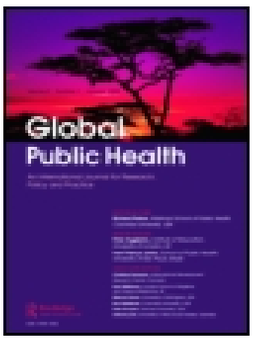

Taylor & Francis
Taylor & Francis Group

Global Public Health

An International Journal for Research, Policy and Practice

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rgph20

Does free-market capitalism drive unequal access to health? An empirical analysis, 1970–2015

Indra de Soysa & Krishna Chaitanya Vadlamannati

To cite this article: Indra de Soysa & Krishna Chaitanya Vadlamannati (2020): Does free-market capitalism drive unequal access to health? An empirical analysis, 1970–2015, Global Public Health

To link to this article: https://doi.org/10.1080/17441692.2020.1849350

GLOBAL PUBLIC HEALTH
https://doi.org/10.1080/17441692.2020.1849350

Routledge
Taylor & Francis Group

Does free-market capitalism drive unequal access to health? An empirical analysis, 1970–2015

Indra de Soysa[a] and Krishna Chaitanya Vadlamannati[b]

[a]Institute for Sociology & Political Science (ISS), Norwegian University of Science & Technology (NTNU) Trondheim, Norway; [b]School of Politics & International Relations (SPIRe), University College Dublin (UCD), Newman Building, Belfield, University College Dublin (UCD), Dublin, Ireland

ABSTRACT

Many scholars, particularly in public health, argue that neoliberal capitalist economic forces adversely affect communities by increasing inequalities, ultimately affecting health. Apparently, corporate capitalism affects health and communitarian concerns because governments place corporate profits over the publićs interests. Using unique data collected by the Varieties of Democracy (VDEM) project that capture the degree of access of the poorest segments of society to health services comparable with those available to the richest segments, this study finds that an index of economic freedom robustly reduces inequality of access to health. We argue that these results obtain because greater exposure to global markets increases the premium on the productivity of labour, increasing incentives for political elites to invest in productivity-enhancing public goods. Our results are robust to a number of alternative models and data, and robust to instrumental variables analyses addressing potential endogeneity. Rather than free-market capitalism increasing health-related neglect of society, our data suggest that free-market capitalist conditions promote equitable access to health. This is good news for governments wishing to grow their economies, reform broken health systems for gaining advantages in a competitive global economy, and serve communitarian interests, such as shared good health.

ARTICLE HISTORY
Received 7 July 2020
Accepted 1 November 2020

KEYWORDS
Free-market capitalism; healthcare equity; global competition; human capital

1. Introduction

The issue of public health consequences of economic openness to global market forces is heavily debated (Kawachi & Wamala, 2007; Maud et al., 2005; Schrecker & Bambra, 2015; Woodward et al., 2001). Debate about the effects of globalisation on health are indirectly also debates about the effects of global markets on local governance and questions of communitarian values and redistributive justice (Gleeson & Friel, 2013; Huits & McNamara, 2018). Sceptics of globalisation, among them some prominent economists, warn of serious distributive consequences of economic openness, particularly in terms of how markets drive welfare-reducing social standards (Deaton & Case, 2020a; Piketty, 2015; Rodrik, 1997; Stiglitz, 2002). This paper empirically addresses the question of whether and to what extent competitive free-market policies matter for equitable access to adequate healthcare between social classes and groups. Additionally, we assess the conditional effects of free-markets with political regime type on health inequality. While equity of access

CONTACT Indra de Soysa indra.de.soysa@svt.ntnu.no Institute for Sociology & Political Science (ISS), Norwegian University of Science & Technology (NTNU), Trondheim 7491, Norway
Supplemental data for this article can be accessed https://doi.org/10.1080/17441692.2020.1849350

does not mean equity in health outcomes, it does reflect directly a priority of a government for consciously trying to reduce disparities, or put differently, increase access to healthcare for the poor on equitable terms.[1]

Using unique data collected by the Varieties of Democracy (VDEM) project on health equity, which captures the access of the poorest segments of society to health services comparable with those available to the richest segments (VDEM, 2019), and the Fraser Institutés Economic Freedom Index (Gwartney et al., 2011), we find that higher levels of free-market capitalist societies have lower levels of inequality of access to health. Several alternative estimating techniques, including instrumental variables analyses, show that economic freedom reduces inequalities in access to healthcare. Conditional effects between economic freedom and regime type suggest that economic freedom reduces health inequity even among strict autocracies. The results generally support the view that free-market capitalistic policies and processes increase access to health of the poor on par with that of the rich, possibly due to the higher premium on the productivity of labour. Competitive markets potentially incentivize governments to create productivity-enhancing human capital as countries open up to global value chains. The results taken together suggest that the association between economic freedom and lower health inequality is potentially causal.

2. Theory

The question of the future of capitalism and the distributive effects of globalisation are often treated together (Collier, 2018; Deaton & Case, 2020a; Stiglitz, 2019). Debate about globalisatioń s effects on society is reminiscent of earlier debate about the effects of economic openness on poor societies (Bhagwati, 2004). Liberals, such as Jagdish Bhagwati, argue that foreign trade and the transfer of capital and knowledge though foreign investment from rich to poor countries benefit the poor by modernising economies and improving living standards. Access to markets allow poor countries to use their comparative advantages, particularly in low-skilled manufacturing and agriculture. Economists rely on factor endowment theory, such as Ricardo-Wiener, Heckscher-Ohlin-Samuelson type models of trade, which predict that open markets benefit abundant factors and punish scarce factors, so that poor-country labour benefits disproportionately from openness, with the reverse being true for labour in the rich countries. Given factor endowment theory, the poor in poor countries will catch up with the rich in their countries even if inequality rises within the rich world because capital might gain more from open markets there (Milanovich, 2016; Stiglitz, 2019).[2] Indeed, the rise of authoritarian populists across many industrialised democracies is blamed on disaffections driven by, among other things, rising inequality.

In many ways, economists worry less about the plight of labour in the rich world because the total benefits from open-market policies, particularly of trade, benefit societies on the aggregate. Governments can use the taxes taken from the winners to compensate the 'losers'. The main issue, according to many, is that globalisation, heavily driven by corporate interests, apparently constrain local-level policy designed to cushion society from harm (Collier, 2018; Deaton & Case, 2020a; Rodrik, 2011). According to some, under conditions of corporate capitalism, large segments of the working class, particularly in the United States, have been denied access to affordable health care (Deaton & Case, 2020a). Apparently, the greed of corporate capitalism, increases inequalities, reducing life expectancy in the United States for the first time in over a Century due to 'deaths of despair' because they derive from preventable causes. Apparently, corporate resistance to government regulation in the United States create conditions that prevent robust public action aimed at delivering affordable health care (Deaton & Case, 2020a). Yet, there is no pattern to globalisation and poor health access, even if people often point to the United States and the health crisis there. Equally open countries in Europe have managed to maintain robust health policies for reducing inequity. France, for example, has very high levels of equity of access as do most Nordic countries and the United Kingdom, all of which have strong free-market capitalistic systems to varying degrees.

Is what is argued about globalisation and the industrialised world also applicable broadly, extending to the developing world, as many critics of neoliberal free market policies claim? As the sceptics see it, large numbers of unskilled labour in the rich world lose out due to the 'footloose' nature of capital and the competitive pressures of market forces. Competition for capital will constrain states from gathering the required taxes for social insurance and welfare, for state intervention for acting in the best interests of communities. As such, globalisation will create a 'race to the bottom' where all governments will lower their social and environmental standards to attract footloose capital. Under these conditions, capital is empowered and will run roughshod over governments, regulations, and the social needs of communitarians, and destroy local and global commons, such as better health and other public goods (Gleeson & Friel, 2013; McNamara, 2017). Rather than raising the lot of the poor, corporations and commercial interests are likely to suppress workerś rights and demands, increasing inequality and access to social justice, such as equitable health care for all (Schrecker & Bambra, 2015). Moreover, market capitalism will promote the worst products and habits for health at a time when governments will be hampered from acting in the best interests of a communitýs health through better regulation (Maud et al., 2005).

As discussed above, factor endowment theories suggest that open markets, particularly for international trade, can benefit abundant factors, which is labour in poor countries. Poor countries benefit from under-utilized capacities from openness to larger markets, increasing opportunities for ending poverty and increasing health standards. Reducing poverty in poor countries, even if it comes at the cost to unskilled labour in rich countries, is a global public good because it has positive externalities in terms of improving health conditions and alleviating the myriad other problems associated with extreme poverty (Kaul et al., 1999). The role of the state, liberals would argue, is to encourage trade and investment and provide public goods, such as access to proper health care to all through the increased taxes received from the increase of overall economic activity, assuming that states are not captured by economic elites that block the provision of broad public goods. Such a process would set poor countries on a virtuous path to increased wealth and health because increasing health standards increase productivity and raise living standards in virtuous spirals (Deaton, 2013). As Deaton (2013) shows, capitalism´s dynamism has created unimaginable wealth and health for millions of people across the world.

Interestingly, the empirical evidence in the specialised, large-N literature is less pessimistic than the public health literature when it comes to the effects of globalisation, although on many dimensions the empirical evidence remains mixed. Most of this research examines conditions affecting the rights of children and women (Neumayer & de Soysa, 2005, 2006), human rights and political violence (de Soysa & Vadlamannati, 2013; Flaten & de Soysa, 2012), and the reduction of poverty (Dreher et al., 2008). A few studies examine real-world health outcomes, such as the growth of obesity (de Soysa & de Soysa, 2018; Goryakin et al., 2015), the effects of globalisation on child and adult mortality (Bergh & Nilsson, 2010; Martens et al., 2010), and public health outcomes, such as immunisation and the availability of vaccines (Knobler et al., 2006). The empirical work based on large-N statistical analyses cited above suggest positive outcomes from indicators of globalisation, such as trade and FDI and other aggregations of factors measuring the degree of dependence of any given country on global markets.

Yet, in many other approaches, particularly approaches relying on examining global institutions and treaties, such as the World Trade Organization rules and regional trade agreements, on health outcomes, scholars tend to be fairly pessimistic (Gleeson & Friel, 2013; Labonte & Sanger, 2006; McNamara, 2017). These studies argue that corporate interests drive trade agreements because of the ways in which governments have bought into the idea of neoliberalism. From 'big pharma' to 'big tobacco', to a host of actors in private health service provision, to giant retail corporations wishing to 'dump' unhealthy products (consumables) on people, trade and investment agreements supposedly lock in countries to the dictates of free-market logics through treaties. As Gleeson and Friel (2013, p. 1507) write,

> the ability of governments worldwide to introduce and implement public health policies and laws is increasingly threatened by trade and investment treaties that privilege investors over governments and provide avenues for international corporations to challenge democratically enacted public health policies in different countries.

Trade agreements, thus, also supposedly solidify social inequalities by impacting the lives of vulnerable groups, handicapping governments from enacting countervailing policies, such as through health and social policy (Huits & McNamara, 2018).

The content of treaties and real-world outcomes don't always need to tally on a complex matter such as health, which can of course be affected by economic, social, and political factors outside of global institutional rules (Maud et al., 2005). For example, if increased trade increases employment and living standards, then health improvements occur due to peoplés own investment in their well-being. Systematic examinations of liberal trade policies, by at least one recent study, shows positive effects on child survival rates (Olper et al., 2018). Nonetheless, to our knowledge there are no large-N statistical explorations of health access measured as equity of access to health services between the rich and poor, despite a great deal of evidence suggesting that the poorest people in poor countries benefit from greater globalisation through both reductions in poverty and the inequality of wealth (Bergh & Nilsson, 2014). Indeed, some argue that inequality measured as the GINI should be ditched for a measure of inequalities in health, since health is more valued by people and a more objective measure of human wellbeing (Deaton & Case, 2020b).

This study argues, in line with factor endowment theories, that greater openness to world markets should advantage labour across the world, and that such labour is also likely to gain a premium because of the importance of human capital for attracting physical capital and for absorbing new technologies. The greater openness also increases pressure on governments to make productivity-enhancing public goods that allow increases in the gains from trade and other benefits by investing in physical and human capital (Rogowski, 1998). In other words, poor-country factory owners (capital), whether private or state-owned, benefit from human capital and productivity increases. Governments in more open economies will have incentives to increase equity-promoting policies by increasing access to public goods and raising standards in areas such as health and education, which are productivity-enhancing investments. In other words, regardless of what is happening in economic life, such as economic growth and income inequalities, governance is likely to favour labour, thereby increasing access to better health among the poorer segments of society that make up the labour force. This is likely to be strongest in democracies because the one-person-one-vote system will encourage the interests of labour (the more numerous group) over capital, leading to better public goods (Bueno de Mesquita & Smith, 2011). Since much of the argumentation as to why open markets matter for health works through how governments are affected from acting in the best interests of people, assessing how open markets affect policy is critical, regardless of the effectiveness of these policies for reducing current disparities in health. We argue that a more open economy creates incentives for governments to broaden public goods, such as health, for increasing productivity and gaining from global value chains. Thus, we test the following two hypotheses:

H1: Greater economic freedom reduces inequality of access to health

H2: The effect of economic freedom on the equity of access to health is conditional on greater political freedom

3. Data and methods

3.1 Model specifications

To examine our theoretical propositions, we utilise data on 149 countries (see Appendix 1 for list of countries) covering the years 1970–2015. We estimate the following equation:

$$\boldsymbol{Hineq_{ct}} = \boldsymbol{\varphi_c} + \boldsymbol{\beta}.\boldsymbol{EFW_{ct}} + \boldsymbol{\beta}.\boldsymbol{Z_{ct}} + \boldsymbol{\lambda_c} + \partial_t + \boldsymbol{\omega_{ct}} \quad (1)$$

wherein, $\boldsymbol{Hineq_{ct}}$ measures the extent of inequity in health care in country $\boldsymbol{c}$ during year $\boldsymbol{t}$. The VDEM project[3] measures the degree to which any given country at any given time provides access to adequate health care for the poor that is comparable with the health care accessed by the rich. The VDEM data on health equity are generated by asking several country experts to score countries on the following question, scored according to the scale below:

> *To what extent is high quality basic health guaranteed to all, sufficient to enable them to exercise their basic rights as adult citizens*?
>
> **0**: Extreme. Provision of high-quality basic health is extremely unequal and at least 75 percent (%) of citizens receive such low-quality health that undermines their ability to exercise their basic rights as adult citizens.
>
> **1**: Unequal. Provision of high-quality basic health is extremely unequal and at least 25 percent (%) of citizens receive such low-quality health that undermines their ability to exercise their basic rights as adult citizens.
>
> **2**: Somewhat equal. Basic health is relatively equal in quality but ten to 25 percent (%) of citizens receive such low-quality health that undermines their ability to exercise their basic rights as adult citizens.
>
> **3**: Relatively equal. Basic health is overall equal in quality but five to ten percent (%) of citizens receive such low-quality health that probably undermines their ability to exercise their basic rights as adult citizens.
>
> **4**: Equal. Basic health is equal in quality and less than five percent (%) of citizens receive such low-quality health that probably undermines their ability to exercise their basic rights as adult citizens.

VDEM codes health equality by consulting numerous country and regional experts who make subjective judgements about the level of access of the poorest segments of society to health care compared with the richest segments. These expert coding are then subject to rigorous scrutiny and testing using item response theory that reduces uncertainty and assigns a single value to each country for each year (Pemstein et al., 2018). The data are coded as health equality ranging from −4 to +4, which we inverted so as to capture greater inequity in access to healthcare in country $\boldsymbol{c}$ during year $\boldsymbol{t}$ for testing our hypothesis. The mean value of the healthcare *inequity* index in our sample is −0.57, while the standard deviation is 1.48, suggesting a significant variation in the index across countries over time. The maximum value of the index is 3.16 (South Sudan) and the minimum value is −3.99 (France). The VDEM measure shows a strong correspondence with the World Bank´s World Development Indicators (WDI) data on the infant mortality rate ($r = 0.75$) and a measure of government health expenditure as a share of GDP reported by the WDI ($r = -0.66$) respectively (World Bank, 2018). In other words, inequality of access to health subjectively derived mirrors alternative health performance indicators, such as mortality, reasonably well. More importantly, the VDEM measure of access to health is highly correlated ($r = 0.84$) with the Global Burden of Disease Project's Health Access and Quality Index (HAQI), which is based on the actual incidence of disease among children under 5 years of age (Barber et al., 2017). The reasoning behind this measure is that disease, such as measles and malaria, would not exist if children had proper care. These results give us a great deal of confidence that the VDEM data reliably measure inequality in access to quality health, which is our main proxy for determining a government´s commitment to the poorer segments of its citizenry.

The hypothesis variable is economic freedom ($\boldsymbol{EFW_{ct}}$), which measures the degree of competitive free-market capitalism in country $\boldsymbol{c}$ during the year $\boldsymbol{t}$. We utilise the Fraser Institute's Economic Freedom Index (EFW), which is one of the most widely-used measures of competitive free-market institutions and processes (Berggren, 2003; Gwartney et al., 2011). These data are available in five-year intervals for the period 1970–2000, and on a yearly basis thereafter. The EFW index changes only very slowly, so we adopt the five-year intervals as our panel set up until year 2000 and annually thereafter.[4] The EFW is a comprehensive measure comprised of five sub-indices capturing: the degree of government involvement in the economy taxes, expenditures etc; the degree of respect for private property rights and legal security; the degree of central bank independence measured

as the access to sound money, the degree of freedom to trade with foreigners; and the degree of state regulation of businesses in terms of labour regulations etc.

These five areas are measured by roughly 35 components of objective indicators. Each variable in the respective sub-indices was transformed to an index on a scale from 0 to 10. When higher values of the original variable indicated a higher degree of freedom, the formula $[(V_i - V_{min}) / (V_{max} - V_{min})] \times 10$ was used for the transformation. Conversely, when higher values indicated less freedom, the formula was $[(V_{max} - V_i) / (V_{max} - V_{min})] \times 10$. The sub-component indices were then averaged to determine each component, which are in turn averaged into a summary index made up of the average of the 5 areas. The final EFW index is then ranked on a scale of 0 (not free) to 10 (totally free). Another way of interpreting the EFW index would be that the value of 0 denotes the absence of state regulations, or a state failure to provide these public goods, while 10 denotes the highest level in a highly competitive free-market economy. The mean value of EFW in our sample is 6.46 with a standard deviation of 1.15, and a maximum value of 9.23 (Singapore) and minimum value of 1.82 (for Nicaragua). We believe that the EFW and its subcomponents are better indicators of economic openness than single dimensions, such as a countrýs dependence on external trade or on the investments of Multinational Corporations.

The vector of control variables ($\boldsymbol{Z_{it}}$) includes other potential determinants of healthcare inequity, which we obtain from the literature emerging on the subject (OECD, 2019; Omotoso & Koch, 2018). The list of potential control variables is long, and we seek to avoid the trap of overfitting our models (Achen, 2005). We adopt the conservative strategy of accounting only for key factors that affect our outcome variable of interest, adding several more in robustness checks so as to avoid a spurious interpretation of the main results. First, we control for the level of economic development measured as per capita income in US$ 2010 constant prices obtained from the WDI data. Income level is associated with the degree of economic freedom and relates to the level of health equity. We log income per capita to reduce skewness. To measure the nature of the political regime, we include the standard regime type distinction using the Polity IV data (Gurr & Jaggers, 1995). We subtract the autocracy score from the democracy score, as is standard when using the Polity data. The democracy score ranges from +10 (full democracy) to −10 (full autocracy). Democracy is likely to increase equality in access to health and be related to greater economic openness (Tanzi, 2011). Next, we control for natural resource extraction, particularly oil and gas, because of the impact of resource production and export on the degree of trade openness of a country and because of the effects of valuable resources on inequality and governance working through the so-called 'natural resource curse' (Frankel, 2012; Ross, 2012). We use the per capita value of the production of oil and gas in 2014 dollars taken from the Ross-Mahdavi dataset (Ross & Mahdavi, 2015).

Finally, we include a discrete variable capturing a country's participation in an International Monetary Fund (IMF) programme. Previous studies show that IMF programmes might carry conditionalities that are not only intended for increasing economic openness, but also conditionalities either calling for higher spending on health, and or greater austerity (Kentikelenis et al., 2015; Ruckert et al., 2015). The descriptive statistics are provided in Appendix 3 and the details on definitions and data sources are provided in Appendix 4. In robustness tests, we also add several other controls including demographic variables, such as country size and population density, economic growth rate, variables capturing political instability (civil conflict) and governance (corruption), and a proxy for health crisis, namely the infant mortality rate. We estimate a Newey–West method which allows us to compute an AR1 process for autocorrelation and obtain Huber–White corrected robust standard errors that are robust to heteroscedasticity (Newey & West, 1987). We also include both year- (∂_t) and country-specific ($\boldsymbol{\lambda_c}$) fixed effects to control for year specific shocks and country specific heterogeneity in the data.

3.2. Endogeneity

It is quite plausible that conditions of competitive free-market capitalism are an outcome rather than cause of inequalities in a society. Moreover, the EFW could also be caused by other unmeasured factors which could then explain healthcare inequality, such as, for instance, a statés capacity to carry out policy reforms to promote health equity. Failing to account for endogeneity might yield biased results. To address the problem of endogeneity, we utilise a two-stage least squares instrumental variable (2SLS-IV hereafter) estimator including the control variables discussed above, along with year-specific and country-specific fixed effects. We use two instruments to account for possible endogeneity. Following others, we use (i) the mean of EFW in neighbouring countries (minus *i*th country) in the geographic region to which i^{th} country belongs (Gassebner et al., 2011). We call this variable *EFW geographic-grouping*. (ii) We also use the mean of EFW of countries (minus *i*th country) in the same income group to which *i*th country belongs. We label this variable *EFW income-grouping*. We follow the World Bank's classification of income group, which include high-income, middle-income, lower-middle income, and low-income categories. We lag both instruments by two years. We believe that these instruments are likely to be highly correlated with EFW because of geographic contagion and because of similarities in economic and political structures, but these groupings are unlikely to be correlated with the access to healthcare index in country ***c,*** accept through its similarity in economic freedom. The idea of peer effects influencing the likelihood of a country's economic freedom policies is quite well established in the literature (Cooray et al., 2014; de Soysa & Vadlamannati, 2013; Potrafke, 2013; Simmons et al., 2004).

The validity of our instruments depends on two conditions; namely, instrument relevance and instrument exclusion criteria. The instrument relevance suggests that the selected instruments should be correlated with the explanatory variable. To examine instrument relevance, we use the joint F-statistic in the first stage of the IV regressions. The instruments would be relevant when the first stage regression model F-statistics meet the thumb rule threshold of being above 10 (Bound et al., 1995). We also apply additional tests found to be more powerful, which are the Kleibergen and Paap LM statistic and Cragg-Donald Wald F-statistics that offer reliable statistical inference in a weak instrument setting (Baum et al., 2007; Kleibergen & Paap, 2006). In all these cases, an F-statistic above the critical value (10% maximal test size) indicates the rejection of weak instruments. Additionally, the instruments should not vary systematically with the disturbance term in the second stage equation, i.e.$[\omega_{it} \mid IV_{it}] = 0$. Meaning, the instruments cannot have an independent effect directly on the dependent variable. As for the exclusion restriction, we are not aware of a theoretical argument linking the average neighbourhood values of economic freedom explaining healthcare policies in any specific country. Nevertheless, we employ the Hansen *J-test* to test whether the selected instruments satisfy the exclusion restriction criteria (Hansen, 1982). Note that when estimating the 2SLS-IV models, we also control for year and country-specific fixed effects.

3.3. Interaction effects

To examine our second hypothesis, we estimate conditional terms in which we introduce interactions between the EFW index and regime type as:

$$Hineq_{ct} = \varphi_c + \beta.(EFW \times polity)_{ct} + \beta.polity_{ct} + \beta.Z_{ct} + \lambda_c + \partial_t + \omega_{ct} \quad (2)$$

wherein, $(\boldsymbol{EFW} \times \boldsymbol{polity})_{\boldsymbol{ct}}$ captures the interaction between EFW and Polity IV regime type as described above. Note that the interaction models are also estimated using OLS with Newey-West estimator controlling for both year-specific and country-specific fixed effects. We generate margins plots for assessing the interaction effects and their levels of significance along the entire range of the conditional effects (Brambor et al., 2006).

4. Results

Figure 1 provides a descriptive look at the bivariate relationship between the EFW index and the healthcare inequity index.

As seen there, the bivariate relationship between the EFW index and healthcare inequity index is negative. In other words, countries that have a higher level of EFW are more likely to have greater levels of equity in access to healthcare (lower inequality). This relationship holds when we use the sample of developing countries alone (i.e. non-OECD countries) as seen on the right-hand side of Figure 1. These simple bivariate statistics, however, may lead to spurious conclusions without proper controls, such as the level of development measured by GDP per capita and regime type. The lack of democracy, rather than EFW per se, may explain the association. We move next to examine the statistical relationship in greater detail in multivariate models.

Table 1 presents results for EFW with and without basic controls, both for a full sample of countries and a sample of only developing countries. Table 1 also reports the results on IV estimations. Finally, Table 2 presents the conditional effects between the measures of the EFW index and political regimes on healthcare inequity.

As seen in column 1, we find a negative and significant effect of the economic freedom index on inequality of healthcare. Notice that the negative and significant effect remains after the inclusion of control variables in column 2. The substantive effects suggest that a standard deviation increase in the EFW index decreases inequality of access to healthcare by roughly 0.57 points, which is roughly 39% of a standard deviation of the inequality of access to healthcare index. Notice that when we replace the full sample with a sample of only developing countries, our results remain the same. As seen in column 3, the effect of EFW is negative and significantly different from zero at the 1% level. A standard deviation increase reduces healthcare inequality by 0.63 points, or roughly 43% of a standard deviation of the healthcare inequity index. In real world terms, moving from a low level of economic freedom (Nicaragua) to the highest (Singapore) would reduce inequality of access to health by almost one-third (70%) of a standard deviation of the inequality of access,

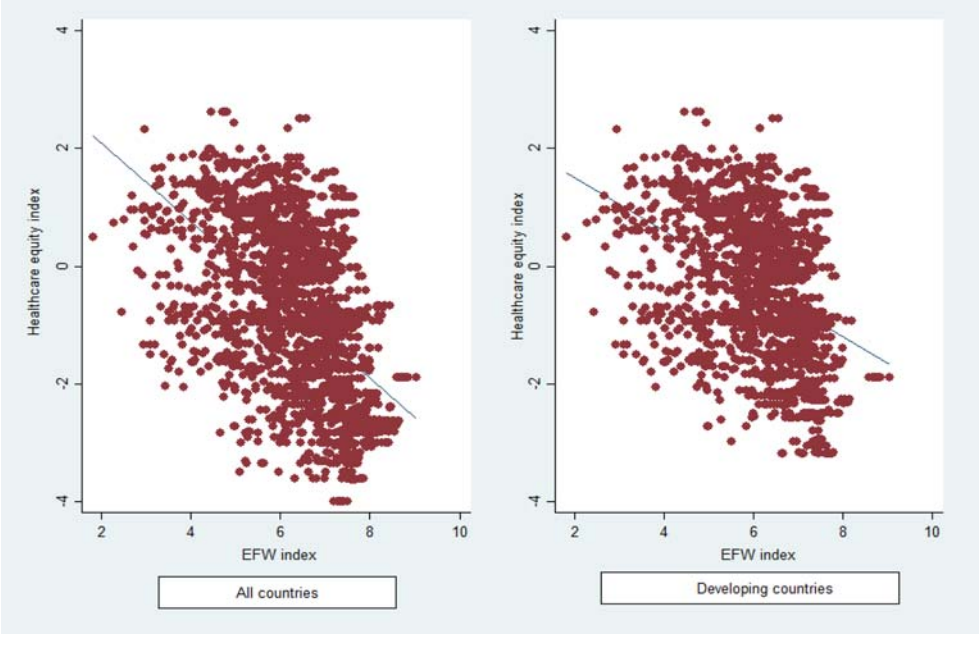

Figure 1. Relationship between EFW index and healthcare equity 1970–2015 period.

Table 1. Impact of economic freedom on inequality of access to healthcare.

	(1)	(2)	(3)	(4)	(5)
EFW index t-1	−0.103***	−0.0751***	−0.0829***	−0.307**	−0.169*
	(0.0185)	(0.0184)	(0.0194)	(0.130)	(0.0939)
Per capita GDP (log) t-1		−0.380***	−0.268***	−0.233**	−0.229**
		(0.0674)	(0.0675)	(0.118)	(0.0957)
Polity index t-1		−0.0145***	−0.00378	−0.00199	0.000433
		(0.00411)	(0.00430)	(0.00601)	(0.00485)
Oil & Gas per capita (log) t-1		0.0133	−0.00215	−0.00691	−0.0104
		(0.0127)	(0.0137)	(0.0150)	(0.0152)
IMF programme t-1		−0.0285	−0.0485**	−0.0249	−0.0415**
		(0.0203)	(0.0200)	(0.0212)	(0.0201)
Constant	1.820***	4.465***	3.861***		
	(0.126)	(0.476)	(0.477)		
Estimator	OLS	OLS	OLS	2SLS-IV	2SLS-IV
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
First-stage *F-statistics*				16.31***	14.20***
Cragg-Donald Wald *F-statistics*				26.89***	24.96***
Kleibergen-Paap rk LM statistic				22.26***	24.23***
Hansen J-statistic [*p-value*]				0.162	0.338
Number of Observations	2,645	2,369	1,850	2,245	1,751
Number of Countries	149	141	115	139	115

Notes: Standard errors in parenthesis; Statistical significance: ***$p<0.01$, **$p<0.05$, *$p<0.1$.

holding constant each of the controls at their mean values. Given the association between income per capita and regime type and economic freedom, the indirect effects of EFW through these two variables are also likely to be large. The substantive impact shown from both sample of countries is fairly similar and robust. Our results lend support to the argument that economic freedom is correlated with equity in terms of access to health for the poorer sections of a society, possibly due to the higher incentives for states to create productivity-enhancing human capital as countries open up to global markets.

It is noteworthy that our results remain robust to the inclusion of several basic control variables. The results show that income per capita is a robust determinant of the equality of access to healthcare. Higher incomes reduce inequality. Interestingly, democracy is negative and significantly different from zero at the 1% level of statistical significance but only in the full sample. Once the

Table 2. Impact of EFW and polity regime type on healthcare inequality - interaction effects.

	(1)	(2)
EFW index t-1 **X** Polity index t-1	0.00111	−0.000382
	(0.00226)	(0.00239)
EFW index t-1	−0.0790***	−0.0818***
	(0.0211)	(0.0215)
Polity index t-1	−0.0202	−0.00176
	(0.0126)	(0.0144)
Per capita GDP (log) t-1	−0.385***	−0.266***
	(0.0704)	(0.0705)
Oil & Gas per capita (log) t-1	0.0135	−0.00221
	(0.0128)	(0.0137)
IMF programme t-1	−0.0284	−0.0485**
	(0.0202)	(0.0201)
Constant	4.528***	3.843***
	(0.514)	(0.508)
Estimator	OLS	OLS
Country Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Number of Observations	2,369	1,850
Number of Countries	141	115

Notes**:** Standard errors in parenthesis; Statistical significance: ***$p<0.01$, **$p<0.05$, *$p<0.1$.

OECD countries are dropped, democracy no longer predicts equality of access to healthcare. These results suggest that the equality effect is working largely because of the OECD countries. Interestingly, IMF programme participation is more likely to reduce inequalities in access to healthcare, results that are statistically significant at the 5% level but only when the sample of developing countries is tested. If IMF programmes, thus, increase free-market capitalistic policies, then the IMF´s effect on increasing equity also happens indirectly through the effect of EFW.

In columns 4–5, we present the empirical results from the 2SLS-IV estimations for the global and the developing countries only samples. There are three observations drawn from these results. First, the IV estimation results on EFW in both samples in column 4–5 are similar to those reported in our baseline estimates in columns 2–3. The effects of EFW remain negative and statistically significant on access to healthcare inequity even after controlling for potential endogeneity in instrumental variables analyses. Second, as seen in both columns, not only is EFW statistically significant, but its impact remains large. For instance, holding other controls constant, a standard deviation increase in the EFW measure reduces healthcare inequity by roughly 2.3 points for the global sample, which is significantly different from zero at the 5% level (see column 4). The substantial effects in this instance is at least three times as large as in the corresponding OLS estimations reported for the global sample of countries in column 2. Similarly, a standard deviation increase in EFW is associated with a decline in healthcare inequity by roughly 1.29 points for the sample of developing countries (see column 5), an effect which is two times larger than the one estimated using OLS in column 3. Thirdly, notice that the additional statistics provided below in Table 1 suggests that the instruments pass the exclusion criteria. The Hansen *J-statistic* shows that the null of exogeneity cannot be rejected at the conventional level of significance in the 2SLS-IV models, which means our instruments pass the instrument exclusion criteria. Furthermore, the joint *F-statistic* from the first stage rejects the null that the instruments selected are not relevant. We obtained a higher joint *F-statistic*, Kleibergen-Paap *F-statistics* and Cragg-Donald Wald *F-statistics* on our instruments reported in Table 1 for both sample groups respectively, which remains significantly different from zero at the 1% level. It is also noteworthy that the results from the instrumental variable approach are also robust to using an alternative set of instruments, which are discussed in the robustness tests described below. Taken together, our results on EFW are robust to alternative estimation techniques and potential endogeneity. The results of control variables are roughly the same as those reported for columns 2-3. The results confirm H1.

In Table 2, we introduce interaction terms between economic freedom and regime type on inequity of access to healthcare.

While column 1 shows the interaction results for the global sample, column 2 reports the interaction effects for the sample of developing countries alone. As seen in columns 1–2, our interaction terms are statistically not different from zero. Likewise, the Polity regime type on its own is also not statistically significant in both columns. Interestingly, the EFW index on its own, i.e. when the regime type index measure is set to 0, has a negative and statistically significant effect on inequity of access to healthcare, a result that is different from zero at the 1% level of statistical significance. However, it is important to note that the interpretation of the interaction terms even in linear models is not so simple. Consequently, a simple t-test on the coefficient of the interaction term is not sufficient to examine whether the interaction term is statistically significant or not (Ai and Norton 2003). We rely on margins plots in Figures 2 and 3 to assess the conditional effect. To calculate the marginal effect of EFW on healthcare inequity in both sample groups, we take into account both the conditioning variable (Polity index) and the interaction term and display graphically the total marginal effect conditional on the Polity index coded on −10–10 scale. The y-axis of Figures 2 and 3 displays the marginal effect of the EFW measure in both sample groups in columns 1–2 respectively, and the marginal effect is evaluated on the Polity index on the x-axis. Note that we include the 90% confidence interval in both Figures.

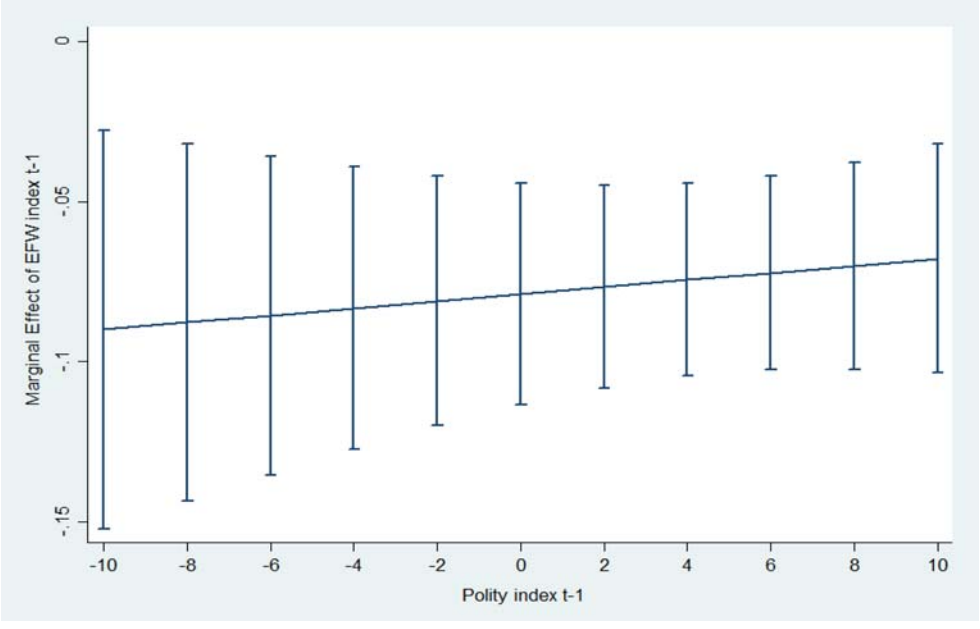

Figure 2. EFW, polity & marginal effect on healthcare equity, full sample.

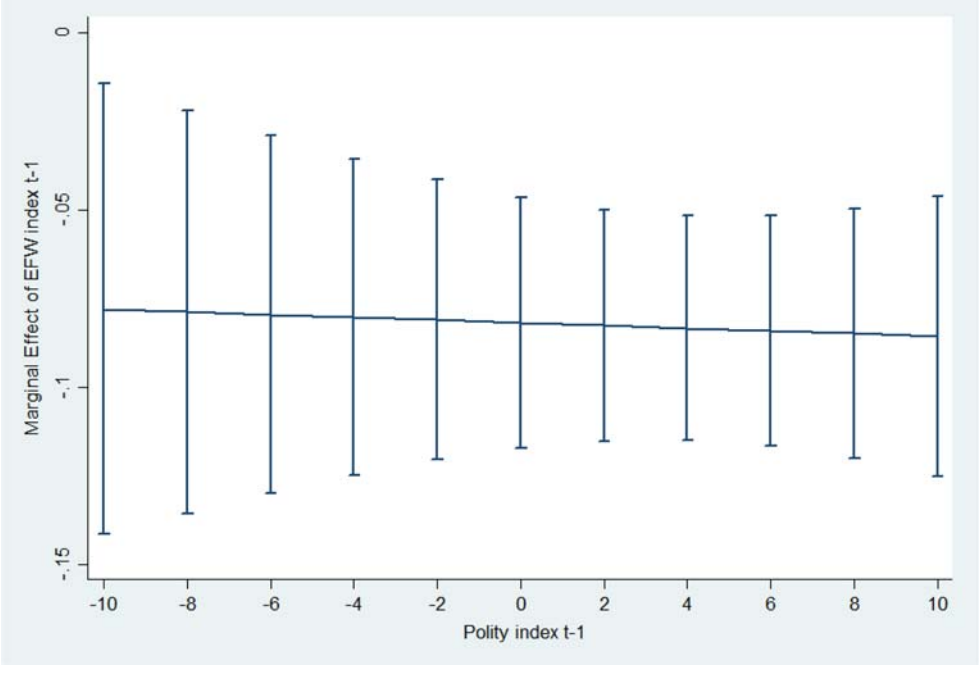

Figure 3. EFW, polity & marginal effect on healthcare equity, developing countries sample.

As seen in Figures 2 and 3, and in line with our theoretical expectations, economic freedom decreases the probability of inequity of access to healthcare (at the 90% confidence level at least) when the Polity index is above the score of −10 in both global sample and a sample of developing countries alone. For instance, the marginal effects in Figure 2 suggest that EFW measure decreases the healthcare inequity by 0.08 points when the Polity index score is at −9 in a given country, which significantly different from zero at the 5% level. The negative finding of EFW among autocracies is especially interesting. Since autocracies generally increase inequality, then the negative effect of EFW on healthcare inequality suggests that market forces act strongly to reduce inequalities. Autocrats open to global economic competition, it seems, understand the value of providing pro-poor governance for increasing productivity as evident in cases, such as Singapore, China, and Viet Nam etc. To some extent, these results support others that do not find any relationship between democracy and health outcomes, particularly among the poor (Ross, 2006). Notice, however, that at full democracy, i.e. at a score of +10 on Polity, EFW reduces healthcare inequity conditionally by roughly 0.07 points, a result that is statistically significant at the 1% level. The results are of similar magnitude when using the sample of developing countries, as shown in Figure 3. These additional interaction effects provide strong support for the proposition that implementing policies which promote economic freedom reduces inequality of access to healthcare, both among democracies as well as among autocracies.

4.1. Robustness checks

We examine the robustness of our findings in several ways. First, we add more control variables namely, population density, GDP growth rate, political instability measured as civil conflict where at least 25 deaths have occurred in a single year, VDEM's measure of political corruption, and a proxy for health crisis; namely, the infant mortality rate. All of these factors might explain a government´s decision on healthcare access and explain the EFW. Our results on EFW remain robust to the inclusion of these control variables, which also hold in the 2SLS-IV estimations (see Table A, online appendix).[5] Secondly, we linearly interpolate the missing years in between the quintile values. Since the scores on the EFW change slowly between the five-year periods, we interpolate the values in between. Our results remain robust in both global as well as developing country samples. These results are reported in Table B in the online appendix. Thirdly, we replace our instruments with internal instruments and estimate a GMM estimator (Roodman, 2006). We apply the Sargan-Hansen test on the validity of the instruments used (amounting to a test for the exogeneity of the covariates) and the Arellano-Bond test of second order autocorrelation, which must be absent from the data in order for the estimator to be consistent (Arellano & Bond, 1991). Like others, we treat the lagged dependent variable and the EFW index as endogenous and lag both by two years (Brazys & Vadlamannati, 2020). We treat all other variables as exogenous. We also include time dummies in the GMM regressions. To minimise the number of instruments, we collapse the matrix of instruments as suggested by Roodman (2006). Our GMM specification is estimated for both the global and developing countries only and are reported in Table C (online appendix). We find that economic freedom continues to exert a negative and statistically significant effect on healthcare inequality. In summary, the results seem robust to using alternative data, specifications, and testing procedures. Free-market capitalist conditions seem to promote pro-poor access to healthcare, not diminish it as many claim.

5. Conclusion

Sceptics of globalisation argue that the spread of neoliberal ideas of free-markets drive down social standards, particularly affecting human health (Kawachi & Wamala, 2007; Schrecker & Bambra, 2015). 'Deaths of despair' in the United States, which has reversed life expectancy there, are blamed on the greed of corporate capitalism, which increases inequalities and constrain governments from

acting in the best interests of its poorer citizens (Deaton & Case, 2020a). Others argue that international trade and investment agreements empower giant corporations at the expense of human health, for example, by locking in states to treaties that prevent them from acting in the best interests of their publics (Gleeson & Friel, 2013; McNamara, 2017). We have argued that competitive free-market conditions could provide the incentives for political elites to invest in productivity enhancing public goods, such as increase access to healthcare for the poor. Indeed, the US conditions might in fact be unique to the political economy of the US. Extremely open economies, from Singapore and Hong Kong to the UK and Scandinavia contain extremely egalitarian systems in terms of access to quality health care and education for all. Using the latest available data on equitable access to health, we find that greater economic freedoms increase equitable access to health, results that are robust to a number of estimating techniques, including instrumental variables analyses that allow us to tease out causality. We find no reason to believe that competitive free-market conditions constrain governments from providing productivity-enhancing public goods, such as access to health. This is good news for governments wishing to increase economic performance, make health care reforms, and increase the competitiveness of their labour forces in the global marketplace.

Notes

1. Equality of access (or increasing opportunities broadly) might not necessarily benefit only the poorer classes in terms of outcomes, because the rich are better placed already to take advantage of increased opportunity, which may in fact increase outcome-based inequalities. As an example, suppose a factory owner gets increased access to healthier workers, the factory owner can increase her riches even as workers see increased opportunity. For a discussion of the philosophical underpinnings of the equality of opportunity over outcome, see Roemer (2012). On Several Approaches to the Equality of Opportunity. *Economics and Philosophy*, *28*, 165-200.
2. The theory becomes somewhat complicated when one separates the differential effects of skilled versus unskilled labour in the rich- and poor-country settings. One can expect, however, that skilled labour wins in rich countries and the unskilled lose, whereas in poor countries the basic endowment is made up largely of unskilled workers.
3. See: https://www.v-dem.net/en/data/data-version-10/
4. In robustness tests, we also compare our results with the 5-year gaps interpolated between 1970 and 2000.
5. The online appendix may be accessed at: http://folk.ntnu.no/indras/publishedarticles.html.

Acknowledgements

We wish to thank the editor and three anonymous reviewers for unusually constructive comments and suggestions. We are grateful to members of the CHAIN research group at the Institute for Sociology and Political Science at the Norwegian University of Science and Technology (NTNU), especially Courtney McNamara and Oda Nordheim, who provided useful comments and suggestions on an earlier draft. We are also grateful to Paul Walsh and Aidan Regan for providing valuable feedback. Only we are responsible for the way in which we have used all this good advice.

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

Achen, C. H. (2005). Let's put garbage-can regressions and garbage-can probits where they belong. *Conflict Management and Peace Science*, *22*(4), 327–339. https://doi.org/10.1080/07388940500339167

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, *58*(2), 277–297. https://doi.org/10.2307/2297968

Barber, R. M., Fullman, N., Sorensen, R. J. D., Bollyky, T., McKee, M., Nolte, E., Abajobir, A. A., Abate, K. H., Abbafati, C., Abbas, K. M., Abd-Allah, F., Abdulle, A. M., Abdurahman, A. A., Abera, S. F., Abraham, B., Abreha, G. F., Adane, K., Adelekan, A. L., Adetifa, I. M. O., Afshin, A., … Murray, C. J. L. (2017). Healthcare access

and quality index based on mortality from causes amenable to personal health care in 195 countries and territories, 1990-2015: A novel analysis from the global Burden of disease study 2015. *The Lancet*, *390*(100091), 231–266. https://doi.org/10.1016/S0140-6736(17)30818-8

Baum, C. F., Schaffer, M. E., & Stillman, S. (2007). Enhanced Routines for instrumental variables/generalized method of moments estimation and testing. *The Stata Journal: Promoting Communications on Statistics and Stata*, *7*(4), 465–506. https://doi.org/10.1177/1536867X0800700402

Berggren, N. (2003). The benefits of economic freedom: A survey. *The Independent Review*, *VIII*(2), 193–211.

Bergh, A., & Nilsson, T. (2010). Good for living? On the relationship between globalization and life expectancy. *World Development*, *38*(9), 1191–1203. https://doi.org/10.1016/j.worlddev.2010.02.020

Bergh, A., & Nilsson, T. (2014). Is globalization reducing absolute poverty? *World Development*, *62*, 42–61. https://doi.org/10.1016/j.worlddev.2014.04.007

Bhagwati, J. (2004). *In defence of globalization*. Princeton University.

Bound, J., Jaeger, D. A., & Baker, R. M. (1995). Problems with instrumental variables estimation when the correlation between the instruments and the endogeneous explanatory variable is weak. *Journal of the American Statistical Association*, *90*(430), 443–450.

Brambor, T., Clark, W. R., & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis*, *14*(1), 63–82. https://doi.org/10.1093/pan/mpi014

Brazys, S., & Vadlamannati, K. (2020). Aid curse with Chinese characteristics? Chinese development flows and economic reforms. *Public Choice*. https://doi.org/10.1007/s11127-020-00836-z

Bueno de Mesquita, B., & Smith, A. (2011). *The dictator's handbook: Why bad behaviour is almost always good politics*. PublicAffairs.

Collier, P. (2018). *The future of capitalism: Facing the new anxieties*. HarperCollins.

Cooray, A., Tamazian, A., & Vadlamannati, K. C. (2014). What drives FDI policy liberalization: An empirical investigation. *Regional Science and Urban Economics*, *49*(179-189). https://doi.org/10.1016/j.regsciurbeco.2014.06.008

Deaton, A. (2013). *The great escape: Health, wealth, and the Origins of inequality*. Princeton University Press.

Deaton, A., & Case, A. (2020a). *Deaths of despair and the future of capitalism*. Princeton University Press.

Deaton, A., & Case, A. (2020b). Rebottling the gini: Why this headline measure of inequality misses everything that matters. *Prospect*, (January 27), Ritrived March 5, 2020, from, https://www.prospectmagazine.co.uk/economics-and-finance/rebottling-the-gini-why-this-headline-measure-of-inequality-misses-everything-that-matters.

de Soysa, I., & de Soysa, A. K. (2018). Do globalization and free markets drive obesity among children and Youth? An empirical Analysis, 1990–2013. *International Interactions*, *44*(1), 88–106. https://doi.org/10.1080/03050629.2017.1311259

de Soysa, I., & Vadlamannati, K. C. (2013). Do Pro-market economic reforms drive human rights Violations? An empirical Assessment, 1981–2006. *Public Choice*, *155*(1-2), 163–187. https://doi.org/10.1007/s11127-011-9847-2

Dreher, A., Gaston, N., & Martens, P. (2008). *Measuring globalization, Gauging its consequences*. Springer.

Flaten, R. D., & de Soysa, I. (2012). Globalization and political violence, 1970–2008. *International Interactions*, *38*(5), 622–646. https://doi.org/10.1080/03050629.2012.726182

Frankel, J. A. (2012). *The natural resource curse: A survey of diagnoses and some prescriptions* (HKS Faculty Research Working Paper Series RWP12-014, Issue).

Gassebner, M., Gaston, N., & Lamla, M. J. (2011). The inverse domino effect: Are economic reforms contagious? *International Economic Review*, *52*(1), 183–200. https://doi.org/10.1111/j.1468-2354.2010.00624.x

Gleeson, D., & Friel, S. (2013). Emerging threats to public health from regional trade agreements. *The Lancet*, *381*(9876), 1507–1509. https://doi.org/10.1016/S0140-6736(13)60312-8

Goryakin, Y., Lobstein, T., James, W. P. T., & Suhrcke, M. (2015). The impact of economic, political and social globalization on overweight and obesity in the 56 low and middle income countries. *Social Science and Medicine*, *133*, 67–76. https://doi.org/10.1016/j.socscimed.2015.03.030

Gurr, T. R., & Jaggers, K. (1995). Tracking democracy's third wave with the polity III data. *Journal of Peace Research*, *32*(4), 469–482. https://doi.org/10.1177/0022343395032004007

Gwartney, J., Lawson, R., & Hall, J. (2011). *Economic freedom in the world: Annual Report 2011*. Fraser Institute.

Hansen, L. P. (1982). Large sample properties of generalized method of moments estimators. *Econometrica*, *50*(4), 1029–1054. https://doi.org/10.2307/1912775

Huits, T., & McNamara, C. (2018). Trade agreements, public policy and social inequalities in health. *Global Social Policy*, *18*(1), 88–93. https://doi.org/10.1177/1468018117748698

Kaul, I., Grunberg, I., & Stern, M. (1999). *Global public goods: International cooperation in the 21st century*. Oxford University Press, for UNDP.

Kawachi, I., & Wamala, S. (2007). *Globalization and health*. Oxford University Press.

Kentikelenis, A., Stubbs, T., & King, L. P. (2015). Structural adjustment and public spending on health: Evidence from IMF programs in Low-income countries. *Social Science and Medicine*, *126*, 169–176. https://doi.org/10.1016/j.socscimed.2014.12.027

Kleibergen, F., & Paap, R. (2006). Generalized reduced rank tests using the singular value decomposition. *Journal of Econometrics*, *133*(1), 97–126. https://doi.org/10.1016/j.jeconom.2005.02.011

Knobler, S., Mahmoud, A., Lemon, S., & Pray, L. (2006). *The impact of globalization on infectious disease emergence and control: Exploring the consequences and opportunities—workshop summary*. National Academies Press.
Labonte, R., & Sanger, M. (2006). Glossary of the world trade organisation and public health: Part 1. *Journal of Epidemiology Community Health*, *60*(8), 655–661. https://doi.org/10.1136/jech.2005.037895
Martens, P., Akin, S.-M., Maud, H., & Mohsin, R. (2010). Is globalization healthy? A statistical indicator analysis of the impact of globalization on health. *Globalization and Health*, *6*(16). https://doi.org/10.1186/1744-8603-1186-1116
Maud, H., Martens, P., & Hilderink, H. (2005). The health Impacts of globalization: A conceptual framework. *Globalization and Health*, *1*(14). https://doi.org/10.1186/1744-8603-1181-1114
McNamara, C. (2017). Trade liberalization and social determinants of health: A state of the literature review. *Social Science & Medicine*, *176*, 1–13. https://doi.org/10.1016/j.socscimed.2016.12.017
Milanovich, B. (2016). *Global inequality: A new approach for the age of globalization*. The Belknap Press of Harvard University Press.
Neumayer, E., & de Soysa, I. (2005). Trade openness, foreign direct investment and child labor. *World Development*, *33*(1), 43–63. https://doi.org/10.1016/j.worlddev.2004.06.014
Neumayer, E., & de Soysa, I. (2006). Globalization and the right to free association and collective bargaining: An empirical analysis. *World Development*, *34*(1), 31–49. https://doi.org/10.1016/j.worlddev.2005.06.009
Newey, W. K., & West, K. D. (1987). A simple, positive, semi-definite, heteroskedasticity and autocorrelation consistent covariance matrix. *Econometrica*, *55*(3), 703–708. https://doi.org/10.2307/1913610
OECD. (2019). *Health for everyone?: Social inequalities in health and health systems* (OECD Health Policy Studies, Issue).
Olper, A., Curzi, D., & Swinnen, J. (2018). Trade liberalization and child mortality: A Synthetic control method. *World Development*, *110*(1), 394–410. https://doi.org/10.1016/j.worlddev.2018.05.034
Omotoso, K., & Koch, S. F. (2018). Assessing changes in social determinants of health inequalities in South Africa: A decomposition Analysis. *International Journal for Equity in Health*, *17*(181). https://doi.org/10.1186/s12939-12018-10885-y.
Pemstein, D., Marquardt, K. L., Tzelgov, E., Wang, Y.-t., Krusell, J., & Miri, F. (2018). The V-Dem measurement model: Latent variable analysis for cross-national and cross-temporal expert-coded data. *VDEM Working Paper 21*, *3*.
Piketty, T. (2015). *The economics of inequality*. Harvard University Press.
Potrafke, N. (2013). Economic freedom and government ideology across German states. *Regional Studies*, *47*(3), 433–449. https://doi.org/10.1080/00343404.2011.634401
Rodrik, D. (1997). *Has globalization gone too far?* Institute for International Economics.
Rodrik, D. (2011). *The globalization paradox: Why global markets, states, and democracy can't coexist*. Oxford University Press.
Roemer, J. (2012). On several approaches to the equality of opportunity. *Economics and Philosophy*, *28*(2), 165–200. https://doi.org/10.1017/S0266267112000156
Rogowski, R. (1998). *Globalization and convergence: Getting the theory and the evidence right [Manuscript]*. www.sscnet.ucla.edu/soc/groups/scr/global.htm.
Roodman, D. (2006). *How to do xtabond2: An introduction to "difference" and "system" GMM in Stata*. Center for global Development working paper 103, Wasgington, DC, Center for Global Development.
Ross, M. (2006). Is democracy good for the poor? *American Journal of Political Science*, *50*(4), 860–874. https://doi.org/10.1111/j.1540-5907.2006.00220.x
Ross, M. L. (2012). *The oil curse: How petroleum wealth shapes the development of nations*. Princeton University Press.
Ross, M. L., & Mahdavi, P. (2015). *Oil and gas data, 1932-2014*.
Ruckert, A., Labonte, R., & Parker, R. H. (2015). Global healthcare policy and the austerity Agenda. In E. Kuhlmann, R. H. BlankIvy, L. Bourgeault, & C. Wendt (Eds.), *The Palgrave international handbook of healthcare policy and governance* (pp. 37–53). Palgrave Macmillan.
Schrecker, T., & Bambra, C. (2015). *Neoliberal epidemics: How politics makes us sick*. Palgrave/Macmillan.
Simmons, B., Dobbins, F., & Garrett, G. (2004). Introduction: The international diffusion of liberalism. *International Organization*, *60*(4), 781–810. https://doi.org/10.1017/CBO9780511755941
Stiglitz, J. E. (2002). *Globalization and its discontents*. W.W. Norton.
Stiglitz, J. E. (2019). *People, power, and profits: Progressive capitalism for an age of discontent*. W.W. Norton & Co.
Tanzi, V. (2011). *Government versus markets: The changing economic role of the state*. Canbridge University Press.
VDEM. (2019). *Varieties of democracy (Codebook)*. Varieties of Democracy Institute, University of Gothenburg.
Woodward, D., Drager, N., Beaglehole, R., & Lipson, D. (2001). Globalization and health: A framework for analysis and action. *Bulletin of the World Health Organization*, *79*(9), 875–881.
World Bank. (2018). World development indicators: Online Database.

Appendix

Appendix 1: List of countries

Afghanistan	Czech Republic	Kyrgyz Republic	Russian Federation
Albania	Denmark	Lao PDR	Rwanda
Algeria	Djibouti	Latvia	Saudi Arabia
Angola	Dominican Republic	Lebanon	Senegal
Argentina	Ecuador	Lesotho	Serbia
Armenia	Egypt, Arab Rep.	Liberia	Seychelles
Australia	El Salvador	Libya	Sierra Leone
Austria	Equatorial Guinea	Lithuania	Singapore
Azerbaijan	Eritrea	Luxembourg	Slovak Republic
Bahamas, The	Estonia	Macedonia, FYR	Slovenia
Bahrain	Eswatini	Madagascar	Solomon Islands
Bangladesh	Ethiopia	Malawi	Somalia
Barbados	Fiji	Malaysia	South Africa
Belarus	Finland	Maldives	South Sudan
Belgium	France	Mali	Spain
Belize	Gabon	Malta	Sri Lanka
Benin	Gambia, The	Mauritania	Sudan
Bhutan	Georgia	Mauritius	Suriname
Bolivia	Germany	Mexico	Sweden
Bosnia and Herzegovina	Ghana	Moldova	Switzerland
Botswana	Greece	Mongolia	Syrian Arab Republic
Brazil	Grenada	Morocco	Tajikistan
Brunei Darussalam	Guatemala	Mozambique	Tanzania
Bulgaria	Guinea	Myanmar	Thailand
Burkina Faso	Guinea-Bissau	Namibia	Timor-Leste
Burundi	Guyana	Nepal	Togo
Cabo Verde	Haiti	Netherlands	Trinidad and Tobago
Cambodia	Honduras	New Zealand	Tunisia
Cameroon	Hungary	Nicaragua	Turkey
Canada	India	Niger	Turkmenistan
Central African Republic	Indonesia	Nigeria	Uganda
Chad	Iran, Islamic Republic	Norway	Ukraine
Chile	Iraq	Oman	United Arab Emirates
China	Ireland	Pakistan	United Kingdom
Colombia	Israel	Panama	United States
Comoros	Italy	Papua New Guinea	Uruguay
Congo, Democratic Republic	Jamaica	Paraguay	Uzbekistan
Congo, Republic	Japan	Peru	Venezuela, RB
Costa Rica	Jordan	Philippines	Vietnam
Cote d'Ivoire	Kazakhstan	Poland	Yemen, Republic
Croatia	Kenya	Portugal	Zambia
Cuba	Korea, Republic	Qatar	Zimbabwe
Cyprus	Kuwait	Romania	

Appendix 2: Components of the Fraser economic freedom of the world index (EFW)

Afghanistan	Czech Republic	Kyrgyz Republic	Russian Federation
Albania	Denmark	Lao PDR	Rwanda
Algeria	Djibouti	Latvia	Saudi Arabia
Angola	Dominican Republic	Lebanon	Senegal
Argentina	Ecuador	Lesotho	Serbia
Armenia	Egypt, Arab Rep.	Liberia	Seychelles
Australia	El Salvador	Libya	Sierra Leone
Austria	Equatorial Guinea	Lithuania	Singapore
Azerbaijan	Eritrea	Luxembourg	Slovak Republic
Bahamas, The	Estonia	Macedonia, FYR	Slovenia
Bahrain	Eswatini	Madagascar	Solomon Islands
Bangladesh	Ethiopia	Malawi	Somalia
Barbados	Fiji	Malaysia	South Africa
Belarus	Finland	Maldives	South Sudan
Belgium	France	Mali	Spain
Belize	Gabon	Malta	Sri Lanka
Benin	Gambia, The	Mauritania	Sudan
Bhutan	Georgia	Mauritius	Suriname
Bolivia	Germany	Mexico	Sweden
Bosnia and Herzegovina	Ghana	Moldova	Switzerland
Botswana	Greece	Mongolia	Syrian Arab Republic
Brazil	Grenada	Morocco	Tajikistan
Brunei Darussalam	Guatemala	Mozambique	Tanzania
Bulgaria	Guinea	Myanmar	Thailand
Burkina Faso	Guinea-Bissau	Namibia	Timor-Leste
Burundi	Guyana	Nepal	Togo
Cabo Verde	Haiti	Netherlands	Trinidad and Tobago
Cambodia	Honduras	New Zealand	Tunisia
Cameroon	Hungary	Nicaragua	Turkey
Canada	India	Niger	Turkmenistan
Central African Republic	Indonesia	Nigeria	Uganda
Chad	Iran, Islamic Republic	Norway	Ukraine
Chile	Iraq	Oman	United Arab Emirates
China	Ireland	Pakistan	United Kingdom
Colombia	Israel	Panama	United States
Comoros	Italy	Papua New Guinea	Uruguay
Congo, Democratic Republic	Jamaica	Paraguay	Uzbekistan
Congo, Republic	Japan	Peru	Venezuela, RB
Costa Rica	Jordan	Philippines	Vietnam
Cote d'Ivoire	Kazakhstan	Poland	Yemen, Republic
Croatia	Kenya	Portugal	Zambia
Cuba	Korea, Republic	Qatar	Zimbabwe
Cyprus	Kuwait	Romania	

Source: Gwartney and Lawson (2008), www.freetheworld.com.

Appendix 3: Descriptive statistics

Variable	Mean	Standard Deviation	Minimum	Maximum	Observations
Healthcare equity index	−0.570	1.479	−3.991	3.160	7358
EFW index	6.462	1.150	1.820	9.230	2807
Per capita GDP (log)	8.319	1.529	4.752	11.879	7935
Polity index	1.385	7.319	−10.000	10.000	7074
Oil & Gas per capita (log)	2.721	3.123	0.000	11.477	7261
IMF programme	0.217	0.412	0.000	1.000	8783
EFW index Geographic group	5.345	1.387	0.729	7.996	5225
EFW index Income group	5.235	1.690	0.865	9.111	5225

Appendix 4: Data sources and definitions

Variables	Data definition and sources
Health equity index	VDEM health equality index measures high quality basic health guaranteed to all, sufficient to enable them to exercise their basic rights as adult citizens. The index ranges from −4 to +4, wherein a lower value capture basic health is equal in quality and less than five percent (%) of citizens receive low-quality health that probably undermines their ability to exercise their basic rights as adult citizens.
EFW	EFW is made up of five sub-indices capturing: expenditure and tax reforms; property rights and legal reforms; trade reforms; reforms related to access to sound money; labour, business and credit reforms. These five sub-indices are made up of 35 components of objective indicators. The final index is ranked on the scale of 0 (not free) to 10 (totally free)
Per capita GDP (log)	GDP per head in 2000 US$ constant prices sourced from World Development Indicators 2019, World Bank.
Polity democracy	Polity IV, polity2 index coded on the scale of −10 to +10 where highest value implies full democracy lagged by a year sourced from Gurr (2002).
Oil and gas per capita (log)	Oil and gas rents defined as the unit price minus the cost of production times the quantity produced taken as per head (log) sourced from World Development Indicators 2019, World Bank.
IMF dummy	Dummy coded 1 for each year a country has participated in an IMF programme in year t and 0 otherwise, sourced from the IMF database.