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Paul Hallwood

University of Connecticut, paul.hallwood@uconn.edu

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**From Tranquility to Secession and Other Historical Sequences:
A Theoretical Exposition**

Paul Hallwood
University of Connecticut

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341 Mansfield Road, Unit 1063
Storrs, CT 06269-1063
Phone: (860) 486-3022
Fax: (860) 486-4463
<http://www.econ.uconn.edu/>

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Abstract

A model is developed explaining many common historical sequences: inter alia, the rise and fall of empires, expansion or contraction in the geographic size of nations, wars of secession, non-contested secessions, and growth of supra-national unions. The basic unit of analysis is a transaction in international (or national) law that verifies and legitimizes transformations from one organizational entity to another. Decision-makers for national, or super-national entities as well as those at sub-levels are assumed to be welfare maximizers under cost constraints. Potential secessionists face dispute costs, and decision-makers for the higher-level entity incur persuasion costs. Both costs may include military expenses. These transaction costs are shown to play a crucial role in determining the optimal number of independent countries in the world.

Journal of Economic Literature Classification: F5, K33, N40, P48

Keywords: autonomous regions, causes of war, civil war, clash of civilizations, collapse of empire, economic union, empire, end of history, federalism, human rights, international borders, secession, self determination, theory of history, transaction costs, unitary state, war of secession.

The global number and pattern of independent countries has changed markedly during the course of the last one hundred years. In fact, in the last two decades, the dismemberment of twentieth century creations, the Soviet Union, Yugoslavia and Czechoslovakia, has spawned a large number of independent countries. Moreover, there are continuing pressures to split some existing unions apart including Scotland from the UK, Quebec from Canada, and Basque country from Spain. Indeed, Marshall and Gurr (2005) list 26 ‘ongoing’ armed conflicts for self-determination, and another 23 they describe as ‘contained’. In the opposite direction some countries have joined into single unions, as have East and West Germany, as Kosovo would like to do with Albania, and federalists would like to create a ‘United States of Europe’ out of the European Union’s twenty-seven sovereign powers.

Secessions and unions are traditionally the stuff of analysis by historians and political scientists but, recently, economists have made a contribution. Alesina and Spolaore (2003) offer a pioneering economic analysis modeling the optimal size of nations. They do not however offer an explicit analysis of national expansion or contraction in historical time, assuming only that an optimum will be reached. They do recognize that “the actual dynamics of border formation are complex, and may include several interactions of variables and effects that are difficult or even impossible to capture in simplified equilibrium relationships” (page 9). Perhaps this latter consideration is why one reviewer of their book rather cruelly concluded that “ultimately, what is most striking

¹ I would like to acknowledge helpful comments from Lanse Minkler, Eric A. Posner and Christian Zimmermann.

about the proliferation of states in the twentieth century is how little impact such economic considerations have had” (Ikenberry, 2004). To deal with this criticism this paper offers a broader model than heretofore. It also considers the ‘end of history’ argument of Fukuyama (1992), arguing that his model is insufficiently detailed as it does not explicitly discuss many of the elements found in our model. Moreover, it is demonstrated that Huntington’s ‘clash of civilizations’ is a special case of the economic model offered here.²

The basic assumption is that relevant national and sub-national level decision-makers attempt to maximize an objective value function under a cost constraint. This methodology is very familiar to economists; to historians and political scientists it may be less familiar. The advantage of this approach is its generality. Rather than having to develop different theories for disparate historical events, say, the causes of the end of British rule in India and the causes of the US annexation of Texas, a general theory encompassing both is offered. We assume that a change in national borders takes the form of a ‘transaction’ in international law as new borders are claimed and recognized. As such, changes in borders are subject to transaction costs. In the following model there are two types of transaction cost - ‘dispute cost’ (incurred by an entity - such as a sub-region of a larger union) that pursues independence; and ‘persuasion cost’, that is incurred by the larger entity (say a unified state such as the UK, or an empire, such as was the Soviet Union) that is aimed at ‘persuading’ the sub-region from leaving the union.

² Huntington (1993).

It is argued that, with these transaction costs defined, changes in borders depend on the interaction of the *net* benefits of potential secession for a secessionist minded sub-region and the *net* benefit for the larger union of retaining the sub-region as a part of itself.

These sub-region-union interactions are shown to define four broad historical situations: tranquility within a union, empire, war of secession and non-resisted secession.

Moreover, the analysis is extended to cover the basic politico-economic forces leading to international wars, and the creation of international unions of states. Taken together, the following analysis, based on rational choice theory prominent in economics, uncovers twelve quite common historical dynamic patterns relating to the stability, expansion and collapse of states. Examples of each are given.

A simplified union

Imagine a “union” – a sovereign country of two or more sub-regions. It could be a voluntary union of countries, or it could be an empire (defined as a union where membership of at least one sub-region is not entirely voluntary). The inhabitants of the different regions in the union see themselves as being different from one another. The differences arise from their different histories stemming from many possible sources - different languages, religions, race, social, legal, and economic institutions, and cultures.³ In figure 1 union X is shown as having three sub-regions A, B and C, there could be more of course. Such a union could be Scotland, England and Wales in the UK, Estonia, Latvia and Russia in the Soviet Union, or Vietnam, Cambodia and France in the French Empire.

³ To what extent these different ‘glues’ are enough to bind a people together into a single nation that secedes from a union is the subject of many historical studies. Clearly, a common language was not enough to bind the Irish and English together; and while different religions led to the partition of India, East Pakistan eventually seceded from the rest of Pakistan (see Khan, 2007).

The union X

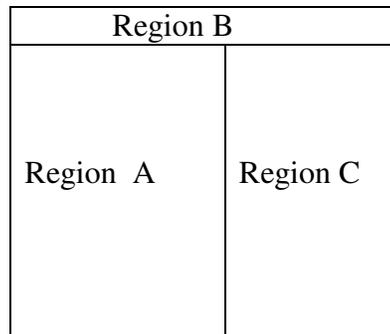


Figure 1: A union composed of three regions

A sub-region will rationally not wish to remain in the union X if expected benefits from gaining independence exceed the cost of creating a sovereign boundary between itself and what remains of the union.

What exactly the benefits of sovereignty are thought to be is likely to vary from case to case. The supposed benefits are held in the minds of ‘nationalists’ – meaning those people who identify themselves with a region rather than with the union as a whole. We define these benefits as the ‘economic rent of sovereignty’. “Economic rent” is perhaps not the best term that could be used but it does indicate a surplus enjoyed by some group, in its original usage owners of land, which is apposite in the current context. In fact, using rational choice theory to model state behavior is not new as many analyses of treaty formation attest – see, for example, Barrett (2003), Goldsmith and Posner (2005) and Keohane (2005). Extending rational choice theory to sub-national decision-makers is a logical extension and has been addressed by, for example, Collier and Hoeffler (2000)⁴

⁴ See also chapter 1 in Collier and Sambanis, 2005.

and Grossman (1999). In the former paper, sub-national decision-makers are warlords and their followers who expect to gain financially from secession. In that model wider national, societal, cultural, religious or ethnic grievances are of secondary concern. However, as Marshall and Gurr (2005) and Ballentine and Sherman (2003) show, frequently these latter factors are motivational. At the present level of abstraction we don't have to be concerned with which group in a region is the actual decision-maker and exactly what in its utility function it is aiming to maximize.⁵ We assume only that decision-makers attempt to maximize a utility function subject to cost constraint.

It is assumed that a state's or sub-region's interests are synonymous with the interests of the respective political leadership (see also Goldsmith and Posner, 2005). A political leadership may attempt to identify its interests with the interests of the wider citizenry that it weighs in some way. The less democratic is a country the greater may be the gap between the interests of the political leadership and those of the rest of the citizens – but even dictatorships to some extent have to take account of the interests of the citizens in order to head off insurrection (Alesina and Spolaore, 2003).⁶

The idea of a political leadership maximizing a utility function in which it trades off moral imperatives with other objectives is somewhat controversial in political science.

However, Kissinger (1994), an exemplar of the 'realist' school of statecraft, is clear about

⁵ In Young (2002) the argument is advanced that both economic (or material) factors and political factors enter into a secessionist's utility function, but that economic factors predominate in peaceful secessions.

⁶ Thus, our assumption is that a political leadership defines its interests and initiates policies designed to achieve them under cost constraint. This assumption cuts through the niceties of Arrow's impossibility theorem as it is the leadership that is attempting to maximize welfare as it sees it, not that of society as a whole, which may in any event be impossible.

the existence of such tradeoffs.⁷ In recent literature on secession a distinction is drawn between “greed” and “grievance”. The former has secessionists attempting to maximize a utility function, the latter ties them to some ‘higher’ values such as a right to self-determination – which has moralistic overtones. The fact that many secessionist movements have ended in compromise, on greater regional autonomy or greater representation for a sub-region in national government, strongly suggests that secessionists are not necessarily wedded to achieving moral imperatives; rather, that they are concerned with gaining net benefits out of a struggle. And the latter implies that secessionists perform, perhaps implicitly, benefit-cost calculations.⁸ In technical terms, it is assumed that decision-makers preferences are not lexicographic – even higher moral values are traded off when the costs of pursuing them are high enough.

The analysis proceeds assuming that sub-region B is a potential secessionist so that its dispute is with the union X. Sub-region A and C have a role in the model only in that they identify with the interests of the union as a whole.

B’s maximization problem

The expected benefit at a moment in time, t , for sub-region B of breaking away from a union is:

⁷ Kissinger writes: “The precise balance between the moral and the strategic elements of American foreign policy cannot be prescribed in the abstract. But the beginning of wisdom consists of recognizing that a balance needs to be struck. However powerful America is, no country has the capacity to impose all its preferences on the rest of mankind; priorities must be established. Even if the resources for it existed, undifferentiated Wilsonianism [or, a moral based foreign policy] would not be supported once the American public clearly understood its corollary commitments and involvement” (1994, page 812).

⁸ Bartkus (1999) uses a benefit-cost framework in an analysis of secessionist movements.

$$(1) \quad E(\text{economic.rent}B) = \sum_{t=1}^T \left(\frac{(pr_t)(\$rent)_t}{(1+r)^t} - \frac{(1-pr)_t \$x_t}{(1+r)^t} \right)$$

Where $E(\text{economic rent } B)$ is the expected present value of economic rent with independence less any economic rent that would have been available had B remained in the union; pr_t is the subjective probability of gaining sovereignty in any given year $t = 1 \dots T$; therefore, $(1 - pr_t)$ is the probability of not having gained sovereignty in year t ; r is the decision-makers' weighted average rate of time preference⁹; $\$rent$ is the annual rent that would be earned if sovereignty was won. This value is expressed in monetary terms but it could also be written in terms of utility; $\$x$ is economic rent if B does not gain sovereignty, so remaining in the union.

The numerical value of the terms in equation (1) may change over time. The probability of winning sovereign rights, pr_t , changes with circumstances – for example, if the commitment of the representatives of the union X to sustaining the union is thought to have weakened, pr_t may increase. The rate of time preference, r , may change if, for various reasons, secession is thought to have become more or less urgent in the minds of decision-makers. And annual economic rents under the different regimes, respectively, $\$rent_t$ and $\$x_t$, may change. For example, discovery of a natural resource such as oil in sub-region B raises $\$rent_t$ relative $\$x_t$, which was the basis in the 1970s of the separatists' cry "It's Scotland's oil!"

⁹ There is no need here to take sides on whether or not decision-makers apply a constant rate of discount across relevant future time periods. For a discussion of choice of discount rate in an international relations context see Streich and Levy (2007).

If separation and sovereignty for B is not agreed, nationalists there will wish to continue to press for secession. But there is a cost of maintaining a dispute. The expected discounted present value of dispute cost is:

$$(2) \quad E(\text{dispute.cost}) = \sum_{t=1}^T \left(\frac{(1 - pr)_t (\$dispute\ cost)_t}{(1 + r)^t} \right)$$

Where $(1 - pr)_t$ is again the subjective probability of not having sovereignty in any given year, t , in which case an annual dispute cost is incurred. These costs may be low – just the cost of a negotiating team. But they could be substantial – as when military conflict breaks out.

The *net* advantage to B of continuing a secessionist dispute is:

$$(3) \quad E(\text{net economic rent})_B = E(\text{economic rent } B) - E(\text{dispute cost})$$

Or,

$$(4) \quad E(NER)_B = (\text{equation 1}) - (\text{equation 2}).$$

B has to choose between pursuing sovereignty or remaining as a part of the union. This depends, respectively, upon whether $E(NER)_B$ is positive or negative.

The union's maximization problem

The government of the union X has a different set of calculations to make. It has to consider the return it gets from retaining B in the union in comparison with the cost of

persuading B to remain a part of it. At time t , X's expected economic rent derived from retaining B in the union is:

$$(5) \quad E(\text{economic.rent}X) = \sum_{t=1}^T \left(\frac{(1 - \text{Pr}_t)(\$RENT)_t}{(1+i)^t} - \frac{\text{Pr}_t \$y_t}{(1+i)^t} \right)$$

Where Pr_t is X's subjective probability of B seceding (and may be different from pr_t which is B's subjective probability of secession). $(\$RENT)_t$ is economic rent earned by X with B in the union, and $\$y_t$ is the economic rent that it may earn if B secedes. Finally, i is X's rate of time preference. It is reasonable to assume that $(\$RENT)_t$ is greater than $\$y_t$, perhaps substantially so, as with B in the union the union can tax resource rents in B, while it cannot do so once B has seceded.

X incurs a cost of persuading B to remain within the union. Persuasion cost could be the extra subsidies given by the union to B in an effort to make remaining in the union favorable for B. The UK's substantially higher per capita public spending in Scotland following the discovery of North Sea oil in the 1970s is a case in point. Also included in persuasion cost is any military expenditures by the union – such as the stationing troops in B - as is typical of imperial powers.

Persuasion cost is increased if X comes into conflict with the international community if it tries savagely to resist secession. As Gurr (2000) notes: “the new liberal wisdom holds that sovereignty can be trumped by humanitarianism and the international cavalry will ride to the rescue of minorities who face genocide” (page 61). Bosnia and Kosovo in the 1990s are cases in point. It is also interesting that Rouen (2004) finds that “an effective state bureaucracy undermines the rebels, but a strong government army does not

necessarily enhance the government cause”. An ‘effective state bureaucracy’ suggests that it operates at low cost to ‘undermine’ secessionists.

Persuasion cost is:

$$(6) \quad E(\textit{persuasion cost}) = \sum_{t=1}^T \left(\frac{(1 - \textit{Pr})_t (\$ \textit{persuasion cost})_t}{(1 + i)^t} \right)$$

From X’s point of view, the net benefit, $E(\textit{NER})_X$, of B remaining in the union is equation (5) minus equation (6).

$E(\textit{NER})_X$ is used in the analysis of whether X will agree to secession, or, sovereignty for B. Which it will do if $E(\textit{NER})_X$ is negative – secession occurs; or, whether secession will be resisted - $E(\textit{NER})_X$ is positive.

The payoffs in figure 2 for the two pairs of strategies are the present value of expected *net* economic rents, $E(\textit{NER})_B$ and $E(\textit{NER})_X$. The payoffs in the lower left of each box are those for the union, X, and those in the upper right those sub-region B.

		SUB-REGION B	
		Secession preferred	Prefer union with X
UNION X	Secession resisted	$E(NER)_B > 0$ War of secession $E(NER)_X > 0$	$E(NER)_B < 0$ Empire $E(NER)_X > 0$
	Secession Not resisted	$E(NER)_B > 0$ Non-resisted sécession $E(NER)_X < 0$	$E(NER)_B < 0$ Tranquility $E(NER)_X < 0$

Figure 2: To secede or not to secede?

The four boxes in figure 2 define four historical phases: a tranquil union, a stable empire, a war of secession and a non-resisted secession. Thus,

- 1) In the southeast box the net reward for pressing for secession is negative for sub-national unit B, and in any event union X would not resist as its persuasion cost of retaining B in the union is greater than the benefit of doing so. Both B and X prefer continuation of the union. Tranquility reigns. Forms of government found in each box include tranquility in a unitary state – a state with a central government with power devolved downward but answerable to it; federal states such as the USA and Germany; a commonwealth of largely independent states (as with the British Commonwealth); and in earlier times, intermarriage between kingdoms aimed at sealing alliances.

- 2) In the northeast box expected net economic rent is positive for the union but negative for B. This is the case of stable empire. B, with negative $E(NER)_B$, does not have sufficient motivation to try to secede, and X, with $E(NER)_X > 0$, would resist secession if B were to demand to do so. This is a broad definition of ‘empire’ as it does not distinguish between ‘empire through occupation’ – the Roman or French Empires, or, ‘empire through manipulation’ – the US ‘empire’ of the cold war when secession (e.g., Chile briefly under democratically elected President Allende, 1970-1973) was resisted. Empires include the classic European overseas empires. These can shade into a commonwealth. Thus, assuming that $E(NEB)_B < 0$ the critical value becomes $E(NEB)_X$. Strongly positive values indicate a vigorous system of empire. But as $E(NEB)_X$ falls, the net return on Empire falling, round about $E(NEB)_X = 0$, empire turns into commonwealth.
- 3) The northwest box has $E(NER)_B$ and $E(NER)_X > 0$ for both parties. This is the case of a ‘war of secession’. Region B has the motivation to secede and X has the motivation to resist.¹⁰ War of secession, a civil war in a union, can refer to a war supported by most people in sub-region B, to civil wars with only minority support from a sub-national population – as in the case of Northern Ireland in the last three decades of the twentieth century. Secessionist war may be aimed by B at having greater access to state power – what Gurr (2000) calls ‘ethnic rebellion’, or they may be wars of self-determination, of which there are two main cases –

¹⁰ Walter (2001) notes that between 1940 and 1996 there were 72 civil wars and that in a large number of these conflict was over the division of territory.

creation of an independent state – as with Ireland leaving the UK. Or, they may be wars to join another state of the same ethnic or religious type – the IRA’s aim of extracting Northern Ireland from the UK and attaching it to Ireland, or, Nagorno-Karabakh joining Armenia are two examples. Care needs to be taken in distinguishing between these two groups. Buhaug (2006) finds empirical support for different causal factors in wars of secession compared with state-takeovers – as through a coup for example. When a rebel group is strong relative to the state it may attempt to takeover the state; when it is relatively weak and has little chance of taking over the state, the preferred action becomes secession. Settlement of a civil war may be through B being granted greater access to power within the existing state, even though the original objective was separation. One should not mix up original objective with a compromised outcome. Marshall and Gurr (2005) identify more than a dozen wars of secession being settled by the grant of greater autonomy, rather than legal separation under international law.

- 4) The southwest box shows the case of peaceful, or, non-resisted, secession as region B desires to secede ($E(NER)_B$ is positive) and X has no desire to resist secession ($E(NER)_X$ being negative). Secessions in democratic countries are likely to be of this kind, and they are the sole type discussed in Alesina and Spolaore (2003).

Both tranquility and empire can be thought of as historical equilibriums in the sense that they often persist for a long time. The other two historical phases, war of secession and

non-resisted secession, are transitional phases that are likely to be of shorter duration than the other two. Even so, empires do not last forever, nor must tranquility, and wars of secession may last for generations.

Drivers of historical sequences

The argument above is that historical sequences are driven by combination of expected net economic rents between sub-national unit B and union X of which B is a part. There are 6 independent terms in equations (1) and (2) all relating to region B; and another 6 in equations (5) and (6) relating to the union X. These are summarized in Table 1.

TABLE 1: FUNDAMENTAL DRIVERS OF HISTORICAL SEQUENCES

<i>Elements in the calculation of Region B's expected net economic rent: $E(NER)_B$</i>	<i>Elements in the calculation of union X's expected net economic rent: $E(NER)_X$</i>
1. $(\$dispute\ cost)_t$: B's cost of disputing sovereignty with the union in period t	1. $(\$persuasion\ cost)_t$: the union's cost of persuading B to remain in the union at time t
2. $(\$rent)_t$: return to B with independence in period t	2. $(\$RENT)_t$: X's return with B in the union in period t
3. pr_t : B's subjective probability of secession in period t. Or, $(1 - pr_t)_t$: B's subjective probability of secession not occurring in period t	3. Pr_t : the union's subjective probability of B seceding in period t. Or, $(1 - Pr_t)_t$: union's subjective probability of B not seceding in period t
4. r : B's rate of time preference	4. i : union's rate of time preference
5. $\$x_t$: return to B if it remains in the union in period t	5. $\$y_t$: return to X if B leaves the union in period t
6. T: B's forward looking time scale	6. T: X's forward looking time scale

To justify the foregoing economic model consideration is now given to some examples of how the first five of these six factors can work out in practice.

1. Dispute cost and persuasion cost

Dispute cost is the opportunity cost of seeking secession from a union. It can include expenditures on political activities and diplomacy (sub-union expenditures in third countries) aimed at promoting the legitimacy of and support for a secessionist cause¹¹. Secessionists may appeal to principles of ‘human rights’ and arguments for self-determination to bolster their case. If hostilities breakout, dispute cost will include expenditures on weapons, cost of injuries and lost lives, and incidental costs of lost economic output¹². Theoretically dispute cost is a negative function of both a secessionist region’s forest cover and how mountainous is its terrain as these are natural defenses against unionist forces.¹³

Dispute cost of secessionist wars may be externalized within the secessionist region, B, to a larger non-supportive-of-secession population – plague, starvation ‘collateral damage, lost economic opportunities. To the extent that some part of dispute cost is avoided by secessionist fighters encourages them to prolong secessionist war. An objective of the central power, X, would be to internalize dispute cost to the secessionists. This could mean, for example, sharply focused military actions against them that touch non-secessionist minded people in B as little as possible. The greater is the externalization of dispute cost away from secessionists, the less is cost incurred by the secessionists themselves. In Collier and Hoeffler (2000) secessionists are motivated by greed – to take

¹¹ For example, as reported in various newspapers in early August 2007 the newly elected Scottish Nationalist government made demands on the Westminster government to enhance Scottish representation in the European Union and in British Embassies.

¹² For example, Blattman’s (2006) empirical evidence on recent African civil wars suggests that child inductees into secessionist guerrilla movements lose a year of schooling and, combined with injuries, leads to one-third lower earnings.

¹³ Collier and Hoeffler (2000).

control of oil or other mineral deposits, and may correctly be assumed not to place much weight on the havoc they may cause around them. Secessionists motivated by grievance however are more likely to want to minimize external cost. An example would be Mahatma Gandhi who, in seeking India's secession from the British Empire, promoted non-violent methods of protest.

Dispute cost incident on secessionists may be shared with a third power. In the American Revolution the secessionists were supported by France who supplied money, arms, soldiers, naval services and international recognition of the colony's independence. Similarly, following the Soviet invasion of Afghanistan in 1979, local resistance to incorporation in the Soviet Empire received outside support from, among others, Pakistan and the USA. Another example of critical outside power support, East Timor was able to secede from Indonesia in 1999 with the support of the UN and Australia. However, secessionist movements from the Soviet Empire in Hungary in 1956, and Czechoslovakia in 1968 – both taking steps that would ultimately have led to secession from the Soviet Empire, received no substantive outside support. These countries had already been ceded by the Western powers to the Soviets in 1945.¹⁴ Their revolts against Soviet authority were easily put down. As a further illustration of the possibly critical importance of third party support to secessionist movements in August 2007 Russia hinted that it would recognize South Ossetia (with a secessionist movement from Georgia), if the West recognized the independence of Kosovo from Serbia¹⁵. Finally, dispute cost is a positive

¹⁴ At the Yalta Conference.

¹⁵ *Financial Times*, August 8th, 2007, page 6.

function of a union's investment in persuasion cost. This would obviously be the case if hostilities break out and the level of fighting escalates.

Persuasion cost is also a positive function of dispute cost - for the same reason as just mentioned. However, as in Alesina and Spolaore (2003), legitimacy of a union is likely to be of little concern to a dictatorship once some minimum level of expenditure is reached, enough to head off insurrection.

2. Changes in expected economic rent

Many commentators stress an increase in expected benefits of independence being the main driving force for secession (e.g., Mansfield and Snyder, 2005 and Collier and Hoffer 2000). The latter reference stresses the direct pecuniary benefits of secession derived from exploiting natural resources. Subjectivity in ethnic rivalry is stressed by Sen (2006).

If identity is nothing more than a selective figment of the imagination as is argued by Sen (2006), one wonders if some causes of historical sequences are similarly caused by psychological misconceptions. In our model the two variables that pickup on this are changes in economic rent and changes in the subjective probabilities of secession. First, recognize that our definition of economic rent may include both natural resource rent – the excess return on natural resources that has a realizable pecuniary value; and a non-pecuniary value, as when an ethnic group simply puts a value on being together and separate from some other group who they think are somehow different from them. An

increase in natural resource rent can lead to demand for secession - $E(NER)_B$ turns positive. This may be buttressed by an increase in the non-pecuniary value component of economic rent, especially if warlords, or nationalists of whatever stripe, for self-interested reasons, fan the flames of ethnic diversity. Moreover, demands for secession can stem directly from an increase in this non-pecuniary economic rent unaccompanied by natural resource discoveries. This would appear to be the case in, say, Chechnya following the fall of the Soviet Union – there were no natural resource discoveries there, only that its Muslim population wanted to separate itself from the ‘others’ - so as to be alone together.

3: Changes in subjective probabilities of secession

As an historical example, irredentism in the nineteenth century Italian unification under the effective leadership of Garibaldi can be argued to have raised pr_t in the Italian States because the initially distant dream of unification became more likely. At the same time his successes probably lowered the Austria-Hungarian Empire’s Pr_t – namely that the Italian States would indeed secede from the Empire.

We said that misconceptions can cause the subjective probabilities of secession to change, so disturbing an historical equilibrium. There are two interesting cases: first, pr_t and Pr_t may be positively correlated. Assuming a starting point of tranquility, something might happen to raise pr_t – perhaps a conception is formed in B that X will not resist secession should B press the matter. Something like this happened in the Soviet Empire during the collapse of communism. Agitation in B for secession then raises Pr_t in X that B will secede. These changes in the subjective probabilities may be sufficient to move

the equilibrium from tranquility to non-resisted secession; or, beginning with Empire, also to non-resisted secession.

Secondly, pr_t and Pr_t may be negatively correlated. This is the case of “war as a self-fulfilling prophecy”, and it is a further illustration of the indeterminacy of historical equilibriums. For example, an outside power (not B and not X) may encourage B to seceded from X, so raising pr_t ; but X, feeling the threat from the outside power, resolves to keep B in the union. This resolve may be great enough to reduce Pr_t . If the changes in the two subjective probabilities are great enough, tranquility can turn into war of secession (when the signs of the expected net economic rents both turn positive due to the changes in the subjective probabilities).

The twin considerations that Pr_t and pr_t are subjective values that may be positively or negatively related means that predicting the future course of history, as in Fukuyama’s (1992) ‘end of history’ scenario, is fraught with uncertainties, perhaps so much so that such predictions deserve a healthy dose of skepticism.

4: Changes in the subjective rates of discount

Mansfield and Snyder (2005) provide empirical evidence showing that immature democracies – those in the process of moving away from authoritarianism, but without a full set of democratic institutions - such as an effective opposition party, independent judiciary or a free press, are more bellicose than are well established democracies or even authoritarian countries. Their argument is that political elites in immature democracies

whip up nationalist sentiment as a means of solidifying their position. In essence this is an argument about increased expected net economic rent. However, there is a different interpretation as exemplified by a recent statement at the International Institute of Strategic Studies (London) by Prince zu Shwarzenberg, a Czech government representative. He stated that “the Russians have always thought much more in long term and strategic considerations than other European states. Other European states [go] from one election to another and think more about tactics”.¹⁶ This is an argument about the subjective rate of time preference, specifically that mature democracies - the “other European states”, think short term relative to the Russians (exemplifying either dictatorship or immature democracy). Indeed, Mansfield and Snyder (2005) point out there is a marked difference between immature and mature democracies caused by the fact that governments in well established democracies know that they will quite shortly have to face elections (for example, the governing Republicans in the US in 2006 when they were punished for their failed Iraq policies), while a government in an immature democracy reasons that it can postpone elections if it thinks that it would lose the next one.

These arguments support the view that governments in mature democracies are more impatient for good results to place before the electorate following an act of bellicosity (incurrence of dispute costs) than are governments of immature democracies. The latter therefore have lower rates of time preference. Thus, the ‘power of discounting’ over expected future economic rents is lower for immature democracies than it is for mature democracies. In figure 3, discussed below, starting in the southwest box, ‘B as an

¹⁶ Quoted *Financial Times USA*, “Prague Warns of Kremlin Ambition”, July 20th, 2007, page 4

independent country', if country X moves away from authoritarianism to being an immature democracy $E(NER)_X$ may increase from negative to positive as expected rents rise relative to dispute costs. This will move the international system to the northwest box and, therefore, international war.¹⁷

If countries moving from authoritarian regimes must pass through a phase of immature democracy, the consideration that pr_t may change abruptly, suggests that changes in $E(NER)_B$ may lead to hostilities and away from tranquility. This is quite the opposite of what the 'democracies don't fight democracies' school of thought believes.

5: Changes in the returns if B remains in the union

A natural resource discovery in sub-region B will, via taxation of natural resource rents, raise the return to the union ($\$y$) if B remains in the union. If X is cognizant of maintaining the legitimacy of the union, it may choose to increase the return to B (that is, $\$x$) through the use of subsidies. Following the beginning of North Sea oil production in Scottish waters, much higher per capita public spending in Scotland compared with the rest of the UK by the union (Westminster) government is an example of a union's attempt to increase its legitimacy in a potentially secessionist sub-region

Some examples of historical sequences

¹⁷ Mansfield and Snyder (2005) in fact tend to the argument that in emerging democracies "In democratizing states, nationalism is an ideology with tremendous appeal for elites whose privileges are threatened. It can be used to convince newly empowered constituencies that the cleavage between the privileged and the masses is unimportant compared with the cleavages that divide nations, ethnic groups or races" (page 2). This is clearly an argument that elites present arguments to the masses that increases expected economic rent, but with the same effect on the propensity to go to war. Besides, the argument can be made that support for belligerence in immature democracies derives from low time preference – the expected gains from bellicosity becoming greater than the present dispute costs.

As mentioned earlier, in historical time, none of the four political states described in figure 2 need persist: tranquil unions may break apart, empires will crumble, wars of secession come to an end, and non-resisted secessions go through. For an historical event to affect change it must be numerically significant enough so as to change one or other of the signs of $E(NER)_X$ or $E(NER)_B$. For example, raising the value of $(\$rent)_t$ with sovereignty enough to change the sign of $E(NER)_B$ from negative to positive. As another example, the sign of $E(NER)_X$ may change as after World War II when an exhausted UK found $(\$persuasion\ cost)_t$ of maintaining the membership of the British Empire too great to bear, so ushering in a ‘wind of change’.

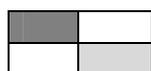
There are twelve possible one-step events each beginning in one of the four quadrants in figure 2 and ending in one of the remaining three quadrants. We will ignore the three possible sequences beginning in the southwest quadrant on the assumption that non-contested secessions go through with the effect that B exits the union. The remaining nine possible internal one step histories are as follows. (External sequences are discussed in relation to figure 3.)

Internal historical sequences

The nine one step histories are as follows.

Sequences 1 – 3: Beginning with tranquility the movement can be to:

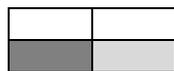
- War of secession (SE to NW)



Internal (or “societal warfare”) is the largest single category of warfare since the end of World War II as identified by Marshall and Gurr (2005). The other two are ‘interstate including colonial’, and ‘interstate’. Not all societal warfare is for secession, but in many instances it is – the other type being warfare for control of a state’s political machinery – which is not explicit in our model. Colonial warfare corresponds exactly with our modeling of “secession from empire”.

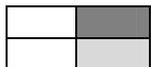
Gurr (2000) notes a trend in the 1990s for a union X to prevent wars of secession by anticipating demands of ethnic minorities for greater access to state power, ethnic recognition, or, autonomy. This may be interpreted as “human rights” being given greater recognition to head off conflict. Kissinger (1994) argues that adherence to Basket III, recognition of human rights, by signatories of the Helsinki Accords (1975) played a significant role in the breakup of the Soviet Empire less than two decades later. Greater autonomy leaves B with more economic rent. $E(NEB)_B$ increases. X trades off lower persuasion cost for lower economic rent. $E(NEB)_X$ may rise or fall. As mentioned there are many recent and ongoing examples of wars of secession, Croatia from Yugoslavia in the 1990s is one such.

- Non-resisted secession (SE to SW)



According to Wiberg (1991) there are only three examples of non-resisted secession in the twentieth century. Norway from Sweden in 1905 is a case in point. In this century there is the example of Montenegro from Yugoslavia.

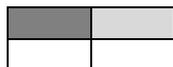
- Empire (SE to NE)



A tranquil relationship may exist between sub-unit B and the larger union X. Perhaps B has sought X's protection by joining it. But once B is a member of X, X may begin to exploit B and be prepared to use force to prevent B seceding. Thus, B becomes a part of an Empire. Kryzanek (1996, page 30) reflects the well known argument that through the Monroe Doctrine (1823) the US set itself up as the protector of South America from renewed European incursions; and the US was the first country to recognize the independence of the newly proclaimed South American Republics. If one could argue that at this time the US had no designs on South American countries yet had them in its sphere of influence, their main aim being to keep the Europeans out, it could be said that a condition of tranquility existed between them.¹⁸ However, in Chile in 1973 the USA inserted a US-leaning dictator when it appeared possible that Chile would leave its sphere of influence and join the Soviet sphere. This latter sequence can be characterized as Chile moving from tranquility to Empire.

Sequences 4 – 6: Beginning with *empire* the movement can be to:

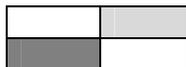
- War of secession (NE to NW)



For example, Chechens fight a war of secession from Russia.

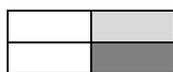
¹⁸ Smith (1995) sees the application of the Monroe doctrine in South America as largely benign until such time as the USA started to intervene there in its own interests. Knight (2005) argues "for decades the Monroe Doctrine was a mere rhetorical document".

- Non-resisted secession (NE to SW)



There are several examples of this drawn from the British Empire once it was recognized in the 1950s that there was a ‘wind of change’. For example, neither Ghana nor Nigeria had to fight a war of secession, prior to gaining independence.

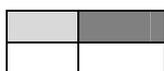
- Tranquility (NE to SE)



This case is exemplified by the granting of greater democratic autonomy to British Empire countries to manage their own affairs – a system of colonial governance that is said to originate with the 1838 Durham Report (Lucas, 1912, Ferguson, 2004).

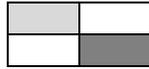
Sequences 7 – 9: Beginning with *war of secession* movement can be to:

- Empire (NW to NE)



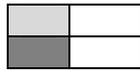
Chechens in losing (as of 2007), had to accept remaining as a sub-unit in an Empire – Russia’s. All secessionist wars that do not lead to independence and do not satisfy sub-national demands end this way. Chechnya in the space of about a dozen years has therefore passed through the sequence colony of USSR, war of secession, defeat, colony of Russia.

- Tranquility (NW to SE)



According to Gurr (2000) “In recent wars of self-determination fighting usually began with demands for complete independence and ended with negotiated or de facto autonomy within the state. Examples are Northern Ireland’s IRA, Macedonian Albanians, and Mizos people of India.

- Secession (NW to SW)



This is a successful war of secession – in the peace treaty, implicit or explicit, X ultimately recognizes B’s independence in international law.

International wars and other international historical developments

In figure 2 all four of the starting points assumed that B is a sub-region of the union X, and the historical sequences describe B’s progress in either exiting a union or remaining as a sub-region of it.

Another set of common historical settings and possible sequential events is described by the model set out in equations (1) to (6) if it is assumed that B beings as an *independent country* separate from X. These historical settings are described in figure 3 where, it will be noted, the combinations of the signs of $E(NER)_B$ and $E(NER)_X$ in the respective quadrants are the same as in figure 2. B will remain as an independent country as long as $E(NER)_B > 0$ and $E(NER)_X < 0$ – that is, in the southwest box in figure 3. Thus, B wishes

to remain independent and it would resist incorporation into the union X and, at the same time, X has no designs on B to incorporate it into its union. This is pretty much the case for the two-hundred or so independent countries that exist today.

		COUNTRY B	
		Independence preferred	Incorporation into X accepted
COUNTRY X	X threatens B's independence	$E(NER)_B > 0$ War: X attempts to takeover B $E(NER)_X > 0$	$E(NER)_B < 0$ X takes over B with little resistance $E(NER)_X > 0$
	X does not threaten B's independence	$E(NER)_B > 0$ B as an independent country $E(NER)_X < 0$	$E(NER)_B < 0$ Harmony: B may approach X to join its union $E(NER)_X < 0$

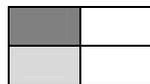
Figure 3: Will B remain independent?

The southwest box is the natural starting point in figure 3 as all three historical sequences leading away from it are common in recorded history.

Sequences 10-12: Three international sequences

If $E(NER)_X$ turns from negative to positive, the historical sequence is to the northwest box.

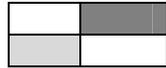
- Warring nations (SW to NW)



This is the case of *international war* over control of territory. Germany’s invasions of Czechoslovakia and Poland in 1939, and the Franco-German wars over Alsace-Lorraine are cases in point.

Secondly,

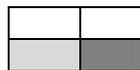
- Empire



This is incorporation of a formerly independent country B into X’s union with little or no resistance by B - the sign of $E(NER)_B$ being negative. Historical examples of this sequence, SW to NE, are India’s eighteenth century barely resisted incorporation into the British Empire, and the Inca’s ready submission to Spain in the sixteenth century.¹⁹

Thirdly,

- Voluntary union



An independent B voluntarily joins union X while X has no desire to involve itself militarily with B. The first mover is B. Lundestad (1986) argues that in the first five years after the end of World War II Western European invited the USA into a leadership position and he concludes that “this American expansion created what we could call an American empire, this was to a large extent an empire by invitation”. In our terminology this is ‘harmony’. The most obvious current example of this historical sequence is the continuing enlargement of the European Union as the recently liberated countries of

¹⁹ See Madariaga (1948)

Eastern Europe hastened to join it. It might also be argued that Scotland's incorporation into the UK falls into this category. But this would require the sign of $E(NER)_X$ to be negative, implying that England was indifferent to this enlargement of its union. This is debatable given Scotland's 'auld' alliance with France, and England's 'long' eighteenth century mortal struggle with France over control of continental Europe and overseas empires.

Comparison with other models

The foregoing model incorporates three recently developed historical models – the optimal country size model of Alesina and Spolaore (2003), the 'end of history' arguments of Fukuyama (1992), and the 'clash of civilizations' reasoning of Huntington (1993).

It is easy to show that the first of these, the optimal country size model, is more restrictive than the more general model offered here as Alesina and Spolaore do not include critical elements, namely, dispute and persuasion costs. In their model several factors can cause optimal country size to fall - for one or more regional secessions to reduce the size of a union, increasing the number of countries in the world. These size reducing factors are: a) a more open world economy; b) lower transaction costs in international trade and finance; c) the world becomes more peaceful; d) decline in the central power of an empire; and e) rise of nationalist movements. These size reducing factors can be incorporated into our model:

- a) Development of a more open world economy, which is the case ever since the end of World War II, tends to raise the value of $E(NER)_B$ by raising $(\$rent)_t$ because more open world trade raises B's gain from trading with the rest of the world. This is a simple gains from trade argument. It is also likely that pr_t will rise if B thinks that X will recognize that X itself can reap larger gains from international trade, rather than restricting itself to internal trade with region B. Recalculations will also occur in X tending to reduce the value of $E(NER)_X$. Pr_t rises if X realizes that B will push harder for secession (due to the increase in gains from international trade relative to internal trade); and $(\$persuasion\ cost)_t$ rises as B can be expected to press harder for secession.
- b) Lower transaction costs in international trade and finance – such as promoted by the internet. This is similar in its effect point (a) as the effective openness of the world economy is increased.
- c) The world becomes more peaceful. There are several reasons as to why this may occur – a hegemon supplies it, a world body such as the UN supplies it, or it is supplied regionally, for example, by the EU. On this point Alesina and Spolaore (2003) argue that an unpeaceful world favors large unions as regions huddle together for protection. Peace breaking out therefore tends to reduce the size of unions. In our model, the effect of a more peaceful world is, first, to raise the value of $E(NER)_B$ as pr_t increases (B thinks that as X no longer needs such large sized union it will more readily accept secession by B);

$(\$dispute\ cost)_t$ may also fall for the same reason; and r could increase as B becomes more impatient to secede. Secondly, the value of $E(NER)_X$ is likely to fall as Pr_t rises as X expects B to want to secede.

d) Decline in the central power of an empire (e.g. collapse of the USSR) has a rather obvious affect on the desire to secede. First, $E(NER)_B$ increases as it becomes more likely that secession may occur - pr_t increases. Moreover, B 's $(\$dispute\ cost)_t$ is likely to fall as it expects less resistance from X . On the side, $E(NER)_X$ is likely to fall because Pr_t rises as X expects B to press for secession; i may rise if the new rulers of X are less patient than the deposed 'dictator' (who can be assumed not to be impatient but to want the empire to live for 'a thousand years'); and $(\$persuasion\ cost)_t$ is also like to rise given that B has lost its fear of challenging X for independence. The rise in $E(NER)_B$ and fall in $E(NER)_X$ are the presumed reasons for why the replacement of the USSR by the Commonwealth of Independent States has failed to maintain the Russian hegemony to nearly the same extend as did the USSR.

e) A rise in nationalism – as with Italy in the nineteenth century. In this case $E(NER)_B$ increases as pr_t and impatience (r) both increase. Moreover, $E(NER)_X$ decreases as X (imperial Austria-Hungary in this case) realizes that secession is more likely, Pr_t increases, and $(\$persuasion\ cost)_t$ rises for the same reason.

A factor that can work in the opposite direction raising the optimal size of countries, is the introduction of a workable governmental system of federalism. Such a system reduces $E(\text{NER})_B$ - deriving from an increase in $\$x_t$ (as regions have greater scope to create and retain economic rents within their locality).

It can also be claimed that our model considers more fundamental details than does the ‘end of history’ reasoning of Fukuyama (1992). Before examining this claim it is interesting to note that Alesina and Spolaore (2003) also includes what might be construed as an end of history argument. They demonstrate quite convincingly that in a democratic system there may be some tendency for peripheral sub-regions to break away from the center so as to increase economic rents. Once this process is complete, there is an end of history in the sense meant by Fukuyama – that the type of historical sequences identified here come to an end.

Fukuyama (1992) asserts that once liberal democracy is achieved in all (or, perhaps, most) countries historical sequences will come to an end because “democracies do not attack democracies”. That is, in our model, there will be tranquility as in Figure 2, and international harmony in Figure 3. However, Fukuyama does not explain the coincidence of $E(\text{NER})_X < 0$ and $E(\text{NER})_B < 0$ in either figure in any detail. A fuller rendition of his argument would require explaining how the twelve arguments included in equations 1, 2, 5 and 6 (and summarized in Table 1) must change to attain the necessary condition of

paired negative net economic rents. Failure to consider these arguments is possibly a reason why the 'end of history' argument has been heavily criticized.

Finally, Huntington's argument on a 'clash of civilizations' can be incorporated in our model. First, in the southwest box of figure 3 (which is concerned with international rather than intra-national sequences) B is an independent country and X has no incentive to try to forcefully incorporate it into itself through war. However, a change in the sign of $E(NER)_B$ from positive to negative moves the system to a state of harmony in which B may approach X to join it in a union. For this to occur either the expected benefits of independence must decline or dispute cost must increase. Commonality of civilization in the sense meant by Huntington²⁰ would most likely cause the former to occur as, if a civilization is held in common, a country (such as B) will see little or no benefit of being independent from the union X - which is defined by a common civilization including country B. It is also possible that the existence of a common civilization raises B's dispute cost, should it get into a dispute with the union X. This is because it can plausibly be argued that disputes with people of the same civilization are viewed as being more costly than those with people of a different civilization. Secondly, once countries have congealed into separate civilization unions there is a significant possibility of conflict between them as each tries to extend itself into disputed areas.

²⁰ According to Huntington (1993), "a civilization is the highest cultural grouping of people and the broadest level of cultural identity" (page 24).

Conclusions

This paper has considered disputes over borders as attempts to make (or, to prevent) a ‘transaction’ in international law: namely, recognition of a new political entity. Such a transaction is subjected to transaction costs; elements that are largely missing from recent influential works on historical sequences. Leaving transaction costs out is to miss much of the richness of historical dynamics. The model presented here is therefore more complete than are these other historical models. A conclusion to be drawn is that predictions about the future course of historical events are too glib unless cognizance is taken of the independent variables identified in this paper. Another conclusion is that it appears to be so difficult to predict the future course of the numerical values of these independent variables that predicting history is often little more than guesswork.

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