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## The Effect of Economic Indicators on Democratic Breakdown

### **Introduction/Question**

In this paper I will answer the following questions: What are the most significant economic factors causing the global shift toward authority policies? Do economic crises lead to the breakdown of democracy?

Over the past 20 years, there has been a global shift toward authoritarian policies. According to the Freedom House, “Seventy-one countries suffered net declines in political rights and civil liberties, with only 35 registering gains... [marking] the 12th consecutive year of decline in global freedom” (Democracy in Crisis). Democracy across the world is in great distress. Authoritarian regimes are further consolidating power and stable democracies have flirted with authoritarian governments. The stakes of this shift are enormous, while “democratic governments allow people to help set the rules to which all must adhere and have a say in the direction of their lives and work. This fosters a broader respect for peace, fair play, and compromise. Autocrats impose arbitrary rules on their citizens while ignoring all constraints themselves, spurring a vicious circle of abuse and radicalization” (Democracy in Crisis). As Founding Father John Adams stated, “The jaws of power are always open to devour, and her arm is always stretched out, if possible, to destroy the freedom of thinking, speaking, and writing”. If

the current trend in governance continues, hundreds of millions of people are threatened with authoritarian governments that defy the freedoms and liberties guaranteed by democracy.

Eastern Europe has provided a case study for the breakdown of democracy recent years. Poland is one of the many nations that have found their democratic liberties uprooted in the face of growing authoritarian leadership. In 2018, Poland “recorded the largest category declines and the second-largest Democracy Score decline in the history of the report” (Schenkkan). Fellow NATO ally Hungary has comparably registered “largest cumulative decline in Nations in Transit history, after its score has fallen for 10 consecutive years” (Schenkkan), and Serbia’s score “declined for the fourth straight year, threatening its status as a “Semi-Consolidated Democracy” (Schenkkan).

These dramatic drops in governance are the expression of the global emergence of illiberalism and neoliberalism. Freedom House’s Nate Schenkkan defines “illiberalism” as an ideological stance that rejects the necessity of independent institutions as checks on the government and dismisses the idea of legitimate disagreement in the public sphere” (Schenkkan). During the late 1990’s and early 2000’s a powerful “consolidation of democratic institutions” (Schenkkan) occurred, following the dissolution of the leading traditional authoritarian power, the USSR, and the emergence of capitalism and democracy in previously communist states. Schenkkan believes the turning point for democratic development, towards authoritarian policy, in Eastern Europe occurred following the Global Financial Crisis in 2008. My model correlates with Schenkkan’s assertion and demonstrates that the largest drops in world average governance occurred in roughly quick periods following economic crisis, 1996-1998, 2007-2009, 2013-2014. The power vacuum in Eastern Europe’s post-communist states left institutions weakened and set the stage for a resurgence of authoritarian policy.

In the past 10 years, the post-communist governments of Europe have exemplified the spirit of illiberalism: “[The] government’s takeover of the judicial system, politicization of public media, smear campaigns against nongovernmental organizations (NGOs), and violations of ordinary parliamentary procedure” (Schenkkan) in Poland, “[the] virulent campaign against NGOs in 2012” and the denunciation “on national television “of opposing civil society groups and investigative journalists as “mercenaries” (Csaky), the passage of “two Russian-style laws—restricting the work of foreign-funded NGOs and hampering the continued operation of the Central European University in Budapest—and created an increasingly hostile atmosphere for critical voices” (Csaky) in Hungary and the “normalize[ation] apocalyptic “civilizational” rhetoric” (Csaky) across Europe. More alarming, the window to reverse illiberalism policies has not face much significant opposition, largely due to the government enforced illiberalism policies legally preventing most opposition.

Neoliberalism economic policy has accompanied the expansion of illiberalism. Dani Rodrick defined Neoliberalism as “a preference for markets over government, economic incentives over social or cultural norms, and private entrepreneurship over collective or community action” (Rodrick). In other words, Neoliberal policy pursues “economic deregulation, liberalization, privatization, or fiscal austerity” (Rodrick) and a return to Adam Smith’s “Invisible Hand”, economic activity unaltered by governments. Rodrick believes neoliberalism, in part, results from a failure academics and economists to support progressive regulation and “financiers and multinational corporations” (Rodrick). Despite the popularity of neoliberalism in current economic policy, the data suggests, developing nations pursue an entirely different route of development.

The economic transactions of post-Soviet Russia and Latin America and post-Mao China illustrate the differences in the Neoliberal development model and the Development State economic model. The current template of rapid economic growth is the East Asian development state, a form of capitalism in which the primary catalyst of economic expansion is the state. After 1978, the Communist Party of China (CCP) chose to abandon the policies of Zedong, and instead decided to emulate the successful development states of South Korea and Japan. The CCP, looking to legitimize its government after Mao's blunder during the Great Leap Forward, made economic growth the government's primary directive (Knight). China pursued the hallmark policies of the development state model beginning with the reforms of Deng Xiaoping. China "China shielded its large state sector from global competition, establishing special economic zones where foreign firms could operate with different rules than in the rest of the economy. South Korea and Taiwan heavily subsidized their exporters, the former through the financial system and the latter through tax incentives. All of them eventually removed most of their import restrictions, long after economic growth had taken off. But none, with the sole exception of Chile in the 1980s under Pinochet, followed the neoliberal recommendation of a rapid opening--up to imports. Chile's neoliberal experiment eventually produced the worst economic crisis in all of Latin America" (Rodrik).

China implemented a gradualist, economic reform, meaning "initially preserving most elements of the planned economy with relatively little change while allowing and actively encouraging the growth of previously prohibited forms of market-based economic activity, such as family farming, private enterprises, private marketing activity, and foreign owned and joint venture firms" (Whyte 377). China further supported domestic economic development through currency and trade controls, dual pricing, state owned enterprises, and special economic zones.

In 1991, the USSR was officially disbanded, and Russia emerged with a wounded economy. However, before 1991, Gorbachev attempted to reform the Soviet economy into a “democratic market system”. The Perestroika movement laid the foundations to the formation for private enterprise. However, these tepid reforms were not enough to prevent economic collapse. Russia employed the neoliberalism development policy prescription of shock therapy and encouraged three objectives: the dissolution of state from market activity and a rapid transition to an open economy. The Russian economy failed miserably in response to these reforms.

In China, the dual pricing system allowed Chinese citizens to purchase cheap domestic goods and granted state owned enterprises a degree of flexibility with price setting. In the spirit of Adam Smith Neoliberal economics, Russia suddenly lifted price controls during the economic transition. Although, producers still produced necessary amounts of goods, prices skyrocketed, and most Russians were unable to buy products they were able to easily purchase a year ago (Klein). Similar to the Weimar Republic mark, the Russian ruble experienced hyperinflation. In 1989, the dollar was worth 1.5 rubles, in 1997, the dollar was worth over 5000. These sudden price changes lowered industrial profits and government revenues (Klein). If price controls were gradually lifted, it is likely Russia would not have experienced hyperinflation (Klein).

In the spirit of the neoliberalism’s free market, Russia rapidly privatized its previously government owned assets. In China, although state owned enterprises could sell a portion of their production at market prices and become market oriented, the state-owned enterprises were ultimately still financially responsible to the government and were checked by the government in the form of state set prices for initial production. The implementation of shock therapy in Russia, rapidly privatized state-owned enterprises without legal regulations. As a result, once these assets became privatized, they were quickly moved out of Russia and into other countries (Klein). The

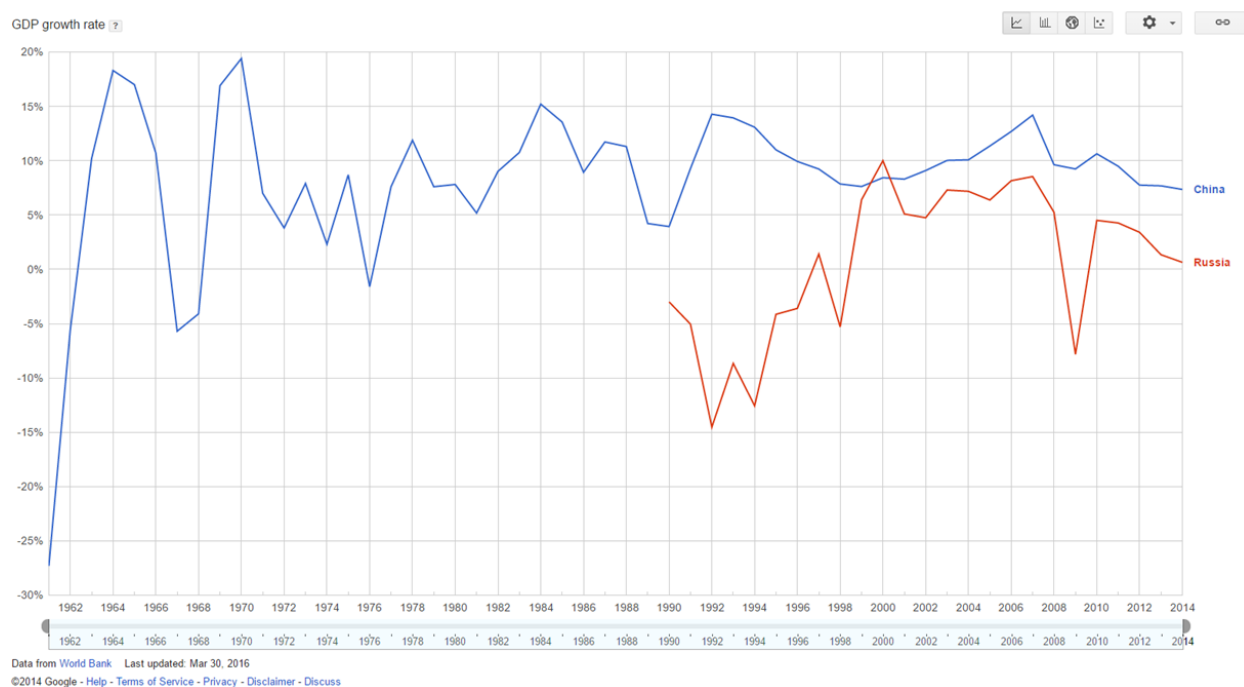
rapid privatization and exposure to the open market led to asset stripping of the former state-owned enterprises instead of the wealth creation privatization was intended for (Klein). Due to the exodus of capital and the large volume of business and institutional failures, investors were further discouraged from making long term investments and commitments to Russian businesses (Klein). This lack of confidence from investors compounded an already fragile Russian economy.

During the 1980's and 1990's, Latin America employed a similar neoliberal treatment. In contrast to China and other nations pursuing the development state model, "countries that stuck closest to the neoliberal model of globalization were sorely disappointed. Mexico provides a particularly sad example. Following a series of macroeconomic crises in the mid-1990s, Mexico embraced macroeconomic orthodoxy, extensively liberalized its economy, freed up the financial system, sharply reduced import restrictions, and signed the North American Free Trade Agreement (NAFTA). These policies did produce macroeconomic stability and a significant rise in foreign trade and internal investment. But where it counts—in overall productivity and economic growth—the experiment failed. Since undertaking the reforms, overall productivity in Mexico has stagnated, and the economy has underperformed even by the undemanding standards of Latin America" (Rodrick).

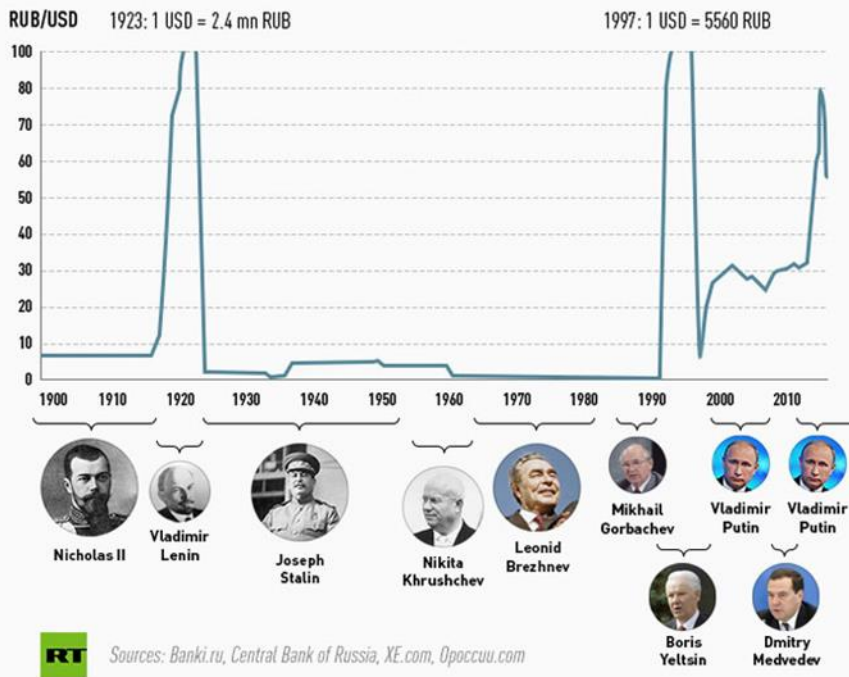
While democracy has fallen under attack, the economic landscape of the globe has changed. Globalization has united the world economy through trade, transformed market compositions through industrialization and specialization, and expanded global inequality through top heavy income concentration. Rodrick summarizes the state of globalization from the 1990's on as "an end in itself. Global economic arrangements were now driven by a single-minded focus on reducing impediments to the flows of goods, capital, and money across national

borders—though not of workers, where the economic gains in fact would have been much larger” (Rodrick)

Global economic development likely possesses a relationship with the global shift towards authoritarianism. However, there are so many distinct factors that make up a nation’s economic identity, it can seem impossible to derive a useful observation of this relationship. In my paper, I will examine the relationship between integral economic indicators and the global decrease in world governance, representing the global shift toward authoritarian policy.



### Russian Ruble against US Dollar over past 100 years





## **Methodology**

I chose to examine this relationship through a time series regression analysis from 1980-2017. I determined the effect of economic indicators on governance indicators, more specifically the effect of the Income Share of the top 10% (X) on a governance index derived from World Bank governance indicators (Y). The governance index (Y) fielded values from -2.5 (least democratic) to 2.5 (Most Democratic). The World Bank governance dataset spans 1996, 1998, 2000, 2002-2017 and contains six variables to account for democratic governance:

1. **Voice and Accountability:** Reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
2. **Political Stability and Absence of Violence/Terrorism:** Measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.
3. **Government Effectiveness:** Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
4. **Regulatory Quality:** Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
5. **Rule of Law:** Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

6. Control of Corruption: Reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

My model's measure of governance (Y) is an average of the values of these six measures of governance. Given the vast data collection needed to analyze each nation, I chose nations for my model that gave greatest insight into the relationship and had significant academic research available. I separated selected nations into two categories, failing democracies, growing authoritarian regimes based on the value of my governance(Y) in 1996:

Failing Democracies 1996 GI > -0.5: Argentina, Brazil, Egypt, Germany, Greece, Hungary, Italy, Kuwait, Mexico, Spain, Turkey, United Kingdom, United States,

Growing Authoritarian Regimes 1996 GI < -0.5: Ethiopia, Russian Federation, Ukraine

Without controlling for other variables, my model had enormous potential for confounding variables to misrepresent results. To clarify a confounding variable is a "third variable, not the dependent (outcome) or main independent (exposure) variable of interest, that distorts the observed relationship between the exposure and outcome. Confounding complicates analyses owing to the presence of a third factor that is associated with both the putative risk factor and the outcome" (Yurtoğlu). I identified confounding variables likely to distort the results of the model in the following general economic areas: income inequality, wealth, trade, market composition, and national savings. The independent (X), dependent (Y), and control variables I accounted for in my regression are listed below. The regression model gives each variable a coefficient estimate signifying the impact of the variable on governance (Y). The variable's coefficient

definition are detailed. All data below is provided by the World Bank. All data timespans are from 1980-2017 unless noted.

1. Top 10% Income Share (X): Total Income share of the richest 10% of citizens by income
2. Governance (Y) (1996,1998,2000,2002-2017): Average of the values of the six measures of governance
3. (Intercept): Measures the impact of confounding variables unaccounted for in model
4. Year (Control): Average change in governance (Y) that results from increasing the year by 1 unit
5. CountryX (Control): Average change in governance (Y) that results from changing nation from Argentina to CountryX
6. GDP Growth (%): Average change in governance (Y) that results from increasing the GDP Growth (%) by 1 unit
7. GDP per Capita (\$): Average change in governance (Y) that results from increasing the GDP per Capita (\$) by 1 unit
8. Adjusted net savings, including particulate emission damage (% of GNI, Gross National Income): Average change in governance (Y) that results from increasing adjusted net savings by 1 unit
9. Trade (% of GDP): Average change in governance (Y) that results from increasing Trade (% of GDP) by 1 unit
10. Current account balance (% of GDP): Average change in governance (Y) that results from increasing Current account balance (% of GDP) by 1 unit
11. Electricity Production from oil sources (% of total): Average change in governance (Y) that results from increasing Electricity Production from oil sources (% of total) by 1 unit

12. Food Production Index: Average change in governance (Y) that results from increasing Food Production Index by 1 unit
13. Foreign Direct Investment, net inflows (% of GDP): Average change in governance (Y) that results from increasing Foreign Direct Investment, net inflows (% of GDP) by 1 unit
14. Fuel Exports (% of merchandise exports): Average change in governance (Y) that results from increasing Fuel Exports (% of merchandise exports) by 1 unit
15. Industry (including construction), value added (annual % growth): Average change in governance (Y) that results from increasing Industry (including construction), value added (annual % growth) by 1 unit
16. Manufacturing, value added (% of GDP): Average change in governance (Y) that results from increasing Manufacturing, value added (% of GDP) by 1 unit

Figure 1: World Governance 1996-2017

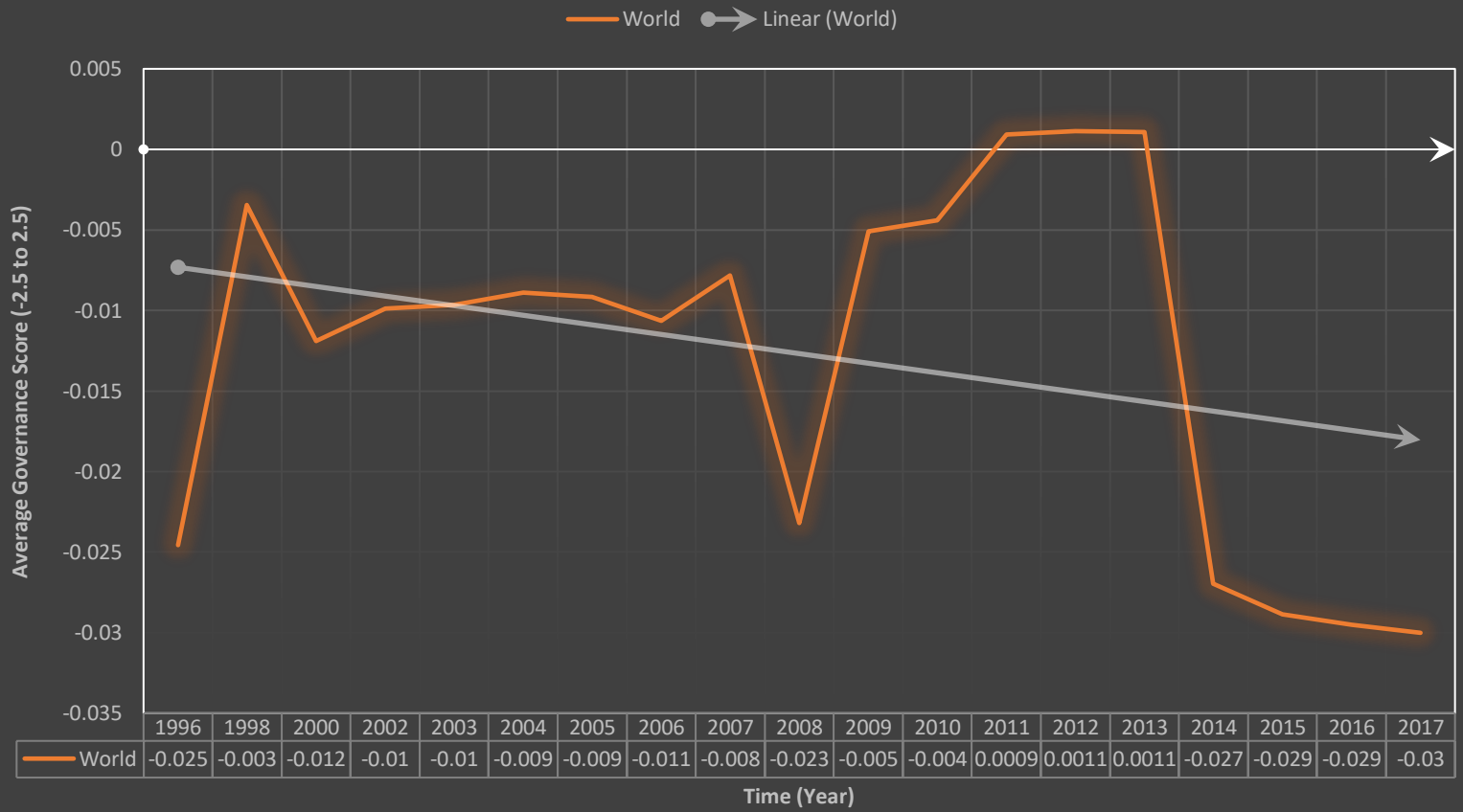


Figure 1 charts the world average of governance over the period 1996-2017. The changes in world governance are irregular and majority of change is centered around a few periods, notably: 1996-1998, 2007-2009, 2013-2014. The trend line displays a clear downward trend in average global governance from 1996-2017.

Source: World Bank. Group

**Figure 2: World Income Shares of Top 1% and Bottom 50% 1980-2016**

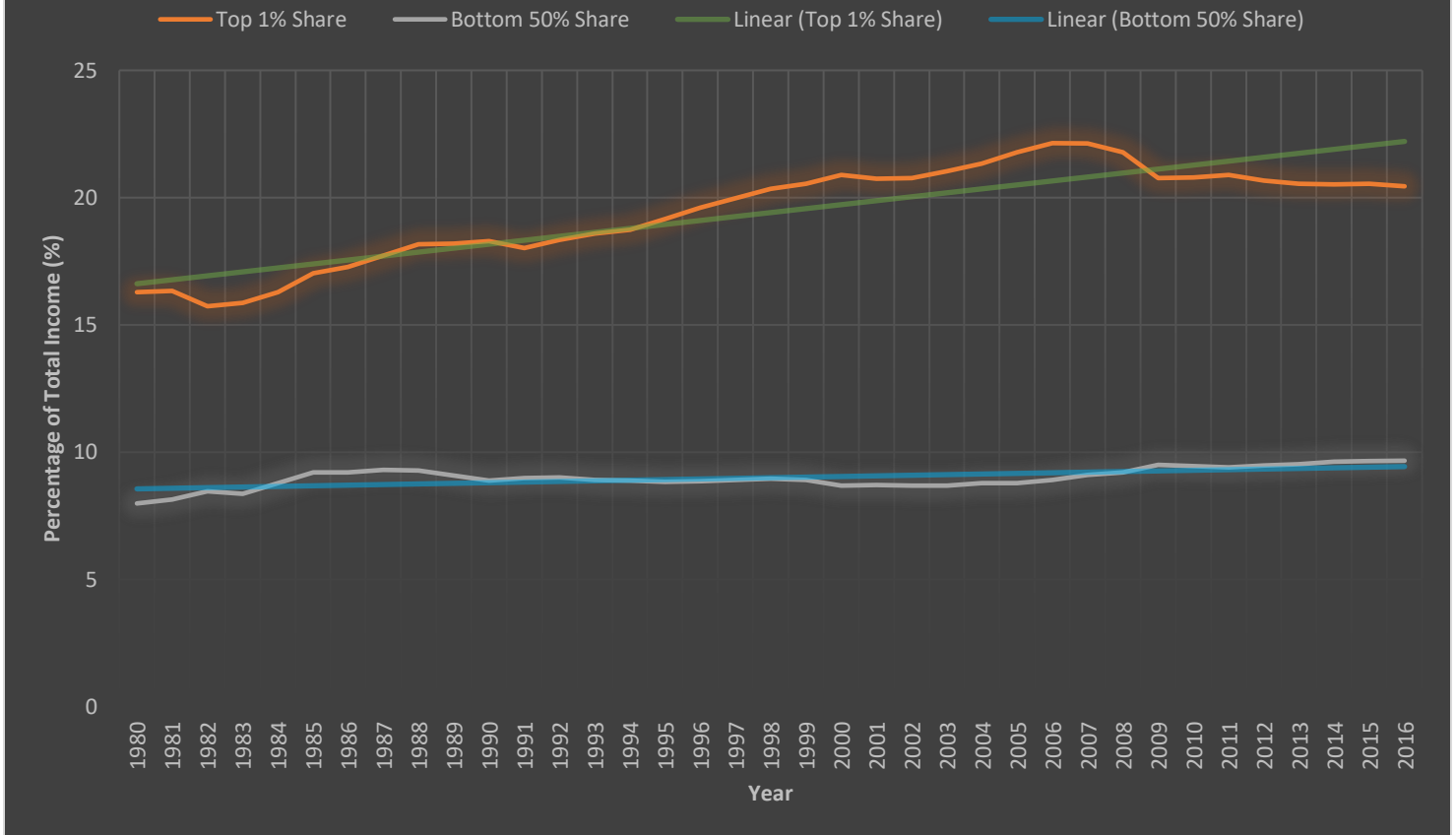


Figure 2 charts the share of income by the top 1% and bottom 50% of the income bracket from 1980 to 2016. The top 1%'s share of income is on a positive trend, above 20%, while the bottom 50%'s share of the income has stagnated at 10%. The top 1% despite being one fiftieth the size of the bottom 50%, controls double their income. The trend line for suggests the share of income held by the top 1% will continue to grow, while the income shares of the bottom 50% will continue to stagnate.

Source: The World Inequality Lab

## Hypothesis:

Total Income share of the richest 10% of citizens by income (X) has a negative and statistically significant relationship, p value < or equal to 0.05, with Governance (Y). In other words, Total Income share of the richest 10% of citizens by income (X) moves in the opposite direction of Governance (Y): when X increases Y decreases, when X decreases Y increases.

## Results/Conclusion

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RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins
Source
Console Terminal x
~/
> summary(l_big)

Call:
lm(formula = data$Government ~ ., data = data)

Residuals:
    Min       1Q   Median       3Q      Max
-0.39222 -0.05960  0.00770  0.06033  0.23374

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  5.394e+01  8.028e+00   6.718 4.19e-10 ***
Year        -2.702e-02  3.986e-03  -6.779 3.06e-10 ***
CountryBrazil  1.474e-01  8.873e-02   1.661 0.098859 .
CountryEgypt, Arab Rep. -3.394e-01  6.662e-02  -5.094 1.10e-06 ***
CountryEthiopia -6.991e-01  1.469e-01  -4.758 4.79e-06 ***
CountryGermany  1.573e+00  1.509e-01  10.428 < 2e-16 ***
CountryGreece  5.009e-01  9.580e-02   5.229 6.03e-07 ***
CountryHungary  8.598e-01  2.106e-01   4.083 7.40e-05 ***
CountryItaly    6.353e-01  1.072e-01   5.927 2.26e-08 ***
CountryKuwait  -3.432e-01  3.116e-01  -1.101 0.272647
CountryMexico  2.969e-02  7.284e-02   0.408 0.684131
CountryRussian Federation -5.076e-01  1.200e-01  -4.229 4.19e-05 ***
CountrySpain    9.255e-01  9.904e-02   9.344 < 2e-16 ***
CountryTurkey  9.028e-02  5.465e-02   1.652 0.100775
CountryUkraine -3.125e-01  9.121e-02  -3.427 0.000801 ***
CountryUnited Kingdom  1.294e+00  1.279e-01  10.115 < 2e-16 ***
CountryUnited States  1.190e+00  1.226e-01   9.702 < 2e-16 ***
Countryyemen, Rep. -1.015e+00  2.140e-01  -4.745 5.07e-06 ***
`Top 10% Income Share`  2.311e-03  6.665e-03   0.347 0.729354
`GDP Growth (%)`       6.313e-03  4.594e-03   1.374 0.171562
`GDP per Capita ($)`   7.493e-06  2.771e-06   2.704 0.007692 **
`Adjusted net savings, including particulate emission damage (% of GNI)` 7.498e-06  6.747e-06   1.111 0.268333
`Trade (% of GDP)`    1.931e-03  1.536e-03   1.257 0.210671
`Current account balance (% of GDP)` -5.871e-03  2.586e-03  -2.270 0.024719 *
`Electricity production from oil sources (% of total)` -5.398e-04  1.946e-03  -0.277 0.781943
`Food Production Index` 1.543e-03  1.057e-03   1.460 0.146623
`Foreign direct investment, net inflows (% of GDP)` 4.178e-04  1.652e-03   0.253 0.800647
`Fuel exports (% of merchandise exports)` -8.150e-04  1.844e-03  -0.442 0.659263
`Industry (including construction), value added (annual % growth)` 1.853e-04  3.114e-03   0.060 0.952633
`Manufacturing, value added (% of GDP)` -1.882e-02  6.418e-03  -2.932 0.003932 **
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Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1064 on 141 degrees of freedom
(741 observations deleted due to missingness)
Multiple R-squared:  0.9818, Adjusted R-squared:  0.9781
F-statistic: 262.6 on 29 and 141 DF, p-value: < 2.2e-16

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The model determined the variables (Intercept), Year, CountryX, GDP per Capita (\$), Current account balance (% of GDP), and Manufacturing, value added (% of GDP) to have a statistically significant relationship with Governance (Y).

The model's other variables did not have a statistically significant relationship with governance (Y) because the variable has no effect on Y, the characteristics of the nations in the sample chosen, or the data was too random during the relationship's measured period.

#### Analysis of Statistically Significant Variables:

1. (Intercept): The intercept was statistically significant at the 99.9% Significance Level. This suggest there are statistically significant variables unaccounted for.
2. Year (Control): The year was statistically significant at the 99.9% Significance Level. A 1 unit increase in Year is associated with a  $2.702e-02$  decrease in governance.
3. CountryX (Control): CountryX was statistically significant at the 99.9% Significance Level.
4. GDP per Capita (\$): GDP per Capita (\$) was statistically significant at the 99% Significance Level. A 1 unit increase in GDP per capita is associated with a  $7.493e-06$  increase in governance.
5. Current Account Balance (% of GDP): Current Account Balance (% of GDP) was statistically significant at the 95% Significance Level. A 1 unit increase in Current Account Balance is associated with a  $5.871e-03$  decrease in governance.
6. Manufacturing, value added (% of GDP): Manufacturing, value added (% of GDP) was statistically significant at the 99% Significance Level. A 1 unit increase in Manufacturing is associated with a  $1.882e-02$  decrease in governance.



The results of the regression model provided several predicted and unexpected outcomes. The model directly refuted my hypothesis and revealed the share of Income held by the top 10% (X) has no statistically significant impact on governance (Y). My model suggests that there is no consistent relationship between my X and Y. Prior to use of the regression model, I strongly believed that GDP growth had a direct effect on governance. I believed times of economic crisis, when GDP growth was negative, would almost certainly facilitate the breakdown of democracy and authoritarian policy. Surprisingly, my model suggests GDP Growth also has no statistically significant impact on governance. I found this relationship more surprising than the insignificant relationship between Top 10% Income Share (X) and governance (Y) because, logically, political institutions in nations that experience negative GDP Growth, economic crisis, are weakened and national leaders therefore have an opportunity to greatly increase their power. My model dismisses a popular misconception regarding energy, specifically oil, and authoritarian regimes. The model found the relationship between the variables Electricity Production from oil sources (% of total), and Fuel Exports (% of merchandise imports) and governance (Y) to be statistically insignificant. These refute the popular misconception that economies that are stimulated by fuel exports and oil production are more likely to be authoritarian regimes. Those who hold this misconception likely neglect that fuel exports and electricity production from oil are likely a proxy of other more significant economic indicators. Recent academic research has begun to confirm there is no significant connection between fuel particularly, oil, and authoritarianism. In a study by Stephen Haber of the American Political Science Review, concluded that “oil and mineral reliance does not promote dictatorship over the long run. If anything, the opposite is true. These results hold even when we search for a host of conditional effects suggested by the literature. This is not to say that there may not be specific instances in

which resource rents might have helped to sustain a dictatorship. It is to say, however, that there is a big difference between pointing to these instances and making sweeping, law-like statements” (Haber). This study and the regression data reinforce authoritarian regimes are not limited by natural resources.

The three most significant economic variables in my model were GDP per capita, Current account balance, and Manufacturing. GDP per Capita (\$) was statistically significant at the 99% Significance Level. A 1 unit increase in GDP per capita is associated with a  $7.493e-06$  increase in governance. This relationship meant that wealthier nations, when controlled for all the other variables in the model except governance, are associated with higher levels of democracy. Surprisingly, the growth of GDP proved to be a less significant predictor of democracy than GDP per capita itself. This suggests that economic growth or recession doesn't influence the effect of governance, but the average wealth of its citizens does. Consider an example. Country A has a high GDP per capita, say \$30,000, and is currently experiencing an economic recession. Country A's GDP growth in this period is -5% and their GDP per capita by the end of the recession is now \$28,500. Country B has a low GDP per capita, \$6000, and is currently experiencing tremendous economic growth. Country B's GDP growth over the same period is 10%, and their GDP per capita by the end of growth is now \$6,600. My model suggests, despite the encouraging growth of Country B, Country A is more likely to experience an increase in governance (Y). Logically, this relationship does not make much sense. The data suggests that, although GDP growth is needed to improve GDP per capita, governance (Y) is mostly determined by the overall condition of the economy, rather than the impacts of fleeting recessions and economic booms. Several studies on income and governance support this assertion. A study by Almas Heshmat and Nam-Seok Kim at the IZA Institute of Labor

Economics created seven models accounting for several variables and data from 144 nation from the period 1980 to 2014. They found “a robust and positive relationship between democracy and economic growth. Positive impacts of democracy on economic growth are seen by estimating the production function by different methods” (Heshmat).

Even studies that dispute income’s significant casual effect on income, specifically the study *Income and Democracy*, find “income and democracy are positively correlated” and recognize “even though our results do not provide evidence for a causal effect of income on democracy, such an effect might be present but working at much lower frequencies (for example, over horizons of 100 years or longer), or this causal effect might be conditional on some other characteristics (though we have not found any evidence for this type of interaction effects using the available cross-country data). Second, our results do not imply that democracy has no effect on economic growth (see, e.g., Torsten Persson and Guido Tabellini 2007). Finally, while we have emphasized the importance of historical development paths, we do not want to suggest that there is a historical determinism in political or economic institutions; the fixed effects in the regressions and the presence of divergent development paths create a tendency, but many other factors influence equilibrium political institutions” (Acemoglu). My model displays the general spirit of Acemoglu’s study but differ in the significance of GDP per capita. My model places the variable CountryX as statistically significant in varying direction and magnitude at the 99.9% for 12 of the 16 tested nations. The variable CountryX represents the average change in governance (Y) that results from changing the nation from the base nation for the model, Argentina, to CountryX while holding all other variables equal, except governance (Y). The strong statistical significance suggests most nation follow a unique development path that influences their government, outside of economic indicators. These findings do not invalidate the significance of

the association between GDP per capita and governance (Y) but provides a more accurate depiction of the numerous factors influencing governance (Y).

The most puzzling result of the regression model were displayed by the control variable Manufacturing, value added (% of GDP). This variable was placed into my model in order to control for the differing market compositions that exist across the globe i.e. service, technology, industry, etc. Manufacturing was statistically significant at the 99% Significance Level and the most statistically significant economic variable, more than GDP per capita. A 1 unit increase in Manufacturing is associated with a  $1.882e-02$  decrease in governance. The World Bank defines the Manufacturing Sector as “the physical or chemical transformation of materials of components into new products, whether the work is performed by power- driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail. Included are assembly of component parts of manufactured products and recycling of waste materials” and comprises “Tabulation Category D and Divisions 15-37 in the International Standard Industrial Classification (ISIC) of All Economic Activities, Revision 3”. The statistically significant relationship between Manufacturing and governance (Y) meant that nations with larger manufacturing sectors, value added (% of GDP), when controlled for all the other variables in the model except governance, are associated with lower levels of democracy. A popular misconception holds manufacturing has a negative effect on governance because of economies with high manufacturing contributions association with low GDP per capita economies, low governance and high total trade values i.e. China, Mexico, Thailand, etc. My model controlled for the GDP per capita of each nation, total trade, and other variables, and the negative effect of manufacturing on governance (Y) remained. Manufacturing effects governance (Y) in an entirely different manner. Manufacturing’s effect on governance (Y) and

the authoritarian policies used to create high manufacturing output can also explain how authoritarian leaders use policy to manipulate current account balance.

The Current Account Balance (% of GDP) was statistically significant at the 95% Significance Level. A 1 unit increase in Current Account Balance is associated with a  $5.871e-03$  decrease in governance. The current account balance is the sum of net exports of goods and services, net primary income, and net secondary income. A positive current account indicates a nation is net lender to the rest of the world and a negative indicates it is a net borrower. A nation with a positive current account is generally has trade surplus and more exports than imports. A negative current account implies the inverse. The current account balance coefficient implies an increase in the current account, net exports, is associated with a decrease in governance (Y).

Special Economic Zones are a strictly authoritarian tool used to manipulate current account balance and increase net exports. The World Bank notes estimates in China “as of 2007, SEZs[Special Economic Zones] (including all types of industrial parks and zones) accounted for about 22% of national GDP, about 46% of FDI, and about 60% of exports and generated in excess of 30 million jobs.” (World Bank). Clay Fuller has published one of the very few models or studies on economic indicators and authoritarianism. Fuller recognizes the emergence of SEZs(Special Economic Zones) as authoritarian economic tools that “boost investment while simultaneously restricting who domestically will benefit”. SEZs “can both substitute for and compliment the roles of authoritarian legislatures and political parties” and “allow leaders to distort tax laws and apply them selectively. Special enclaves that operate outside of the normal customs area are a perfect policy for high taxing unconstrained autocrats and for lower taxing constrained autocrats. The tax rates within a SEZ can be specifically targeted to help specific investors (domestic and international), the geographic location can be strategically chosen, and

the policies can be easily justified to elites and the masses based upon expected economic development while keeping continuity in the existing state-wide tax rates” (Fuller). SEZs have continued to expand, especially in authoritarian regimes, “in 1986, there were 176 special economic zones in 46 countries. During the next twenty years SEZs grew by a factor of twenty and nearly tripled in the number of countries with them” (Fuller).

China has begun to openly announce their goal to “develop export-oriented industries and enhance foreign exchange earnings” (Zeng) in Export-processing zones (EPZs). EPZs in China have grown to 61, since their induction in 2000. These zones are established “solely for the purpose of managing export processing” (Zeng) and increasing the current account balance. In 2006, SEZs accounted for 22% of total merchandise exports, while ETDZs, National Economic and Technological Development Zones have captured an additional; 15% of total merchandize exports. Despite their vast output, SEZs make up only 1,9% of China’s total land and represent the consolidation of economic and political authority in China. Regarding manufacturing, A study by Paul Healy, an M.Sc. candidate in Economics for Development at the University of Oxford and incoming J.D. candidate at Yale Law School, found “SEZs can facilitate production diversification away from primary commodities. This is often a priority for low-income economies, which, in frequently depending on one primary commodity, face significant macroeconomic risk. SEZs have helped the Dominican Republic and Mauritius transition away from concentrations in bananas and sugar, respectively, into higher value-added manufacturing” (Healy). Authoritarian rulers employ currency manipulation to keep a positive current account

balance. According to a study by Bergsten, “China has been intervening at about \$250 million per day in 2012” (Bergsten).



Currency Manipulation is not limited to China. Even democracies like South Korea and Taiwan have “scored more highly than China” (The Economist) on currency manipulation. Many nations have followed the current template of rapid economic growth championed by China by adopting the East Asian development state, a form of capitalism in which the primary catalyst of economic expansion is the state. The bending of traditional monetary rules and the implementation of growth projects at the expense of domestic consumers captures the effect of current account balance and manufacturing on authoritarian policy and governance (Y).

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