Does Consensus Democracy Reduce Social Inequality?

Introduction

When Lijphart first started his research on systems of governance, and consensus democracy in particular, Lowell's "axiom of politics"(Lowell, 1896) constituted the "conventional wisdom" (Lijphart, 2012, p.255) of the time. Lowell argued that majoritarian systems result in stronger governments and thus more decisive policymaking, with the implication that this leads to greater democratic realisation as opposed to stalemates and gridlocks. Therefore, it would seem to follow that majoritarian democracies, rather than consensus ones, reduce social inequality. In *Patterns of Democracy* Lijphart firmly rejects this academic tradition and argues the opposite case: "majoritarian democracies do not outperform the consensus democracies on effective government and effective policy-making – in fact, the consensus democracies have the better record." (Lijphart, 2012, p.295).

In this essay I support Lijphart's conclusion, but argue that it is less firm than he suggests when you introduce an additional control. Using his data set, I start by demonstrating that economic inequality is a suitable proxy for gender inequality, justifying my decision to take it as the overarching measure of social inequality, before testing its relationship with consensus democracy and political equality. I note some difficulties in establishing the direction of the causal relation, if indeed one exists at all, and the limitations of my analysis.

Theoretical Argument

Lijphart measures consensus democracy with the "executive-parties dimension", which assesses five key areas: the effective number of parties, cabinet type, electoral system, the nature of interest groups, and executive dominance over the legislature. Together, they measure the potential for political power to become concentrated in a single governing party. According to Lijphart, consensus democracy is notably different from majoritarianism as a result of its "kinder, gentler" (Lijphart, 2012) nature. Consensus democracies promote dialogue and compromise, since the cooperation of smaller parties with large governing coalitions is frequently required to enact political change. Consequently, more citizens are incorporated in the decision-making process and policy outcomes are more likely to represent the supermajority. With a more diverse cross-section of society represented it is assumed that there will be greater redistribution of resources, and a tendency towards a reduction in social inequality.

The reverse of this argument is that, since more political actors must agree in order for change to be implemented, politics will stagnate, and thus progress will so. Tsebelis outlines this view in *Veto Players* ("actors whose [unanimous] agreement is necessary for a change of the status quo" (Tsebelis, 2002, p.9)), stating that more veto players exist in consensus democracies (e.g. minority coalition partners, devolved authorities), and that just one of these players dissenting can slow down or prevent positive legislation. This is supported by Boix et al., who find that policy change is "slower and less dramatic under presidential systems than parliamentary ones"(Boix et al., 2012) due to the president acting as an additional veto player. Thus, there is support both for and against the claim that consensus democracy reduces social inequality.

However, there are problems with Tsebelis's analysis. The definition of a Veto Player is hardly clear, as it is difficult to define whose agreement is *absolutely necessary* for a policy to be implemented. For example, Tsebelis writes of coalition partners, but these are not irreplaceable, and it is often not in a minority partner's interest to impede legislation and risk losing their inflated power-status. Particularly in non-presidential systems, it could be argued that there are no players upon which the passing of new policies *necessarily* depends. Although it is plausible that policy might be enacted more slowly in consensus democracies, I see no reason why this must decelerate all the way to

political inertia, and as long as there is not complete deadlock it is surely preferable that inclusive laws are passed slightly less swiftly. For this reason I find Lijphart's positive view of consensus democracies, that they promote compromise rather than create deadlock, to be more persuasive.

Empirical Analysis

Indicators, Controls and Outliers

To start with, I omit two outliers from the dataset.

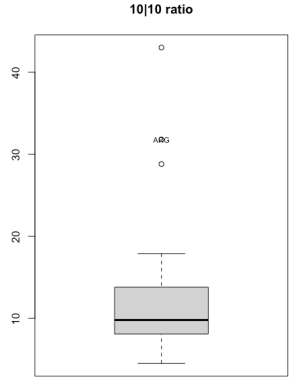


Figure 3

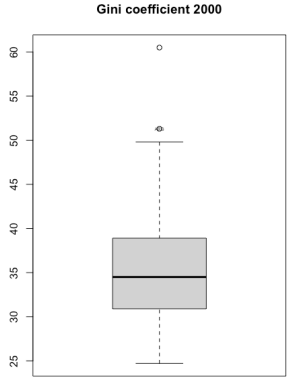


Figure 2

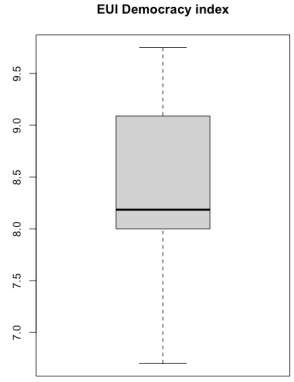
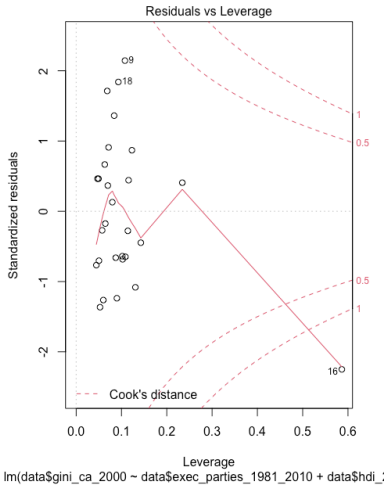


Figure 4

In Figure 2, the outliers are Argentina and Botswana, while Figure 3 adds Costa Rica. In the EIU Democracy index, no outliers need to be omitted. Of the three total outliers, I omit Argentina and Botswana, adding to Lijphart's sole exclusion of Botswana. Botswana is omitted because of its exceptionally high Gini coefficient and unusual economy, with its mineral sector meaning that a very small proportion of the labour force accounts for more than a third of GDP, 70-80% of exports and almost half of government revenue (Okatch et al., 2013). Unlike Lijphart I omit Argentina, because its uncharacteristically high Gini coefficient in 2000, when the data was taken, was the result of recent macroeconomic crises. For the opposite reason, Costa Rica is left in; the level of poverty in Costa Rica has been consistently high for decades, and is due to no peculiarities of geography or economy, so its circumstances are not exceptional.

In seeing if the data supports the theoretical argument that consensus democracy reduces social inequality, I focus principally on economic equality. This is partly due to space constraints, and also because economic equality is an effective proxy for gender equality. I control for HDI and logged population, except when performing regressions involving the women's representation in parliament, where I exclude HDI as a control so as to avoid double counting, since women's representation is included within it. In all other instances I keep these variables as controls for several reasons. HDI measures human development, so not including it as a control would exaggerate any relationship between the executive-parties dimension and inequality. This is because its component parts - average life expectancy, expected years of schooling, and living standards - are already correlated with equality. Similarly, Deaton and Paxson have demonstrated a significant negative relationship between a country's population size and income inequality (Deaton and Paxson, 1997), partly because smaller countries are more susceptible to macroeconomic shocks. Thus, it must be controlled for to prevent confounding effects. The figure below shows the result of not controlling for population; India (16) has a drastically disproportionate affect on the data.



Regarding the relation between economic and political equality, Dahl states: “many resources that flow directly or indirectly from one’s position in the economic order can be converted into political resources”(Dahl, 1996). Similarly, Winters and Page suggest that “from GATT and WTO to NAFTA and beyond, there are indications that US international economic policies have been more closely attuned to US owners of multinational capital […] than to ordinary citizens”(Winters and Page, 2009). More generally, Ferguson et al. suggest that “perhaps nothing really big can happen in American politics without support from at least some sizeable faction of the wealthiest Americans” (Ferguson et al., 1995, ch.2). This interpretation is supported by the following regressions:

10|10 Ratio - Democracy index

	Dependent variable:
	10|10 Ratio
EIU Democracy index	-4.113**
	(1.983)
HDI	-27.108
	(16.643)
Population	-1.681**
	(0.791)
Constant	86.009***
	(16.246)
Observations	30
R^2	0.450
Adjusted R^2	0.386
Residual Std. Error	6.562 (df = 26)
F Statistic	7.081*** (df = 3; 26)
Note:	*p<0.1; **p<0.05; ***p<0.01

20|20 Ratio - Democracy index

	Dependent variable:
	20|20 Ratio
EIU Democracy index	-2.126**
	(0.867)
HDI	-12.197
	(7.277)
Population	-0.786**
	(0.346)
Constant	42.665***
	(7.103)
Observations	30
R^2	0.501
Adjusted R^2	0.443
Residual Std. Error	2.869 (df = 26)
F Statistic	8.687*** (df = 3; 26)
Note:	*p<0.1; **p<0.05; ***p<0.01

Gini - Democracy index

	Dependent variable:
	Gini coefficient
EIU Democracy index	-4.659***
	(1.565)
HDI	-16.791
	(13.042)
Population	-1.063*
	(0.595)
Constant	98.162***
	(13.366)
Observations	28
R^2	0.503
Adjusted R^2	0.441
Residual Std. Error	4.736 (df = 24)
F Statistic	8.095*** (df = 3; 24)
Note:	*p<0.1; **p<0.05; ***p<0.01

These show the relationships between various measures of economic equality, and the EIU Democracy Index. This index is produced by the Economists' Intelligence Unit (EIU), and measures democracy based on five categories: electoral process and pluralism, civil liberties, the functioning of government, political participation, and political culture. Thus, it reflects a substantive range of the factors which constitute political equality. The measures of economic inequality chosen are the 10|10 ratio, which compares the income share of the top and bottom 10%, the 20|20 ratio, which does the same for the top and bottom 20%, and the Gini coefficient, which measures the degree of variation from a perfectly equal distribution of income. I have chosen these since the Gini coefficient is particularly sensitive to inequalities in the middle of the sample so may not duly display highly oppressed or privileged minorities. The two ratios balance this out by leaning towards the opposite tendency. As can be seen, all three measures reveal a relationship between economic and political equality at below a 5% significance level, lending support to the legitimacy of economic inequality as a proxy. Furthermore, the large relative change suggests a meaningful relationship; a one point increase in the democracy index score (scale 1-10) leads to a 4.7% decrease in income inequality.

However, political equality is still a rather speculative link, for the important reason that it is very difficult to see which way the causal relationship lies. It is possible to argue that greater economic equality leads to more political empowerment and thus more political equality, but it is also plausible to suggest that a higher level of democracy causes greater economic equality through more communication between citizens and their representatives. Most likely, both statements are true in part. Furthermore, electoral systems may well affect the ways that citizens interact with political institutions (Duverger, 1954; Cox, 1997) so it is harder to measure any association while maintaining internal validity.

The causal relation between economic inequality and gender inequality is more established. Dollar and Gatti have shown that the two are closely linked (Dollar and Gatti, 1999), and my regressions below confirm this at the 1% significance level for the Gini coefficient and the 10|10 ratio against the Gender Inequality Index (GII) and women's representation in parliament. GII is a weighted adjustment of HDI to reflect levels of reproductive health, female empowerment (educational attainment, parliamentary representation), and labour force participation, on a 0-1 scale. Although it fails to consider income differentials by gender, this is partially compensated for by my separate regressions for parliamentary representation, a variable which serves as an indicator for top level career achievement. Alongside the high significance level, the evidence for a relationship between gender inequality and economic inequality is strong.

Gini - GII Regression

	Dependent variable:		
	Gender Inequality Index		
	(1)	(2)	(3)
Gini Coefficient	0.015***	0.007***	0.007***
	(0.003)	(0.002)	(0.002)
HDI		-1.073***	-1.045***
		(0.139)	(0.144)
Population			0.006
			(0.007)
Constant	-0.168	1.004***	0.908***
	(0.103)	(0.162)	(0.198)
Observations	28	28	28
R^2	0.484	0.848	0.852
Adjusted R^2	0.464	0.836	0.834
Residual Std. Error	0.097 (df = 26)	0.054 (df = 25)	0.054 (df = 24)
F Statistic	24.392*** (df = 1; 26)	69.610*** (df = 2; 25)	46.126*** (df = 3; 24)
Note:			*p<0.1; **p<0.05; ***p<0.01

10|10 Ratio - GII Regression

	Dependent variable:		
	Gender Inequality Index		
	(1)	(2)	(3)
10|10 Ratio	0.011***	0.004***	0.005***
	(0.002)	(0.002)	(0.002)
HDI		-1.189***	-1.166***
		(0.139)	(0.142)
Population			0.006
			(0.007)
Constant	0.204***	1.285***	1.199***
	(0.037)	(0.128)	(0.164)
Observations	30	30	30
R^2	0.434	0.847	0.851
Adjusted R^2	0.414	0.836	0.834
Residual Std. Error	0.112 (df = 28)	0.059 (df = 27)	0.059 (df = 26)
F Statistic	21.488*** (df = 1; 28)	74.855*** (df = 2; 27)	49.661*** (df = 3; 26)
Note:			*p<0.1; **p<0.05; ***p<0.01

Gini - Women in Parliament Regression

	Dependent variable:	
	Women in Parliament	
	(1)	(2)
Gini Coefficient	-0.889***	-0.985***
	(0.258)	(0.230)
Population		-2.727***
		(0.936)
Constant	43.667***	73.498***
	(8.991)	(12.952)
Observations	28	28
R^2	0.314	0.487
Adjusted R^2	0.287	0.446
Residual Std. Error	8.490 (df = 26)	7.482 (df = 25)
F Statistic	11.881*** (df = 1; 26)	11.888*** (df = 2; 25)
Note:		*p<0.1; **p<0.05; ***p<0.01

10|10 Ratio - Women in Parliament Regression

	Dependent variable:	
	Women in Parliament	
	(1)	(2)
10|10 Ratio	-0.427**	-0.551***
	(0.208)	(0.199)
Population		-2.588**
		(1.066)
Constant	18.111***	44.751***
	(3.154)	(11.357)
Observations	30	30
R^2	0.131	0.287
Adjusted R^2	0.100	0.234
Residual Std. Error	9.383 (df = 28)	8.658 (df = 27)
F Statistic	4.221** (df = 1; 28)	5.423** (df = 2; 27)
Note:		*p<0.1; **p<0.05; ***p<0.01

There remains a point of doubt on Lijphart's projection of this relationship as "an indirect proxy of how well minorities are represented generally" (Lijphart, 2012, p.280). Women and ethnic minorities would not seem to have similar experiences insofar as the treatment and experience of ethnic minorities differs substantially depending on their ethnicity and regional location, whereas female experiences tend to be more consistent across a given country. More detailed analysis is needed to justify Lijphart's analytical leap, but I was unable to find data on specific ethnic groups across different countries, so it is outside the scope of this essay. I will therefore be continuing with the assumption that countries where women experience more equality show similar inclusivity towards minorities.

Economic Equality and Consensus Democracy

Gini Coefficient - Executive Parties

	Dependent variable:		
	Gini Coefficient		
	(1)	(2)	(3)
Executive Parties	-2.897**	-2.426**	-2.593**
	(1.126)	(0.997)	(0.967)
HDI		-33.703***	-35.627***
		(11.216)	(10.885)
Population			-1.027
			(0.610)
Constant	34.765***	63.108***	74.754***
	(1.104)	(9.481)	(11.469)
Observations	28	28	28
R^2	0.203	0.414	0.476
Adjusted R^2	0.172	0.368	0.411
Residual Std. Error	5.763 (df = 26)	5.037 (df = 25)	4.862 (df = 24)
F Statistic	6.616** (df = 1; 26)	8.844*** (df = 2; 25)	7.276*** (df = 3; 24)
Note:			*p<0.1; **p<0.05; ***p<0.01

10|10 Ratio - Executive Parties

	Dependent variable:		
	10|10 Ratio		gini_ca_2000
	(1)	(2)	(3)
Executive Parties	-4.269***	-3.283**	-2.593**
	(1.318)	(1.232)	(0.967)
HDI		-37.894***	-35.627***
		(13.514)	(10.885)
Population			-1.027
			(0.610)
Constant	13.000***	44.539***	74.754***
	(1.330)	(11.310)	(11.469)
Observations	30	30	28
R^2	0.273	0.437	0.476
Adjusted R^2	0.247	0.395	0.411
Residual Std. Error	7.270 (df = 28)	6.515 (df = 27)	4.862 (df = 24)
F Statistic	10.497*** (df = 1; 28)	10.466*** (df = 2; 27)	7.276*** (df = 3; 24)
Note:			*p<0.1; **p<0.05; ***p<0.01

The above regressions are recreations of Lijphart's, which aimed to show that the executive-parties dimension - his measure of consensus democracy - had a statistically significant effect on economic equality. I confirm this relationship for the Gini coefficient and the 10|10 ratio, and it should be noted that despite nominally falling from the 1% significance level to the 5% significance level with Argentina eliminated from the data set, in reality it is significant at the 1.6% significance level for Gini, and the 1.3% significance level for 10|10, so the change is very small. Thus, even with my omission, the evidence suggests that consensus democracy does improve economic equality.

Below, I rerun the regression with an additional control - the EIU Democracy Index. While it is true that Lijphart only selected countries which have a Freedom House rating of "Free", the practical requirements of this are unspecific, calling for states to strive for "equality of opportunity for everyone, including women and minority groups" ("Civil Liberties" freedomhouse.org, 2018), but with a relatively unspecified account of how much these aims must be achieved. For this reason I add the EIU Democracy Index in order to make sure that the effect of consensus democracy isn't being confounded by it being present in democracies which are simply *more democratic*, when I am trying to see if consensus democracy is more *effective* at reducing democracy in countries which are *equally* democratic.

Gini Dem Control

	Dependent variable:
	Gini Coefficient
Executive Parties	-1.760*
	(0.981)
HDI	-19.641
	(12.579)
Population	-1.126*
	(0.570)
EIU Democracy index	-3.504**
	(1.630)
Constant	91.711***
	(13.285)
Observations	28
R^2	0.564
Adjusted R^2	0.488
Residual Std. Error	4.532 (df = 23)
F Statistic	7.436*** (df = 4; 23)
Note:	*p<0.1; **p<0.05; ***p<0.01

20|20 Ratio Dem Control

	Dependent variable:
	20|20 Ratio
Executive Parties	-1.208**
	(0.556)
HDI	-12.516*
	(6.808)
Population	-0.771**
	(0.324)
EIU Democracy index	-1.340
	(0.888)
Constant	36.298***
	(7.263)
Observations	30
R^2	0.580
Adjusted R^2	0.513
Residual Std. Error	2.684 (df = 25)
F Statistic	8.625*** (df = 4; 25)
Note:	*p<0.1; **p<0.05; ***p<0.01

10|10 Ratio Dem Control

	Dependent variable:
	10|10 Ratio
Executive Parties	-2.811**
	(1.268)
HDI	-27.851*
	(15.521)
Population	-1.647**
	(0.738)
EIU Democracy index	-2.285
	(2.024)
Constant	71.197***
	(16.556)
Observations	30
R^2	0.540
Adjusted R^2	0.466
Residual Std. Error	6.118 (df = 25)
F Statistic	7.337*** (df = 4; 25)
Note:	*p<0.1; **p<0.05; ***p<0.01

By adding this control the significance level reduces even more, to the 10% significance level (8.6%) for the Gini coefficient. To test the relationship more completely I included the 20|20 ratio as well. This ratio is significant at 4.0%, and the 10|10 at 3.6%. Interestingly, there is a greater decrease in the significance level for the Gini Coefficient, which is most sensitive to inequality changes in the middle of the sample, and the least change in the 10|10, which measures the tails. This could suggest that Consensus democracy more clearly reduces extreme cases of social inequality, with less of an effect on the middle classes. This would be in line with Lijphart's claim that consensus democracy is particularly beneficial for minorities and those who live in relative poverty, ensuring their representation and inclusion in public discourse.

Conclusion

Overall, my analysis supports Lijphart's view that consensus democracy reduces social inequality, but with several caveats. Although the overall relationship between economic equality and consensus democracy holds, this is lessened by the removal of Argentina from the data set and the extension of Lijphart's "Freedom" requirement into a more robust control for democratic development. Moreover, while there is an obvious relationship between economic inequality and gender inequality, it is not clear that gender inequality is a suitable proxy for all other sorts of minority representation, such as that of ethnic groups. On top of this, the supposed relationship with political equality is generally uncertain, as the causality could run in either direction. This particular issue requires further research, since if political equality does turn out to cause consensus democracy, rather than the other way round, then it could well be the case that it also holds a causal relation to other measures of social equality by promoting a generally inclusive attitude. This would pull into doubt all aspects of Lijphart's theory.

2193 words (- headings, citations)

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Background References

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R CODE

```
install.packages("stargazer")

library(stargazer)


data<-read.csv("http://andy.egge.rs/data/L.csv")

View(data)


names(data)[3] <- "exec_parties_1981_2010"

names(data)[55] <- "womens_parl_representation_1990"

names(data)[59] <- "gender_inequality_index_2008"

names(data)[60] <- "ratio_10_10_ca_2000"

names(data)[61] <- "ratio_20_20_ca_2000"

names(data)[62] <- "gini_ca_2000"

names(data)[67] <- "net_pub_social_spending_2005"

names(data)[68] <- "net_pub_mandated_social_expenditure_2005"

names(data)[76] <- "hdi_2010"

names(data)[57] <- "womens_cabinet_representation_1995"

names(data)[49] <- "eiu_democracy_index_2006_2010"

names(data)[75] <-"pop_in_thousands_2009"

names(data)[64] <- "non_mandatory_turnout_1981_2010"


boxplot(data$gini_ca_2000, main="Gini coefficient 2000",xlab="Figure 2")

text(data$gini_ca_2000, labels=data$country,cex=0.4)

OutVals <- boxplot(data$gini_ca_2000)$out

which(data$gini_ca_2000 %in% OutVals)

list(data$country)

boxplot(data$ratio_10_10_ca_2000, main="10|10 ratio",xlab="Figure 3")

text(data$ratio_10_10_ca_2000, labels=data$country,cex=0.7)

OutVals <- boxplot(data$ratio_10_10_ca_2000)$out
```

```
which(data$ratio_10_10_ca_2000 %in% OutVals)

list(data$country)

data$gini_ca_2000[1] <- NA

data$gini_ca_2000[7] <- NA


cor.test(data$gini_ca_2000, data$gender_inequality_index_2008, na.rm = TRUE)

cor.test(data$gini_ca_2000, data$womens_cabinet_representation_1995, na.rm = TRUE)

cor.test(data$gini_ca_2000, data$womens_parl_representation_1990, na.rm = TRUE)


model1 <- lm(data$gender_inequality_index_2008 ~ data$gini_ca_2000)

summary(model1)

model2 <- lm(data$gender_inequality_index_2008 ~ data$gini_ca_2000 + data$hdi_2010)

summary(model2)

model3 <- lm(data$gender_inequality_index_2008 ~ data$gini_ca_2000 + data$hdi_2010 +
log(data$pop_in_thousands_2009))

summary(model3)

stargazer(model1, model2, model3, type = "html", title="Gini - GII Regression", single.row = FALSE, ci.level = 0.95,
dep.var.labels = c("Gender Inequality Index"), covariate.labels = c("Gini Coefficient", "HDI", "Population"),
out="regression1.html")


model1 <- lm(data$womens_parl_representation_1990 ~ data$gini_ca_2000)

summary(model1)

model2 <- lm(data$womens_parl_representation_1990 ~ data$gini_ca_2000 + log(data$pop_in_thousands_2009))

summary(model2)

stargazer(model1, model2, type = "html", title="Gini - Women in Parliament Regression", single.row = FALSE, ci.level
= 0.95, dep.var.labels = c("Women in Parliament"), covariate.labels = c("Gini Coefficient", "Population"),
out="regression2.html")


model1 <- lm(data$gender_inequality_index_2008 ~ data$ratio_10_10_ca_2000)

summary(model1)

model2 <- lm(data$gender_inequality_index_2008 ~ data$ratio_10_10_ca_2000 + data$hdi_2010)

summary(model2)
```

```
model3 <- lm(data$gender_inequality_index_2008 ~ data$ratio_10_10_ca_2000 + data$hdi_2010 +
log(data$pop_in_thousands_2009))

summary(model3)

stargazer(model1, model2, model3, type = "html", title="10|10 Ratio - GII Regression", single.row = FALSE, ci.level =
0.95, dep.var.labels = c("Gender Inequality Index"), covariate.labels = c("10|10 Ratio", "HDI", "Population"),
out="regression3.1.html")



model1 <- lm(data$womens_parl_representation_1990 ~ data$ratio_10_10_ca_2000)

summary(model1)

model2 <- lm(data$womens_parl_representation_1990 ~ data$ratio_10_10_ca_2000 +
log(data$pop_in_thousands_2009))

summary(model2)

stargazer(model1, model2, type = "html", title="10|10 Ratio - Women in Parliament Regression", single.row = FALSE,
ci.level = 0.95, dep.var.labels = c("Women in Parliament"), covariate.labels = c("10|10 Ratio", "Population"),
out="regression4.html")



model1 <- lm(data$gini_ca_2000 ~ data$exec_parties_1981_2010)

summary(model1, na.rm = TRUE)

model2 <-lm(data$gini_ca_2000 ~ data$exec_parties_1981_2010 + data$hdi_2010)

summary(model2)

plot(model2)

model3 <-lm(data$gini_ca_2000 ~ data$exec_parties_1981_2010 + data$hdi_2010
+log(data$pop_in_thousands_2009))

summary(model3)

stargazer(model1, model2, model3, type = "html", title="Gini Coefficient - Executive Parties", single.row = FALSE,
ci.level = 0.95, dep.var.labels = c("Gini Coefficient"), covariate.labels = c("Executive Parties", "HDI", "Population"),
out="regression00.html")



model1 <- lm(data$ratio_10_10_ca_2000 ~ data$exec_parties_1981_2010)

summary(model1, na.rm = TRUE)

model2 <-lm(data$ratio_10_10_ca_2000 ~ data$exec_parties_1981_2010 + data$hdi_2010)

summary(model2)

plot(model2)
```

```
model3 <-lm(data$ratio_10_10_ca_2000 ~ data$exec_parties_1981_2010 + data$hdi_2010
+log(data$pop_in_thousands_2009))

summary(model3)

stargazer(model1, model2, model3, type = "html", title="10|10 Ratio - Executive Parties", single.row = FALSE, ci.level
= 0.95, dep.var.labels = c("10|10 Ratio"), covariate.labels = c("Executive Parties", "HDI", "Population"),
out="regression01.html")



cor.test(data$gini_ca_2000, data$exec_parties_1981_2010, na.rm = TRUE)

plot(data$exec_parties_1981_2010, data$gini_ca_2000, main="Figure 1", xlab="Consensus Democracy",ylab="Gini
coefficient")

abline(lm(data$gini_ca_2000~data$exec_parties_1981_2010))

text(data$exec_parties_1981_2010,data$gini_ca_2000,labels=data$country,cex=0.75)



cor.test(data$gini_ca_2000, data$exec_parties_1981_2010 + data$hdi_2010 +log(data$pop_in_thousands_2009), na.rm
= TRUE)

cor.test(data$ratio_10_10_ca_2000, data$exec_parties_1981_2010 + data$hdi_2010
+log(data$pop_in_thousands_2009), na.rm = TRUE)




OutVals <- boxplot(data$eiu_democracy_index_2006_2010, main="EUI Democracy index", xlab="Figure 4")$out

which(data$eiu_democracy_index_2006_2010 %in% OutVals)

list(data$country)



model4 <-lm(data$gini_ca_2000 ~ data$exec_parties_1981_2010 + data$hdi_2010 +
log(data$pop_in_thousands_2009) + data$eiu_democracy_index_2006_2010)

summary(model4)

stargazer(model4, type = "html", title="Gini Dem Control", single.row = FALSE, ci.level = 0.95, dep.var.labels =
c("Gini Coefficient"), covariate.labels = c("Executive Parties", "HDI", "Population", "EIU Democracy index"),
out="regression5.html")



model5 <-lm(data$ratio_10_10_ca_2000 ~ data$exec_parties_1981_2010 + data$hdi_2010 +
log(data$pop_in_thousands_2009) + data$eiu_democracy_index_2006_2010)

summary(model5)
```

```
stargazer(model5, type = "html", title="10|10 Ratio Dem Control", single.row = FALSE, ci.level = 0.95, dep.var.labels = c("10|10 Ratio"), covariate.labels = c("Executive Parties", "HDI", "Population", "EIU Democracy index"), out="regression6.html")



model6 <-lm(data$ratio_20_20_ca_2000 ~ data$exec_parties_1981_2010 + data$hdi_2010 + log(data$pop_in_thousands_2009) + data$eiu_democracy_index_2006_2010)

summary(model6)

stargazer(model6, type = "html", title="20|20 Ratio Dem Control", single.row = FALSE, ci.level = 0.95, dep.var.labels = c("20|20 Ratio"), covariate.labels = c("Executive Parties", "HDI", "Population", "EIU Democracy index"), out="regression7.html")



model7 <-lm(data$ratio_10_10_ca_2000 ~ data$eiu_democracy_index_2006_2010 + data$hdi_2010 + log(data$pop_in_thousands_2009))

summary(model7)

stargazer(model7, type = "html", title="10|10 Ratio - Democracy index", single.row = FALSE, ci.level = 0.95, dep.var.labels = c("10|10 Ratio"), covariate.labels = c("EIU Democracy index", "HDI", "Population"), out="regression8.html")



model8 <-lm(data$ratio_20_20_ca_2000 ~ data$eiu_democracy_index_2006_2010 + data$hdi_2010 + log(data$pop_in_thousands_2009))

summary(model8)

stargazer(model8, type = "html", title="20|20 Ratio - Democracy index", single.row = FALSE, ci.level = 0.95, dep.var.labels = c("20|20 Ratio"), covariate.labels = c("EIU Democracy index", "HDI", "Population"), out="regression9.html")



model9 <-lm(data$gini_ca_2000 ~ data$eiu_democracy_index_2006_2010 + data$hdi_2010 + log(data$pop_in_thousands_2009))

summary(model9)

stargazer(model9, type = "html", title="Gini - Democracy index", single.row = FALSE, ci.level = 0.95, dep.var.labels = c("Gini coefficient"), covariate.labels = c("EIU Democracy index", "HDI", "Population"), out="regression10.html")



model10 <-lm(data$eiu_democracy_index_2006_2010 ~ data$exec_parties_1981_2010 + data$hdi_2010 + log(data$pop_in_thousands_2009))

summary(model10)

stargazer(model10, type = "html", title="Democracy index - Executive Parties", single.row = FALSE, ci.level = 0.95, dep.var.labels = c("EIU Democracy index"), covariate.labels = c("Executive Parties", "HDI", "Population"), out="regression11.html")
```