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Japanese Government Debt and Sustainability of Fiscal Policy

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Abstract

We analyze the sustainability of the fiscal policy. We pursue three complementary approaches to examine the sustainability. First, we calculate the minimum tax rate to stabilize the debt to GDP ratio for a given path of future government expenditures. Using 2010 as the base year we find that the government revenue to GDP rate must be raised permanently to 38% to 46% (from the current 33%) to stabilize the debt to GDP ratio by 2100. Second, we estimate how the primary surplus responds to the debt outstanding. We allow the relationship to fluctuate between two “regimes” using a Markov switching model. In both regimes, the primary surplus to GDP ratio tends to fall when the debt to GDP ratio is already high and increases, which suggests the process is unstable. Finally, we estimate a fiscal policy function and a monetary policy function with Markov switching. In both regimes, we find that the fiscal policy is “active” in the sense that the tax revenues do not tend to rise when the debt increases, and the monetary policy is “passive” in the sense that the interest rate does not react to the inflation rate sufficiently. Thus, the past macroeconomic policies suggest that the most likely consequence of the accumulation of the government debt in Japan is inflation, however unlikely it may seem given the deflationary environment of the last 15 years.

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