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**Abstract:** Those advocating reform to increase competition among governments are caught in a catch-22: they recognize that competition is needed to improve rules but seek to increase competition by changing the rules. Reforms emerge from the strategic interaction of political actors, and the only way to robustly alter the institutional equilibrium is to alter the non-institutional factors which structure the game. Developing the technology to enable seasteading – the establishment of permanent, autonomous communities on the ocean – strikes at the root of uncompetitive government and sidesteps the problem of reform.

## I. INTRODUCTION

A number of political economists and activists have seen the potential to improve government performance by subjecting governments to competition for mobile residents. Giving citizens greater choice of governance providers would allow for the sorting of individuals into jurisdictions by demand for public goods (Oates, 1972; Tiebout, 1956) and social policy preference (Francis & Francis, 2011; Janeba, 2006; King, 2005), reduce ethnic conflict (Kyriacou 2006, Osborne, 2000, pp. 518-521), force governors to give citizens the policies and public goods they want at reasonable tax rates (Brennan & Buchanan, 1980; Sinn, 1992), and enable innovation through decentralized experimentation (P. Friedman & Taylor, 2011; Vanberg & Kerber, 1994; Vihanto, 1992; Wohlgemuth, 2008).

A number of reforms which would increase competition have been suggested, including the devolution of power to lower levels of government (Buchanan, 1995; Osterfeld, 1989; Tullock, 1994), the creation of private residential communities with greater autonomy (Foldvary, 1994; MacCallum, 1970; Nelson, 2005), the unbundling of governance services to allow greater choice and competition (Eichenberger & Frey, 2002; Frey & Eichenberger, 1996, 1999; Kling, 2009, chap. 3), and the creation of ‘free zones’ (Strong, 2009; Strong & Himer, 2009) or ‘charter cities’ (Romer, 2010) on unoccupied land within existing jurisdictions. The problem with these proposals is that they all rely on the reform of existing institutions or the consent of existing governments. In a competitive market for governance, we should expect governments to make such concessions; in the current uncompetitive system, we should not. This produces a classic catch-22 situation: we need to increase competition in order to improve policy, but we also need to improve policy in order to increase competition.

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Escaping the current monopolistic equilibrium requires us to focus on the non-institutional determinants of competition: the geographic and technological environment in which governments are embedded. To robustly improve governance, we need to intervene at this bare-metal layer rather than attempt to directly reform existing policies or institutions. We propose an unorthodox form of intervention which we argue would achieve this goal – developing the technology to create permanent, autonomous settlements on the ocean. Settling the ocean – seasteading – would open a new frontier. The freedom of international waters allows for the introduction of new competitors into the governance market without reforming the old system, and the fluidity of the ocean – which allows large objects to be moved cheaply – would make for a more competitive market in the long run.

In section 2 we develop a three-level understanding of politics, with each level being shaped by the one above. We draw out the implications for policy and constitutional reform, arguing that the most effective and robust point of intervention is at the environmental level. Section 3 outlines how seasteading would work, describes the challenges involved, and argues that these are not insurmountable. Section 4 concludes.

## II. RULES AS EMERGENT PHENOMENA

Politics is a spontaneous order, with lower-level outcomes shaped by higher-level incentives. Public choice theorists have recognized that policy choice is structured by constitutional rules but have largely ignored the higher-level incentives which shape constitutional choice. Advocates of competitive government have recognized the incentives which shape institutional development but have paid insufficient attention to the non-institutional factors which limit competition. In this section, we consider politics as existing at three levels – rules, meta-rules, and the competitive environment – with each level being influenced by those above. This understanding of politics suggests that robust improvements in policy are most likely to come from changes in the competitive environment.

### 1. *Endogenous Constitutions and the Catch-22 of Reform*

By conceptually separating the constitutional level from that of workaday politics, public choice theory has shown that policy outcomes are not centrally directed by a benevolent despot. Rather, rules emerge from the interaction of individuals acting under constraints imposed at the constitutional level, just as prices emerge from the interaction of buyers and sellers in the market. Economists' policy advice, even when unambiguously and demonstrably desirable, often falls upon deaf ears, since the incentives of the system do not favor their proposed policies (Blankart, 1981; Frey, 1979; Heine & Mause, 2004; Hettich & Winer, 1993; Tabarrok, 1995; Tollison & Wagner, 1991). Thus, an understanding of public choice theory makes economics 'a discipline which both conceptualizes improvements in politics but simultaneously

shows why such improvements must remain unrealised' (Wegner, 2004, pp. 339-340).<sup>1</sup> Constitutionalists such as Buchanan (1975, 1976; see also Brennan & Buchanan 1985; Kirchgässner 1994) therefore see the constitutional level of choice as a more fertile site of intervention than the policy level. While lobbying, campaigning, or proselytizing might alter policy outcomes at the margin, changing constitutional meta-rules more effectively and robustly shifts the equilibrium.

While constitutionalists are correct that intervention at the constitutional level provides greater leverage than at the policy level, they generally neglect the very serious problems which remain at the constitutional level. Constitutional rules are not perfectly enforceable (Farrant, 2004; de Jasay, 1989), and their supposed efficiency may be reduced by the influence of special interests (R. McGuire, 1988; R. McGuire & Ohsfeldt, 1986, 1989; Parham, 2010) and expressive political behaviour (Brennan & Hamlin, 2002; Crampton & Farrant, 2004). Like policies, constitutions emerge from the interaction of individuals acting under constraints.

Public choice theory tells us that we have bad rules because we have bad meta-rules. This merely shifts the question one level higher, however: why do we have bad meta-rules? This question has received much less attention from public choice theorists.<sup>2</sup> Constitutionalists generally fail to extend their dispassionate critique of policy choice to the constitutional level (Farrant, 2004), arguing that current decision-making rules tend to produce bad policy outcomes yet expecting the same flawed institutions to produce good constitutional rules (Witt, 1992).

Addressing the asymmetric treatment of the policy and constitutional levels of choice requires a consideration of the incentives which structure constitutional choice, including the existing rules of constitutional change and the environment in which political actors are embedded. An important aspect of the meta-constitutional environment is the level of jurisdictional competition. If citizens have a choice of governance providers, they will tend to move to those which best meet their needs. This would allow people with similar policy preferences to group together, constrain governors, and encourage innovation; improving policy both directly and indirectly by improving constitutional rules.<sup>3</sup>

Those who favor jurisdictional competition most often see reform as the appropriate means to increase competition. In doing so, they face the same problem as other constitutional reformers: they are relying on deeply flawed institutions to correct themselves. Constitutional rules in general are likely to be quite stable since, among other reasons, they 'often exclude from political power those with most cause to

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<sup>1</sup> See Mueller (2003) for an extensive and rigorous survey of public choice theory. The notion that policy outcomes are emergent is generally implicit in public choice theory but is made explicit by Wagner (1993).

<sup>2</sup> A notable exception is the work of Lowenberg and Yu (Lowenberg, 1992; Lowenberg & Yu, 1990, 1992), which considers the environment in which constitutions are made and concludes that exit is crucial in ensuring that good meta-rules are chosen. Competition acts as a substitute for the insufficiently-thick veil of uncertainty.

<sup>3</sup> The case for competition among governments has been made sufficiently well elsewhere, and we will not rehearse that argument here. See generally Sinn (1992), Breton (1996), and Frey and Eichenberger (1996). On specific benefits see the sources cited in the introduction above.

change them' (Dunleavy & Margetts, 2001, p. 295; see also Congleton 2004; P. Friedman & Taylor 2011; Mokyr 1994).

This makes institutional reform to encourage competition among governments particularly unlikely, since this would involve governments acting to reduce their own market power. Rulers will enact reforms which reduce their own power when forced to do so by circumstance, but will not cede power without reason. (Acemoglu & Robinson, 2000; Engerman & Sokoloff, 2005; North & Weingast, 1989).<sup>4</sup> Electoral competition could potentially force rulers to give cede power in order to seek office (Frey 1970; Wittman, 1995). While we cannot review the arguments against such democratic efficiency here,<sup>5</sup> we point out that the argument for jurisdictional competition presupposes that electoral competition is not up to the task of disciplining governors. That is, the case for this desirable institutional reform is based on the idea that many desirable institutional reforms are unlikely given current conditions. If we could generally expect current governments to make wise decisions, we would not need them to change their decision-making procedures. Thus, institutional change is likely if and only if it is not required.<sup>6</sup>

There are good theoretical reasons for thinking that political power will centralize and jurisdictional competition decrease over time (Blankart, 2000; Eichenberger, 1994; Vaubel, 1994), and the historical record for the most part confirms this conclusion (Oates, 1999, p. 1145; Sorens, 2009; Tilly, 1990, pp. 45-47; Vaubel, 1994, pp. 151-153). The size of nations has been increasing, subnational units in many federal systems have been becoming less important, and tax harmonization policies at the international level are essentially price-fixing arrangements (Edwards & Mitchell, 2008). The incentives of the current political ecosystem evidently do not favor the significant decentralization of power or the promotion of competition, and any attempt at decentralization through reform must clash with those incentives. A more competitive market for governance might be the most promising way of improving the range and quality of rules, but reforming existing jurisdictions from within is an unlikely way of bringing about such a situation.

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<sup>4</sup> Strong (2009) suggests that dictators could be given equity in free zones, thus incentivizing them to allow for institutional competition to promote economic growth. While this idea has much merit and similar incentives have undoubtedly driven the past creation of special economic zones, the extent to which this will encourage competition is limited to the extent that it reduces the dictator's monopoly power. A rational dictator will maximize the discounted value of resources extracted from subjects. Security in extraction will prompt the dictator to expend some resources in promoting production, but such investment will remain well below the socially optimal level (M. McGuire & Olson, 1996; Olson, 1993). Indeed, dictators already have these incentives to increase production and one strategy they use is the creation of special economic zones. The incentive Strong identifies is already part of the equilibrium.

<sup>5</sup> But see especially Caplan (2001a, 2007), Olson (1982), and Simmons (2011).

<sup>6</sup> Dwight Lee (1989) makes a similar argument with respect to the impossibility of a desirable minimal state. Government power can be limited if and only if such limitation would be undesirable.

## 2. *Technological Intervention*

To robustly improve government, we need to promote competition by lowering the cost to consumers of switching governance providers (Sinn, 1992) and the barriers to new firms entering the governance market (P. Friedman & Taylor, 2011). The standard structure-conduct-performance paradigm of industrial organization sees such market conditions as determined by factors exogenous to the firm, such as technology and demand (Carlton & Perloff, 2005, p. 3). Likewise, to see what ultimately determines the conduct and performance of government, we need to consider factors exogenous to politics.<sup>7</sup> Ideology, culture, geography,<sup>8</sup> and many other factors surely play a role, but cannot realistically be changed. Meanwhile, a factor which is constantly changing through concerted human action is technology.<sup>9</sup> This is the level at which the equilibrium may more realistically be disrupted.

The rise of the modern state is intimately connected with technological development (Márquez, 2007). Changes in military technology increased economies of scale in warfare and gave large national states with the power to support standing armies an advantage over smaller rivals (Tilly, 1985, 1990). Effective control of a region required a number of technologies such as censuses and communication technologies to render subjects 'legible' (Scott, 1998). Technologies can also decentralize power. Some argue, for example, that anonymous communication and exchange through digital currency and strong cryptography would allow people to escape government control (D. Friedman, 2008; Ludlow, 2001, 1996). Technology has dramatically lowered the cost of moving capital across borders and thus increased international tax and regulatory competition (McKenzie & D. R. Lee, 1991). Current technological developments may be lowering the costs of individual mobility and making the threat of jurisdictional exit more credible (MacCallum, 2003). More importantly for our argument, technological change can also open new frontiers. A useful way of thinking about the frontier is as the point at which the net economic value of some resource becomes positive (Anderson & Hill, 2004, pp. 10-11). The new technology of the railroad, for example, gave land in the American west positive value to non-Indians, bringing it within the frontier. This allowed new settlements outside the reach of any state and thus lowered barriers to entry in the governance market.

Technological innovation, then, can be a form of political activism. A significant advantage of technological activism over policy and constitutional activism is the relative ability of humans in each area. Humans have shown themselves to be extremely capable of solving very difficult technological

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<sup>7</sup> Industry structure does feed back upon barriers to entry and switching costs, however: switching costs are partly determined by the geographic size of governance providers, and an uncompetitive industry will facilitate anticompetitive behavior on the part of incumbents which makes entry more costly.

<sup>8</sup> While the geographic environment cannot easily be modified, locational decisions can be made for political reasons. Scott (2009) argues that moving to hilly areas beyond the reach of states can be a deliberate strategy of state-avoidance. Seasteading can be seen in this light, but the role of technology in opening frontiers is crucial.

<sup>9</sup> The overall direction of technological change is undirected (Arthur, 2009), but human agency is effective in the development of particular technologies.

problems, and technological progress has been extremely rapid in recent centuries. We are much less capable of solving large-scale social problems. While people in small, continually-interacting groups are able to creatively overcome collective action problems (Ostrom, 1990), the problems endemic to large governments are testament to our incompetence in large-scale social organization. By reducing the political problem of how to improve rules to a technological problem – even a very hard one – we shift the challenge into the realm of human capability.

The ocean is a wide-open space with potential value in (among other things) its flexible regulatory environment and potential as a blank canvas for sociopolitical experiments, but this value is currently not exploited at any significant scale. There are a few examples of people taking to the sea to secure greater freedom, which we describe in the next section, but the total population of the sea has remained low. Developing the technological, economic, and legal knowledge required to settle the ocean would make the governance industry radically more competitive and innovative.

### III. SEASTEADING

It may seem strange to argue that the way to improve policy is to settle the ocean, but the above analysis suggests that this unorthodox strategy is more likely than conventional political activism to significantly alter policy outcomes. We know that existing systems are robust against substantial reform, and that lowering barriers to entry allows potentially disruptive competitors to enter an industry. Some of these competitors will find new forms of organization at the constitutional level which will increase innovation and efficiency at the policy level. For this to happen, we need a new frontier – a blank canvas on which social or constitutional entrepreneurs can create their products and test them in reality by seeing if they can attract citizens. In the long term, space might provide such a frontier, but right now it is far too expensive. In the shorter term, we have the ocean.

Seasteading is the establishment of permanent, autonomous communities on the ocean – homesteading the high seas. This could be done on modified ships or, in the longer term, on innovative designs resembling oil platforms. While *de jure* sovereignty may be desirable in the long term, the medium-term goal is simply *de facto* autonomy: seasteads will not be recognized as sovereign by other countries or be granted a seat at the United Nations for some time. Seasteads would be places where profit-seeking entrepreneurs or groups seeking social change could establish permanent settlements with the power to set their own rules. Early seasteading communities will likely be single vessels, while in the longer term we may see clusters of multiple vessels joining to take advantage of economies of scale while retaining individual or small-group mobility. Seasteading communities would be forced by their environment to compete with each other and with land-based states for residents.

The biggest advantage of the ocean is its lower barriers to entry in the governance market. Since existing states claim sovereignty over every piece of land and are reluctant to sell, the barriers to entry are

extremely high. Under international law, even a small rock extends resource rights in a 200nm circle, and hence states vigorously defend their ownership. While the cost of creating marine real estate will not be insignificant, it is only moderate by first-world real estate standards. The cost of space on early seasteads will be comparable to that in major American cities, and will decrease rapidly with scale and technological development (Petrie, 2011; Roddier & Aubault, 2010). Seasteading makes starting a new government difficult but possible.

Insofar as it opens a new frontier on which to experiment, seasteading makes the ocean a substitute for land. Unclaimed land would be preferable, but there is none available. The ocean, though, has a further political advantage over land. The physical properties of water make it cheap to move large objects, which is how cargo ships enabled worldwide trade. In terms of seasteading, this would mean that buildings are not tied to a particular patch of ocean surface, but could move around. This sort of dynamic geography (P. Friedman, 2004) has three principle political advantages.

First, this fluidity lowers the costs of switching government. If a family owns its own floating structure and becomes dissatisfied with the government it belongs to, it can simply sail away to another jurisdiction: with dynamic geography, people can vote with their houses. This lowers the cost of switching and thereby makes the market for governance more competitive. Of course, people are tied in place by more than the difficulty of moving their possessions from one home to another. Mobility is surely limited far more by work and social obligations than by the physical costs of relocation (T. Lee, 2010). The possibility of voting with one's house will therefore have only a minor effect on competition. The ease of relocation will be much more beneficial to businesses, however. Some businesses will remain tied in place by specialized staff tied in place by social factors, but others will be more footloose. Since competitive governments will respond to marginal consumers, this will increase governance quality even when most people and firms have significant costs of exit.

Second, dynamic geography addresses the concern of Caplan (2001b) that Tiebout competition is undermined by the fact that governance quality is capitalized into real estate values. When land is tied to a particular jurisdiction, reductions in the quality of governance will immediately lower land prices. This means that landowners have no incentive to exit bad jurisdictions, since they have the choice between putting up with low-quality governance and taking a capital loss when they try to sell. Fascinatingly, however, this is not the case on the ocean. Since floating real estate can be moved between jurisdictions, its value is not permanently reduced by a property tax increase, because there is the alternate use of moving the real estate to a new jurisdiction. This restores the property of a well-functioning market, where goods go to their highest-valued use. Floating real estate will move to the jurisdiction where it is the most valuable whenever the value difference is greater than the cost of moving it. This cost will be substantial, yet based on the cost of moving oil platforms, is likely to be a small fraction of the value of the real estate. Thus, exit remains a check on government power on the ocean.

Third, dynamic geography allows jurisdictions to fail more gracefully. Olson (1982) argues that politically stable societies gradually accumulate and entrench powerful interest groups able to harvest social resources through rent-seeking. This impedes economic growth and makes the vast majority of the population worse off. When the prevailing political system is overthrown, the special interests are thrown out and we are likely to see better policy. Olson argues that the post-war performance of Germany and Japan, as well as a host of other countries, confirm this hypothesis. Unfortunately, political instability tends to be accompanied by bloodshed, producing a tradeoff between peaceful stability with high levels of rent-seeking and violent instability with low levels of rent-seeking. Seasteading allows us to have political instability without bloodshed (Chamberlain, 2009). If rent-seeking becomes too harmful in an ocean polity, the population will gradually float away. This allows the polity to die without being overthrown violently. Dysfunctional governments would no longer take up valuable land, but would wither and die based on the preferences of citizen-consumers.

While not everyone will want to live on the ocean, the greater possibility of exit will put competitive pressure on land-based nations and thus produce benefits for land-lubbers. Since firms respond to marginal consumers, a majority of citizens could be tied in place and still enjoy the benefits of competition. Moreover, the small-scale experiments enabled by seasteading will produce knowledge spillovers with the potential to inform constitution and policy-making on land.

### *1. Historical Precedents*

While seasteading in its fullest sense has not yet occurred, there have been a number of near hits, where enterprising individuals used the freedom of the ocean to do things they cannot do on land. Some have been motivated by profit; others by principled opposition to prevailing laws. Where they differ from seasteading is in their narrow focus on a specific problem.

Prior to the Second World War, a number of ships off the U.S. coast operated as floating casinos. Existing just outside territorial waters, these ships could legitimately provide gambling services. The US government, however, did not appreciate its citizens having a place to gamble and exceeded their territorial limits by shutting down some casinos. After the Second World War, it became a crime to own or transport people to a gambling ship (Strauss, 1984, p. 140).

In the 1960s, a number of pirate radio operators used the freedom of the seas to provide commercial radio to the countries of Europe. This gave consumers what they wanted and also imposed competitive pressure on existing states, which eventually liberalized broadcasting laws. Before this liberalization, though, the government harassed pirate broadcasters in a number of ways. The British government dealt a devastating blow to pirate radio by making it illegal for British businesses to advertise on these stations (Strauss, 1984, pp. 141-145).

The most well-known proto-seasteading effort is the Principality of Sealand, which has managed to acquire a certain degree of international recognition as a country. Founded on an abandoned sea fort off the coast of England, Sealand has been home to a pirate radio station and the data haven business HavenCo (Grimmelmann, forthcoming; Strauss, 1984, pp. 132-138).

Early this century, the Dutch non-profit group Women on Waves set out to provide safe and legal abortion outside territorial waters in countries where abortion is illegal.' The group developed a mobile gynecological unit which can be easily loaded on a ship which can then sail to wherever it is needed (Gomperts, 2002).<sup>10</sup> There have been a number of other proposals to use ships anchored just outside territorial water to provide services which are illegal or heavily-regulated on land, ranging from brothels to floating euthanasia clinics.

Perhaps the greatest proto-seasteaders, though, are the 'sea nomads' of Southeast Asia (Chou, 2003; Sather, 1995, 1997, 2002; Sopher, 1977; Tagliacozzo, 2009). There have been a variety of peoples around Thailand, Burma, Malaysia, the Philippines, and Indonesia who have lived a nomadic life hunting and gathering in and around the ocean. The most nomadic lived entirely on their boats and came ashore only to trade, repair their boats, and gather from seaside jungles what the ocean could not provide. While the numbers have dwindled due to resource pressures, economic opportunities on land, and government intervention which made their way of life less feasible, a number of sea nomads remain.

The social organization of the sea nomads is of particular interest, since mobility seems to have led to a number of political advantages. While there was and remains some diversity, all sea nomads historically had a great deal of autonomy and organized their social life in roughly comparable ways. Sather (1997, 2002) describes the social, economic, and political life of the Bajau Laut. Until the 1950s, they lived entirely on their boats, each of which normally contained a single family of around five people. These families would form moorage communities of between five and fifty families. Within these communities, closely related families - most commonly married siblings - would form tighter units of cooperation - *pagmunda'* - sharing a single mooring post and often fishing together. The organization of these communities was very egalitarian, with no formal authority providing governance. As in many customary systems of law (Benson, 1990), there were influential elders who would help settle disputes and deal with authorities on land, but they held their positions only by maintaining the respect of everyone else.

Being nomadic boat people, the cost of exit from these communities was low. As such, a *pagmunda'* would sometimes break off to form its own moorage community or join a neighboring one. Moorage communities were thus subject to jurisdictional competition. These communities also took advantage of regulatory competition among land-based feudal lords. Bajau Laut moorage communities were vulnerable to outside attack when moored, particularly by slave raiders. This prompted them to enter into a type of

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<sup>10</sup> <http://www.womenonwaves.org>

feudal relationship with land-based political powers. A moorage community would ally with a coastal lord offering protection in exchange for a preferential trading relationship. This led to an interesting form of jurisdictional arbitrage. The Bajau Laut were mobile: there was little tying them to a particular mooring site. All they needed was a safe place to anchor during monsoon season and to collect fresh water and firewood, and someone with whom to trade. Since there was certain to be another lord a little further up the coast willing to provide that, lords were forced to compete to provide protection for Bajau Laut communities. This ensured decent protection, reasonable trading terms, and no undue interference in community matters despite the fact that the Bajau Laut were a highly stigmatized group (Sather, 2002, pp. 28-30)

## 2. *Challenges and Strategy*

When viewed as an industry, governance is the largest in the world, representing approximately 30% of global GDP, or USD 18T/year. Thus the potential gains to entrepreneurs creating startup countries that may outcompete existing governments are enormous. While the challenges are significant, they are not insurmountable, and there is clearly incentive to attempt to solve them. The main organization doing this presently is The Seasteading Institute,<sup>11</sup> a non-profit organization focused on three main areas of research: engineering, business, and legal.

Many of the engineering challenges have been fully or partially solved by the cruise ship and offshore oil industries (Lamas, Carral, & P. Friedman, 2010).<sup>12</sup> These industries have proved that, given enough economic incentive, people can live safely and comfortably at sea for long periods of time. The engineering challenge facing seasteading is to reduce the costs to enable a wider variety of economic activity, most likely by removing features of ships and platforms unneeded by seasteaders, such as the high speed of cruise ships and the individualized design of oil platforms (Hoogendoorn, 2011).

To beneficially live on the ocean, seasteaders need to be able to produce enough to pay for the overhead of marine real estate.<sup>13</sup> Past floating city projects have neglected the business case, assuming that escaping government is a sufficient reason to head to the ocean (Strauss, 1984). This is naïve, as investors want to see concrete business plans. While seasteading can someday be, like current governments, a real estate business offering jurisdictional space to a wide variety of economic activity, it is difficult to become a general platform without first having a specific application. The move from application to platform only happens once there are enough applications to create economies of scale in serving them. Thus successful seasteading will require sound business plans which leverage the comparative advantages of the ocean. Certain businesses such as aquaculture can only be done at sea, while other industries are so

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<sup>11</sup> <http://seasteading.org>

<sup>12</sup> For a number of papers on the engineering challenges of seasteads, see <http://www.seasteading.org/research/engineering>

<sup>13</sup> Marty and Borders (2011) provide an overview of the context, opportunity, and challenge of seasteading business. See generally <http://www.seasteading.org/research/business>

heavily regulated on land that it will be worthwhile putting up with the inconveniences of the ocean to provide them – just as gambling ships and pirate radio operators did. One such business is Blueseed,<sup>14</sup> which plans to create a floating startup incubator a short ferry ride from Silicon Valley, thus providing foreign nationals with in-person access to investors, talent, and other amenities without the need for a work visa. Medical tourism is another promising business model for seasteads, since it is a rapidly growing, multibillion-dollar industry (Reisman, 2010). Those in first world countries such as the United States already spend enormous time and money flying long distances to places such as India for medical procedures. Medical seasteads could present a much cheaper and easier alternative. Beginning with low-cost procedures enabled by cheap labor, and progressing to promising new treatments still working their way through the labyrinthine FDA approval process could be a very lucrative enterprise.

Perhaps the most serious challenges lie in the third area of research: international law and politics. If the governments of the world decide they do not like competition, seasteads will have little chance of survival (Balloun, 2010). The actions taken against gambling ships and pirate radio stations demonstrate that this is a real danger. This makes it paramount that seasteads respect both *de jure* and *de facto* international and local national law, and desist from engaging in business practices which enrage coastal states (Mutabdzija & Borders, 2011). The slightest suggestion that a seastead is being used to export drugs or enable the financing of terrorism will threaten its existence. This rules out certain otherwise viable business plans, such as anonymous digital banking, as it inherently enables money laundering. Fortunately, since almost every business benefits from more effective governance, seastead entrepreneurs can aggressively filter for those business models for which there is no proven history of intervention.

The strategy of The Seasteading Institute is to focus on research in these three areas to reduce uncertainty and lower expected seastead costs, as well as building a community of interested seasteaders and entrepreneurs. Together, these will create an environment that will give rise to the first seastead ventures, and the majority of Institute resources are focused on removing the barriers to these first attempts, with a minority devoted to long term work such as research on large floating structures and sovereignty.

#### IV. CONCLUSION

A world of truly competitive governments – in which barriers to entry and switching costs are both low – would be an enormous boon to human wellbeing. Not only would competition constrain the power of government – thus fulfilling the promise of constitutionalism – it would also induce innovation and foster diversity in rules.

Rules are a social technology in the sense that they allow us to cooperate to achieve our goals (Nelson & Sampat, 2001). Like any technology, rules can be improved. We cannot predict precisely how the technology of governance will evolve given decentralized experimentation guided by individual choice –

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<sup>14</sup> <http://www.bluseed.co>

just as Alexander Graham Bell could not have foreseen the modern smartphone - but we can be confident that it will improve. Rules are a particularly crucial technology because they form the environment in which other technologies develop, and thus have a strong influence on the speed and variety of all other forms of innovation (Baumol, 2002). We tend to overlook the enormous potential of ongoing technological change, but the progress we have seen since the industrial revolution may be only the beginning. Human ingenuity will continue to make our lives better, and will do so more rapidly with better rules. All the greatest problems of the world – poverty, disease, and existential risks like global warming – are deeply and directly affected by the quality of our rules. Poverty happens where rule sets are bad; medical progress has been enormously slowed by regulation like the 1962 Kefauver-Harris amendments in the US (Klein & Tabarrok, 2002; Peltzman, 1973, 1974); and the mitigation of existential risks are global public goods, thus underprovided given the lack of good international coordination mechanisms (Kaul, Grunberg, & Stern, 1999).

Seasteading offers the potential to dramatically lower both barriers of entry and switching costs in the governance industry, influencing the rate of innovation at a deep level, and producing more, better, and cheaper rules. In essence, a little technological innovation could unlock an unprecedented level of political innovation, giving rise to a Cambrian Explosion in government. Seasteading is a means of producing political change and it is consistent with other proposals such as functional, overlapping, competing jurisdictions (Frey & Eichenberger, 1999), for-profit governments (MacCallum, 1970), and deep local democracy (Kotler, 1969). The beauty of working on the technological capabilities of actors rather than institutions themselves is that institutions become endogenous to the preferences of individuals. Experimentation will tell us whether unbundling government services is desirable and whether decisions should be made by proprietors or deliberating citizens.

While the challenges in making seasteading a reality are not trivial, we have argued that seasteading, unlike most activism, improves the true determinants of governance quality while avoiding the vicious circularity of using deeply flawed and unresponsive political systems. Thus the expected value of this unusual form of activism is far higher than the dominant approach of proposing and advocating for specific policies or even constitutional rules. By extending traditional public choice models to consider industry structure and the non-institutional determinants thereof, we believe we have found a lever – the frontier – and a fulcrum – the ocean – from which we can move the world.

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### **Summary:**

We argue that those advocating the reform of current political systems in order to promote jurisdictional competition are in a catch-22: jurisdictional competition has the potential to improve policy, but reforms to increase competition must be enacted by currently uncompetitive governments. If such governments could be relied upon to enact such reforms, they would likely not be necessary. Since existing governments are resistant to change, we argue that the only way to overcome the deep problem of reform is by focusing on the bare-metal layer of society – the technological environment in which governments

are embedded. Developing the technology to create settlements in international waters, which we refer to as seasteading, changes the technological environment rather than attempting to push against the incentives of existing political systems. As such, it sidesteps the problem of reform and is more likely than more conventional approaches to significantly alter the policy equilibrium.