

Innovation: myths and prospects

By Davide Consoli

The Leviathan is a recurrent metaphor for portraying governments as clumsy and pervasive entities that hinder the initiative of business enterprise. *The Entrepreneurial State* by Mariana Mazzucato begs to differ and exposes the ideological foundations and perils of a rhetoric that, it is claimed, conveniently neglects instances in which the State has had a key role in shaping visionary undertakings and implementing strategic plans. At a time when innovation is expected to solve current economic woes, this book is a welcome opportunity to take stock of what can be expected from the main characters.

The central argument of *The Entrepreneurial State* is that most of the radical technologies that define our contemporary lifestyle owe their genesis to audacious risk-taking on the part of the State. The Internet is a paradigmatic case. Through mission-oriented funding and a variety of policy instruments, the U.S. government sparked development of a technological infrastructure whose magnitude and influence stretches well beyond what was foreseeable in the 1950s. Who could have anticipated that sending a man to the moon would pave the way to markets for miniature vacuum cleaners and plasma-screen televisions?

As a heterodox group of economists has long argued, the mainstream economics view of innovation either as random or deterministic misses the point altogether (1, 2). Technology brings about opportunities and challenges whose extent can neither be imagined beforehand nor predicted. Indeed, innovation is not invention alone, in that it involves the orchestration of different forms of knowledge, not just from science and technology but also from entrepreneurial know-how and the institution of markets. However, fundamental uncertainty implies that the information to guide investments in innovation is often incom-

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plete, which reduces the scope for futures contracts and calls for different forms of coordination beyond the archetypal market system. As Mazzucato convincingly argues, governments have the capacity to brave this uncertainty and to pursue opportunities where few business firms would dare. By this account, the State is more akin to Prometheus, who gave fire to humanity despite the risk of enraging the gods. And for those who are sensitive to government spending, the author has proposals for redressing the risk-reward balance in favor of taxpayers.

The main claims of this book are supported by meticulous accounts of how particular innovations came about and how, on more than one occasion, the State did not just fix markets, it created them. *The Entrepreneurial State* is at its best in its central



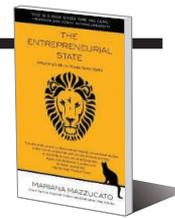
part thanks to a skillful combination of the history of technology, empirical evidence, and policy analysis. The chapter that most will find familiar recounts how Apple's "hunger and foolishness" owes a lot to the technological complex that became possible through the vision of the U.S. government. Even more engaging is the analysis of how governments (United States, China, Brazil, as well as some in Europe) around the world strive to stimulate investments in green technology. There, the State is portrayed as enabling transformation of the existing energy infrastructure.

Contrary to popular belief, there is more to this story than increasing research and development, encouraging small firms, and hoping for venture capital. It is also differ-

The Entrepreneurial State Debunking Public vs. Private Sector Myths

Mariana Mazzucato

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ent from the case of communication technologies, which is a story about trajectory creation. Mazzucato argues that the "green revolution" can be as wide-ranging and disruptive as the revolution in information and communication technology if governments will actively support the buildup of innovation ecosystems, where public and private investments coexist in a symbiotic fashion.

On the whole, the book contains a critical reading of data and arguments that

run counter to established views while never falling short of offering constructive solutions. One thing I would have liked to see more of is an articulation of how governments might deal with disruptive changes in the demand for skills. If the impending transition to low-carbon societies plays out in a similar way to the digital transition, substantial imbalances may soon emerge in labor markets, income distribution, and educational policy—all traditionally understood to be within the remit of governments.

The question that looms large throughout these chapters and in the debate that followed its publication is this: if the State-Prometheus has been capable of creating a grand vision and of pursuing it, why is this no longer happening? Has society given up on grand visions, or has the Leviathan rhetoric managed to suppress that desire? *The Entrepreneurial State* is surely not the last word on these themes, nor is it meant to be: rather than a static summary of the state of the art, this book seems to have been written with the intention of providing a platform and letting its content evolve as the debate continues. After reading it, most will come away with a deeper appreciation of the triumphs and frustrations involved in innovation and, perhaps, with a slight unease at the erosion of collective expectations.

REFERENCES

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