Example 21.2
The Move Towards Decentralization

Mohammed Arzaghi and J. Vernon Henderson (hereafter, AH) have shown that governance throughout the world became much more decentralized in the last quarter of the twentieth century. They document the move towards decentralization using two different measures, an index of federalism and the proportion of total government consumption expenditures undertaken by the central government.[1]

DECENTRALIZATION SINCE 1975

AH's index of federalism is designed to track changes over time in formal governmental structures within a country. It has six components:

- Whether the country has a unified or federal structure.
- Whether there is an elected regional representative.
- Whether there is an elected local representative.
- Whether the central government can suspend lower levels of government or override their decisions.
- Whether lower levels of government have no, limited, or full authority to raise revenues.
- The degree of revenue sharing from the central to the lower levels of government.

Items 1 through 4 have values of 0 or 4, with 4 being the more decentralized. Items 5 and 6 have values of 0, 2, and 4. For item 5, 0 means that neither the state (provincial) nor local governments have revenue raising authority, 2 means that either the state (provincial) or local governments have revenue raising authority, but not both, and 4 means that both levels of government have revenue raising authority. For item 6, 0 means their neither state (provincial) nor local governments receive unconditional grants-in-aid from the central government, 2

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[1] M. Arzaghi and J. V. Henderson, "Why Countries are Fiscally Decentralizing", *Journal of Public Economics*, July, 2005, 1157-1189.

means that either the state (provincial) or local governments receive unconditional grants-in-aid from the central government, but not both, and 4 means that both levels of government receive unconditional grants-in-aid from the central government. The index sums the scores for each category and divides by 6.[2]

AH constructed the index for forty-eight countries with populations of ten million or more every five years from 1960 to 1995. Starting in 1975, the value of the index began to rise substantially, from an average value over all forty-eight countries of 1.04 in 1975 to 1.94 by 1995. Generally speaking, the developed countries were the most decentralized in 1960. Over time, the Latin American countries achieved roughly the same degree of formal decentralization as the developed countries and the countries of the former Soviet bloc came close. In contrast, many countries in the Middle East and North Africa remained highly centralized, with authoritarian governments, throughout the sample period.

The increase in the average value of the index is a bit misleading, however, since changes in the values of any of the components of the index represent fairly substantial changes in formal governmental structures that one would not expect to occur routinely. From 1975 to 1985, only nine countries experienced an increase in their index; from 1985 to 1995, the number rose to twenty-two countries, still less than half of the forty-eight countries. For this reason, AH offer a second measure, the proportion of government consumption expenditures undertaken by the central government. They exclude transfer payments, because the majority of transfers are almost always financed by central governments. Also the consumption expenditures, on such items as defense, education, and public transit, affect a broader subset of the population than do many transfer programs. This measure is meant to capture the degree of centralization/decentralization within a country, and is AH's preferred measure of decentralization.

AH had data for this measure for 1975, 1985, and 1995. The overall trend is the same as for their index of federalism: The average proportion of central government consumption expenditures across all countries fell from 0.74 in 1975 to 0.64 by 1995. But the pattern is somewhat different. The proportion fell at least somewhat in all regions of the world with the single exception of the four former Soviet bloc countries in their sample—Bulgaria, Hungary, Poland, and Romania.[3]

The move towards decentralization throughout the world raises two interesting economic questions: What factors are driving the move towards decentralization? and What effect does decentralization have on economic and political outcomes such as budget deficits and the effectiveness of governance?

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[2] The components of the index are described in *Ibid.*, pp. 1187-88. Their index might better be termed an index of decentralization, since only two countries, Argentina and Brazil, changed from a unitary to a federal structure from 1960 to 1995. The higher numbers for each component of the index are features that are associated with federal governments, however.

[3] The data on decentralization under the two measures are discussed in *Ibid.*, pp.1158-1161.

WHAT DRIVES DECENTRALIZATION?

AH consider the first question in their paper. Think of a region—state (province) or locality—deciding on whether it wants its own autonomous government in a country that is originally completely centralized. The decision involves a trade-off. On the one hand, if the people of the region make their own decisions about public services, their decisions are likely to achieve a better match with their preferences than are the decisions made by the central government. This is in line with Stigler's assumption discussed in Chapter 21 that participatory democracy works best the closer the public officials are to the people affected by their decisions. On the other hand, providing their own public services involves start-up costs for the region's citizens that they do not have to bear if the central government continues to provide the services. In addition, the central government may enjoy economies of scale in providing the services that are unavailable to the region, especially if the region is small. This would raise the costs of providing the services within the region, and therefore the per capita taxes to the region's citizens.

This trade-off leads AH to postulate that decentralization is more likely the higher a country's per capita income and the larger the land area and population of the country. A higher per capita income makes it easier for a region's citizens to bear the start-up costs of regional provision. A larger land area increases the probability that regional provision provides a better match between the public services and citizen preferences. A larger population spreads the start-up costs, and taxes, over more people, making regional provision less costly to the citizens of each region. Also, a large regional population may allow the region to exploit most or all of whatever economies of scale are enjoyed by central provision. These cost advantages depend, however, on how spread out the population is. If the population is concentrated in one major city and spread thinly throughout the rest of the country, then the regional costs are likely to remain high relative to central provision.

All these factors help to explain why the industrialized countries tended to be more decentralized in 1960. Beyond this, AH conduct a regression analysis on the countries in their sample to determine how much these factors can explain the movement towards decentralization from 1975 to 1995. There should be some effect, since world per capita income and population grew considerably from 1975 to 1995, and many less developed countries experienced huge migrations from the countryside to their largest cities. The answer turns out to be that these factors had quite large effects on decentralization, for both measures.

The Index of Federalism

AH find that per capita income, national population, and land area have large and statistically significant effects on increases in their index, other things equal. A one-standard deviation

increase in each variable, individually, increased the index by the following amounts from 1975 to 1995:

- Per capita income: 1.08.
- National population: 0.53.
- Land area: 0.25.

The average value of the index over the twenty years was 1.44.[4]

The Proportion of Central Government Consumption Expenditures

The same three variables have large and statistically significant effects on this measure as well, and in the expected direction. The percentage of the population living in the largest metropolitan area is also large and statistically significant for this measure and in the expected direction, whereas it was statistically insignificant in the index-of-federalism regression. Other things equal, a one standard deviation increase in each variable, individually, had the following effects of the proportion of central government consumption expenditures:

- Per capita income: (-) 0.11.
- National population: (-) 0.20.
- Land area: (-) 0.10.
- Percentage of the population in the main metropolitan area: + 0.21.

The average value of the proportion of central government consumption expenditures over the twenty years was 0.60.[5]

THE EFFECTS OF DECENTRALIZATION ON ECONOMIC AND POLITICAL OUTCOMES

Stefan Voight and Lorenz Blume (hereafter, VB) analyze how decentralization affects four outcomes of interest within a country: fiscal policy (government expenditures, revenues, and budget deficits); government effectiveness; productivity; and happiness.[6] They begin by noting that it is not clear in theory how decentralization might affect these outcomes, with the possible exception of happiness. Presumably a more decentralized governmental structure provides a better match of public services and preferences—the Stigler assumption again—

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[4] The regression results for the index are presented in Table 1 in *Ibid.*, p. 1178 and discussed on pp. 1177-1189. The numbers reported in the text are on p. 1179.

[5] The regression results for the central government consumption measure are presented in Table 2 in *Ibid.*, p. 1181 and discussed on pp. 1180-1182. The numbers reported in the text are on p. 1181.

[6] S. Voigt and L. Blume, "The Economic Effects of Federalism and Decentralization—A Cross-Country Assessment", *Mimeo*, November 25, 2008, available at www.ssrn.com/abstract=1307169.

and therefore increases happiness, other things equal. For the other outcomes, various factors tug in different directions. Consider government effectiveness as one example. A long-standing argument holds that state (provincial) and local governments attract less talented people than national governments, suggesting that a more decentralized structure should be less effective. At the same time, the more decentralized governance is, the more votes are needed to overturn any given policy. This implies that more decentralized governments may be better able to commit to a given policy stance, and commitment tends to improve government effectiveness. The possibilities for graft are also ambiguous. On the one hand, since a decentralized government is closer to the people, government agencies may be more easily captured by special interest groups. On the other hand, decentralized governments are likely to be more transparent, and for this reason less susceptible to graft. Similar on-the-one-hand/on-the-other-hand arguments apply to the fiscal policy and productivity outcomes. For these three outcomes, therefore, the data have to tell us how decentralization affects them.[7]

The VB study is part of a huge literature on the economic and political effects of different structures of governance. But, as VB note, most often researchers capture the other-things-equal-effect of decentralization by a single dummy variable, whether or not the country has a federal structure.[8] These earlier studies tend to find that the federalism dummy has no statistically significant effect on outcomes of interest. VB believe that this is an inadequate test of decentralization, however, since some unified countries have more decentralized governance than some of the federal countries. Instead, they consider seven different indicators of decentralization in their regression analysis on outcomes, roughly the same indicators that comprise AH's index of federalism along with the proportion of government consumption expenditures by the central government. They conduct a regression analysis of these indicators on a sample of eighty countries and find that some of them do have statistically significant, other things equal effects on the four outcomes noted above. The variables used in the regression equations are for the year 2000, or as close to 2000 as possible.

Here is a selection of their main results on the effects of decentralization indicators:

1. Total government expenditures are positively related to the receipt of unconditional grants-in-aid by local governments from the federal government and the more the parliament is dominated by one party.[9]
2. Overall budget deficits are larger if municipal legislatures and executives are locally elected and the more the parliament is dominated by one party.

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[7] VB's discussion of these theoretical considerations can be found in *Ibid.*, pp. 3-11.
[8] Twenty-four of the approximately 200 sovereign countries have a federal structure, with the federal countries accounting for approximately 40% of the world's population. *Ibid.*, p. 2.
[9] The extent that the parliament is dominated by one party is an indicator of the political power enjoyed by the majority party, not the degree of decentralization.

These first two results suggest that decentralized governments have more difficulty keeping government expenditures and deficits under control, perhaps because central governments are likely to bail out state (provincial) and/or local governments if they run large budget deficits.

3. Both labor and total factor productivity are negatively related to the proportion of central government consumption expenditures. That is, decentralized governments appear to enhance productivity.
4. Government effectiveness is lower if municipal legislatures and executives are locally elected and if subnational governments have the ability to block certain kinds of nonfinancial legislation. By these indicators, more centralized governments are more effective.[10]
5. Happiness is negatively related to the proportion of central government consumption expenditures, and positively related to central government transfers to subnational governments as a proportion of total subnational expenditures and also to the receipt of conditional grants-in-aid by local governments from the federal government. These indicators lend support to Stigler's assumption about participatory democracy.[11]

Overall, these results offer a mixed view of the move towards decentralization. It appears to favor two of the economic outcomes, productivity and happiness, but works against keeping government expenditures under control. It also tends to reduce government effectiveness. That said, the results do support VB's argument that the institutional details of governance matter in determining the effect of governmental structure on economic and political outcomes. It is not enough to know whether a country has a unified or federal structure.

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[10] VB use the World Bank's measure of government effectiveness, which combines "perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies." *Ibid.*, p. 8.
[11] VB use Veevhoven's variable of happiness that is based on happiness surveys. R. Veenhoven, "World Database of happiness: Continuous register of subjective appreciation of life", published in: Glatzer, W., VonBelow, S., and Stoffregen, M. (eds.), 'Challenges for quality of life in the contemporary world: Advances in quality-of-life studies, theory and research', Kluwer Academic Publishers, Dordrecht The Netherlands, 2004, Social Indicators Research Series, vol. 24, ISBN 1-4020—2890-3 (e-book 1-4020-2903-9) pp. 75-89. VB's regression results are presented in Table 3, *op. cit.*, and discussed on pp. 19-21.