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**Article**

## From Equality, Democracy, and Public Health to Economic Prosperity

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## Thorvaldur Gylfason From Equality, Democracy, and Public Health to Economic Prosperity

*We can have democracy in this country,  
or we can have great wealth  
concentrated in the hands of a few,  
but we can't have both.*

Louis Brandeis,  
US Supreme Court Justice 1916–1939.



Thorvaldur Gylfason  
University of Iceland.

Inequality in the distribution of income and wealth was long considered to lie outside the purview of mainstream macroeconomics. Distribution issues were widely seen as normative in nature. Many economists doubted that distribution, just or unjust, could matter much for macroeconomic performance. Courses on distribution were rare in university curricula. The idea that rich and poor households save different proportions of their incomes, with potentially important macroeconomic consequences, did not leave a lasting imprint on mainstream macroeconomics. The notion that consumers and workers care about relative incomes and wages did not make a lasting imprint either (Duesenberry 1949; Gylfason and Lindbeck 1984).

Then, all of a sudden, inequality was ushered into the mainstream. Piketty's *Capital* (2014) became an overnight sensation, following several other important books dealing with distribution, including Deaton's *Great Escape* (2013), Galbraith's *Inequality and Instability* (2012), Milanovic's *Worlds Apart* (2005), Rajan's *Fault Lines* (2011), and Stiglitz's *Price of Inequality* (2013) and *The Great Divide* (2015). The works of Anthony Atkinson, Thomas Piketty, Emmanuel Saez, and others had prepared the ground for the sudden flare-up of interest in distribution among economists as well as politicians.

### EQUALITY OF INCOME, WEALTH, AND HEALTH

Since 1980, with the economic ascent of China and India, income inequality among nations has decreased as inequality within nations has increased (Milanovic 2016). From the 1980s to 2015, the top 1% of households increased its share of pre-tax national income from 8% to 12% in Europe and from 8% to 20% in United States. Meanwhile, the top 1% of households increased its share of net national wealth from 20% to 40% in both Europe and the United States (World Inequality Database 2018). In 2017, it took ordinary workers the whole year to earn the average daily compensation of J. P. Morgan's CEO (Mishel and Schieder 2018). While this was going on, the share of pre-tax national income accruing to the bottom 50% of US households declined from 20% in 1980 to 12% in 2015 (and 2018). This rever-

sal of economic fortunes was in part triggered by the collapse of the progressivity of the tax code (Piketty and Saez 2007). While the average tax rate of the top 0.1% of US households dropped from 60% in 1950 to 30% in 2015, the average tax rate of the bottom 90% of US households rose from less than 20% to almost 30%.

This is not the whole story, however. When viewed alongside economic indicators of rising per capita incomes, various social indicators help to sharpen the picture of the steady progress of living standards around the globe since 1960. Over time, better health and longer lives have become available to a steadily increasing part of the world's population (Peltzman 2009). From 1960 to 2016, average global life expectancy rose by four months per year on average, or by 19 years in all: from 53 years in 1960 to 72 years in 2016. Even so, while health inequality across countries has dropped in recent years, health inequality within the United States and, to a lesser extent, in Europe has increased. The wealthiest 1% of US men live 15 years longer than the poorest 1% and the wealthiest 1% of US women can expect to live ten years longer than their poorer counterparts (Chetty et al. 2016). The US male life expectancy divide of 15 years corresponds to the current difference between the European Union and Ethiopia. The US female life expectancy divide of ten years corresponds to the estimated difference between a nonsmoker and a life-long smoker. The US gap is widening. From 2001 to 2014, the richest Americans gained about three years in longevity while the poorest ones made no gains.

Similar trends, albeit weaker ones, have been observed in the United Kingdom. Less is known about the rest of Europe but research is underway. In Sweden, for example, from 1986 to 2007 the life expectancy gap between the richest and poorest quintiles of households is reported to have increased by almost two years for men and by about one year for women (Hederos et al. 2017).

Increased inequality of incomes, wealth, and health within countries has transformed politics. A self-described democratic socialist, Sen. Bernie Sanders – who suddenly became a mainstream politician without having changed the thrust of his message for decades – came close to winning US presidency in 2016, and remains a strong contender in 2020. Donald Trump won the presidency by appealing to those who felt left behind by globalization, and may win again in 2020. In another 2016 surprise, British voters, also feeling left behind, chose to leave the EU. Thus, among other things, increased inequality seems to have fed and spread political turmoil.

### SIGNS OF DECAYING SOCIAL CAPITAL

In the US, earlier signs of social capital decay include declining interpersonal trust, as documented in Putnam's brilliantly named book *Bowling Alone* (2000). Transparency International (2018) has lowered the US

corruption perceptions index to well below that of Canada. Earlier, in 2012, 73% of US respondents had told Gallup that they considered corruption to be “widespread throughout the government” compared with 46% in Canada (Gallup 2013). Further, Gallup (2018) reports that only one in nine US respondents have confidence in Congress. For the first time since the First World War and the Spanish flu that killed 50–100 million people around the globe, life expectancy in the US declined three years in a row in 2015, 2016, and 2017 for health-related reasons, including “deaths of despair” (Case and Deaton 2017). Freedom House (2018) lowered the democracy score of the US from 94 in 2010 to 86 in 2017 compared with Canada’s score of 99 and Poland’s 85. Even democracy is under stress as evidenced by a string of striking book titles from political scientists and historians in the US, including Jason’s *How Fascism Works* (2018), Levitsky and Ziblatt’s *How Democracies Die* (2018), Mounk’s *People vs. Democracy* (2018), Page and Gilens’s *Democracy in America?* (2017), Runciman’s *How Democracy Ends* (2018), and Snyder’s *Road to Unfreedom* (2018).

The decay of social capital can be contagious. Misbehavior by US elites encourages similar misconduct elsewhere. Some other liberal democracies show disquieting signs of decaying social capital, including Hungary and Poland.

How does social capital, including distributive justice and democracy, interact with economic prosperity as reflected in per capita Gross National Income (GNI)? It seems easy to imagine that gross disparities – think Brazil, for example – can create frustrations that undermine social cohesion and economic performance. If so, it also seems easy to imagine that democratic decay likewise creates frustrations that erode the social fabric. If reasonable equality and unfettered democracy are viewed as two among several aspects of social capital, then we should not be surprised to see social capital decay weaken social efficiency and economic growth. A similar argument can be applied to other ingredients of social capital such as the rule of law, transparency (in contradistinction to corruption), and trust. This is because social capital – that is, social cohesion – matters for economic growth just as the buildup and use of human capital, physical capital, and, yes, natural capital matter for growth. The buildup of physical capital boosts growth directly while human capital, social capital, and natural capital, if well managed, spur growth indirectly by underpinning efficiency and technology.

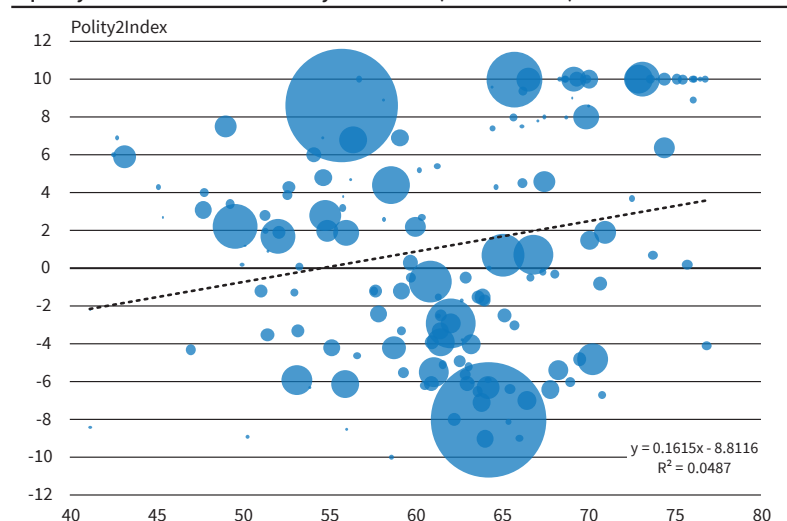
## FROM EQUALITY, DEMOCRACY, AND PUBLIC HEALTH ...

Experience seems to suggest that different aspects of social capital tend to go together within and across countries in ways that reinforce its uplifting effect on economic performance (Gylfason 2019).

For a first example of this tendency, Figure 1 shows the relationship between equality and democracy in a cross-section of 156 countries. Each country is represented by a circle whose size reflects the country’s population; hence, India and China are easy to spot in the figure. Income inequality is measured by the Gini index taken from The Standardized World Income Inequality Database (SWIID, Solt 2016). Equality is accordingly measured by 100 minus the Gini index. The SWIID is more comprehensive than corresponding World Bank data, contains more countries and years (1962–2017), and has fewer gaps. Democracy is measured by the Polity IV Project’s Polity2 variable, which reflects several characteristics of democratic vs. autocratic authority in governance (Polity IV Project, 2019). The index spans a spectrum from fully institutionalized autocracies through mixed authority regimes (“anocracies”) to fully institutionalized democracies on a 21-point scale ranging from minus ten (hereditary monarchy) to plus ten (consolidated democracy). The correlation between equality and democracy in the figure is 0.22. Even if the correlation is not strong per se, the slope of the regression line in Figure 1 is statistically significant ( $t = 2.8$ ). Taken at face value, the slope of the regression line, 0.16, in Figure 1 suggests that an increase in the Gini index of income equality by 25 points, corresponding to the difference between Brazil and Norway in the sample, would in the average country go along with a four-point strengthening of democracy – spanning a fifth of the scale observed

Figure 1

Equality 1962–2017 and Democracy 1960–2012 (156 Countries)



Horizontal axis shows 100 minus Standardized Gini Index. Equality rises from left to right.  
Source: SWIID, Solt (2016), and Polity IV Project (2018).

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Figure 2

## Equality 1962–2017 and Life Expectancy 1960–2016 (182 Countries)

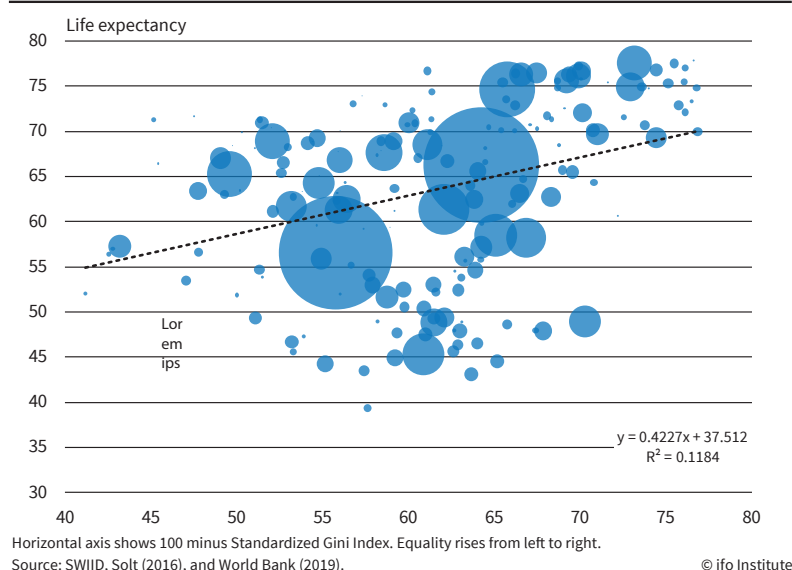
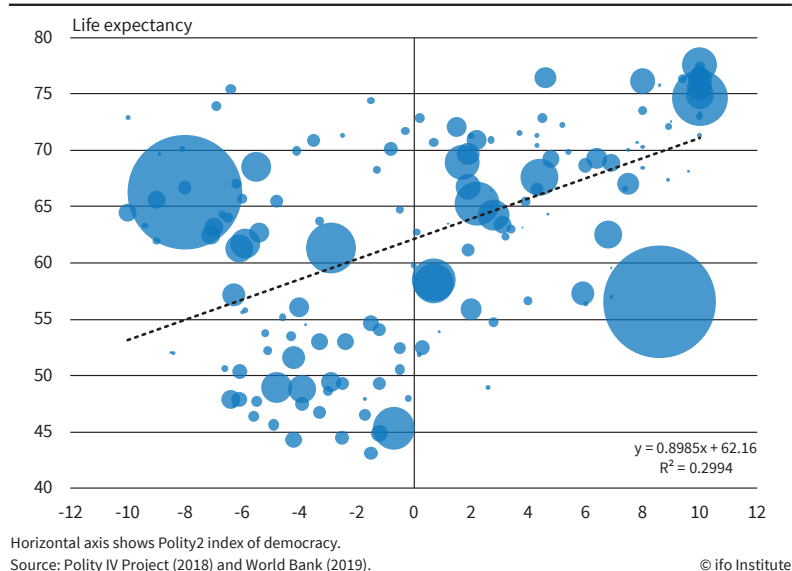


Figure 3

## Democracy 1960–2012 and Life Expectancy 1960–2016 (160 Countries)



across countries from minus ten under dictatorship to plus ten under democracy.

Another example is given in Figure 2 that shows the relationship between equality, measured as before, and life expectancy at birth in a cross-section of 182 countries. The correlation between equality and life expectancy in the figure is 0.34. The slope of the regression line in Figure 2 is statistically significant ( $t = 4.9$ ). Taken at face value, the slope of the regression line, 0.42, in Figure 2 suggests that an increase in the Gini index of income equality by 25 points, again corresponding to the difference between Brazil and Norway, would in the average country go along with more than ten extra years of life. Long lives and high incomes go hand in hand, a relationship known as the Preston Curve. Because research on the distribution of

life expectancy and other indicators of public health across income groups is in its infancy, the data necessary to figure the cross-country relationship between health distribution and per capita incomes are not yet available.

For yet another example, consider the cross-country relationship between democracy and life expectancy shown in Figure 3. Democracy is measured as in Figure 1 and life expectancy as in Figure 2. The correlation between equality and life expectancy in the 160 countries covered by the figure is 0.55. The slope of the regression line in Figure 3 is statistically significant ( $t = 8.2$ ). Taken at face value, the slope of the regression line, 0.90, in Figure 3 suggests that a five-point increase in the Polity2 index of democracy, spanning a quarter of the scale from minus ten to plus ten, goes along with an increase in life expectancy by four to five years in the average country. This suggests that people tend to live longer under democracy than under dictatorship.

All in all, equality, democracy, and public health seem to go together across countries. Moreover, as we shall see, all three go along with economic prosperity, each in its own way. As always, however, simple bivariate correlations need not imply causation. Even so, the

possibility that  $x$  is good for  $y$  does not necessarily dim the prospect that  $y$  returns the favor by being good for  $x$ .

During the interwar period, economic inequality was a matter of intense public debate as it has now become again since about 1980. As stated before, the top 1% of households saw their share in total pre-tax income rise from 8% in 1980 to 12% in Europe and to 20% in the US and Russia in 2015. Further, the top 1% of households saw their share of total net personal wealth rise from 20% in 1980–1990 to 40% in 2015 in Europe, the US, and Russia (World Inequality Database 2018). In Germany, the pre-tax national income share of the top 1% of households rose from 9% in 1980 to 13% in 2008 and then fell to 11% in 2016. Corresponding data on the distribution of wealth in Germany is not available. In France, for comparison, the pre-tax national

income share of the top 1% of households rose from 9% in 1980 to 12% in 2008 and then fell to 11% in 2016. The distribution of personal wealth has had a bumpier ride. The pre-tax share of the top 1% of French households in total net personal wealth rose from 17% in 1980, a far cry from the 57% share observed in 1905, to 22% in 2008 and 23% in 2014.

English-speaking countries have experienced a greater increase in income inequality since 1980 than continental Europe and Japan. The English-speaking countries have experienced a return to the disparities of the 1920s, with the top 1% receiving 10% (Australia, Ireland) to 20% (US) of national income. By contrast, Europe and Japan have seen a reduction in the national income share of the top 1% of households from 15% to 25% in the 1920s to anywhere from 6% (Denmark, the Netherlands) to 11% (France, Japan) in recent years. These figures need to be taken with a grain of salt, however, because personal wealth hidden in tax havens, estimated at 6% of world output in 2008, may significantly skew official estimates of economic inequality (Zucman 2013; 2015).

### ... TO ECONOMIC PROSPERITY

We now ask: Do equality, democracy, and life expectancy vary systematically with economic prosperity across countries? What do the data say?

Figure 4 shows a positive cross-country relationship between equality and per capita GNI. The correlation between equality and income in the 180 countries covered by the figure is 0.30. The slope of the regression line in the figure is statistically significant ( $t = 4.3$ ). Taken at face value, the slope of the regression line, 0.044, in Figure 4 suggests that an increase in the “100 minus Gini” index of equality by, say, 20 points, corresponding to the difference between Brazil and France in the sample, would in the average country be accompanied by an 88% increase in per capita GNI. As always, however, a simple correlation need not imply causation. Even so, statistical endogeneity bias

Figure 4

Equality 1962-2017 and Per Capita GNI 2016 (180 Countries)

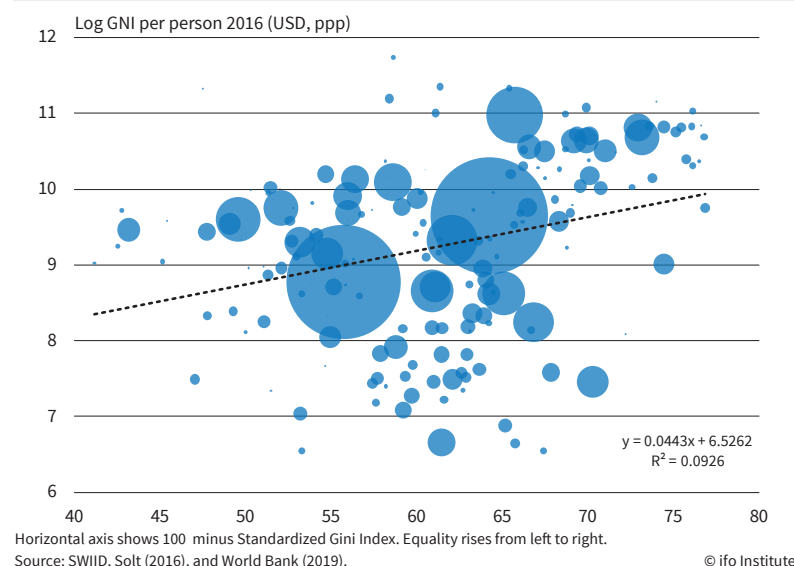
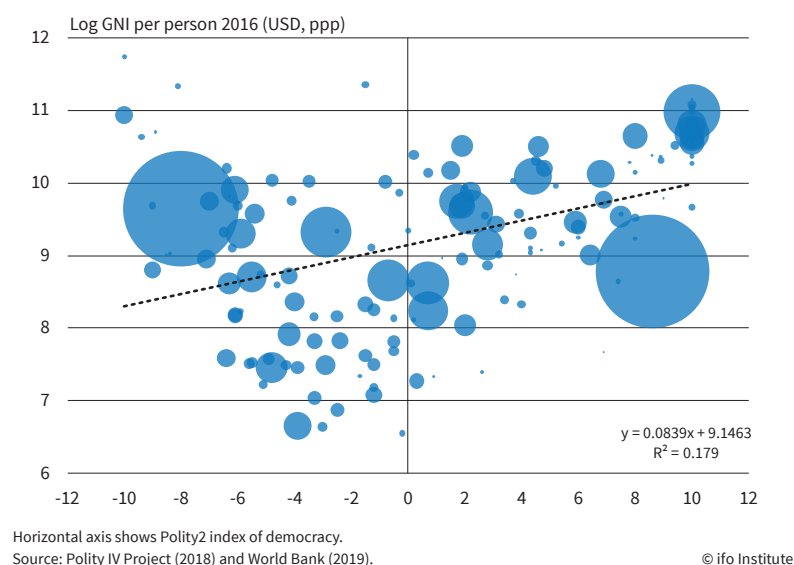


Figure 5

Democracy 1960-2012 and Per Capita GNI 2016 (154 Countries)

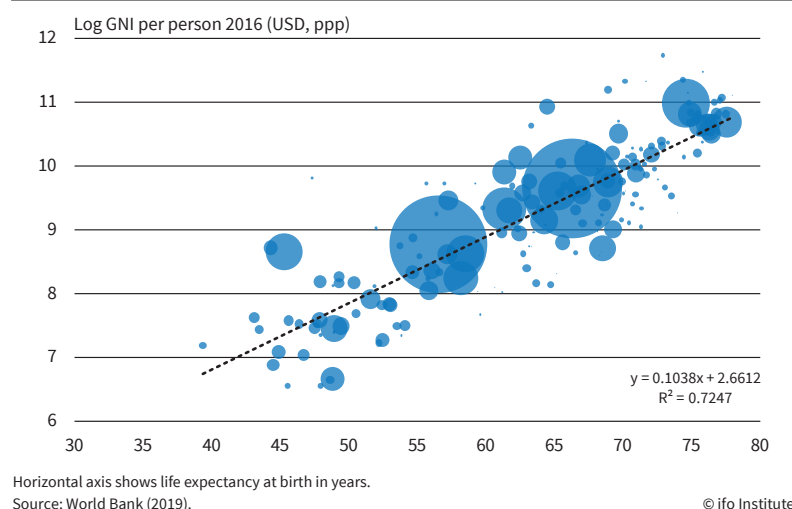


is not an issue in Figure 4 because current per capita GNI cannot possibly affect equality retroactively. The pattern observed accords broadly with the results of Berg and Ostry (2017) and Berg et al. (2018). Equality appears to be good for growth across the globe, partly perhaps because equality goes along with several other ingredients of social capital, including democracy (Figure 1) and public health (Figure 2), that are also good for growth, a matter to which we now turn before concluding the story.

Figure 5 shows a positive cross-country relationship between democracy and per capita income. The correlation between democracy and income in the 154 countries shown in the figure is 0.42. The slope of the regression line in the figure is statistically significant ( $t = 5.6$ ). Taken at face value, the slope of the regression



Figure 6

**Life Expectancy 1960–2016 and Per Capita GNI 2016 (185 Countries)**

line, 0.08, in Figure 5 suggests that a five-point increase in the Polity2 index of democracy, spanning 25% of the scale of the democracy index (i.e., 5 out of 20), would in the average country be accompanied by a 40% increase in per capita GNI. As in Figure 4, endogeneity bias is not an issue in Figure 5 because current per capita GNI cannot possibly affect democracy retroactively.

To close the circle, Figure 6 shows the cross-country relationship between life expectancy and per capita income (the Preston curve). The correlation between life expectancy and income in the 185 countries shown in the figure is 0.85. The slope of the regression line in the figure is statistically significant ( $t = 21.9$ ). Taken at face value, the slope of the regression line, 0.10, in Figure 6 suggests that a ten-year increase in life expectancy would in the average country be accompanied by a doubling of per capita GNI. Once more, endogeneity bias is not an issue here because current per capita GNI cannot possibly affect life expectancy retroactively.

**CONCLUSION**

Where do we stand at the end of this brief bird's-eye-type tour of international cross-sectional data on equality, democracy, public health, and economic performance?

We have seen statistically and economically significant bivariate cross-country relationships among those four variables, pair by pair. Specifically, we have seen that income equality, democracy, and life expectancy are positively correlated with each other (Figures 1-3) as well as with per capita GNI (Figures 4-6). Put differently, three key components of social capital – equality, democracy, and public health – have been shown to vary systematically and significantly with one another as well as with per capita income in a large cross-sectional sample of countries from 1960 onward.

These relationships have a bearing on the current state of the world. Political scientists now describe the

US as an oligarchy that systematically disrespects the will of the people (Page and Gilens 2017). Many Europeans and others also worry about recent political developments within the European Union, especially in Hungary and Poland whose current leaders openly advocate “illiberal democracy.” The grim lessons from the interwar period remind us that increased inequality has undermined democracy and prosperity before (Jason 2018; Snyder 2018). More could hardly be at stake. Many of us believe that reasonable equality in the distribution of income, wealth, and health under democracy,

which thrives on pluralism, tolerance, transparency, and trust, are not only desirable in themselves, each in their own right, but they also seem to go together across countries through an intricate web of bivariate linkages, some of which were reviewed here. In the final analysis, good things tend to get along. Let us try to keep it that way.

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