Adopting a Universal Tax Regime for Outer Space Exploration

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July 31, 2020

Introduction

For decades, humans have been drawn to space exploration for scientific, security and commercial purposes. Private companies such as SpaceX and Blue Origin have undertaken daring projects to commercialize outer space, including tourism, mining space resources and establishing installations and even extra-terrestrial habitats. The allocation of the benefits from outer space is a highly disputed issue, from the early days of space exploration to date. We believe that the issue of taxation, hardly discussed so far, is vital when considering the proper distribution of space benefits (Prichard 2019).

Space for the benefit of all countries

The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (The

Outer Space Treaty) regulates activities in space, banning weapons of mass destruction and prevents states from claims to celestial bodies or exclusivity. Article II of the Outer Space Treaty provides that, outer space, including the moon and other celestial bodies, may not be subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means. Many claim that outer space is global commons or even the common heritage of mankind. Thus, no state should be denied from the resources and benefits of the outer space. While such claims are disputed and even suffer from epistemological deficiencies (Tepper 2019), it is widely agreed that the exploration and use of outer space should be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development (see, Article I of the Outer Space Treaty). It is likewise widely agreed that States which conducted efforts towards the exploration and use of outer space have a special interest in the deriving benefits.[1] These principles raise issues of inclusive economic development, environmental sustainability and peace and security for all nations. A discussion of these issues will also contribute to similar issues that arise in the context of other areas that are beyond national jurisdiction - the High Sea, the Atmosphere, and Antarctica.

These issues are a matter of global affairs and should be addressed with a proper global governance structure. In the absence of such global governance structure, there is the fear of 'the tragedy of commons' (TOC)- individual actions that go against the collective good of all users (Hardin 1968).

A universal tax regime for a universal participation in the cost and benefits of space exploration

Given that a few states, commercial companies and even private investors invest billions of dollars in research and development of space exploration and utilization and even life in outer space, other states who seek to benefit from such investments could be expected to contribute to the cost of such investments. In the absence of such cost arrangement, one fears the tragedy of commons by pioneering states and private investors.

One way of apportioning the cost among states is through an establishment of

a universal tax regime where countries are charged a percentage of their gross domestic product (GDP) as a cost for potentially benefitting from space exploration activities. Taxation has always been a means by which companies and individuals contribute to the governance and functioning of societies. In the context of outer space discussed here, countries become taxpayers and are subjected to a universal tax regime. Such a universal tax regime will see countries surrendering their fiscal sovereignty to a supranational authority and must abide by the decisions and standards set by the supranational authority. Surrounding one's fiscal sovereignty, though always faced with resistance by countries and greatly controversial, has become ever acceptable in recent times given the activities of the OECD and other supranational bodies to harmonize countries' tax systems (Ring 2009, Musgrave 2001 and Christians 2009).

Such a global tax regime is not new to countries, tax experts and supranational bodies (Bird 2015). At the end of the first world war, countries, facing threats of double taxation to the income and profits of their home-grown companies doing business abroad, came under the auspices of the International Chambers of Commerce, and subsequently, the League of Nations, to set a standard for global taxation (Picciotto 2017). The outcome of the 1920s meetings resulted in both the UN's and OECD's model tax treaties, which have become "soft laws" for many countries, limiting the exercise of fiscal sovereignty by countries (Picciotto 2018 and Ezenagu 2019).

Exploration of the outer space calls for similar universal approach as it creates a new social contract, with countries as the governed and a sovereign to be jointly determined by all the countries of the world, notwithstanding their willingness (Besley 2019, Frecknall-Hughes 2014). This is especially so as the benefits of outer space exploration are likely to benefit all countries.

However, agreeing on the sovereign, in this context, is essential to preventing a tragedy of commons and build the necessary trust for governance. Hence, it is imperative that the sovereign is one with the reputation of being inclusive, fair and impartial. This is more important given the criticism of the OECD in its handling of the base erosion and profit shifting (BEPS) process as not being inclusive and pursuing the agenda of Global North countries at the detriment of

Global South countries (Fung 2017, Financial Transparency Coalition 2015, Oguttu 2018, Ndubai 2019). This has led to public outcry for an alternate body in the management of the global tax reform process. For the same reason, the European Union (EU) and other regional bodies will be disqualified from assuming the role of a sovereign, though the EU is well-positioned to play a key role in space matters through its European Space Agency (ESA).

Established through a charter in 1945, the United Nations maintains its position as promoter of globalism and guardian of an inclusive, tolerant and cooperative world. In the tax space, countries and experts have called for the establishment of a UN-headed international tax agency to replace the OECD-dominated system, arguing that the UN remains the truly inclusive and impartial body. According to Eurodad, the UN is the only global institution where all governments participate as equals, and therefore a place to achieve a global commitment to action. Thus, nominating the UN as the sole sovereign for the exploration of activities in outer space appeals to reason and likely to be supported by most countries. Assuming that the position is acceptable, the next determination is the tax regime to be adopted.

A good tax regime should be equitable, certain, convenient and efficient. It is in light of this that we discuss what a universal tax regime for outer space exploration should be.

An equitable tax system is one that factors the economic strength of each country. Countries should be levied according to their ability to pay. A viable option will be a flat rate on the GDP of countries. This approach ensures that countries contribute to the exploration of Outer Space, proportional to their economic strength. Also, such an approach is progressive as countries contribute more as their economies improve and less as their economies decline. This equitable approach guarantees that Global South countries can lay stake to the outer space at a bearable cost.

In terms of certainty, a flat rate tax on the GDP of countries provides for a predictable, verifiable approach, which provides an opportunity for adjustment when need be. Also, given the availability of data on the GDP of countries, it becomes convenient to tax countries. The difficulties of ascertaining the tax

base, the taxable person and the remitting authority are not present as these factors are easily ascertainable. Finally, given the inter-dependence of countries, especially in the financial sector, it is expected that the cost of collecting the taxes from countries will be low. This efficiency of collection supported strongly by the maintenance of offshore accounts by countries, in addition to existing and future financial relationships with international financial institutions should lower the cost of remitting and collecting the taxes. However, we fear that reaching an agreement on channels of remittance may present greater difficulty in the design and implementation of the proposed universal tax regime, given the desires of countries to freely apportion financial assets as wanted (Mutava 2019).

Another option that may be considered is a voluntary arrangement, by which states may choose to participate in the investment in space exploration and utilization and by that acquire a special interest in the deriving benefits. This option of a voluntary tax regime may alleviate the collective action problem and provide a feasible and efficient governance structure. Decentralized governance structures were proven to be efficient, as demonstrated in Elinor Ostrom's Nobel winning study (Beyond Market and States, Prize Lecture). Such a regime may open the way for more states to participate in the benefits from space while addressing the legitimate interest of those states and private actors who currently bear alone the investments in those activities. However, it is important to state here that a voluntary tax regime for outer space exploration may raise questions of inter-nation and inter-taxpayer equities, where countries are set to benefit from Outer Space exploration, notwithstanding contributions to its exploration (Li 2019, Kaufman 2001).

Conclusion

The long debate on the distribution of space benefits requires a renewed focus on the the investment and taxation issues raised in this paper (Moore 2015). The study and development of the above options may lead the way for a more informed discourse and, ultimately, an equitable regime.

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[1] The Moon Agreement represents a distributive justice-oriented instrument and it nevertheless recognizes this interest. Article 11(7)(d) of the Agreement

provides: “An equitable sharing by all States Parties in the benefits derived from those resources, whereby the interests and needs of the developing countries, as well as the efforts of those countries which have contributed either directly or indirectly to the exploration of the moon, shall be given special consideration” (Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, 1363 UNTS 21; 18 ILM 1434 (1979); 18 UST 2410 (the **Moon Agreement**). Even though this Agreement is not widely endorsed, it demonstrates that even a distributive justice-oriented arrangement recognizes such an interest.

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