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Will "Big Data" Make a Centrally Planned Economy Possible?

February 2, 2017 - 12:00 AM [Xiong Yue](#) ^[1]

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Many of us were once convinced that idea of the centrally-planned economy, both in theory and in practice, had been completely buried. Most economists today would argue that the planned economy doesn't work, and in the last two decades of the twentieth century, almost all the planned economies shifted toward market economics.

However, with the development of new technologies such as cloud computing, big data, and artificial intelligence, some people start to believe that — with the help of powerful new technologies — we can finally achieve a planned economy.

In a recent speech, Jack Ma, one of China's most famous entrepreneurs and Founder and Chairman of Board of Alibaba Group, has expressed his optimism for the future recovery of the planned economy. [He declares](#) ^[5]:

Over the past 100 years, we have always felt that the market economy is excellent, but in my opinion, in the next three decades will be a significant change, the planned economy will become increasingly large. Because we have access to all kinds of data, we may be able to find the invisible hand of the market. ... [I]n the age of data, it is like we have an X-ray machine and a CT machine for the world economy, so 30 years later there will be a new theory [on planned economy] out.

Well, as a grand, romantic dream of the humankind — although the planned economy has failed several times in its operation in the real world — I would not be surprised to know that it is still quite attractive to social elites such as Jack Ma.

It is true, to some extent, that with the development of technologies, central planners now can obtain more data and information, and their ability to analyze these data and the information is greatly enhanced as well. Moreover, in the foreseeable future, those skills will be further enhanced. Ma believes a planned economy can be achieved in the future precisely because of his companies, Taobao and Alipay, are ubiquitous in the areas of e-commerce and payment in China and therefore can collect an enormous amount of consumption data. To Jack Ma himself and other "technical socialists," such data could be the cornerstone of the operation of the planned economy.

However, if we look at this more closely, we realize these data are mere: (1) data based on real deals of the past, which can not be used to predict the consumer preferences in the future; or (2) data obtained using questionnaires, which can not reflect the real demonstrated preferences of customers. In either case, with the dazzling new technologies, what central planners can get is still a guess of the real world, a beautiful mirage.

Besides, those who consider the problem of socialism as merely a problem of information failed to understand that the core problem of socialism lies in the absence of prices in a centrally-planned economy. The role of prices in the market economy is unique because money prices offer an indispensable tool in economic calculation. As Mises writes in *Human Action*,

One cannot add up values or valuations. One can add up prices expressed in terms of money, but not scales of preference.

With prices as a guide, entrepreneurs can potentially pursue profits by examining differences in the market prices of production factors and the expected prices of the final products. He or she can then organize production accordingly.

Therefore, even if we have some excellent data already, without this market-price mechanism, neither the economic calculation nor the efficient allocation of resources is possible; the planned economy is therefore not feasible. Because rationally planning or resource allocation requires the ability to calculate economically, such calculations need the prices which can be determined only in the market by the real-world exchange of owners of private property in the first place. Since the planned economy requires state and collective control of resources — and thus no tallow for these necessary voluntary exchanges between owners — it cannot rationally plan the operation of the modern economic system.

As a result, it's theoretically impossible for a planned economy to determine the prices needed for economic calculation. The cutting-edge technologies may help Jack Ma to optimize his strategies in his private enterprises in a relatively capitalist society. However, for a modern economy, as long as there are no prices available on which to base economic calculation, the failure of a planned economy is inevitable. As Joseph Salerno writes in [his postscript](#) ^[6] to "[Economic Calculation in the Socialist Commonwealth](#)" ^[7]:

[I]n the absence of competitively determined money prices for the factors of production, possession of literally all the knowledge in the world would not enable an individual to allocate productive resources economically within the social division of labor.

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