

The Surplus Approach and Institutions: Diamond vs. Acemoglu & Robinson

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If anybody wants to be persuaded of the correctness and fruitfulness of the 'surplus approach' by Sraffa (1951) and Garegnani (1984), a reading of Jared Diamond *Guns, Germs, and Steel* would be enough to convince herself.[1] What is surprising – but not really at a closer scrutiny – is that Diamond does not quote any classical economist in his book – he does not mention any economist at all indeed. The likely explanation is that he has only been exposed to neoclassical economics and, of course, he could not find anything interesting there.[2] Also Acemoglu and Robinson (A&R) are neoclassical economists. Their neoclassicism is shown by the role that they attribute to the 'right' institutions in setting the correct incentives to individual entrepreneurship. Although in a very diplomatic way, Diamond is very critical of their attempt to explain why some regions developed earlier while other developed later or not at all. In his [review](#) of *Why Nations Fail* in the New York Review of Books Diamond (2012a) aptly summarises A&R's thesis:

“Different economists have different views about the relative importance of the conditions and factors that make countries richer or poorer. The factors [A&R] most discuss are so-called “good institutions,” which may be defined as laws and practices that motivate people to work hard, become economically productive, and thereby enrich both themselves and their countries... Among the good economic institutions that motivate people to become productive are the protection of their private property rights, predictable enforcement of their contracts, opportunities to invest and retain control of their money, control of inflation, and open exchange of currency. For instance, people are motivated to work hard if they have opportunities to invest their earnings profitably, but not if they have few such opportunities or if their earnings or profits are likely to be confiscated.”

The indictment Diamond moves to A&R is that, although the institutions they refer to are relevant:

“as readers may quickly confirm for themselves, it is indeed a fair characterization of Acemoglu and Robinson's book to say that their theory is as if institutions appeared at random. Although their letter describes institutional variation today as a systematic outcome of historical processes, much of their book is actually devoted to relating story after story purportedly explaining how institutional variation developed unsystematically and at random, as a result of particular events happening in particular places at critical junctures.” (Diamond 2012b)

“Acemoglu and Robinson's view of history is that small effects at critical junctures have long-lasting effects, so it's hard to make predictions. While they don't say so explicitly, this view suggests that good institutions should have cropped up randomly around the world, depending on who happened to decide what at some particular place and time.” (Diamond 2012a)

As well known, according to Diamond, complex political institutions emerged around 3400 BC in specific parts of the globe where material circumstances related, to the climate and to the availability of domesticable vegetable and animals (there are not so many) made profitable for the humans to transit from populations of hunter/gatherers to sedentary civilisations. With agriculture a surplus of food emerged that unshackled the possibility of creating a class of people not engaged in a daily fight to collect food and survive, but that could dedicate themselves (exploiting the rest, of course) to the political organisation of society, to write legal codes, to philosophy (that includes science and technology) and to war.

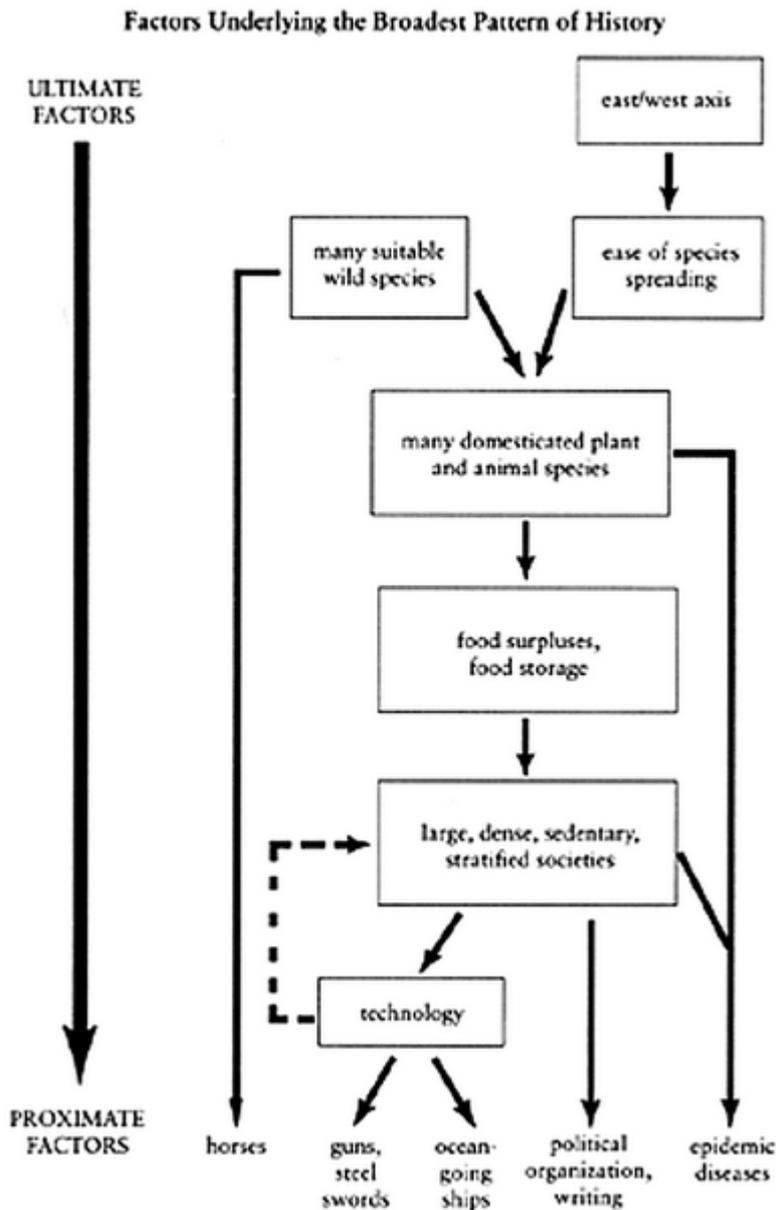
Any student of the classical economists will recognize the echo of Petty, Turgot and Adam Smith in this approach. It worth quoting at length:

“it’s obvious that good institutions, and the wealth and power that they spawned, did not crop up randomly. For instance, all Western European countries ended up richer and with better institutions than any tropical African country. Big underlying differences led to this divergence of outcomes. Europe has had a long history (of up to nine thousand years) of agriculture based on the world’s most productive crops and domestic animals, both of which were domesticated in and introduced to Europe from the Fertile Crescent, the crescent-shaped region running from the Persian Gulf through southeastern Turkey to Upper Egypt. Agriculture in tropical Africa is only between 1,800 and 5,000 years old and based on less productive domesticated crops and imported animals.

As a result, Europe has had up to four thousand years’ experience of government, complex institutions, and growing national identities, compared to a few centuries or less for all of sub-Saharan Africa. Europe has glaciated fertile soils, reliable summer rainfall, and few tropical diseases; tropical Africa has unglaciated and extensively infertile soils, less reliable rainfall, and many tropical diseases. Within Europe, Britain had the further advantages of being an island rarely at risk from foreign armies, and of fronting on the Atlantic Ocean, which became open after 1492 to overseas trade.

It should be no surprise that countries with those advantages ended up rich and with good institutions, while countries with those disadvantages didn’t. The chain of causation leading slowly from productive agriculture to government, state formation, complex institutions, and wealth involved agriculturally driven population explosions and accumulations of food surpluses, leading in turn to the need for centralized decision-making in societies much too populous for decision-making by face-to-face discussions involving all citizens, and the possibility of using the food surpluses to support kings and their bureaucrats. This process unfolded independently, beginning around 3400 BC, in many different parts of the ancient world with productive agriculture, including the Fertile Crescent, Egypt, China, the Indus Valley, Crete, the Valley of Mexico, the Andes, and Polynesian Hawaii.” (Diamond 2012a)

The graph (see the original in Diamond 1997) summarises the chain of material circumstances (including the easier communications and similarity of climate in Eurasia) that Diamond advances as an explanation of the variety of growth experiences.



As said, had Diamond been exposed to Classical Political Economy, he would have recognised the ancestors of his theory in Petty, Turgot and Smith. As known, Turgot and Smith shared a “stage theory” of growth very similar to that by Diamond (see Meek 1971; 1976).[3]

Few quotations from “On Universal History” (1750 [2011]) will confirm the similarity between Turgot and Diamond (and Adam Smith, of course) (my italics):

"Without provisions, and in the depths of forests, men could devote themselves to nothing but obtaining their subsistence. (p. 351)

There are animals which allow themselves to be brought into subjection by men, such as oxen, sheep, and horses, and men find it more advantageous to gather them together into herds than to chase after wandering animals.

It did not take long for the pastoral way of life to be introduced in all places where these animals were met with: oxen and sheep in Europe, camels and goats in the east, horses in

Tartary, and reindeer in the north.

The way of life of hunting peoples is maintained in the parts of America where these species are lacking. ...

Pastoral peoples, whose subsistence is more abundant and more assured, were the most numerous. They began to grow richer, and to understand better the idea of property. (p. 352)

Pastoral peoples in fertile countries were no doubt the first to move on to the state of agriculture. Hunting peoples, who are deprived of the assistance of animals to manure the soil and to facilitate labor, were unable to arrive so soon at agriculture. If they cultivate any land at all, it is only a small quantity; when it is exhausted they move their habitation elsewhere; and if they are able to abandon their nomadic life it is only by infinitely slow steps.

Husbandmen are not by nature conquerors; the cultivation of the land keeps them too busy. But, being more wealthy than the other peoples, they were obliged to defend themselves against violence. Besides, with them the land can sustain many more men than are necessary in order to cultivate it. Hence people who are uncultivated; hence towns, trade, and all the useful arts and accomplishments; hence more rapid progress in every sphere, for everything follows the general advancement of the mind; hence greater skill in war than in the case of barbarians; hence the division of occupations and the inequality of men; hence slavery in domestic form, and the subjection of the weaker sex (always bound up with barbarism), the hardship of which increases in proportion to the increase in wealth. But at the same time a more searching enquiry into government begins." (p. 355)

From these quotations the sequence food surplus → complex institutions is clear.[4]

In their reply to Diamond, A&R (2012) argue that:

"Diamond's theory predicts that the Neolithic Revolution would happen first in Eurasia, but cannot account for differences in prosperity today, which are huge within Eurasia and not explained by the timing of the Neolithic Revolution."

This is the challenge to future research. How the surplus approach may help to explain recent growth episode and differentials? Of course the theory of long-period effective demand is central in this regard. Possibly, the efficiency of the wage-goods sector has had a role in facilitating growth in episodes of strongly export-led growth, by allowing a constant increase of the standard of living of workers in a non inflationary environment. Or, on the other hand, a too big size of the social surplus becomes a problem in advanced capitalist economies as Marx, Rosa Luxemburg and Kalecki taught us. Workers must share a part of it, letting wages to go beyond the subsistence level, to let the system to work. Well, it is time to stop and leave the stage to other voices (see the post by [Matias Vernengo](#) for a start).

Appendix - EGT, Diamond and the surplus approach on population growth and human development

In Cesaratto (2010) on EGT I wrote (inspired, at least partially, by Franklin Serrano):

"According [to the EGT exponent Charles Jones, e.g. 2002, 2004) productivity growth depends on population growth. Jones fervently defends this sort of causality (e.g. 2002, pp.103-104). After all, he argues, humans are the ultimate fuel of the process of research, and it should not be surprising that faster population growth has a positive effect on the

generation of new ideas. Jones' favourite quotation is from Phelps (1968, pp.511-512), according to whom: 'One can hardly imagine ...how poor we would be today were it not for the rapid population growth of the past to which we owe the enormous number of technological advances enjoyed today. ...If I could re-do the history of the world, halving population size each year from the beginning of time on some random basis, I would not do it for fear of losing Mozart in the process'. One might certainly argue that halving the German speaking population of the eighteenth and nineteenth centuries would entail the risk of losing many of the greatest musicians ever, but this could be done to other populations of comparable size, in that or other periods, without much fear of losing outstanding talents. Ruling out genetic factors, something therefore seems to be missing from this population-driven mechanics of growth.

Jones (2004, pp. 48-56) discusses these possible objections at some length. Looking at different regions of the world in the very long term (12,000 years or so), some relationship seems to emerge between population size at the beginning of the period and their technological rank measured at the year 1000/1500 or so (before European explorations ended the isolation of various areas). The rationale of this correlation (ibid, p. 56) would lie in the following virtuous circle: at the beginning a small population could only generate ideas over long periods of time. Low productivity levels and subsistence kept the population constant. However, once one idea was produced subsistence levels and fertility rose, leading to a larger population. This in turn facilitated the production of new ideas over shorter lapses of time, and so on and so forth (see also Jones and Romer, 2009, pp. 10, 14, 24-25).

A scholar quoted in this regard is Jared Diamond (1997) who is, however, totally misinterpreted by these authors. In his famous book, Diamond argues that some environmental advantages, in particular the availability of suitable vegetable and animal species, made possible to some luckier populations some 10 thousand years ago to realise a food surplus and to become "large, dense, sedentary, stratified populations" (1997, p.87 ad passim). More precisely, the realisation of food surpluses permitted these populations to grow more rapidly and to support a political class that, at the price of the exclusive control of the surplus, provided organisational, institutional, and military leadership. Moreover, the surplus allowed for the sustenance of those who Adam Smith would have called 'philosophers or men of speculation, whose trade it is, not to do anything, but to observe everything' (1776 [1979], p.21). It is clear from Diamond that population growth is not and cannot be the original source of "ideas" since both division of labour and population growth both logically and historically originate from the emergence of food surpluses. This is enough to show the closeness of Diamond to the Classical economists' surplus approach, as well as his distance from the poor growth mechanics of EGT."

This was what I wrote few years ago. I may add this. Turgot puts the question in a way similar to Smith: given two populations of the same size, it is education (that is the degree of division of labour) that makes the difference:

"The original aptitudes are distributed equally among barbarous peoples and among civilized peoples; they are probably the same in all places and at all times. Genius is spread through the human race very much as gold is in a mine. The more ore you take, the more metal you will get. The more men there are, the more great men you will have, or the more men capable of becoming great. The chances of education and of events either develop them, or leave them buried in obscurity, or sacrifice them before their time, like fruits blown down by the wind.)" (p. 378).

Diamond, as the Classical economists, regards the size of the population, or its concentration in smaller territories towns etc. as an advantage from many points of view. But the material conditions that set off the emergence of a food surplus are the trigger:

“correlations suggest strongly that regional population size or population density or population pressure has something to do with the formation of complex societies. But the correlations do not tell us precisely how population variables function in a chain of cause and effect whose outcome is a complex society. To trace out that chain, let us now remind ourselves how large dense populations themselves arise. Then we can examine why a large but simple society could not maintain itself. With that as background, we shall finally return to the question of how a simpler society actually becomes more complex as the regional population increases. We have seen that large or dense populations arise only under conditions of food production, or at least under exceptionally productive conditions for hunting-gathering. Some productive hunter-gatherer societies reached the organizational level of chiefdoms, but none reached the level of states: all states nourish their citizens by food production. These considerations, along with the just mentioned correlation between regional population size and societal complexity, have led to a protracted chicken-or-egg debate about the causal relations between food production, population variables, and societal complexity. Is it intensive food production that is the cause, triggering population growth and somehow leading to a complex society? Or are large populations and complex societies instead the cause, somehow leading to intensification of food production?

Posing the question in that either-or form misses the point. Intensified food production and societal complexity stimulate each other, by autocatalysis. That is, population growth leads to societal complexity, by mechanisms that we shall discuss, while societal complexity in turn leads to intensified food production and thereby to population growth. Complex centralized societies are uniquely capable of organizing public works (including irrigation systems), long-distance trade (including the importation of materials to make better agricultural tools), and activities of different groups of economic specialists (such as feeding herders with farmers' cereal, and transferring the herders' livestock to farmers for use as plow animals). All of these capabilities of centralized societies have fostered intensified food production and hence population growth throughout history.

In addition, food production contributes in at least three ways to specific features of complex societies. First, it involves seasonally pulsed inputs of labor. When the harvest has been stored, the farmers' labour becomes available for a centralized political authority to harness—in order to build public works advertising state power (such as the Egyptian pyramids), or to build public works that could feed more mouths (such as Polynesian Hawaii's irrigation systems or fishponds), or to undertake wars of conquest to form larger political entities.

Second, food production may be organized so as to generate stored food surpluses, which permit economic specialization and social stratification. The surpluses can be used to feed all tiers of a complex society: the chiefs, bureaucrats, and other members of the elite; the scribes, craftspeople, and other non-food-producing specialists; and the farmers themselves, during times that they are drafted to construct public works.

Finally, food production permits or requires people to adopt sedentary living, which is a prerequisite for accumulating substantial possessions, developing elaborate technology and crafts, and constructing public works.” (pp.185-6)

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Notes:

[1] Franklin Serrano suggested to me to read Diamond many years ago.

[2] On Endogenous Growth Theory (EGT), the most ambitious attempt by the mainstream to explain economic growth, see [Cesaratto](#) 1999a, 1999b, 2010, and Cesaratto & [Serrano](#) 2002. See also the appendix.

[3] Meek (1976) points out that both Turgot and Smith regarded the protection of property rights as a result of development rather than a cause of it.

[4] True, Turgot as much as A&R dismiss the role of the climate as a determining factor: “A reason for these differences which are found between nations has been sought in differences of climate. This view, modified a little and rightly restricted only to those climatic influences which are always the same, has recently been adopted by one of the greatest geniuses of our century. But the conclusions which are drawn from it are hasty, to say the least, and are extremely exaggerated. They are belied by experience, since under the same climates peoples are different; since under climates which resemble one another very little we very often find peoples with the same character and the same turn of mind” (379-80) But I do not believe that this would change much my argument.

PS: Also read the following post on the same topic [here](#) or [here](#) where the argument extends to William McNeill and other historians.

This piece was originally published by ‘Naked Keynesianism’ blog and can be found [here](#).