \alpha_{12} PubServ_{it} + \alpha_{13} AccesstoPubServ_{it} + \mu_{it} \end{aligned} \tag{3}$$

$$\begin{aligned} FactionalizedElite_{it} = {} & \theta_0 + \theta_1 FactionalizedElite_{i,t-1} + \theta_2 FactionalizedElite_{i,t-2} \\ & + \theta_3 EconInequality_{it} + \theta_4 EconInequality_{i,t-1} \theta_5 EconInequality_{i,t-2} \\ & + \theta_6 GenderEqual_{it} + \theta_7 EqualOpp_{it} + \theta_8 LawSupportEqual_{it} \\ & + \theta_9 ExcluSocioEcon_{it} + \theta_{10} GroupGrievance_{it} + \theta_{11} ElectProcess_{it} \\ & + \theta_{12} ElectProcess_{i,t-1} + \theta_{13} ElectProcess_{i,t-2} + \theta_{14} GovEffective_{it} \\ & + \theta_{15} RuleofLaw_{it} + \theta_{16} RuleofLaw_{i,t-1} + \theta_{17} RuleofLaw_{i,t-2} \\ & + \theta_{18} StatePopRel_{it} + \theta_{19} StatePopRel_{i,t-1} + \theta_{20} StatePopRel_{i,t-2} \\ & + \theta_{21} PubServ_{it} + \theta_{22} AccesstoPubServ_{it} + \theta_{23} Year + \nu_{it} \end{aligned} \tag{4}$$

Diagnostic Tests I

- For equation 1, the inequality model shows **serial correlation (Wooldridge test for autocorrelation, Prob > F = 0.0000)** also the fixed effect model confirms **presence of heteroskedasticity (Modified Wald test, Prob>chi2 = 0.0000)**. However, the model has no contemporaneous cross-sectional correlation (Pesaran's test of cross-sectional independence = 0.725, Pr = 0.4686).
- The governance indicators model in equation 2 has **significant heteroskedasticity (Modified Wald test, Prob>chi2 = 0.0000)** and has **contemporaneous cross-sectional correlation (Pesaran's test of cross-sectional independence = 37.077, Pr = 0.0000)**. This model also **suffers from serial correlation**.
- The final static model from **equation 3 also suffers from heteroskedasticity (Modified Wald test, Prob>chi2 = 0.0000)** and other issues. However, the final static panel model does **not show any significant multicollinearity issues** in the model. So, in addition to fixed effect, random effect and pooled OLS models in page 13, we **also estimate linear regression with panel corrected standard error of the final static model in equation 3**.
- Hausman test (Holly 2004) provides result that in all the cases, **fixed effect model is better suited than random effects model**.

Diagnostic Tests II

- Similarly, Breusch-Pagan LM Test confirms that **random effect model is better suited than pooled OLS model**. So, for the static panel analysis, we solely rely on fixed effect models.
- Also, linear hypothesis test shows that **fixed effects model does not need time fixed effects**. All the results are reported in page 13 and 13.
- However, the Hausman test for panel misspecification shows that the **final fixed effect model in equation (3) is not correctly specified**.
- we estimate the dynamic panel model specified in equation (4). The result of the dynamic panel model using pooled OLS, fixed effect and two-step difference GMM estimation method is reported in page 1.
- The **Arellano-Bond test for AR (2) in first differences is not significant (Z= 1.71, Pr $>$ z = 0.087) while AR (1) is significant as expected**.
- the **two-step difference GMM method under the assumption of heteroskedasticity** (which is well founded from the results of static panel model), we can disregard Sargan test for overidentification test. The **Hansen test of overidentification lies at (chi2(68) = 75.55, Prob $>$ chi2 = 0.248) non-significant values** confirming that the candidate matrix consisting of instrumental variables are valid.

Static Panel Model Results I

	(1) Inequality FE Model	(2) Inequality RE Model	(3) Inequality Pooled Model	(4) Governance FE Model	(5) Governance RE Model	(6) Governance Pooled Model
EconInequality	-0.0988***	-0.0865***	0.130***			
	(0.0119)	(0.0123)	(0.0259)			
GenderEqual	-0.222***	-0.0344	0.216***			
	(0.0542)	(0.0515)	(0.0542)			
EqualOpp	0.268***	0.397***	0.600***			
	(0.0528)	(0.0523)	(0.0567)			
LawSupportEqual	0.118**	0.238***	0.279***			
	(0.0431)	(0.0424)	(0.0495)			
ExcluSocioEcon	0.431***	0.632***	0.0162			
	(0.0704)	(0.0601)	(0.0421)			
GroupGrievance	0.143***	0.188***	0.535***			
	(0.0145)	(0.0146)	(0.0186)			
ElectProcess				0.0142	0.0148	0.0429***
				(0.00847)	(0.00872)	(0.0119)
GovEffective				0.468***	0.652***	0.264***
				(0.0651)	(0.0641)	(0.0744)
RuleofLaw				-0.0654***	-0.110***	-0.0400*
				(0.0123)	(0.0121)	(0.0164)
StatePopRel				0.0768***	0.121***	0.759***
				(0.0148)	(0.0153)	(0.0265)
PubServ				-0.115***	-0.0861***	-0.0117
				(0.0168)	(0.0171)	(0.0229)
AccesstoPubServ				0.490***	0.641***	0.0637
				(0.0891)	(0.0758)	(0.0547)
_cons	4.376***	2.176***	-1.101***	4.062***	2.933***	0.750**
	(0.300)	(0.238)	(0.103)	(0.329)	(0.286)	(0.260)
N	1896	1896	1896	1896	1896	1896
R^2	0.193		0.764	0.109		0.806
adj. R^2	0.117		0.763	0.025		0.805

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Static Panel Model Results II

	(1) Overall FE Model	(2) Overall RE Model	(3) Overall Pooled Model	(4) Panel-corrected SE Model
EconInequality	-0.130***	-0.121***	-0.105***	-0.101***
	(0.0137)	(0.0143)	(0.0235)	(0.0271)
GenderEqual	-0.269***	-0.128*	-0.0447	-0.0822
	(0.0533)	(0.0506)	(0.0526)	(0.0422)
EqualOpp	0.127*	0.202***	0.0411	0.137**
	(0.0540)	(0.0533)	(0.0497)	(0.0455)
LawSupportEqual	0.0728	0.145**	-0.158**	-0.00130
	(0.0446)	(0.0449)	(0.0553)	(0.0456)
ExcluSocioEcon	0.348***	0.315***	-0.205***	-0.168*
	(0.0782)	(0.0690)	(0.0421)	(0.0700)
GroupGrievance	0.109***	0.157***	0.412***	0.333***
	(0.0145)	(0.0147)	(0.0153)	(0.0211)
ElectProcess	0.0184*	0.0210*	-0.0227*	0.0134
	(0.00787)	(0.00817)	(0.0107)	(0.0100)
GovEffective	0.412***	0.548***	0.363***	0.519***
	(0.0619)	(0.0621)	(0.0656)	(0.0589)
RuleofLaw	-0.0283*	-0.0586***	0.00232	-0.0643***
	(0.0122)	(0.0126)	(0.0189)	(0.0140)
StatePopRel	0.107***	0.133***	0.573***	0.346***
	(0.0143)	(0.0150)	(0.0246)	(0.0365)
PubServ	0.00107	0.00892	0.0439	0.0478*
	(0.0182)	(0.0191)	(0.0267)	(0.0243)
AccesstoPubServ	0.0599	0.256**	0.274***	0.392***
	(0.0947)	(0.0865)	(0.0613)	(0.0517)
_cons	3.675***	1.548***	-0.0265	0.524*
	(0.394)	(0.317)	(0.378)	(0.257)
N	1896	1896	1896	1896
R^2	0.246		0.861	0.957
adj. R^2	0.172		0.860	

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Dynamic Model Results I

	(1) Pooled Estimation for Dynamic Panel Model	(2) FE Estimation for Dynamic Panel Model	(3) 2-Step Difference GMM Estimation for Dynamic Panel Model
L1FactionalizedElite	0.960***	0.627***	0.609***
	(0.0249)	(0.0255)	(0.0358)
L2FactionalizedElite	0.0148	-0.0116	0.00902
	(0.0248)	(0.0238)	(0.0117)
EconInequality	-0.0391	-0.0587*	-0.00831
	(0.0258)	(0.0259)	(0.0175)
L1EconInequality	0.0201	0.0268	-0.0239
	(0.0403)	(0.0354)	(0.0197)
L2EconInequality	0.00858	0.0195	0.0466**
	(0.0260)	(0.0252)	(0.0155)
GenderEqual	0.00452	0.00858	0.00482
	(0.0130)	(0.0375)	(0.0213)
EqualOpp	0.0195	0.0229	-0.0167
	(0.0121)	(0.0327)	(0.0282)
LawSupportEqual	-0.00194	0.0125	-0.0156
	(0.0137)	(0.0284)	(0.0263)
ExcluSocioEcon	-0.0431***	0.0785	0.0277
	(0.0102)	(0.0500)	(0.0494)
GroupGrievance	0.0167***	0.0572***	0.0535***
	(0.00428)	(0.0103)	(0.0124)

Dynamic Model Results II

ElectProcess	0.0193**	0.0119	0.0200***
	(0.00664)	(0.00681)	(0.00509)
L1ElectProcess	-0.0182*	-0.0137	-0.0148**
	(0.00902)	(0.00795)	(0.00517)
L2ElectProcess	-0.000699	0.00877	-0.00371
	(0.00651)	(0.00631)	(0.00594)
GovEffective	0.0202	0.140***	0.122***
	(0.0161)	(0.0414)	(0.0364)
RuleofLaw	0.00810	0.00666	0.00867
	(0.0110)	(0.0106)	(0.00991)
L1RuleofLaw	-0.0453**	-0.0456***	-0.0383***
	(0.0147)	(0.0131)	(0.00837)
L2RuleofLaw	0.0431***	0.0232*	0.0166*
	(0.0104)	(0.0103)	(0.00695)
StatePopRel	0.223***	0.194***	0.177***
	(0.0165)	(0.0162)	(0.0168)
L1StatePopRel	-0.209***	-0.133***	-0.123***
	(0.0247)	(0.0219)	(0.0162)
L2StatePopRel	-0.00349	0.00452	-0.0106
	(0.0182)	(0.0173)	(0.0140)
PubServ	0.00781	0.00671	-0.0104
	(0.00660)	(0.0132)	(0.0169)
AccesstoPubServ	0.0374*	-0.0468	-0.0657
	(0.0151)	(0.0614)	(0.0449)

Dynamic Model Results III

2011.Year	0	0	-0.0260
	(.)	(.)	(0.0135)
2012.Year	-0.00499	0.0197	0.00290
	(0.0229)	(0.0201)	(0.0120)
2013.Year	-0.0367	0.0112	
	(0.0230)	(0.0205)	
2014.Year	0.0197	0.0764***	0.0430***
	(0.0230)	(0.0210)	(0.0111)
2015.Year	-0.0705**	0.0147	0.00704
	(0.0232)	(0.0216)	(0.0125)
2016.Year	-0.00219	0.0827***	0.0554***
	(0.0234)	(0.0224)	(0.0147)
2017.Year	-0.0135	0.0902***	0.0805***
	(0.0233)	(0.0232)	(0.0160)
2018.Year	-0.0110	0.114***	0.0920***
	(0.0235)	(0.0246)	(0.0196)
2019.Year	-0.0391	0.108***	0.0925***
	(0.0239)	(0.0265)	(0.0217)
2020.Year	-0.0210	0.141***	0.125***
	(0.0243)	(0.0283)	(0.0266)
_cons	-0.0919	1.146***	
	(0.0979)	(0.295)	
N	1580	1580	1422
R^2	0.993	0.666	
adj. R^2	0.993	0.621	

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Discussion I

- Considering the two-step difference GMM result as the only relevant result for our discussion, we see a negative although not significant relationship exists. A one-unit increase in economic inequality would lead to 0.831% decrease in fragmentation of state institutions.
- **It would be reasonable to think that the relationship between these two would be positive that increase in inequality would also increase fragmentation of state institutions**.
- This can be explained by the fact that in the deteriorating economic unequal condition of a society, wealth and power is accumulated on the hand of the elites. **As the inequality rises, so a single group or a single faction of elites, defined by religion, ethnicity, region or any other identities, may have increasingly more wealth and power than the rest of the factions and would come out as a leader** (and victorious if we consider wealth accumulation as a game).
- So, it would be reasonable to believe that under the leadership of a strong and powerful faction of elites, the fight and power struggles would stop.

Discussion II

- **Examples can be drawn from historical events like Banu Saud tribe ruling current Kingdom of Saudi Arabia, Alawite sect of Kalbiyya tribe dominating politics of Syria (President Bashar Al-assad hailing from this clan), Rajapaksa family** in Sri Lanka and various powerful clans and tribes in world history.
- Positive relationship between gender equality and factionalized elites.
- Equal opportunity and law supporting equal opportunities shows negative relationship with factionalizaed elites. **It is as if the society being more gender equal driving up the elite struggles**.
- The elitist behaviour and power dominance played by the elites are all founded from patriarchal roots. The elitism is a manner a expression of patriarchal rule by men over society and obviously women. So, **women being gender equal, more gender equal than before poses a power risk to the patriarchal elites** in the society who might consider women as new elites and thus driving up the internal struggle.
- **Equal opportunity and law supporting equal opportunities shows negative relationship with factionalizaed elites**.
- **Group grievance shows positive relationship with the dependent variable**. The group grievance indicator used in this study is defined by the "divisions and schisms" between various groups in the society, especially from political and social attributes.

Discussion III

- From the governance indicators, **public service and access to public service both show negative relationship** with factionalized elites. it is may be that **access to public services reduces the monopoly power of the elites** by empowering the masses of people.
- The state population relation uses state legitimacy indicator which can be also interpreted as the perceived legitimacy of the elites or ruling class. The relationship is also positive and significant.
- Similarly rule of law, electoral process and government effectiveness indicator are very significant and have positive relationship.
- the fixed effect dynamic model explains more than 60% variation (table 1) in the independent variable while the static model (table 13) explain little over 17% without time fixed effects (Which has been already non significant in the static model).

Limitation of the Study

- The study is limited to only a decade of data points so we have been unable to test any kind of panel co-integration in our model.
- The region and income group fixed effects may play an important part in analysis which have been excluded from analysis.

Conclusion

- Dynamic panel model parameters (obtained from two-step difference GMM estimation method) are more efficient than the static panel model estimates.
- The inequality and governance parameter results obtained under the well-founded assumption of heteroskedasticity show on general negative relationship of inequality with factionalized elites indicators while governance indicators show strong and positive relationship with out dependent variable factionalization of elites.

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Thank You So Much!!!
Any Questions??