

An Enabling Mechanism for the Creation, Adjustment, and Dissolution of States and Governmental Units

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Abstract

The article proposes an enabling mechanism for the creation, adjustment and dissolution of governmental units, giving autonomy to each individual as in a direct democracy. The mechanism is designed such that Pareto optimality is possible, in contrast to earlier models which make various assumptions such as majority voting. Individuals are taken seriously acknowledging that they are best equipped to find their own solutions. The emphasis is on the practical approach of how individuals discover and implement their subjective preferences and how this discovery and implementation process can be facilitated and corresponding costs lowered. Governmental units are subjected to some of the same market forces as business firms. This brings the interaction between governmental units closer to a market structure, and serves to eliminate or reduce many of the coercive elements of government.

1 Introduction

Increasing globalization and flow of people, goods, services, and capital across borders at the superstate, state, regional, and local levels increase the relevance of how to regulate the creation, adjustment, and dissolution of states and local territorial governmental units. The history of international political and constitutional economy has traditionally assumed borders as exogenously given, despite the fact that borders are continuously redrawn through various mechanisms.

A literature emerges¹ which accounts, in the tradition of recent trends within economic theory, for the endogenous determination of borders.² In early work Tiebout (1956) recognized the importance of competitive units at the local level. Buchanan and Faith (1987) focused on a competitive structure's ability to optimize local governmental services and taxes, extended by Alesina and Spolaore (1997,2003), Glomm and Lagunoff (1998), and Casella (2001ab).³ Bolton and Roland (1997) and Bolton et al. (1996) considered the relation between redistribution and the breakup of nations, and optimizing the number of nations. Inter-state trade has played some role in most of these works, see e.g. Alesina et al. (2000).

These contributions have not focused much on what is empirically the main reasons for state creation; social, cultural, religious and ethnic issues. Lacking are also various welfare benefits like less coercion, war, revolution, etc. associated with lower barriers to exit and entry. This article is broadly embedded in the economic tradition.⁴ An enabling mechanism is proposed designed to reduce the costs associated with 1) the creation (establishment, birth) of governmental units, 2) the adjustment of unit borders, and 3) the dissolution (termination, death) of units. Optimal solutions can only be achieved through the inclusion of individuals in the decision making process. Given the proper decision making procedures and institutional framework, conflict is not necessary, as has been claimed, between democracy and the optimum size of a governmental unit.

¹ In earlier analyses, analyzing the size of nations, Wittman (1991) argues that wealth maximization is determinative. Friedman (1977) shows that nations are shaped to maximize joint revenue, net of collection costs, and that trade should imply large nations, rent should imply small nations, and labor should imply that nations will have closed boundaries or be culturally homogeneous.

² See Hausken (2000) for a treatment of how group size is determined endogenously by intergroup migration.

³ See Dowding et al. (1994) for a survey of the empirical Tiebout literature, noting that Tiebout is quoted in 1000+ articles. See John et al. (1995) for a micro-level test of the behavioral assumptions of the Tiebout model.

⁴ We define economic utility broadly and account for utility which is difficult to measure. Influenced by Harsanyi (1993), Frey et al. (2001) make a step in the right direction by discussing "outcome utility" and "process utility", demonstrating empirically that "reported subjective well-being of the population is much higher in jurisdictions with stronger direct democratic rights," deriving utility from the political process itself.

Enabling mechanisms are widespread in market based economies. The world's financial markets owe their existence to the invention of the joint stock company with its fully transferable share of stock and limited liability.⁵ The ease of transfer of ownership and thus the attractiveness of the share of stock has powered the creation of financial markets, the growth of industrial and post-industrial enterprises, and wealth accumulation more generally. Thus by creating markets where none existed, financial markets have shown the impact of enabling mechanisms.

A proposed next step for humankind is to let governmental units operate in markets, just as corporations operate in markets.⁶ This article introduces enabling mechanisms to political economy more generally, accounting for the relevant processes.⁷ A governmental unit has a territory, a function, and a population. In contrast to what is dysfunctionally common today, we allow individuals to transit through and exit governmental units, based on a benefit versus cost evaluation performed broadly by each individual. Exit is free, but entry may or may not be free depending on the preferences of the population which may design immigration requirements. The article shows advantages of such a mechanism compared to the current mechanism where entry and/or exit are sometimes blocked.

The common mechanisms for the creation and growth of states and distribution of wealth through human history have been warfare, violence, appropriation, defense, exploitation, theft, raiding, robbery, etc. Also today, "war can pay", just as robbery and theft can pay in a market economy otherwise based on voluntary exchange. Non-voluntary or non-free exchanges have traditionally been more important than they are today, and have in large parts

⁵ The legal form of ownership has received modest focus within traditional economics. Partnerships or sole proprietorships would seem to be as efficient as corporations.

⁶ The alleged oldest commercial corporation in the world, the Stora Kopparberg mining community in Falun, Sweden, obtained a charter from King Magnus Eriksson in 1347.

⁷ Whereas political science has traditionally accounted for distribution mechanisms where power, non-voluntary exchange, etc. play a role, classical economics has traditionally confined attention to production, consumption, exchange, ignoring, as Hirshleifer (2001) puts it, "the dark side of the force". A literature emerges which describes processes of fighting applying economic concepts, honoring individual decision-making. Examples are Grossman and Kim (1995), Hirshleifer (2001), Skaperdas and Syropoulos (2001), and Hausken (2005). This ensures compatibility with the approach in this article applying Coases' (1988a) theory of firms on governmental units, observing that firms and governmental units are subjected to some of the same market forces. Enabling mechanisms for markets and enforcement mechanisms for voluntary exchange can thus emerge for governmental units, just as for firms. Autonomous individuals engage in decision-making and voluntary exchange, and may through various mechanisms, as history has shown, endogenously choose to refrain from warfare. E.g., Hausken (2004) shows how voluntary exchange can emerge in a world of mutual raiding, appropriation, and defense, when the appropriated production is less valuable to the appropriator than to the defender and the defense is not too inferior to attack.

of the world been marginalized measured relatively to the total sizes of economies. The last centuries have witnessed a certain shift in emphasis from military warfare to economic warfare. A variety of factors play a role, such as technological progress, the emergence of rule of law, police, etc., but also self-coordination by self-interested individuals. Rather than population groups conquering territory and raiding other groups, global firms compete for market share. Rather than soldiers fighting physically, today lawyers and other professionals “fight” through political campaigning, rent-seeking maneuvers for licenses and monopoly privileges (Tullock 1967), commercial efforts to raise rivals’ costs (Salop and Scheffman 1983), strikes and lockouts, litigation, etc.

Well designed enabling mechanisms for the creation, adjustment and dissolution of governmental units may, if successful, replace the current mechanisms and result in major advances in human welfare. A view gradually emerges that competition between governmental units is desirable, just as competition between firms is desirable. Early research in this direction has been made by Casella and Frey (1992), Frey (2001), Frey and Eichenberger (1996). The main differences between these three contributions and the current article are, first, a more carefully worked out and consistent definition of a governmental unit. Second, for a governmental unit we introduce three enabling mechanisms.⁸

This article focuses on the operative side of the mechanisms, and not on the solutions which abound in the literature. Prescribed solutions are not necessarily appropriate for individuals who may prefer other solutions. This article provides mechanisms so that individuals can find their own Pareto optimal solutions. The autonomy is allocated down to the individual level, which is argued to be the best level to ensure preferred solutions.

Much recent political-economy analysis has sought to understand various undesirable normative properties (e.g. inefficiency) in the present (i.e. today’s) constitutional model. In this paper we confine attention to listing up 11 disadvantages of the present constitutional model in section 2. In the remainder of the paper we present an alternative constitutional model as a normative proposal for reform to ensure global governance. Section 3 defines a governmental unit. Section 4 provides examples and a discussion of governmental units. Section 5 presents an alternative constitutional model with creation, adjustment and

⁸ Further discussion is provided by Knutsen (1992).

dissolution mechanisms, with advantages in section 6. Section 7 illustrates how the alternative constitutional model optimizes governmental units. Section 8 discusses limitations. Section 9 discusses why we are yet to observe the alternative constitutional model in the real world. Section 10 concludes.

2 Disadvantages of the present constitutional model

There are both temporary direct disadvantages of the present mechanisms associated with the methods for the creation, adjustment, and dissolution of units, and various permanent or semi-permanent indirect disadvantages caused by the lack of competition between units.

1. Present mechanisms rely to a large extent on coercion and violence, causing human and material loss in the creation, destruction, altering of boundaries, and change of function of units.^{9 10 11}
2. Many units do not have the kind of governmental, legal or social institutions that the population wants. Citizens often feel alienated from governmental affairs, and a lack of ability to influence.
3. Many units do not efficiently provide the population with desirable services, i.e. resources are squandered and growth hampered by a dysfunctional (e.g. large and inefficient) public sector.¹²
4. Many units have a consistent majority/minority issue due to ethnic, religious or other factors.
5. The artificially determined sizes and boundaries of units cause unit dysfunctionality.
6. Artificially determined exit and entry barriers, often combined with the “tyranny” of

⁹ The total number of people dying from war in the 20th century equaled 10% of the world population in 1913. While it is clear that war and violent revolution reduce the general welfare immeasurably in the short term, the fact that these hardships are tolerated points to important perceived welfare benefits in the long term. To put it simply, if there hadn't been important perceived long-term benefits, there wouldn't have been so many wars, uprisings and revolutions.

¹⁰ See Congleton (1980) for an interesting model explaining why anarchy or “state of nature” (which is the present state in most cases for the creation, adjustment, and dissolution of borders) leads to waste of resources on non-productive processes such as bargaining, monopolizing, conquest, bribery, etc.

¹¹ For example, a new unit may be created by local government reorganization initiated by a central authority, or in a state context, through “liberation”, war, revolution, violent partition or UN Resolution. A unit may go extinct by losing a war (extinguished from without) or by revolution (extinguished from within). In a nation state or country context most creations and dissolutions of territorial units dysfunctionally take place in a context of violence and coercion. The creation of new states within the US was to some extent peaceful, aside from some Indian opposition. Opposition from original habitants is common, though there are examples especially in early human history of peaceful colonization of newly discovered uninhabited territories.

¹² The public sector within the OECD member countries controls about 37% of GDP ranging from about 31% in the U.S. to about 60% in Sweden (tax revenues as % of GDP, 1998 figures from OECD website except US and Sweden figures which are preliminary 2003 figures) in OECD countries and has significantly lower productivity growth (in some cases negative) than the rest of the economy.

the majority over the minority, causes at least some residents to be located in a unit against their will.

7. Present mechanisms often cause the emergence and/or continuance of units which are either dysfunctionally large or small with respect to geographical dispersion or the numbers of residents within their borders.¹³
8. Unit size is not presently dynamic so innovations in organization or technology are not reflected in changes to unit size and organization.¹⁴
9. The prevalence of rent seeking often incurs costs equaling or superceding the value of the rent (Krueger 1974, Posner 1975, Tullock 1980). There is widespread rent seeking among groups within units and also cross-border rent seeking, e.g. where units try to tax activities beyond their own borders.¹⁵
10. The lack of resource mobility between units is dysfunctional related to rent seeking¹⁶ and for other reasons. Financial assets may move freely between units, but many real factors are restricted in their mobility. Two examples are 1) land, including the natural and man-made resources associated with the land (oil and gas resources, ores, minerals, timber, agricultural products, factories, buildings, mines, residential housing etc.) and 2) people. Land in general “moves” only by war, and people mobility is restricted by natural, cultural, social, and institutional barriers.¹⁷

¹³ In the US with its relatively homogenous culture there is a very significant size difference between Rhode Island and California. Even though we do not know the “optimal” state size, the current span in units with similar functions and organization suggests that there may be room for optimization. Similarly Casella and Frey (1992:644) argue non-mathematically when discussing legal subdivisions of government within the US, that “no mention is made of the obvious fact that traditional legal subdivisions have become obsolete.” This obsolescence is largely due to the assumption of fixed borders. Casella and Frey (1992) do not provide a solution to the dysfunctionality of fixed borders, which of course is the purpose of this article.

¹⁴ It may ease the understanding of this issue to consider that many state borders in the Eastern part of the United States have remained essentially unchanged for more than 200 years. Even assuming that borders were optimal at the time they came into existence, it is reasonable that not all of them are optimal today taking into account the considerable changes in technology the last 200 years.

¹⁵ Many countries, the U.S. included, tax their citizens on worldwide income independent of their residence and the source of the income.

¹⁶ Caplan (2001) has shown that when borders are set exogenously, it is possible even for local governmental units to extract significant rent from citizens through property taxation. Caplan’s (2001:101) conclusion is that “the only check on local governments comes through imperfectly functioning electoral channels.” If borders are not exogenous, as is the case in this article, the rent extraction indicated by Caplan is no longer possible since citizens can exit together with their real property (housing).

¹⁷ Examples limiting people mobility, especially across higher order governmental units, are immigration law, language barriers and lack of cross-border skill recognition. If e.g. a Frenchman is dissatisfied with his government’s policies and wants to move, he has to deal with more commuting or abandonment of contact with friends and family, most likely a new language (e.g. Spanish, English or German), a new social code requiring possibly years of effort to gain new social skills appropriate to his new abode, having to find a new place to live and work involving large transaction costs, and much time and effort with the task of just finding his way about his new place of residence. As the US has few formal internal barriers to the movement of people, and as academics are given highly preferential treatment in most countries’ immigration law, share a common language (English) and to a large extent a common culture, the substantial real and mental barriers to general people

11. Although collective action has advantages, e.g. lower cost than the market price for certain activities, there are also disadvantages, as the literature has demonstrated. Even with democracy, there are still issues related to collective decision making that are unavoidable. Although representative democracy with majority decision making of some sort in many respects is superior to e.g. dictatorial decision making, there are imperfections related to the recording of each individual's preference function and methodological issues related to the weighing of each individual's function with respect to all other individuals in the collective preventing the achievement of a clearcut optimal solution.¹⁸

3 Definition of governmental unit

Our alternative constitutional model assumes a governmental unit which we define with three necessary and sufficient characteristics:

Definition of governmental unit:

1. *A territorial unit or area with a specified geographical extent at the local, regional, or global level.*
2. *At least one governmental function which specifies a set of rules which can only be set aside through collective decision making.*
3. *A population of domiciliaries¹⁹ (at least one) which lays a foundation for collective decision making.*

Regarding the first characteristic, a governmental unit presumes a territory, which is essential for the phenomena analyzed in this article. The territory need not be contiguous or large, but its extent must be non-zero.²⁰ The crucial aspect of territory is that it cannot be physically

mobility may not be fully appreciated. It is easy to confuse one's own position within a small economic and intellectual elite (perhaps 0,5% on a worldwide basis) with that of the general public.

¹⁸ One example is that the majority gets its way and the minority loses out. Another example is e.g. the problem of cyclic majorities described by Black (Black 1958) and Condorcet (see Black 1958). Consider a three-person village using majority voting as a means of ranking each pair of alternatives. A clear-cut social ordering need not emerge. If Ann's preferences are I,II,III, Ben's are II,III,I, and Bill's are III,I,II, then, in pairwise votes, I beats II, II beats III, and III beats I.

¹⁹ Domiciliary: A person who resides in a particular place with the intention of making it a principal place of abode; one who is domiciled in a particular jurisdiction. (Garner 1999)

²⁰ Territory has a fixed three-dimensional extent consisting of a surface area, proceeding inwards toward the center of the earth, and proceeding outwards into the atmosphere and beyond. Governmental units, which may overlap each other, cover the entire universe. Since each individual has a physical extent, it is impossible for an individual to avoid governmental units altogether.

moved.²¹ In contrast, individuals perform a benefit versus cost evaluation when moving across territories and between governmental units, bringing with them portable assets. Owners of resources connected with territory²² can also theoretically bring these with them, for better utilization elsewhere, or to bring “out of harm’s way”. But, in reality, this is often excessively costly, making these owners uniquely vulnerable. Ownership of resources connected with territory, costs of changing permanent residence, travel costs, language barriers, cultural barriers, possession of specific competencies, etc. reduce movement across governmental units. These factors influence entry and exit of governmental units, which are otherwise free or as specified in the governmental function. To establish a benchmark, the argument is purified excluding from consideration entry versus exit systems based on force or threat of force.

Regarding the second characteristic, a governmental unit differs from a geographical unit through assuming at least one governmental function which specifies a set of rules. This function is based neither on market nor voluntary exchange. This introduces an inevitable coercive element agreed upon by domiciliaries through collective decision making. The governmental function can be set aside neither by individual nor collective market participants. Examples of governmental functions are tax collection and compulsory garbage removal.²³ The design in this paper enables a government to choose any function that the inhabitants prefer, e.g. those functions present in our current societies, or a subset of these functions, or functions not common in our current societies. This inherent flexibility enables innovation in the provision of governmental services or functions including innovations in organization that may involve competition and cooperation.²⁴

A governmental unit presuming a territory makes it different from a club or a firm, which may have functions and some form of management or government, but need not have a territory. For a discussion of firms, see Coase (1937,1988c). Our definition does not specify

²¹ In principle, a slice of the earth can be cut off and moved to another location, leaving empty space. This empty space cannot be moved, and is thus different from portable assets.

²² Examples are permanent structures on, below, or above a surface area, masses of earth, stone, mineral ores, trees, lakes, and to some extent equipment and machinery, household animals, etc.

²³ The physical operation of a function may be contracted out, but the governmental unit determines e.g. how tax liability is computed or whether or not there should be compulsory garbage removal.

²⁴ Warfare and cooperation between governmental units are also possible, For example, during the American Civil War, each side to some extent looted the other. Still some true reciprocal exchange between the two sides was conducted by “blockage-runners”, where the South exported cotton and imported manufactured goods from the North (Hausken 2004).

any particular form of the governmental function(s). We seek to establish a benchmark, allocate maximum autonomy to each individual, and avoid constraining collective decision making by factors above the individual level. Contrary to many theorists and practitioners within economics and political science, this article suggests that one cannot be certain as to what governmental units ought to concern themselves with. The approach is thus similar to Coase's (1988ab) theory for firms, which we apply for governmental units. Individual market participants optimize governmental functions just as individual firms optimize the boundary between internal and external market transactions. This gives a flexible state of affairs where decision making is driven from below. Alienation from governmental affairs is eliminated. Each individual agent is given autonomy, respect, and dignity to engage in decision making.

Flexibility in the design of governmental functions generalizes the enabling mechanism ensuring applicability to all kinds of governmental units with a territory, e.g. at the local, regional, state and national levels. The domiciliaries, which may be members of multiple governmental units embedded within each other, determine through collective decision making the governmental function for each unit. A governmental function e.g. at the regional level may or may not be constrained by the kind of governmental unit it is applied to, and this unit's interactions with other governmental units at the same, higher, or lower levels.

Domiciliaries are usually members of multiple governmental units and determine through collective decision making the governmental function for each unit. This function determines for example what kind of coercive power can be exercised within each unit, concurrent with other governmental units at higher or lower levels.²⁵ A second minor comment is about the issue of monopoly of legitimate coercion in modern states. While I agree that this Weberian concept might be a bit too abstract to characterize actual sovereign states in many circumstances, I am not convinced by the counter-examples provided by the authors. For instance, the existence of state and local police forces along with federal forces in the U.S. does not invalidate the fact that the American government (as defined by the U.S. constitution, and as monitored by the U.S. Supreme Court) has ultimate monopoly of legal coercion in the U.S.

²⁵ This can be compared with and contrasted against the presence of multiple layers of government common throughout the world. For example, within the US, local, state and federal police forces usually operate within the same physical territory. However, this does not invalidate the fact that the American government (as defined by the US constitution, and as monitored by the US Supreme Court) has ultimate monopoly of legal coercion in the US. This latter fact is often used to argue that one feature of a state is monopoly on the use of force within its territory, a view Frey (2001) disagrees with.

Without domiciliaries collective decision making reverts to residents and citizens and eventually to the owners of the territory. The unit is dissolved when the last remnants of the territory is accepted by another unit on the application of its owner. This explains the third characteristic of the definition of a governmental unit. At the individual level we distinguish between a domiciliary, an individual citizen²⁶, and a resident²⁷. This article mostly uses the term domiciliary which denotes a higher degree of territorial permanence than citizen or resident. The appropriate term depends on the type of governmental unit (super-national, state, regional or local government, etc.).

4 Examples and a discussion of governmental units

Examples of governmental units are local communes, towns, cities, counties, regions, other regional governmental bodies, states, countries, nations, and certain super-national governmental units (e.g. EU, UN). Frey (2001:163ff) claims to discuss “government without territorial monopoly”. He is correct that governments perform a variety of different functions, but ignores the fact that all his examples of “quasigovernmental organisations” actually control a territory. Let us consider his and some other examples. First, Frey (2001:164) claims that the United Nations and the International Court in Hague “do not have any monopoly power over a territory.” He is correct that the function is designed in this manner, but the function also requires acceptance of the UN Charter, and these supernational units consist of a collection of member countries with a territorial extent. Second, the Catholic church’s territory is the Vatican state. Its function relates partly to this territory, which it controls sovereignly, though mainly to member allegiance, etc. Third, sports associations (e.g. FIFA) are different from the UN. Although these have members from several countries, these countries as such are not members. Associations for sport, culture, religion, etc., action groups (e.g. Greenpeace), NGOs, non-profit making and profit-making global firms, factories, mines, individual business owners, homeowners, etc. own territories of non-zero extent, e.g. with an administration or sales office. A “No trespassing” sign satisfies the governmental function requirement. Although these are governmental units, the governmental function typically pertains to a variety of non-territorial characteristics, e.g. mandatory rituals or

²⁶ Citizen: A person who, by either birth or naturalization, is a member of a political community... Being entitled to enjoy all its civil rights and protections (Garner 1999). The term citizen usually has meaning only at the state level, with extensions e.g. to European Union citizen.

²⁷ Resident: A person who has a residence in a particular place. A resident is not necessarily either a citizen or a domiciliary (Garner 1999).

donations, in addition to voluntary exchange not specified by any function. Furthermore, the scope of allowed governmental functions is tightly circumscribed by higher order or lower order governmental units. These examples would cease to be governmental units if they were to sell all their territory, and e.g. rent or lease it back. We exclude, as outside the scope of our analysis, governmental units without a territorial extent.

Among these examples, governmental units at the highest level, such as the UN with a charter, and at the lowest levels, such as a homeowner owning a few square feet, have the most limited governmental functions. The UN has no influence on welfare and power distribution, education levels, tradeoffs between economics and environment, etc. within each member country, and a homeowner is easily invaded by the police, is subject to taxation and other regulations, etc. These functions are usually severely constrained by governmental units at intermediate levels, such as nations, states, regions and local governments. These intermediate level governmental units are our main focus in this article. The nature of our argument is such that we see no clean-cut way, and also no reason, of excluding lower or higher level units from our definition. Frey (2001) attempts such exclusion through focusing on the building blocks of each governmental function, suggesting that some functions are more related to territory than others. They certainly are, but the design of each function is determined by domiciliaries through collective decision making. In this paper we recommend refraining from dictating how domiciliaries within a territory should design their governmental function.

Frey (2001) does not clearly define a governmental unit. He seems to suggest that if a unit has sufficiently many resources, and/or is sufficiently powerful, and seems to be involved in governing in some sense by having a function, then it is a governmental or quasi-governmental unit. Frey (2001) thus suggests that "there are meaningful governmental units, whose major characteristic is not the territorial extension of government but its function." This, he suggests, allows for the emergence of functional, overlapping, and competing jurisdictions,²⁸ with a variable territory, over which they do not have territorial monopoly. In

²⁸ These so-called FOCJ, also proposed by Frey (1996) and Casella and Frey (1992), are essentially the same as the regional bodies proposed by Knutsen (1992). Unlike Knutsen (1992) and Hausken and Knutsen (2002), Frey (1996) does not propose a specific creation mechanism which is one purpose of this article. As shown by Knutsen (1992) there is no conflict between these regional bodies and the mechanisms for creation of governmental units proposed in this article. That being said, while Frey (1996) elaborates on Knutsen (1992) in the context of why competing units ought to be established, Frey's article does not, in sufficient detail, establish how this should be accomplished.

contrast, this article provides a clear definition of a governmental unit in terms of three characteristics. We agree with Frey (2001) that there are important organizations that do not have a territory, but think these should be distinguished from governmental units that do have a territory. Domiciliaries design through their collective decision-making a set of governmental functions, and may well assign labels such as functional, overlapping, competing, etc. to the various governmental units they are members of. To the extent governmental units at the same level or with similar functions, overlap, territorial monopoly gets divided between governmental units as determined autonomously by each individual, i.e. as the people want it.

5 An alternative constitutional model

The alternative constitutional model falls firmly within the economic tradition. Each individual is boundedly rational with limited capacity for processing information and preferences (Simon 1955), and engage in trial and error to maximize his welfare in a broad sense.²⁹ Preferences and beliefs are not exogenously given, but are developed endogenously through the process. Realizing that omniscience is impossible,³⁰ our task is not to prescribe each individual's actions, but rather to help each individual express his preferences in a more efficient manner.

Most governmental units today do not have formal mechanisms for the creation, termination, amendment, altering, redrawing of boundaries, and change of function of units. Instead many units (e.g. states) are assumed to exist unchanged for eternity. This naive attitude towards governmental units differs from the attitude towards firms. This article proposes that benefits flow from loosening up the rigid structure for governmental units. This is done by introducing an enabling mechanism consisting of a Creation Mechanism,³¹ an Adjustment

²⁹ Elster (1983) distinguishes between the “thin theory of individual rationality” (where preferences and beliefs are given) and the “broad theory of individual rationality” (looking at how preferences and beliefs are shaped, through judgment and satisficing). Much literature exists on this subject outside the scope of this article, initiated by Simon (1955).

³⁰ Assuming quantitatively given and one-dimensional preferences, Alesina and Spolaore's (1997:1030) model assumes that “the world population has mass 1, and we assume a continuum of individuals with ideal points distributed uniformly on the segment [0,1].” In contrast, we assume neither quantitative and one-dimensional preferences, nor specific citizens' distributions.

³¹ The Creation Mechanism functions through a self defining referendum thereby eliminating the need for apriori judgments, i.e. judgments external to the model itself, about the necessity of unit creation, the proposed borders, etc. A priori judgments, unfortunately, depend on the opinions, wisdom, knowledge, and the inherent biases of those individuals or that group making the judgment.

Mechanism, and a Dissolution Mechanism.^{32 33}

Creation Mechanism (Assumptions 1 and 2):

Assumption 1. Each individual has the right, in collaboration with that subset of the individuals domiciled within the boundaries of a proposed unit, to create a new unit either within the boundaries of an existing unit, or by the amalgamation of two or more units or parts of units.

Assumption 2. Any domiciliary³⁴ qualified to vote may sponsor a draft proposal for the creation of a new unit. The draft shall describe the boundaries of the proposed new unit, which must be a territorial unit and thus have a size at least marginally larger than zero.

Adjustment Mechanism (Assumptions 3,4 and 5):

Assumption 3. Each individual has the right to leave or to transit³⁵ through any unit and bring with him property of any kind.

Assumption 4. Each individual accepted by another unit, subject to immigration requirements determined by that unit, has the right to move to that unit.

Assumption 5. Each individual has the right to withdraw from any unit's territory any of his non-contested property that has been accepted, subject to immigration requirements, by another unit or retain his existing domicile or citizenship and the territorial affiliation of his

³² Assumptions 1 and 2 are fundamental, and may by themselves imply 3 and 4 since any single citizen may achieve 3 and 4 by going via 1 and 2. However, we prefer to set up Assumptions 3 and 4 explicitly, as a shortcut, since the indirect implication is more cumbersome for the citizens and thus involves higher costs. Also note that 1 and 2 presuppose collective action (even though N may be 1), while 3 and 4 are related to individual decisions. Collective action involving any number of possibly conflicting proposals and any number of decision makers rapidly increases complexity and may not have an easily agreed upon optimum solution (Black 1958). This article argues, however, that it is more important that there is a solution rather than whether or not it is the "optimum" solution. The reason for this relative lack of concern for reaching an optimum unit size (in terms of population and geographical extent) at the first iteration has to do with the self adjustment that may take place afterwards through the Adjustment Mechanism or, in a more cumbersome fashion, through repeated applications of the Creation Mechanism.

³³ See Knutsen (1992) for further elaboration of these assumptions.

³⁴ We are using the term "domiciliary" to indicate that the person must have more than temporary residency within the unit. We could also have used the term citizen without significantly altering the overall result. In fact for most individuals and thus most of the time, for the overall result, it would not make a difference whether we used the term resident, domiciliary or citizen. There may, however, be occasions where due to rapid population shifts these slight differences may matter, and thus we have settled for the definition that most closely signifies a permanent attachment to the territory.

³⁵ Transit is relevant in terms of practical implementation of the model, e.g. when proceeding from one unit to another requires passing through a third unit.

non-contested property in the case of creation of a new unit.

Dissolution Mechanism (Assumption 6):

Assumption 6. A unit must at all times have a non-zero territorial extent, and is dissolved otherwise.

The Creation Mechanism is a considerable transition toward individual freedom and direct democracy. Assumption 1 lets each individual choose where to be a domiciliary or citizen.³⁶ Assumption 2 allows each individual to take the initiative to create a new unit. Requiring unit size at least marginally larger than zero is done to rule out units without territory, as discussed in section 4 related to Frey (2001), and to ensure that each citizen/domiciliary has a location to “place his feet”.

The Adjustment Mechanism is a considerable transition toward freedom of movement. Assumption 3 provides the usual personal exit mechanism, but includes “property of any kind”. This includes both portable assets and resources connected with territory, discussed in section 3, which, through physical movement or re-drawing borders, can be transferred to another unit. While the freedom of traditional “free” exit mechanisms are limited by ownership of resources connected with territory, travel costs, cultural barriers, etc., our mechanism reduces the exit costs associated with traditional immovables, cultural barriers etc. This is mainly because there is no need for physical movement, in contrast to traditional models. Although the exit costs are reduced, there is no such thing as a costless transaction. The cost of the transaction is part of what the individual has to consider.

Assumption 4 states that entry into another unit may or may not be free depending on the preferences of that unit’s population. It is possible for a governmental unit to incorporate immigration criteria into the governmental function. Examples are to require a fee, certain competence levels, personal characteristics, family relationships, or denying entry if a desired unit size has been reached. A unit’s objective may be to maintain higher standards in certain respects. One example is a higher level of investment in infrastructure whereby new domiciliaries are charged a fee corresponding to a portion of this sunk investment. The fee

³⁶ Just as stock exchanges pose requirements such as minimum amounts of capital, trading, and other requirements for stock companies, as part of an actual implementation individuals may determine minimum or maximum numbers of domiciliaries for the creation of certain governmental units.

may be negative for certain individuals, which means that individuals with certain competence levels may get paid to move to that unit. Another objective for a unit may be to ensure that its population fits appropriately into its territory. For example, a coastal territory with harsh weather conditions may prefer individuals with other characteristics than a city with high population density. A third objective may be a preference for keeping a unit at a manageable size. Immigration criteria may prevent or ameliorate free riding.

Assumption 5 clarifies what is meant by the “movement” of real property and provides a mechanism that is independent of the actual movement of the physical person, i.e. a citizen’s property may move even though the citizen stays put. Immigration criteria may be designed for both property and individuals, for example large fees or negative fees for large properties. Negative fees can be appropriate for units that seek to recruit wealthy property owners.

For the purpose of Assumptions 3 and 5, property includes real estate and any other property interests associated with real estate, i.e. not only the land and buildings themselves, but also ores and minerals located below ground, or timber and agricultural products located above ground. The Creation and Adjustment Mechanisms tie together citizens and real property owners. Individuals decide whether to create a new unit, but need at least one property owner or they need to purchase territory. The difference between the Adjustment Mechanism and Tiebout’s “voting with your feet” mechanism is that the latter does not enable the movement of what to most people is their most important capital asset i.e. their real estate (whether residential property or commercial or other real estate). The Tiebout mechanism has no mechanism for the release of assets tied to land from dysfunctional governmental units and the transfer of these real assets to more effective governmental units. The release of assets from non-competitive firms through the mechanism of “creative destruction” is a key driver of economic growth. Our mechanism provides for a similar release of assets from dysfunctional governmental units.

The Dissolution Mechanism in Assumption 6 allows units to dissolve. Just as a factory may be empty at night, even if all residents leave a unit temporarily, or permanently, the unit’s territory is still owned by someone.³⁷ Without domiciliaries collective decision making

³⁷ As a tentative hypothesis, the authors suggest that the UN may claim ownership to territory not claimed by anyone else. However, there appears to be a belief that no one owns the North Pole (<http://members.tripod.com/90north/northpole.htm>), although Canada at various times claims sovereignty, and

reverts to residents and citizens and eventually to the owners of the territory. The unit is dissolved when the last remnants of the territory is accepted by another unit on the application of its owner.

To see how the Creation, Adjustment, and Dissolution Mechanisms may operate, consider the following statement by the 1991 Nobel prize winner Coase (1988d:117):

“The government is, in a sense, a super-firm (but of a very special kind) since it is able to influence the use of factors of productions by administrative decision. But the ordinary firm is subject to checks in its operations because of the competition of other firms which might administer the same activities at lower cost, and also because there is always the alternative of market transactions against organization within the firm if the administrative costs become too great.”

In Coase’s spirit, the proposed remedy of this article is to subject units to some of the same market forces as ordinary firms. The expectation is that this lowers the cost of government, or increases the benefits or welfare associated with governmental units. The definition of costs and benefits is broader than Coase’s. We include the tangibles measurable by income, gross domestic product and the like, but also the more difficult to measure intangibles like lack of coercion, peace, subjective happiness, etc.

Competition between governmental units is assumed to be desirable, and usually occurs jointly with cooperation. Using the language of game theory, one example is coordination games where the players coordinate on a mutually preferably equilibrium. Other examples are mixed motive games such as the battle of the sexes or chicken game where players compete for their preferred equilibrium, but also coordinate to avoid outcomes which can be jointly disastrous. Zero-sum games, exemplified by dividing a fixed cake, cause competition and cooperation to be at odds with each other, but such games are not the most common societal games which usually involve joint competition and cooperation.

Greenland (Denmark) has neighboring interests. The continent surrounding the South Pole (<http://www.globalclassroom.org/antarct9.html>) constitutes nearly a tenth of the world's territory. Argentina, Australia, Chile, France, Norway, Russia, the UK, the US claim pie-slice sections, but the 1959 Antarctic Treaty freezes such territorial claims. No one has yet claimed ownership for the moon, Mars, or any other object in the universe outside the earth. For disputed territory, we let the appropriate court settle the issue. For territory that is abandoned or not yet claimed, we assume that the first individual who claims it as his, is the owner, possibly through court settlement.

Consider a given level (local, regional, global) with a certain number of governmental units and a certain number of domiciliaries within each unit. The utility or welfare u for each individual in a given unit³⁸, defined as benefits minus costs, can be defined as

$$u = u(g, s, o, p, r, t), \quad (1)$$

where

g =geography (size, shape, etc of unit)

s =Social factors (language, ethnicity, religion etc.)

o =politics, social organization and legal system

p =population of unit

r =resources, natural and man-made available to unit

t =technology or knowledge available to unit

The number of variables in the welfare function u , and the interpretation of benefits and costs, vary across individuals. Values for social factors may be subjectively perceived as benefits by some individuals, and costs by others. For large units in terms of population and geographical size, each individual's decision as to which unit to adhere to has negligible impact on the character of the unit itself.³⁹ This implies a market-like structure, provided that transaction costs of all kinds (including discovery costs, decision making costs, etc.) are low, which it is the purpose of the Creation Mechanism and Adjustment Mechanism to provide. This article does not propose to abolish government. Thus the benefits of administrative decisions noted by Coase will still be available to the extent that the costs in the aggregate are lower than what may be obtained in the market.

6 Advantages of the alternative constitutional model

The advantages of the Creation Mechanism and Adjustment Mechanism are as follows:

1. All decision making is delegated down to each autonomous individual. The absence of majority voting prevents the "tyranny" of the majority over the minority.
2. The absence of exit and entry barriers causes sizes of units to be optimally adjusted as each individual maximizes his welfare. This self-adjustment feature has various advantages, such as increased welfare which benefits individuals Pareto optimally.

³⁸ The collective welfare function is a pure aggregate of the individual welfare functions, and is thus determined by the same variables.

³⁹ As is always the case, if the number of participants is low, we no longer have a market-like structure.

3. Benefits may be realized by lowering barriers to entry of units.
4. The benefits of loosening up the rigid structure in the present constitutional model may be of the quantifiable kind, e.g. better services at a lower cost, and thus better operational resource utilization.
5. The benefits may also be of the less easily quantifiable kind, e.g. better allocation of resources in the sense of more closely adhering to the subjective preferences of the individuals.
6. If the end result of the present mechanisms, and the Creation Mechanism and Adjustment Mechanism is the same, e.g. a new unit, welfare benefits and other benefits may follow from settling the issue peacefully rather than violently.
7. If the end result is not the same, e.g. because the alternative constitutional model allows for the creation of units that would not have been created otherwise, or for the non-creation⁴⁰ of units exemplified by Hobbes' (1651:chap. XIII-XIV) "state of war", without "natural laws" of government, alternative welfare benefits may arise. Such benefits arise from the rational behavior hypothesis where one of the postulates is that more choice is preferable to less choice.⁴¹ Recent econometric results by Frey et al. (2001:2) support the hypothesis that more choice, from the individual's point of view, is better than less choice. That is, there may be benefits associated with the process itself, referred to by Frey et al. (2001) as process utility, quite independent of the final result. Hence without evident benefits,⁴² welfare benefits may be associated with having the option of creating a new unit whether that option is exercised or not.
8. Buchanan (1987:1029,1031) correctly observes that immigration policy will be contentious when incomes differ in the original polity, and that the poor tend to lose out because they remain outside the sharing coalition of each polity. That is, "those who are poor remain outside the sharing coalition and, because they remain poor, they cannot readily secede. They either remain subject to maximal fiscal exploitation or possibly resort to extreme measures such as revolution." The Adjustment Mechanism lowers the cost of secession, and reduces exploitation by the rich and powerful. Immediate beneficiaries are the poor and/or those currently subject to economic or other exploitation

⁴⁰ Non-creation applies to the actual process and to a unit that might have existed, but never was created. Non-creation is distinct from abolishment which applies to an existing unit. Non-creation applies to Hobbes' "state of war", thus not creating a new unit, and not abolishing a unit since no unit exists.

⁴¹ That is, expanding the opportunities for peaceful voluntary unit creation or non-creation by itself increases welfare, if for no other reason than because of the expanded choice itself.

⁴² Benefits would not be evident if the unit in question had perfect knowledge of each citizen's preferences and was perfectly responsive; a somewhat tall order.

like minority discrimination etc., who can more easily secede. In the long run everybody benefits as governmental units become more cost effective and responsive. Similarly for firms, some cater to the rich, some to the poor, and some to both, dependent on focus on quality, price, or niche (Porter 1985). Analogously to traditional market based goods and services, there is no reason to believe that the poor will be left out, though the range of goods, services, opportunities, etc available to them may be different. Governmental units that require a fee for entry, in order to prevent free-riding e.g. on luxury public goods, likely exclude the poorest immigrants who instead transit to units with other characteristics including lower or no entry fees.⁴³

9. The mechanisms tend to optimize governmental units independently of how units are modeled, as shown below.

Further advantages of the Creation Mechanism are as follows:

10. No a priori judgment by the individuals or anyone else is necessary, since the mechanism is self defining (a self defining referendum), in the sense that it is the proposal itself that defines the boundaries of the proposed new unit, which implicitly defines who are the decision makers (voters).
11. The mechanism is self-limiting, and self-adjusting with respect to geographical size and population. If the proposed geographical size or population is too large or too small, the proposal will fail as the individuals will no longer believe it to be in their interest to vote in favor of the proposal. Thus it is in the interests of the sponsors of the proposal to adjust the proposal to what they believe to be an optimum value.
12. When optimizing with respect to size, keeping the other variables constant, the Creation Mechanism makes possible moves to the global maximum of the welfare function, since the people do not have to pass through valleys between local maxima in cases when the welfare function is not single peaked. While the Adjustment Mechanism is gradual, i.e. individual by individual or lot by lot as far as territory goes, and thus moves each individual from one point to the next point adjoining on the welfare surface⁴⁴, the Creation Mechanism enables radical changes from one point on the surface to any other

⁴³ Our current societies have huge problems in this regard. Some people, who want to leave their country, pay smugglers huge amounts and/or take huge personal risks in crossing borders illegally to countries they prefer.

⁴⁴ Each citizen's welfare function has a component related to other citizens. When the population is large, the impact of a one-person population change on each of the other citizens is small, approaching zero as the population approaches infinity, but nevertheless facilitates an incremental move from one point on the welfare surface to the next adjoining point.

point.⁴⁵

Further advantages of the Adjustment Mechanism are as follows:

13. Adjustments at the edges give optimal size of government (local optimum).
14. Adjustments at the edges give local minimum for the cost function, or local maximum for the corresponding welfare function.
15. Adjustments in general involve fewer people and less territory and may be made to operate at a lower total cost than referenda. Adjustments, together with the option of the Creation Mechanism, provide an implied unanimity in the adherence to a governmental unit.
16. Factors such as geography and resources influencing optimal size of government may remain constant, but other factors change, e.g. population, social factors, politics, technology.
17. Incorporating a fee into the immigration criteria for the governmental function prevents or ameliorates free riding. Without a fee, entry likely increases, and investment in infrastructure, social services (e.g. pension rights) and other non-exclusive public goods likely spirals downward and gets reduced below the level desired by the original population. A fee is not common for transits across today's nation states, though there is a flourishing black market fee system where criminals charge would-be emigrants from the third world for possible and risky entry into the first world. Instead of a fee, today's richer countries (e.g. Europe and North America) commonly shut their gates, with few loopholes. Such shutting is coercive, requires costly controls, and provides incentives to get around the controls. The Adjustment Mechanism lets individuals within each governmental unit design a preferred function that determines entry criteria.

7 How the alternative constitutional model optimizes governmental units

Let us illustrate through four different lines of reasoning how the Creation, Adjustment, and Dissolution Mechanisms tend to optimize governmental units independently of how units are modeled.

⁴⁵ Multi-peaked utility functions may for instance come about as a consequence of possible shifts in technology. E.g., when sufficiently many citizens decide to move from a small to a large unit, it may e.g. at some point become feasible to build a new subway system or a new highway to increase welfare. This gives a peak at a low population/geographical extent value, and another peak at a high population/geographical extent value that enables highway construction, while all intermediate points cause lower welfare.

1. Let us use Coase's model of government as a firm, described above. Firms emphasize minimizing costs of production. Firms exist because there are costs associated with market transactions that may be eliminated by internalizing the allocation of resources. This internalization creates administrative costs. For any given product or service the firm internalizes those functions where the administrative costs are lower than the corresponding transaction costs in order to minimize the sum of costs per unit of output and thus maximize profits. If a firm fails to optimize its cost structure, it may go out of business as customers switch to substitutes from other lower cost firms. The market mechanism constrains the firm both on the input side (encouraging the firm to enter into market transactions for those inputs it cannot obtain at a lower cost internally) and on the output side since the price obtainable for its outputs are determined by the market. With the proposed mechanisms, governments will be similarly constrained on the output side. If a unit charges (through taxes or fees) substantially more for the same (or nearly the same) products and services as nearby units, it will find its borders closing in on it as its residents migrate to other units either through the Creation Mechanism or the Adjustment Mechanism. Assuming the managers of governmental units would like to "stay in business", they will have broadly the same incentives as "firm" managers in optimizing their cost structure. If there is no conscious effort on the part of unit managers, the end result will be that the low-cost producers survive.

2. The proposed model tends to optimize the size of units. Many typical local governmental tasks have a cost function that is size dependent. If the unit size (in terms of population or area) is too small, costs are high. Cost per unit then falls as size increases until a certain optimum, beyond which costs again rise. To the ultimate customer it doesn't matter whether the terms of the provided service is competitive because of optimal input selection according to point 1 above or because the governmental unit as such has an optimal size. But if size is non-optimal, an alternative governmental unit may become even more attractive by combining an optimum input selection with optimum size. Consequently, in a long-term equilibrium both size and the proper mix of internal and market transactions are optimized.

3. While the two lines of reasoning above are most readily applicable to typical local governmental functions, social, legal and cultural issues may often be more prevalent at higher levels of government. Historically, state creation has come about primarily because of social and cultural issues rather than narrow economic considerations. The mechanisms are not size dependent. They operate at the county, city, township, state, and national levels. The

mechanisms do not depend on various motivating factors such as economic interests or cultural factors. The mechanisms facilitate transactions, and do not question what is transacted. The mechanisms account for what can be measured, such as costs of services, and intangibles such as religion, political system, and other social and cultural issues, which are subjectively important, but difficult to measure. The long term equilibrium is determined by all these factors, and may or may not coincide with the results of a technocratic long term cost function assuming such a function could be constructed.⁴⁶

4. The mechanisms may be analyzed in terms of the unanimity criterion proposed by Wicksell (1896), extended by Buchanan and Tullock (1962). Buchanan and Tullock (1962:64) point out that the expected external costs to each resident of collective decision making reach zero when the decision requires unanimity. This is because “he will not willingly allow others to impose external costs on him when he can effectively prevent this from happening.” The mechanism does not impose a unanimity criterion for all decisions, but it does in a sense require unanimity or near unanimity in the context of adherence to a particular territorial unit.⁴⁷ ⁴⁸The reason is that any resident may at any time propose the creation of a new unit, and a resident landowner may decide as a single resident whether a new unit should be created. This adherence to a particular unit places definite constraints on the aggregate outcome of all decisions. The aggregate outcome must, taken as a whole, confer net benefits on all individuals within that unit. Furthermore, these benefits cannot be less than the benefits any other unit is capable of offering to that particular resident, and assuming equivalent other costs. The implication, over time is that Pareto optimal solutions are obtained where no resident can be made better off without making somebody else worse off. The design is Pareto optimal because those that have other preferences will leave. No a priori definition is imposed for “optimum size”, which follows as a consequence of the residents’ preferences. As an example, taxes are decided by the domiciliaries. The actual

⁴⁶ The emphasis on facilitating market like transactions also eliminates the need for any (a priori) normative judgments about which factors “ought” to be included in any explicit optimization. Thus in a very real sense we bypass much of the current discussion regarding the size of units, optimal level of public goods provisioning, taxation etc. Once we leave these issues directly to the citizens, our own opinions as researchers or politicians become unimportant.

⁴⁷ If that territorial unit is a sovereign state we do in a sense impose this unanimity requirement on the constitutional makeup of that state as well. This can be made clearer by extending the second sentence of Assumption 2: “The draft shall describe the boundaries of the new state and its constitution.”

⁴⁸ Because collective decision making is costly in itself, we do not expect all decisions to be by unanimity. Decision making that does not involve large external costs is likely to be delegated. The proposed model works on all costs and benefits, including external costs and collective decision making costs. This optimizes the tradeoff between the different costs and benefits as perceived by each domiciliary, and also optimizes for all domiciliaries.

distribution of costs and benefits across domiciliaries in equilibrium depend on the domiciliary preferences, and how domiciliaries move in and out of governmental units. This paper does not impose exogenous preferences on domiciliaries, and hence does not provide a mathematical formulation of the equilibrium.

Regarding point 4, Alesina and Spolaore (1997) do not impose the practical unanimity criterion, which makes their conclusions problematic in terms of the criteria discussed above. Alesina and Spolaore (1997:1035) apply a majority decision making model which does not assure Pareto optimality. Although they can assure that the aggregate outcome confers net benefits on the majority of individuals within that unit, they cannot assure that net benefits are conferred on all individuals within the unit. This means that disgruntled individuals have nowhere to go in Alesina and Spolaore's (1997) approach, and must accept the tyranny of the majority discussed in section 2. Alesina and Spolaore's (1997) approach stands in stark contrast to the approach in this article, which indeed allows each disgruntled individual somewhere to go through individual decisionmaking.

Assuming majority voting and violating Pareto optimality, Alesina and Spolaore (1997) find that democratization leads to secessions which, together with international economic integration, imply inefficiently many countries. Such a result is quite common when majority voting is assumed. Alesina and Spolaore (2003) correctly "argue that the optimal size of a country is determined by a cost-benefit trade-off between the benefits of size and the costs of heterogeneity."⁴⁹ A variety of other factors also play a role. Casella (2001b:83) argues that "the optimal number of jurisdictions is unique and increases with market size." Bolton and Roland (1997:1057) find that "separation occurs in equilibrium" "when income distributions vary across regions and the efficiency gains from unification are small." Also, they find that "all incentives for separation disappear" "when all factors of production are perfectly mobile." One deficiency of Bolton and Roland's (1997:1057) result is the assumption that welfare is maximized through majority voting which means that the median voter's tax preferences are satisfied. In the absence of unanimity there is no guarantee that this is the case, as shown by Wicksell (1896) and Buchanan and Tullock (1962).⁵⁰ When other decision

⁴⁹ More specifically, "in a large country, per capita costs may be low, but the heterogeneous preferences of a large population make it hard to deliver services and formulate policy. Smaller countries may find it easier to respond to citizen preferences in a democratic way."

⁵⁰ Unanimity takes on a special role in Wicksell's (1896) treatment, highly influential on Buchanan and Tullock (1962). Buchanan translated Wicksell to English, Buchanan and Tullock (1962) devoting considerable portions

making models are applied, such as the one in this article, a different conclusion is reached. It is quite possible that democratization leads to a large number of countries, but this number is not necessarily inefficient, and the question is also; inefficient for whom. From the individual's point of view, the alternative constitutional model leads to a number of countries that is reasonably efficient. Results of these and similar kinds will continue to emerge from this literature, generating a web of models. To allow for analytical tractability and sufficiently specific results, restrictive or specialized assumptions typically have to be made, often combined with a narrow focus. As Levins (1966,1985) suggests with respect to model building, "truth is the intersection of multiple lies." Care should be exercised when drawing conclusions from the specialized models that emerge. This article avoids both specialized assumptions and a narrow focus.

Externalities come in many shapes and forms, external to each individual, with respect to each governmental unit, and with respect to governmental functions. Decisions by individuals and governmental units inevitably affect other individuals and governmental units. Assume as a dysfunctional externality that 100 individuals have read Hausken's (2000) description of the benefits of migrating from groups with high productive efficiency to groups with high fighting efficiency. If these 100 individuals decide to create their own governmental unit and focus on raiding the wealth of all surrounding units, the natural response of the surrounding units is to search for defense and survival mechanisms beyond those considered by Hausken (2000).⁵¹

A governmental unit that is violent or oppressive to its own domiciliaries may not suffer immediate dissolution, but it may suffer low prosperity and a steady erosion of territory and people. One current example is North Korea which uses 25% of GDP on national defense and has a weak economy. Does anyone doubt that if given the choice its domiciliaries would cause its territory and population to shrink? Similarly, how long would DDR (the German Democratic Republic) or the Soviet Union have existed if its domiciliaries had had the opportunity throughout to exit that country and instead have their real property annexed to

of their book to unanimity, Pareto optimality and decision making rules. Note that what Bolton and Roland (1997:1079) in a normative statement call the "damaging effects of fiscal competition" and "inefficiencies of fiscal competition" tends to increase the effective majority behind a particular level of taxation, which may assure a more Pareto optimal structure. That is, while 50% of the population favors a tax rate of 30%, 90% of the population may favor a rate of 10%. Thus lower taxes may bring us closer to unanimity, and hence a more optimal solution.

⁵¹ Similarly, having earlier focused on the IRA and spies from the cold war era, a democracy such as the UK currently expands its MI5 to meet the Al Queda threat.

another governmental unit.⁵²

In short, emigration may occur, and remaining inhabitants may endogenously find an interest in redesigning its function from within to regain the trust and be welcome within the community of governmental units. If the remaining inhabitants are unable to redesign its function, the governmental unit will eventually most likely be dissolved.

Alternatively, assume that 100 individuals either within a new or existing unit engage in wasteful political processes, e.g. as described by Congleton (1980). Individuals may engage in dysfunctional bargaining, individual rent seeking, bribery, political wheeling and dealing, etc. Individuals losing out in this battle may also choose the “exit” option, leaving those left behind worse off since they have fewer to exploit. Individuals losing out if in minority cannot redesign its governmental function, but can exit.⁵³

History suggests that marginalizing violent governmental units representing an external threat to other governmental units has been more successful than marginalizing groups engaged in political wasteful processes internal to a governmental unit, which is common today. As an example from WWII, Germany became a threat when it invaded neighboring countries, and Japan became a threat with the Pearl Harbor attack.

Developments like these, marginalizing violent groups, have been common over the last centuries. But it is true that national defense is an area involving huge economies of scale. In this case we would expect a high level of cooperation among governmental units. Our expectations are supported by history where we do see a high level of cooperation among democracies as evidenced by e.g. NATO which is clearly the world’s most important military alliance.

⁵² The Berlin Wall fell (was opened) November 9, 1989, the first and only free parliamentary election of the DDR was held in March 1990 and by October 3, 1990 the former DDR governmental unit had ceased to exist, instead becoming part of the German Federal Republic.

⁵³ Note in this regard Hirschman’s (1970) “distinction between alternative ways of reacting to deterioration in business firms and, in general, to dissatisfaction with organizations: one-exit-is for the member to quit the organization or for the customer to switch to the competing product, and the other-voice-is for members or customers to agitate and exert influence for change ‘from within’.... Hirschman’s (1970) questions “the efficiency of the competitive mechanism, with its total reliance on exit.... As exit often undercuts voice while being unable to counteract decline, loyalty is seen in the function of retarding exit and of permitting voice to play its proper role.”

Just as the concepts of markets and market theory generally presuppose voluntary transactions, our model does similarly rely on voting and individual choice, not violence, as the primary means of conflict resolution. It is true that in real life we do have theft and economic crime, but this is usually not the primary focus of economics and market analysis and as markets empower individuals, the relative importance of theft, economic crime and coercive practices diminish.

Similarly the long-term trend for relations between governmental units is one of increasing voluntary exchange (trade) and increasing peaceful co-operation as manifested by e.g. an increasing number of international organizations. Governmental units that threaten other governmental units are generally coercive also in their internal structure and thus not attractive to their own domiciliaries who will be happy to exit if they get the chance (e.g. DDR, Soviet Union).

As in real markets we expect that widespread implementation of the alternative constitutional model enables innovations ameliorating dysfunctional externalities. Within the constraints imposed by the real world, governmental units will likely tend towards their optimal size as determined by individual preferences. An optimal stationary solution will never be reached, since innovations in technology and organization, changes in culture, demography, population and preferences, and changing birth and death rates of individuals constantly alter what is optimal. Decision-making by autonomous individuals, however, jointly assure movement toward an ever changing optimal solution.

The alternative constitutional model is not expected to imply homogenous governmental units, but individual units (notably small scale units such as local governments) may become more internally homogenous. Complementarities and division of labor, etc. will exist. A rich country such as Switzerland, equipped with a fragmented and decentralized decision making model also in terms of immigration decisions, has among the largest foreign populations in Europe. A more decentralized decision-making structure may increase diversity across units.

This article focuses on the practical approach of how to discover and implement the subjective preferences of the people. For a majority of people subjective preferences and beliefs are often not known or not explicitly verbalized. Even when known and verbalized, subjective preferences and beliefs are often not available quantitatively for mathematical

treatment. Even if we at a single point in time could construct a complete preference schedule for all individuals, incorporating future innovations in technology and organization would still be difficult. This is because if we knew about them, they would not be innovations. Rigorous analytical models based on assumptions are useful, but may lack the flexibility needed to accommodate innovations. This may lead to less adaptation and less expression of new innovations, and lower growth over time. While in the study of a particular market, mathematical models are useful tools in as far as they may allow predicting market action given a specified set of assumptions, they may become impediments to change from the moment the assumptions are taken to be universally valid, and the models are used to prescribe the actions of individual agents.

The model is inferior to one imposed by an omnipotent omniscient agent. Examples of omnipotent agents have usually been disastrous since these have not been omniscient. Hence the first-best solution is not available, and our task is to choose among the second-best solutions in today's literature. The question is whether the alternative constitutional model is better than the current one, which has a variety of disadvantages described in this article, such as reliance on war, violence, coercion, which causes substantial welfare loss. This article suggests that the answer is yes since it allows more choice than today's model.

8 Limitations of the alternative constitutional model

Let us contemplate limitations. First, Frey (2001:170-171) contemplates whether residents and consumers become overburdened in a direct democracy. We propose that mechanisms for voting can be adequately structured, applying e.g. the internet with the advent of electronic signatures. Complex issues can be placed on an optimal format. Frey proposes that "a governmental or a private advisory service can be established, which offers information and support for the consumers' decisions."⁵⁴

Second, the mechanisms may create states that are economically inefficient in a narrow sense. The response is that this doesn't really matter. Narrow economic efficiency may not be what the population wants; i.e. it is the subjective welfare of each resident that counts, not an outside observer's opinion on what the welfare preferences of the participants ought to look like. Residents may legitimately trade monetary income for other intangible subjective

⁵⁴ See also Chapter 7 item 4 and footnote 47.

benefits.

Third, the mechanisms may create states that are non-contiguous. Whether non-contiguous states are dysfunctional has to be determined through voting by the residents, which constitute the group that is most directly involved, and not by outsiders.

Fourth, the mechanisms may impose costs on parties outside the proposed borders. For example, people may find that they are located on a border instead of in the middle of a country. Such externalities are unavoidable. Any consumption or investment decision influences other people. Only in the idealized world of perfect markets do externalities not exist. If an individual purchases his grocery elsewhere, his current grocery store may go out of business. Does this restrict individuals' choice of grocery stores? The externalities we impose are in many respects needed to get the market mechanism and an efficient resource allocation to function. If our grocery store loses customers, this provides him with the information he needs to either enhance his product, or, if he goes out of business, releases resources that can be put to better use elsewhere. The question is not between the mechanisms proposed in this article and a perfect world, but between the mechanisms and today's states of affairs, or between the mechanisms and other less than perfect mechanisms.

Fifth, higher level governmental units have a legitimate role to play in arbitrating conflicts between lower level governmental units. At the world wide level this means that the UN and the International Court of Justice have a legitimate role in arbitrating conflicts related to the implementation of the mechanism between sovereign nations, and that a national government has a legitimate role in arbitrating conflicts between component states in a federation and so on down to the lowest level. The function of each higher level governmental unit is determined by the domiciliaries of its members through collective decisionmaking. These domiciliaries may delegate decisionmaking authority to higher level units, but can withdraw such delegation if the delegated authority is abused.

9 Why we are yet to observe the alternative constitutional model in the real world

Today's constitutional model is entrenched and not easily replaced. The main reason is that those that benefit from the current model have the power to keep it in place. Power holders usually don't relinquish power willingly (Buchanan and Tullock 1962, Hobbes 1651).

In economics terminology we may observe that the transition from a traditional constitutional model to our model is not likely to be Pareto optimal as current models depend to a lesser or greater extent on non-voluntary coercive practices. In other words even in today's representative democracies there are segments of the population that are exploited and other segments that are exploiters. This is of course most obvious for non-representative states where benefits accrue to a smaller elite, but it is true even of representative democracies.

For this reason common methods to replace constitutional models have been coups and revolutions. Revolutions and political writings (Locke, Montesquieu, Polybius, etc) have often instigated transitions towards more democracy and autonomy. The current paper advocates a further transition towards individual autonomy, which naturally causes resistance among those benefiting from the current model.

As an example, consider the emergence of one constitution with a high emphasis on autonomy. After Columbus landing in the Americas in 1492, and the Declaration of Independence in 1776, the US Constitution was ratified in 1788. It was put together in a revolutionary context by people with a practical bent but whose primary life focus was not government and it thus represented a radical departure from established practice at the time. The revolution was not Pareto optimal. For example, the King and his advisers in London, among others, were left worse off than before.

However, due to the US Constitution's superior utility, i.e., its ability to increase wealth and happiness compared with other constitutional models at that time (mainly Monarchy) many other constitutions emerged thereafter with similar content.

The emergence of a successful model can then often start on a small scale. If a model proves successful in some locations, it can more easily be adopted elsewhere through trial and error, and due to competitive pressures. In the case of the US, the fact that the US was willing to receive immigrants on a large scale, naturally put pressure on constitutional arrangements elsewhere as well.

Similarly, within the US, states with more recent constitutional arrangements tend to have a higher degree of individual autonomy.

Even though the initial transition, all others things being equal, may not be Pareto optimal, decisions thereafter are likely to have a higher degree of optimality than current arrangements. In the slightly longer run it is thus likely that a substantial portion of those that suffer a transitional loss will be able to recoup this loss and more, through a more effective constitutional arrangement.

10 Conclusion

The article suggests a constitutional model attempting to remedy shortcomings of the contemporary constitutional models, at the local, national, and super national levels. The article defines a governmental unit, with a territory, a function, and a population. An enabling mechanism is proposed consisting of creation, adjustment, and dissolution mechanisms for governmental units. The mechanism is designed such that Pareto optimality is possible, in contrast to earlier models which make various assumptions such as majority voting. The mechanism gives autonomy to each domiciliary as in a direct democracy. Since residents are themselves best equipped to find their own solutions, the emphasis is on the practical approach of how residents discover and implement their subjective preferences and how this discovery and implementation process can be facilitated and corresponding costs lowered.

The article subjects governmental units to some of the same market forces as ordinary firms, in the spirit of Coase (1988a). This brings the interaction between governmental units closer to a market structure, and serves to eliminate or reduce many of the coercive elements of government. The governmental unit market is today as undeveloped or underdeveloped as the equity markets were prior to the limited liability company invention. The societal benefits of competitive governmental units are large. Creating a more market like structure reduces or eliminates the need for normative or a priori judgments about the optimum size of units, optimum provision of goods and services, optimum level of taxation, etc. Reduction of barriers to entry facilitates the introduction of technical and organizational innovations.

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