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New perspectives on public finance: recent achievements and future challenges

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Abstract

The advances in the economics of the public sector during the past quarter century have been as pronounced as in any field within economics. Public finance has become a rigorous branch of applied microeconomics, incorporating the best thinking and most advanced tools of both theoretical economics and econometrics. In the remarks below, I will focus on a few key areas in applied and theoretical tax and expenditure policy, drawing both upon the academic work of myself and others, and my experiences in the policy arena, both as Chairman of the Council of Economic Advisers and as Chief Economist of the World Bank. I shall address both the questions of what we have learned in the past few decades as well as the questions where further research is needed.

Keywords: Pareto-efficient taxes; Market failures and taxes; Corruption; Political economy of tax reform; Transparency and taxes

1. Tax theory

1.1. Pareto efficient taxation

One of the most significant insights — obvious from current perspectives — was the recognition that all taxes induce distortions, but that the total dead weight loss of the tax system was not minimized by minimizing the number of

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distortions.[1] Perhaps the second most significant insight — again obvious from current perspectives — was that one could approach *efficient* taxation using the same concepts that economists had long used in analyzing efficient allocative mechanisms, that is *pareto efficient tax structures* were those such that no one could be made better off, *given the technological and other constraints,* without making someone else worse off. With a specified social welfare function, one could choose which among these Pareto efficient tax structures maximized social welfare.[2] The third important insight was the recognition of the key role played by these constraints, especially the *informational constraints*. Lump sum taxation was clearly Pareto efficient, if the government had all the information about each individual and could tax each differentially. However, if, for instance, government could not observe each individual's ability, but could observe his *income* and *expenditures on particular commodities*, then taxes had to be based on those variables. But in that case, it turned out Pareto efficient *commodity* tax structures did not look anything like those that Ramsey had characterized; for instance, if there was separability between leisure and consumption, then there should be no commodity taxation at all. Ramsey's analysis (and that of Diamond and Mirrlees) had an additional implicit and unrealistic constraint: that income could not be taxed.[3,4]

1.2. The problem of robustness

This highlighted one of the most vexing aspects of these advances in the theory of taxation: even the few *qualitative* results turned out not to be robust, even though the way of approaching the problems of taxation proved very insightful. To cite but two other examples: the powerful Diamond–Mirrlees theorem on the desirability of *production efficiency*, which implied that one should not have a corporate income tax nor tariffs, turned out to require 100% profit taxation and the ability to impose a complete set of commodity taxes.[5] The Mirrlees result that the

[1] Ramsey (1927). While Ramsey's analysis was embedded in Pigou's classic work (1918), and reportedly drew the attention of Samuelson in a memorandum written during World War II, and was seemingly independently discovered by Boiteaux (1956) in the context of regulation, it seemingly did not enter into the mainstream of American public finance until Diamond and Mirrlees' classic paper (1971), which, for the first time, set the issues in the context of a general equilibrium model.

[2] The concept of Pareto efficient taxation was developed and reviewed in Stiglitz (1982a, 1988) and Brito et al. (1990).

[3] Even if there was not a Pareto efficient income tax, but a linear or progressive income tax, the commodity tax structure looked markedly different from that of Ramsey and Diamond and Mirrlees. See, e.g. Atkinson and Stiglitz (1976) and Stiglitz (1988, 1998a).

[4] In developing countries, it is often more difficult to impose an income tax. But even then the Ramsey analysis has limited applicability, because the *structure* of the economy is so markedly different; one has to worry about impacts, for instance, on migration, and, if there is unemployment, for instance, because of efficiency wages, the impact of different taxes on that. See Sah and Stiglitz (1992).

[5] See Dasgupta and Stiglitz (1971, 1972), Naito (1999).