

Chapter 4

GLOBALIZATION AND FISCAL DECENTRALIZATION

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THE INTERNATIONAL INTEGRATION of markets and the decentralization of authority within nation states are two defining trends of the contemporary era.¹ A popular speculation is that globalization has caused a downward shift in the locus of governance by reducing the economic costs of smallness and allowing localities and regions with distinctive preferences to pursue their own political and economic strategies (Alesina and Spolaore 1997; Bolton and Roland 1997). This chapter analyzes these claims by examining the location of fiscal authority within states. Using a large cross-country data set composed of expenditure and revenue decentralization data for the 1980s and 1990s, it demonstrates a rather striking relationship: international market integration has actually been associated with fiscal centralization rather than with decentralization.

There are several potential explanations, but we propose a straightforward argument for the globalization-fiscal-centralization nexus that rests on perceptions of uncertainty and risk. First, macroeconomic conditions are perceived to be more volatile in more globally integrated countries (pace Rodrik 1998). Second, regional demands for insurance against asymmetric shocks increase with international market integration (following Persson and Tabellini 1996a,b). Thus, one should expect decentralized actors to prefer both more macroeconomic stabilization and more interregional risk sharing under globalization, and both objectives are better served via centralized fiscal arrangements than by decentralized ones.

It is important to note, however, that fiscal centralization does not imply the centralization of all authority — it may even be consistent with

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increased local discretion in choosing leaders, regulating the environment and economy, or spending centrally generated funds. For example, funds for regional assistance in the EU are generated centrally (via national VAT revenues), but administered at the subnational level. Similarly, Scottish devolution has entailed more Scottish self-governance without the decentralization of taxation away from London. We leave these issues to others (see chapters 3 and 5, in the present volume) and focus on fiscal decentralization.

Our measure of fiscal decentralization is simple: the subnational (combined state and local) share of total public sector expenditures. This measure has the advantage of being available on a yearly basis for a large number of countries around the world. Furthermore, it has been used in previous studies that do not address globalization (e.g., Oates 1972; Panizza 1999), allowing us to replicate and extend their results. While it does not capture the decentralization of tax autonomy, it does provide a comparable measure of the share of total public sector resources that pass through the hands of subnational officials.² Table 4.1 provides an overview of countries for which yearly expenditure data have been available for most of the last two decades.³ Averages for the period from 1982 to 1989 and for 1990 to 1997 are shown in the first two columns. This cut-off is useful because several countries underwent transitions to democracy in the late 1980s, and, by all accounts, global economic integration has increased substantially since 1990. The countries displayed in table 4.1 demonstrate a good deal of variation in vertical fiscal structure. They range from heavily decentralized Canada and the United States, in which more than half of all government expenditure takes place at subnational levels, to countries like Paraguay or Thailand, where subnational governments undertake less than 10 percent of total expenditure.

For our purposes, the right-hand column in table 4.1 is the most important. It shows that fiscal decentralization was by no means a universal phenomenon in the 1990s. Some countries—in fact, nearly half of the

² For a discussion of the costs and benefits of this and other measures of decentralization, see Rodden (2003a).

³ All public finance data are taken from the IMF Government Finance Statistics Yearbook, various years. Most of the averages shown in table 4.1 are for the entire period specified, but, because of missing data, some of the averages reflect slightly shorter periods. Note that intergovernmental transfers are not removed from the numerator (total subnational expenditures). This would be inappropriate because, as discussed in Rodden (2003a), the IMP'S distinction between grants and own-source local taxation is quite misleading if used in cross-national analysis. It is necessary, however, to subtract grants from the denominator (combined central, state, and local expenditures) to avoid double-counting the grants in the expenditures of the central and subnational governments.

TABLE 4.1
State and Local Share of Total Government Expenditure

	1982-1989 Average	1990-1997 Average	Change
Peru	0.10	0.25	0.15
Mexico	0.12	0.26	0.14
Spain	0.23	0.36	0.13
Brazil	0.29	0.41	0.12
Argentina	0.35	0.44	0.09
Bolivia	0.14	0.21	0.07
Guatemala	0.04	0.10	0.05
Nicaragua	0.03	0.08	0.05
United States	0.48	0.53	0.05
Israel	0.10	0.14	0.04
India	0.46	0.49	0.03
Luxembourg	0.15	0.17	0.02
France	0.17	0.19	0.01
Indonesia	0.12	0.13	0.01
Austria	0.33	0.34	0.01
Norway	0.34	0.35	0.01
Portugal	0.08	0.09	0.01
United Kingdom	0.28	0.29	0.01
Ireland	0.28	0.29	0.01
Bulgaria	0.19	0.19	0.01
Germany	0.45	0.45	0.00
Kenya	0.05	0.04	0.00
Thailand	0.07	0.07	-0.01
Belgium	0.12	0.12	-0.01
Philippines	0.09	0.08	-0.01
Iceland	0.24	0.23	-0.01
Denmark	0.55	0.54	-0.01
Canada	0.67	0.65	-0.02
Netherlands	0.32	0.30	-0.02
Australia	0.52	0.50	-0.02
New Zealand	0.12	0.10	-0.02
Paraguay	0.04	0.02	-0.02
Botswana	0.06	0.03	-0.03
Sweden	0.40	0.37	-0.03
Finland	0.45	0.41	-0.04
South Africa	0.26	0.22	-0.04
Switzerland	0.59	0.55	-0.04
Malaysia	0.19	0.15	-0.04
Italy	0.30	0.23	-0.07
Nigeria	0.54	0.46	-0.07
Romania	0.20	0.11	-0.09
Zimbabwe	0.21	0.12	-0.09

Source: GFS.

sample-became more centralized. But on the other hand, some countries-most notably Brazil, Mexico, Peru, and Spain - considerably decentralized expenditures between the 1980s and 1990s (by more than 10 percent of total expenditures). The question is whether and how these differences are related to the extent of international market integration in these countries.

The remainder of the paper is divided into six sections. The second section begins with a general overview of the literature on fiscal decentralization and then elaborates arguments proposing a link between globalization and decentralization. We develop our alternative hypothesis that globalization should promote fiscal centralization in section three. Our empirical tests of these contending perspectives are presented in sections 4 (based on cross-section averages) and 5 (using time-series cross-sectional data). Section 6 discusses the findings, draws out some broad lessons, and maps out an agenda for further research. Section 7 offers a brief summary of the findings.

GLOBALIZATION AND DECENTRALIZATION: THE CONVENTIONAL VIEW

The key intuition of fiscal federalism theory is that the benefits of decentralization are positively correlated with the (geographic) variance in demands for publicly provided goods (Musgrave 1959; Oates 1972). Although the political process through which demands for decentralization are transformed into policy is not made explicit, this line of argument maintains that excessively centralized systems in large, heterogeneous countries will face overwhelming pressure to decentralize, lest they fall apart through secession or civil war.⁴

The new literature on globalization and decentralization provides a simple extension of this approach. Alesina and his collaborators examine a basic trade-off between the benefits of large jurisdictions and the costs of heterogeneity (Alesina and Spolaore 1997; Alesina and Wacziarg 1998). The benefits of size derive from scale economies in taxation, common defense, internal free trade and the decreasing per capita cost of nonrival public goods. But large size comes at a cost: the difficulty of satisfying a more diverse population.⁵ As in the Musgrave-

⁴ A newer literature revisits the relationship between heterogeneity and the normative case for decentralization from a political-economy perspective that explicitly attempts to model government behavior. Inman and Rubinfeld (1997) and Lockwood (2002) examine the costs of centralization from a distributive politics perspective and highlight the importance of legislative bargaining and legislative rules. Besley and Coate (1999) consider costs of centralization associated with strategic voting for delegates to the central legislature.

⁵ Bolton and Roland (1997) emphasize a related trade-off. In their model, the benefits of coordination and economies of scale are traded off against the benefits of setting tax

Oates formulation, sufficiently high levels of heterogeneity generate demands for decentralization or even secession. One of the original claims made in the new literature is that globalization reduces the costs of—and hence increases the supply of—decentralization. According to Alesina and Spolaore (1997, 1041), "a breakup of nations is more costly if it implies more trade barriers and smaller markets. On the contrary, the benefits of large countries are less important if small countries can freely trade with each other. Concretely, this result suggests that regional political separatism should be associated with increasing economic integration."

But many countries might stop short of breaking up. Instead of seceding regionally distinct groups with strong preferences might opt for a fiscal decentralization scheme. As Bolton and Roland (1997, 1057-58) contend, "any benefits of decentralization that might be obtained in a world with several nations may also be achieved within a unified nation by replicating the administrative structure of the world with several nations and implementing a suitable degree of decentralization of authority among the regions."

In the globalization era, not only citizens, but investors, as well, might prefer decentralization. Weingast's (1995) "market-preserving federalism"—directly applied to the context of globalization by McGillivray and Jensen (2000)—argues that fiscal decentralization, by forcing governments to compete for mobile capital, creates incentives for politicians to provide market-friendly policies. Moreover, fiscal decentralization found the favor of the World Bank and IMF in the late 1980s and early 1990s, creating an additional external demand for decentralization in some developing countries. If these arguments are correct and central governments are interested in pleasing investors and multilateral lending agencies, they may face incentives to devolve fiscal authority to subnational governments.

GLOBALIZATION AND INCENTIVES FOR FISCAL CENTRALIZATION

We have no quarrel with important elements of the conventional wisdom about globalization and decentralization. Economic integration seems to increase the credibility of secession threats in countries with concentrated minority groups (e.g., Russia) or high levels of income inequality between regions (e.g., Italy). When there is sufficient will to hold the country together, it may well be possible to forestall secession by instituting a decentralization program that allows regions to pursue rates and determining redistributive transfers locally in societies with heterogeneous income levels across regions.

distinctive economic and political strategies (as in Belgium). Central governments might introduce local elections, set up regional parliaments, enhance the constitutional protections of subnational governments, or improve their representation in the central government (Scotland and Wales). The central government might loosen its regulation and oversight of subnational governments, transform conditional grants into block grants, and allow local governments greater freedom over local schools and cultural institutions.

Such devolution need not translate, however, into a shift of fiscal resources into the hands of local governments. On the contrary, we believe that it is more likely for the relationship to go in precisely the opposite direction — globalization will lead to the centralization of public expenditures (and even more so, taxation), while simultaneously enhancing the political autonomy and discretion of subnational officials.⁶

The conventional view has overlooked an important benefit of centralized fiscal arrangements. Larger fiscal units are more effective at risk sharing—pooling economic resources to provide insurance for regions adversely affected by unexpected asymmetric economic shocks (Persson and Tabellini 1996a). Thus all regions—whether rich and poor, or dominated by the ethnic majority or a minority group—might benefit from fiscal centralization because they cannot predict *ex ante* which of them will be hit by negative shocks or when this will happen. Globalization is widely perceived not only by scholars, but also by citizens, to increase volatility and hence aggregate economic risk (Rodrik 1997; Scheve and Slaughter 2001); thus it also increases the aggregate social utility of automatic interregional tax-transfer insurance schemes. According to Atkeson and Bayoumi (1993, 91), "Integrated capital markets are likely to produce large flows of capital across regions or national boundaries. However, they are unlikely to provide a substantial degree of insurance against regional economic fluctuations, except to the extent that capital income flows become more correlated across regions. This task will continue to be primarily the business of government."

More specifically, the pooling of risk via national insurance schemes can only be the business of the central government, which alone has the authority over tax rates and the geographical distribution of expenditures to make such schemes work. Among other factors, capital market imperfections prevent regional and local governments from being able to provide such insurance themselves (von Hagen 1998). In fact, subna-

⁶ Data limitations make it very difficult for us to test our argument directly on taxation. We would, however, expect globalization to be associated not only with higher levels of fiscal centralization in general, but also with an increasing mismatch between more centralized taxation and more decentralized spending.

tional spending is often procyclical — severely so in many developing countries (IADB 1997).

Regional specialization is another likely consequence of economic integration (Krugman 1991). As regions become more specialized, they become increasingly vulnerable to the vagaries of global markets, and hence have fewer incentives to "go it alone" by relying on themselves to provide insurance. Citizens in small, vulnerable export-oriented jurisdictions with relatively undiversified economies, such as newly formed "export clusters" in the Brazilian and Indian states, might not be enthusiastic about fiscal decentralization if it implies a smaller fiscal role for the central government.

There is considerable evidence that interregional risk-sharing insurance and more permanent interregional fiscal redistribution are prominent features of several federations, including the United States. Sachs and Sala-i-Martin's (1992) influential early study of the United States may well have overestimated the magnitude of inter-state redistribution (see von Hagen 1998). Nonetheless numerous subsequent studies have found evidence of significant interregional insurance and redistribution in response to asymmetric shocks not only in the United States, but also in Canada, France, Germany, and the United Kingdom.⁷

The logic of fiscal centralization for the purpose of interregional risk sharing holds in countries where regional business cycles are not highly correlated. Thus this argument is most plausible in large, diverse countries. Even in smaller countries, however, if globalization increases aggregate risk, voters may demand increased provision of stabilization by the central government. The traditional fiscal federalism literature argues that fiscal stabilization can only be successful if firmly under the control of the central government. Except perhaps for very rare cases like those of the U.S. states and Canadian provinces (even these are debatable), fiscal stabilization is not likely to be successful at lower levels of government.

Although risk sharing and redistribution are distinct in theory, they blend together in practice. Persson and Tabellini (1996a,b) point out that under the realistic assumption that some regions have more favorable output distributions than others, nominal risk-sharing schemes will have long-term redistributive consequences. Indeed, many of the recent empirical studies designed to assess the short-term "insurance" quality of intergovernmental transfers find stronger evidence of outright long-term regional redistribution in response to asymmetric shocks (e.g., Kletzer and von Hagen 2000). That is, regions that suffer negative

⁷ For literature reviews, see von Hagen (1998), Kletzer and von Hagen (2000), and Obstfeld and Peri (1998).

shocks are subsequently favored in the distribution of transfers and become more dependent on transfers in the long term. Although not previously seen in such a light, this evidence is consistent with the literature on globalization and the compensation of "losers" from free trade. The compensation literature argues that globalization might lead to larger government because, in order to assemble a stable political coalition in favor of free trade, it may be necessary for those who benefit from free trade explicitly to "buy off" those who lose with a more extensive safety net or other redistributive transfers (Garrett 1998b).

When protectionist barriers fall and capital constraints are lifted in a country, it is often not difficult to predict some of the winners and losers *ex ante*. Some of the losers are often regionally identifiable, and to the extent that the affected regions are represented in the central legislature or capable of undermining the regime's support coalition, it may be necessary to pay them off with increased transfers in order to obtain their political support for the move to freer trade. Other things being equal, this would lead to a larger spending role for the central government vis-a-vis subnational governments.

Increased spending pressure on the central government might come not only from regions who fear volatility and the loss of jobs associated with globalization, but turning the logic of Alesina and Spolaore on its head, it might also result from the demands of ethnic minorities. To the extent that some large, diverse countries like Canada, India, Russia, and Indonesia are able to stay together in spite of demands for secession, globalization might only increase the costs of staying together. Secession threats from a region with distinct preferences may not be credible in an autarchic world, but perhaps such threats gain credibility in a world of free trade. Consider the importance of potential trading partners in bolstering the credibility of exit threats made by Estonia, Quebec, the Slovak Republic, or oil-rich Russian republics, or the importance of the European Union to Scottish and Basque independence movements.

These newly credible exit threats might be a useful bargaining chip in negotiations over the distribution of central government spending. To the extent that there are benefits to the rest of the country from keeping breakaway regions in the union (e.g., maintaining a larger risk-sharing pool), the rest of the country may be willing to send disproportionately large transfers to such regions to buy their cooperation (Fearon and van Houten 1998). Knowing this, of course, such regions face incentives to amplify their threats. This is a familiar story in post-Soviet Russia (Trisman 1999) and modern India. Even if subnational governments end up gaining autonomy and spending more, this effect may be overwhelmed by the larger spending role of the central government. If the

central government wishes to use public spending to "buy" the loyalty of voters in would-be breakaway regions, it might try to spend the money directly rather than through general-purpose transfers to regional governments. Alternatively, the central government may decide to beef up its spending on the military and internal security forces in order to quell the threat of regional violence. Either of these possibilities might lead to fiscal centralization.

In sum, our general point is that even if one accepts the Alesina-Spolaore and Bolton-Roland arguments about the effects of globalization on the break-up of nations, it is inappropriate to argue that fiscal decentralization within an existing country is a halfway house to secession.⁸ Indeed, we believe the opposite is likely to be true. In order to hold onto political power and perhaps even forestall secession, the national government may have to centralize fiscal policy so as to deliver benefits (in the form of risk sharing and outright fiscal redistribution) to risk-averse groups, especially those in would-be secessionist localities.⁹

ANALYSIS OF CROSS-SECTION AVERAGES

This section examines the relationship between international market integration and the centralization of fiscal policy using data from a cross-section of countries around the world. We start out by conducting separate analyses of the two periods displayed in table 1: 1982-1989, and 1990-1997. The cases are selected based on the availability of sufficient data on the dependent variable—subnational expenditure as a share of total public sector expenditure. These data are derived from the IMF's Government Finance Statistics Yearbook. Higher scores on the dependent variable denote more decentralization.

The independent variables follow from the discussion above. First, to test arguments about size and heterogeneity, we include the natural logs of area (square kilometers) and average population. The basic model also includes the log of GDP per capita in inflation-adjusted U.S. dollars, since Oates (1972) and Panizza (1999) find that wealthier countries demonstrate higher levels of decentralization.¹⁰ Following Panizza

⁸ This view also drives part of the empirical analysis of Hiscox (chapter 3 in the present volume).

⁹ Of course these arguments are complicated by the fact that within countries, different regions are likely to have different preferences over levels of risk sharing and redistribution according to their output distribution. These issues will be discussed in greater detail below.

¹⁰ All of the above are taken from the World Bank World Development Indicators, 2000.

(1999), we also include a measure of ethnic fractionalization as a proxy for preference heterogeneity."

Next, we include averages of Gurr's twenty-point measure of democracy.¹² According to Panizza (1999) and Alesina and Spolaore (1997), if geographically dispersed heterogeneous preferences over public goods are taken as a given, a rent-seeking authoritarian government that can rule without consent might be more willing and able to suppress demands for decentralization than a democratically elected counterpart."

We also include a simple dummy variable for political federalism.¹⁴ Above all, federal systems are distinct from unitary systems in that they provide formal or de facto veto authority to regional politicians over all or some subset of federal policy decisions. In most cases this is accomplished through special constitutional protections and amendment procedures and an upper house that disproportionately represents the regions. All of these factors should allow subnational officials to bargain for larger shares of the public sector's resources. It is also possible that some of the variation in fiscal decentralization will be explained by urbanization rates if demands for local government services are higher in urban areas. Thus we include a variable that measures urban population as a share of the total.¹⁵

The next group of variables addresses globalization using two simple measures. We use trade/GDP ratios to capture the international integration of national goods and services markets.¹⁶ Second, capital account openness is a dummy variable from the IMF's annual Exchange Arrangements and Exchange Restrictions describing whether countries impose significant restrictions on capital account transactions (coded as "O") or not ("I" = open). This is a simple way to measure interna-

" We use the standard "ethnolinguistic fractionalization" (ELF) index used by other authors, even though we are quite skeptical about this variable. Originally published in the Atlas Narodov Mira (1964), it is included in Taylor and Hudson (1972), and reflects the likelihood that two randomly drawn people will be from different ethnic groups. The variable is fraught with conceptual and measurement problems, and is very likely out of date (Laitin and Posner 2000). We include it in order to replicate Panizza (1999).

¹² The source is the Polity 98 data set.

¹³ Regional elites have also played important roles in the protests and negotiations that have led to democratic transitions. In new democracies, decentralization is often an attractive political strategy for reelection-seeking politicians who wish to build or consolidate local bases of support (O'Neill 2000).

¹⁴ This variable is taken from Rodden (2002). Cases are coded as federal if they feature constitutional protections for states and state-based representation in an upper chamber of the legislature.

¹⁵ The source is the World Bank, World Development Indicators, 2000.

¹⁶ Ibid.

tional capital mobility that is available for all IMF members on an annual basis.

Finally, we include two public finance variables calculated from the GFS. First, it seems possible that decentralization might be more advanced in countries with larger public sectors, so we include a control for the average overall scale of government spending as a portion of GDP. Finally, we consider the possibility that decentralization is little more than a thinly veiled attempt by central governments to "offload" central government deficits onto state and local governments by increasing subnational expenditure responsibilities without a corresponding increase in revenues. This is a common complaint among critics of fiscal decentralization in a wide variety of contexts ranging from Latin America and Africa to the United States. In order to control for this in the cross-section regressions, we include the central government's average fiscal balance as a percentage of revenue.

Findings

The results from the regressions on the first period (1982-1989) are presented in table 4.2, and the results from the second period (1990-1997) are presented in table 4.3. First, we estimate a basic model using the variables that have been analyzed by others, along with the urbanization variable. As expected, countries with larger area are significantly more decentralized. In addition, countries with higher GDP per capita are more decentralized. Population and urbanization have no effect on decentralization in any of the estimations, so we drop them from subsequent analysis.¹⁷ We do the same for ethnic fractionalization, which, contrary to the findings of Panizza (1999), was also not significant in any of our estimations.¹⁸ The main findings of previous studies hold up, however — decentralization is positively correlated with area and wealth in both the earlier and later periods. They also survive the inclusion of several control variables not included in previous studies.

Next, we add the two institutional variables. Democracy has the expected positive sign in both the earlier and later periods, though it is only significant in the earlier period. This is not surprising, given that,

¹⁷ We have also included another variable—defense expenditures as a share of total spending—but, as it did not affect the results presented here and did not approach statistical significance, we do not include it.

¹⁸ There are several potential reasons for the divergence with the earlier finding. Panizza (1999) uses single-year observations, and, of the three years considered, the coefficient for ethnic fractionalization was only significant for 1985. Moreover, the sample is slightly different.

TABLE 4.2
Determinants of Expenditure Decentralization, 1982-1989

<i>Dependent Variable: State and Local Expenditure as Share of Total Government Expenditure (Average)</i>										
	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>
Basic variables										
Area (log)	0.037	0.017**	0.029	0.01**	0.049	0.02**	0.052	0.013***	0.037	0.021*
Population (log)	0.004	0.02								
GDP Per Capita (log)	0.148	0.037***	0.055	0.03*	0.110	0.02***	0.082	0.032***	-0.0092	0.031
Ethnic Fractionalization	0.001	0.001								
Urbanization	-0.001	0.002								
Institutional variables										
Democracy			0.010	0.004***					0.010	0.003***
Federalism			0.088	0.05*					0.060	0.052
Globalization variables										
Trade/GDP					0.019	0.107			-0.103	0.10
Open capital accounts					-0.006	0.054			0.046	0.046
Public Finance variables										
Total Expenditure/GDP							0.287	0.187	0.454	0.154***
Central Balance/Revenue							0.136	0.115	0.210	0.10**
Constant	-1.57	0.392	-0.686	0.32	-1.388	0.40	-1.255	0.305	-0.309	0.427
R ²	0.44		0.58		0.46		0.46		0.69	
N	40		42		41		42		41	

* $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

TABLE 4.3
Determinants of Expenditure Decentralization, 1990-1997

<i>Dependent Variable: State and Local Expenditure as Share of Total Government Expenditure (Average)</i>										
	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>	<i>Coef.</i>	<i>S.E.</i>
Basic variables										
Area (log)	0.036	0.02**	0.02	0.01	0.041	0.019**	0.044	0.013***	0.008	0.015
Population (log)	0.019	0.02								
GDP Per Capita (log)	0.075	0.04**	0.048	0.03*	0.070	0.028**	0.093	0.035***	0.041	0.036
Ethnic Fractionalization	0.0004	0.001								
Urbanization	0.001	0.002								
Institutional variables										
Democracy			0.005	0.01					-0.001	0.005
Federalism			0.193	0.04***					0.198	0.039***
Globalization variables										
Trade/GDP					-0.045	0.094			-0.079	0.067
Open capital accounts					0.056	0.059			0.051	0.041
Public Finance variables										
Total Expenditure/GDP							0.148	0.237	0.301	0.186
Central Balance/Revenue							-0.476	0.20**	-0.339	0.164**
Constant	-1.271	0.415	-0.515	0.30	-0.885	0.432	-1.26	0.30	-0.394	0.375
R ²	0.37		0.58		0.37		0.51		0.74	
N	38		41		41		41		41	

* $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

after many successful transitions to democracy, the later period demonstrates less variation across countries. Thus it appears that democracy is positively correlated with decentralization, but the pooled time-series analysis below provides a much better test. Second, the federalism variable clearly accounts for a good deal of cross-national variation in fiscal decentralization. As expected, state and local governments are responsible for a much larger share of public spending in formally federal systems. This finding is especially strong in the later period.¹⁹

Next, we add the globalization variables. Capital account openness and trade had no significant effects on decentralization in either period in any specification. Thus we find no support using cross-section averages for either the conventional wisdom or our alternative argument. This is not very surprising, however, since globalization and decentralization are processes that unfold over time within countries. We must exploit the time-series cross-section data before discarding these arguments.

Finally, we add the public finance variables. The coefficient for total government expenditure (as a share of GDP) is positive in each estimation, and even significant in the full model for the earlier period, but it is not significantly different from zero in the later period. Thus, if anything, we have tentative evidence that countries with larger public sectors tend to be more decentralized.

The coefficients for central government balance are difficult to interpret. Like globalization, the offloading argument is a dynamic one; thus it is difficult to come up with clear predictions about cross-section averages. During the 1980s, there appears to have been a positive relationship between central government fiscal balance and levels of decentralization, but during the 1990s, countries with large central government deficits tended to be significantly more decentralized.

Similar models were also estimated using state and local share of total government revenue, and the results were virtually identical to those presented here. The main results were not affected by case-wise deletion, revealing that the results are not driven by any individual cases. Additionally, since the dependent variable has a lower limit of 0 and an upper limit of 1, we also estimated all of the models presented in tables 4.2 and 4.3 using Tobit, and the results were virtually identical.

In sum, the cross-section analysis finds reasonable support for the

¹⁹ Note that this does not mean that states and provinces are less dependent on transfers from the central government. Our spending variable does not distinguish between expenditures funded by own-source revenue and those funded by transfers. Rodden (2002) shows that subnational units in federal and unitary systems display, on average, similar levels of reliance on transfers from higher-level governments.

most important findings of Gates (1972) and Panizza (1999) that larger and wealthier countries tend to be more decentralized. Previous findings regarding ethnic fractionalization do not hold up, but, as we have noted, the quality of the data is extremely low. Moreover, there is additional support in the cross-section data for Panizza's (1999) finding that more democratic countries tend to be more decentralized. In addition, federal countries are more decentralized.

POOLED TIME-SERIES ANALYSIS

Table 4.4 presents our regression analysis of spending and revenue decentralization using panel data, comprising observations for forty-seven countries for the period 1978-1997. The panel specification is important in this context because some of the independent variables of interest have changed considerably in the past twenty years. Most notably, many countries in our sample have democratized, expanded their trade with the rest of the world, and opened their capital accounts. In any case, decentralization is a dynamic rather than static concept; thus the empirical specification presented in this section is a significant improvement over previous studies that use cross-section averages or single-year observations. We have used a variety of different estimation techniques with largely similar results, and table 4.4 reports the results of a conservative approach—regressions using panel-corrected standard errors, taking into account the unbalanced nature of our panels. We include lagged dependent variables and dummy variables for all countries (fixed effects) to take into account variations over time and cross-national variations that should not be attributed to any of our independent variables.²⁰

The first thing to note about the regression estimates is that patterns of decentralization were sticky over time (the coefficients on the lagged dependent variables were around .7 and highly statistically significant). Furthermore, the battery of country dummy variables (not reported) was highly significant (the null hypothesis of common intercepts for all countries can be rejected with extremely high levels of confidence). In general, the patterns of parameter estimates were very similar for both spending and revenue decentralization. For convenience, we therefore concentrate on the spending equation (the first column of table 4.4), though we must compare both equations in order to interpret the effects of the central government's fiscal balance.

²⁰ The presence of a lagged dependent variable can bias the fixed-effects estimator even if the error term is not correlated over time. But in panels where the time-series dimension is long (as is the case here), the bias is rather small.

In order to check the robustness of these results, we have used a variety of additional estimation techniques. Similar results were obtained using AR1 correction rather than a lagged dependent variable. A model with a lagged dependent variable and no fixed effects yielded a similar result for trade, but the coefficients for "openness" fell below traditional levels of statistical significance. We also estimated the model in first differences, and estimated an "error-correction" model using both first differences and lagged levels of the independent variables. We also included a panel of year dummies. These models yielded similar results for trade, though, again, the statistical significance of the coefficient for "openness" is sensitive to the model specification. In general, the coefficients are slightly larger and less sensitive in the "expenditure" equations. In every single equation, however, the signs for trade and openness are negative, and both are significant in most.²²

Of course we should not overestimate the magnitude of these effects—especially for openness. The coefficient of -0.005 on the open capital account variable in the spending equation, for example, suggests that removing all significant restrictions on capital account transactions only increases the state and local share of total expenditure by .5 of 1 percent of total government spending. The "trade" results are somewhat more impressive, however. In the same equation, a 10 percent increase in trade as a share of GDP (a typical year for Malaysia, or roughly the increase in Canada over the last five years) is estimated to have reduced the state and local share of expenditures by .32 percentage points. Moving from the United States or Brazil, where trade is on average around 20 percent of GDP, to Belgium, where it is around 120 percent, one finds a 3.2 percent increase in the central government's share of expenditures.

DISCUSSION

It is commonly assumed that globalization has had two effects on political systems around the world. On the one hand, globalization has reduced the minimum efficient scale of politics, resulting in the proliferation of nations. On the other hand, globalization has also been associated—on the same logic—with fiscal decentralization within na-

²² When one or more of the control variables is dropped (including GDP per capita, area, and total expenditures, none of which ever attains statistical significance), the trade and openness variables are highly significant using either dependent variable and virtually all estimation techniques. We also obtain higher levels of significance for trade and openness when using a larger data set of over sixty countries, but we do not include these additional countries here because the GFS only provides very limited, non-overlapping-year coverage.

tions. We do not wish to debate the merits of the first proposition, but the empirical analysis above calls into question the globalization-decentralization nexus. We have discovered a modest but robust, highly significant relationship between trade integration and expenditure centralization.

One might respond that this finding is wholly consistent with the Alesina-Spolaore argument because globalization has facilitated secession and the creation of new sovereign states. If the impetus for secession were heterogeneity within old national boundaries, both new states and what remains of existing states would be more homogenous than the polyglots that preceded them. Given the increased homogeneity of preferences in all states after secession, there would be less reason to decentralize authority in any of them. This argument relies on asserting that globalization has been causally implicated in cataclysmic events such as the end of African colonialism in the 1960s and the break-up of the Soviet Union. No political boundaries, however, changed in any of the countries in our study during the period we analyze. Thus there must be another explanation for the fiscal centralization we observe.

We have argued that globalization, by increasing perceptions of aggregate and region-specific risk within countries, might actually undermine the credibility of regional exit threats and create powerful new demands for fiscal centralization. Decentralization of taxation increases economic competition among regions, and all else being equal, this is likely to result in smaller government—and hence less cushioning of adverse economic shocks through fiscal policy. In more integrated economies, these shocks are perceived to be larger and less predictable, exacerbating the demands for governmental redistribution of wealth and risk. Regional governments know that centralized fiscal systems are likely to deliver the most stabilization and fiscal redistribution in favor of their citizens. Moreover, we have argued that the central government may get more involved in regional redistribution as a way of placating regions that stand to lose from trade integration.

Undoubtedly there are some regions for which globalization has raised the costs of fiscal centralization. The median voter in a relatively wealthy region is likely to prefer a more decentralized fiscal system than the median voter in a poor region (Bolton and Roland 1997), and the median voter in a persistently disadvantaged region will prefer less insurance than the median voter in a more productive, diversified region (Persson and Tabellini 1996b). Indeed, in accordance with the logic of Bolton and Roland (1997) and Hiscox (chapter 3 in the present volume), the Italian North and the wealthy German states like Baden-Württemberg and Bavaria are growing increasingly weary of paying into centralized risk-sharing and redistribution schemes that benefit

others. They prefer fiscal decentralization, and apparently are willing to push hard for it. There is no guarantee, however, that they will win. As we have argued, the stakes have also been raised for the poorer, less diversified, or smaller and more vulnerable jurisdictions (e.g., Sicily, Saarland, and Bremen) whose residents believe they have more to fear in a world of integrated markets (Rodden 2003b).

Moreover, there is considerable support for our argument in the evolution of the European Union. In the 1985 deal to complete the internal market, the member states agreed to introduce a new system of development assistance to poorer regions of Europe. The 1992 Maastricht treaty that set the European Union on the course to the creation of the euro was accompanied by a large increase in this development assistance. The combination of Maastricht and the euro render Europe the closest example we have of a completely open international market. But its creation generated risks, particularly for less well-off areas. As a result, the central EU budget was expanded considerably to pay for these fiscal transfers. Of course, the EU's budget is still only a tiny portion of European output. Our argument predicts that, in the future, demands for a larger EU fiscal authority will grow appreciably.

Of course, the EU's budget has been the subject of considerable debate and acrimony among member governments in recent years, and strife over the renegotiation of intergovernmental fiscal contracts is growing in other countries ranging from Brazil, Argentina, and India to Germany and Canada. The fault lines are the same—poor and vulnerable jurisdictions desire increased risk sharing and redistribution while wealthy or well-positioned jurisdictions desire less. This fact is consistent with both the conventional wisdom about increased credibility of exit threats and our countervailing argument about increased perception of risk. But neither the existing literature nor our chapter provide a satisfactory positive theory of the conditions under which the wealthy or poor regions are likely to win these battles. The next step in a positive theory of globalization and the vertical movement of fiscal authority is a more careful examination of (1) the geographical distribution of risk, and (2) the political institutions through which such battles are fought.

First, consider some simple demographic facts. Regional income disparities within countries around the world are often staggering, and in developing countries especially, regional inequality is on the rise (Shankar and Shah 2000). Poor regions almost always vastly outnumber the wealthy, and small rural jurisdictions are very frequently overrepresented in legislatures (Samuels and Snyder 2001). In most developing countries, the lion's share of economic activity is concentrated in only

one or two "urban giants" (Ades and Glaeser 1995; Henderson 2000). Unless the relatively wealthy (often urban) jurisdictions can threaten to bring down the regime through riots or credibly threaten to secede, there are few reasons to expect that vastly outnumbered wealthy regions can defeat the poor regions who prefer higher levels of risk sharing and redistribution.

To better understand the conditions under which globalization leads to fiscal centralization or decentralization, it is necessary to examine more carefully the institutions through which regions are represented in the central government's decision-making process. For example, at one extreme, a country like Israel has no territorial aspect to representation and policymaking at all — it is a unitary system with one national electoral district and an integrated national party system. At the other extreme are Brazil and the European Union, federations in which small states are vastly overrepresented in both chambers of the legislature, and political parties do little to create incentives for cross-jurisdiction cooperation. Fiscal policies in the latter type of system are more likely to be chosen through a process of regional intergovernmental bargaining than simple majority rule (Cremer and Palfrey 1999). Persson and Tabellini (1996a) hypothesize that this type of intergovernmental bargaining will lead to lower levels of centralized insurance than systems where risk-sharing schemes are chosen by majority rule with one-person-one-vote.

The European Union provides a good example of the importance of representation schemes in mediating battles over risk sharing and redistribution. In contrast to other federations, the EU has not developed a full-blown centralized risk-sharing scheme to rival other large federations (notwithstanding its innovations with respect to fiscal support for poorer regions). Under the current, highly confederal configuration, however, the creation of such a system would require the consent of every state, including the wealthy states that are net contributors. It would be much more difficult for wealthy states to rebuff demands for greater risk sharing and redistribution, however, if, for example, the European Parliament, using a simple majority-decision rule, had exclusive authority over fiscal policy.

Future research might build from our findings, drawing on more refined institutional arguments to pinpoint the demographic and institutional conditions under which demands for more centralized risk sharing overwhelm demands from wealthy states for greater fiscal decentralization. Such studies might try to improve on the blunt measure of fiscal decentralization used in this chapter. Detailed cross-national data for a large number of countries on the size, conditionality, and

distribution of intergovernmental transfers would be extremely helpful. Additionally, improved efforts should be made to conceptualize and measure political decentralization across countries.²³

Our arguments about risk sharing and redistribution may or may not be the driving force behind the observed relationship between trade integration and fiscal centralization. We have also addressed the argument that globalization leads to decentralization by enhancing the credibility of secession threats of ethnic and linguistic minorities. While this seems plausible, we point out that the price would-be secessionist regions demand to stay within the federation might result, if anything, in fiscal centralization. Of course our empirical results do not prove this conjecture. These arguments should only apply in countries with regionally concentrated groups with distinctive preferences who make secession threats that are taken seriously. In the vast majority of our cases, however, such groups either cannot easily be identified, or their exit threats would not be viewed as credible by the central government. The best way to examine arguments about exit threats and fiscal (de)centralization is to limit the analysis to a smaller group of countries where such concentrated groups exist and their threats are taken seriously (see, e.g., van Houten's chapter in the present volume; Fearon and van Houten 1998).²⁴ Future work might build on the framework of Triesman (1999) and use disaggregated regional, fiscal, political, and demographic data to examine the interaction of trade, exit threats, and distributive politics in such countries.

SUMMARY

Along with chapters 3 and 5 in the present volume, this chapter departs from previous studies of globalization and shifting locations of governance by considering not only a binary choice between secession and staying together, but also the distinct possibility of (de)centralization within countries. It also contrasts the likely effects of globalization on political and fiscal authority. The conventional wisdom that globalization strengthens the credibility of regional autonomy movements and puts pressure on central governments to cede policy control and political autonomy to local officials is quite plausible, though van Houten (chapter 5 in the present volume) finds no evidence of this in his Euro-

23 For a good start, see Henderson (2000). For an overview of other attempts, see Rodden (2003a).

24 It is worth noting that when we estimate the model presented in table 4.4 including only the cases from our data set in which secession threats seemed reasonably credible—Belgium, Canada, India, Indonesia, Italy, Spain, and the United Kingdom—the "trade" coefficient was negative, similar in magnitude, and significant at the 10-percent level.

pean sample. But this chapter has argued that globalization may also encourage regions that choose to stay within countries to push for fiscal arrangements that better mitigate market risk for citizens within their borders. Consistent with this argument, the data analyzed above suggest that increased trade integration is associated with mild fiscal centralization.

While this finding presents an interesting challenge to a common hypothesis, it is probably most useful as an invitation to further research. Along with chapters 3 and 5, this chapter moves toward a richer understanding of the relationship between globalization and the vertical distribution of authority within countries. Future studies should continue to distinguish between globalization's effects on political and fiscal decentralization, and explore more carefully the varieties of each. These chapters also point toward several mediating factors that deserve more rigorous analysis, including the distribution of income and risk across jurisdictions, and the roles of constitutions, legislative rules, and partisan incentives.