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Econ 230B

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Reflections on Public Goods Theory readings

- Paul Samuelson, The Pure Theory of Public Expenditures, *Review of Economics and Statistics*, 36(4): 350-356, 1954
- Paul Samuelson, Diagrammatic Exposition of a Theory of Public Expenditure, *Review of Economics and Statistics*, 37(4):350-356, 1955
- Paul Samuelson, Aspects of Public Expenditure Theories, *Review of Economics and Statistics*, 40(4):332-338, 1958
- Erik Lindahl, Just Taxation–A Positive Solution, in *Classics in the Theory of Public Finance*, edited by R. Musgrave and A. Peacock
- Theodore Bergstrom and Richard Cornes, Independence of Allocative Efficiency from Distribution in the Theory of Public Goods, *Econometrica*, 51(6):1753-1765, 1983

The Samuelson readings on public expenditures nicely derive the conditions for efficient allocation of public vs. private goods; the Diagrammatic Exposition clearly "widens the circle of economists who can understand and follow what is being said" - which apparently includes me. In both, he walks through a derivation of how to identify the share of public vs. private goods within a simple economy - some efficient provision of public goods and total private goods. Bergstrom and Cornes build upon these by greatly expanding the scope of instances in which an efficient allocation of public goods and distribution of private goods can be separately identified.

In both of these Samuelson papers, he brings up the challenge that is particularly interesting to me - once a locus of "efficient" solutions has been found, how does one determine the "best" distribution of goods among the parties, i.e. deciding how people are placed on more or less advantageous indifference levels? This is obviously a decision that falls more into politics and philosophy than science (and he points out as such), but economists cannot simply wash their hands of the question of "just" allocation. To determine a "best" allocation would require a social welfare function or set of norms, which is beyond the scope of these readings, but would help identify not simply an efficient, but a just, allocation among all possible solutions.

Lindahl's paper, 35 years prior to Samuelson's, lays out a way in which two distinct groups could come to an agreement on a distribution of the costs of providing a public good. This is complicated by the fact that the distribution of costs and the total amount of provision are not independent of one another. His derivation relies on the role of politics as a means of "defending one's interest" and starting from an assumption of even distribution of political power, two groups would argue until the efficient provision of goods and division of costs would be found. He expands this to multiple parties, saying "provided the taxpayers are all in an equal position to defend their economic interests when tax laws are passed, the financial process would result in each individual having to pay a tax amount corresponding to his valuation of public services."

However, the more interesting cases are when this derivation breaks down. In one discussion, Lindahl describes how if the distribution starts at a non-optimal point (i.e., not starting from the point when tax laws are passed, but some time after), one party is in a position where it is in their best interest to resist movement toward the optimal solution and retain the status quo. The differences in priority among a collection of public goods, if paid for in a lump-sum taxation policy, can lead to different parties feeling the marginal good is not worth the marginal taxation and push to reduce taxes, forcing cuts in those goods they see as marginal (e.g. Republican tax cuts for the well off that then lead to calls to cut Medicare and Social Security benefits to the less fortunate, i.e. less politically empowered). In his final point of discussion, he describes how an imbalance of power not only allows the powerful party to shift the equilibrium to its own advantage through exploiting ignorance or actively misleading others, or openly force undesirable taxes on the other party. Ignorance and misleading information can be corrected by a better informed public and more transparency and control over public authorities; and open wielding of political force bears political cost that can result in corrective strengthening of the opposing party, eventually leading to more “just” taxation solutions.

Samuelson’s Aspects of Public Expenditure Theories is an entertaining read (could a lesser economist get away with inventing an entire planet in such a paper today?) but I especially appreciated several points, which all seem to support a fairly active role of government in public policy, taxation, and provision of public goods. Briefly:

- Redistributive transfers are necessary (and sufficient by his account, with certain assumptions) to achieve a given social welfare function. Real incomes are not likely to be distributed in such a way to maximize a given social welfare function - “only by chance alone” would zero redistributions be the proper response.
- Building on this, Samuelson says, “If, as is more likely, incomes are distributed prior to taxation in a non-optimal manner [...], then the manner of taxing is very important even at the first level of approximation.” An undesirable level of inequality (according to a social welfare function) seems to demand redistributive tax policy to simultaneously achieve efficiency and justice.