

01. Introduction to the Subject

Productive forces (Produktivkräfte) are the combination of human labor power (skills, knowledge, and physical effort) and the means of production (tools, machinery, infrastructure, and raw materials) used to produce goods. A central concept in Marxism and historical materialism, they define a society's capacity to generate wealth and, together with the relations of production, constitute the mode of production.

Key aspects of productive forces include:

Components: Labor power (human labor) and means of production (instruments, raw materials, technology).

Development: Driven by advances in technology, science, and human knowledge.

Historical Significance: According to Marxism, the development of productive forces drives historical and social change.

Role in Production: They represent the actual capability to produce, with, for example, increased automation or efficiency indicating a higher level of development.

The concept is often associated with the theory of "productive force determinism," which highlights technical progress as the primary driver of social transformation.

In Karl Marx and Friedrich Engels' own critique of political economy, it refers to the combination of the means of labor (tools, machinery, land, infrastructure, and so on) with human labour power. Marx and Engels probably derived the concept from Adam Smith's reference to the "productive powers of labour" (see e.g. chapter 8 of *The Wealth of Nations* (1776)), although the German political economist Friedrich List also mentions the concept of "productive powers" in *The National System of Political Economy* (1841).

All those forces which are applied by people in the production process (body and brain, tools and techniques, materials, resources, quality of workers' cooperation, and equipment) are encompassed by this concept, including those management and engineering functions technically indispensable for production (as contrasted with social control functions). Human knowledge (General intellect) can also be a productive force.

Together with the social and technical relations of production, the productive forces constitute a historically specific mode of production.

Labor

Karl Marx emphasized that with few exceptions means of labour are not a productive force unless they are actually operated, maintained and conserved by living human labour. Without applying living human labour, their physical condition and value would deteriorate, depreciate, or be destroyed (an example would be a ghost town or capital depreciation due to strike action). Simultaneously, technological developments which serve as means of production would not exist without what Marx refers to as "general intellect," the human innovation and industry which motivates industrial development.

Capital itself, being one of the factors of production, comes to be viewed in capitalist society as a productive force in its own right, independent from labour, a subject with "a life of its own". Indeed, Marx sees the essence of what he calls "the capital relation" as being summarized by the circumstance that "capital buys labour", i.e. the power of property ownership to command human energy and labour-time, and thus of inanimate "things" to exert an

autonomous power over people. What disappears from view is that the power of capital depends in the last instance on human cooperation.

"The production of life, both of one's own in labour and of fresh life in procreation... appears as a double relationship: on the one hand as a natural, on the other as a social relationship. By social we understand the co-operation of several individuals, no matter under what conditions, in what manner and to what end. It follows from this that a certain mode of production, or industrial stage, is always combined with a certain mode of co-operation, or social stage, and this mode of co-operation is itself a "productive force."

The productive power of cooperation comes to be viewed as the productive power of capital, because it is capital which forcibly organizes people, rather than people organizing capital. Marx regarded this as a supreme reification.

Unlike British classical economics, Marxian economics classifies financial capital as being an element of the relations of production, rather than the factors or forces of production ("not a thing, but a social relation between persons, established by the instrumentality of things").

Marx and Engels did not believe that human history featured a continuous growth of the productive forces. Rather, the development of the productive forces was characterized by social conflicts. Some productive forces destroyed other productive forces, sometimes productive techniques were lost or destroyed, and sometimes productive forces could be turned into destructive forces:

"How little highly developed productive forces are safe from complete destruction, given even a relatively very extensive commerce, is proved by the Phoenicians, whose inventions were for the most part lost for a long time to come through the ousting of this nation from commerce, its conquest by Alexander and its consequent decline. Likewise, for instance, glass-painting in the Middle Ages. Only when commerce has become world commerce, and has as its basis large-scale industry, when all nations are drawn into the competitive struggle, is the permanence of the acquired productive forces assured. (...) Competition soon compelled every country that wished to retain its historical role to protect its manufactures [sic] by renewed customs regulations (the old duties were no longer any good against big industry) and soon after to introduce big industry under protective duties. Big industry universalized competition in spite of these protective measures (it is practical free trade; the protective duty is only a palliative, a measure of defence within free trade), established means of communication and the modern world market, subordinated trade to itself, transformed all capital into industrial capital, and thus produced the rapid circulation (development of the financial system) and the centralization of capital. By universal competition it forced all individuals to strain their energy to the utmost. It destroyed as far as possible ideology, religion, morality, etc. and where it could not do this, made them into a palpable lie. It produced world history for the first time, insofar as it made all civilized nations and every individual member of them dependent for the satisfaction of their wants on the whole world, thus destroying the former natural exclusiveness of separate nations. It made natural science subservient to capital and took from the division of labour the last semblance of its natural character. It destroyed natural growth in general, as far as this is possible while labour exists, and resolved all natural relationships into money relationships. In the place of naturally grown towns it created the modern, large industrial cities which have sprung up overnight. Wherever it penetrated, it destroyed the crafts and all earlier stages of industry. It completed the victory of the commercial town over the countryside. [Its first premise] was the automatic system. [Its development] produced a mass of productive forces, for which private [property] became just as much a fetter as the guild had been for manufacture and the small, rural workshop for the developing craft. These productive forces received under the system of private property a one-sided development only, and became for the majority

destructive forces; moreover, a great multitude of such forces could find no application at all within this system. From the conception of history we have sketched we obtain these further conclusions: In the development of productive forces there comes a stage when productive forces and means of intercourse are brought into being, which, under the existing relationships, only cause mischief, and are no longer forces of production but forces of destruction (machinery and money); and connected with this a class is called forth, which has to bear all the burdens of society without enjoying its advantages, which, ousted from society, is forced into the most decided antagonism to all other classes; a class which forms the majority of all members of society, and from which emanates the consciousness of the necessity of a fundamental revolution, the communist consciousness, which may, of course, arise among the other classes too through the contemplation of the situation of this class. Both for the production on a mass scale of this communist consciousness, and for the success of the cause itself, the changing of men on a mass scale is, necessary, a change which can only take place in a practical movement, a revolution; this revolution is necessary, therefore, not only because the ruling class cannot be overthrown in any other way, but also because the class overthrowing it, can only in a revolution succeed in ridding itself of all the muck of ages, and become fitted to found society anew. (From The German Ideology).