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James Buchanan's theory of federalism: From fiscal equity to the ideal political order

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Walter Eucken Institut



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Lars P. Feld 14/06

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James Buchanan's Theory of Federalism: From Fiscal Equity to the Ideal Political Order

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Abstract

The distinct characteristic in James Buchanan's thinking about federalism in contrast to the traditional theory of fiscal federalism is his view about fiscal competition. In this paper, it is demonstrated that this thinking went through three stages. From the 1950s to the beginning of the 1970s, his analyses were well embedded in the traditional fiscal federalism literature and concerned with equity and efficiency issues. In the Leviathan approach starting from the midseventies, he considered competition between jurisdictions as a means to restrict Leviathan governments. In his interpretation of federalism as an ideal political order, Buchanan binds these perspectives together and adds a procedural view: Federalism enables citizens to exert political control, it raises their interest in politics because one vote has more influence, and it facilitates to act morally within their moral capacity.

JEL-Classification: H77, B31, D78

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Improved allocations, or outcomes, can be achieved only through improvements in the institutions that generate them, and improvements in such institutions, in turn, can be achieved only if their proper role in the whole structure of democratic process is appreciated and understood.

James M. Buchanan (1967)

1. Introduction

Key to James Buchanan's thinking about federalism is his view about fiscal competition. It is *the* main characteristic that distinguishes his approach from the traditional theory of fiscal federalism still dominating public economics. In traditional public finance, the main question is how the optimal provision and financing of public goods and services in a polity with several tiers of government should look like. Such analysis leads to the conclusion as to which government level – federal (central), regional (state) or local – should adopt which tasks, and which tax should be allocated to which government level. The obtained allocation of responsibilities is determined by the nature of the goods and services provided, i.e., the degree of publicness or rivalness, the existence of regional externalities of public goods or taxes, the extent of fiscal externalities, economies of scale, the mobility of individuals and capital or the norms underlying fiscal redistribution (Wilson 1999).

Buchanan, in contrast, considered fiscal competition as a means to correct government failures, hence as a possibility to restrict Leviathan governments. If individuals can move freely between jurisdictions, they will choose their residence in places in which they maximize their utility not only regarding private goods, but also regarding the fiscal residuum of public goods and the taxes paid to finance them. By voting with their feet, they reveal their preferences for public goods, exert pressure to provide them at least cost and are thus able to realize an optimal bundle of public goods and taxes (Tiebout 1956). This process leads to a detection of inefficiencies in the provision of public services and allows governments to adjust. The possibility of individuals (or of capital) to exit a jurisdiction, therefore, also restrains the extent to which a government can tax its citizens excessively. It reduces the ability of governments and bureaucracies to exploit citizens.

In March 1998, James Buchanan and Richard Musgrave outlined their visions of the state in a lecture series at the University of Munich. Day 4 on March 26, 1998 was reserved for a debate

on fiscal federalism with Musgrave starting out and Buchanan replying. In this reply Buchanan is crystal-clear about the main difference between his and Musgrave's thinking:

"The real issue between us, in particular, is on the whole notion of competitive governments or fiscal competition. Again, I don't look on this necessarily as an efficiency problem in the strict analogue to a market economy. I look on it to the extent that you have effective competition between governments. In a sense, you are giving people, individuals, as resource owners and as residents, an exit option. If there is an exit option, if there is a chance to leave, this necessarily imposes discipline on those who would exploit you through a political structure or a bureaucratic structure." (Buchanan and Musgrave 1998, p. 179).

In this quote, it becomes obvious that Buchanan does not even think in narrow terms of market or government failure. Rather, he takes federalism as an institution which protects liberty. It is a freedom enhancing institution, an "ideal political order" (Buchanan 1995), that ensures individual sovereignty (Buchanan 1995/1996). He thus places, more than (almost) any other economist, federalism in the class of constitutional safeguards that are promoting free societies. Weingast (1995), who comes close to Buchanan's thinking in that regard, more narrowly speaks of market-preserving federalism. Buchanan's understanding of federalism resembles Hayek's (1939) who emphasized the restrictions federalism imposes upon the economic policies of individual states: "Not only would the greater mobility between the states make it necessary to avoid all sorts of taxation which would drive capital and labor elsewhere, but there would also be considerable difficulties with many kinds of indirect taxation." (p. 260). Hayek was also certain that federalism implies less government overall and that "an essentially liberal economic regime is a necessary condition for the success of any interstate federation" (p. 269).

Of course, federalism implies many more defining features than the competition between jurisdictions in general or fiscal competition in particular. Federations are characterized by a constitutional guarantee for the existence and (partial) autonomy of jurisdictions at the regional or state level. Frequently, the second tier jurisdictions are represented in a second chamber of parliament at the federal level, such as the U.S. Senate, the Swiss Council of States (Ständerat) or the German Bundesrat. Federalism is thus related to bicameralism. Buchanan and Tullock (1962) analyze bicameral legislature in chapter 16 of the *Calculus of Consent* underlining the higher decision-making costs and the lower expected external costs

of collective action involved by bicameralism. Their analysis also implies that minority rights may be better protected in bicameral than unicameral legislatures. As Mueller (1996) demonstrates, these functions of bicameralism only partially cover the issues discussed in public choice and constitutional economics since the Calculus. For example, Tsebelis (1995, 2002a, 2002b) much more strongly emphasizes the possibilities bicameralism offers to veto players in a polity to obstruct any political changes thus leading to a status quo bias in legislative decision-making. As James Buchanan's analysis of bicameralism as a feature of federalism has not been that influential in subsequent analyses, it is left out from the critical appraisal of his works on federalism offered in this paper.

Also, Buchanan and Congleton's (1998) re-interpretation of federalism in the context of a generality norm is not further considered. They argue that federalism allows for the provision of uniform public services as a consequence of inter-jurisdictional competition and is thus "the best real laboratory of the appeal of the generality principle" (p. 195). The authors emphasize an important characteristic of federalism, i.e., the provision of public services to citizens according to their preferences after they have sorted into different jurisdictions in a competitive process (Feld 2000, Feld and Kirchgässner 2001), by considering it as a means to avoid discriminatory political decisions. In that sense it is a re-statement of the Tiebout mechanism from a different perspective.

Overall, it takes Buchanan four decades to arrive at his thinking about federalism that is distinct from the traditional economic theory of federalism. His first papers on federalism, dating from 1950 to 1972, are concerned with traditional problems of fiscal federalism. I will discuss them in Section 2 and put them into the perspective of traditional fiscal federalism theory. Brennan and Buchanan (1977, 1980) derived the idea of fiscal federalism as a restraint on Leviathan governments. This analysis marks the shift towards Buchanan's distinguished thinking about federalism. The literature on fiscal competition and Leviathan is surveyed in Section 3. Buchanan's broader constitutional and philosophical interpretation of fiscal federalism is outlined in Section 4. Concluding remarks follow in Section 5.

2. Roots in Traditional Fiscal Federalism Thinking

Buchanan's early analyses of federalism cope with traditional research questions. First, Buchanan (1950) considers fiscal equity as the basis for systems of fiscal equalization between jurisdictions in a federation. Second, Buchanan and Wagner (1970) and Buchanan and Goetz (1972) analyze possible inefficiencies emerging in a system of competitive federalism. These papers belong to the traditional theory of federalism as Buchanan and his co-authors are concerned with pure equity or efficiency issues. Public Choice or Constitutional Economics do not play much of a role here.

In "Federalism and Fiscal Equity", Buchanan (1950) applies the equity principle, i.e., in the sense of "equal treatment of equals" or "equal treatment for persons dissimilar in no relevant respect" (Buchanan 1950, p. 7) in order to obtain a guideline for fiscal redistribution between jurisdictions. This fiscal norm implies that fiscal transfers between regions, i.e., a horizontal fiscal equalization system or vertical systems with a horizontally equalizing effect, should not aim at revenue capacity and thus redistribute tax revenue from the rich to the poor regions. Rather, the "fiscal residuum", as Buchanan (1950, p. 9) calls it, should guide horizontal redistribution among regions. The fiscal residuum is "the balance between the contributions made and the value of public services returned to the individual" (p. 9).

In contrast to the public finance literature, Buchanan puts individuals living in a jurisdiction in the center of an interregional transfer program.² Individual costs are the taxes paid and the value of public services is the sum of utilities individuals could realize from the provision of public services at the regional (or local) level. The idea behind the fiscal residuum is obviously developed from Buchanan's (1949) Theory of Fiscal Exchange, and thus following the Wicksellian (1896) connection, that the provision of public services must always be seen together with the tax prices paid for them. Practically, such a system of fiscal equalization has never been implemented, probably because it requires much higher information about the individual valuation of public goods than is usually available. Most systems of fiscal equalization still redistribute fiscal capacity only, sometimes including additional measures of fiscal needs. However, this analysis allows for underlining that regional differences in the valuation of public services need not necessarily lead to transfers if tax prices between

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¹ According to Albert Breton (1996, p. 254), this analysis belongs to the income redistribution tradition of intergovernmental grant systems in contrast to the interjurisdictional spillover, fiscal imbalance or inefficient mobility of labor traditions.

² Wallace Oates (1972, p. 84) acknowledges that Buchanan's analysis is in principle compelling, but that it neglects further complications in federations apart from the income differences as one of the many sources of horizontal inequity in a federal system.

jurisdictions vary accordingly. Finally, fiscal equalization systems are often challenged on normative grounds because fiscal capacity is not accepted as the sole guideline for redistribution. For example, two German states have challenged the existing fiscal equalization system at the Federal Constitutional Court in 2013 because they find it unfair that recipient states provide expanded public services as compared to the public service levels in the donor states.

It should be noted as well that Buchanan (1950) is more critical regarding the usefulness of federalism than he is later: "The federal polity has outlived its usefulness, and the conditions which made it necessary as a stage in the process of political development no longer prevail. It is true that complete political centralization would resolve the peculiar fiscal problem of federalism." (p. 5/6). Clearly, the context in which these quotes are embedded do not reveal whether Buchanan is actually subscribing to the criticism from the literature summarized in such sentences. But he does also not object, nor write these lines in conditional.

The papers by Buchanan and Wagner (1970) and Buchanan and Goetz (1972) are questioning the efficiency argument in Tiebout's (1956) analysis regarding fiscal competition. Voting by feet allows citizens to shop around in different jurisdictions finding out which bundle of public goods and tax prices comes closest to their preferences. This competitive federalism finally leads to an efficient provision of public services at least cost according to the preferences of citizens. Buchanan and Wagner (1970) argue that this does not hold for impure public goods when congestion occurs. Buchanan and Goetz (1972) generalize this argument to pure public goods by considering a whole range of different public good types. Fiscal externalities are the main reason leading to inefficiencies.³ Individuals emigrating from one jurisdiction induce a higher tax price per capita on the people remaining there, while they reduce the tax burden of the taxpayers in the jurisdiction to which they immigrate.

Whereas the nature of public goods as compared to private goods is emphasized in these papers, they concentrate on the non-excludability characteristics of public goods. The fiscal externality literature in fiscal competition models meanwhile emphasizes the non-rivalness characteristic (Wilson 1999). Focusing on non-excludability you are tempted to ask what can we do to exclude people from immigrating to a polity. Focusing on non-rivalness, it becomes clear that fiscal competition remains marginally efficient, but that infra-marginally the average cost of providing public goods cannot be imposed on the mobile factors (Sinn 2003).

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³ These papers precede the classical studies on fiscal externalities in the traditional fiscal federalism literature by Flatters, Henderson and Mieszkowski (1974) or Zodrow and Mieszkowski (1986) and Wilson (1986).

The degree of mobility of different taxpayers is thus more important and the focus is on the question as to what extent the relatively immobile factor can bear the additional tax burden.

3. Fiscal Competition as a Constraint on Leviathan

Buchanan moves away from traditional fiscal federalism theory in "The Power to Tax" written jointly with Geoff Brennan and published in 1980. Government and bureaucracies are considered here as revenue-maximizing Leviathans, more exactly, as maximizing the revenue surplus given the costs of public goods provided. As the government has a coercive monopoly, it can generate the revenue that is necessary to finance the public goods and services which citizens demand. But like a monopolist, the government thus also has the ability to charge higher tax prices in order to maximize its gains. This leads to excessive taxation which is difficult to avoid in the political process even if citizens are generally aware of this mechanism.

A tax constitution for a Leviathan government (Brennan and Buchanan 1977) should impose particular constraints on such behavior. Formal fiscal restraints, like tax limits or balanced budget requirements, are possibilities to impose such restrictions on Leviathan behavior. Similarly and as a direct substitute to formal fiscal restraints, competitive federalism and a high openness of economies put a restraint on Leviathan governments. If political voice is too weak to avoid excessive taxation, the exit option allows taxpayers for finding jurisdictions in which they get the same utility from the public goods provided for lower tax prices. This holds for individuals as worker and as capital owners, but also for firms. Any possibility to avoid excessive taxation in the tax competition game between jurisdictions offers a potential to correct government failures:

"Recognizing that mobility will constrain governments at lower levels more severely than governments at higher levels, the citizen will, in making his constitutional determinations, be forced to rely more heavily on fiscal constraints at those higher levels. Assignment of taxing powers to jurisdictions should reflect this. At the lowest level of government, access to even minimally distorting taxes (such as head taxes, or possibly property taxes) may be appropriate, because the discipline of mobility restricts the capacity of government to exploit those tax instruments to the fullest." (Brennan and Buchanan 1980, p. 214).

Given these restrictions on the exploitative ability of governments, it should be expected that government size is reduced in a system of competitive governments. This could be called the competition hypothesis (Feld, Kirchgässner and Schaltegger 2010) or the Leviathan hypothesis (Liberati and Sacchi 2013). Similarly, the decentralization hypothesis predicts a correction of government size: "Total government intrusion into the economy should be smaller, ceteris paribus, the greater the extent to which taxes and expenditures are decentralized." (Brennan and Buchanan 1980, p. 216). While Brennan and Buchanan arrive at this conclusion from their analysis of inter-jurisdictional competition between Leviathan governments, Oates (1972) obtains that hypothesized outcome as the result of greater efficiency of the public sector because public good provision is closer to citizen preferences. It could thus be interpreted as distinct from the competition hypothesis.

A more intensive competition between jurisdictions might result from a higher number of jurisdictions. The more jurisdictions exist, the less costly is emigration and thus the more strongly restricted is the government's ability for excessive taxation: "the potential for fiscal exploitation varies inversely with the number of competing governmental units in the inclusive territory" (Brennan and Buchanan 1980, p. 211). But a higher number of jurisdictions also reduces the potential for collusion among jurisdictions: "the costs of organizing and enforcing collusive agreements increase disproportionately as the number of competitors increases" (Brennan and Buchanan 1980, p. 211). Feld, Kirchgässner and Schaltegger (2010) have called this the fragmentation hypothesis as a corollary to the competition hypothesis and attribute the idea of collusion to the grant system.

The Leviathan approach indeed sheds a different light on grants or fiscal equalization systems. Any of these systems allows for restrictions on fiscal competition. In the case of revenue sharing systems the responsibilities for taxation are not sufficiently clearly allocated such that taxpayers cannot properly compare tax prices and public goods when choosing their place of residence. A fiscal equalization system in which regions agree on a common mechanism to (re-)distribute funds works like a collusive mechanism in which competition is restrained or even excluded. The primary purpose of federalism, namely creating competition between jurisdictions, is thus subverted. The central government as the administrator of revenue sharing, joint taxation or fiscal equalization systems serves as "the monitor of a cartel among lower levels of government" (Brennan and Buchanan 1980, p. 213). The collusion hypothesis follows more properly from a situation in which the cartel is enforced by a central authority through the grants system (Feld, Kirchgässner and Schaltegger 2010).

Adding to the Leviathan model, James Buchanan has extended his ideas about the working of exit possibilities in a joint paper with Roger Faith (1987) arguing that the threat of secession limits the possibilities of a dominating or ruling political coalition to exploit other groups and extract fiscal surplus. In contrast to the Leviathan model, in the secession case, groups instead of individuals emigrate and form their own polity. In such cases, fiscal surplus is reduced such that the avoidance of secession is in the interest of the ruling coalition. Potential secession provides incentives for the ruling coalition to include additional societal groups that have a relatively higher ability to secede. The groups favored may be the rich and those with higher human capital.

The Leviathan model has induced criticism by several authors. Edwards and Keen (1996) interpret the choice set for systems of interjurisdictional competition as a trade-off between the inefficiencies derived from traditional welfare-theoretic models of fiscal federalism and the restraints that competition imposes on excessive taxation. Apolte (2001) argues that interjurisdictional competition induced by mobile factors may protect them, but not the immobile factors from exploitation by Leviathan governments. Immobile factors are still in danger of being exploited. Cai and Treisman (2005) discuss another interesting case in which mobility between jurisdictions may not discipline governments. If resources (natural resources, geographic conditions, inherited infrastructure, human capital) are distributed asymmetrically, factor mobility may lead to less discipline of governments in relatively poorer regions. Asymmetric federalism provides a problem.

Given the rich set of empirically testable hypotheses, it is no surprise that the Leviathan model has triggered a large number of empirical studies which analyze whether decentralization reduces the size of government (see Table 1). Across time, the studies have increasingly become more precise as to what they actually test. While the first generation, mainly tested whether a measure of decentralization is negatively correlated with government size, the second generation has more closely looked at the impact of fiscal competition on government size and thus has aimed at testing the Leviathan hypothesis more directly. The dividing line between first and second generation studies cannot be attributed to a particular year. For example, the studies by Cantarero and Perez (2012) or by Kwon (2013) use traditional decentralization measures. Their improvement compared to previous studies is the inclusion of a broader set of control variables. Baskaran (2011) analyzes the differential effects of decentralization on government size in different ideological environments and uses the traditional decentralization measures.

Table 1: Empirical results on the impact of federalism on the size of government

Authors	Size of government	Federalism	Sample	Time	Result
Oates (1972)	Total government revenue / national income	Central government revenue / total government revenue	57 countries	1972	No support
DiLorenzo (1983)	Local government spending per capita (general expenditure, police, fire protection, highway, sanitation and welfare)	Total county government expenditure (tax revenue) / government expenditure (tax revenue) in the four largest jurisdictions	65 large SMSA	1975	Support for expenditure No support for tax revenue
Solano (1983)	22 government expenditure measures	Dummy variable for federalist countries (Australia, Canada, Switzerland, United States and Germany) and central government tax revenue / total government tax revenue	18 countries	1968	Support
Oates (1985)	Total government revenue / GDP	Central government revenue (expenditure) / total government revenue (expenditure)	43 IMF countries	1982	No support
	State government revenue / personal income	State government revenue (expenditure) / State and local government revenue (expenditure) and total number of governmental units in a state	48 contiguous US states	1977	No support
Nelson (1986)	State and local taxes per capita (per personal income)	State share of total state and local taxes and	49 US states	1976	No support
	State and local taxes per capita (per personal income)	Population of a state divided by the total number of counties	49 US states	1976	Support
Schneider (1986)	Growth of local governments	Total number of suburban municipal governments	46 large SMSA	1972-1977	No support
Nelson (1987)	State and local government revenue (expenditure) / personal income	Total number of general purpose governments and total number of special purpose governments	50 US states	1977	Support
Marlow (1988)	Total government expenditure / GNP	State and local expenditure / Total government expenditure	United States	1946-1985	Support
Eberts and Gronberg (1988)	State and local expenditure / personal income	Total number of general purpose governments and total number of special purpose governments	280 SMSA	1977	Support
Wallis and Oates (1988a)	State revenue (expenditure) / personal income	State revenue (expenditure) / state and local revenue (expenditure)	48 contiguous US states	1902-1982	Support
Wallis and Oates (1988b)	State and local revenue (expenditure) / per capita income	State revenue (expenditure) / state and local revenue (expenditure)	48 contiguous US states	1902-1982	Support
Saunders (1988)	Total government expenditure / GDP	Dummy variable for federalist countries	22 OECD countries	Average 1960- 1962 and 1978- 1980	Support
Grossman (1989)	Total government expenditure / GNP	State and local expenditure / Total government expenditure	United States	1946-1986	Support
Forbes and Zampelli (1989)	County government revenue per capita, county government revenue / personal income, county government own revenue / personal income	Total number of county government in SMSA	157 SMSA	1977	No support

Table 1 (continued): Empirical results on the impact of federalism on the size of government

Authors	Size of government	Federalism	Sample	Time	Result
Zax (1989)	County government share of local total revenue/ personal income	Total number of general purpose governments per square mile and total number of special purpose governments per square mile and County government share of local total revenue / total government revenue	3022 counties	1982	Support
Raimondo (1989)	State and local government expenditure / personal income for six expenditure categories (total, education, welfare, hospital, highways, all other)	Central government expenditure / state and local expenditure and local government expenditure / state and local expenditure	50 US states	1960, 1970, 1980	Support
Joulfaian and Marlow (1990)	Total government expenditure / gross state product	State and local expenditure / total government expenditure and total governmental units in a state	48 US states	1981, 1984	Support
Joulfaian and Marlow (1991)	Total government expenditure / gross state product and total government expenditure per capita	Local government expenditure / state and local government expenditure and state and local government expenditure / Total government expenditure and total number of local governments in SMSA	48 US states	1983-1985	Support
Heil (1991)	Total government revenue (expenditure) / GDP	Dummy variable for federalist countries	22 OECD countries and 39 IMF countries	1985	No support
Grossman and West (1994)	Total government expenditure / GNP	State and local government expenditure / total government expenditure	Canada	1958-1987	Support
Shadbegian (1999)	Total government expenditure / gross state product	State and local government expenditure / total government expenditure	48 US states	1979-1992	Support
Moesen and van Cauwenberge (2000)	Total government expenditure / GDP	Local government expenditure minus transfers received / total government expenditure	19 OECD countries	1990-1992	Support
de Mello (2001)	County expenditure per capita (total expenditure excl. grants and transfers from central government)	Counties' ratio of revenue to expenditure (self-financing capacity); county size (share of county expenditure in percent of total govt. expenditures; fragmentation ratio (number of local jurisdictions (cities and municipalities) within each county)	38 Moldovan counties (Rajons)	1998	No support, opposing sign
Schaltegger (2001)	State and local government expenditure per capita (all expenditure categories)	Local government expenditure / State and local government expenditure (all expenditure categories) and total number of local governments	26 Swiss cantons	1980-1998	Support
Kirchgässner (2002a)	State and local government expenditure per capita (total expenditure and total revenue)	Local government expenditure (revenue) / State and local government expenditure (revenue) and number of local governments divided by the cantonal population	26 Swiss cantons	1980-1998	Support
Jin and Zou (2002)	National, subnational or aggregate expenditure in percent of GDP	Ratio of subnational to total government expenditure, ratio of subnational to total government revenue, percentage of subnational expenditure financed by central transfers	17 industrial and 15 developing countries	1980-1994	No support for spending Support for revenue measure

Table 1 (continued): Empirical results on the impact of federalism on the size of government

Authors	Size of government	Federalism	Sample	Time	Result
Rodden (2003)	Total government expenditure in percent of GDP	Own source subnational revenue in percent of total revenue	59 countries	1978-1997	Support
Fiva (2006)	Total government expenditure in percent of GDP	Tax revenue decentralization (distinguishing between different kinds of sub-central government revenue according to degree of discretion in determining them autonomously) and expenditure decentralization (using IMF's GFS data)	18 OECD countries	1970-2000	Support for tax revenue decentralization, no support and opposite sign for expenditure decentralization.
Prohl and Schneider (2009)	Total government expenditure and revenue in percent of GDP	Federalism index containing revenue raising authority, revenue sharing authority, authority for education, govt. structure (unitary vs. federal), election of local executives, constitutional recognition of sub-national governance. Share of subnational government expenditure (revenue) in percent of total government expenditure (revenue)	29 OECD countries	1978-2003	Support: Decentralization decreases lower growth in public expenditure and tax burden.
Cassette and Paty (2010)	Total government expenditure in percent of GDP, national and sub-national expenditure in percent of GDP	Subnational government own tax revenue / Consolidated general government revenue, vertical imbalance measured as transfers as a share of sub-national expenditure	15 EU countries	1972-2004	Inconclusive: Decentralized tax autonomy decreases national spending, but increases subnational and total aggregate spending. Transfers increase spending generally.
Feld, Kirchgässner and Schaltegger (2010)	State and local government revenue per capita (all revenue categories)	Local government revenue / State and local government revenue (all revenue categories), intensity of tax competition, tax exporting, total number of local governments (fragmentation) and grants from other levels of government	26 Swiss cantons	1980-1998	Support for revenue decentralization and intensity of tax competition, while tax exporting counteracts the restrictive effects of decentralization.
Bröthaler and Getzner (2010, 2011)	Total government expenditures in percent of GDP, total sub-national government expenditures in percent of GDP	Sub-national tax revenue / Total tax revenue, sub-national revenue/ total revenue within Revenue Sharing System. Measured as ratio to sub-national revenue: Sub-national own tax revenues where sub-national level can set tax base or rate, Sub-national own tax revenues where tax bases and rates are set by higher level government, Sub-national revenue from shared taxes, Sub-national non-earmarked grants received from other levels of government, Sub-national earmarked grants received from other levels of government, Share of sub-national grants received to total sub-national expenditure	Austria	1955-2007	Inconclusive/Rather no support

Table 1 (continued): Empirical results on the impact of federalism on the size of government

Authors	Size of government	Federalism	Sample	Time	Result
Baskaran (2011)	Logistic transformation of total public expenditure in percent of GDP	Sub-national share of government expenditure (revenue) from total government expenditure (revenue)	18 OECD countries	1980-2000	No support: Revenue decentralization increases public spending more strongly under left-wing governments.
Crowley and Sobel (2011)	Total real property tax revenue per capita	Spatial dependence term and average neighbor effective property tax rate as indicators of intensity of tax competition	2522 municipalities, 501 school districts, 66 counties of the state of Pennsylvania	1995-2005	Support
Cantarero and Perez (2012)	Total regional public expenditure as percent of GDP	Sub-national share of government expenditure and sub-national share of own source revenue.	17 Spanish regions	1985-2004	Support: Revenue decentralization reduces government size
Ashworth, Galli and Padovano (2013)	Total public spending in percent of GDP	Sub-national share of own revenue as a fraction of total revenues and a vector of dummy variables capturing the degree of decentralization of public expenditures.	28 developed countries	1976-2000	Support: Tax decentralization reduces total government spending
Kwon (2013)	Total public spending in percent of GDP	Shares of local revenue or local spending as a fraction of total revenue or spending of local and central bodies.	17 developed and 17 developing countries	1998-2008	No support: Fiscal decentralization reduces government effectiveness in developed countries
Liberati and Sacchi (2013)	Total local government expenditure in percent of GDP (excluding grants)	Shares of local income taxes, local property taxes or local taxes on goods and services from aggregate local tax revenues and grants from higher levels of government	19 OECD countries	1980-2004	Support: Tax decentralization organized on tax bases used only by local governments (property tax) reduces local public expenditure.

Source: Kirchgässner (2002b), Feld, Kirchgässner and Schaltegger (2003) and own collection of recent literature.

Actually, the first empirical study was published before Brennan and Buchanan (1980). Oates (1972) analyzes for a sample of 57 countries whether decentralization is associated with lower government revenue and finds no support. Shortly after the publication of *The Power to Tax*, DiLorenzo (1983), Solano (1983) and again Oates (1985) reported mixed evidence for a decreasing effect of decentralization on government size, although the evidence looks a bit better for spending than for revenue. Since then, a higher number of papers finds support for a restrictive effect of decentralization on government size, while the results on fragmentation have remained mixed throughout the whole literature. Of the first generation studies, 16 papers provided evidence supporting the Leviathan hypothesis compared to 8 studies reporting no support.⁴ Regarding fragmentation, there are four studies in Table 1 overall with no and two studies with significant effects. Similarly contradictory are the two studies using a federalism dummy.

There are several problems with the first generation empirical studies. Mainly using a decentralization measure, they do not properly measure fiscal competition and thus do not exactly test the Leviathan hypothesis. As Rodden (2002, 2003) or Blume and Voigt (2011) point out, decentralization of spending or revenue could be high without shifting actual decision-making power to the sub-central jurisdictions. This would be the case, e.g., if the share of interjurisdictional grants from other governments was relatively high or if federal spending mandates occurred frequently. Also, an endogeneity problem emerges as government size on the right hand side of the regression model appears as the denominator on the left hand side of the equation. Instrumental variable approaches with proper instruments or more sophisticated study designs are therefore requested. More precise measures as to the extent of fiscal competition are thus necessary.

When more precise measures are used in the first generation studies, e.g., regarding the fragmentation hypothesis, the results are rather disappointing. This does not hold in the second generation studies, however, in which tax competition is more directly measured. Rodden (2003) considers the share of own-source, instead of overall subnational revenue, from total revenue as an indicator of decentralization that comes closer to capturing fiscal competition and finds support for its restrictive effect on government spending for 59

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⁴ The first generation studies include all papers until 2002, but also the papers by Baskaran (2011), Cantarero and Perez (2012) and Kwon (2013) Voigt and Blume (2010) apply a factor analysis to study the impact of federalism on a large number of dependent variables including government spending. The factor capturing revenue autonomy does however not indicate the extent of fiscal competition between jurisdictions and could therefore not be used to test the Leviathan hypothesis. I consider this study to belong neither to the first nor the second generation studies.

countries between 1978 and 1997. Fiva (2006) uses the OECD-Stegarescu measure (OECD 1999, Stegarescu 2005), which takes the share of subnational revenue from total revenue of those revenue sources of which subnational governments can either influence tax rates or tax bases or both. Thus, subnational tax autonomy is better captured. He reports support for the Leviathan hypothesis for a yearly panel of 18 OECD countries between 1970 and 2000. Similar indicators as in these two studies are used by Prohl and Schneider (2009) and Cassette and Paty (2010) reporting support for the Leviathan hypothesis as well. Working with indicators based on this philosophy, only the time series analyses for Austria by Bröthaler and Getzner (2010, 2011) do not find supportive evidence which is no surprise given the highly centralized Austrian type of federalism.

In three recent studies, the extent of tax competition is directly measured such that its impact of government size can be better identified. Feld, Kirchgässner and Schaltegger (2010) analyze the impact of decentralized taxation on the size of government for 26 Swiss cantons between 1980 and 1998. They distinguish different transmission channels: Fiscal competition is measured by the weighted average of the other cantons' income tax rates in the highest income tax bracket (weight: inverse of distance), fragmentation by the number of communes in a canton, tax exporting by the number of tourist days per canton, and grants as the real net transfer payments from the central to the cantonal governments. In addition, the typical decentralization measure is used and instrumented. Studying the whole tax structure, they find a robust and significant negative effect of tax competition on government revenue while decentralization still has a significant additional effect.

Taking into account spatial interdependencies, Crowley and Sobel (2011) compare actual property tax rates with revenue-maximizing tax rates using panel data for Pennsylvanian local jurisdictions. They find that decentralization induces stronger interjurisdictional competition and lower tax rates, while collusion between school districts is accompanied by higher interdependence, but also higher tax rates. Liberati and Sacchi (2013) analyze the particular impact of tax separation schemes in the sense that subfederal jurisdictions use particular tax sources exclusively. They find that such tax decentralization organized on tax bases restricts government size in OECD countries. In a study using panel cointegration techniques and panel error correction models, Ashworth, Galli and Padovano (2013) report that a decentralization of own-source revenue using the OECD-Stegarescu measure leads to a long-term fall in the size of governments, while grants have the opposite effect. Finally, Feld and Schnellenbach (2014) use the OECD-Stegarescu measure for a panel of 13 OECD countries

between 1981 and 1998 reporting a restrictive impact of tax decentralization on the ability of governments to redistribute income.

Overall, these results, showing that fiscal competition between jurisdictions reduces government size, are rather in favor of than against Brennan and Buchanan's (1980) Leviathan hypothesis. Of the second generation studies, two are inconclusive and seven are in favor of the Leviathan hypothesis. The main difference between Buchanan's thinking and traditional fiscal federalism analyses, i.e., the role of interjurisdictional competition, has thus turned to have some explanatory power for the fiscal behavior of governments and bureaucracies.

4. Federalism as an Ideal Political Order

Given Buchanan's distinct perspective on federalism, it seems natural that the next step consists in embedding this thinking in Constitutional Economics. In Buchanan (1995), he characterizes federalism as an ideal political order. In the same year, Buchanan (1995/96, 1996) extends this view to considering federalism as a protector of individual sovereignty and economic freedom. These analyses correspond nicely with his remarks on European integration (Buchanan 1990, 1997, Buchanan and Lee 1994).

According to Buchanan (1995/96, p. 159) "... a coherent classical liberal must be generally supportive of federal political structures, because any division of authority must, necessarily, tend to limit the potential range of political coercion." On the one hand, this proposition addresses the division of powers between different chambers of parliament and more importantly a vertical distribution of competencies. Federalism thus counters the danger that "too strong a center risks overwhelming a federation by acting opportunistically and extracting too many rents" (de Figueiredo and Weingast 2005, p. 127). As long as the central government does not obtain excessive competencies and the subcentral jurisdictions keep considerable autonomy, the federal government faces difficulties to violate individual rights.

On the other hand, the powers of the subfederal jurisdictions are curtailed in turn because of the horizontal competition between them. Such does not only occur due to mobility between jurisdictions as in the Leviathan model. Competition also happens due to information spillovers between jurisdictions: As soon as citizens see different and possibly better solutions for political problems in other jurisdictions they can exert voice in their own polity to improve things. In addition to pure fiscal competition, yardstick competition is facilitated in federations (Salmon 1987, Besley and Case 1995). Buchanan (1995/1996) acknowledges this

idea and illustrates it with the experience in Eastern Europe: Without the possibility of migration, the good example of West European states finally triggered political change.

While Buchanan (1995) stresses the market analogue of federalism like Weingast (1995), Besley and Coate (2003) extend the analysis along the vertical structure of federalism pretty much in the spirit of Buchanan. Even if the federal government is not of the Leviathan type and does not have information problems regarding the regional distribution of preferences for public goods, a political economy problem emerges that can be solved by a decentralized provision of public goods. This is the case because the fiscal commons problem is more severe, the more centralized provision and financing of public goods are. Different groups address their demand for public services to each budget. Spending programs are targeted to the groups that provide the most decisive support for representatives. The broader the costs of targeted spending can be spread, the stronger the common pool problem becomes. At the central level, this is facilitated by log-rolling and pork-barrel politics. In the case of decentralized provision and financing at the regional (state) or local levels, log-rolling and pork-barrel politics become more difficult. The costs of financing public services are less dispersed at the subcentral than at the central level as long as fiscal responsibilities are not blurred by grants or fiscal equalization systems.

The arguments of Besley and Coate (2003) correspond to Buchanan's (1995/96) thoughts about voter's advantage of decentralized provision and financing of public goods. As one vote influences election outcomes with a higher probability in small than in large jurisdictions, voters can more easily exert political control. The smallness of a polity facilitates discussion processes which are, as argued by Feld and Kirchgässner (2000) in the case of direct democracy, important for citizens to question their own position on political issues with respect to its generalizability. Federalism could thus improve citizens' public spiritedness. Already Alexis de Tocqueville (1840/1990) understood local politics as a training ground for liberty and democracy: « Les institutions communales sont à la liberté ce que les écoles primaires sont à la science ; elles la mettent à la portée du peuple ; elles lui en font goûter l'usage paisible et l'habituent à s'en servir. » (p. 50).

This third step in the development of James Buchanan's thinking about federalism marks the consequent switch to a procedural perspective. His papers in traditional fiscal federalism theory are outcome oriented. Equity and efficiency concerns about the results of fiscal federalism are studies. The Leviathan approach is also mainly outcome oriented: Competition between governments reduces their ability to exploit tax bases. Although competition is seen

as a process, the focus is on the correction of government failures as outcomes. The interpretation of federalism as an ideal political order and a protector of individual sovereignty, however, focuses on the procedural aspects in a Hayekian sense by asking how morality emerges evolutionary in smaller groups. People have a limited moral capacity. It is easier to care for others in small communities than in geographically vast territories. Federalism facilitates the transcendence of one's own narrow self-interest to the consideration of others' interests in the community, but it does not overcharge individual moral capacity by demanding individuals to care for others in the whole country to the same extent.

This procedural perspective on federalism allows for additional observations on asymmetric federalism. Whereas traditional public finance underlines the difficulties posed by asymmetries in interjurisdictional competition (Bucovetsky 1991, Wilson 1991), either because of different population sizes, factor endowments, (natural) resources or constitutional provisions, Buchanan (1996) considers such asymmetries as sustainable as long as citizens' loyalties are sufficiently localized. In this spirit, Congleton (2006) has a closer look into the circumstances under which asymmetric federalism might emerge.

5. Concluding Remarks

As demonstrated in this paper, James Buchanan's thinking about federalism went through three stages. From the 1950s to the beginning of the 1970s, his analyses were well embedded in the traditional fiscal federalism literature and concerned with equity and efficiency outcomes. In the Leviathan approach starting from the mid-seventies, he considered competition between jurisdictions as a means to restrict Leviathan governments and a substitute to formal fiscal constraints. Federalism, decentralization, interjurisdictional competition offer the possibility to correct government failures as an outcome of the political process. In his interpretation of federalism as an ideal political order, Buchanan binds these perspectives together and adds a procedural view: Federalism enables citizens to exert political control, it raises their interest in politics because one vote has more influence, and it facilitates to act morally within their moral capacity.

Buchanan's view on federalism across time led to the emergence of the so called second generation theory of fiscal federalism (Oates 2005) and opened a procedural perspective. The obvious application of this approach for Buchanan himself appeared to be European integration (Buchanan 1990, 1997, Buchanan and Lee 1994). However, the procedural perspective allows for a broader analysis by asking the question how different degrees of

centralization and decentralization might emerge under different circumstances, with different contributing factors and different institutions shaping these outcomes. One example is Congleton's (2006) view of asymmetric federalism mentioned before. Another example is the analysis by Feld, Schnellenbach and Schaltegger (2008, 2010). Based on a model in the spirit of Besley and Coate (2003) they show theoretically (and provide evidence for Switzerland) that referendums restrain the ability of representatives to centralize public good provision and financing, and thus to subvert the restrictions imposed by interjurisdictional competition.

It would stretch Buchanan's position somewhat if I contended that he should have had a favorable view of direct democracy. However, in a paper in a special issue of Kyklos dedicated to Bruno Frey's 60th birthday, James Buchanan concludes his analysis of direct democracy in the following way:

"By the standards of classical liberalism, Switzerland works well, comparatively. And Switzerland combines the most extensive range of direct democracy to be found among the developed nations of the world, and effective federalism. Both of these structural characteristics warrant a continuing support from classical liberals who seek institutions of governance strong enough to prevent the ever-present threat of lapse into anarchy, but also institutions of governance that are themselves limited by enforceable constitutional checks and balances from succumbing to the ever-present temptations to behave as Leviathan." (Buchanan 2001, p. 241).

Nevertheless, this quote highlights the differences between Buchanan's view and the view of traditional public finance on federalism: Even if federalism was not efficient in the narrow allocative sense, a federal structure would be desirable as a means of controlling and checking the central government authority (Buchanan and Musgrave 1998, p. 178).

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