

Moon Privatization

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ABSTRACT

Space has long been regarded as the common heritage of humankind. It is one of the few domains in which the aspirations of scientific progress, national security, economic competition, and international law intersect so directly. In the early decades of the space age, the race for space development was dominated by the former Soviet Union and the United States. The launch of Sputnik, the Apollo program, and the subsequent rivalry between the two superpowers gave outer space a strategic meaning far beyond pure scientific exploration. Yet after the collapse of the Soviet Union in the 1990s, the balance of power shifted dramatically. The United States, with its deep financial resources, advanced technology, and military reach, emerged as the leading power in space activities and gradually acquired a kind of structural monopoly over the direction of space development. This monopoly, however, has not been expressed through formal ownership in the legal sense. International law, especially the 1967 Outer Space Treaty, makes it clear that outer space, including the Moon and other celestial bodies, is not subject to national appropriation. Nevertheless, legal non-appropriation does not eliminate the possibility of practical control. A powerful state can still shape access, infrastructure, standards, and rules in ways that produce a de facto monopoly. In this sense, the privatization of space does not necessarily mean direct legal ownership; rather, it refers to the process by which one actor, through superior resources and technology, captures the benefits of space use more effectively than others. What appears to be open space can, in practice, become an exclusive arena controlled by a small number of advanced powers and commercial interests.

Keywords: Moon privatization, Space Treaty, Celestial Bodies, Private Property Rights on Moon, Space Governance, Resource Extraction, De facto monopoly, Commercialization of moon

Introduction:

The Logic of Space Privatization

Space is often described as a public good because its use is difficult to exclude and not clearly divided into national territories. In principle, anyone may attempt to use it, and no single state is

supposed to claim sovereign ownership over it. But the ideal of universal access is complicated by the reality of inequality. Access to space is not determined only by law; it is determined by launch capacity, technical expertise, industrial infrastructure, and long-term funding. Only a few states and corporations possess these capabilities. As a result, while outer space may remain formally unowned, actual use is concentrated in the hands of a small elite.

This concentration creates the conditions for privatization. Privatization in this context does not simply mean selling space to private companies. It also means transforming space into an economic and strategic domain where access is controlled by investment, intellectual property, licensing, launch rights, and technical standards. In other words, the rules of participation are not neutral. Whoever has the ability to define the rules can determine who enters, who benefits, and who remains excluded. The language of openness may remain intact, but the structure of opportunity becomes increasingly unequal. This is one reason why scholars and policy analysts have warned that allowing ownership-like control in space could intensify inequality and concentrate benefits among already powerful actors.

From the perspective of international political economy, the problem is not only who owns space, but who can operate in it repeatedly and profitably. In many areas of global commerce, early movers often establish dominant positions that later competitors find difficult to challenge. Space is likely to follow the same pattern. Once a state or company has secured launch systems, orbital platforms, lunar infrastructure, or resource extraction capabilities, it can create barriers to entry for others. Over time, the result is not a legally owned space, but a practically enclosed one.

Discussion:

The American Strategy

The United States has understood this logic for decades. Its space policy has often combined scientific goals with military and geopolitical objectives. During the Cold War, the “Star Wars” initiative represented not only a defense strategy, but also a broader attempt to dominate the technological future. Later, programs such as the National Missile Defense system extended this logic by linking space to strategic defense and surveillance. The central concern was not merely protection from attack; it was the preservation of American supremacy in the high frontier of technology and security. This approach reflects a deeper strategic calculation. If space becomes the foundation for communications, navigation, intelligence, missile defense, and future resource extraction, then the state that controls the infrastructure will enjoy enormous geopolitical advantages. The country that establishes launch routes, orbital networks, and legal frameworks first will likely shape the rules for everyone else. The issue is therefore not just space

exploration, but rule-making power. Whoever sets the rules of the game can transform a supposedly common domain into a system that serves national and commercial interests. The United States has also encouraged a growing role for private enterprise in space activities. SpaceX, Blue Origin, and other companies are now major actors in launch services, satellite deployment, and future lunar ambitions. On one hand, this commercialization reduces costs and increases efficiency. On the other hand, it also deepens the privatization of access. Public institutions may remain the formal stewards of space policy, but private companies increasingly control the technical pathways through which space is entered, used, and monetized. This creates a hybrid system in which state power and corporate power reinforce one another [1-10].

The Importance of Shenzhou

China's space achievements have altered this landscape. The success of the Shenzhou program, especially Shenzhou V, demonstrated that China had entered the club of major spacefaring powers. More importantly, it signaled that the exclusive dominance of the United States in the symbolic and strategic realm of human spaceflight was no longer secure. China's progress did not privatize space; rather, it challenged the assumption that one country could indefinitely dominate access to it. In this sense, China's presence in space helped restore the idea that outer space is a shared domain rather than a closed strategic sphere.

This development has broad significance. Once more than one major power possesses credible space capabilities, the political balance changes. The ability to negotiate rules becomes more evenly distributed. No single country can easily impose a unilateral framework on others without resistance. This is especially important because the future of space will likely depend on standards regarding mining, orbital traffic, debris management, safety zones, and resource rights. If those standards are written too early by one dominant power, the result may be an inequitable order that locks others out of future benefits.

The Shenzhou mission also illustrates a wider point: space development is not only about technology, but about legitimacy. A successful national space program shows that the benefits of space exploration need not be monopolized by one nation or one bloc. It demonstrates that participation can be broadened and that the authority to shape space governance can be contested. In that sense, China's achievements do not just represent scientific progress; they represent a geopolitical counterweight to unilateral control.

New Rules and New Power

One of the most important issues in outer space governance is the question of rule-making. In classical political theory, institutions matter because they shape incentives and distribute power. In space, the absence of clear property rights and enforceable territorial boundaries does not

produce neutrality; it produces uncertainty. And uncertainty often benefits the strongest actor. If the international community fails to establish fair and transparent rules, then powerful states and corporations will define them in practice through investment, capability, and precedent.

This is why the creation of new institutions is so important. The challenge is to balance openness with order. Too little regulation may produce chaos, conflict, and wasteful competition. Too much control by a single actor may lead to monopoly and exclusion. A sustainable framework must recognize that space is a global commons, but one that requires governance. In practical terms, this means developing rules on access, liability, mining rights, scientific use, military activity, and environmental protection. It also means ensuring that no single country can unilaterally transform outer space into an extension of its own moon territorial.

Reports about proposed U.S. initiatives such as a Space Patrol or expanded missile-defense-related oversight reflect these tensions. Even when such proposals are framed as security measures, they can have the effect of extending political control into outer space. If all launches or extraterrestrial development require approval from one country's defense authority, then the supposed openness of space becomes conditional and hierarchical. That is why many observers interpret such measures not as neutral regulation, but as an attempt to monopolize the future of space activity.

Space as Future Economy

The economic value of space is also becoming more visible. Satellites now support global communication, weather forecasting, navigation, and defense. Beyond that, the Moon and other celestial bodies may contain resources that are strategically valuable in the long term. Water ice, rare minerals, and support for future energy systems could make lunar development economically significant. Although such possibilities remain partly speculative, they are important enough to shape present policy.

This is where the debate over privatization becomes especially intense. Supporters of property rights argue that clear ownership encourages investment, innovation, and efficient use. They claim that without secure rights, companies and states may hesitate to spend enormous sums on exploration and infrastructure. Critics argue the opposite: that ownership in space would allow rich states and corporations to capture common resources before others can benefit from them, deepening global inequality and undermining the principle of shared access. Both sides agree on one point: the future of space will be economically important. The disagreement is over who should benefit from that value.

A more balanced view recognizes that market incentives may be useful, but they cannot be allowed to override fairness and common benefit. If private enterprise is to play a role in space,

then it should do so under rules that preserve access for the wider international community. Otherwise, the privatization of space will simply reproduce the same unequal patterns seen in other global industries, where the most powerful actors secure the largest gains.

Space and Moon Private Property Rights

Although outer space is still largely open and unclaimed, this window may not remain open for long. As other nations begin exploring the Moon and other celestial bodies, these missions may gradually shift from exploration to competition over resources. Once extraction begins, the process may become self-reinforcing and difficult to reverse. Private property rights in space may therefore emerge sooner than expected, beginning on the Moon, where competition could move from exploration to resource extraction and, eventually, to lunar privatization. These developments could reshape both the global order and the property rights framework governing outer space. In time, contractual arrangements may extend the logic of private property rights beyond Earth.

History Experience

The history of industrial development offers a cautionary experience. During the Industrial Revolution, countries that controlled shipping routes, trade systems, and manufacturing capacity gained disproportionate global influence. Those that missed the opportunity to participate early often found themselves dependent on others. A similar pattern could emerge in space. If a small number of states define the rules, own the infrastructure, and dominate the technology, then later entrants may be forced into subordinate positions.

This is why the present is so critical. Outer space is still relatively open, but that openness will not last forever. As lunar missions expand, commercial activities grow, and resource extraction becomes more technically feasible, the structure of access will harden. Early decisions about law and policy will therefore have long-term consequences. If the global community waits too long, it may discover that space is still formally universal but practically controlled by a few.

The challenge is not to reject development, but to shape it wisely. Humanity should not repeat the mistake of ignoring new frontiers until they are already dominated by others. The opening of space is a historical opportunity. It can either become a shared achievement or a new arena of exclusion. The difference will depend on whether nations act collectively to define fair rules before monopoly takes hold.

Conclusion

We suggest that the privatization of space may not require formal ownership but can emerge

through technological and infrastructural dominance. Outer space is one of the defining frontiers of the modern era. It embodies human aspiration, scientific progress, strategic competition, and economic possibility. Yet it is also vulnerable to domination by those with superior resources and political power. Although international law rejects national appropriation of the Moon and other celestial bodies, practical control can still emerge through technology, infrastructure, and rule-making. This makes the issue of privatization both urgent and complex.

The rise of the United States as the leading space power, the growth of private space companies, and the emergence of other capable actors such as China have all reshaped the global space order. The central question is no longer whether space matters, but who will define its future. If space is treated merely as a new market or strategic domain, it may become another site of inequality and exclusion. If it is governed as a shared human frontier, it can remain a space of cooperation, discovery, and collective benefit. The real task, then, is not to privatize space in the narrow sense of ownership, but to create institutions that prevent monopolization while allowing meaningful development. The future of space should not belong to a single nation, a single company, or a single power bloc. It should be governed in a way that reflects the common interests of humanity. Hope our research paper can contribute to the society and the mankind.

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