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#### Counterplan: States should create and adopt a new set of flexible regulations concerning responsible space colonization through the UN Office of Outer Space Affairs, focused on issues of governance of space colonies and potential existential risks, including but not limited to revising treaties to allow for private outer space appropriation with taxation paid to the United Nations to be used for redistributive efforts.

#### And, Subsidies for appropriation of space by private entities are unjust.

#### Current government issues to resolve colony governance are insufficient – as is the OST – but new flexible regulations solve

Kovic 21 Kovic, Marko. PhD Communication and Media Studies, University of Zurich. "Risks of space colonization." Futures 126 (2021): 102638. [Quality Control]

Overall, it seems fair to say that space governance is in shambles today. Creating any kind of meaningful space colonization-related governance in such a policy and policymaking environment is difficult, to say the least. We should not expect governance work on space colonization be initiated by gov-ernmental actors any time soon, so the proverbial ball is, at the time being,probably in the academic court. If we were to draft a space colonization gov-ernance framework that would be effective at mitigating colonization-relatedrisks and maximize the positive future value, what are some factors or aspects that need to be taken into account? First, we should consider a break with the past. Existing space gover-nance based on the Outer Space Treaty has barely seen any progress over the decades, and the Outer Space Treaty does not seem geared towards questions of space colonization risks. Starting with a philosophical clean slate that is divorced from the realities of the 1960-ies is probably the easiest way forward. Second, given the uncertainty of the long-term future, a governance frame-work for space colonization should be conceptualized as provisional and mal-leable. Major principles of safe space colonization might very well be uni-versal, but the empirical realities on the ground might change in the nottoo distant future. This means that, on one hand, our understanding of space colonization-related risks will almost certainly change over time. The practical reality of policymaking on Earth, on the other hand, will probably also undergo significant changes in the future. The current political order on Earth has been, roughly speaking, stable since the Second World War, and it seems plausible to expect the global political order to roughly continue along those lines for several more decades. This means that any governance frame-work that is geared towards today’s workings of global policymaking should daim to achieve tangible results as soon as possible, before the world changesso much that the governance framework and its bodies simply become obso-lete. The philosophical timescale of such a governance project thousands tomillions of years, but the practical timescale for achieving results should be decades.

#### Those specific reforms are necessary to encourage space colonization and humanitarian economics– but avoids all terrestrial downsides

Iliopoulos and Esteban 20 Iliopoulos, Nikolaos [University of Tokyo], and Miguel Esteban [Waseda University]. "Sustainable space exploration and its relevance to the privatization of space ventures." Acta Astronautica 167 (2020): 85-92. [Quality Control]

The envisioned legal regime to encourage private firms to undertake the high risk and high cost involved in activities of space exploration would have to explicitly recognize extra-terrestrial property claims of individuals and corporations that meet specified conditions. As such, based on the conclusions made through this paper ,it is considered that with the right negotiation terms, the current treaties can be revised so as to become steppingstones for the advancement of space exploration that could potentially bring forth significant changes to the environment surrounding planet Earth. Finally, one way that such privatization efforts could be seen to benefit of mankind as a whole is that any taxation resulting from it should be paid directly to the United Nations, or that at least some fraction of the profits should fund this organization.

#### Redistributive economic policy by international institutions solves income inequality

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Is rising inequality an inevitable consequence of today’s technology-driven economic transformations—and globalization? The answer is no. Policies have been slow to respond to the challenges of change. With better, more responsive policies, more inclusive economic outcomes are possible.

The first order of business is to contain the pandemic and address its immediate health and economic consequences that disproportionately hurt the less well-off. Countries have responded in varying degrees by taking preventive measures against the pandemic, shoring up health systems, strengthening safety nets, and implementing policies to cushion the impact on jobs and economic activity. The more successful these actions are in protecting the vulnerable and supporting economic recovery, the less will be the direct impact of the crisis in worsening existing inequalities.

Beyond these immediate actions is a longer-term agenda to address the underlying drivers of the secular rise in inequality. Policies to reduce inequality are often seen narrowly in terms of redistribution―tax and transfer policies. This is of course an important element, especially given the erosion of the state’s redistributive role. In particular, systems for taxing income and wealth should be bolstered in light of the new distributional dynamics. But there is a much broader policy agenda of “predistribution” that can make the growth process itself more inclusive.[7]

#### The second plank ban subsidies which solves the subsidies card on case and generates uniqueness for the cap good turns. Status quo Space-ex is not capitalist enough because it’s been distorted by government financial interventions.

## 2

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#### Private appropriation is key to kickstart space-exploration—only private property rights incentivize efficient development

Reinstein, 99 -- JD, Associate, Kirkland & Ellis

[Ezra J., Owning Outer Space, 20 Nw. J. Int'l L. & Bus. 59, 1999, <https://scholarlycommons.law.northwestern.edu/njilb/vol20/iss1/7>, accessed 7-10-21]

IV. PROPOSAL: APPROPRJATIVE OWNERSHIP OF REAL PROPERTY

The ideal legal regime should create maximum incentives for efficient development of space, in recognition of the fact that the potential wealth in space will not drop into our laps.

But as much as commercial development of space would benefit all mankind, it is just as important that the development be controlled. We must learn from mistakes of the past. Any legal regime should guard against inefficient exploitation, waste, and environmental despoliation. Furthermore, space should not become the next Wild West. Destruction and sabotage must be discouraged.

My proposal, which will be developed throughout this essay, is to maximize incentives by giving developers comprehensive property rights. Humanity's welfare demands that we alter the current law to allow real estate ownership -- not just usufructary rights -- to those who would best develop land in space.7 The potential wealth of outer space, in the form of minerals, energy, living space, etc., doesn't do us any good unless we are able to harness it. And, as Jeffrey Kargel, a planetary scientist at the U.S. Geological Survey, has written, "if you want to cross the bridge into the 21st century of space [development], then space must pay its way and give private investors a handsome early return on investment.' 75

What do we mean by "ownership?" Property is commonly recognized as being a "bundle" of disparate rights regulating relations between people with respect to things. The bundle of rights can be unpacked. It includes: the right to possess, the right to use, the right to exclude, and the right to transfer.76 These rights are not on/off affairs; they can each be limited or expanded along a continuum. I use the term "ownership" to describe a state of affairs wherein a person has all four of these rights to their maximum extent with respect to a piece of property.

Current space law ostensibly respects the right to use real property in space and to collect and own its fruits. Historically, this has been known as the usufructary right.77 But the current law doesn't even provide this right freely; it seems to be limited by several clauses of the Outer Space Treaty (e.g. use "for the benefit...of all countries").78

Nor does the OST recognize the right to exclude, as is evidenced by article I's prohibition on appropriating what it recognizes as being "the province of all mankind," the guarantee in the same article of "free access to all areas of celestial bodies," and article XII's requirement that "[a]ll stations [and] installations...shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity." Likewise, as illuminated in the SpaceCorp hypothetical, the prohibition on appropriation seems to negate a long-term right of possession. Without the right to exclude or pos- sess, of course, a legal system need not provide the right to transfer real estate. Anyone else may simply help themselves. In sum, the OST demands that "[n]o State can obtain such possessions as will entitle it to claim ownership or sovereignty over them... There can be no exclusive appro- priation of [celestial bodies] and any part thereof as a result of their 'use'..." 79 Under current law, space cannot be owned.

A new law of space real property must enliven and support all four rights that comprise ownership.

First, there must be a right to permanent possession: barring some ex- traordinary circumstance or the enforcement of a judgment, no one should face dispossession of his real estate on Earth or in space. This rule supplies a needed measure of certainty, in two ways: (1) it's a definite rule and almost any such rule is better than the fogginess of the current regime, and (2) it moves the presumption away from public conversion of private lands, and therefore makes it clear that the OST's statement, that space development must be "for the benefit...of all countries," is a moral exhortation and not a loophole through which the United Nations can dispossess a private party of his site.

Second, I suggest that the right to use be unlimited, except by environmental regulations and the developer's domestic law. This rule is a recognition that humanity's fortune is best enhanced not by a centralized command-and-control system, but by private development making market driven decisions.

Like the right to perpetual possession, the third right -- the right to exclude -- creates the certainty vital to an optimal investment environment. As noted, the current system precludes such a right, for it would certainly run afoul of the prohibition on appropriation and the requirement that there be "free access to all areas of celestial bodies. 80 Without the right to exclude, however, pioneer investors would be at the mercy of free riders. After investing countless hours in (or paying someone else for) a survey of the real estate, after setting up a mining colony at great expense, the pioneer would have no recourse if another party took advantage of the pioneer's research and began a copycat mine on the very same site. So the right to exclude must form a part of the new legal system.

Finally, the right to transfer must accompany the rights of exclusion and perpetual possession. The Coase Theorem of economics tells us that, in a legal environment supportive of bargaining, property rights will be allocated to the party who values them most, i.e. the most efficient user of the property.81 When transaction costs are high enough to prevent bargaining, property rights only end up in the most productively efficient hands if the law happens to initially assign them that way.82 Without any right to transfer, transaction costs are infinite, and no bargaining can occur. In order to avoid the inevitably inefficient solutions of a command-and-control regime of property usage, the right to transfer -- alienability -- must be a part of our system.83

All these rights together -- possession, use, exclusion, and transfer -- make up ownership. And it is ownership that the modem law of space real property needs.

#### Ownership both reduces wasteful use and allows firms to internalize its positive externalities

Reinstein, 99 -- JD, Associate, Kirkland & Ellis

[Ezra J., Owning Outer Space, 20 Nw. J. Int'l L. & Bus. 59, 1999, <https://scholarlycommons.law.northwestern.edu/njilb/vol20/iss1/7>, accessed 7-10-21]

A. Three Arguments for Ownership

Space is an international zone, and so is, in a sense, the heritage of all humanity. We must not forget, when considering the governance of outer space, that the rules should first and foremost attempt to maximize the benefit to all humankind. So, ideally, celestial bodies should be put to the uses most beneficial to humanity. This is guaranteed by a system that puts land in the hands of those for whom the territory is most profitable. It is a matter of elementary economic theory. Whoever can use a site to humanity's greatest benefit will be the one who can profit most from the site; whoever can profit most from the site will be the one for whom the site is most valuable. Thus the person who can put a site to humanity's greatest benefit will be the one willing to spend the most to own the site.84 This is the bargain theory of economics, and will form the basis for all that follows.

1. Ownership will reduce wasteful use

Ownership, and the attendant right of alienability, would promote the efficient use of space resources.

Again, a hypothetical will help illustrate: a Martian site has been identified as being rich with manganese and silicon. Manganese Mining Co. ("M.M.Co."), interested in the manganese and the manganese alone, decides to send up a team of miners. They begin operations, develop shipping routes, and build a sustainable mining colony.

Without the right of ownership, M.M.Co. has no reason not to blast through and obliterate silicon deposits in order to more quickly uncover the manganese. Furthermore, once the manganese is depleted, there is no reason for them to leave the colony's structures and life support systems intact.

If, on the other hand, space law grants ownership to M.M.Co., then M.M.Co. has incentive to act with greater over-all efficiency. There is incentive to preserve the silicon deposits, because silicon will increase the amount for which Silicon Mining Co. ("S.M.Co.") is willing to purchase the site from M.M.Co. Along similar lines, there is also incentive to preserve the shipping routes and the colony structures and life support systems.

So M.M.Co. receives the benefit of the manganese deposits, and is further rewarded for developing the mining colony and transportation routes, and for preserving the silicon deposits and the colony itself when it sells the site. Because M.M.Co. owned the site, there would be reason for it to prospect for silicon and advertise its presence to interested parties, even though M.M.Co. did not itself have an interest in mining the silicon. Thus S.M.Co. receives the benefit of M.M.Co.'s mineralogical research. S.M.Co. also need not waste resources setting up new routes, mines, and colonies; it could purchase them intact.

Under such a system, people are better rewarded for pioneering efforts and pioneers have incentive to research and preserve that which they find and build. The second-comers receive the benefit of the pioneers' efforts; they need not reinvent the wheel. And, in the end, people on Earth receive the benefit of plentiful manganese and silicon, instead of, as would result in a non-ownership system, just manganese.

2. The right to transfer (alienability) would compensate for positive externalities, thereby creating added incentive to productively develop space

Another advantage of an ownership regime over a use regime can be found in the following hypothetical situation. Suppose the bark of a tree found only deep in the Amazon has cancer-curing properties. Whoever first attempts to harvest the tree bark would be required to build a road to the grove, at tremendous expense. All subsequent pharmaceutical harvesters would have use of the road and consequently be able to turn a much larger profit on the harvested bark. The problem arises, then, that no company would want to make the costly first trek.

What problem does this situation present? Because, since no company would rationally sacrifice itself in the quest for bark, the rest of us will have to do without this life-saving cure. The cause of the problem is an uncompensated positive externality. The right of use does not, by itself, reward the first company for the positive externality it produces, i.e., the road.

One way of rewarding that first company's pioneering effort would be to grant it ownership of the grove. So if company A made the first trek to the grove, the right of ownership would let them decide whether to utilize their exclusive rights to the trees in perpetuity, or to sell the grove to company B for a price that accounts for the expense of building the road. Either way, ownership allows company A to internalize the positive externality.

The same problem exists in space development. The early developers will encounter huge costs, many of which will produce positive externalities (e.g. improved site assaying techniques). In space, as in the jungle, ownership rights can help a company internalize its positive external effects.

#### Our impact is trillions of future lives—and even if they win it’s inevitable long-term, fast timeframe space col comes first

Bostrom 3 (Nick, Prof of Phil @ Oxford + Existential Risk Specialist, "Astronomical Waste: The Opportunity Cost of Delayed Technological Development," http://www.nickbostrom.com/astronomical/waste.html)

ABSTRACT. With very advanced technology, a very large population of people living happy lives could be sustained in the accessible region of the universe. For every year that development of such technologies and colonization of the universe is delayed, there is therefore an opportunity cost: a potential good, lives worth living, is not being realized. Given some plausible assumptions, this cost is extremely large. However, the lesson for utilitarians is not that we ought to maximize the pace of technological development, but rather that we ought to maximize its safety, i.e. the probability that colonization will eventually occur. I. THE RATE OF LOSS OF POTENTIAL LIVES As I write these words, suns are illuminating and heating empty rooms, unused energy is being flushed down black holes, and our great common endowment of negentropy is being irreversibly degraded into entropy on a cosmic scale. These are resources that an advanced civilization could have used to create value-structures, such as sentient beings living worthwhile lives. The rate of this loss boggles the mind. One recent paper speculates, using loose theoretical considerations based on the rate of increase of entropy, that the loss of potential human lives in our own galactic supercluster is at least ~10^46 per century of delayed colonization.[1] This estimate assumes that all the lost entropy could have been used for productive purposes, although no currently known technological mechanisms are even remotely capable of doing that. Since the estimate is meant to be a lower bound, this radically unconservative assumption is undesirable. We can, however, get a lower bound more straightforwardly by simply counting the number or stars in our galactic supercluster and multiplying this number with the amount of computing power that the resources of each star could be used to generate using technologies for whose feasibility a strong case has already been made. We can then divide this total with the estimated amount of computing power needed to simulate one human life. As a rough approximation, let us say the Virgo Supercluster contains 10^13 stars. One estimate of the computing power extractable from a star and with an associated planet-sized computational structure, using advanced molecular nanotechnology[2], is 10^42 operations per second.[3] A typical estimate of the human brain’s processing power is roughly 10^17 operations per second or less.[4] Not much more seems to be needed to simulate the relevant parts of the environment in sufficient detail to enable the simulated minds to have experiences indistinguishable from typical current human experiences.[5] Given these estimates, it follows that the potential for approximately 10^38 human lives is lost every century that colonization of our local supercluster is delayed; or equivalently, about 10^29 potential human lives per second. While this estimate is conservative in that it assumes only computational mechanisms whose implementation has been at least outlined in the literature, it is useful to have an even more conservative estimate that does not assume a non-biological instantiation of the potential persons. Suppose that about 10^10 biological humans could be sustained around an average star. Then the Virgo Supercluster could contain 10^23 biological humans. This corresponds to a loss of potential equal to about 10^14 potential human lives per second of delayed colonization. What matters for present purposes is not the exact numbers but the fact that they are huge. Even with the most conservative estimate, assuming a biological implementation of all persons, the potential for one hundred trillion potential human beings is lost for every second of postponement of colonization of our supercluster.[6] II. THE OPPORTUNITY COST OF DELAYED COLONIZATION From a utilitarian perspective, this huge loss of potential human lives constitutes a correspondingly huge loss of potential value. I am assuming here that the human lives that could have been created would have been worthwhile ones. Since it is commonly supposed that even current human lives are typically worthwhile, this is a weak assumption. Any civilization advanced enough to colonize the local supercluster would likely also have the ability to establish at least the minimally favorable conditions required for future lives to be worth living. The effect on total value, then, seems greater for actions that accelerate technological development than for practically any other possible action. Advancing technology (or its enabling factors, such as economic productivity) even by such a tiny amount that it leads to colonization of the local supercluster just one second earlier than would otherwise have happened amounts to bringing about more than 10^29 human lives (or 10^14 human lives if we use the most conservative lower bound) that would not otherwise have existed. Few other philanthropic causes could hope to match that level of utilitarian payoff.

#### Space exploration independently solves extinction—it’s try or die to get off the rock

Austen 11 (Ben, citing the Lifeboat Foundation and the Alliance to Rescue Civilization, contributing editor of Harper’s Magazine, “After Earth: Why, Where, How, and When We Might Leave Our Home Planet,” popular science, http://www.popsci.com/science/article/2011-02/after-earth-why-where-how-and-when-we-might-leave-our-home-planet?page=3)

Earth won’t always be fit for occupation. We know that in two billion years or so, an expanding sun will boil away our oceans, leav[e]ing our home in the universe uninhabitable—unless, that is, we haven’t already been wiped out by the Andromeda galaxy, which is on a multibillion-year collision course with our Milky Way. Moreover, at least a third of the thousand mile-wide asteroids that hurtle across our orbital path will eventually crash into us, at a rate of about one every 300,000 years. Why? Indeed, in 1989 a far smaller asteroid, the impact of which would still have been equivalent in force to 1,000 nuclear bombs, crossed our orbit just six hours after Earth had passed. A recent report by the Lifeboat Foundation, whose hundreds of researchers track a dozen different existential risks to humanity, likens that one-in-300,000 chance of a catastrophic strike to a game of Russian roulette: “If we keep pulling the trigger long enough we’ll blow our head off, and there’s no guarantee it won’t be the next pull.” Many of the threats that might lead us to consider off-Earth living arrangements are actually man-made, and not necessarily in the distant future. The amount we consume each year already far outstrips what our planet can sustain, and the World Wildlife Fund estimates that by 2030 we will be consuming two planets’ worth of natural resources annually. The Center for Research on the Epidemiology of Disasters, an international humanitarian organization, reports that the onslaught of droughts, earthquakes, epic rains and floods over the past decade is triple the number from the 1980s and nearly 54 times that of 1901, when this data was first collected. Some scenarios have climate change leading to severe water shortages, the submersion of coastal areas, and widespread famine. Additionally, the world could end by way of deadly pathogen, nuclear war or, as the Lifeboat Foundation warns, the “misuse of increasingly powerful technologies.” Given the risks humans pose to the planet, we might also someday leave Earth simply to conserve it, with our planet becoming a kind of nature sanctuary that we visit now and again, as we might Yosemite. None of the threats we face are especially far-fetched. Climate change is already a major factor in human affairs, for instance, and our planet has undergone at least one previous mass extinction as a result of asteroid impact. “The dinosaurs died out because they were too stupid to build an adequate spacefaring civilization,” says Tihamer Toth-Fejel, a research engineer at the Advanced Information Systems division of defense contractor General Dynamics and one of 85 members of the Lifeboat Foundation’s space-settlement board. “So far, the difference between us and them is barely measurable.” The Alliance to Rescue Civilization, a project started by New York University chemist Robert Shapiro, contends that the inevitability of any of several cataclysmic events means that we must prepare a copy of our civilization and move it into outer space and out of harm’s way—a backup of our cultural achievements and traditions. In 2005, then–NASA administrator Michael Griffin described the aims of the national space program in similar terms. “If we humans want to survive for hundreds of thousands or millions of years, we must ultimately populate other planets,” he said. “One day, I don’t know when that day is, but there will be more human beings who live off the Earth than on it.