

Explaining the Demand for Sovereignty

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Abstract

Why do groups want to secede and where are we most likely to see demands for self-determination? This paper proposes an economic explanation whereby a tradeoff between income and sovereignty implies that, other things being equal, richer regions are more likely to want more autonomy and conflict arises due to a disparity between desired and actual levels of sovereignty. The authors provide simple empirical tests using new data collected at the level of second-tier administrative

subdivisions in 48 decentralized countries. They find a positive association between, on the one hand, relative regional income, regional population share, natural resource endowment, and regional inter-personal inequality and, on the other hand, observed sovereignty levels. Ethnically distinct regions have lower sovereignty, but this association is only conditional on controlling for the interactive effects between ethnic distinctiveness and regional inter-personal inequality.

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1. Introduction

Sovereignty implies policy autonomy. Demands for policy autonomy are frequent and can produce conflict with the central government. Unmet demand for autonomy is behind more than a third of all civil wars since 1945. These wars, and many more lower-level conflicts, both violent and nonviolent, are fought over a wide spectrum of policy autonomy demands, ranging from demands for fiscal policy autonomy to movements for national independence. The presence of sovereignty demand of any kind reveals conflict between the state and a geographically concentrated minority group (usually an ethnic minority). This paper asks if economic factors matter for conflicts over sovereignty in economically or politically decentralized states.

We argue that economic factors matter because of a basic tradeoff between income and sovereignty. Sovereignty, or autonomy over policies that can affect the production of group-specific public goods, is itself a public good that is costly to produce. A group that is sovereign in a given geographical region can provide citizenship, education, security, and other goods to its members. The costs associated with producing those goods should moderate the scope and intensity of demands for sovereignty. But the economic tradeoff is not the only determinant of sovereignty demand. We try to understand the role of economic factors while taking into account demographic and other determinants of sovereignty demand.

The effect of income on sovereignty demand is still an open question in the literature. Some political scientists (most prominently, Horowitz 1985) advance a social-psychological perspective, arguing that poorer or more “backward” groups are more likely to want to secede in an effort to increase their group’s social status. By contrast, economists and rational choice sociologists (Spolaore 2008; Hechter 2001) concentrating on the economic costs of sovereignty posit the opposite relationship, since groups or regions with higher income should be in a better position to provide public goods. Our approach is consistent with this economic perspective and considers demands for sovereignty as bids for a measure of decentralization. Thus we draw on the intuition of earlier economic studies of separatism in which the ability to “exit” is partly a

function of income (e.g. Buchanan and Faith 1987). Our thinking is consistent with Tiebout's (1956) classic model in which the decentralized provision of public goods is an efficient response to competition among sub-national governments over investment, firms, or residents in the presence of heterogeneous preferences. This logic can be found in several earlier economic studies of the determinants of fiscal decentralization. (e.g. Oates 1972; Panizza 1999). In an early contribution to the literature, using country-level data, Oates (1972) showed that, if economies of scale for the production of public goods are not too large, then decentralization can lead to more efficient allocation of resources by targeting public goods provision to the preferences of local communities. By this logic, decentralization should reduce social conflict (see Hechter 2001). This is the basic intuition that our paper explores.

Although this economic argument for decentralization as a conflict-resolution strategy seems straight-forward, decentralization may also fuel conflict, leading to ever-growing demands for sovereignty (Hechter 2000). It can do so by empowering institutions at sub-national levels of government or regional parties with residual rights of control over important policy areas (Riker 1964; Weingast 1995; Brancati 2006). By weakening central authority, decentralization can lead to an escalation of conflict.¹

The lack of scholarly consensus on the effects of decentralization calls for greater attention to the conditions under which decentralization is likely to have an integrative effect (for such a study, see Bakke and Wibbels 2006), and, to the contrary, to the conditions generating demand for sovereignty. Answers to both of these questions are offered in the diverse literatures on decentralization, nationalism, ethnic conflict and civil war. Not surprisingly, given the complexity of the questions and the different assumptions that underlie these studies, there are many conflicting explanations for the demand for sovereignty.

¹ The breakdown of the USSR offers a good example of this argument. Variants of this institutional view include Bunce (1999); Hale (2004); Beissinger (2002).

Conflict over sovereignty is thought to be more likely when the distribution of costs and benefits of continued political integration is unequal among regions;² when state institutions develop through the systematic exclusion of ethnic minorities;³ when countries include groups with a distinct cultural (national) identity;⁴ when ethnic minorities are territorially concentrated;⁵ when economic inequalities generate group-specific grievances reinforced by political discrimination;⁶ when regional modes of production and economic specialization coincide with ethnic cleavages and reinforce patterns of economic inequality among groups or regions;⁷ when the center encroaches on a group's or region's pre-existing freedoms, supplanting indirect for direct rule;⁸ when economic benefits of continued integration are insignificant relative to economic benefits that are available through secession;⁹ when ethnic and class cleavages are not cross-cutting, encouraging polarization;¹⁰ when there is a history of government discrimination against ethnic minorities;¹¹ when there is minimal locational interdependence among production sectors in an economy;¹² when federal institutions are controlled by self-interested politicians

² See Bolton, Roland and Spolaore (1996). Norway's secession from Sweden in 1905 was at least partly the result of Norway's dissatisfaction with the consular and other services that Sweden was providing to Norwegian sailors (Bartkus 1999, 22). By contrast, the formation of a unified Czechoslovakia in 1918 was only possible due to the Czechs' agreement to establish governmental and educational institutions in Slovakia to safeguard Slovak identity.

³ Wimmer (2002); Buhaug, Cederman, and Rod (2008).

⁴ Hechter (2001, 24-25); de Winter and Tursan (1998) Rokkan and Unwin (1983).

⁵ See Toft (2003); Goddard (2006). Smith (2001) like most theorists of nationalism emphasizes the importance of territorial concentration in identity formation.

⁶ See Gurr (2000); Gurr and Moore (1997); Horowitz (1985).

⁷ See Brustein (1988); Meadwell (1991).

⁸ Hechter (2001; 1975). See, also, Melson and Wolpe (1970).

⁹ This argument cuts two ways. Richer regions can demand independence if they believe they are better off without supporting poorer regions. See Gourevitch (1979) and Bartkus (1999) for examples from Quebec. But poorer regions may also demand autonomy as a strategy to extract concessions from the center. See Hechter (1975); Rokkan and Unwin (1983); Horowitz (1985); Ragin (1979); Nielson (1980).

¹⁰ See Horowitz (1985).

¹¹ Buhaug, Cederman, Rod (2008).

¹² See Buchanan and Faith (1987). This could mean that the political benefits of continued membership in the predecessor state for group elites are smaller than the expected political gains from secession; or that there are no security benefits to remaining in the state; or that secession will not create new internal or external security threats that make the new state not viable.

who pursue separatist agendas for private gain;¹³ when decentralization influences the central government's ability to provide defense for its citizens or when regime change weakens the center, creating opportunity for regional challenges to central government authority.¹⁴

These rival claims do not settle the debate on the role of economic factors in conflict over sovereignty. To move the debate forward, we draw on those rich literatures to develop a model of conflict over sovereignty that can isolate the effect of economic factors.

We break with previous approaches in a number of ways. First, contrary to most other studies, we argue that determinants of sovereignty demand are likely to be rooted in region characteristics, so our analysis shifts the focus away from countries and toward sub-national regions and our unit of analysis is the second-tier administrative subdivision of all countries in our sample.¹⁵

Second, since the extant literature has not yet explained why some sovereignty demands turn violent while others are peaceful, we collect data on both violent and non-violent movements for self-determination, which allows us to check if all demands for sovereignty share a set of common determinants. Our data also allow us to study violent conflicts over sovereignty separately and engage with a substantial literature on separatist ethnic conflict and civil wars that has to date used countries or country-years as the unit of analysis.

Third, we collect information on a wide range of demands for self-determination, not just separatist war. We do not exclude nonviolent demands or regionalist demands because that would amount to restricting the analysis on the basis of an assumption that they have different

¹³ See Meadwell (1991) and Bunce (1999) with reference to Yugoslavia. On elite incentives in regional parties and movements as they bargain over representation at the center, see Sorens (2005). For a discussion of the "pull" of Europe, with regional parties proliferating as a result of the process of European integration and the availability of regional development assistance out of the European Union's structural funds, see Keating, Loughlin, and Deschouwer (2003).

¹⁴ Treisman (1997).

¹⁵ Another approach might be to study ethnic groups as units of analysis, but groups seeking sovereignty usually have geographical referents in mind and sovereignty demands can be made by groups that are not recognized as ethnic on the basis of linguistic or religious characteristics, so they would be excluded from most relevant datasets. We treat regional demands as demands made by and on behalf of groups or coalitions of groups that claim to represent the region.

causes than other sovereignty claims. Our approach is to test if economic factors underlie claims for sovereignty.¹⁶ Thus, even though decentralization, regionalism, nationalism, and secessionism have been studied in isolation, we argue that there is no natural divide between these phenomena.

The paper is organized in four sections beyond the introduction. Section 2 presents an economic model of the demand for sovereignty, explaining conflict as arising from a discrepancy between observed and desired sovereignty in the regions. Section 3 describes the data. Section 4 presents the results of our data analysis. Section 5 concludes with a discussion of theoretical and policy implications of our study.

2. A Model of the Demand for Sovereignty

We propose a model of the demand for sovereignty that should explain at least partially, all such demands, ranging from decentralization, to regionalism, to independence. In most general terms, sovereignty demands are an increasing function of differences between a region and the center (the government, which we refer to as the center, represents the rest of the country). These differences can be economic, political, cultural, or historical.¹⁷ Drawing on large literatures on decentralization, nationalism, and ethnic conflict in political science, economics, and sociology, we capture theoretical insights from those literatures in equation 1, which describes the sources of regional difference, leading to sovereignty demand:

$$S_{ij}^{d*} = f(s_{ij}, F_{ij}, R_{ij}, I_j, G_{ij}, H_{ij}, P_j) \quad (1)$$

¹⁶ This approach assumes that one cannot determine the groups' true preferences over the degree of sovereignty simply by observing their claims; and that the scope and intensity of sovereignty demands can be endogenous to the claim-making process. Thus both the violence/nonviolence distinction and the extent of autonomy sought by a group or a region can be rooted in the same factors, but the final expression of sovereignty demands might change as a result of a path-dependent process of bargaining between the state and groups seeking self-determination.

¹⁷ Contrary to the instrumentalist literature, we assume that sovereignty demands cannot be constructed by elites if conditions are unfavorable. Our model would not have explanatory power if sovereignty claims could be strategic or unrelated to an underlying, observable sovereignty gap.

In this reduced-form model, S_{ij}^{d*} is the desired level of sovereignty of region i in country j ; s_{ij} is the share of the region in total country income; F_{ij} is an index of regional ethno-religious or cultural differentiation (distinctiveness) from the rest of the country; R_j is the regional endowment in natural resources; G_{ij} is regional inter-personal inequality; I_j is the degree of economic inequality between regions; H_{ij} is the historical basis for regional distinctiveness; and P_j is an institutional variable, measuring country-level political institutions. All variables but two are region-specific.

If decentralization satisfies local-regional demands for policy autonomy, then there should be less unmet demand for sovereignty in countries with a positive level of decentralization as compared to centralized countries. Institutional differences in the regional distribution of decision-making authority matter, as they empower regional elites in ways that are not available in highly centralized systems.¹⁸ Thus, as mentioned in the Introduction, our model and empirical analysis focus on countries with a positive level of decentralization, including (but not limited to) federal systems.¹⁹

Our assumption is that sovereignty in-and-of-itself is desirable—more freedom is better. This does not mean that sovereignty will always be desired in practice because there are tradeoffs and opportunity costs. But, policy freedom without responsibilities should be desirable. In practice, aspiring sovereign entities face a tradeoff between income and sovereignty.²⁰ A region

¹⁸ See McAdam et al (1996, 146). Bunce (1999) makes this argument with reference to Yugoslavia; and Treisman (1997) with reference to Russia, where Autonomous Republics, which enjoyed greater institutional capacity than autonomous oblasts, had greater bargaining advantage in negotiating fiscal transfers from the center.

¹⁹ See Bermeo and Amoretti (2004) on the differences among types of federal systems, questioning the validity of a simple dichotomy between unitary and federal systems.

²⁰ This tradeoff is at the core of some theories of nationalism (Hechter 2001). See, also, Author (2000), who models a concave transformation curve of sovereignty into income, implying decreasing returns to sovereignty. The model refers to countries, not regions. There are important differences in how the tradeoff between income and sovereignty would apply to countries as compared to sub-national regions. For example, more sovereignty for countries would imply less integration in the world economy; for regions, more sovereignty would imply less integration with the central government, but potentially more integration with international institutions and the global economy.

may want freedom to decide matters of language, education, taxation, or to establish labor or environmental standards, but these rights come at a price: they may entail greater costs to business, they may lower the level of the region's economic integration with the rest of the country, and hence lower per capita income in the region, or reduce the region's growth rate.

We also assume that there are increasing returns to scale in the production of sovereignty – a standard assumption in the literature.²¹ The per-capita cost of public goods production such as defense declines with group size, so it does not make sense to be a sovereign nation of one. Combined with the previous assumption, this “natural limit” to sovereignty implies that the trade-off between sovereignty and income is less sharp for larger regions. Small regions can also claim sovereignty, but they face steeper costs.²²

Finally, we assume that decentralized systems require a system of horizontal redistribution from richer to poorer regions to create incentives for poorer regions to remain part of the system. This institutional characteristic of decentralization implies that the demand for sovereignty may be fundamentally different in decentralized relative to centralized systems, where richer regions will not be forced to share their wealth in the same way.

Next, we consider how each of the variables listed in equation (1) affect the demand for sovereignty, in light of the tradeoff between sovereignty and income.

“Size” Variables: Income & Population

California in the U.S., Shanghai in China, Punjab in India – these are all regions that are both rich (relative to the nation-wide average) and populous (also in relative terms). The logic of the sovereignty-income tradeoff suggests that they will demand a high level of sovereignty

²¹ See Hechter (2001, 40-41); Spolaore (2008).

²² This is a common argument. See, among others, Hale (2000). The opposite view is put forth by Horowitz (1985, 131), who argues that secession is often pursued without regard for the economic losses. Even if in some cases the desire for independence may trump economic considerations, it should still be the case that for larger regions the economic costs of a given level of sovereignty should be lower.

because they face a less steep income-sovereignty tradeoff.²³ Such regions will often be core regions of a country. If they form the core of a decentralized system and derive non-economic benefits (security, prestige) from membership in a larger state, these regions will not want more sovereignty and will not push for the expulsion of smaller, poorer regions.²⁴

Smaller but rich regions should also demand a high degree of sovereignty if they are net transfer-donors. Examples are Catalonia in Spain, Gujarat in India, or the Baltic republics in the former USSR. These cannot be core regions, since their population size is small and their share in total income is limited. Poorer and smaller regions will accept a low degree of sovereignty. If transfers flow their way, they will be content to remain part of a decentralized political system. The position of populous, but relatively poor regions is ambiguous. Their population size may lead them to claim high sovereignty. But, they may be willing to accept less sovereignty in exchange for resource transfers.

Since it is the product of per capita GDP and population size (both normalized by the country averages) that determines demand for sovereignty, we hypothesize that:

H1: The share of the region in total country income (s_{ij}) should be positively related to demand for sovereignty.

²³ At the time of California's accession to the Union, the federal government already exercised control over its territory, so the state did not negotiate its entry as it might have if the option of secession was realistic. Thus, large states like California had two senators just like small states, which is a rule favoring small states. But congressional representation was proportional to population size, as was (roughly) representation in the electoral college, hence stronger states were given greater power.

²⁴ We do not consider the effect of supranational institutions on rich regions' demand for sovereignty. Sovereignty may be more profitable if regions can become integrated in a supranational organization or conglomerate, such as the European Union (EU). EU membership imposes some sovereignty restrictions, but the regions can become net *recipients* of subsidies as weaker members of the conglomerate. Slovenia may be a good example. However, the relationship will depend on complex institutional rules, which may explain why we have not seen an explosion of regionalist movements in Europe.

Ethno-Cultural Differences

A second source of regional difference is culture. Ethnic, religious, racial, or other cultural differences between individuals, groups, or regions can be the source of conflict if they result in different preferences over the allocation of public goods and cost-sharing.²⁵ A premise of many arguments on ethnic conflict is that ethnicity somehow nurtures in-group solidarity and out-group mistrust. Solidarity may derive from the greater ease of social communication among group members (Deutsch 1966); or from the sense of belonging that a kinship-based identity is thought to promote (Weber 1978); or it may be a mixture of “willed adherence” and external pressures that elites manipulate to form and support an identity group (Gellner 1983). Even without in-group solidarity, ethnic minorities that control a region may be mistrustful of the center’s promises of power-sharing since the center can easily renege on its promises.

We do not focus on the sources of ethnic group cohesion here as we are more concerned with its consequences. If a vast literature on ethnicity, nationalism, and identity politics is right, then ethnic differences *within* a region should impede regions’ ability to organize demands for sovereignty. On the other hand, ethnic homogeneity within a region combined with ethnic difference *between* the region and the rest of the country (F_{ij}) should increase demands for sovereignty. We label this variable “regional distinctiveness.”

For a given level of regional distinctiveness, regions with larger groups should demand more sovereignty since it is easier for them to provide public goods. But group size is not enough. We must also consider the territorial concentration of ethnic groups (Horowitz 1991, Hechter 2001). A key difference between ethnic groups and nations is that nations are concentrated in a region that they see as their homeland.²⁶ Group concentration establishes clear

²⁵ This is a common claim though there is debate over the precise way in which cultural differences matter. Some research emphasizes the role of ethnic polarization (Montalvo and Reynal-Querol 2005); other the effects of minority group exclusion (Cederman and Girardin 2007; Buhaug, Cederman, and Rod 2008).

²⁶ This is not the only difference that matters. National identity is the result of a socialization process, anchored in mass schooling that teaches individuals to ascribe to the identity of a given

regional boundaries that can fuel sovereignty demands. In a homogenous country such as Japan, regions' ethnic compositions are roughly the same with a single group dominant in all regions. Demand for sovereignty does not arise in this setup. The same is true if there are ethnically heterogeneous regions in an equally ethnically heterogeneous country (the United States offers examples of states with no substantial difference between regional and country-wide level of ethnic heterogeneity). What matters in both cases, is that regional distinctiveness is small. Demand for sovereignty arises when regional distinctiveness is high, as for example when a fairly ethnically homogeneous region is different from the rest of the country. *Prima facie* support of this hypothesis is found in state efforts in multi-ethnic countries to dilute the ethnic homogeneity of regions by gerrymandering internal borders.²⁷ Thus, we hypothesize that:

H2: Regions that are ethnically different should demand more sovereignty.

Inequality

The distribution of resources among groups in any state is a source of conflict. A common claim is that a high degree of economic inequality leads to crime and violence. The usual measure of inequality is the Gini coefficient, measuring inter-personal income inequality at the country level. In this study, we use, for the first time, a measure of inter-personal income inequality at the regional level. This information is derived from household survey data and allows us to compute inter-personal inequality for almost 900 regions from 48 countries, for one year in the period from 1998-2003.

High within-regional income inequality (G_i) may be considered in two different ways. First, it may hamper efforts to collectively organize a regional demand for sovereignty because

nation (see Darden 2010). It follows that ethnic distinctiveness need not be a precondition for nationalism.

²⁷ Dilution can also occur through assimilation (as in Greece's strategy toward Slavic-speaking groups in the post-war period) or through forced population movements (Stalin's deportations of Chechens). It follows that internal administrative borders are endogenous to the risk of regional challenges to the center. This does not invalidate our empirical analysis, since our results are conditional on a given set of internal borders.

the costs and benefits of sovereignty are likely to accrue unequally to the rich and the poor. Thus, high G_i would imply low social cohesion, reducing the demand for sovereignty. Alternatively, high G_i may assist agenda-setting elites to push for more autonomy by tapping into a class cleavage. If this hypothesis of “elite capture” is correct, higher inequality should increase the demand for sovereignty.²⁸ Both hypotheses are plausible, though they run in opposite directions, so we are agnostic about the relationship between inequality and sovereignty. Our regression analysis will try to adjudicate between these rival hypotheses since a negative coefficient for G_i will support the organizational hypothesis, while a positive will support the elite hypothesis.

Equation (1) also includes inter-regional inequality (I_j), that is, inequality between average incomes of the regions, as a determinant of the demand for sovereignty for two reasons. First, high I_j is associated with larger inter-regional transfers from richer to poorer regions, which should give rich regions incentives to exit or push poor ones to secede if rich regions insist on low transfers. Second, if inter-regional inequality maps on to regional ethnic differences, elites of ethnic minorities in poorer regions could organize demands for secession to enhance the group’s self-esteem. Inter-regional inequality may thus provide both push and pull factors for exit.

Natural Resources

Consistent with the logic of the income-sovereignty tradeoff, we would expect the prospect of controlling valuable natural resources and trading them in the global market to increase the demand for sovereignty. Resource-rich regions may often be poor other than for their resource wealth. Thus, the greater the importance of natural resources in regional GDP, the

²⁸ The phenomenon of “elite capture” is often found in the empirical work on local community developments. It tends to be associated with less efficient outcomes at the local level. For a discussion of the effect and literature, see Mansuri and Rao (2011, in particular pp. vi and 66ff).

greater should be the region's demand for sovereignty.²⁹ Aceh in Indonesia, Scotland in the United Kingdom, and Katanga in the 1960's Congo are examples.

H3: Resource-rich regions will demand more sovereignty.

Other Factors: History, Path-Dependence, Political Institutions

Historical accidents or previous separatist claims (H_{ij}) may also influence a region's sense of distinctiveness and fuel nationalist ideology. Horowitz (1985, 152-55) wrote that secessionism in under-developed countries is often the result of a history of conflict that stems from colonial favoritism, creating distinctions between "advanced" and "backward" groups. The demand for sovereignty may be greater in regions that had experienced a period of independent statehood before being conquered, or following a recent history of violent conflict with the center, which de-legitimizes the center's authority over the region.

Political repression may also push regions to demand more sovereignty if the supply of sovereignty is not completely inelastic (i.e. in all but the most authoritarian regimes). Democratic institutions may also facilitate the organization and articulation of demands for more sovereignty. Democracy and other measures of political openness are usually country-wide measures, but even small differences in regional levels of political openness or in the strength of political institutions could influence regional sovereignty demands. Where such regional differences in political institutions exist, they could be due to historical accident or path-dependence (e.g., Swiss cantons differ with respect to their reliance on direct democracy and their use of referendums; Finland under the Russian Empire had a relatively powerful regional parliament); or they could be the result of previous sovereignty claims by the regions (e.g. Catalonia and the Basque country in Spain, both of which claimed greater political rights and gained concessions from the center).

²⁹ Looking at the supply side of sovereignty, the greater the importance of regionally concentrated resources to *national* GDP, the lower should be the probability that the center will be accommodating. Violence should be observed frequently in such cases. For a related argument with reference to Russia, see Treisman (1997, 222, 239).

The strength of regional institutions shapes the ability of elites to claim resources from the center (as in Russia in the early Yeltsin years).

Inter-regional differences in political institutions are likely to be small, as most decentralized countries have uniform treatments of the degree of autonomy of their regions. We therefore do not focus explicitly on such differences and assume that regional political autonomy differences should be reflected in the underlying socio-economic characteristics of the region, which we capture in the model. Country-wide factors such as democracy are captured by controls for country-level unobservables in our model. Since our focus is on sub-national variation, country-level factors that do not vary across sub-national regions are folded into country dummy variables.

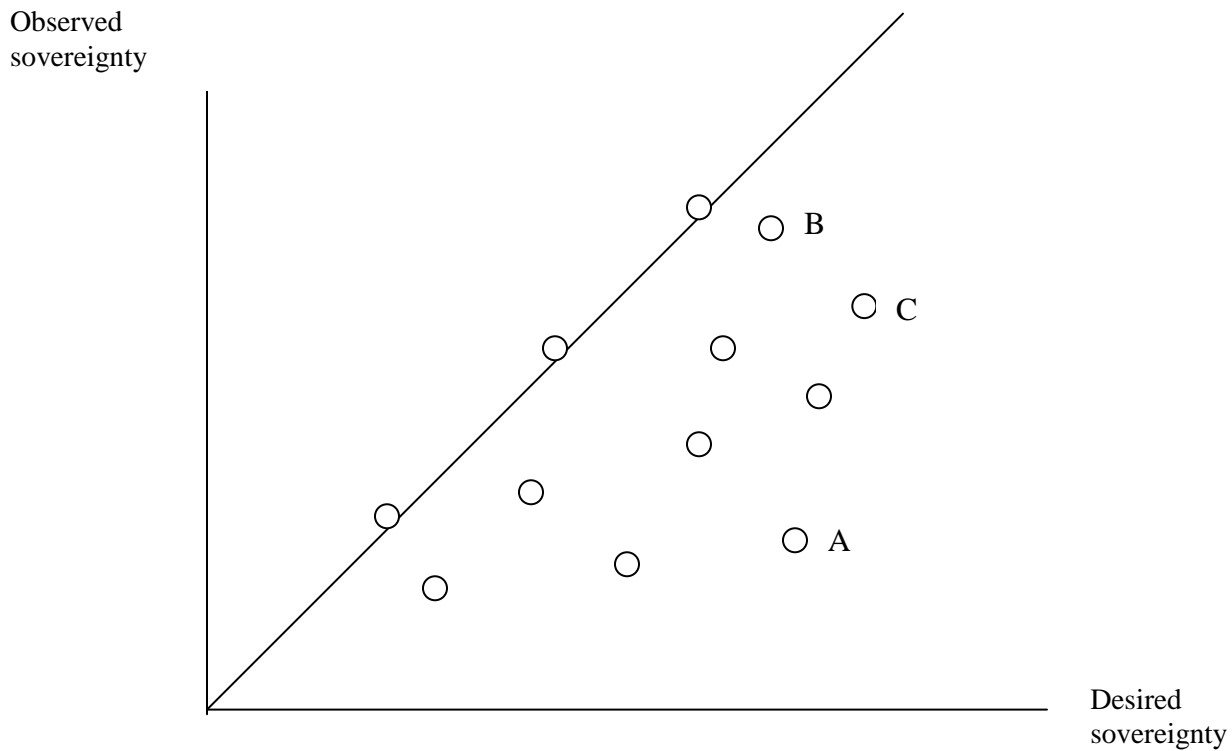
How to Identify Desired Sovereignty?

Equation (1) represents a long-term relationship, where S_{ij}^{d*} is the desired level of sovereignty that may not be immediately (or always) achieved. S_{ij}^{d*} is not observed, but actual sovereignty (S_{ij}^d) is observed. When there is a discrepancy between the two, there should be tensions, manifesting themselves in a number of ways, ranging from protest movements to secessionist civil war. The discrepancy between desired and actual sovereignty (D_{ij}) is a latent variable that we can proxy by the observable level of conflict over sovereignty. Conflict—all organized political action in pursuit of more sovereignty—implies that $D_{ij} > 0$. As D_{ij} increases, conflict (C_{ij}) intensity should increase.

The relationship between desired and actual sovereignty is shown in Figure 1. Along the 45-degree line, actual sovereignty is an exact measure of desired sovereignty, since $S_{ij}^{d*} = S_{ij}^d$. Regions will be located either on the 45-degree line or to the right of it, where $S_{ij}^{d*} > S_{ij}^d$. Desired sovereignty can never be less than observed sovereignty in equilibrium: regions with more sovereignty than they want can give it back and should not incur costs to fight over *excess* sovereignty. In this model, actual sovereignty proxies desired sovereignty with error. The error

is non-random and is systematically related to conflict intensity. In other words, observed levels of sovereignty would be a downward-biased estimate of desired sovereignty and we can approximate the bias with a measure of conflict intensity. If conflict in Chechnya and Palestine is intense, this is because the difference between actual and desired sovereignty is large and this would be represented by a point such as A in Figure 1. By contrast, Corsica and Wales, where there is less intense sovereignty conflict, may be at a point such as B.

Figure 1: Observed sovereignty (S) as an estimator of desired sovereignty (S*)



In this model, desired sovereignty equals actual sovereignty plus conflict (C_{ij}). Thus,

$$S_{ij}^{*d} = S_{ij}^d + C_{ij} \tag{2}$$

Combining (1) and (2), we get the relationship which we estimate empirically:

$$S_{ij}^d = f(S_{ij}, F_{ij}, R_{ij}, I_j, G_{ij}, H_{ij}, P_j) - C_{ij} + \varepsilon_{ij} \quad (3), \text{ where } \varepsilon_{ij} \text{ is}$$

a random error term and all the other terms as explained before. It is the presence of conflict, which we observe, that allows us to detect a discrepancy between desired and actual sovereignty. By construction, conflict enters (3) with a negative sign.

A complication in estimating such a model is that conflict is determined endogenously by the interaction of factors influencing sovereignty demand and supply. In a sense, conflict is the “price” of freedom. The model should thus be estimated via instrumental variables regression to identify the effect of conflict on sovereignty, but we do not believe that a valid instrument can be found. No prior study of the effects of decentralization on any number of outcomes has proposed a valid instrumental variables approach to estimate the effects of conflict on decentralization or vice versa. Thus, we are unable to make causal claims, but still believe that it is informative to present correlations on the correlates of decentralization, and the negative correlation between conflict and actual (observed) sovereignty would serve as a plausibility check on our model.

3. Data

As units of analysis, we use the primary administrative subdivision (provinces, states, republics, departments) of decentralized countries, which we define as all countries with multi-tiered political systems or unitary systems with significant economic decentralization.³⁰ Forty eight countries meet our decentralization threshold, yielding 876 regions. We have one observation per region for the period from the mid-1990s to the early 2000’s. The number of regions in each country ranges from 2 in Serbia-Montenegro to 89 in Russia (we correct for this

³⁰ The list includes all countries that are not identified as having centralized systems in Polity III database and we add countries according to other criteria and our own research to expand the period coverage of Polity III. The coding procedure is explained at length in a supplement. Coding notes for this dataset are too lengthy to present here and will be posted online upon publication. All variables are coded for a single year and that year was determined by available economic data on regional taxes and revenues and the date of the household surveys that we use to code regional income.

imbalance in the regression analysis by using weights equal to the inverse of number of regions in each country).

The dominant approach in the literature has been to analyze separatist conflicts using countries or country-years as units of analysis. This approach often fails to establish a close connection between theoretical expectations and empirical results. Several findings from country-year studies of civil war are based on spurious correlations. For example, a positive correlation between civil war and a measure of a country's resource-dependence is thought to support the hypothesis that civil wars occur as a result of armed groups' motivation to loot. But it is often the case that civil wars in resource-dependent countries take place in a resource-poor part of the country with no clear link between resources and violence. By disaggregating the data to sub-national regions, we can establish a closer correspondence between theory and evidence.

Another approach has been to use ethnic groups as units of analysis. This also has limitations for our study. First, it is not clear which are the relevant groups. Most studies pick linguistic groups, but racial, religious, or regional cleavages may be more salient in different countries and may generate sovereignty demand. Second, claims for self-determination are also often made by non-ethnic groups or aggregations of ethnic groups, which we would not be able to account for using ethnic groups as units. Third, ethnic groups demanding sovereignty usually have a geographical referent in mind and pre-defined political boundaries are often useful in establishing such a geographical referent.

For these reasons, we find it advantageous to focus on administrative regions. Regions are governance units which can help groups organize their demands for sovereignty, so it is important to capture regional characteristics and not simply group differences. As a practical matter, many of our explanatory variables, such as income and inequality, are simply not measurable at the group level. While many group-level studies of separatism claim to use measures similar to ours—for example, of the degree of economic inequality among ethnic groups—household income data that are necessary to measure group-based inequality are not

available for most countries so results from such studies are questionable. By contrast, we can use data from household surveys and population censuses to compute measures of intra- and inter-regional income differences as well as measures of regional distinctiveness.

There are, however, some limitations to our approach. Since we exploit regional variation, country-wide factors are only captured by fixed effects in the analysis, so we have to bracket some theoretically interesting factors. Another, already-mentioned, issue is that internal borders can be endogenous to demands for sovereignty. This, however, is not a problem for our analysis, since we condition our expectations on a given set of borders. Different complications arise if a group's homeland extends beyond existing administrative boundaries so the group might seek sovereignty in two or more adjacent regions, none of which individually has characteristics that our theory would associate with sovereignty demand. Alternatively, larger regions may include two competing sovereignty movements. We deal with these complications with appropriate right-hand-side controls in robustness tests.³¹

Proxying Actual Sovereignty

We propose an economic measure of sovereignty: the share of regional expenditures that can be financed out of regional revenues. We have these data for 603 regions. The ratio ranges from almost 0 to 1 with a median level of 0.57, pooling all regions and countries. In some cases, the ratio is above 1, but we truncate the index since in those cases we consider that there can be effective autonomy.³² An unbound version of the index is also used in robustness tests.

³¹ We code regions with more than one sovereignty movement; adjacent regions with the same sovereignty movement; groups that are not the majority in any single region, but are concentrated in two or more adjacent regions; and we check how these cases influence the results of the analysis.

³² Data for this variable come from national statistical yearbooks and the variable is coded for the year for which we have household survey data on income or the closest year, in a few cases before the year income is measured. We treat the 0-1 index as a continuous variable. The results presented later are robust to the use of Tobit regression, which accounts for the truncation of the variable at 1 (see supplement).

Underlying this measure is an assumption that political autonomy is more meaningful if regions can finance their expenditures out of their own revenues, hence establishing a degree of independence from the center. Regions that spend a lot out of central government transfers are less independent in that they are uncertain if they can fund their future spending deficits, since from year to year the center might adjust the transfer amount.

Although we propose an economic measure of sovereignty, our analysis is likely to apply also to different concepts of decentralization or autonomy.³³ While economic decentralization (income and asset redistribution and regional fiscal decentralization) and political decentralization are conceptually distinct, they are highly correlated.³⁴ This is confirmed by simple bivariate correlations. Using data from the Polity III database, we coded three binary variables denoting the level of centralization (federal, semi-federal, and centralized) and correlated each indicator with an economic decentralization index – the size of regional expenditures as a share of total government expenditures (this index is compiled by Fisman and Gatti (2000), using data from the International Monetary Fund’s *Government Finance Statistics*). Economic decentralization data are averaged for each country for the period 1980-95, and political decentralization is taken for the year 1994. The Pearson correlation between a binary variable identifying all federal systems³⁵ and a variable denoting economically decentralized countries (identified as those countries with a decentralization level above the sample mean) is positive and highly significant (Pearson $\chi^2(1) =$

³³ On decentralization measures and concepts, see Fisman and Gatti (2002) and Treisman (1997). The results we present are substantively the same for federal systems and for unitary systems with some degree of regional fiscal independence. Our analysis could be extended to different political measures of sovereignty, such as a region’s freedom to choose its own secondary school curriculum, its freedom to use local languages in teaching, and so on. Another fairly common measure of sovereignty demand is the vote share of ethno-regional parties (see De Winter and Tursan 1998, Sorens 2005, Gordin 2001). But voting could be strategic and that measure limits analysis to electoral democracies with developed regional parties. Party strength as a measure of ethnopolitical interest in autonomy is also mostly applicable to advanced industrialized countries (see Levi and Hechter 1985).

³⁴ See Diaz-Cayeros (n.d.); Treisman (1997). Economic decentralization is also positively correlated with the level of democracy (see Garrett and Rodden 2003).

³⁵ With semi-federal and centralized systems combined coded as 0, and federal systems as defined in the Polity III database.

6.88). A much less significant relationship emerges for semi-federal systems and a highly significant negative relationship emerges between politically centralized and economically decentralized countries. These results suggest that there is a strong correlation between economic and political decentralization and that even though our empirical analysis is based on an economic measure of decentralization, it should also apply to political decentralization.³⁶

Conflict over Sovereignty

Since some of the same motivating factors could underlie all demands for sovereignty, our primary measure of conflict over sovereignty includes both violent and non-violent claims for all forms of self-determination. Conflict (*sd*) is coded as a binary variable, taking the value of 1 if a political movement or party makes public demands for more autonomy. Demands for greater fiscal decentralization and national independence are lumped together as well as demands that fall between these two extremes. The first step is to identify all groups making claims for self-determination in all countries in our sample. This information is organized at the group level and groups are both ethnic and non-ethnic (also aggregations of distinct groups that make claims as a coalition). Because our unit of analysis is the region and in some cases movements or political parties represent more than a single group, we code for aggregations of ethnic groups in some cases (e.g. the Southern Sudanese are treated as a group).³⁷

The next step is to identify the regions in which those groups were politically active.

Researching the history of the movement or conflict and accessing news sources relevant to each

³⁶ We collected data on the degree of political autonomy of the regions but the measure is too coarse and there is little within-country variation. Typically, if regions have locally elected executive, legislature, or both, this is true for all regions in the same country. So we do not use this measure in the analysis.

³⁷ We identify such cases in the data (*broadgroup=1*) so we can check if sovereignty demands in adjacent states are due to the fact that the coded group is an aggregate of smaller groups that other studies might code separately. In most cases, we try to break down groups so that our measures are region-specific. For example, in Mexico, other studies code demands made by Mayans, but there is sufficient heterogeneity within that group and we code self-determination claims made by individual Mayan groups (Nahuatl, Tzotzil, Mixteco, etc.), measure each group's share of the regional population in each case.

organization provides that information and regions with an active groups making sovereignty claims are coded $sd = 1$ and 0 otherwise. Most claims are non-violent. We also identify claims that are made violently (*violent_sd*). These are usually low-to-intermediate level armed conflicts and, in a few cases, separatist wars.

We have coded 222 regions as having a movement demanding more sovereignty, 47 of which are violent. Conflict was coded on the basis of encyclopedic sources (Minahan 1996; Dagenhard 1988), news archives (Keesings, Lexis-Nexis) and country case studies, so we are not limited by the sample selection problems that arise in the Minorities at Risk (MAR) database or other comparable sources since we collected data for all countries in our sample and not just those with a significant level of minority discrimination. We have data for small groups such as the Friulians in Italy, or nonviolent groups in developed democracies, such as the Lombardians (again in Italy), which would typically be excluded from MAR and other datasets of conflict.

Two risks associated with including non-violent groups is that we can count even fringe groups that have little popular support; and that it is difficult to establish the start and end-dates of activity for nonviolent movements. One can quibble over which movements are active in a given year, or which cases represent legitimate movements. Our approach is to flag those cases that are potentially ambiguous and discuss them in detail in the supplement, explaining why some were dropped from the analysis and others included. We drop some groups that are mentioned in encyclopedic sources if closer investigation reveals them to be too small (e.g. Koryaks and Itel'men in Russia's Kamchatskaya oblast); if their political organizations represent minor fringes of groups with extremely low levels of public support in their group (e.g. Newfoundlanders and Westerners in Canada; the Lusatian Sorbs in Germany's Saxony and Brandenburg regions); or if the group is too diffuse, representing a loose association of a regionally-based identity group (e.g. Southerners in South Carolina). Ambiguous cases can be dropped in robustness tests.

Finally, in a few regions, we find two or more competing movements for sovereignty (e.g. Aborigines and Torres Strait Islanders in Australia's Queensland province; or Fleming and

Walloon in the Brussels region of Belgium). Our approach was to include those but flag them in the dataset so they can be dropped in robustness tests since the logic of competing sovereignty movements in the same region might be different from the model we propose here. We treat in analogous fashion cases where the same group is active in adjoining regions since in these cases, our region-based ethnic concentration variable might not capture the effect of ethnic difference on sovereignty demand. These could be cases where the group is too broad (e.g. Aborigines) and we have no data on smaller subgroups; or the group is large and has a historical homeland that does not map onto current administrative boundaries.

Income & Inequality

We use household surveys to obtain regional per capita *disposable income*. Thus, we have a fully comparable statistic across regions and countries. Previous country-level studies of regional separatism have used rough measures of differences in regional GDP per capita within countries. However, GDP data include income from production of natural resources, which does not necessarily remain within the region, limiting the usefulness of that measure for a test of our hypothesis that wealthier regions will have higher demand for sovereignty. A region may appear rich because it produces a valuable commodity (say, oil) while its people are in reality poor. Our household survey data show the actual income level of people living in each region.³⁸

Relative regional income is the ratio between regional mean per capita income and nation-wide mean per capita income. Income matters only in relative terms –i.e. regional income compared to the rest of the country matters, not income in absolute terms. Obviously, the better-off regions will have a value greater than 1. We have data for 684 regions with values ranging from 0.08 (Magadan Oblast in Russia) to 2.8 (Moscow). We also use income share of each

³⁸ A small problem with household survey data may be in advanced industrial countries in which unemployment income or pensions are partly covered through central transfers.

region (this is the share of total regional income in total national income): it ranges from near zero in Lakshadweep in India³⁹ to 0.83 in England (U.K.)

Using these household income data, we compute income Gini coefficients for each region, measuring within-region inter-personal income inequality. Economic regions in Armenia and Slovak republic all have low levels of inequality and the highest Gini coefficient values are in Brazil, Colombia, and some regions of Nigeria, Senegal, and South Africa.

Natural Resources

The relative abundance of natural resources across regions is another important variable in the model. Ideally, we would want to know the value of all territorially concentrated tradeable resources in each region. Any number of primary commodities could be important for the local or national economy (coffee in Burundi and Colombia, diamonds in Sierra Leone and South Africa, natural gas in Indonesia and Russia). The ideal measure is thus the share of total national resources for each region, but such a measure can only be computed for a few countries and a small number of agricultural commodities, minerals, and precious stones due to the paucity of data on the location of different commodities and the lack of region-level breakdowns of the total dollar-value of production or trade in these commodities. Thus our analysis is inevitably limited. We collected data on oil and natural gas and identified with a binary variable all the regions that have substantial amounts of these resources (exploited or unexploited reserves are coded; see supplement for coding details and geological maps for each country).

Regional Ethnic Difference

To measure regional ethno-cultural differences from the rest of the country, we identify all groups larger than 1% of the country's population and collect data on the size of as many of

³⁹ Data for India are for rural areas. Urban and rural income data are reported in separate surveys. We selected the rural data as more directly relevant to the question at hand.

them as possible both at the country level and the region level. We need to make a judgment call to decide the relevant cleavage along which groups are identified. In most cases, language forms the most politically relevant cleavage, but in other cases religion or other another cleavage dimension is more politically salient so we focus on those.

Our preferred way of coding regional distinctiveness is the following: for each region, identify the dominant group (A) as the largest group in the region that is not the national majority and collect information on what share of the country-wide population of group A lives in that region as opposed to other regions of the country; as well as information on other (non-A) national minority groups in the region. A region is coded as sufficiently “different” if (i) most its inhabitants belong to group A (a *national* minority) and (ii) most of A’s members live in the region. The intuition behind this “double-requirement” approach is clear: if almost all people belonging to an ethnic group live in one region, and they represent a strong majority there, such a region will be very distinct from the rest of the country. Ideally the data would fill a matrix with one dimension giving ranges of the share of group A inside the region and the other dimension giving ranges of A’s share of the regional population. The intensity of demands for sovereignty should be proportional to the degree of regional difference.

Data to fill such a matrix are available for a few countries using census data, other government documents, and secondary sources. Switzerland, for example, has good data. It also has several regions that are dominated by an ethnic minority: Fribourg, Geneva, Jura, Neuchatel, Valais (Scion), and Vaud (Lausanne) are all dominated by French-speakers, with regional population percentages in the 60-88% range. However, French speakers are not concentrated in any one of those regions, so the degree of “regional difference” from the rest of the country is not large. Because such high-quality data from censuses do not exist for most countries, we computed the index of ethnic difference using, where possible, actual census numbers and shares of group populations, but in most countries data we were reduced to coding a binary variable denoting whether or not a region is sufficiently ethnically different from the rest of the country.

That variable, *ethcon*, is coded, reflecting our “double requirement,” equal to 1 if 70% or more of a national minority group lives in the region and makes up the regional majority.

A complication arises from the fact that there could be cases where the same national minority group is spread over several regions, and is concentrated in an area larger than the administrative region that we use as our units. This could occur where large groups have historical homelands that do not map onto administrative boundaries. If our data extended back to the American civil war, for example, we would code “Southerners” as having a sovereignty movement in several adjoining regions, but *ethcon* would be coded 0 for each of those regions. We deal with this problem by coding another binary variable (*minregmaj*) that identifies all regions where a national minority makes up more than 50% of the regional population without considering the concentration dimension. We also code a binary variable identifying all regions in which the same group is seeking sovereignty (*same_group*) and another variable identifying all adjoining regions with active sovereignty movements (*sd_adjoin*). These allow us to check if cases do not fit our model because ethnic group boundaries spill over administrative boundaries.

Democracy and Political Institutions

Our study abstracts from country-wide regime characteristics, such as the level of democracy.⁴⁰ It is plausible that sudden regime change can induce sovereignty demand, especially following the collapse of an authoritarian regime.⁴¹ Democratization amounts to a renegotiation of the terms on which the polity has operated up to that point, creating expectations of greater freedom. Indeed, instability at the center implies higher effective sovereignty in the

⁴⁰ That said, there is no significant difference in the mean level of sovereignty across regime types in our data and no significant correlation of regime type and conflict over sovereignty (see results in the supplement). The effect of other covariates (e.g. population) on sovereignty is slightly different across regime types. Regime type is coded on the basis the Polity IV database (Marshall and Jaggers 2000), taking a five-year average for the period from 1995-2000.

⁴¹ The destabilizing effects of bursts of democracy have been discussed extensively since Tocqueville (1856). Gurr (2000) links stable democracies to lower levels of ethnopolitical conflict.

periphery. When the German Reich collapsed and democracy was ushered in at the end of World War I, Germany quickly (and temporarily) reverted to a number of independent states. Similar was the fate of the Russian Empire in 1917-21: all its constituent parts became suddenly independent, some without having previously considered independence. While the Soviet power later managed to bring many back into the fold by crushing resistance in Georgia, Armenia or the Ukraine, a few were gone for good (Finland, Poland), and several others remained independent for a few decades (Moldova, the Baltic republics). Of course, the recent break-up of the Soviet Union is another example of sovereignty demands unleashed by democratization as is Spain, where regions renegotiated their position in the union after the Francoist regime.

Distance

Physical distance between the region and the center may influence the center's ability to control the region. Border regions are more likely to develop secessionism, partly due to the influence of irredentist groups across the border and partly because of contagion effects from neighboring conflicts. We code a distance measure as a control variable.

4. Results

Since conflict is the equilibrating mechanism in the model, we cannot identify its causal effect on sovereignty without a valid instrument. This endogeneity problem arises in some form in all studies of the relationship between decentralization and conflict or other policy outcomes, but the standard approach in the literature is to assume exogeneity.⁴² While we acknowledge the problem, we do not believe that a valid instrumental variable can be found. That said, the endogeneity problem may not be severe in our model if the center's decision to accommodate

⁴² Most studies ignore the problem. An exception is Brancati's (2006, 663) model of separatist conflict, but her instruments for decentralization (country size and status as a former British colony) do not satisfy the exclusion restriction. Both variables can have direct effects on conflict through other mechanisms: colonial status affects all political institutions; large physical size impedes the center's control over separatists in the periphery.

regional sovereignty demands depends more on country-wide factors and less on region-specific factors. We have argued that regional demands depend more on region-specific factors, but the center must also consider the effects of granting autonomy to any region on future demands by other regions (see Walter 2006). Thus, in countries with many possible claimants, the center may be unwilling to grant autonomy to any region. If the supply of sovereignty depends on country-wide factors more than regional demand, the endogeneity problem is lessened, but it is not eliminated since the regions in formulating their demands could also consider the center's reaction to other regions' similar demands.

Given that we have found it impossible to identify an instrumental variable, we cannot estimate a causal model of sovereignty *demand*. But our data allow us to establish if a correlation exists between observed sovereignty at the regional level and all those regional characteristics that should shape sovereignty demand. This in itself is interesting, since no prior study has shown such correlations using region-level data.

All regressions control for country fixed effects to capture unobserved country-level differences in the overall level of decentralization and other country-level variables that we have included in equation (1), such as inter-regional income inequality and political institutions. Since the number of administrative subdivisions varies by country, we weigh observations by the inverse of the number of regions in each country so that countries with many subdivisions (such as Russia, Brazil, India, and the Philippines) do not dominate the results.

A first look at the data reveals that, on average, regions with conflict have only slightly lower levels of sovereignty, but the difference from regions without conflict is not statistically significant. Indeed, there are regions with both violent conflict and above-average levels of sovereignty. Examples of conflict regions with above-average level of sovereignty include Spain's Basque region, the Cordillera and Mindanao regions of the Philippines, Lagos in Nigeria, Kosovo in Serbia, Tabasco and Oaxaca in Mexico, Aceh in Indonesia. This is fully consistent with our model, however: the presence of conflict means that at a point such as C in Figure 1

there is still unmet demand for sovereignty, even though observed (actual) sovereignty at C is above the mean (its position on the vertical axis is high). Our model only requires that conflict be present when observed regional sovereignty is low *relative* to sovereignty demand. If underlying “fundamentals” are low and there is still violence, this would suggest that separatist conflicts are not explained primarily by the region’s actual level of sovereignty and this would be consistent with an elite-driven explanation in which nationalist elites make demands despite concessions.

Table 1 includes the regression results. The model in Column 1 follows closely equation (3).⁴³ As expected, we find that both higher regional per capita income (relative to the country-wide mean) and higher regional population are associated with greater observed sovereignty consistent with hypothesis H1. So is the presence of natural wealth in the region, which is consistent with our hypothesis H3. In all these cases, the significance of the coefficients is very high. Inequality within region is also positively associated with observed sovereignty which gives some credence to the view that regional sovereignty demands are elite-driven.

Conflict over sovereignty has the expected negative sign (see equation 3), but it is not statistically distinguishable from zero. The relationship between conflict and observed sovereignty may not be linear and it may be conditional on other regional characteristics (something that we consider in columns 3 and 4, where we add interactions to the model).

An interesting result, which contradicts our hypothesis 2, is that more ethnically distinct regions are not associated with greater observed sovereignty. In fact, the relationship is negative and, if we drop European countries where the effect of ethnic difference may be different because of the prevalence of mature democracies (column 2), it is also statistically significant. According

⁴³ These results are robust to the addition of controls to address some of the coding complexities identified in the previous section. Results are basically the same if we exclude the few regions with competing sovereignty movements (two or more minorities claiming the same region as their own); or if we exclude regions in which the groups making claim are too broad (e.g. Aborigines, Native Americans) and we cannot establish if all regions with substantial populations from these groups have substantial sovereignty claims. Controlling for regions with a land border also does not affect the results, so we do not show these results. The results are also robust to using the unbound version of the sovereignty index.

to our model, this is likely to increase sovereignty demand and unmet demand should result in conflict in ethnically distinct regions.

Table 1 – OLS Regression of Observed Sovereignty on Determinants of Sovereignty Demand

Coefficients with standard errors in parentheses; country fixed effects and regional weights

	1	2	3	4
Relative regional income	0.153** (0.023)	0.154** (0.024)	0.158** (0.023)	0.385** (0.079)
Regional population share	0.260** (0.098)	0.281* (0.125)	0.236* (0.097)	0.284** (0.097)
Regional ethnic distinctiveness (binary)	-0.057 (0.139)	-0.121* (0.052)	-0.038 (0.038)	-0.584** (0.179)
Oil or natural gas in region	0.056** (0.017)	0.051* (0.021)	0.060** (0.016)	0.061** (0.016)
Regional Gini (within regional inter-personal inequality)	0.003* (0.001)	0.004** (0.002)	0.001 (0.002)	0.005* (0.002)
Conflict over sovereignty (binary)	-0.003 (0.015)	0.001 (0.019)	-0.167** (0.048)	-0.127** (0.049)
Interaction: conflict and regional Gini	--	--	0.004** (0.001)	0.003** (0.001)
Interaction: ethnic distinctiveness and regional Gini	--	--	--	0.016** (0.005)
Interaction: regional income and regional Gini	--	--	--	-0.005** (0.002)
Constant	-0.312** (0.098)	-0.420** (0.111)	-0.262** (0.098)	-0.414** (0.113)
Country Fixed Effects	Yes	Yes	Yes	Yes
Observations (Regions)	517	376	517	517
F-test for model (<i>p</i> -value)	0.000	0.000	0.000	0.000
Adjusted R squared	0.87	0.87	0.88	0.89

Note: Relative income share and population share are fractions (all regions sum to a national total of 1). Relative regional income is mean regional income divided by mean national income (both calculated from household surveys). Regional Gini, calculated from household surveys, is expressed in percentages (ranges from 0 to 100). Significance levels of 5% and 1% are indicated by two and one asterisks respectively.

In regression 3, we add to the model an interaction term between conflict and regional inequality. The signs and significance of coefficients on relative income, population share, and region's natural wealth are basically unaffected. The coefficient on conflict now becomes negative as posited in the model with very high statistical significance. An important new result is that the effect of inequality on sovereignty is indirect and a higher regional inequality, contingent

on the presence of conflict, is associated with greater observed sovereignty. To explore further the idea that the effect of regional inequality may be contingent on other factors, in Column 4 we present results from a regression that includes an interaction term between regional inequality and ethnic distinctiveness and another variable interacting inequality and regional income. Regional distinctiveness, *pace* our hypothesis 2, now definitely turns negative and is statistically significant way, but its interaction with regional inequality is positive. Controlling for a given level of ethnic distinctiveness, higher regional inequality is associated with greater observed regional sovereignty. This supports the elite-capture hypothesis regarding how higher regional income inequality gets translated into demand for sovereignty.⁴⁴ Finally, another interesting new result is that the interaction between regional income and inequality is negative, which is consistent with richer regions dampening their demands for more autonomy as the presumed need for greater within-regional redistribution increases. With less sovereignty, the burden of redistribution falls to the center rather than the region.⁴⁵

5. Conclusion

The analysis in this paper has pointed to several important relationships not previously shown in cross-country studies of decentralization and sovereignty demand. Using disaggregated data with regions as units of observation and controlling for country-specific fixed effects, we find that richer, more populous and resource-endowed regions are more likely to enjoy higher degrees of sovereignty. This is consistent with our hypotheses. Richer, larger regions are better able to provide public goods to their citizens: either because they are richer, or, controlling for their wealth, because they are more populous and thus per capita costs of provision are less. They

⁴⁴ However the increase in the Gini has to be more than 30 points to overturn the negative coefficient associated with ethnic distinctiveness.

⁴⁵ This hypothesis is consistent with the main predictions of a model by Beramendi (2009).

demand more sovereignty. They are also often in a position of power in the country, which explains why the observed level of sovereignty is on average higher in those regions.

The role of regional ethnic distinctiveness is more ambiguous and the effects of ethnic distinctiveness are likely to be contingent on other variables, as are the effects of regional inequality. We find that the relationship between ethnic distinctiveness and sovereignty is mediated by the level of inequality within region. In fact, one of our key findings is the role played by regional inequality in more ethnically distinct settings as inequality helps spur demand for greater sovereignty in ethnically distinct regions, consistent with what we termed an “elite” mechanism of how regional demands are made. Inequality also mediates the effect of other covariates, such as regional income and regional conflict (sovereignty demands).

This is, to our knowledge, the first direct test of the role that income inequality at the regional level plays in the determination of sovereignty levels and conflict over sovereignty. Earlier studies did not utilize data at the regional level and were limited to correlations national-level inequality and conflict, which is a blunt way of cutting the problem. Our study reveals some of the complicated ways that economic inequality affects political conflict over self-determination and opens the way to theorizing and further empirical testing of the relationship between inequality and political conflict.

References

- Bartkus, Viva O. 1999. *The Dynamic of Secession*. Cambridge: Cambridge University Press.
- Beramendi, Pablo. 2009. "Representation and Endogenous Fiscal Structures." Unpublished paper, Duke University (draft March 5).
- Bolton, Patrick, Gerard Roland, and Enrico Spolaore. 1996. "Economic Theories of the Break-Up and Integration of Nations." *European Economic Review* 40: 697-705.
- Brancati, Dawn. 2006. "Decentralization: Fueling the Fire or Dampening the Flames of Ethnic Conflict and Secessionism?" *International Organization* 60 (Summer): 651-685.
- Brustein, William R. 1988. *The Social Origins of Political Regionalism: France, 1849-1981*. Berkeley, CA: University of California Press.
- Buchanan, James M. and Roger L. Faith. 1987. "Secession and the Limits of Taxation: Toward a Theory of Internal Exit." *American Economic Review* 77: 1023-1031.
- Buhaug, Halvard, Lars-Erik Cederman, and Jan Ketil Rod. 2008. "Disaggregating Ethno-Nationalist Civil Wars: A Dyadic Test of Exclusion Theory." *International Organization* 62: 531-551.
- Bunce, Valerie. 1999. *Subversive Institutions: The Design and the destruction of Socialism and the State*. Cambridge: Cambridge University Press.
- Cederman, Lars-Erik and Luc Girardin. 2007. "Beyond Fractionalization: Mapping Ethnicity Onto Nationalist Insurgencies." *American Political Science Review* 101 (1): 173-185.
- Darden, Keith. 2010. *Resisting Occupation: Mass Literacy and the Creation of Durable National Identities*. Forthcoming, Cambridge University Press.
- De Tocqueville, Alexis [1856] *The Old Regime and the French Revolution* (translated by John Bonner). NY: Harper and Brothers.
- De Winter, Lieven and Huri Tursan 1998. *Regionalist Parties in Western Europe*. London: Routledge.

- Degenhardt, Henry W., Ed. 1988. *Revolutionary and Dissident Movements*. London: Longman Publishers.
- Deutsch, Karl. 1966. *Nationalism and Social Communication*. Second edition. Cambridge, MA: MIT Press.
- Diaz-Cayeros, Alberto. No date. "The Centralization of Fiscal Authority: An Empirical Investigation." Unpublished manuscript (Stanford University).
- Fearon, James D. and Laitin, D. D. 2003. "Ethnicity, Insurgency and Civil War." *American Political Science Review* 97 (1): 75–90.
- Fisman, Raymond, and Roberta Gatti. 2002. "Decentralization and Corruption: Evidence Across Countries." *Journal of Public Economics* 83: 325-345.
- Filippov, Mikhail, Peter C. Ordeshook, and Olga Shvetsova. 2004. *Designing Federalism: A Theory of Self-Sustainable Federal Institutions*. Cambridge: Cambridge University Press.
- Gellner, Ernest. 1983. *Nations and Nationalism*. Ithaca, NY: Cornell University Press.
- Goddard, Stacie E. 2006. "Uncommon Ground: Indivisible Territory and the Politics of Legitimacy." *International Organization* 60: 35-68.
- Gordin Jorge P. 2001. "The Electoral Fate of Ethnoregionalist Parties in Western Europe: A Boolean Test of Extant Explanations." *Scandinavian Political Studies* 24 (June): 149-170.
- Gurr, Ted Robert. 2000. *Peoples Versus States: Minorities at Risk in the New Century*. Washington, DC: USIP.
- Gurr, Ted Robert. 1993. *Minorities at Risk: A Global View of Ethnopolitical Conflicts*. Washington, DC: United States Institute of Peace.
- Gurr, Ted Robert and Will H. Moore. 1997. "Ethnopolitical Rebellion: A Cross-Sectional Analysis of the 1980s with Risk Assessments for the 1990s." *American Journal of Political Science* 41 (October): 1079-1103.

- Hale, Henry E. 2004. "Divided We Stand: Institutional Sources of Ethnofederal State Survival and Collapse." *World Politics* 56 (January): 165-93.
- Hale, Henry E. 2000. "The Parade of Sovereignties: Testing Theories of Secession in the Soviet Union." *British Journal of Political Science* 30: 31-56.
- Hechter, Michael. 2001. *Containing Nationalism*. Oxford: Oxford University Press.
- Hechter, Michael. 1992. "The Dynamics of Secession." *Acta Sociologica* 35 (December): 267-283.
- Hechter, Michael. 1975. *Internal Colonialism: The Celtic Fringe in British National Development, 1536-1966*. London: Routledge.
- Horowitz, Donald L. 1991. "Self-Determination: Politics, Philosophy, and Law." In Ian Shapiro and Will Kymlicka, *NOMOS XXXIX*, New York: NYU Press, pp. 421-461.
- Horowitz, Donald L. 1985. *Ethnic Groups in Conflict*. Berkeley, CA: University of California Press.
- International Monetary Fund. Various Years. *Government Finance Statistics*.
- Jagers, Keith and Ted Robert Gurr. 1996. POLITY III: Regime Change and Political Authority, 1800-1994. [computer file] (Study #6695). 2nd ICPSR version. Boulder, CO: Keith Jagers/College Park, MD: Ted Robert Gurr [producers], 1995. Ann Arbor, MI: Inter-University Consortium for Political and Social Research [distributor], 1996.
- Keating, Michael, John Loughlin, and Kris Deschouwer. 2003. *Culture, Institutions and Economic Development: A Study of Eight European Regions*. Cheltenham, UK: Edward Elgar.
- Landry, Pierre. 2008. *Decentralized Authoritarianism in China: The Communist Party's Control of Local Elites in the Post-Mao Era*. Cambridge: Cambridge University Press.
- Levi, Margaret. 1988. *Of Rule and Revenue*. Berkeley: University of California Press.

- Levi, Margaret and Michael Hechter. 1985. "A Rational Choice Approach to the Rise and Decline of Ethnoregional Political Parties." In Edward A. Tiryakian and Ronald Rogowski, eds., *New Nationalisms of the Developed West*. Boston: Allen and Unwin.
- Lijphart, Arendt. 1968. "Consociational Democracy." *World Politics*. 21 (2): 207-25.
- Mansuri, Ghazala and Vijayendra Rao (2011), *Localizing Development: Does Participation Work?*, World Bank Policy Research Report, Washington: World Bank
- Marshall, Monty and Keith Jagers. 2000. Polity IV Project. Codebook and Data Files: www.bsos.umd.edu/cidcm/inscr/polity
- McAdam, Doug, John D. McCarthy, and Mayer N. Zald. 1996. *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures, and Cultural Framings* (New York: Cambridge University Press).
- Meadwell, Hudson. 1991. "A Rational Choice Approach to Political Regionalism." *Comparative Politics* 23 (4): 401-21.
- Melson, Robert and Howard Wolpe. 1970. "Modernization and the Politics of Communalism: A Theoretical Perspective." *American Political Science Review* 64 (4): 1112-30.
- Milanovic, Branko. 2000. "Nations, conglomerates and empires: trade-off between income and sovereignty", in Dominick Salvatore, Marjan Svetlicic and Jose P. Damijan, eds., *Small Countries in a Global Economy* (London: Palgrave): 25-69.
- Minahan, James. 1996. *Nations Without States: A Historical Dictionary of Contemporary National Movements*. London: Greenwood Press.
- Nielson Francois. 1980. "The Flemish Movement in Belgium after World War: A Dynamic Analysis." *American Sociological Review* 45 (February): 76-94.
- Oates, Wallace E. 1972. *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.
- Panizza, Ugo. 1999. "On the Determinants of Fiscal Centralization: Theory and Evidence." *Journal of Public Economics* 74: 97-139.

- Przeworski, Adam, Michael Alvarez, Fernando Limongi; and Jose Cheibub. 2000. *Democracy and Development*. Cambridge: Cambridge University Press.
- Ragin Charles C. 1979. "Ethnic Political Mobilization: The Welsh Case." *American Sociological Review* 44 (August): 619-635.
- Riker, William H. 1964. *Federalism: Origin, Operation, Significance*. Boston: Little, Brown.
- Rodden, Jonathan and Erik Wibbels. 2002. "Beyond the Fiction of Federalism: Macroeconomic Management in Multitiered Systems." *World Politics* 54: 494-531.
- Rokkan, Stein and Derek W. Unwin. 1983. *Economy, Territory, Identity: Politics of West European Peripheries*. London: Sage.
- Sambanis, Nicholas. 2004. "Expanding Economic Models of Civil War Using Case Studies." *Perspectives on Politics* 2 (2): 259-280.
- Sambanis, Nicholas and Annalisa Zinn. 2006. "From Protest to Violence: An Analysis of Conflict Escalation with an Application to Self-Determination Movements." Unpublished paper, Yale University.
- Smith, Anthony D. 2001. *Nationalism*. Cambridge: Polity Press.
- Sorens, Jason. 2005. "The Cross-Sectional Determinants of Secessionism in Advanced Democracies." *Comparative Political Studies* 38 (3): 304-326.
- Spolaore, Enrico. 2008. "Civil Conflict and Secessions." *Economics of Governance* 9: 45-63.
- Tiebout, Charles M. 1957. "A Pure Theory of Local Expenditures." *Journal of Political Economy* 64: 416-424.
- Toft, Monica. 2003. *The Geography of Conflict*. Princeton, NJ: Princeton University Press.
- Treisman, Daniel. 2000. "Decentralization and the Quality of Government." Manuscript UCLA.
- Treisman, Daniel. 1998. "Fiscal Redistribution in a Fragile Federation: Moscow and the Regions in 1994." *British Journal of Political Science* 28: 185-222.
- Treisman, Daniel. 1997. "Russia's "Ethnic Revival": The Separatist Activism of Regional leaders in a Postcommunist Order." *World Politics* 49 (2): 212-249.

Treisman, Daniel. 1996. "The Politics of Intergovernmental Transfers in Post-Soviet Russia."

British Journal of Political Science 26: 299-335.

Walter, Barbara. 2006. "Information, Uncertainty, and the Decision to Secede." *International*

Organization 60: 105-135.

Weber, Max. [1922] 1978. *Economy and Society*, edited by Guenther Roth and Claus Wittich.

Berkeley, CA: University of California Press.

Weingast, Barry R. 1995. "The Economic Role of Political Institutions: Market-Preserving

federalism and Economic Development." *Journal of Law, Economics, and Organization*

11: 1-31.