

**Extractivism**  
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Extractivism names a given economic form of organizing natural and social resources in which sustained profitability depends on the extraction, over time, of an increasing amount of natural resources from the earth. In the language of macro-economics, Total-factor productivity (TFP) is a measure of cumulative increases in productivity that exceed technological, capital, and labour input (or cost-share): growth depends over time on increased TFP, which is achieved by both optimizing inputs (or reducing lag, waste, and drag) and via what Harvard economist Dale Jorgenson famously described as the “somewhat surprising” correlation between “non-electrical energy and productivity growth.” (Jorgenson 1984, 30). In 1963 the University of North Carolina economist Edward Renshaw offered a statistical image of this dependence on increases in energy for productivity gains over time, astonished as he was at the shift in energy requirements by mid-century, remarking, “nearly four times as much prime mover is required today to produce a dollar of real income as was required in 1880.” (Renshaw 1963, 284). Between 1870 and 2009, roughly 135 billion tons of oil have been extracted and unleashed into the global economy (Jones 2009, 30). As of December 31, 2014, an estimated 1,237 billion short tons of proven recoverable coal had been tagged for future extraction (EIA 2018).

Extractivism is thus the name for an economic problem internal to capitalism. For socialism, it is the name for an exogenous problem for politics: that is, until capitalism is no longer the *de facto* exogenous force coordinating decisions in socialist economies. Hence, extractivism originates under capitalism, while it merely *inflects* socialism, so long as the latter has not yet made its way through the transition period – when socialism is still a national, rather than international, political form. So far we have not seen a fully international socialism, and so we have seen neither a capitalist nor socialist economy immune to the problem of extractivism.

Extractivism generates rather obvious environmental challenges, but why is it also a source of socio-political conflict? Marx is very clear about the energetic content of capital over time and its consequence for labour. Look closely and you’ll see it spelled out in the all important twenty-fifth chapter of *Capital* Volume One:

The greater the social wealth, the functioning capital, the extent and energy of its growth, and, therefore, also the absolute mass of the proletariat and the productivity of its labour, the greater is the industrial reserve army. The same causes which develop the expansive power of capital, develop also the labour power at its disposal. The relative mass of the industrial reserve army increases therefore with the potential energy of wealth. But the greater this reserve army in proportion to the active labour army, the greater is the mass of a consolidated surplus population, whose misery is in inverse ratio to its torment of labour. The more extensive, finally, the Lazarus layers of the working class, and the industrial reserve army, the greater is official pauperism. *This is the absolute general law of capitalist accumulation.* (Marx 1976 [1867], 798).

More commonly known as the *immiseration thesis*, Marx is here – at the critical heart of his *magnum opus* – revealing the twofold forms of energy that capital will acquire over time: first, as capital accumulates in larger quantities, reflected in the scale of operations, gross output, and relative command of individual firms and entire sectors, its need for less and less human labour-time per unit of output generates a tendency (or energy – “the energy of wealth”) toward contradiction. That contradiction is spelled out further in “the absolute general law of capitalist

accumulation,” which is the fateful fall in the rate of profit as capitalist accumulation reaches its zenith (even if its zenith is cyclical, rather than terminal). More and more wealth accumulates in fewer and fewer hands, while more and more labourers subsumed into the economic process are suddenly shed from the production process, causing rolling and irresolvable waves of unemployment. This is the first valence of energy used by Marx in this passage: ever expanding stages of growth met by ever intensive forms of secular stagnation.<sup>1</sup>

The second valence is more literal: capital in its constant form – that is, the machines, buildings, hardware, and physical character of what capital employs as its own part of the bargain – is both ever growing in magnitude and value relative to the variable form of capital (i.e. labour power hired to light it all up) *and*, as a logical consequence, animated by more and more energy over time relative to the quantitative energy of human input.

What Marx calls the general law of capitalist accumulation is thus about a historical trajectory to accumulation – namely, the rising surplus army of labourers that capital paradoxically produces in the measure that its physical character over time displaces that same labour – at the same time as it is about an environmental relation: more and more resources will be needed from the earth’s subsurface to fuel the rising magnitude of capital’s constant forms – its machines, buildings, hardware, and so on. Of course there are moments when capital appears to need fewer resources, or when it suddenly appears to do more with less, but these do not contradict the historical arc of the general law: they confirm it. Cutting costs is the *sine qua non* of capital as a logic, and so individual firms and sectors naturally find cheaper and more efficient forms of energy as others become more costly. Yet the relative cheapness of a given form of energy becomes immediately compromised once it is no longer emergent, but is instead dominant. Hence cheap oil is largely credited for the golden era of US hegemony, from the early 1950s through to the late 1960s (see Levinson 2016), while cheap coal is understood to have provided the physical and economic conditions for large-scale industrialization in England, and then Germany and France in the early to mid-19<sup>th</sup> century (see Malm 2015). Flipped around, the same is true of the era of *expensive* oil that characterizes the

post-70s era, most vividly expressed in the floating average of over \$100 USD per barrel between 2000-2008. Not coincidentally, this is the era of what Neil Brenner has influentially termed “the long downturn,” when the rate of profit began its steady fall towards the negligible rates that mark the long present (Brenner 2006, 239).<sup>2</sup>

Capital, in other words, will always be an extractivist mode of social organization not despite, but because of, its intransigent drive to cut costs. Using more and more physical energy from fossil fuels is a form of cutting labour costs, until it is not. When the cost of energy rises to the level of a constraint, capital seeks out either new sources of energy or innovative ways to extract what’s left. That is to say, energy in the form of fossil fuels has typically been a *very* cost effective means to economize and minimize human labour power (or variable capital), and when specific forms of extracting fossil fuels become too costly, some other form is usually just over the horizon.

If extractivism is the logical mode of capitalist accumulation over time, then why does it act as an exogenous force on actually-existing socialisms of the 20<sup>th</sup> and 21<sup>st</sup> centuries? Álvaro García Linera, vice president in Evo Morales’ Bolivia since 2006, calls the entangled histories of Latin American socialism and resource extraction a part of the “long process of socialization of the conditions of production,” similar to the transitional programs of Mao’s China and Lenin’s Soviet Union (Linera 2013). The transition towards fully socialized conditions of production begins at a point of near full calibration to the international division of labour. The international division of labour is itself the expression at any given moment of the unfolding history of the capitalist mode of production, which in Linera’s words makes “Nature...a reservoir of material vehicles of *exchange value*, of profit.” (Linera 2013).

As we have already seen, capitalism is logically and historically extractivist in that its mode of production simultaneously compliments human labour power with the material wealth and puts them in competition, even if that complementarity and competition occur on opposite poles of the earth. Hence, while Stalin imagined that socialism in one country was possible – the outcome of which was a Soviet

industrial complex at least as energy intensive as its capitalist counterparts – neither Lenin, Mao, or Linera thought, or think, the contradictions of capitalism can be resolved short of a global revolutionary process:

Socialism is not a new mode of production that would coexist alongside capitalism, territorially contesting the world or one country. Socialism is a *battlefield* between capitalism in crisis and the tendencies, potentialities and efforts to bring production under community ownership and control. In other words, it is the historical period of struggle between the dominant established *capitalist mode of production* and another potentially new *mode of production*. The only *mode of production* that will overcome capitalism is communism, the assumption of community ownership and control of production of the material life of society. And that mode of production does not exist piecemeal, it can only exist on a world scale. But until that happens the only thing that is left is the struggle. (Linera 2013).

Hence, from the perspective of the Bolivian Democratic-Cultural Revolution, the transition to a mode of production that breaks the intransitive relation between surplus value and subsurface energy, minerals, and metals is paradoxically contingent on the temporary increase in socialist forms of extractivism. Critiques of the Latin American socialist project on the grounds of its dependency on fossil fuels thus make the same error as Stalin: “it is naïve”, Linera continues, “to think that extractivism, non-extractivism or industrialism are a vaccination against injustice, exploitation and inequality,” (Linera 2013) since for him, like all socialists, extractivism is a technical system for human interaction with natural systems, and not itself the mode of production. The mode of production that socialism aims to overcome is capitalism, which includes not just the genre of interaction between nature and culture, but the value form which dominates that relation.

If extractivism is an economic problem endogenous to capitalism, it is a fine metric with which to gauge at any given moment our collective proximity to communism.

## Notes

1] See Melinda Cooper’s recent treatment of secular stagnation as both a social crisis of reproduction and a crisis in the reproduction of the value form of capital in “Secular Stagnation: Fear of Non-Reproductive Future” (2016).

2] You need not be a Marxist to observe the falling rate of profit in the post-70s era: see former Director of the National Economic Council under President Obama, Larry Summers (2016).

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