Comments on

Does it Cost to be Virtuous? The Macroeconomic Effects of Fiscal Constraints
By Fabio Canova and Evi Pappa

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Let me begin with a summary of this interesting and informative paper. Canova and Pappa use annual panel data from the 48 continental U.S. states to study the relationship between fiscal constraints on the one hand and macroeconomic behavior on the other. They split the data in two according to each of nine dichotomous indicators of fiscal constraints. These indicators measure the stringency of balanced budget laws, the stringency of debt restrictions, and some political measures such as whether the governor has line item veto power over the budget.

The first set of results in the paper compares unconditional variances and correlations for the two groups: variance of state output, correlation between (state) government consumption and state employment, and so on. Table 3 indicates that one can rarely reject the null that the two moments for the two groups are the same. (Okay, I should say "reject at conventional significance levels" rather than just "reject," but here and throughout the phrase "at conventional significance levels" should be assumed.) As well, Figure 1 suggests that point estimates are not much different.

Most of the other results rely on VAR estimates. The VARs contain basic state-wide data, along with macro variables such as interest rates and oil prices. The authors repeat the exercise on variances and correlations, this time with VAR residuals. Table 4 shows that once again, one rarely can reject the null that the moments from the two groups are the same.

Two other exercises rely on results from a VAR in which shocks are orthogonalized in a certain way. The authors compare VAR responses to government consumption and to balanced budget shocks, in groups split according to a couple of key indicators. Same old story: one rarely rejects the null that the

responses are the same for the two groups. As well, there is little economic difference in the point estimates (Figures 3-6). Finally, the authors solve the identified VAR for equations for government consumption and for balanced budget expenditures. Point estimates seem to me to sometimes be different for the two groups (Table 7). But those differences generally are not statistically significant.

The authors conclude that rules to restrict fiscal behavior have little macroeconomic import in the U.S.. So the deficit restrictions embodied in the stability and growth pact may not have much effect in Europe.

My first comment concerns identification. Canova and Pappa follow a long list of papers that have compared macro behavior in states with relatively tight budget rules to states with relatively loose rules. The implicit assumption in this literature is that the split into tight and loose rules is more or less exogenous to the behavior being studied. As the authors note, if the only states that impose tight rules are ones in which imposition is relatively costless because state spending and revenue happen to be relatively acyclical, then a finding that output is equally volatile in states with and without budget rules would not be informative about the effects of budget rules in states whose revenue and spending are strongly cyclical.

I do not have a strong sense of whether or not the decision to impose tight budget rules is exogenous to business cycle characteristics of the states. But I am reassured that the strictness of budget rules is correlated with the general political tenor of the state, which I presume to be largely independent of business cycle characteristics. Take a look at that "ACIR" column in Table 2. This index runs from 0 to 10. Zero means minimal restrictions. Ten means a state budget rules as strict as they come. One's eye detects a tendency for low values (laxer budget rules) to occur in states with a more liberal outlook, which, in this election season (I write in July 2004) I measure as: voted for Gore in 2000. Indeed, suppose we follow Bohn and Inman (1996, p35) and somewhat arbitrarily choose 6 as a low value of the index. There are 13 states whose ACIR score is less than or equal to 6. Of these 13 states, 10 voted for

Gore in 2000 (CA, CT, IL, MD, MA, MI, NY, PA, VT, WI), 3 for Bush (LA, NH, NV). Put differently, weak budget rules (i.e., an ACIR score of 6 or less) are found in 10 of the 19 states that voted for Gore but only 3 of the 29 states that voted for Bush. (Recall that Alaska, Hawaii and the District of Columbia are excluded from the sample, so there are only 48 states in Table 1.)

My second comment relates to results in related literature on fiscal policy in U.S. states. My cursory reading of the literature is that budget rules do have perceptible effects on budget variables. For example, Bohn and Inman (1996) find that the general fund surplus is higher in states with a no carry-over provisions; Wagner and Elder (2003) find that state government consumption is smoother in states whose rainy day funds are governed by more stringent rules. But whether state budget rules have substantial effects on non-budget macro variables, which is the subject of the present paper, is rather less clear. Alesina and Bayoumi (1996) conclude no, while Levinson (1998) concludes yes. Recent papers by Fatas and Mihov (2001, 2003) find mixed results. Fatas and Mihov (2003) find that some macro variables are affected by some characteristics of fiscal policy. For example, output is more volatile in states with strict rules on withdrawals from rainy day funds. But there seems to be no effect from strict rules about carryover or from gubernatorial veto power. Thus Canova and Pappa find unusually little evidence that fiscal rules have macroeconomic effects, perhaps for reasons outlined in section 6 of the paper.

My third comment is that in my view the authors focused too much on testing the hypothesis of equal effects. It would have been useful to present point estimates. Are the point estimates for states with tight restrictions systematically (if not statistically) different from those with weak restrictions? Figure 1 is a step, but only a step, in the right direction. Also, it would have been useful to present some confidence intervals, or other hypothesis tests. In most tests, one cannot reject null that effects are identical. Is it also true that one cannot reject the null that (say) output is half as volatile in states with weak restrictions?

My final comment concerns the relevance of the results for Europe. Canova and Pappa have supplied a nice list of reasons why the results might not be relevant. Let me add one more: In the U.S., the union-wide government (the Federal government) plays a much bigger economic role than do are the governments of the individual states. In Europe the case is the opposite. It may be that budget rules in the U.S. states have little effect in part because the Federal government provides extra smoothing to states that impose such rules: progressivity of Federal income taxes, for example, insures that *ceteris paribus* less tax revenue is taken from states with lower income, thereby providing some extra smoothing to states whose tight budget rules might otherwise cause sever recessions. That Canova and Pappa include Federal aid to the states in the VAR provides partial protection against smoothing by the Federal government, but as my reference to progressive taxation shows, only partial protection. The fact that there are two important fiscal authorities in the U.S. states also leaves a gap between the data and the theoretical models cited by Canova and Pappa, because those models assume a single fiscal authority.

Additional References

Alesina, Alberto and Tamim Bayoumi, 1996, "The Costs and Benefits of Fiscal Rules: Evidence from U.S. States," National Bureau of Economic Research Working Paper No. 5614.

Bohn, Henning and Robert P. Inman, 1996, "Balanced-Budget Rules and Public Deficits: Evidence from U.S. States," *Carnegie Rochester Conference Series on Public Policy* 45, 13-76.

Levinson, Arik, 1998, "Balanced Budgets and Business Cycles: Evidence from the States," *National Tax Journal*, 51(4), 715-32.