When does Economic Freedom promote Equitable Social Development?

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Abstract

Why do some countries successfully combine economic freedom with equitable social development while others fail to do so? We focus on three sectors in which government is supposed to play a strong role according to the history of economic thought. These are health, education, and social safety. Yet, identifying the exact role of government in these sectors – either through the provision of public goods or the regulation of markets – is difficult. Necessary data is often not available or comparable. We therefore suggest focusing on revealed policy strengths. This approach rests on the assumption that higher incomes, all else equal, allow for better public health, higher human capital, and improved social safety. Thus, when two countries have the same income per capita, but one country performs better in any of our three focus sectors, then, we conclude,

Introduction

Many countries have introduced market liberal reforms, especially since the 1980s and 1990s. Most market liberalization has barely translated into more equitable social development. Pre-tax income inequality is on the rise in many countries, and differences among countries are less limited to dynamics than to levels of income inequality

What separates countries with high economic freedom and equitable social development from countries with high economic freedom and unequitable social development? We try to answer thic 0 Tw wqBdp (h)c14 6 (h)-0.

Motivation

Income inequality as a social challenge is as old as political and economic philosophy. Already Aristotle (384–322 BC) wrote that:

> "[…] democracies are safer and more permanent than oligarchies, because they have a middle class which is more numerous and has a greater share in the government; for when there is no middle class, and the poor greatly exceed in number, troubles arise, and the State soon comes to an end" (Aristotle and Jowett, 1899)

Ancient Greek and later medieval scholastics were largely concerned with balancing human's nature of self-interest with the perceived need for subordination to the common good of the state (Frost, 1989). The hinge between t15.2

behaviour of a private man. If ever he hopes to distinguish himself, it must be by more important virtues. He must acquire dependants to balance the dependants of the grea, and he has no other fund to pay them from but the labour of his body and the activity of his mind. He must cultivate these therefore: he must acquire superior knowledge in his profession, and superior industry in the exercise of it. He must be patient labour, resolute in danger, and firm in distress. These talents he must bring into public view, by the difficulty, importance, and, at the same time, good judgment of his undertakings, and by the severe and unrelenting application with which he pursues them. Probity and prudence, generosity and frankness, must characterize his behaviour upon all ordinary occasions; and he must, at t.7 (a)7.-0.8B7 (u)5.36 (ti53.4 (u))10.6 (m)-3.8 (en-9.4)]TJe ae pm2f15.3w (

even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices." (Smith, 2007)

Regarding education and its contribution to reduce inequality and promote economic development, Smith notes

> "The public can impose upon almost the whole body of the people the necessity of acquiring the most essential parts of education, by obliging every man to undergo an examination or probation in them, before he can obtain the freedom in any corporation, or be allowed to set up any trade, either in a large or town corporate" (Smith, 2007)

Lastly, Smith's concerns for social safety can be inferred from the following passages:

> "Workmen, on the contrary, when they are liberally paid by the piece, are very apt to overwork themselves, and to ruin their health and constitution in a few years" (Smith, 2007)

which is why

> "A plentiful subsistence increases the bodily strength of the labourer, and the comfortable hope of bettering his condition, and of ending his days, perhaps, in ease and plenty, animates him to exert that strength to the utmost" (Smith, 2007)

Some may interpret this last quote as a call for a governmentally administered minimum wage, others as an appeal to entrepreneurs to pay efficiency wages, which illustrates how easily Adam Smith's insights may be hijacked by different ideological camps.

Of course, if the objective of economic policy is to "let people do," there is no reason to assume that the best way of "letting people do" is to have government do nothing. Eventually, anarchy as the most extreme form of laissez-faire is rejected by political enlightenment for good reasons. Moreover, Locke's proposition that "government has no other end but the preservation of property" (Locke, 1814) does not exclude the protection of "public property" that citizens in democratic and free elections have agreed upon to provide. For example, if Europe wants to provide a system with mandatory health insurance, strong social safety nets and free education, then it does not so because it enjoys wasting money, but because it expects a return on these expenditures. For most Europeans, the most important objective of these public goods is to ensure equitable social development. In fact, Article 3(3) of the European Constitution defines this goal explicitly.

Literature Review

Adam Smith's writings indicate that for economic freedom to flourish it must be paired with equitable social development. To achieve equitable social development, he further stipulated the provision of public education and promotion of social safety nets by a government (Smith, 2007). Yet, despite many countries introducing market liberal reforms, not all reforms translated into more equitable social

find that human capital positively impacts economic freedom and Powell & Ryan (2017) associate larger increases in economic freedom with aggregate think tank years. Yet, Satrovic (2019) concludes that contributing to economic freedom is necessary to increase human capital, which in turn decreases the existence of shadow economies.

It remains to be mentioned, however, that higher levels of economic freedom are associated with lower rates of participation in exercise in the US (Hall et al., 2018), higher BMI (Ljungvall, 2013; Lawson et al., 2016), and no impact on COVID-19 death rates (Chen, 2020). Similarly, more education is not necessarily

report below average health, have CVD [cardiovascular disease] and difficulty concentrating, and lack access to care due to cost (Haithcoat et al., 2021).

Commonly, income inequality is also positively associated with variables indicating a lack of efficient social safety nets. Provincial economic inequality in Ecuador, for example, has a statistically significant deleterious effect on stunting (Larrea & Kawachi, 2005). For those in the lower income quintile in Denmark and the UK, Page et al. (2014) and Mok et al., (2018) report a higher risk of harm for children and adolescents whose parents already experienced low-income levels. Furthermore, low levels of welfare support exacerbates the link between income inequality and cannabis use, especially in anglophone countries (US, UK, Canada, and Australia) (Stevens, 2016).

Lastly, human capital contributes cross-country differences. Poor countries accumulate less human capital than rich countries and a higher human capital stock stimulates physical capital accumulation (Erosa et al., 2010). Similarly, Frank (2009) finds evidence that years of schooling, may cause larger-income levels. This finding is supported by Hortas-Rico & Rios (2019), who find that local inequality outcomes in Spain are mainly determines by human capital and economic factors such as per capita income and sectoral composition of employment.

Again, some authors find no association between income inequality and public health for the US (Mellor & Milyo, 2003), while others find a link between income inequality and [illegible]

public health, social safety, and human capital. For example, series such as public spending in any of those areas as a percentage of GDP or government expenditure is an input factor that does not inform about service quality. On the other hand, output indicators such as infant mortality, social safety adequacy, or educational attainment are often only comparable within a given socioeconomic context. We try to mitigate these problems by proposing a revealed policy strength approach.

Our objective is to contribute to the role of the state in the process of economic liberalization. This

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Figure 1 displays on the x-axis the GDP per capita rank and on the y-axis the policy strength rank, which could be either public health, social safety, or human capital. Now consider, for example, cell one. This would be a country with the highest GDP per capita rank, but the lowest policy strength. Thus, relative to GDP per capita, a country in cell one reveals the least policy strength. A country in cell ten, on the other hand, performs in terms of policy strength as bad as the country in cell one, but because it has a lower income, the same low policy strength indicates less of a policy failure than what the country in cell

We also include a lagged dependent variable to control for serial correlation in the right-hand side. Although the variable GDP per capita is already included in the construction of the revealed policy strength indices, we include it as an additional variable to control for a country's general level of development. Yet, due to high collinearity with *revealed social mobility strength*, we orthogonalize GDP per capita.

We also control for a country's Manufactures and services export share as a percentage of GDP, Natural Resources Rents as a percentage of GDP, the population share of Catholics, a measure of democracy, and the presence of armed conflict (for data and sources see Appendix A1). Manufactures and services exports, we argue, are indicative of productive economic competitiveness and representative of a spirit of economic freedom.

Empirical Results

Some Descriptive Results

Table 1 shows the ten countries with the highest and lowest *Free & Equal* scores for the 2016-2020 period. Nine of the top ten countries are European, the only non-European country is New Zealand. The 10 countries with the lowest *Free & Equal* scores are all located in Sub-Saharan Africa.

Table 1: 2016-2020 Top 10 and Bottom 10 Countries in "Freedom with Equitable Social Development"

Top 10 "Free and Equal" Countries		Bottom 10 "Free and Equal" Countries	
Country	2020 score	Country	2020 score
Switzerland	85.28	Eswatini	39.44
Iceland	84.62	Angola	38.66
Czech Republic	84.32	Zimbabwe	38.21
Sweden	83.86	Namibia	36.01
New Zealand	83.46	Zambia	35.96
Netherlands	82.62	Congo, Rep.	34.55
Norway	81.63	South Africa	34.49
Denmark	81.49	Mozambique	33.02
Ireland	79.36	Sao Tome and Principe	32.08
Finland	79.01	Central African Republic	31.62

Yet, as Table 2 illustrates, many Sub-Saharan African countries have made huge strides in increasing their *Free & Equal* scores. Despite these improvements, their 2016-2020 scores suggests that these countries have mostly moved from low to medium levels of *Free & Equal* scores. Table 2 also shows the countries that have deteriorated the most since the 1996-1995 score.

Table 2: Top 10 Improving and Deteriorating Countries in "Freedom with Equitable Social Development"

Top 10 Improving Countries			Top 10 Deteriorating Countries		
Country	2016-2020 score	Change since 1996-2000	Country	2016-2020 score	Change since 1996-2000
Bosnia and Herzegovina	68.53	22.46	Costa Rica	50.57	-4.87
Malawi	43.19	21.68	Sri Lanka	52.80	-4.98
Rwanda	54.01	19.49	Djibouti	46.67	-5.21

Table 3: Regression Results using only Revealed Policy Strengths to Illustrate Multicollinearity Problem

DV:Free & Equal	Model 3-I	Model 3-II	Model 3-III	Model 3-IV	Model 3-V
Constant	26.82*** (1.63)	26.42*** (1.88)	27.50*** (1.59)	28.04*** (1.89)	26.24*** (1.64)
Free & Equal$_{t-1}$	0.47*** (0.03)	0.50*** (0.03)	0.47*** (0.03)	0.46*** (0.03)	0.46*** (0.03)
Revealed Public HealthStrength	0.07*** (0.02)				

Table 4: Regression Results to Identify Most Parsimonious Model

DV: Free & Equal	Model 4-I	Model 4-II	Model 4-III
Constant	14.55**	28.4***	27.16***
	(6.71)	(2.59)	(1.82)
Free & Equal (t-1)	0.45***	0.45***	0.45***
	(0.03)	(0.03)	(0.03)
Revealed Social Mobility Strength	0.03	0.12***	0.13***
	(0.03)	(0.03)	(0.02)
GDP per capita (ln)	2.02**		
	(0.82)		
GDP per capita (ln) North.		2.02**	1.75**
		(0.82)	(0.72)
GDP Share of Manufactures and Services Exports (ln)	-0.30	-0.30	
	(0.22)	(0.22)	
GDP Share of Natural Resources Rents (ln)	-1.83***	-1.83***	-1.63***
	(0.48)	(0.48)	(0.44)
Population Share of Catholics (ln)	2.19	2.19	
	(5.55)	(5.55)	
Democracy (Polity2 Score)	0.05	0.05	
	(0.07)	(0.07)	
Armed Conflict Total Score	0.27	0.27	
	(0.20)	(0.20)	
Cross-sectional units	143	143	162
Time series length min	1	1	1

life expectancy, people are better safeguarded against disease, life's adversaries, and provided with more lifetime opportunities that encourage the accumulation of human capital. In countries with high natural resource rents, working conditions are often harsh, demand for workers is concentrated among few firms, and productive and diversified economic opportunities are scarce, undermining public health, preventing the provision of effective social safety systems, and discouraging investments in human capital.

Thus, both *Life expectancy* and *Natural Resources Rents* seem relevant in explaining our *Revealed Social Mobility Strength* index. At the same time, decisions to implement economic freedom and institutions for equitable social development do not simultaneously determine life expectancy and a country's endowment with natural resources rents. Eventually, many socialist countries had high levels of life expectancy, social safety, and human capital before their collapse, but no economic freedom.

Appendix A.6 shows the regression when instrumentalizing the *Revealed Social Mobility Strength* indicator - once using OLS and once using a panel fixed effects model. The R-squared are 0.75 (OLS) and 0.97 (Panel) (Appendix A.6, Table A). We then include the residuals from either specification in a regression of our preferred model (Table 4, Model 4-III), which we run again once as OLS and once as a panel. In either specification we fail to reject the null hypothesis of no simultaneity (Appendix A.6, Table B).

We therefore conclude that *Revealed Social Mobility Strength* is indeed causal in promoting economic freedom with equitable social development. Referencing again the above-mentioned socialist countries, we conclude that countries with high levels of social mobility cannot be confined permanently in a system that deprives citizens of economic freedom because of high levels of public health, social safety, and human capital. Yet, the results moreover suggest that without policy efforts to strengthen social mobility, economic freedom with equitable social development will not necessarily prevail.

Short Run Dynamics

Our data set does not allow for testing whether the variables *Free & Equal* and *Revealed Social Mobility Strength* have a long run equilibrium relationship. Theoretical plausibility suggests that they do. A reduction in the *Free & Equal* score will ultimately trigger responses to increase again social mobility because they will be demanded through the political decision-making process. Similarly, an increase in the *Free & Equal* score reduces the need for policies targeted at increasing social mobility because they become politically less necessary.

If one accepts a long-run equilibrium relationship between *Free & Equal* and *Revealed Social Mobility* we can at least estimate an error correction model to inform about the time it takes for a shock to be absorbed. For this purpose, we store the residuals from our preferred model (Table 4, Model 4-III) and use its first lag as an explanatory variable in a regression of the first differences. The regression results are summarized in Appendix A.7. We run the error correction model as a panel fixed effects model and, because the null hypothesis of a common intercept cannot be rejected, as a random effects model.

The results suggests that the error correction term carries the expected negative sign and is once -0.48 (panel fixed effects) and once -0.58 (panel random effects). The results indicate that if we assume a long run equilibrium relationship, any shock to *Free & Equal* will be absorbed within two periods. With respect to policy relevance, a shock on *Free & Equal* induced by an increase in *Revealed Social Mobility Strength* will sho0 Tc (-).2 (d)s6 (e)-9 20.989 0 Td (-)Tj -0.003 (ff)10.-0.003 (ff)108 (ff)10.-0.003 (ffTJ /)Tj -0.001

better predict social reform process outcomes and guide market liberalization such that it translates into more equitable social development.

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Appendix A.

AppendixA.4: Correlation Matrix

	Free & Equal	Revealed Public Health Strength	Revealed Social Security Strength	Revealed Human Capital Strength	Revealed Social Mobility Strength	GDP per Capita (ln)	Manufactures and Services Export Share (l	Natural Resource Rents (ln)	Catholics (ln)	Polity	Armed Conflict Total Score	Life Expectancy

Appendix A5: 2016-2020 Average "Free & Equal" Score

AppendixA.7: Hausman Test of Endogeneity

Table A: Instrumentalization of "Revealed Social Mobility Strength"

DV: Revealed Social Mobility Strength	OLS	Panel FE
Constant	-97.70*** (3.72)	-58.61*** (3.81)
Life Expectancy	1.95*** (0.05)	1.56*** (0.05)
Natural Resource Rents (ln)	-2.14*** (0.41)	1.60*** (0.60)
R-Squared	0.75	0.97

*Standard errors in parentheses, ***significant at p<0.01, **significant at p <0.05, * significant at p<0.1.*

Table B: Hausman Test

Appendix Table A.7: Error Correction Model

DV: ΔFree & Equal	Panel FE	Panel RE
Constant	0.84*** (0.12)	0.84*** (0.13)
ΔGDP per capita orthogonalized	0.86 (0.77)	0.82 (0.65)
ΔNatural Resources Rents (ln)	-1.1** (0.44)	-1.08** (0.42)
Free & Equal Residual$_{t-1}$	-0.48*** (0.06)	-0.58*** (0.05)
Cross-sectional units	159	159
Time series length min	1	1
Time series length max	4	4
N	540	540

Appendix A.8: Granger Causality

	DV: "Free & Equal"	DV: "Revealed Social Mobility Strength"
Constant	0.42**	3.82***
	(0.20)	(0.23)
"Free & Equal" (t-1)	0.20***	-0.08*
	(0.04)	(0.04)
"Revealed Social Mobility Strength" (t-1)	0.07*	0.002
	(0.04)	(0.04)
Cross-sectional units	158	159
Time series length min	1	1
Time series length max	3	3
n	448	450
R-squared	0.06	0.01