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James M. Buchanan's Contributions to Economics*

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I. Introduction

James Buchanan's principal contribution is to the subject of "public choice", a field which he has largely created and which has very considerably influenced the development of public economics. Public choice is concerned with the integration of political decision-making and constitutional design into economic analysis, so that account is taken — particularly when discussing the public finances — of the economic implications of political structure. As such, it lies on the boundary of economics and political theory, and Buchanan's writing has done much to broaden the perspective of public finance economists.

Buchanan is a highly prolific writer, being the author of some 20 books and more than 300 articles; and it is not possible in this short report to do more than describe the main lines of his research, identifying key contributions. In this, I follow a broadly chronological sequence, beginning with two major influences on his work: Wicksell and the Italian public finance school.

II. The Influence of Wicksell and The Pure Theory of Government Finance

The statement by the Royal Swedish Academy of Sciences notes the role in the development of Buchanan's thinking of the writings of Knut

*Biographical footnote: James McGill Buchanan was born in Tennessee, U.S.A., on October 2, 1919. After academic studies at Middle Tennessee State College and the University of Tennessee, he received his doctorate from Chicago University in 1948. Between 1957 and 1967, he served as professor at the University of Virginia, where he directed the Thomas Jefferson Center for Studies in Political Economy and Social Philosophy. After a short interlude at the University of California in Los Angeles, he became professor at the Virginia Polytechnic Institute in Blacksburg in 1969, where, with Gordon Tullock, he founded and led the Center for Study of Public Choice. In 1982, the Center was moved to George Mason University, Fairfax, Virginia, where Buchanan now works.

Wicksell. In his early papers, Buchanan referred to Wicksell's remarkable "A New Principle of Just Taxation", which he subsequently translated from the German for Musgrave and Peacock's *Classics in the Theory of Public Finance* (1958).[1] An early note [41] on the marginal cost pricing debate in 1951 drew attention to Wicksell's contribution to that subject and commented that it was "surprising that the name of Knut Wicksell does not occupy a more prominent position". It was perhaps not entirely surprising, since then — as is still the case — few economists can match Buchanan's knowledge of the writing of his predecessors in the field. Indeed, younger public finance economists owe a great debt to the scholarship of Buchanan and Richard Musgrave, which provides a link to the best of earlier contributions.

For Buchanan, Wicksell is the "primary precursor of modern public choice theory" ([21], p. 23). Wicksell attacked the "inadequacies of the traditional methods of the science of public finance", suggesting that the most recent texts (in 1896) left the impression "of some sort of philosophy of enlightened and benevolent despotism" (1958, p. 82). He developed the voluntary exchange approach to the public finances and argued for a principle of "approximate" unanimity. Wicksell's contributions were not overlooked by all, but it is Buchanan who has developed the Wicksellian approach to its modern form, giving full expression to the idea of the public finances as a political process.

The article "The Pure Theory of Government Finance" [39] published by Buchanan in 1949 sets out his position with great clarity; indeed, it reads like a manifesto for his life's work. He contrasted two opposing views of the state. According to one, "the state is considered as a single decision-making unit acting for society as a whole" ([4], p. 9); the state subsumes all individual interests and aims to maximise social welfare. According to the other, "the state is represented as the sum of its individual members acting in a collective capacity" ([4], p. 8). The government represents only the collective will of individuals and "cannot be assumed to maximise anything". Buchanan's own view is that it is the second of these representations that is relevant to democratic societies, a view that has major implications for the role of the public finance economist.

The period when Buchanan's ideas on the concept of the state were developing coincided with the debate on social choice following the

[1] Dates in parentheses refer to the references listed at the end of this article and numbers in brackets to publications by James M. Buchanan (see Bibliography).

publication of Arrow's *Social Choice and Individual Values* (1951). Buchanan himself contributed two articles [45] and [46], concerned not with the technical aspects of Arrow's analysis but with its broader implications. Following the view of the state described above, Buchanan attacked the desirability of collective rationality as a property of social choices, arguing that where "the individual is the only entity possessing ends or values ... no question of social or collective rationality may be raised" ([4], p. 79). As was later noted by Arrow, this attributes a different meaning to the term "collective rationality", commenting that "no doubt, words have penumbras of meaning which may not be easy to eliminate in the reader's mind" (1963, p. 107n). In the case of individual choices in a democratic system, Buchanan's article on "Individual Choice in Voting and the Market" contributed a perceptive account of the different influences on voting behavior, including those which lead the individual to act "in accordance with a different preference scale when he realizes that he is choosing for the group rather than merely for himself" ([4], p. 94). Particularly valuable is the discussion of the richness of individual motives and of such factors as the individual's sense when voting of participation in social choice.

III. The Italian Tradition and the Burden of the National Debt

A second major influence on Buchanan's work was the Italian school of public finance theory. He spent the academic year 1955–56 in Italy reading the works of Pantaleoni, De Viti De Marco, Einaudi, among others, and writing the paper [4, Chapter II] on the Italian tradition, which, along with Musgrave and Peacock (1958), is the major source for those of us who do not read Italian. The influence was particularly important in the case of Buchanan's work on the classic topic of the burden of the national debt. While not satisfied with the Italian theories, he acknowledged in the Preface to his *Public Principles of Public Debt* [2] that "the Italian approach to the whole problem of public debt was instrumental in shaping my views" (p. vii). (He also later in [360] chided subsequent contributors to the national debt debate for the fact that their lack of knowledge of earlier writers extended even to ignorance of Ricardo.)

The aim of his book was to attack what he called the "new orthodoxy" that the creation of public debt does not involve any transfer of the real burden to future generations and that there is no analogy between individual and public debt. He also took issue with the view that there is a sharp distinction between internal and external debt. Buchanan saw the importance of distinguishing different definitions of the burden, particularly with regard to the unit of analysis. He felt it was wrong to consider the impact on the economy as a whole; rather, in a democratic society, the individual sacrifice or burden should be the focus of attention.

Buchanan's book did much to stimulate reappraisal of views about the national debt. Ferguson, in the introduction to his collection of papers on this subject, said that "the publication of Professor Buchanan's book ... marks the beginning of the current controversy" (1964, pp. 9–10). Controversial it undoubtedly was. Reviewers applauded his intentions but their reactions to his argument were spirited. In part, the criticisms reflected inevitable ambiguities in a largely verbal exposition, and could perhaps have been avoided by a more formal statement. A fully articulated model of the impact of the national debt appeared only in subsequent contributions. But the reception undoubtedly owed something to the book's claim to have justified the "much-maligned man on the street, the holder of the allegedly vulgar and unsophisticated ideas about the public finances" ([2], p. viii). Buchanan seems to have enjoyed being the hare in this particular paper-chase.

IV. The Calculus of Consent

A most fruitful collaboration with Tullock, another major contributor to the success of the public choice school, began around 1959. This partnership led to the well known book, *The Calculus of Consent* [5]. This brought together Buchanan's earlier concern with the "positive" theory of public finance, and its relation to the voting process, with Tullock's work on the theory of political organisation.

The book distinguished different levels of decisions, contrasting the fundamental choices of the scope of collective action and the decision-making rule to be applied, called the "constitution", with the decisions which then emerge from the operation of that rule. In the choice of constitutions, the authors argued that the Wicksellian unanimity principle has a particular claim on our attention. Majority voting has been elevated to an undeserved status, being at best "one among many practical expedients made necessary by the costs of securing widespread agreement" ([5], p. 96). They felt that the unanimity rule had been dismissed too readily because insufficient account has been taken of "log-rolling", or the trading of votes on different issues, which in effect allows side-payments to be made. Even where unanimity does not exist initially, it may be brought about by debate and bargaining (although there is of course no *guarantee* that consensus will emerge).

The influence of *The Calculus of Consent* has been great, and it stands as a landmark in the field. Described by Arrow as a work of "major importance" (1963, p. 107n), it is highly imaginative in conception and impressive for its ability to cut through unnecessary complications to the central issues. At the same time, it did not satisfy all readers. For some, the analysis, while suggestive, was not sufficiently developed: for example, in the case of log-rolling, it is difficult to know whether or not a voting equilibrium would exist, and therefore hard to assess the claims made for its properties. Others were concerned about the privileged position of the status quo; and one may note that Wicksell's support for the unanimity principle was conditional on starting from a just distribution: "justice in taxation tacitly presupposes justice in the existing distribution of property and income" (1958, p. 108). Wicksell went on to say that, where this condition does not hold, then "society has both the right and the duty to revise the existing property structure. It would obviously be asking too much to expect such revision ever to be carried out if it were to be made dependent upon the agreement of the persons primarily involved" (1958, p. 109).

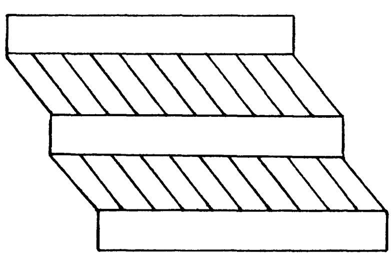
V. Application of the Public Choice Approach

What are the implications of adopting a public choice approach? In the field of welfare economics, Buchanan's answer was set out in his article "Positive Economics, Welfare Economics, and Political Economy" [50], The example which he used of the removal of a tariff is illuminating. Buchanan distinguished three roles. First, there is the "positive economist" who makes predictions of the consequences of the tariff's removal. Second, there is "'positive' political economist" who attempts to construct a plan for its removal which will be approved by an overwhelming majority (Wicksell's approximate unanimity). Third, the "normative economist" may introduce his own ethical evaluations. These distinctions are valuable, but appear to exclude a fourth possibility, which is that the "welfare economist" may postulate particular evaluations, not necessarily his own, in order to explore their implications. Statements about the policies that would be preferred by a person holding, say, utilitarian values may be useful in illuminating the public debate about fiscal matters, a debate which is itself part of the political process.

His applications of the public choice approach to concrete issues of welfare economics are well known, as for example to the problem of externalities. The article in 1962 on "Politics, Policy and the Pigovian Margins" [56] challenged the Pigovian welfare prescriptions, on grounds different from those of Coase (1960). From a public choice standpoint, he argued that "any attempt to replace or to modify an existing market situation ... characterised by serious externalities, will produce solutions that embody externalities which are different, but precisely analogous, to those previously existing" ([56], p. 19). Where there is majority voting, and people act in individual self-interest, then, he argued, the majority can impose costs on the minority in just the same way as a polluter can impose costs. On the other hand, if people identify their own interest with that of the group as a whole, then the social costs and benefits will be taken into account in private actions, and no intervention is necessary. Although, to be fair to Pigou, we should note that he discussed the shortcomings of government intervention, recognising that "a loud-voiced part of their constituents, if organised for votes, may easily outweigh the whole" (1932, p. 332).

VI. Application to Public Finance

The preface to *Public Finance in Democratic Process* [6], published in 1967, contained the familiar staircase drawing:



and Buchanan argued that our conception of fiscal process is analogous to our visual reaction to this figure in that we can view the figure in either one of two ways: "one must, somehow, shift ... vision ... in order to change the steps into risers and vice versa" ([6], p. vii). Public choice leads, he suggests, to such a shift in vision.

As in conventional analysis, the taxpayer is centre stage, but it is the individual's activities as a voter rather than as a supplier of labour, or consumer, or producer that is the subject for study. We are "less interested in the old question: How should tax shares be allocated [and] more interested in the new question: how are tax shares allocated in a democracy?" ([272], p. 12). Of critical importance is the tax-price that the person faces: i.e. the amount of extra tax to be paid if there is an additional unit of public spending. The benchmark is not, as in welfare analysis, a lump-sum tax (where the total tax liability is unaffected by the person's behaviour), but a tax that leaves the tax-price per unit unaffected by the person's behaviour. It becomes important to be able to predict the tax-price, and in the choice between different types of taxation, a relevant consideration is the ease of making such predictions. Thus progressive taxes are criticised on the grounds that "they increase the costs of making any reasonably accurate estimate of the tax-price" ([6], p. 38). Since under an expenditure tax individuals can exert greater control over the tax base, the tax-price confronted by a taxpayer is more dependent on the behaviour of others than with an income tax. This is even more true with a corporation tax, where the effects depend on behavioural responses which are open to conjecture.

A good example of the application of the approach is provided by the analysis of the provision of public services via earmarked taxes, where Buchanan's article of 1963 [62] is the standard reference. He asked how fiscal choices when spending proportions are fixed differ from those made in the situation where taxpayers can choose different levels via hypothecation of tax revenues. For this purpose, Buchanan assumed that decisions are based on the preferences of the median voter. The model throws light on situations when there will be pressures for a move towards general-fund financing and their relation to characteristics of the services such as the elasticity of demand.

VII. Public Goods and Clubs

The application of the public choice ideas to public goods was developed in *Demand and Supply of Public Goods* [7], which again was seen as a departure from the traditional public finance treatment. The book was intended as a text, but contained a substantial body of new material. Some of this aroused criticism. Head, for example, commented in a review that "one might ... wonder whether Buchanan is really justified, in his ... analysis of small-number voluntary exchange, in explicitly ignoring strategic behaviour problems" (1970, p. 117). But he went on to conclude that the book "is an important new landmark in the development of the theory of public goods" (1970, p. 121).

Buchanan's contribution to the positive theory of public goods is further illustrated by his research on clubs and local public goods. The article [67] on clubs, where members share the financing of communal provision, was highly innovatory and "testimony to [its importance] can be found in the well over one hundred subsequent studies referencing his model" (Sandler and Tschirhart, 1980, p. 1482). Buchanan had a clear vision of the problem and set out an analysis which captured many of the key aspects. The main element which was missing was a satisfactory treatment of the existence of a club equilibrium, which in this kind of model may be problematic. Buchanan has also (for example, [98]) addressed himself to local public finance issues where there are fixed locations. His interest in these questions dates back indeed to an early, and much cited, article [40] on equity and fiscal federalism, in which he proposed a concept of horizontal equity based on the fiscal "residue": i.e., expenditure benefits less taxes paid.

VIII. Fiscal Constitutions

In 1975, Buchanan presented a paper [113] at the International Seminar in Public Economics Paris meeting on taxation theory in which, surrounded by exponents of optimum taxation, he argued the case for the fiscal exchange model as an alternative. His criticism of optimum taxation included the statement that it was "clearly wasteful to devote intellectual resources in proferring advice to a nonexistent decision-maker" ([113], p. 21) and that, at a more practical level, distributionally-motivated tax reformers "consider themselves to be articulating value judgments that 'should' be universally held by all informed persons" ([113], p. 26). Not all of those criticised in this way would agree with Buchanan's characterisation of their approach, but even if one rejects his criticism, one can see the value of the questions being asked about the role of the fiscal constitution.

Indeed, by the time these ideas came to be published in book form, in *The Power to Tax* with G. Brennan, the climate was considerably more sympathetic to the approach; the authors note in their Preface that "had this book been published in 1960 or in 1970 it probably would have fallen stillborn from the press" ([17], p. xi). This book deals with the notion of the government as a "revenue-maximising Leviathan" originally developed in two articles in the *Journal of Public Economics* [117] and [119]. The authors abandoned the median voter assumption used by Buchanan in earlier work, an assumption criticised as being demand-driven. In its place, they assumed that the government pursues its own ends to the maximum possible extent; and that in the simplest case this involves maximising the revenue obtained from the different sources constitutionally open to it. The electoral process allows choice by the voters only at the stage of designing tax constitutions.

The constitutional perspective leads to interesting insights. In the case of commodity taxation, the authors note the departure from the optimum tax conclusions: "the minimally distorting set of excises ... serves to raise maximum revenue limits above those implied by a uniform commodity tax ... a restriction that all rates on taxable commodities be identical might well be instituted precisely as a means of restricting Leviathan's fiscal appetites" ([17], p. 58). To take another example, the Leviathan approach has important implications for local public finances: "intergovernmental competition for fiscal resources and interjurisdictional mobility of persons in pursuit of 'fiscal gains' can offer partial or possibly complete substitutes for explicit fiscal constraints on the taxing power" ([17], p. 184). This in turn suggests such testable hypotheses as that the size of the public sector should be smaller, the greater the degree of decentralisation, although this is consistent with other explanations of the working of the political process (and the degree of decentralisation may not be purely exogenous).

IX. The Reason of Rules

The constitutional approach has been developed further by Brennan and Buchanan in *The Reason of Rules*, published in 1985 [22]. The authors were led to write this by the fact that they were "mystified by the reluctance of our profession to adopt ... the constitutional perspective" ([22], p. xi). Many of the themes hark back to *The Calculus of Consent*, such as the distinction between constitutional choice and behaviour under specified constitutional rules. In this case, the authors were perhaps understating the degree of their success. The notion of rules has — in several different contexts — come to occupy the attention of economists.

Of particular note is the discussion of the modelling of individual behaviour, where Brennan and Buchanan replied to their critics and defended their assumption that in political decisions an individual will act like *homo economicus*. They are not claiming that people *will* act in narrow self-interest; indeed Buchanan in earlier writing has brought out the richness of individual motives in voting behaviour. Rather they suggested that constitutional choices should be made on the basis of pessimistic assumptions, quoting Hume: "in constraining any system of government and fixing the several checks and controls of the constitution, every man ought to be supposed a knave" (1963, pp. 117–18). Readers may, though, add the qualification that the behaviour may itself be influenced by the rules that are chosen.

X. Assessment

Buchanan's work has been marked by the highest standards of scholarship. From the very beginning, his writing exhibited an impressively wide knowledge of the writing of his predecessors in the field. His career amply demonstrates that such knowledge is neither unnecessary nor a barrier to originality.

The principal foundation on which he has built is the Wicksellian theory of fiscal exchange. In 1975 he commented that "modern public finance theory would indeed make great strides if the Wicksellian level of analysis and understanding could finally be achieved" ([113], p. 18). It is very much to his credit that he has persisted in the endeavour to bring consideration of political structure to a central position in public finance. He has acted as a missionary, not only through his prolific writing but also through his active involvement in the life of the profession. The resulting development of the public choice approach to its present prominence is a major achievement.

Critics may say that the public choice approach has yet to be developed to yield significant new insights or that there is a lack of strong empirical support. Supporters may say that the impact on the mainstream of public finance has been too limited. But both of these views understate the impact that Buchanan's work has had on public finance in general. Wicksell's target of the naive welfare economist, seeking to advise a benevolent despot, must now be a straw man. We have learned from Buchanan, and other exponents of the public choice approach, not to adopt a simple-minded view of political behaviour and to consider the constitutional issues. We can now see that the steps on the staircase may be risers.

What conclusions should be drawn from the public choice insights can be debated. Not everyone shares Buchanan's preoccupation with restricting the role of government; some are more concerned with protecting minorities against *reductions* in state activity. In a recent essay, Buchanan [21, p. 3] described how he came into economics as a dedicated socialist and was converted into a strong advocate of the market economy "through a mere six-week exposure to Frank Knight". There is no doubt that his work appeals to those in the Chicago tradition and on the right of the political spectrum. But those for whom economics had the opposite effect also appreciate the importance of the questions which he has asked in the course of a highly productive career. In the words of Cary Brown in a review of [4], "disagreement forces the reader to grapple with fundamental issues, and in the process he becomes a wiser man" (1962, p. 265).

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