

# Taiwan in the Space Age

Written by Leo Wang  
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Exactly 40 years ago today, July 20<sup>th</sup>, Neil Armstrong took his “small step” that is really a huge leap for humanity. The positive repercussion of his step is about to get much bigger. In this very special 40<sup>th</sup> anniversary of we – the earthlings’ – moon landing, I like to celebrate with several of my observations. And relate my observations and predictions to what role can Taiwan play in the space age.

The advancement in space technology is really breathtaking, [considering the fact that no moon landing had been attempted for several decades already](#) . And ironically, as the world’s great powers (among them China, India, UK, France, Iran, Israel), besides US and Russia, finally obtained the enabling technology and actively pursue space programs as a show of national pride, government financed space programs are going down the path of obsolescence.

[Private space pioneers](#)

are emerging.

[Virgin Galactic](#)

’s \$200,000 sub-orbital trip is commercially ready in about two years. XCOR’s \$95,000 ride is following shortly.

[Bigelow Aerospace](#)

is also selling its commercial space station, which will act as an important outsourcing contractor to NASA (after

[the agency’s 2016 de-orbiting of International Space Station to reduce costs](#)

) and servicing private sector’s R&D efforts.

I was on the record for predicting [\\$100,000 per barrel oil](#) . Whether it will turn out to be true is less relevant than the social and technological repercussions of extremely high oil prices. When, not if, unimaginably high oil price comes to fruition, alternative energy researches – including the fusion nuclear R&D – undoubtedly will intensify. Availability of fusion nuclear energy, then, won’t be far. And fusion energy shall be the great enabling technology for space travel and colonization. I can envision a space “

that CNN’s July 18

[Giant Leap](#)” special report on TV had mentioned that if the entire world were to fully co-operate, in theory, humankind will be able to land on Mars by 2020. An embedded assumption of this theoretical extrapolation seems to be lack of breakthrough in fusion nuclear technology. Imagine how much more progress in space travel once fusion energy is invented!

Which brings me to Peter Drucker. Management guru, Peter Drucker, had made two paradoxical observations more than a decade ago. He pointed out the possibility of most states will eventually go bankrupt or wither away under their welfare costs since most modern states in the world pursue Keynesian deficit spending type of macroeconomic policy. On the other hand, he also observed that despite of calls from many experts and gurus about the end of nation-state, the number of nation-states, or the number of people achieving sovereign independence, since the end of the Second World War is actually increasing. Putting these two observations together, one can see that nation-states will eventually end, paving way to a global village. With the ever increasing number of nation-states, the world, and particularly the geographically large or ethnically diverse nations, will be “fractured” and “splintered.” With the advent of transportation and telecommunication infrastructure, the newly fractured and splintered “small nation-states,” which are naturally quite community-oriented and village-like, can easily interact with each other physically and virtually. As a result, all these small, splintered, and community-like nation-states, though diverse, can also “synchronize” as one big global village. The bankruptcy of welfare states will accelerate the trend toward small nation-states. Such a state’s community-like homogeneity and small size make it more manageable from policy and welfare point of view. Hence, its politicians and residents’ fiscal burden is diminished. Thomas Jefferson’s vision of small government republic may finally be realized through splitting up largest nations around the world.

A world with many small nation-states and emerging giant corporation(s) like a space “Dutch East India Company” with fleets of spaceships and colonies on moon and mars, the global geopolitical and economic ecology shall be altered beyond recognition from today. Even today, [51 of the world’s 100 top economic entities are multi-national firms](#) . [Countries make up the remaining 49](#) . In the Space Age, humanity is likely to witness giant corporations that are so large and powerful that its influence and power is far larger than superpower nation like the United States. Multi-national firms shall give way to “multi-planetary” corporations.

In the age where superpower sovereignty (if any are left) is likely to be less powerful and less influential than the multi-planetary firms, the role that Taiwanese people and policy makers choose to play will have significant influence on both the country’s future generations and the entire humanity as well. Taiwan certainly has the potential to foster a third economic miracle. The first was Taiwan’s industrialization to become an export-driven manufacturing economy in the ‘60’s and the ‘70’s. The information revolution in the Nineties in which the world witnessed [Taiwan Semiconductor Manufacturing Corp.](#) and [United Microelectronics Corp.](#)

to become some of the largest foundry businesses globally. Both Taiwanese economic miracles have a common theme: Taiwan serving as a value-added manufacturer to the world’s multi-national firms. The prevalence of US/Western trained engineers in this island nation exists practically in all sub-disciplines of applied sciences. While the labor costs of Taiwan are higher than that of China and India, the

average quality of Taiwanese engineers and scientists are likely to be higher than that of the BRIC nations. Adding a well-functioning legal and arbitration system to this mix, Taiwan is well placed to be an “emerging” technology value-added manufacturer

. This is likely to be the reason why this island nation was able to create a second economic miracle by jumping on the Nineties’ IT bandwagon, acting as a manufacturing base of Silicon Valley. With the fusion and space travel as the emerging technology in the space age, the Republic of Taiwan should ask for a chance – and deserves a chance – to serve as the value-added manufacturer to the multi-planetary firms.

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