

COMMENTS ON SESSION III: FISCAL POLICY AND GROWTH

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In evaluating these fine papers, let us first consider the goals of our profession. I consider myself to be an “applied public finance economist.” If I were to compose an oath for this calling, it would be:

- “I will do my best to enhance policymakers’ understanding of the tradeoffs inherent in the formulation and implementation of fiscal policies.”
- “I will attempt to quantify as accurately as possible the terms of these tradeoffs.”

1. The principal contributions of the papers as a whole

Each of the papers presented in this session furthers the first two of these three professional goals in one or more of the following ways:

It analyzes the impact in theory of alternative fiscal policies on economic growth. In the United States, some policymakers (especially at the subnational level) consider the stimulation of economic growth to be the paramount goal of fiscal policy. Some of these “pro-growth” advocates also believe as a matter of faith that any fiscal policy touted by business leaders as “pro-growth” is effective. Before helping such policymakers to appreciate the costs that they might incur in unbridled pursuit of growth, policy analysts would do well to explain how and why one would (or would not) expect alternative pro-growth policies to achieve their intended effect. As a whole the papers do an excellent job of explaining the channels through which fiscal policies should affect growth according to conventional ideology and economic theory and the conditions under which these effects should be the strongest. The paper presented by Lamo and Strauch especially focuses on this set of issues. The authors delve into these issues just deeply enough to convey to policymakers the wide array of conditions capable of frustrating even the most carefully designed pro-growth agendas.

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It presents and critiques empirical evidence concerning the impact of alternative fiscal policies on economic growth. All the papers summarize various components of the empirical literature on this issue and do a good job of explaining alternative tactics to overcome common econometric obstacles. Hiebert *et al.* and Buysse also do some original econometric analysis implementing some “state of the art” approaches to longstanding empirical problems. Hiebert *et al.* specify and estimate a new model of the impact of tax and spending levels and budget constraints on long-term growth, while Buysse presents some original work on the relationship between growth and human capital.

It points out several tax policy goals that, under certain circumstances, are incompatible with the stimulation of economic growth. Van den Noord, for example, discusses the distortions created by the tax policies of several OECD countries of such choices as the allocation of savings among alternative instruments, the international allocation of capital, business size and organizational form, work versus leisure, labor intensity of production, and mix of consumption. He also discusses the costs of alternative policies in terms of administrative simplicity and distributional equity. The general equilibrium model developed and presented by Pereira and Rodrigues attempts to quantify the tradeoffs between growth and efficiency of specific alternative public policies proposed in Portugal.

2. More detailed comments on each paper

2.1 “Tax Design, Economic Efficiency and Growth”

This paper provides an extremely useful overview and synthesis of recently undertaken comprehensive evaluations of the tax systems of several OECD countries. It compares and contrasts features of these tax systems primarily in terms of the degree to which they create or mitigate various types of tax distortions. Several characteristics of the authors’ analysis make this piece especially helpful to policymakers. First, when the authors create a “yardstick” against which to evaluate tax systems, they define the yardstick clearly. Second, while showing that a particular tax system might not “measure up well” according to a particular yardstick, the authors explain the rationale underlying the tax features responsible for the discrepancy between the ideal and the imperfect reality. Third, van den Noord acknowledges that policymakers, often recognizing the tradeoffs

that they face, have attempted to mitigate the distortions that they have created in pursuing other tax policy goals. By analyzing differences across countries in these ameliorative tactics, the author implicitly encourages policymakers to think about the conflicts they face and present them with ideas about how partially to reconcile them. Fourth, when noting distortions in the tax system of a given country, he identifies characteristics of the country that make the distortions especially severe (or mild). By so doing the author is conveying another important message to policymakers: “Formulate tax policy that best suits your country, given its peculiar traits and values. The tradeoffs you face depend on these characteristics. Do not simply adopt the ‘common’ practice or change your tax system because it is ‘out of line’”.

In addition to exhibiting these helpful analytical characteristics, the paper provides some useful indicators gauging the severity of non-neutrality with respect source of corporate financing and the labor/leisure choice. Of particular interest is their measure of marginal effective tax rates on corporate investment under alternative financing methods. Based on the “representative firm” approach developed by King and Fullerton (1984), perhaps such indicators could be included as explanatory variable in growth models. What if, for each country, marginal effective tax rates were computed for a wide range of firms from different industries and with different methods of financing? Perhaps data from the tax returns of actual businesses could be used to help construct truly representative firms (needless to say, in order to preserve confidentiality, revenue officials with clearance to view tax returns would have to do the computations). Marginal effective tax rates could be averaged within a country to produce a countrywide “average” marginal effective tax rate (AMETR). Neoclassical economic theory implies that AMETR would be a more accurate predictor of the impact of taxes on economic growth than other, cruder indicators, such as tax revenue, taxes as a percentage of personal income, or tax revenues as a percentage GDP. For attempts to use AMETR as an explanatory variable in models explaining variation in economic performance, see Papke (1987) and Tannenwald (1996).

2.2 *“The Contribution of Public Finances to European Growth Strategy”*

The key themes recurring throughout this paper are: 1) yes, public finances “matter”, that is, they do have an impact on growth, 2) how much

they matter is not at all clear, 3) how much people think that public finances “matter” depends not only on what theory of growth they embrace but a host of other conditions over which policymakers have little or no control, and 4) in order to understand how public tax and expenditure policies affect growth, one must avoid simplistic aggregate measures of tax burdens and spending burdens. Instead, one should focus on more disaggregated indicators of fiscal policy, such as the mix of taxes and spending, not just on levels.

Lamo and Strauch’s synthesis is so objective and clear that it is downright frightening. They point out the scary truth that, depending on which theory one embraces (Keynesian, neoclassical, rational expectations), how open the economy is, people’s interpretation of the long-term implications of a short-term policy shift, the anticipated adjustment in monetary policy, and many other factors, an analyst can rationalize almost any prediction. The authors’ paper puts into stark relief a real issue for the “applied public finance economist”: how does one avoid the common criticism, the source of most jokes about economists, that economists can not say anything definitive about anything? Yet, Lamo and Strauch have done exactly the right thing. Avoiding all temptation to satisfy the policymaker’s appetite for a “simple” answer, they provide a clear road map of the various assumptions one must make and the variety of empirical work that one must digest in order to make an informed policy decision. The truth hurts – not because it is sharp, but because it is cloudy.

Particular impressive is the authors’ discussion of the theory and evidence regarding the impact of public infrastructure investment on the growth process. From explaining why the public sector invests in infrastructure in the first place (components of infrastructure are natural monopolies), to explaining the various critiques of initial studies on this issue, to discussing reasons why the impact of public infrastructure investment should vary over countries and within a country over time, Lamo and Strauch are succinct and clear. They also appropriately stress the importance of the mix of public sector investing as a determinant of growth.

2.3 *Fiscal Policies and Economic Growth in Europe: An Empirical Analysis*

Among all the papers, Hiebert *et al.* provide the most comprehensive, systematic discussion of the econometric problems inherent in estimating the impact of various public sector characteristics on long-run economic growth. As Bartik (1994) has pointed out, many of the same problems identified by the authors in cross-country studies also are evident in interstate studies within the United States. However, while the authors are extremely adept at identifying potential sources of bias and imprecision, they convey the impression that in their own empirical investigation they have largely solved these problems. While I think that their analysis is first rate, I am concerned about some possible issues.

The authors' proxy for the degree of distortionary taxation is the ratio of total tax revenue of the central government to GDP. However, as van den Noord and Heady point out, differences in the structure, in addition to differences in levels, are important determinants of differences in the severity of the excess burden imposed by tax systems. Did the authors explore alternative methods of operationalizing excess burden? What if they were to try average measures of marginal effective tax rates, as discussed above? Is it really true, as the authors assert, that "Given...the complexity of tax systems in industrialized countries...the calculation of a homogenous marginal tax rate comparable across countries is virtually impossible."? While such a calculation would be difficult, it could be done with representative households and firms and the international cooperation of tax officials with access to computerized tax files. This should be a high priority of the public finance profession.

I am also somewhat puzzled by the authors' conclusion of "robust negative relationship" between government size/taxation and economic growth. When they include the budget surplus as a control variable for the government budget constraint, the coefficient on the government expenditure variable becomes statistically insignificant. I do not understand how this finding is consistent with a conclusion of a "robust negative relationship."

By utilizing a new measure of long-term economic growth, estimated "trend" growth, the authors introduce an interesting innovation that solves some of the econometric problems introduced by other measures, especially simultaneity bias. Still, estimates of trend growth rates are themselves controversial. Economists within the Federal Reserve System

constantly argue over the trend, or “potential” growth rate of the United States. At the heart of this controversy is uncertainty about trend growth in productivity. Consequently, while this innovation is useful, it might introduce as many problems as it solves.

2.4 Human Capital and Growth in OECD Countries: The Role of Public Expenditure in Education

Of all the empirical issues raised by fiscal policymakers, the cost-effectiveness of public spending on education is one of the most frequently discussed. Throughout the world, legislators are caught between rapidly escalating demand for education services and competing demands for uses of public funds, such as defense, health care, and income security. In order to gauge the optimal level of public education spending, policymakers need good estimates of the impact of school quality on economic growth. By evaluating the literature on this issue and providing fresh evidence concerning it, Buysse’s paper helps policymakers trying to compare the potential benefits of alternative allocations of scarce resources among competing uses.

Buysse’s analysis echoes themes sounded by the other presenters in this session. Estimates of the relative impact of the determinants of economic growth are rife with econometric problems, not the least of which is measurement error. The indicators available to researchers are too crude to capture all the separate factors that theoretically might impinge on growth. She notes that while measures of human capital should reflect both the quantity *and quality* of education, the latter is not accurately isolated from the former. After creating indicators that better isolate quality from quantity, she includes her quality estimates in growth models. Her analysis exemplifies a healthy distrust of crude, albeit readily available, indicators and presents some results casting doubt on educational strategies widely assumed to be effective, at least in the United States, such as lowering student/teacher ratios.

2.5 Tax Reform in the Context of Budgetary Restraint: A Note on the Portuguese Case

Pereira and Rodrigues have developed the ultimate tool of policy analysis. For a given set of assumed conditions and estimated relationships,

the policymaker can use their model to simulate the long-run impact of specific changes in fiscal policy on growth in output and economic welfare. Such models give the policymaker a capacity for quantitative estimates of the terms of tradeoffs entailed by specific policy initiatives. In this respect they have tremendous potential.

However dynamic general-equilibrium models – even those as carefully constructed and calibrated as Pereira’s and Rodrigues’ – also create the potential for serious misunderstanding. The results they produce depend heavily on assumptions buried deeply within them. Choices concerning parameter values, such as key elasticities, crucially shape outcomes. As other papers in this session have pointed out, estimates for key elasticities in growth models, as well as in models of allocative impacts, are “all over the map”, varying in sign and widely varying in absolute value. Which parameter estimate should the policy analyst use? The mean? Are some estimates more credible than others? The authors state that “whenever possible, parameter values are obtained from the available data sources or the literature or as implied by the conditions of a steady-state equilibrium.” Yet, since these sources frequently do not provide clear-cut direction, choices of parameter values are necessarily arbitrary to some extent. Shoven and Whalley (1984), in their review of applied general equilibrium modeling, note:

As far as elasticities are concerned, the key parameters tend to be labor supply, saving, and commodity-demand elasticities. In all of these areas, modelers typically encounter difficulties in selecting ‘appropriate’ values due to conflicting literature estimates and frequent changes in what seems to be the consensus among empiricists in the relevant areas (p. 1031).

The sensitivity of outcomes to other assumptions also needs to be explored, such as the myriad of alternative simplifying assumptions needed to make such models tractable and, given data limitations, to translate alternative fiscal policies into changes in marginal tax rates. In raising these concerns, I am not suggesting that the authors’ analysis is limited in practical use. On the contrary, the insights they provide are extremely useful to policymakers. I am suggesting, however, that, in using results such as those presented by the authors, policymakers need the conceptual and analytical tools to evaluate for themselves the reasonableness of the underlying assumptions.

3. Where do we go from here?

As applied public finance economists, somehow we must help policymakers “digest” the wealth of observation, commentary, analysis, and synthesis presented in these papers. After reading them, a cynical commentator could conclude, “economists can’t tell us much definitively about the impact of alternative fiscal policies on economic growth”. The principal phrases that might linger in the ears of policymakers are “it depends on circumstances,” “the results are fragile,” “experts disagree on...”. Ultimately, however, the formulation of fiscal policy is an art, not a science, more like detective work than engineering. Having examined relevant theory and empirical evidence, policymakers must determine what they think will be the most probable outcome of a given tax or spending policy, that is, the extent to which the policy will further or impede the attainment of partially irreconcilable normative goals. To help policymakers make such decisions, applied public finance economists must attempt to identify the key theoretical and empirical issues that are responsible for different policy prescriptions and to explain them as clearly as possible. When policymakers vigorously support a particular policy, it is our job to make sure that they understand the theory and empirical evidence that they are implicitly embracing. When confused and exasperated policymakers demand us to give them the “right” answer, we must refrain from doing so, because there is no right answer, or, if there is one, damned if we know it. We must help them work out the right answer for themselves in terms of their own values and interpretations of existing evidence.

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