Jeffrey D. Sachs December 1, 2012

Reply to Acemoglu and Robinson's Response to my Book Review

Daron Acemoglu and James Robinson (AR) have <u>replied</u> to my <u>review</u> of *Why Nations Fail* (WFN) that appeared in *Foreign Affairs*. I thank them for their response, even if their tone was a bit surprising. My initial review of their book was for a general readership, so I stayed away from the journal articles on which the book is based. Their response provides the opportunity to delve more deeply into these underlying studies.

Acemoglu and Robinson put the difference between us as follows:

We think, and perhaps Sachs disagrees, a framework that says there are 17 factors, each of them hugely important is no framework at all. The power of a framework comes from its ability to focus on the most important elements at the exclusion of the rest and in doing so in providing a way of thinking about these elements, how they function, how they have come about, and how they change. For us, those elements were related to institutions and politics, and we have focused on them.

This is a useful summary of our differences. I believe that several things matter for the diverse patterns of economic development, while they believe that one big thing is the key: political institutions. Yet wishing for such a focused framework doesn't make it accurate. Choosing between these approaches is not a matter of style or ideology, but of the evidence.

Before turning to that evidence, let me summarize what I believe to be key differences in viewpoint. Acemoglu and Robinson emphasize innovation as the key to economic growth, and inclusive political institutions as the key to innovation. At the core of their argument is the idea that only inclusive political institutions will create the room for dynamic innovation. Otherwise, vested interests of the politicians and the major incumbent economic powers will stifle the innovation.

The importance of innovation is a good start. I also agree with the importance of political institutions to foster innovation. And I certainly agree with them on the economically debilitating effects of colonial rule. Yet I add five points that I think are very important for an improved explanation, prediction, and promotion of economic development.

First, innovation is not the only source of growth. Diffusion of technology (meaning the spread of innovations to more places) is also a key part of growth, indeed the main explanation for catch-up growth (rapid growth in economies not at the

technology frontier). A full theory of economic development needs a focus on both innovation and diffusion. Acemoglu and Robinson of course acknowledge catch-up growth but consider it to be of secondary importance, whereas I believe it to be a vital part of the development story and also a vital factor in accounting for "why nations fail" or succeed.

Second, the kinds of institutions that foster innovation are not necessarily the same as the kind of institutions that foster diffusion. Authoritarian regimes can be quite proficient, in fact, at speeding diffusion. This accounts, for example, for the rapid and effective economic development promoted by many authoritarian regimes in Asia during the past half century, of course most notably China. I am not arguing for authoritarian institutions, only relaying the clear fact that they have been effective in several economies at fostering rapid economic growth.

Third, innovations interact with the physical environment. The premier innovation of the Industrial Revolution (by far) was the steam engine. The steam engine depended on coal deposits. Economic development was shaped by the global location of major coal deposits. Later on, other kinds of energy resources (oil, hydropower, etc.) played a role. Agricultural productivity similarly depends on the interplay of agronomic knowledge and biophysical conditions. The moral is that all places in the world are not equal when it comes to the ability to harness critical technologies. Technology diffusion follows pathways of climate and geography.

Fourth, authoritarian rulers often have very strong motivations to promote, rather than block, economic development. The vision of Acemoglu and Robinson that authoritarian governments reflexively stifle growth is belied by history and by theory. Governments of many hues may have an incentive to promote growth, to maintain power, to compete with foreign rivals, or even to feather their own nests. (I'm not endorsing authoritarian regimes, only reflecting on the reality that they are sometimes successful at promoting economic growth.)

Fifth, political institutions change dynamically over time. Economic growth often leads to democracy of formerly authoritarian regimes. The end of the colonial era allowed for marked changes of policies and institutions. The image of political institutions being determined by European colonizers in a country's deep past (a century or two ago) is misleading and contrary to experience.

Rather than elaborate in detail on my own approach to economic development, I will hone in on the empirical claims that Acemoglu and Robinson make on behalf of their own theory. That is the purpose of the sections that follow.

Acemoglu and Robinson's model

For Acemoglu and Robinson, modern economic history was largely determined by the political actions of Europeans one to two centuries ago. Their claim is the following. During the 18th and 19th centuries, European colonizers spread

throughout the world. In each part of the world, the Europeans faced a choice: whether to set up "settler colonies" where large European populations lived, or to set up colonies ruled almost entirely from the European metropole. According to Acemoglu, Robinson and co-author Simon Johnson (hence AJR), colonizers decided this on the basis of disease, migrating and settling in the healthier places and exploiting the less healthy ones from afar.

In places where the Europeans migrated, such as the US and Australia, they set up "Neo-Europes ... with strong emphasis on private property and checks against government power" ("inclusive" political institutions, in their terminology). In places they chose to exploit from afar, they imposed undemocratic political institutions ("extractive," in their terminology). These institutions, moreover, cast a very long shadow, according to AJR. Political institutions became "deeply rooted," in their phrase. Extractive political institutions set in the 19th century remain by and large extractive political institutions today. As they write in 2001, "the colonial state and institutions persisted even after independence."

AJR believe that the modern economics has followed the 19th century politics. Inclusive political institutions gave rise to inclusive economic institutions and then to prosperity. Conversely, extractive political institutions gave rise to extractive economic institutions and on to economic failure. According to this theory, today's economic winners are the places where Europeans migrated and settled nearly two centuries ago. The failed nations are the places where the Europeans created longlasting extractive political and economic institutions.

In their original paper (2001), AJR present their model as follows:

(potential) settler mortality \rightarrow settlements \rightarrow early institutions \rightarrow current institutions \rightarrow current economic performance

I will call this the "AJR linear model" of economic history. Acemoglu and Robinson do not test this linear model in their book, but in their reply to me, refer to their academic papers. I turn to these papers below.

Acemoglu and Robinson do more than assert that political institutions matter. They assert that only political institutions play a significant role in accounting for economic performance. For Acemoglu and Robinson, geographical factors are just a red flag:

If the geography hypothesis cannot explain the differences between the north and south of Nogales, or North and South Korea, or those between East and West Germany before the fall of the Berlin Wall, could it still be a useful theory for explaining the differences between North and South America? Between Europe and Africa? Simply, no. (WNF, p. 50) Yet this is a *non sequitur*. I agree with Acemoglu and Robinson that the economic differences between East and West Germany, and between North and South Korea, reflect mainly politics. I've said so on countless occasions. But that doesn't prove that the differences between, say, Mali and Britain also reflect mainly or only political considerations. Politics can be important for some kinds of comparisons (particularly between next-door neighbors, where geography is similar and therefore can be "held constant" in the comparison), but might also explain little of the differences between countries situated in very divergent geographical conditions.

Here is another of their attempts at dismissing geographical considerations:

The tropics in the Americas were thus much richer than the temperate zones [before 1492], suggesting the "obvious fact" of tropical poverty is neither obvious nor a fact. Instead, the great riches in the United States and Canada represent the stark reversal of fortune relative to what was there when the European arrived. This reversal *clearly* had nothing to do with geography and, as we have already seen, something to do with the way these areas were colonized. (Emphasis added)

This too is a *non sequitur*. It is like saying that since many of the richest Persian Gulf countries today were fishing villages 150 years ago their "reversal of fortune" must also be the result of politics rather than the geography of oil, since the oil was there all along. Such a mistaken conclusion would ignore the pertinent facts that the oil deposits had not yet been discovered 150 years ago, and that the internal combustion engine to use the oil did yet exist. In the case of North America, the claim by Acemoglu and Robinson ignores the fact that the vast natural resources of North America that have played a major role in its industrialization during the past two centuries (coal, oil, hydroelectric power, iron ore, non-ferrous metals, ocean ports, vast arable land suitable for Old World crops, to name just a few) use technologies that were not available in 1491. The great economic strength of the neo-Europes has a great deal to do with their geography *interacting with* advances in technological know-how.

Here's one more mistaken dismissal of geographical features:

Tropical diseases obviously cause much suffering and high rates of infant mortality in Africa, but they are not the reason that Africa is poor. Disease is largely a consequence of poverty and of governments being unable or unwilling to undertake the public health measures necessary to eradicate them.

It is a basic fact of disease epidemiology that locations differ in the burden of disease. The force of malaria infection, for example, depends on climate and ecology, such as the air temperature, precipitation patterns, and type of mosquito

vector present in a location. The burden of malaria has always been vastly higher in Africa than in Europe (a fact proved, for example, by the high frequency of the sickle-cell allele in Africa), and higher in Southern Europe than in Northern Europe, because of these basic facts. Controlling malaria in Africa is much harder than in just about any other part of the world. The evidence that I discuss below makes clear that Acemoglu and Robinson are wrong: malaria in Africa is not just a consequence of poverty but also a *cause* of poverty.

Testing the linear model

Acemoglu and Robinson claim to have subjected their model to careful empirical scrutiny. However there are several major flaws in the tests they have conducted, as pointed out by a growing number of researchers who are examining their claims using macroeconomic and microeconomic evidence.

Their core test of the model was presented in their 2001 paper on "Colonial Origins of Comparative Development," in which they claim to test the linear model via a two-stage-least-squares regression on a cross-section of nations. In the first stage of the regression, a purported measure of political institutions called "expropriation risk" is regressed on a measure of 19th century mortality called "settler mortality." In the second stage of the regression, the national income per capita in 1995 is regressed on the instrumented value of expropriation risk, and the coefficient is found to be positive and significant. Other variables are then added to this second-stage equation as candidate causes of income, and are found to be not significant. AJR conclude that since expropriation risk is positively related to 19th century mortality in the first-stage regression, and since income per capita is negatively related to the fitted measure of expropriation risk, and only to that variable, in the second stage, the linear model has been established.

Here are some of the problems with that conclusion.

1. <u>Variables other than institutions also matter</u>. Despite the claims by AJR, other variables, including geographical variables like disease ecology, also determine income per capita in the cross-section regression. For example, I showed in Sachs (2003, Table 1) that a country's malaria burden, when carefully measured, has a significant negative effect on national income per person, independent of institutions. Others, including Rodrik et al (2004, Table 7) and most extensively Carstensen and Gundlach (2006, Table 1), have confirmed the same results. As Carstensen and Gundlach summarize in the abstract to their paper:

After controlling for institutional quality, malaria prevalence is found to cause quantitatively important negative effects on income. The robustness of this finding is checked by employing alternative instrumental variables, tests of over-identification restrictions, and tests of validity of point estimates and standard errors in the presence of weak instruments. 2. <u>The settler mortality fails the exclusion test</u>. The settler mortality measure is not a valid instrument for present-day institutions because it fails the exclusion test, meaning that it is correlated not just with institutions but also with the present-day disease environment that has its own direct effect on income. When AJR show that 19th century mortality is correlated with late 20th century income levels, we can't be sure whether the effect is working through institutions or through current disease ecology. The answer may be both. And the presence of European settlers may affect current income in other ways not related to political institutions, for example through long-standing business, familial, and cultural ties between Europe and the US, Canada, Australia, and New Zealand.

3. <u>Microeconomic data corroborate the macroeconomic shortcomings</u>. Bleakley (2010) offers a meticulous micro-level corroboration of the macroeconomic findings on malaria by examining in great demographic detail the socioeconomic impacts of four malaria eradication campaigns, in the US, Brazil, Colombia, and Mexico. This meticulous microeconomic evidence is a very good way to test the more macro claims. His study confirms that malaria has a large and direct adverse effect on adult labor productivity.

4. <u>Data quality</u>. The key mortality data are unreliable, as shown by Albouy (2012). AJR often use the term "European settler mortality," but this is a misnomer. Their mortality measure is not of European settlers at all, but a mishmash of mortality estimates for European soldiers, Catholic bishops, and even African laborers. Moreover, the various kinds of mortality rates are all mixed up. Some data refer to the death rates of soldiers in peacetime ("barracks mortality"); some to the death rates of soldiers during military campaigns ("campaign mortality"); some to very rough estimates, based on urban temperatures, of the death rates of a small number of Catholic bishops assigned to local regions of Latin America; and some to the death rates of African laborers. AJR (2012) downplay these issues, but the problems of data measurement remain.

The AJR measure of political institutions is also unreliable. It relies mainly on a subjective measure of "expropriation risk" as prepared by a political-risk firm. Yet as Glaeser and co-authors (2004) point out, expropriation risk is not a measure of political institutions. It is a policy outcome, not an institution. In the AJR data, many countries with extractive political institutions (such as the Soviet Union) have low expropriation risk. When Glaeser et al (2004) use more direct measures of political institutions they find that the correlation between political institutions and income per capita is much weaker than with expropriation risk.¹

¹ The sensitivity of the results to the choice of political indicator raises a more general point about measuring inclusive or extractive institutions. As Fukuyama (2012) pointed out in his review of *Why Nations Fail*, Acemoglu and Robinson do not define their categories with precision:

5. Dynamic specification. Another statistical failing of the 2001 regression is the specification of national income per capita as a roughly *contemporaneous* function of expropriation risk, without allowing for dynamic adjustments. (Income per capita for 1995 is related to expropriation risk averaged during 1985-95.) This specification violates a basic principle of growth economics, that national income per person adjusts gradually over time to changes in its long-term determinants. Suppose that institutional quality improves, as occurred in Eastern Europe after the fall of communism in 1989. We don't expect that the economy will immediately jump to its new equilibrium level. We expect that the improved institutions will unleash a period of higher investment and economic growth, with a gradual adjustment over many years as capital is accumulated and relocated in the economy. This is why macroeconomists generally estimate national income as a lagged adjustment process, in which the *change* of income from say, 1960 to 2010, is written as a function of the initial income in 1960, the values of key variables in 1960, and (depending on econometric and economic issues) perhaps the values of key variables on average during 1960 to 2010.

This may seem like a pedantic point, but it is not. If the cross-section regression used by AJR is replaced by a lagged-adjustment equation as usually deployed in the empirical growth literature, the AJR results are basically turned on their head. The key variables that explain economic growth during 1960-2010 are not the political institutions in 1960, but rather variables such as the years of schooling in 1960 and the percent of population living in the temperate zone (see Glaeser et al, 2004, Table 5); or latitude, distance to the coast, oil reserves per capita, and the years of schooling in 1960 (see Shleifer, 2012, Table 1).²

How do political institutions arise?

From what I can gather, AJR never really demonstrate that Europeans settled on the basis of disease, or that they brought inclusive institutions with them when they came. It is easy to think of counter-examples to both propositions. Europeans often settled in heavy disease environments (such as the Caribbean and US South, burdened by yellow fever and malaria) if the economic returns were good, such as for sugar cane, cotton, or mining. And when the Europeans came, they didn't

Since each of these broad terms (inclusive/extractive, absolutist/pluralistic) encompasses so many possible meanings, it is very hard to come up with a clear metric of either. It also makes it hard to falsify any of their historical claims. Since more real-world societies are some combination of extractive and inclusive institutions, any given degree of growth (or its absence) can then be attributed either to inclusive or extractive qualities ex post.

² The same sensitivity to the lag structure applies to Acemoglu and Johnson's (2007) claim that life expectancy does not raise per capita income. Aghion et al (2011) show that a slight change in the lag structure of the equation reverses the AJ results.

necessarily bring inclusive institutions with them. In the US South, they promoted slavery.³ In South Africa, they established apartheid. Everywhere in the Neo-Europes, they brought mass violence and dispossession of the indigenous populations. The kinds of institutions that evolved depended not only on who settled, but also on the local geographical conditions and the types of industries that arose. And those place-based factors also bear directly on development patterns until today through channels other than political institutions.

How do political institutions evolve?

Acemoglu and Robinson assert that the institutional choices of the early 19th century cast a shadow of nearly 200 years in determining the political institutions of today. In their phrase, political institutions are "deeply rooted." Yet often they are not. There is little continuity around the world of the institutions of the early 19th century and those of today, or even across decades. Democracy has recently come to a large part of the world. In 1973, according to the Freedom House rankings, 29 percent of the world's nations were deemed to be free. Just 18 years later, the proportion had soared to 40 percent. By 2012, it is put at 45 percent. It's not surprisingly that Shleifer (2012, p. 10) concludes that, "institutions are highly volatile."

A theory should account for this rapid change, yet AJR have not offered such a theory, since theirs is a theory of institutional persistence, not change. Surprisingly, AJR give little or no agency to the local populations of today, who have little or no say in their fate in the AJR linear model. Yes, Europeans colonized many regions of the world and sought to extract resources from them. But one would suppose that political independence would therefore make an enormous difference, if not immediately then at least over time. Yet in AJR's telling, local elites simply step into the European shoes, and maintain the same extractive practices. This of course happened in some places, often notoriously, but not always and certainly not forever. Many former colonies have become vibrant democracies.

Modernization theorists believe rising incomes and education levels lead to democratic change, albeit imperfectly, as argued most recently by Barro (2012). Acemoglu, Johnson, Robinson and Yared (2005, 2008) have taken issue with this modernization theory, though part of statistical debate turns once again on the

³ As of 1790, there were roughly 1.9 million white settlers in the North and 1.3 million white settlers in the South. The North developed inclusive political institutions, while the South developed extractive political institutions founded on slavery: the same settlers, yet different institutions. As Sokoloff and Engerman (2000) compellingly argued, the difference was that southern agriculture depended on plantation labor, and hence slavery, while northern agriculture did not.

precise econometric specification for testing the theory.⁴ Yet the historical record offers many cases where the end of colonial rule opened up new possibilities for more inclusive politics and more development-oriented economic policies, including the scaling up of public education, public health, and infrastructure within the formerly colonized countries.

The Western offshoots and entrepot economies

Many of the AJR interpretations turn on a relatively small subset of countries with low disease mortality in the 19th century and high incomes in the late 20th century. There are two groups in question. The first is the group Angus Maddison termed the Western offshoots, and sometimes called the Neo-Europes: the US, Canada, Australia, and New Zealand. These countries seem to exemplify the AJR model: European settlement, inclusive political institutions, and consistent economic growth over nearly two centuries. The second group consists of the world's two leading entrepot island economies, Hong Kong and Singapore.

Acemoglu and Robinson claim that since the Western offshoots were poor before European settlement and are now rich, it must be institutions, and institutions alone, that account for their success. This is a dubious claim, and certainly an unproven one. All four of the offshoot countries benefited not only from their political institutions but also from their exceptionally strong natural resource base: vast arable lands and pasturelands per person, vast coal deposits per person, vast deposits of other valuable minerals per person, a low burden or absence of tropical diseases in large parts of these countries, and much more.

AJR tend to discount these other advantages. Consider the case of coal. Most economic historians regard coal as the *sine qua non* of 19th century industrialization, and therefore key to the economic success of the four offshoot economies. Yet as far as I could see, Acemoglu and Johnson don't mention coal at all in *Why Nations Fail*. In their academic work, they deny its significance on the grounds that coal is a common, widespread resource:

[C]ountries may lack certain resource endowments, most notably coal, which may have been necessary for industrialization (e.g., Pomeranz [2000] and Wrigley [1988]). But coal is one of the world's most

⁴ As Barro (2012) explains, the econometric debate involves whether to include country fixed effects in panel data. When fixed effects are included, the evidence for modernization theory diminishes. When fixed effects are excluded, the evidence strengthens. Since the econometric biases introduced by fixed effects diminish with long time horizons, Barro examines the modernization hypothesis with data over a full century. He finds that rising incomes indeed promote democracy over the long term, whether or not fixed effects are used in the statistical estimation.

common resources, with proven reserves in 100 countries and production in over 50 countries." (AJR, 2002, p. 1261)

What they miss, however, both in their rhetoric and in their statistical models is that coal is distributed highly unequally around the world. The Neo-Europes (US, Canada, Australia, and New Zealand) have all benefited from their very large per capita coal deposits. The tropics, in general, have very little coal.

AJR's linear model also misses the deeper dynamics of Hong Kong and Singapore. The success of these two island economies is not due mainly to European settlement (there were relatively few European settlers in either location). Nor are their political institutions democratic. Their decisive advantages lie elsewhere. Both economies are located on the main shipping route between Europe and East Asia, and both have world-class deep-water ports. The British Government promoted both as centers of international trade and finance, and the post-colonial governments have done an excellent job maintaining the unique roles of these two economies. As is often the case with islands, both are also relatively healthful environments compared with the corresponding mainland. As a result, as in the Western offshoot nations, we again find a combination of low 19th century mortality and high late-20th century income, with a mix of institutional and geographical factors (whether coal, trade routes, and/or disease ecology) contributing to these outcomes.

Finally, I should mention that for all that Acemoglu and Robinson claim about the "reversal of fortune" between the tropics and temperate zones, it probably didn't even occur. Two researchers, Bandyopadhyay and Green (2012) have recently shown that with alternative measures and more data, and slightly different specifications, the evidence does not support any grand claims of a reversal of fortune.

Institutions and economic growth

The final link in the AJR linear model is from political institutions to economic performance. Here again we find that institutions matter, but not by themselves and not always in the way that AJR claim. As already noted, political institutions as of 1960 have little explanatory power concerning the growth that followed during 1960-2010. We can easily understand why: many countries achieved rapid economic growth despite authoritarian political institutions, as in South Korea and Taiwan in the 1960s and 1970s, and in China since around 1980. In each of these cases, growth was not blocked by authoritarian rule, and may perhaps have been accelerated by it, as the governments invested heavily in education, infrastructure, and technological upgrading. I am certainly not making a case for authoritarian-led growth. Many democracies also grow rapidly. I am instead making the case that political institutions are not always decisive in a country's growth performance.

The success of some authoritarian governments should not be surprising. Authoritarian rulers often have very strong motivations for national economic success, not just for the extraction of economic rents internally. They are often engaged in fierce international political and military competition with other nations, and success or failure may turn on the economic strength of the country. They may be seeking their historical legacy. They may be patriots, identifying personal success with national success. They may have been able to design economic institutions that allow for rapid economic growth and also skimming of the returns of that growth for personal enrichment. National economic success may be required to prevent social unrest, or at least they fear so. Obviously, the possibilities are many, and the actions of authoritarian elites are hardly predetermined by the decisions of European colonizers several decades or even a century earlier.

Innovation and Diffusion

Perhaps Acemoglu and Robinson really wanted to focus their argument on innovation-led growth. For the case of innovation, as I mentioned at the outset of this article, I would tend to agree that open political institutions are probably very important, more important than they are for technological diffusion and catch-up growth. Closed political systems can indeed stifle basic scientific inquiry, impose ideological conclusions (as with Trofim Lysenko and Soviet biology) and block the development of disruptive technologies. If they had focused their argument on innovation-led growth, I would have agreed with it more than I do now (but would still have cried, "Oversimpification!"). Yet they have presented their argument as being about all kinds of economic growth, including the catch-up variety that is often promoted by authoritarian regimes.

Odds and ends

In their reply to my book review, Acemoglu and Robinson make a handful of passing comments that merit a brief response. First, they write that I am "deferential to dictators" when I point out that dictators have sometimes acted as "agents of deep economic reforms." Cute -- but I'm deferential to history, not to dictators.

Second, they write that, "Sachs couldn't even be bothered to do the regression analysis with the data we gave him properly. (...) Funny that we haven't heard about that [2001] paper since. And funny that Sachs himself seems to have forgotten about it too." Apparently they overlooked the revised article in Sachs (2003), written after I had received their first round of comments and updated the draft. The 2003 paper shows that both malaria burden and institutions directly affect per capita income, a result that, as mentioned above, was subsequently confirmed and published by other authors such as Carstensen and Gundlach (2006).

Third, Acemoglu and Robinson claim that the fact that a border town next to a rich country is more likely to develop is "an entirely different proposition from the geography hypothesis which claims that geographical factors are a crucial

determinant of cross-country or cross region income differences." That's wrong. Part of the geography hypothesis, stretching back to Adam Smith, is that the productivity of a location, whether a city or a whole nation, depends on its proximity to other markets. The fact that Nogales, Mexico is a major industrial town at the US border involves the same geographic principles that explain why landlocked countries in poor regions tend to be significantly poorer than their coastal neighbors. Acemoglu and Robinson are arguing against a straw-man version of geography, one that I certainly don't espouse.

Fourth, Acemoglu and Robinson simply shrug off the inability of their theory to predict economic growth. To my point that standing in 1980 their theory would not have helped to predict growth from 1980 to 2010, they write that "we much rather leave the predictive game to Sachs." This is a remarkable reply, since it is a central tenet of science that causal theories should demonstrate their predictive power. Their theory's lack of predictive power should concern them far more than it does, especially since other variables *do* have predictive power.

Fifth, they dismiss my call for a differential diagnosis of why an economy has failed. "Well, we are not doctors," they reply. Yet a major purpose of development economics is to use economic evidence to help countries achieve economic progress and overcome economic failures. Reading *Why Nations Fail*, one is led to believe that the essential prescription is either: (1) to reform political institutions to make them inclusive; or (2) to do nothing, since political institutions are deeply rooted in the past. The second of these is clearly not right, and the first is not adequate. A deeper framework also draws our attention to public investments in education, disease control, infrastructure, and other opportunities to promote growth.

Finally, I do feel obliged to respond to Acemoglu and Robinson's two gratuitous and inaccurate *ad hominem* comments on my work in Bolivia 27 years ago. One is that I seemed to favor "IMF-style adjustment policies (combined with repression of any opposition)" as the "secret to growth." The historical record shows that I strongly opposed IMF-style adjustment policies in Bolivia, and helped Bolivia to negotiate deep debt cancellation - the first in that era - precisely to ease IMF austerity (see Morales and Sachs 1990 for full details of my views at the time). Moreover, I worked with a government that was democratic and non-repressive. For every year of the Paz Estenssoro government (1985-89), Freedom House termed Bolivia "free" and gave the government a high score of "2" on its scale of 1 (highest degree of freedom) to 7 (lowest degree of freedom).

The other charge is that, "the reforms [I] advocated got all of [the Bolivian miners] fired." The measures that I advocated in July 1985 to end Bolivia's hyperinflation did not concern mine closures. I was not an advisor on mining policies. Bolivia's mining crisis came later, towards the end of October 1985, when the international tin agreement collapsed, driving world tin prices down and leading to tin mine closures around the world.

Conclusion

Acemoglu and Robinson have deepened our knowledge of many facets of economic growth and development. They have delved into many intriguing episodes of economic history and enriched the professional and public discussion as a result. Yet they have also promulgated a simplistic explanation of why countries have succeeded or failed. The evidence suggests that economic development is a multidimensional dynamic process, in which political, institutional, technological, cultural, and geographic factors all play a role. Such a view of history might not be "powerful" in the sense they would like, but it has the virtue of being accurate and useful.

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