To Prosper In Space, We Must Put the Private Ahead of Flight

By Kristian Niemietz May 15, 2026

NASA Hubble

A little over ten years ago, when smartphones were still sufficiently new to mention, I attended a talk by an economist who argued that the rise of the smartphone was not, or at least not primarily, a technological phenomenon. He argued that if technological feasibility had been the only constraint, smartphones could have become a thing much earlier.

We should think of them as an indirect product of a legal innovation, not just a technological one. He was talking about how, in the 1990s, we started to use market mechanisms to allocate usage rights of the electromagnetic spectrum, which led to a much more efficient use of the airwaves. This triggered the explosion in mobile phone usage, of which the smartphone later became an extension. During the Q&A, I asked whether there was a parallel universe somewhere which is otherwise very much like ours, except insofar that smartphones were already widely used in the 1980s. He said that, yes, there probably was such a universe.

Since then, I have been haunted by a mental image of an alternative 1980s where people with ridiculously puffed-up hair, shoulder pads and leggings film TikTok-style videos in front of the Berlin Wall. If it is true that we could have had these innovations decades earlier, it makes you wonder: what else have we been missing out on? What other innovations are currently not happening that would happen if we lived in a more market-oriented economy?

I thought about this again when I read Dr. Rainer Zitelmann's latest book New Space Capitalism: The Entrepreneurial Path to the Stars.

Will future economists talk about the space revolution in similar terms? Will they also argue that asteroid mining, space tourism, and even the colonisation of space for human habitation, could have happened decades earlier, if only policymakers had been willing to give space capitalism a go?

"Space Economics" has only recently become a thing. Economics is the science of scarcity. Where there is scarcity, there is economics. "Scarcity," in an economic sense, means that a resource satisfies a human want, but there is not enough of it to satisfy all of those potential wants. So we need to figure out a way to allocate ownership and/or usage rights over the resource. Who gets to use it, how much of it, and in what way?

What counts as a "scarce resource," in an economic sense, changes over time. It depends, among other things, on our technological possibilities. Oil was not a scarce resource until we figured out how to make use of it: it was just a black liquid which nobody wanted, so the question of how we should allocate property rights over oil wells was not especially relevant. Then oil became "black gold," and all of a sudden, it mattered hugely.

Similarly, the frequencies of the electromagnetic spectrum were not considered a scarce resource, over which there could be conflicts, until the 20th century, when we figured out how to transmit signals through the airwaves. Once different people's signals could clash, it became part of economics.

The case of natural resources such as rare-earth metals contained in asteroids or other planets is slightly different, because it's not that we wouldn't know how to make use of them if we could access them: if they dropped down on Earth, they'd instantly become part of economics. However, so far, they were so completely out of our reach that questions about who – if anyone – would own them if we could access them were purely hypothetical. The problem is that if we do not answer that question in advance, it will remain hypothetical forever. Nobody is going to invest in asteroid mining without legal certainty that they will get to keep the proceeds.

Zitelmann shows that there already is such a thing as "the space economy." Thus far, it mostly revolves around satellites rather than asteroid mining or space tourism, but it is not science fiction: it is an actual industry, and a fast-growing one. It is also one of the few industries in which there has been a trend towards marketisation in recent years, with a much greater role for the private sector.

Our idea of "space" is still shaped by the Apollo program of the 1960s, which culminated in the first moon landing. Mariana Mazzucato and her fan club have, quite cleverly, appropriated the "moonshot" rhetoric, in order to imply that state direction is superior to laissez-faire. Zitelmann shows that the reality of state-directed space exploration was a bit different, though. Yes, it was a government programme that put the first man on the moon. Governments can do things, if they single-mindedly pursue an objective. However, if we look at the period of Space Mazzucatoism as a whole, including the ill-fated space shuttle missions that started in the 1970s, the results look a lot less impressive.

Here, we get to see all the problems that critics of industrial policy usually predict: political pork-barrel projects, rent-seeking, interest group politics, abrupt political mood swings, etc. What Space Mazzucatoism was particularly bad at was process innovation, the kind of innovation that leads to major cost reductions over time. In their dealings with private contractors, government agencies used "cost plus" contracts, under which those companies would see their full costs reimbursed (plus a mark-up), and had no incentive to control them. It was only when the "entrepreneurial state" retreated to a less active role that actual entrepreneurs stepped up.

New Space Capitalism ends with an outline of what a property rights regime for outer space could like. This has to be the next step for the space economy, which would really put the rocket boosters under space capitalism. The idea of space exploration has fascinated us for generations. It is finally within our reach – but we may have to sort out the dry economics first.