Article Title: The Birth, Adjustment, and Death of States

Kjell Hausken
School of Economics, Culture and Social Sciences
University of Stavanger
P.O. Box 2557 Ullandhaug
N-4091 Stavanger, Norway
E-mail: kjell.hausken@oks.his.no
Tel.: +47 51 831632, Tel. Dept: +47 51 831500, Fax: +47 51 831550

John F. Knutsen
Knutsen & Didriksen AS
Torleiv Kvalviksgate 5B
N-4022 Stavanger, Norway
E-mail: john@k-d.no
Tel.: +47 5155 8540, Fax: +47 5155 8541

Version: March 13, 2002

Keywords: Territorial units, individual liberty, individual decision making, individual welfare, competitive markets, public choice, constitutional economics, political economy.

Journal of Economic Literature classification numbers: H4, H5, H11

Article Title: The Birth, Adjustment, and Death of States

Abstract

The article proposes Erection, Adjustment, and Death mechanisms for governmental units, giving autonomy to each citizen as in a direct democracy. Rather than focusing on a narrow model with restrictive and specialized assumptions, and subsequent solutions, as has been common in the literature, the article takes citizens seriously acknowledging that they are best equipped to find their own solutions. The emphasis is on the practical approach of how citizens discover and implement their subjective preferences. Governmental units are subjected to some of the same market forces as ordinary firms, in the spirit of Coase (1988). 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 concomitant flows of citizens, goods, services, and capital across borders at the superstate, state, regional, and local levels make the regulation or non-regulation of birth, adjustment, and death of states and local territorial governmental units especially relevant. The history of international political and constitutional economy has traditionally assumed borders as exogenously given, despite the fact that borders are continuously redrawn through a variety of mechanisms.

At the turn of the millennium a literature is gradually emerging[1] which accounts, in the tradition of recent trends within economic theory,[2] for the endogenous determination of borders. It can be suggested that the literature can be tentatively or stereotypically divided into an "American" approach and a "European" approach.[3] The American approach, starting with Tiebout (1956), recognizes the importance of competitive units at the local level, and focuses, in the spirit of Buchanan and Faith (1987), on a competitive structure's ability to optimize local governmental services and taxes. Extensions are made by Alesina and Spolaore (1997), Glomm and Lagunoff (1998), Casella (2001ab).[4] In contrast, the European approach centers on trade between nations, and optimization of the number of nations in a trading context. Examples are Bolton and Roland (1997) and Bolton et al. (1996).

A common result is that democratization leads to secessions which, together with international economic integration, imply inefficiently many countries (Alesina and Spolaore 1997). Similarly, Casella (2001b:83) argues that "the optimal number of jurisdictions is unique and increases with market size." Bolton and Roland (1997:1057) argue that "separation occurs in equilibrium" "when income distributions vary across regions and the efficiency gains from unification are small," but 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

[1] In somewhat 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] This division refers more to funders of research than to where researchers are geographically located.

[4] See Dowding et al. (1994) for a survey of the empirical Tiebout literature, pointing out that Tiebout is quoted in more than 1000 papers. See John et al. (1995) for a micro-level test of the behavioral assumptions of the Tiebout

when the median voter's tax preferences are satisfied (majority voting). In the absence of unanimity there is no guarantee that this is the case, as shown by Wicksell (1896) and Buchanan and Tullock (1962).[5] 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.

An unfortunate side effect of the analytical approach is that the focus on a mathematical solution implementable by social economists takes attention away from the more practical approach of how to discover and implement the subjective preferences of the citizens. For a majority of citizens 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. Assuming we could construct a complete preference schedule for all citizens, incorporating future innovations in technology and organization would be difficult. (If we knew about them, they wouldn't be innovations.) Rigorous analytical models thus frequently lack the flexibility needed to accommodate innovations. This may lead to less adaptation and expression of new innovations, and hence 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, they may become impediments to change from the moment they are used to prescribe the actions of individual agents.

Neither the American nor European approaches have focused much on what is empirically the most important reasons for state erection; social, cultural, religious and ethnic issues. Lacking is also the obvious welfare benefits like less war, revolution, etc. associated with lower barriers to entry. The focus on narrowly defined economic utility inadequately accounts for utility which is difficult to

---

model.

[5] 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 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" does tend to increase the effective majority behind a particular level of taxation, which may assure a more Pareto optimal structure. I.e., 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.

measure. Frey et al. (2001) attempt to remedy this by process utility in addition to outcome utility, demonstrating empirically that "reported subjective well-being of the population is much higher in jurisdictions with stronger direct democratic rights." I.e., utility is derived from the political process itself.

The purpose of this article is to propose mechanisms designed to reduce the costs associated with 1) the erection of governmental units, 2) the adjustment of unit borders, and 3) the possible death of units. The article suggests that optima can only be achieved through the inclusion of the citizens in the decision making process. Given the proper decision making procedures and institutional framework, there is no necessary conflict, as has been claimed, between democracy and the optimum size of a governmental unit. The approach is firmly embedded in the economic tradition, but has a broad rather than narrow focus, and avoids making restrictive and specialized assumptions. The focus is thus on the operative side of the mechanisms, and not on the solutions which abound in the literature (based on a narrow focus with restrictive and specialized assumptions). The autonomy is thus allocated down to the individual citizen, who is best equipped to find his preferred solution.

Section 2 provides the common characteristics of the present (i.e. today's) constitutional model, with disadvantages in section 3. Section 4 provides an alternative constitutional model, with advantages and limitations in section 5. Section 6 concludes.

2 The present constitutional model

Although the present (i.e. today's) constitutional models vary considerably across territories and governmental levels, this section attempts to extract certain archetypical and possibly stereotypical characteristics that are common and provide a benchmark for comparison with the alternative constitutional model proposed in section 4. Even for a reader disagreeing with some of the description and disadvantages in sections 2 and 3, insight may be gained by comparison with sections 3 and 4.

Definition 1. The term unit denotes any territorial unit or area at the local, regional, or global level, with its associated governmental functions and associated citizens. Examples are local communes, towns, cities, counties, regions, other regional governmnental bodies, states, countries, nations, and

certain supernational governmental units (e.g. EU), etc. [6]

Definition 2. The size of a unit refers to both its geographical size and the number of citizens within its borders.

We consider a given level (local, regional, global) with N units and n_i citizens associated with unit i, i=1,…,N. At this level we thus get a profile of $[n_1,n_2,\ldots,n_N]$ citizens across the N units.

The present constitutional model reveals a variety of mechanisms for

1. birth, adjustment, and death of units. A new unit may be erected by local government reorganization initiated by a central authority, and more importantly in a state context; "liberation", war, revolution, violent partition or UN Resolution. Formerly, colonization of newly discovered uninhabited territories was important, as was the peaceful erection of new states in the USA. 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 births and deaths of territorial units take place in a context of violence and coercion.
2. exit (emigration) and entry (immigration) of people (citizens and non-citizens).
3. electing or not electing government.
4. governmental or collective decision making.

The present constitutional model lacks mechanisms for

1. resource mobility for physical resources connected to land.

3 Disadvantages of the present constitutional model

We distinguish between the temporary direct disadvantages of the present mechanisms associated with the methods for the creation, destruction, and altering 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, with substantial human and material loss in the creation, destruction, altering of boundaries, and also change of

[6] Governmental units without a territory are not included in the discussion, see Frey (2001). As a practical matter most governmental units have a territorial extent even though only some (sovereign states) have a monopoly on

function of units.[7]

2. Many units do not have the kind of governmental, legal or social institutions that the population wants.
3. Many units do not efficiently provide the population with the services it wants, i.e. resources are squandered and growth hampered by a dysfunctional (e.g. large and inefficient) public sector.[8]
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 the majority over the minority, causes at least some citizens 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 citizens within their borders.[9]
8. Unit size is not presently dynamic so innovations in organization or technology are not reflected in changes to unit size and organization.[10]
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.[11]

---

the use of force within its territory.

[7] 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.

[8] The public sector controls about 37% of GDP (tax revenues as % of GDP, 1998 figures from OECD website) in OECD countries and has significantly lower productivity growth (in some cases negative) than the rest of the economy.

[9] 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.

[10] 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.

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

10. The lack of resource mobility between units is dysfunctional related to rent seeking[12] and for other reasons. Even though financial assets may move quite freely between units, the most important real factors are severely restricted in their mobility. The two most important 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.[13]
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 citizen's preference function and methodological issues related to the weighing of each citizen's function with respect to all other citizens in the collective preventing the achievement of a clearcut optimal solution.[14]

4 An alternative constitutional model

The critique of mathematical models in the introduction does not mean that this section succumbs or acquiesces to a non-specific, qualitative, or sociological alternative constitutional model. Quite the

[12] 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).

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

[14] 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. 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.

contrary; the proposal falls firmly within the economic tradition where each citizen maximizes his own welfare, but he does so in a manner where preferences and beliefs are not given in the traditional economic sense. Preferences and beliefs are partly and differentially known to the citizens, and they engage in bounded rationality and trial and error in attempts to increase welfare.[15] We recognize that it is never possible to fully know every citizen's set of preferences, i.e. omniscience is impossible.[16] Thus our task is not to prescribe each citizen's actions, but rather to help each citizen express his preferences in a more efficient manner.

Most units today do not have formal mechanisms for the creation, destruction, altering of boundaries, and change of function of units. Instead many units (e.g. states) are assumed to exist unchanged for eternity. There may be benefits of loosening up this rigid structure, e.g. by introducing the following Erection Mechanism[17] and Adjustment Mechanism.[18] [19]

Erection Mechanism (Assumptions 1 and 2):

Assumption 1. Each citizen has the right, in collaboration with that subset of the N citizens resident within the boundaries of a proposed unit, to erect a new unit either within the boundaries of an existing unit, or by the amalgamation of two or more units or parts of units.

---

[15] 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). There exists much literature on this subject outside the scope of this article, initiated by Simon's (1955) argument that man has limited capacity for processing information and preferences.

[16] 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.

[17] The Erection 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 erection, 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.

[18] 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 Erection Mechanism.

[19] The basis for these assumptions may be found in a prior work of one of the authors, see Knutsen (1992) or www.basiclaw.net.

Assumption 2. Any citizen qualified to vote may sponsor a draft proposal for the erection 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 and 4):

Assumption 3. Each citizen has the right to leave or to transit[20] through any unit and bring with him property of any kind.[21]

Assumption 4. Each citizen has the right to withdraw from any unit's territory any of his non-contested real estate that has been accepted by another unit or retain his existing citizenship and the territorial affiliation of his non-contested real estate in the case of erection of a new unit.

Death Mechanism (Assumption 5):

Assumption 5. A unit must have a non-zero territorial extent, and dies otherwise.

The Erection mechanism is a considerable transition toward individual freedom and direct democracy. Assumption 1 lets each individual choose where to be a citizen. Assumption 2 allows each individual to take the initiative to erect a new unit. Requiring unit size at least marginally larger than zero is done to rule out units without territory (treated by Frey 2001), and to ensure that each citizen 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", i.e. both movable and immovable property (real property or real estate). Assumption 4 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. For the purpose of Assumptions 3 and 4, real estate is meant to include 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

[20] 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.

[21] Property includes real property i.e. land and property associated with land (buildings etc.) which, through re-drawing borders, can be transferred to another unit.

agricultural products located above ground.[22] The Death mechanism in Assumption 5 allows units to die. Note that even though property does not have citizens residing on it, it may still be owned by somebody. E.g., a factory may be empty at night, can it be claimed? Furthermore, even if all citizens leave a unit temporarily, it may still be owned by someone.

To see how the Erection, Adjustment, and Death mechanisms operate in praxis, consider the following statement by the 1991 Nobel prize winner Coase (1988:117):

> "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 will materially lower the cost of government, or what amounts to the same thing, increase the benefits or welfare associated with governmental units. However, the definition of costs and benefits is much broader than Coase's. I.e., we include not only 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.

The utility or welfare u for each citizen in a given unit[23], defined as benefits minus costs, can be defined as

$$u = u(g, s, o, p, r, t), \tag{1}$$

where

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

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

o=politics, social organization and legal system

[22] The Erection and Adjustment mechanisms tie together citizens and real property owners. Citizens decide whether to erect a new unit, but they must obtain the consent of at least one property owner as we are dealing with territorial units. From a practical point of view the sponsors of a proposal to erect a new unit may contingently contract with a property owner to purchase one unit of real property upon the erection of a new unit.

[23] The collective welfare function is a pure aggregate of the individual welfare functions, and is thus determined

p=population of unit

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

t=technology or knowledge available to unit

The welfare function u has several important characteristics. First, it consists of many variables. The exact number will vary from case to case as any individual variable may be fixed (constant) for some units and variable for others. Additionally, there is no immediate and clear distinction between benefits and costs. E.g., particular values for social factors may be subjectively perceived as benefits by some citizens, and perceived as costs by other citizens. (In general whether any particular quantity is a cost or benefit depends on where we take our reference level, 0-level, to be.) If units are relatively large in terms of population and geographical size, each citizen's decision as to which unit to adhere to has only negligible impact on the character of the unit itself.[24] Thus we have a market-like structure, provided that transaction costs of all kinds (including discovery costs, decision making costs, etc.) are relatively low, which it is the purpose of the Erection 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.

5 Advantages of the alternative constitutional model with limitations

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

1. All decision making is delegated down to each autonomous citizen where no majority voting allows for 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 citizen maximizes his welfare. This self-adjustment feature has many advantages.
3. Although there are differences in the impediments to the creation and destruction of units, and although violence may play a role, this article suggests that benefits may be realized by lowering those many and diverse barriers to entry that do exist.
4. The benefits of loosening up the rigid structure in sections 2 and 3 may be of the quantifiable kind, e.g. better services at a lower cost, and thus better operational resource utilization.

---

by the same variables.

[24] As is always the case, if the number of participants is low, we no longer have a marketlike structure.

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 citizens.
6. If the end result of the present mechanisms described in sections 2 and 3, and the Erection Mechanism and Adjustment Mechanism is the same, e.g. a new unit, substantial welfare benefits and other benefits may be gained by having the issue settled peacefully rather than violently.
7. Even if the end result is not the same, e.g. because the alternative constitutional model allows for the erection of units that would not have been created otherwise or for the non-erection[25] of units that would have been erected through a more violent method (certainly not a very common occurrence), there may still be welfare benefits. Such benefits arise from the rational behavior hypothesis where one of the postulates is that more choice is preferable to less choice.[26] Recent econometric results by Frey et al. (2001:2) support the hypothesis that more choice, from the citizen's point of view, is better than less choice. I.e., 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. Even without evident benefits,[27] there would still be a welfare benefit associated with having the option of creating a new unit whether that option is exercised or not.
8. The mechanisms tend to optimize governmental units independently of how units are modeled, as shown below.

Further advantages of the Erection Mechanism are as follows:

9. No a priori judgment by the citizens or anyone else is necessary, since the mechanism is self defining (a self defining referendum). It is selfdefining because it is the proposal itself that defines the boundaries of the proposed new unit, which implicitly defines who are the decision makers (voters).
10. The mechanism is also 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 citizens will no longer believe it to be in their interest to vote in favor of

[25] Non-erection applies to the actual process. Non-erection means absence of erection. I.e., it applies to a unit that might have existed, but never was erected. Non-erection is thus distinct from abolishment which applies to an existing unit. More specifically, non-erection applies to men living in Hobbes' (1651:chap. XIII-XIV) "state of war", without "natural laws" to govern them, thus not erecting a new unit, and not abolishing a unit since no unit exists.

[26] I.e., expanding the opportunities for peaceful voluntary unit creation or non-erection by itself increases welfare, if for no other reason than because of the expanded choice itself.

[27] Benefits would not be evident if the unit in question had perfect knowledge of each citizen's preferences and

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.

11. When optimizing with respect to size, keeping the other variables constant, the Erection Mechanism makes possible moves to the global maximum of the welfare function, since the citizens 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. citizen by citizen or lot by lot as far as territory goes, and thus moves you from one point to the next point adjoining on the welfare surface[28], the Erection Mechanism makes possible much more radical changes directly from one point on the surface to virtually any other point. [29]

Further advantages of the Adjustment Mechanism are as follows:

12. Adjustments at the edges give optimal size of government (local optimum).
13. Adjustments at the edges give local minimum for the cost function, or local maximum for corresponding welfare function.
14. 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 Erection Mechanism, provide an implied unanimity in the adherence to a governmental unit.
15. Even if many factors like geography and resources influencing optimal size of government may remain fairly constant, others change, e.g. population, social factors, politics, and above all technology.

Let us illustrate through four different lines of reasoning how the Erection, Adjustment, and Death mechanisms tend to optimize governmental units independently of how units are modeled.

1. Let us use Coase's model of government as a firm, described above. Firms emphasize minimizing

---

was perfectly responsive; a somewhat tall order.

[28] This discussion may seem unclear since 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.

[29] Multipeaked 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.

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 optimize (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 thus 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 citizens migrate to other units either through the Erection Mechanism or the Adjustment Mechanism. Thus, assuming the managers of governmental units would like to "stay in business", they will have broadly the same incentive as "firm" managers in optimizing their cost structure. (Even if there's no conscious effort on the part of unit managers as such, the end result will anyhow be that the low-cost producers will be the survivors.)

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 really 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. Thus in a longterm equilibrium situation both size and the proper mix of internal and market transactions will be optimized.

3. While the two lines of reasoning above is 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 erection has come about primarily because of social and cultural

issues rather than narrow economic considerations. The mechanisms are not, however, size dependent; they work equally well whether at the county, city or township level or at the state or national level. Neither are the proposed mechanisms dependent on the motivating factor whether it be narrow economic interests or cultural factors. The mechanisms are there to facilitate transactions, they don't ask you why you want to transact. Consequently, the proposed mechanisms take into account not only what can be measured like the cost of services, but also those intangibles like religion, political system, and other social and cultural issues, that are subjectively important, but difficult to measure. The longterm equilibrium will be determined by all these factors, and thus may or may not coincide with the results obtainable through a more technocratic longterm cost function even if that could be constructed.[30]

4. The mechanisms may also 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 citizen of collective decision making reaches 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 proposed mechanism does not impose a unanimity criterion for all decisions, but it does in a sense require unanimity or very near unanimity, in the context of adherence to a particular territorial unit[31].[32] The reason is that any citizen may at any time propose the erection of a new unit, and a resident landowner may in fact decide as a single citizen whether a new unit should be erected. 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 citizen, absent decision making and transaction costs, and assuming equivalent other costs. The implication, over time, is that Pareto optimal solutions are obtained where no citizen can be made better off without making somebody else worse off.

---

[30] 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 become unimportant.

[31] 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."

[32] Alesina and Spolaore (1997) do not impose this practical unanimity criterion, which makes all their conclusions

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

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 citizen that counts, not an outside observers opinion on what the welfare preferences of the participants ought to look like. Citizens may legitimately trade monetary income for other intangible subjective benefits.

Third, the mechanisms may create states that are non-contiguous and thereby dysfunctional. The response is that yes, states may be non-contiguous. However, whether such a state is necessarily dysfunctional is a question that has to be answered not by economists or outside observers, but by the citizens, which constitute the group that is most directly involved. This is something the population would have to consider in their voting.

Fourth, the mechanisms may impose costs on parties outside the proposed borders, e.g. people suddenly finding that they are located on a border instead of in the middle of a country. This is a general problem, any real consumption or investment decision influences other people. It is only in the idealized world of perfect markets that externalities do not exist. If I decide to move my grocery purchases elsewhere, my current supplier may go out of business and his employees become unemployed. Does this mean that I should be restricted in my choice of where to buy my groceries? The externalities we impose are in many respects needed to get the market mechanism and an efficient resource allocation to function. If our grocery supplier 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 real question is not between the mechanisms proposed in this article and a perfect world, but between the mechanisms and the state of affairs as

---

problematic.

they are today, or between the mechanisms and other less than perfect mechanisms.

6 Conclusion

The article suggests a constitutional model attempting to remedy shortcomings of the contemporary constitutional models, at the local, national, or super national levels. Rather than focusing on a narrow model with restrictive and specialized assumptions, and subsequent solutions, as has been common in the literature, the article proposes straightforward and simple Erection, Adjustment, and Death mechanisms for governmental units, giving autonomy to each citizen as in a direct democracy. Realizing that citizens are themselves best equipped to find their own solutions, the emphasis is on the practical approach of how citizens discover and implement their subjective preferences.

The article subjects governmental units to some of the same market forces as ordinary firms, in the spirit of Coase (1988). 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. 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 also facilitates the introduction of technical and organizational innovations.

References

Alesina, A. and Spolaore, E. (1997), "On the Number and Size of Nations," Quarterly Journal of Economics 112, 4, 1027-1056.

Black, D. (1958), *The Theory of Committees and Elections*, Cambridge University Press, Cambridge.

Bolton, P. and Roland, G. (1997), "The Breakup of Nations: A Political Economy Analysis," Quarterly Journal of Economics 112, 1057-1090.

Bolton, P., Roland, G., and Spolaore, E. (1996), "Economic Theories of the Break-up and Integration of Nations," European Economic Review 40, 697-705.

Bordignon, M. and Brusco, S. (2001), "Optimal Secession Rules," European Economic Review 45, 1811-1834.

Buchanan, J. and Faith, R.L. (1987), "Secession and the Limits of Taxation: Toward a Theory of

Internal Exit," American Economic Review 77, 5, 1023-1031.

Buchanan, J. and Tullock, G. (1962), *The Calculus of Consent*, Ann Arbor Paperbacks, The University of Michigan Press, Michigan.

Caplan, B. (2001), "Standing Tiebout on His Head: Tax Capitalization and the Monopoly Power of Local Governments," Public Choice 108, 101-122.

Casella, A. (2001a), "Market Mechanisms for Policy Decisions: Tools for the European Union," European Economic Review 45, 995-1006.

Casella, A. (2001b), "The Role of Market Size in the Formation of Jurisdictions," Review of Economic Studies 68, 83-108.

Coase, R.H. (1988), *The Firm, the Market and the Law*, University of Chicago Press, Chicago

Dowding, K., John, P., and Biggs, S. (1994), "Tiebout: A Survey of the Empirical Literature," Urban Studies 31, 4/5 767-797.

Elster, J. (1983), *Sour Grapes*, Cambridge University Press, Cambridge.

Frey, B.S. (2001), "A Utopia? Government Without Territorial Monopoly," Journal of Institutional and Theoretical Economics 157, 162-175.

Frey, B.S., Kucher, M., and Stutzer, A. (2001), "Outcome, Process and Power in Direct Democracy," Public Choice 107, 271-293.

Friedman, D. (1977), "A Theory of the Size and Shape of Nations," Journal of Political Economy 85, 1, 59-77.

Glomm, G. and Lagunoff, R. (1998), "A Tiebout Theory of Public vs Private Provision of Collective Goods," Journal of Public Economics 68, 91-112.

Hausken, K. (2000b), "Migration and Intergroup Conflict," Economics Letters 69, 3, 327-331.

Hirshleifer, J. and Hirshleifer, D. (1992), *Price Theory and Applications*, Prentice Hall, New Jersey.

Hobbes, T. (1651), *Leviathan*, J.M. Dent & Sons Ltd., 1973.

John, P., Dowding, K., and Biggs, S. (1995), "Residential Mobility in London: A Micro-Level Test of the Behavioural Assumptions of the Tiebout Model," British Journal of Political Science 25, 379-397.

Knag, S. and Knutsen, J.F. (1990), "Ny kommunelov-Et radikalt alternativ," Unpublished manuscript, Oslo.

Knutsen, J.F. (1992), *As the People Want It, Blueprint for a New Confederation*

Fremskrittspartiets Utredningsinstitutt, FUI Report No. 7, www.basiclaw.net.

Krueger, A. (1974), "The Political Economy of the Rent-Seeking Society," American Economic Review 64, 291-303.

Levins, R. (1966), "The Strategy of Model Building in Population Biology," Am. Sci. 54, 421-431.

Levins, R. (1985), The Dialectical Biologist, Cambridge, Mass. : Harvard University Press.

Posner, R. (1975), "The Social Costs of Monopoly and Regulation," Journal of Political Economy 83, 807-827.

Simon, H.A. (1955), "A Behavioral Model of Rational Choice," Quarterly Journal of Economics 69, 99-118.

Tiebout, C.M. (1956), "A Pure Theory of Local Expenditures," Journal of Political Economy 64, 416-424.

Tirole, J. (1988), *The Theory of Industrial Organization*, MIT Press, Cambridge.

Tullock, G. (1980), "Efficient Rent-Seeking," in Buchanan, J.M., Tollison, R.D., and Tullock, G., Toward a Theory of the Rent-Seeking Society, Texas A. & M. University Press, College Station, TX, 97-112.

Wellisch, D. (1994), "Interregional Spillovers in the Presence of Perfect and Imperfect Household Mobility," Journal of Public Economics 55, 167-184.

Wicksell, K. (1896), A New Principle of Just Taxation, in Gwartney, J. and Wagner, R. (editors, 1988), *Public Choice and Constitutional Economics*, Jai Press Inc., Greenwich, CT 06830.

Wittman, D. (1991), "Nations and States: Mergers and Acquisitions; Dissolutions and Divorce," American Economic Review 81, 2, 126-129.