Journal of Monetary Economics 55 (2008) 1081–1093

Contents lists available at ScienceDirect

Journal of Monetary Economics

journal homepage: www.elsevier.com/locate/jme

International evidence on fiscal solvency: Is fiscal policy "responsible"? ☆

Enrique G. Mendoza [a,b,*], Jonathan D. Ostry [c]

[a] Department of Economics, University of Maryland, College Park, MD 20742, USA
[b] NBER, Cambridge, MA 02138, USA
[c] Research Department, International Monetary Fund, Washington DC, 20431, USA

ARTICLE INFO

Article history:
Received 22 March 2007
Received in revised form
5 June 2008
Accepted 11 June 2008
Available online 24 June 2008

JEL classification:
E62
F34
F41
H6
H68

Keywords:
Fiscal solvency
Fiscal policy
Debt sustainability
Sovereign debt

ABSTRACT

We conduct a cross-country empirical analysis of fiscal solvency based on dynamic stochastic general equilibrium conditions. The results show evidence of fiscal solvency, in the form of a robust positive conditional response of the primary balance to changes in public debt, in panels for emerging and industrial economies and in a combined panel. Emerging economies show a stronger response and hence converge to lower mean debt–output ratios, as observed in the data. The results are weaker for countries with debt ratios exceeding panel means and medians. Hence, we can separate countries where fiscal solvency holds from those where it remains in doubt.

© 2008 Elsevier B.V. All rights reserved.

1. Introduction

The degree to which fiscal policy is consistent with intertemporal solvency—the requirement that public debt not explode or is "sustainable" in the long run—is a key issue for both industrial and emerging market countries. In the former, the ongoing/looming demographic transition is raising concerns about the need to avoid a large buildup of public debt, while in emerging economies with unstable access to capital markets, the painful economic adjustments associated with financial crises are an important incentive to keep public debt within sustainable bounds.

At one level, intertemporal solvency can be seen as an extremely weak criterion—since it requires only that adjustments to bring policy back on track occur at some point in the future. And given the sovereign's right to tax and (not) spend, credible changes in these variables can be assumed to make the problem of insolvency disappear. But markets are not impressed by promises that are unsupported by the track record of policy makers, and hence it is very important to

☆ We thank Henning Bohn and Marco Terrones for helpful comments and suggestions, and Eric Bang and Ioannis Tokatlidis for superb research assistance.

* Corresponding author at: Department of Economics, Tydings Hall, University of Maryland, College Park, MD 20742, USA.
E-mail address: mendozae@econ.umd.edu (E.G. Mendoza).
URL: http://www.econ.umd.edu/~mendoza/ (E.G. Mendoza).

0304-3932/$ - see front matter © 2008 Elsevier B.V. All rights reserved.
doi:10.1016/j.jmoneco.2008.06.003

examine this track record and assess whether it is consistent with behavior that satisfies an intertemporal budget constraint, or not.

Fiscal policy, however, is subject to a whole host of heterogeneous, often transitory, influences that make it difficult to disentangle the systematic effect of the government's efforts to adhere to its intertemporal budget constraint. For example, according to Barro's (1986) classic tax-smoothing model, temporary increases in government spending (for example due to wars) should be financed by a higher fiscal deficit, and business cycle fluctuations should be accommodated in a similar way. Hence, there is keen interest in understanding whether movements in fiscal balances that occur alongside these various "shocks" are nevertheless operating in a systematic way to offset the impact of transitory factors, and thereby preventing public debt from getting on to a divergent path.

The "model-based sustainability" (MBS) approach proposed by Bohn (1998, 2005) provides a tractable and powerful framework in which to examine whether government policy is in line with fiscal solvency. The essence of the MBS test is to determine whether increases in public debt elicit increases in the government's primary fiscal balance (i.e., the balance net of interest payments on the debt), controlling for other determinants of the primary balance. The intuition is that a positive conditional response of the primary surplus/GDP ratio to increases in the debt/GDP ratio means that, given the shocks occurring in the background, the fiscal authority reacts to positive changes in public debt by systematically raising the primary surplus.

Bohn proved that in a regression of the primary surplus against public debt, the cyclical position of the economy, and the transitory component of government spending, a positive regression coefficient on debt is *sufficient* to establish that fiscal policy is responsible, i.e., it satisfies the government's intertemporal budget constraint. Moreover, he showed that this test is valid regardless of whether debt and the primary balance are measured at constant or current prices, and in levels or as shares of GDP; it does not require explicit knowledge of fiscal policy rules or the portfolio of public debt instruments (i.e., indexed bonds, nominal bonds, foreign currency bonds, etc.); and it applies whether debt is held by domestic or foreign residents.

Applications of Bohn's MBS test have focused almost exclusively on data for the United States (see Bohn, 1998, 2005).[1] The issue, however, is of much broader interest given the greater systemic importance of a number of industrial and emerging market countries than even a few years ago, and the need to view progress in addressing high levels of public debt in some countries against the backdrop of the buoyant conditions prevailing in financial markets in recent years and the robust growth of the world economy. Indeed, whether countries have been in fact acting in ways that will make debt crises less likely in the future, or merely riding a wave of benign growth and financing conditions, is a key question that the MBS framework can address.

A further issue central to fiscal solvency debates is the degree to which the responsiveness of fiscal policy to debt varies with the level of the debt. Does responsiveness diminish as the debt ratio rises? At what levels of debt does the response change, perhaps reflecting the limits of political tolerance for fiscal stringency in the face of mounting debt? Does evidence of "tipping points" in fiscal responsibility vary between industrial and emerging market countries?

This paper looks at these issues for a large panel of both industrial and emerging market countries. We use a dataset that generally covers the broad public sector (as opposed to the central government) for 34 emerging market and 22 industrial countries (IC) over the period 1990–2005. Robustness of the positive conditional relationship between primary surpluses and debt is established across a broad range of specifications of the MBS test that allow for non-linearities in the relation, transitory effects of government purchases and the business cycle, effects of inflation and external deficits, as well as country fixed effects and country-specific serial autocorrelation of error terms. Moreover, the key homogeneity assumption of the panel regressions imposing a common response coefficient of primary balances to debt in all countries cannot be rejected for 42 out of the 56 countries in our sample.

We conclude from these findings that there is indeed strong empirical evidence of a robust positive conditional relationship between primary surpluses and public debt for both emerging market and advanced economies (as well as in a panel that combines the two). This relationship is encouraging from a policy perspective, since it suggests that, far from being prone to default, government policy is consistent with fiscal solvency in many countries.

The results also indicate that the response of the primary balance to debt is stronger in emerging economies. The MBS framework predicts that, because of this stronger response, emerging countries converge to lower mean debt ratios. We compute estimates of the mean debt ratios predicted by the model, and find that they are in line with the data for the last two decades (which show higher average public debt ratios for IC).

Our empirical analysis also shows that the MBS test is a useful tool for separating countries where fiscal solvency holds from those where it is in doubt. In particular, we find that the positive response of the primary balance to debt is much weaker in emerging market countries with debt–GDP ratios in excess of 50 percent. Moreover, we sort the countries in each of our panels of industrial, emerging market, and combined set of countries into high- and low-debt countries relative to the mean and median of each panel, and find that the MBS test fails in high-debt countries. However, the test passes even in

[1] An exception is IMF (2003) that applies Bohn's test to a panel of advanced and emerging economies. However, this analysis used ad-hoc country exclusion restrictions and did not correct for significant serial autocorrelation in the data. In contrast, we use a sample that is larger in country and time coverage without exclusions and we control for serial autocorrelation. These adjustments reverse the result in IMF (2003) suggesting that industrial countries with high debt respond with larger increases in the primary balance. In addition, we obtain new results showing that Bohn's test fails for high-debt countries in general.

Download English Version:

https://daneshyari.com/en/article/5103553

Download Persian Version:

https://daneshyari.com/article/5103553

Daneshyari.com