Available online at www.sciencedirect.com
ScienceDirect
Journal of Urban Economics 64 (2008) 116–122
JOURNAL OF Urban Economics
www.elsevier.com/locate/jue

Revisiting the "Decentralization Theorem"—On the role of externalities

Marko Koethenbuerger *

Ifo Institute and CESifo, Munich, Germany

Received 13 February 2007; revised 9 October 2007
Available online 4 March 2008

Abstract

The "Decentralization Theorem" [Oates, W.E., 1972. Fiscal Federalism. Harcourt Brace Jovanovich, New York] is central to the discussion of fiscal federalism. We revisit the role of consumption spillovers in evaluating the merits of (de)centralization. Unlike the general prediction, a higher degree of spillovers may reduce the difference in utility of centralization and decentralization. The non-monotonicity result relates to the difference in expenditures on public consumption. Provided decentralized choices yield higher levels of public expenditure, a rise in the amount of spillovers allows residents to enjoy larger gains in public consumption (and thereby utility) under decentralization relative to centralization.

JEL classification: H10; H30; H70

Keywords: Federalism; Decentralization Theorem; Externality; Policy uniformity

1. Introduction

The question of whether fiscal responsibilities should be assigned to a (de)centralized authority has long been debated in public economics. The discussion refers to Oates' *Decentralization Theorem* (Oates, 1972) stating that in the absence of cost savings from centralization and interjurisdictional externalities, fiscal responsibilities should be decentralized. This argument implicitly assumes that the center is unresponsive to preference heterogeneity and thereby is only able to implement uniform policies. More specifically, "[...] individual local governments are presumably much closer to the people [...], they posses knowledge of both local preferences and cost conditions that a central agency is unlikely to have" (Oates, 1999, p. 1123).[1] If the geographical scope of a jurisdiction falls short of the spatial pattern of spending benefits, the optimal assignment of policy tasks is deduced by trading off the welfare costs of policy uniformity against the welfare gains from internalizing spillovers in policy-making.[2]

Consider a country consisting of two regions which differ in their preferences for local public goods, which

* Fax: +49 (89) 397303.
E-mail address: koethenbuerger@ifo.de.

[1] The failure to adapt to taste differences is central to recent analyses of fiscal federalism—see e.g. Alesina and Spolaore (1997), Bolton and Roland (1997), Tabellini (2003), Brueckner (2004), Alesina et al. (2005), and Brueckner (2006).

[2] The posited trade-off is the essence of much of the discussion not only related to fiscal unions, but also to monetary unions and free-trade areas; see e.g. Alesina and Barro (2002).

0094-1190/$ – see front matter
doi:10.1016/j.jue.2007.10.001

exhibit regional spillovers. In this setting, fiscal decentralization allows for a better matching of public good provision to local tastes, whereas under centralization uniform provision ignores local taste heterogeneity, but internalizes spillovers. The central question to be examined in this paper is how the difference in the utility of centralization and decentralization changes with respect to the level of consumption spillovers.[3] Using quasi-linear, iso-elastic preferences, the welfare difference turns out to be non-monotone in the strength of spillovers. A larger amount of spillovers may reduce the welfare differential between centralization and decentralization. The rationale for this result is that decentralization may yield higher expenditures on public goods than centralization. In fact, more resources are spent on public goods under decentralized decision-making when spillovers are not too large and the demand for public consumption is sufficiently elastic. In this case, a rise in spillovers gives residents higher utility gains when fiscal authority is decentralized, due to the fact that the higher decentral spending allows residents to enjoy a larger increase in public consumption (and thereby utility) in response to a hike in the level of spillovers. The finding may be unexpected given the virtue of centralization to internalize spillovers.

We further show that a non-monotonicity of the welfare difference only arise when decentralization yields higher welfare. As such, an increase in the amount of spillovers reinforces the welfare-superiority of decentralized decision-making, but, more importantly, will not justify a reassignment of fiscal authority from the central level to the regional level. Hence, the paper's finding does not invalidate the bottom line of the "Decentralization Theorem" that centralization (decentralization) yields higher welfare when spillovers are sufficiently high (low).

To the best of our knowledge, the result has not been mentioned in previous analyses of fiscal federalism, which resort to a uniformity-externality trade-off. The paper complements earlier political-economy research on the merits of (de)centralization (Lockwood, 2002, and Besley and Coate, 2003). Therein, the equilibrium policy entails regionally differentiated public good bundles. The welfare trade-off follows differently from the political-economy deficiencies of centralized systems weighed up against the failure of internalization in decentralized systems.[4] Relative welfare may not vary monotonically with the strength of consumption spillovers. The finding reflects inefficiencies inherent either to the formation of minimum winning coalitions or to the strategic delegation of politicians to a central legislature. Both types of political deficiencies are absent in our model. Instead, we resort to an archetypal model of fiscal federalism hypothesizing benevolent governments; a setting which is most susceptible to predicting a monotone uniformity-externality trade-off.

The remainder of the paper is organized as follows. Section 2 introduces the model. The welfare analysis of (de)centralization is provided in Section 3. Section 4 concludes.

2. The model

Private Sector Consider 2 regions each being inhabited by a representative household whose preferences are defined over private and public consumption and are quasi-linear in private consumption, $u^i(c^i, G^i) = c^i + \theta^i v(G^i)$ where $\theta^i > 0$. $v(G^i)$ is continuously differentiable and satisfies $v'(G^i) > 0$, $v''(G^i) < 0$, and $\lim_{G^i \to 0} v'(G^i) = \infty$. Private consumption c^i equals the endowment I^i minus taxes levied by the government t^i, $c^i = I^i - t^i$. Public consumption in region i is

$$G^i = g^i + \alpha g^j, \quad i \neq j.$$

Region i benefits from resources spent on public consumption in the neighbor state at a rate $\alpha \in [0, 1)$.[5] Regions differ with respect to preferences for public consumption. The preference type of a region is denoted by superscripts h and l with $\theta^h > \theta^l > 0$.[6]

Public Sector There are two types of policy regimes. With a central legislature we assume that public good are uniformly provided as conjectured by Oates (1972). Rather than imposing uniform policy choices, we could

[3] In general, two types of welfare comparisons can be distinguished. The first type looks at the welfare difference as a function of spillovers irrespectively of the sign of the difference. The second type confines its attention to spillover values at which the sign of the welfare differential changes. The paper primarily deals with the former.

[4] Interestingly, the contributions point to a normative interpretation of Oates' uniformity assumption. With a centralized legislature, an exogenously imposed policy uniformity requirement potentially enhances welfare (as policy uniformity reduces the incentives for pork-barrel spending).

[5] We refrain from a pure public good ($\alpha = 1$), not because it is less important, but because policy uniformity would be inherently related to the nature of the public good, rather than a deficiency of a central legislature.

[6] A perfect separation of preference types may follow from Tiebout-type sorting (Tiebout, 1956). The analysis extends to heterogeneous populations which imperfectly sort across regions; most straightforwardly when the public good g^i is pure from region i's perspective. In this case θ^i captures the average preference type in region i.