CHAPTER 5

POLITICAL INTEGRATION AND DISINTEGRATION IN THE GLOBAL ECONOMY

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I. Introduction

Two opposing trends appear to be chipping away at the foundations of the modern state system from different sides.[1] Both trends involve pressure for a re-location of decision-making authority away from the state — a change in the location or site of governance, in the terms used by Kahler and Lake in Chapter 1. On one hand, states have been delegating more responsibility over decision-making "upwards" to supranational institutions at global and regional levels. The political integration in Europe over the past three decades is the most prominent example, of course, but there has been a more widespread, recent trend toward regional integration and the strengthening of rule-making powers of international institutions such as the World Trade Organization and the International Monetary Fund. On the other hand, recent years have also witnessed a great deal of political decentralization within states and a trend towards the devolution of decision-making powers "downwards" to sub-national political units. One manifestation of this is the recent decomposition of the former Soviet Union and Yugoslavia, which led to the creation of new, smaller states in Eastern and Central Europe. There has also been a more general growth in the strength of regional autonomy movements (in Spain, Britain, Italy, and Canada, for instance), and greater devolution of important government functions from national to local levels (in the United States and Britain, for example).

There are plausible reasons for thinking that both, seemingly counter-poised, trends may have been accelerated by "globalization"— that is, by growing economic integration in the international system (the narrower definition of the term favored by Kahler and Lake in Chapter 1). According to one prominent line of thought, as the world's economies have become more closely woven together it has become more difficult for states to effectively pursue key policy objectives, like dealing with economic recession,

financial crisis, and environmental problems, without coordinating their actions with those of other states at some supranational level. The demand for political integration or supranational forms of governance may thus have increased substantially with globalization. On the other hand, as another set of scholars has pointed out, globalization has also made smaller political units more economically viable, since trade between nations can substitute more easily for trade within nations and the size of the internal market is less important for national wealth. If smallness confers benefits, in the shape of policies tailored more closely to the preferences of citizens, this argument suggests that globalization may have encouraged new demands for political devolution and disintegration from sub-national groups.

I do not attempt to synthesize, or mediate between, these two different types of arguments here. Instead I want to investigate an entirely separate channel through which globalization can generate greater support for both political integration *and* disintegration in different contexts — by altering the distribution of income across (and within) political units. Regional differences in incomes within nation-states have long been considered crucial in the politics of secession (see Gourevitch 1979). We know from standard trade theory, meanwhile, that globalization can have profound effects on incomes in different local economies, as well as on the way income is distributed within those economies. To date, however, no one has connected these different issues to examine the broad effects of globalization on political demands for changes in the location or site of governance.

Taking an explicitly actor-oriented approach, like other chapters in this volume, I begin with a simple formal model of the provision of public goods. The model reveals that the benefits of political integration (relative to disintegration) for individuals in different political units depend critically upon differences in incomes and income distributions in those units — and these can be altered significantly by globalization. In essence, where globalization has variegated or heterogeneous effects on incomes across a set of political units it will raise the redistributive stakes associated with political integration among them, while reducing the mutual benefits of integration. In such cases, globalization can be expected to encourage demands for political disintegration or, equivalently, to diminish support for political integration. The converse of this also holds: where globalization has a homogenizing effect on incomes across a set of political units, it will tend to make political integration more likely — in effect, it will make political integration more closely resemble a positive-sum rather than a zero-sum game between the median voters in the different political units. This hypothesis is tested in a rudimentary fashion using evidence on political decentralization in 56 nations during the 1980s and 1990s.

II. Research on Globalization and Political (Dis)Integration

Perhaps the first major line of thinking about the effects of globalization on political integration has roots in the political science literature on economic interdependence and the creation of international

regimes. Cooper (1972) examined the way interdependence among industrial economies undermined the effectiveness of national policies and suggested that one rational response would be for states to coordinate economic policy-making. A similar theme emerged in Keohane and Nye's (1977) landmark study of interdependence, and in Keohane's (1982, 1984) later work on international regimes. The underlying idea is that, with greater globalization, uncoordinated national policies generate more and larger negative externalities (in the form, for instance, of inefficiently low levels of environmental and financial market regulation), thus making it more attractive to relocate decision-making to supranational levels to internalize these externalities and Pareto-improve welfare. Testing this argument is particularly difficult for the obvious reason that it involves measuring externalities (which, by definition, are not priced in any market) and how they are affected by globalization.

A very different type of argument, which suggests a very different relationship between globalization and institutional change, has appeared in the recent political-economy literature on the optimal size of nations.[2] The basic approach taken in these studies is to make the size of political units endogenous to decisions about the provision of public goods. Models by Casella and Feinstein (1990), Wei (1991), Alesina and Spolaore (1997), Alesina, Spolaore, and Wacziarg (2000), and Bolton and Roland (1997) all focus on the apparent trade-off between the economic benefits of large nations and their political costs — the latter assumed to follow from an increased heterogeneity among voters in preferences over policy and thus a larger difference gap between the equilibrium national policies in the policies preferred by sub-national groups. Critically, the economic benefits of political integration are assumed to be increasing in barriers to international exchange, since internalizing more trade within a national market will lower transactions costs more dramatically when barriers to international trade are high. Thus these models predict that globalization makes political decentralization and secession more attractive to local or regional, sub-national groups. As evidence in support of this argument, Alesina, Spolaore, and Wacziarg (2000) point out how that the number of nations in the international system has varied with overall trade openness (the average ratio of imports plus exports to GDP) between 1870 and the present. When average openness was decreasing, from 1870 to the 1920s, the number of countries was slowly falling. After World War II, rising openness was matched by rapid growth in the number of nations.[3]

These results produced by these models rest on several very questionable assumptions. One key assumption is that policy preferences of citizens are more heterogeneous in large nations than in small nations. There actually seems to be very little clear evidence supporting this premise, and no compelling logic.[4] Indeed, Hiscox and Lake (2002) report that ethnic and religious fractionalization among citizens, a commonly applied indicator of heterogeneity in voter preferences, is not strongly or significantly related to the size of nations at all. A second, related assumption is that the heterogeneity of preferences among citizens in different political units is itself unaffected by the processes of globalization. This may be

missing the forest for the trees when it comes to analyzing the effects of globalization — it is the potentially homogenizing effect of globalization that lies at the heart of a great deal of popular anti-globalization sentiment and has been discussed at great length by commentators interested in the extent to which globalization is synonymous with "Americanization" and the destruction of cultural distinctions (Friedman 2000). While there are alternative views (e.g., Huntington 1993), and I am not aware of any empirical studies that actually gauge the effects, it is easy to see that, if the flow of information and ideas across national borders has a homogenizing effect on the preferences of citizens over consumption of public (and private) goods, this is a simple route via which globalization may have made political integration more attractive and feasible.

But the assumption used in recent models that I want to take issue with most directly here is the assumption that incomes in different political units are also exogenous to globalization. It seems especially clear that globalization can have a large impact on incomes and income distributions in different local economies. Indeed, a large body of international economic theory is focused on these very issues, with studies concentrating on how trade openness has differential effects on growth and incomes across nations, across regions within nations, and even across different classes and sectors within regions.[5] To date, however, this connection has been overlooked in the literature on globalization and political integration. Gourevitch (1979) long ago emphasized the importance of regional income disparities in the politics of secession, and this theme has been reiterated in formal analyses recently (e.g., Bolton and Roland 1997; Fearon and van Houten 2002), but these arguments have not been linked to the debate about the effects of globalization on political integration. In all the formal models that examine the impact of globalization, incomes and income distributions are treated as exogenous.[6] In what follows I examine the way globalization can affect decisions about the structure of governance by altering incomes and income distributions in different political units.

III. A Model of the Provision of Public Goods

The model developed here draws heavily from formal approaches taken by Alesina and Spolaore (1997) and Bolton and Roland (1997). Consider a political unit or jurisdiction, J, of population size s, and assume that there is no mobility into or out of the jurisdiction.[7] This jurisdiction may be regarded as a nation itself or as a province or regional unit within a nation. The citizens of the jurisdiction, indexed by i, have quasi-linear preferences over private consumption, c, and a publicly provided good, g:

(1) $$U_i = c_i + G_i(g)$$

where $G(\cdot)$ is a concave and increasing function. Assume that public goods cannot be targeted to specific individuals or groups, but must be provided identically to all citizens (this fits with the classic definition of public goods as non-excludable). Assume that taxes cannot be targeted either, and that government

spending is financed by taxing each citizen's income, y_i , at common rate, t. This assumption is more restrictive, but is not crucial for the results below. Relaxing it to allow for more or less progressive taxation, for instance, would actually accentuate the basic findings, but would make the analysis much less tractable.[8] Private consumption is equal to disposable income:

(2) $$U_i = (1-t)y_i + G_i(g)$$

The government's budget constraint can be written in terms of population averages as:

(3) $$ty = Q(g)$$

where $Q(\cdot)$ is an increasing cost function. The standard assumption, for which there is empirical support, is that the long-run average cost of public goods provision is decreasing in scale.[9] To keep things simple here, assume that costs take the following basic form:

(4) $$Q(g) = qg$$

where q measures marginal costs ($q > 0$).

Now we can write:

(5) $$U_i = y_i - qg + G_i(g)$$

Using (2) and (3), we can re-write this as:

(6) $$U_i = (y - qg)\,[(y_i-y)/y] + (y - qg) + G(g)$$

where y is mean income per capita.

To keep things simple on the demand side, all individuals have identical tastes in the consumption of public goods:

(7) $$G(g) = -k(g_0 - g)^2$$

where g_0 is the ideal amount of the public good everyone would like to consume, and k measures satisfaction from consumption of g relative to other consumption ($k > 0$). This specification establishes that there is diminishing utility in the consumption of the good and allows us to easily define equilibrium policy in terms of provision of g. By holding tastes constant across individuals we are setting aside the well-known results linking preference heterogeneity in an electorate with under-provision of public goods (e.g., Alesina, Baqir, and Easterly 1999).

Substituting (6) into (5) and solving for the level of public spending, g_i^*, that maximizes the utility of the ith voter yields:

(8) $$g_i^* = g_0 - q\,(1/2k)\,(y_i/y)$$

To solve for the political equilibrium here we can follow the tradition of applying the median voter theorem (e.g., Alesina and Spolaore 1997, Bolton and Roland 1997, Alesina, Baqir, and Easterly 1999).[10] We thus derive the amount of the public good provided in equilibrium:

(9) $$g^* = g_0 - q\,(1/2k)\,(y_m/y)$$

where y_m is the income of the median voter. Since income is distributed unequally, so that median income is less than average income ($y_m < y$), it is clear from equation (9) that the size of government is increasing

in the skewness (inequality) of the income distribution. This result fits with the conclusions reached by Meltzer and Richards (1981) in their classic treatment of the effects of income distribution on the size of government programs.[11] Since each citizen receives the same amount of the public good (and values it equally) but richer citizens bear a greater tax burden (in absolute terms), provision of greater amounts of the good involves larger redistribution from richer to poorer citizens.

Now consider the potential for political integration. Allow that voters in the jurisdiction *J* must decide whether to support enlargement of the size of the political unit in which decisions about the provision of the public good are made; that is, whether to support political integration with another unit (call it *H)* that will create a larger jurisdiction (call it *F*). Historical approximates of such decisions can be located in the pre-federation politics of several countries (e.g., the United States, Canada, and Australia) and, in a more attenuated form perhaps, in the recent experiences of nations joining the European Union. The key question is when will a majority in *J* support the creation of *F*? But notice that answering this question in our simple median voter framework also tells us about the potential for political disintegration; that is, it also tells us when a majority in *J* will support the preservation or continuation of *F* if we start from the slightly different but analytically equivalent premise that the larger unit *F* already exists and *J* is identifiable within *F* as a potentially autonomous political unit. Again, there are many examples of such decisions about whether to remain in (or secede from) political unions both in the histories of the established federations (e.g., in the *ante bellum* South in the United States) and in recent political debates over regional autonomy in Britain, Canada, and elsewhere.

The simplest approach here is to compare the utility derived by the median voter in *J* from policy set in *J* with that same voter's utility when policy is set in the larger unit, *F*. To do this we substitute from (9) into (6) for each of the equilibria. The difference between the utility of the median voter (in *J*) when policy is set in *F* rather than *J* is:

(10) $$\Delta U_m = (y_{m*} - y_m) + qg_0\,(y_m/y - y_{m*}/y_f) + q^2/(2k)\,\{y_{m*}y_{mf}/y_f^2 - y_m^2/y^2\} + q^2/(4k)\,\{y_m^2/y^2 - y_{mf}^2/y_f^2\}$$

where y_{m*} represents the income of this median voter in the enlarged jurisdiction, and y_f and y_{mf} are the mean and median incomes in *F*, respectively. Notice that the technology of production for the public good is taken to be identical across units and is not altered by political integration. And to keep the focus on incomes, I have assumed that individuals in both units have identical consumption preferences — thus we are setting aside the issues, raised in the previous section, of whether preference heterogeneity is increasing in jurisdictional size and whether preference heterogeneity is itself endogenous to the processes of globalization.

Since we have imposed no restrictions upon incomes (or income distributions) in the development of the model thus far, this result is very general and now requires some careful elaboration. We can evaluate

the key comparative statics here by focusing on the most interesting scenarios. The three critical features of each scenario are: (a) whether incomes and income distributions differ between *J* and *H* in the absence of political union; (b) whether the formation of *F* itself changes incomes and income distributions in *J* and *H*, and; (c) whether globalization affects these first two issues.

Scenario 1: Globalization reduces the income benefits of political integration. First, imagine the simplest scenario in which incomes and income distributions are identical in *J* and *H* and the formation of the large political unit *F* has identical "lifting all boats" effects on the incomes of individuals in both units. In this case it is easy to see that $y_m/y = y_{m*}/y_f = y_{mf}/y_f$ and so, from equation (10), $\Delta U_m = (y_{m*} - y_m)$. This is the scenario examined by Alesina and Spolaore (1997). Here the benefits of political integration just depend upon the extent to which the creation of a larger internal market increases individual incomes; the baseline assumption is that incomes are an increasing function of the size of the internal market since there are efficiency gains from incorporating more productive assets into one integrated economy.[12] The relationship between size and income, however, can be affected by globalization. The greater are the barriers to international trade, the more important is the size of the domestic market as a determinant of per capita incomes. In this case it is easy to see that globalization, by reducing barriers to trade, reduces incentives for political integration that are associated with the efficiency effects of size: in terms of the results, the gain in come for the median voter in *J*, $y_{m*} - y_m$, is decreasing in globalization. This is the standard Alesina-Spolaore result. But it is now easy to see that it is very much a special case in which no differences are permitted in incomes or income distributions across political units. Since globalization is known to have profound effects on incomes in local economies, we want to relax this assumption.

Scenario 2: Globalization affects the size of the "regional transfers" problem. Consider instead a scenario in which we allow differences in incomes in *J* and *H*. For simplicity, assume that the formation of *F* itself has only negligible effects on individual incomes in each unit ($y_{m*} = y_m$).[13] Manipulation of (10) now yields:

(11) $$\Delta U_m = y_m\{qg_0 - q^2/(2k)(y_m/y)\}\ [1/y - 1/y_f]$$

where we know the second term (in braces) must be positive for $g > 0$. Thus, whether integration imparts benefits or costs for the median voter in *J* is simply a function of the final term in (11): integration will be beneficial as long as average income is lower in *J* than in *H* (and thus *F*); it will be costly if income is higher in *J* than in *H*. This is the so-called "regional transfer" effect: richer regions will oppose integration because it results in a tax-revenue transfer to poorer regions (Bolton and Roland 1996).

How might this be affected by globalization? Clearly, if globalization accentuates income disparities between political units (perhaps because they are differently endowed with productive resources valued differently in world markets) it will raise the distributional stakes associated with integration: median voters in different units can expect to give or receive larger regional transfers, depending upon whether

they are located in richer or poorer areas. The importance of the world oil market for Norway since the 1970s, and its opposition to inclusion into the European Union, provides a recent case in point. Other Scandinavian economies, experiencing less success in world markets in the 1970s and 1980s, were much more disposed to favor inclusion in the EU. Or, going back further in history, consider the success of the Southern, cotton and tobacco exporting states in the United States in the *ante-bellum* era, and their demands for greater autonomy and threats of outright secession. The re-opening of Atlantic trade routes after the Napoleonic Wars spurred rapid economic growth in the South in the 1820s and 1830s and accentuated the distributional conflicts inherent in political integration with the sluggish manufacturing economies of the North.

Scenario 3: Globalization affects the size of the "preference distance" problem. Finally, we can allow for the possibility that globalization affects not just incomes in different political units but the way income is distributed. Consider a scenario in which there are no differences in average incomes between *J* and *H* ($y = y_f$) , but there are differences in income distributions. Again setting aside any effects of integration on individual incomes ($y_{m*} = y_m$), we can manipulate (10) to yield:

(12) $$\Delta U_m = - q^2/(4k)\ (1/y^2)\ \{y_m - y_{mf}\}^2$$

Clearly, any difference in the distribution of incomes between the political units translates into a cost for the median voter in *J* when considering political integration. If income is distributed more equally in *J* than in *H* ($y_m > y_{mf}$) this cost results from policy in *F* providing for "too much" spending on *g* (and hence too much redistribution between richer and poorer taxpayers) compared to what the median in *J* prefers; if income in *J* is less equally distributed than in *H* political integration provides for "too little" government spending in the eyes of the median voter in *J*. This is the cost of integration examined by Bolton and Roland (1997), and it is quite similar in flavor to the analysis of "preference distance" in models that focus on heterogeneity in tastes for consumption of public goods (e.g., Alesina and Spolaore 1997).

Again, there is a clear link to be made here between these calculations about political integration and the effects of globalization on incomes. Where globalization has made income distributions more similar among a set of political units it should (all else equal) reduce opposition to integration; and the converse should also hold. Empirical examples are rather difficult to assess, however, since there is much academic debate about the effects of globalization on income inequality. One broad implication of the famous Stopler-Samuelson (1941) theorem is that the expansion of international trade in recent years has actually increased income inequality in labor-scarce industrial economies (by lowering real wages relative to returns on more abundant factors of production) and reduced income inequality in labor-abundant developing nations (Wood 1994).[14] If this is correct, globalization may have actually helped to reduce opposition to various forms of political integration between industrial and developing nations by shrinking the differences between income inequality (and hence median preferences over the provision of

public goods). The growing willingness among the original EU members to consider the inclusion of southern and eastern European nations in the 1980s and 1990s is consistent with this logic, although there were obviously many other forces at work.[15]

According to the simple model elaborated above, it seems clear that if globalization has a substantial impact on incomes and income distributions within and among nations (as highlighted in scenarios 2 and 3 above) it will also have a major impact on decisions about political integration and disintegration. There appears to be some evidence that these effects are important in particular cases — the effects of globalization on relative incomes in different political units, and hence on the "regional transfers" problem (scenario 2), seem especially salient. In the next section I examine cross-national data to test, in a very preliminary way, for the effects of globalization on demands for political disintegration or decentralization within existing nations. I focus on testing one proposition in particular: to the extent that recent globalization has had the effect of making incomes less similar across regional units within a nation, all else equal, it will have increased incentives to demand greater regional autonomy in the provision of public goods. This follows clearly from the **Scenario 2** above and requires the least extreme simplifying assumptions: it allows that income levels can differ substantially across regions within nations (the Alesina-Spolaore approach does not), while assuming that regions within nations are reasonably well-integrated economically and tend also to have similar income distributions. Since the key variables for the analysis are quite difficult to measure quantitatively using available data, and the empirical work that had been done on related questions to date has been very limited, the analysis is treated as a very preliminary approach to the issue rather than as any type of definitive test.

IV. Evidence: Globalization, Regional Incomes, and Political Disintegration

To proceed here we need some measure of demands for political disintegration by sub-national groups, in the form of pressure for devolution, for instance, or secession. This types of demands, and their intensity, are extremely difficult to measure cross-nationally. Perhaps the best available measure is the degree of support for region-based political parties used by van Houten (Chapter 7) and Fearon and van Houten (2002). Unfortunately, this measure is only available for a very narrow set of advanced economies. The proxy measure I have used here for demands for disintegration in a broad set of developed and developing economies is the amount of change in political institutions granting more power to sub-national political units. The underlying assumption is that pressures for disintegration or decentralization of decision-making authority are likely to translate into some actual expansion in the authority and autonomy of sub-national governments, and this will be reflected in institutional changes.

A real problem here is that the simple model developed in the previous section does not generate any predictions about institutional outcomes (that is, the equilibrium allocations of political authority across

local and national governments that should be expected under different conditions). To provide such predictions we would need to add to the framework an explicit model of the bargaining that takes place between political units over whether (and under what terms) integration is to take place or continue.[16] The comparative statics examined above just indicate when demands for disintegration by median voters in different political units will be higher or lower. The assumption made for conducting the empirical analysis that follows is that any bargains reached among such median voters are more likely to involve decentralizing institutional changes when demands for political disintegration from some of those voters grow more intense (this could be because the institutional changes are themselves part of bargains that forestall outright secessions, or because they signify failures to reach agreements on other terms — involving fiscal transfers, for example — that might have satisfied voters seeking change).[17]

The measure of institutional change is derived from the World Bank's *Database of Political Institutions* (Beck et al. 1999), which provides data on institutions for 177 nations for the period between 1975 and 1997. The database includes a variable indicating whether state and provincial governments are locally elected: coded as 0 if neither the state executive nor the state legislature are locally elected; 1 if the executive is appointed, but the legislature is elected; and 2 if they are both locally elected. I have used changes in this score over time as a measure of shifts in the authority of sub-national units vis a vis the national government.[18] Clearly this is a crude measure of shifts in political authority and does not capture the multitude of ways in which authority over policy can be devolved from national to sub-national governments. Nevertheless, since such devolution presumes locally responsible sub-national governments, this does seem to capture some basic variation that is central to the issue of decentralization or disintegration. Similar data are available on the local election of municipal governments for a reasonable number of nations from 1985.

Tables 1 and 2 report the data. Overall, there is a trend toward devolution between 1980 and 1997: the average change in the state government election score was 0.18 (see Table 1); the average change in the score for municipal governments was 0.15 (see Table 2). There is also some interesting variation across nations, however, in the extent to which change occurred. It is not surprising that there is very little change in the western democracies, where state and municipal governments were already locally elected as of 1980, and in the stable non-democracies, where no governments are actually elected. Among other nations, however, there have been some substantial changes. It should be noted that there are far fewer shifts in the election scores for municipal governments (Table 2), perhaps due to the abbreviated period for which data are available.

The aim is to test whether these measures of demands for political disintegration are affected by globalization — specifically, by the impact of globalization upon relative incomes in different regions within each nation. Measuring changes in regional incomes is itself a very difficult task. In the best study

to date, van Houten (Chapter 7) has gathered detailed economic data on regions in six western European economies. As far as I am aware, however, there no data are currently available on regional income disparities for a large set of more diverse nations. To proceed here we are forced to improvise. I make the assumption that regional incomes are affected more diversely by exogenous changes in world market prices when export income is tied more directly to ownership of location-specific resources. The idea here is that the greater the degree to which export wealth is generated by geographically concentrated resources, the greater the potential that globalization will magnify inter-regional income disparities. Depending upon their particular resource endowments, some regions will do much better from exposure to world markets than others. As a basic measure of the importance of location-specific resources in each economy I have used the share of ores and metals and agricultural raw materials exports in total exports.[19] The data are compiled from the World Bank's *World Development Indicators* for the years between 1980 and 1997. Table 3 reports a summary of these measures for the sample of nations for which there is data on changes in political institutions.

History (or, at least, historical anecdote) suggests that this approach is not unreasonable. Demands for greater political autonomy and secession among southern U.S. states in the *ante-bellum* era were fueled by the economic success of southern agriculture (especially cotton and tobacco growers) in world markets. Tensions over separatism in Canada have always been exacerbated by regional disparities in the effects of increased trade, which have tended to enrich grain producers and mining industries in the west relative to manufacturers in the east. In Australia, federation was thrown into doubt early in the twentieth century by threats of secession from Western Australia, the most successful exporter of primary commodities among the colonies. Other types of variables affect regional wealth, of course, but many of these (including regional endowments of labor and capital) are more endogenous to market forces.

There is some question about the degree to which globalization has affected producers of agricultural and mineral commodities over the past few decades. Barriers to trade in agricultural commodities have proved quite durable, although there has been some progress towards liberalization in recent years. At the opposite end of the spectrum, trade in mineral products has actually been very open for many years. Still, there is good reason to believe that world markets have become more integrated over time in both sectors as global transportation and communication costs have fallen, making it easier to connect producers and consumers of these commodities in a wider range of locations and thus increasing elasticities of both supply and demand. And a wave of trade liberalization has swept developing nations since the 1980s, due at least in part to powerful exogenous pressures, increasing the growth potential of these exporting sectors.

The approach taken to the analysis here just involves relating the measures of demands for political disintegration across nations to this basic measure of the sensitivity of regional incomes to globalization.

The first dependent variable is the change in the categorical variable indicating the degree to which state governments are locally responsible between 1980 and 1997 (from Table 1). The second dependent variable is the sum of the change is this variable between 1985 and 1997, and the corresponding variable indicating local election of municipal governments (from Table 2). I have used the sum of changes in both municipal and state election scores here in order to allow for more variation in the dependent variable while still incorporating the evidence on municipal-level changes. The key explanatory variable is the total share of ores and minerals and agricultural raw materials exports in total exports for periods corresponding with the measurement of each dependent variable. We expect that, since this variable is associated with the degree to which regional incomes will be differently affected by globalization, it will be positively related to pressure for political disintegration in recent decades.

Controls are included in the estimations to account for other characteristics of nations that may plausibly be associated with political disintegration (or demands for it). These controls include measures of population and land area, which we may expect to be positively associated with pressure for devolution or secession if it is true that larger nations are likely to include citizens with more heterogeneous preferences over consumption of public goods (*pace* Alesina and Spolaore 1997). The level of democracy is included since any type of institutional change may be more likely more democratic systems.[20] Table 4 reports summary statistics for all the variables used in the analysis.

Table 5 reports the results from the analysis of changes in the local accountability of state and provincial governments between 1980 and 1997. The first specification includes the basic controls along with the state election score for 1980 (since we expect highly "devolved" systems will not be able to shift further along the scale). As expected, both area and level of democracy have a positive effect on devolution, while population and real income do not appear to have significant effects. The second specification includes the measure of the sensitivity of regional income differences to globalization (the importance of primary commodity exports). As anticipated, this measure has a significant positive effect on devolution. That the substantive effects are quite sizeable is clear if we calculate the predicted probabilities that a nation with no local elections for state government in 1980 ended up granting local elections for both state legislatures and executives by 1997 (with all other variables set to means). With primary commodity exports of zero percent (roughly, the mean level minus one standard deviation), the probability of such devolution is only 10 percent; with primary commodity exports of 24 percent (the mean plus one standard deviation), the probability of this change is 34 percent. If we include separate measures for the importance of agricultural raw commodity exports and exports of ores and metals (the third specification) the results suggest that it is the mining sector that exerts the most influence on political demands.

Table 6 reports the results of the analysis of changes in the local accountability of municipal as well as state and provincial governments between 1985 and 1997. Again, the first specification just includes the basic control variables, and again area and democracy have the anticipated effects. The second and third specifications introduce the explanatory variables of interest. Total primary commodity exports and, specifically, exports of ores and metals, again have significant positive effects on the extension of local electoral control over state and municipal governments between 1985 and 1997.

It is worth noting here that in separate research on civil wars, Collier and Hoefler (2000) have discovered that the importance primary commodity exports has a large and significant positive effect on the probability of the occurrence of internal war in a nation. They argue that this is linked to the incentives of rebel leaders: such leaders are more likely to organize internal revolts when there are more "lootable" resources for the taking.[21] The argument I have outlined above suggests an alternative or additional interpretation: to the extent that civil conflicts reflect demands for greater regional autonomy or secession (and not outright revolution), the Collier-Hoefler results may in part be reflecting regional disparities in incomes within nations and how they affect incentives for political disintegration versus integration. Since ethnic groups are typically concentrated by region within nations, such considerations may overlap with ethnicity-based grievances.

V. Conclusions and Implications

The analysis above suggests a number of avenues for further research. It reveals that, at a very general level, globalization may have several and contradictory effects on support for political integration (including supra-nationalism and regionalism) and political disintegration (including devolution, secession, and perhaps even civil conflict). Previous arguments have highlighted the way globalization can reduce the income-enhancing effects of political integration (e.g., Alesina and Spolaore 1997), or how globalization can magnify the cost-reducing effects of political integration (e.g., Cooper 1972). I have focused instead upon the effects of globalization on relative incomes (and income distributions) in different political jurisdictions. The simple formal model of the provision of a public good shows that the benefits of political integration for individuals in different political units depend upon differences in income levels (and income inequality) between those units — and these differences can be altered significantly by globalization. To the extent that globalization has variegated (rather than homogenizing) effects on incomes across political units, it makes it less likely that political integration will be supported by electoral majorities in those units. The overall lesson from the analysis is that, as Kahler and Lake (Chapter 1) have emphasized, the effects of globalization are far more complex and contingent than is often claimed.

Other chapters in this volume have addressed very similar issues from slightly different angles. Garrett and Rodden (Chapter 6) examine evidence indicating that, across a broad set of countries, greater trade openness is associated with more fiscal centralization rather than decentralization. They attribute this finding primarily to the impact that greater exposure to world markets has on incentives to improve capacities for macroeconomic stabilization and inter-regional risk sharing, both managed at the national level. But they also point out that different regions within nations may be advantaged and disadvantaged by globalization, and heightened redistributive conflicts between these regions and central governments can generate greater fiscal centralization (as central governments "buy off" potential break-away regions to keep the nation together). This argument seems quite consistent with the approach I have taken in this chapter, focusing on how globalization may affect the magnitude of the "regional transfers" problem and thus demands for political disintegration (reflected empirically in decentralizing institutional changes). Together, I think these two chapters point to the need for a more fully elaborated model of the bargaining that creates and preserves integrated political entities; one that takes into account the key dimensions over which such bargains can be struck (including formal institutional powers for making different types of policies at different levels as well as explicit fiscal transfers from central governments to regions).

Van Houten's excellent analysis of demands for regional autonomy in Western European nations (Chapter 7) helps to buttress this case by revealing the variety of different types of autonomy demands made by regional actors. He finds no clear quantitative evidence that regions that are more exposed to globalization (in terms of their dependence upon imports and exports), or more likely to succeed in world markets (measured by productivity levels), make greater demands for autonomy, but he does point to some qualitative evidence that globalization may have increased redistributive conflicts between regions. One possible reason for the general divergence in our findings, apart from the measurement issues, is that in the advanced economies of Western Europe, region-specific assets are likely far less important as determinants of export income than in the developing nations I have examined in this chapter. Improved data on regional incomes in developing nations, and how they are affected by exposure to international markets, will hopefully resolve this issue more definitively in the future.

Finally, it should be noted that I have relied upon a very simple model of the provision of public goods in order to explore the different ways in which globalization, by affecting regional incomes, can alter incentives to change the location or site of governance. My main aim was really to take issue with previous treatments of political integration that assume regional incomes (and the differences between them) are exogenous to globalization. The model is meant only to clarify some of the key determinants of the relative attractiveness of political integration (and disintegration) to individual voters. In developing a fuller model of the way individual preferences are translated into political bargains it is clear that more careful attention should be paid to institutional variables that affect the political costs of making regional

demands. Indeed, van Houten (Chapter 7) shows that institutional features of the political landscape in Western European nations (in particular, the strength of regional political parties) can have powerful effects on demands for regional autonomy.

Tables

Table 1: Local Election of State and Provincial Governments, 1980–1997

Score: 0 = no local elections; 1 = legislature; 2 = legislature & executive

Nation	1980	1997	Change
Argentina	0	2	2
Australia	2	2	0
Austria	2	2	0
Belgium	1	2	1
Benin	1	2	1
Bulgaria	2	2	0
Brazil	1	2	1
Canada	2	2	0
Switzerland	2	2	0
China	2	2	0
Colombia	1	2	1
Germany	2	2	0
Denmark	2	2	0
Spain	2	2	0
Guyana	0	2	2
Italy	2	2	0
Japan	2	2	0
Sri Lanka	0	2	2
Madagascar	2	2	0
Mexico	2	2	0
New Zealand	2	2	0
Philippines	2	2	0
North Korea	2	2	0
Uruguay	0	2	2
USA	2	2	0
South Africa	1	2	1
Albania	1	1	0
Cote d'Ivoire	1	1	0
Congo	1	1	0
France	1	1	0
Ghana	0	1	1
India	1	1	0
Iceland	1	1	0
Israel	1	1	0
Mozambique	1	1	0
Malaysia	1	1	0
Netherlands	1	1	0
Panama	0	1	1
Senegal	1	1	0
Sweden	1	1	0
Venezuela	1	1	0

Nation	1980	1997	Change
Afghanistan	0	0	0
Bolivia	0	0	0
Brunei	0	0	0
Bhutan	0	0	0
Cameroon	0	0	0
Costa Rica	0	0	0
Cuba	0	0	0
Dom. Rep.	0	0	0
Finland	0	0	0
Gabon	0	0	0
Hungary	0	0	0
Indonesia	0	0	0
Lesotho	0	0	0
Maldives	0	0	0
Nigeria	2	0	-2
Portugal	2	0	-2
Saudi Arabia	0	0	0
El Salvador	0	0	0
Swaziland	0	0	0

Source: World Bank

Table 2: Local Election of Municipal Governments, 1985–1997

Score: 0 = no local elections; 1 = legislature; 2 = legislature & executive

Nation	1980	1997	Change
Bolivia	0	2	2
Nicaragua	0	2	2
Benin	1	2	1
Colombia	1	2	1
Canada	2	2	0
Switzerland	2	2	0
China	2	2	0
Costa Rica	2	2	0
Germany	2	2	0
Denmark	2	2	0
Dom. Rep.	2	2	0
Spain	2	2	0
France	2	2	0
UK	2	2	0
Guyana	2	2	0
Honduras	2	2	0
Hungary	2	2	0
Ireland	2	2	0
Iceland	2	2	0
Italy	2	2	0
Japan	2	2	0
Libya	2	2	0
Sri Lanka	2	2	0
Madagascar	2	2	0
Mali	2	2	0
Mauritius	2	2	0
Norway	2	2	0

Nation	1980	1997	Change
New Zealand	2	2	0
P. N. Guinea	2	2	0
North Korea	2	2	0
Tunisia	2	2	0
Turkey	2	2	0
USA	2	2	0
Venezuela	2	2	0
Vietnam	2	2	0
Yugoslavia	2	2	0
Chile	0	1	1
Guinea	0	1	1
South Korea	0	1	1
Laos	0	1	1
Albania	1	1	0
Botswana	1	1	0
Cote d'Ivoire	1	1	0
Cuba	1	1	0
Jordan	1	1	0
Mozambique	1	1	0
Netherlands	1	1	0
Poland	1	1	0
Afghanistan	0	0	0
Angola	0	0	0
Bangladesh	0	0	0
Belize	0	0	0
Cent. Af. Rep.	0	0	0
Eq. Guinea	0	0	0
Guatemala	0	0	0
Kuwait	0	0	0
Lebanon	0	0	0
Morocco	0	0	0
Malta	0	0	0
Malawi	0	0	0
Nigeria	0	0	0
Saudi Arabia	0	0	0
Senegal	0	0	0
Singapore	0	0	0
Chad	0	0	0
Egypt	2	0	-2
Zaire	2	0	-2

Source: World Bank

Table 3: Primary Commodity Exports as Percent of Total Exports, 1980–1997

Nation	Agricultural Raw Materials	Ores and Metals	Total
Chad	66.75	0.00	66.75
Chile	9.44	53.83	63.28
Mali	62.29	0.29	62.57
P. N. Guinea	10.23	50.23	60.46
Zaire	3.00	54.50	57.50
Bolivia	5.89	42.28	48.17
Peru	3.89	43.22	47.11

Nation	Agricultural Raw Materials	Ores and Metals	Total
Guyana	2.00	40.25	42.25
Cent. Af. Rep.	25.00	13.29	38.29
Paraguay	38.11	0.00	38.11
Jordan	0.63	35.06	35.69
Afghanistan	29.75	0.25	30.00
Australia	11.00	17.06	28.06
New Zealand	20.44	5.00	25.44
Zimbabwe	7.83	16.67	24.50
Morocco	2.72	21.33	24.06
Ghana	5.50	17.33	22.83
Albania	11.50	10.50	22.00
Cameroon	15.11	6.11	21.22
Uruguay	19.67	0.39	20.06
Malaysia	16.44	3.50	19.94
Cote d'Ivoire	18.40	0.00	18.40
Canada	9.17	8.44	17.61
Nicaragua	16.12	1.00	17.12
Benin	15.00	1.50	16.50
Senegal	3.92	12.23	16.15
Egypt	9.78	5.83	15.61
Finland	11.06	3.50	14.56
Brazil	3.50	10.56	14.06
Mozambique	9.86	3.71	13.57
Bulgaria	3.00	10.50	13.50
Iceland	0.89	11.78	12.67
South Africa	3.67	8.93	12.60
Philippines	3.33	8.56	11.89
Norway	2.11	9.50	11.61
Indonesia	6.59	4.59	11.18
Pakistan	11.00	0.17	11.17
Sweden	7.44	3.44	10.89
Sri Lanka	9.60	1.13	10.73
Poland	2.83	7.83	10.67
Madagascar	4.13	6.07	10.20
Thailand	6.89	3.28	10.17
Kenya	6.76	2.65	9.41
Bhutan	7.00	2.20	9.20
Bangladesh	9.11	0.00	9.11
Guatemala	8.06	0.44	8.50
Turkey	4.28	4.00	8.28
Portugal	6.39	1.67	8.06
Honduras	4.67	3.33	8.00
India	2.78	5.00	7.78
Austria	4.33	3.39	7.72
USA	4.06	2.89	6.94
Romania	3.22	3.44	6.67
Netherlands	3.83	2.78	6.61
Hungary	2.63	3.75	6.38
El Salvador	3.72	2.33	6.06
Belgium	1.61	4.33	5.94
Congo	5.30	0.60	5.90

Nation	Agricultural Raw Materials	Ores and Metals	Total
Maldives	4.50	1.33	5.83
Mexico	1.33	4.44	5.78
Singapore	3.72	2.00	5.72
China	3.33	2.25	5.58
Argentina	3.83	1.72	5.56
Angola	0.00	5.50	5.50
Colombia	5.22	0.22	5.44
Venezuela	0.00	5.33	5.33
Denmark	4.00	1.11	5.11
Spain	1.94	3.00	4.94
Israel	3.06	1.83	4.89
France	1.83	2.67	4.50
Costa Rica	3.61	0.72	4.33
UK	1.00	3.11	4.11
Switzerland	1.00	3.06	4.06
Germany	1.00	2.56	3.56
Tunisia	1.00	2.28	3.28
Ireland	1.67	1.50	3.17
Belize	2.38	0.00	2.38
Italy	1.06	1.11	2.17
Ecuador	1.67	0.44	2.11
Japan	0.94	1.06	2.00
South Korea	1.00	1.00	2.00
Panama	0.50	1.33	1.83
Malawi	1.69	0.00	1.69
Malta	0.17	0.78	0.94
Kuwait	0.24	0.53	0.76
Dom. Rep.	0.07	0.50	0.57
Mauritius	0.47	0.00	0.47
Saudi Arabia	0.00	0.31	0.31
Nigeria	0.22	0.00	0.22

Source: World Bank

Table 4: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
State election score 1980	69	0.91	0.84	0	2
State election score 1985	77	0.96	0.83	0	2
State election score 1997	77	1.04	0.87	0	2
Change in state score 1980–97	67	0.18	0.67	-2	2
Change in state score 1985–1997	76	0.09	0.29	0	1
Municipal election score 1985	41	1.46	0.78	0	2
Municipal elections score 1997	43	1.63	0.69	0	2
Change in municipal score 1985–97	40	0.15	0.43	0	2
Total change in election scores 1985–97	40	0.25	0.63	0	2
Area (million sq. km)	79	0.95	2.13	0.00	9.32
Population (million), 1980–97	79	47.9	156.0	0.2	1110
GDP per capita (US$000), 1980–97	76	8.65	10.9	0.14	42.6
Democracy score	71	1.57	7.07	-10	10
Primary commodity exports (%exports), 1980–97	72	12.93	12.0	0.22	60.7

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Agricultural raw materials (%exports), 1980–97	72	6.68	7.41	0	38.1
Ores and metals exports (%exports), 1980–97	72	6.25	9.96	0	47.6

Table 5: Change in Local Election of State and Provincial Governments, 1980–1997

Ordered Logit
Dependent Variable: Change in Election Score (see Table 1):

	(1)	(2)	(3)
State election score 1980	-1.56*** (0.62)	-1.58*** (0.65)	-1.58*** (0.68)
Log population	-0.11 (0.29)	0.17 (0.34)	0.18 (0.34)
Log area	0.30* (0.24)	0.41* (0.21)	0.41* (0.21)
Log GDP per capita	-0.06 (0.26)	0.16 (0.30)	0.17 (0.31)
Democracy score	0.10* (0.06)	0.14* (0.06)	0.14* (0.06)
Total commodity exports (% exports)		0.06** (0.02)	
Agricultural raw materials exports (%)			0.07 (0.06)
Ores and metals exports (%)			0.06*** (0.02)
Observations	56	54	54
Log likelihood	-38.59	-35.66	-35.66
Threshold 1	-4.47 (4.34)	-0.57 (5.21)	-0.51 (5.23)
Threshold 2	1.10 (4.19)	5.28 (5.23)	5.31 (5.28)
Threshold 3	2.50 (4.21)	6.81 (5.28)	6.88 (5.32)

Standard errors in parentheses
* p< .1 ** p<.05 *** p<.01

Table 6: Change in Local Election of Municipal and State Governments, 1985–1997

Ordered Logit
Dependent Variable: Sum of Change in Election Scores for State and Municipal Governments (see Table 2):

	(1)	(2)	(3)
State election score 1985	-0.09 (0.74)	-0.39 (0.90)	-0.37 (0.91)
Municipal election score, 1985	-1.16* (0.63)	-1.28* (0.68)	-1.21* (0.72)
Log population	-0.09 (0.30)	0.28 (0.42)	0.29 (0.42)
Log area	0.47* (0.26)	0.55* (0.39)	0.56* (0.34)
Log GDP per capita	-0.41 (0.31)	-0.30 (0.35)	-0.29 (0.35)
Democracy score	0.14* (0.07)	0.19** (0.09)	0.18* (0.09)
Total commodity exports (% exports)		0.07** (0.03)	

	(1)	(2)	(3)
Agricultural raw materials exports (%)			0.07 (0.6)
Ores and metals exports (%)			0.06** (0.03)
Observations	54	48	48
Log likelihood	-30.55	-21.37	-21.36
Threshold 1	-10.96 (6.07)	-6.14 (7.58)	-6.18 (7.58)
Threshold 2	-4.42 (5.58)	2.06 (7.21)	2.08 (7.19)
Threshold 3	-3.88 (5.58)	2.95 (7.25)	2.97 (7.23)

Standard errors in parentheses
* p< .1 ** p<.05 *** p<.01

Notes

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[2] For a review, see Bolton, Roland, and Spolaore (1996).

[3] One problem with this evidence, of course, is that openness is famously endogenous to size.

[4] In terms of the median preference distance from the median voter, a small jurisdiction split into different ethnic or religious groups, for instance, might be far more polarized than a larger jurisdiction with the same "extreme" groups but a larger population of "moderates."

[5] For general reviews of the literature and evidence on these various issues, see Dollar and Kraay (2001) and Garrett (2002).

[6] In fact, Alesina and Spolaore (1997) assume that per-person incomes are identical across all individuals in each nation and differ across nations only as a linear function of size.

[7] Relaxing this assumption would allow individuals with similar preferences to "sort" themselves into separate communities. The classic reference is Tiebout (1956); see also Rubinfield (1987), Epple and Romer (1991), and Benabou (1993). Allowing for this kind of mobility in the model elaborated here would have the effect of reducing all incentives for decentralization.

[8] The assumption is thus adopted routinely in formal models of public goods provision: see for instance, Alesina and Spolaore (1997), Alesina Baqir, and Easterly (1999), Persson and Tabellini (2000).

[9] See Alesina and Spolaore (1997). For evidence, see Easterly and Rebelo (1993).

[10] While this locates us in the realm of democratic politics, note that the solutions extend to cases in which governments require majority support from limited sub-sections of the population (or

"selectorates"), which are set apart from the larger population in terms of certain characteristics (most likely, income). In these cases, equilibrium policy will be set according to the preferences of the median member of the selectorate.

[11] Empirical evidence for this relationship is much less clear: see Persson and Tabellini (1999). The complication here likely involves the identity or position of the median voter in different types of democratic and less-than-democratic regimes.

[12] Alesina and Spolaore actually assume that income is simply a linear function of total human capital in each nation (distributed uniformly over the world) and hence size. This is obviously an extreme assumption. It seems very difficult to maintain that the efficiency effects of creating the large market always outweigh the distributive effects. Indeed, trade economists generally assume that the opposite is the case when considering the income effects of trade liberalization. To the extent that the formation of *F* affects incomes (on this, see the next note), it might actually hurt the median voter in *J* if, for example, that voter drew income primarily from an asset or factor of production that was more abundant in *H* than in *J*.

[13] This is not such an extreme simplification since economic ties are typically quite close between neighboring political units (those likely to consider integration) regardless of general levels of globalization.

[14] The empirical evidence is more mixed, and debates surrounding it are contentious. See Krueger (1978), Choksi, Michaely, and Papageorgiu (1991), Robbins (1996). For a review and see Davis (1996).

[15] Even setting aside other political motivations for European "enlargement," it is quite likely that the average income effects described in scenario 2 may have outweighed the inequality effects described here (as globalization has arguable accelerated growth rates most rapidly in many of these developing nations). Another possible example of the importance of income distribution effects, however, is the continued British opposition to further European integration. The fear of importing "socialism" from the EU has long been a concern for the British (see Bolton and Roland 1996, 101), and the salience of this issue may well have increased as income inequality rose much more rapidly in Britain in the 1980s and 1990s than in the other core members of the EU, due at least in part to increased exposure to international market forces.

[16] For a bargaining model of this type that emphasizes the role of regional parties, see Fearon and van Houten (2002).

[17] In the bargaining model developed by Fearon and van Houten (2002), credible threats of secession produce transfers from the "center" to the region to keep the nation together and only rarely is secession an equilibrium outcome.

[18] The database includes other variables of interest. One of these is a dummy variable indicating the existence of autonomous regions in a nation. This seems a little extreme, however, for our purposes here (it classifies Montenegro as one such region in Yugoslavia, for instance, but not Northern Ireland or Scotland in the United Kingdom). More interesting is another dummy variable indicating whether states and provinces have authority over taxing, spending, or legislating. Unfortunately, there is a vast amount of missing data for this variable (and the coding rule is not entirely clear), so I have not relied upon it here.

[19] Using shares of these types of exports in total GDP produces substantively identical results in the analysis that follows, since the two types of measures are very highly correlated, but data on trade flows are somewhat more complete and reliable than GDP data so I have relied upon them here.

[20] Data on area, population, and real GDP per capita are from the World Bank's, *World Development Indicators*. The measure of democracy is the Polity III democracy score minus the autocracy score (Jaggers and Gurr, 1999).

[21] Fearon (2002) has also discussed the importance of (internationally) valuable natural resources in explaining the duration of civil wars.