Debt Revenue and the Sustainability of Public Debt

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While public debt has risen in the last two decades, the return that it offers to investors has fallen, especially relative to the return on private investment. This creates a revenue for the government as the supplier of the special services offered by public bonds, which include storage of value, safety, liquidity, and reprieve from repression. The present value of this debt revenue is large relative to the stock of public debt, keeping it sustainable even as the present value of primary balances is zero or negative. It gives rise to different policy tradeoffs than the conventional analysis of primary balances and makes different recommendation on the effects of austerity, the optimal amount of debt, or the spillovers between monetary and fiscal policy.

At the end of 2020, gross US government debt was 134 percent of GDP, the highest in US history, well above its previous record (121 percent just after World War II in 1946). The records for the size of public debt have likewise been broken for the groups of advanced economies or of emerging market economies. This was not solely the result of the pandemic, for debt had been growing since the 1980s and at a rising pace since the great financial crisis of 2008-9. Is this level of debt sustainable, both for the US economy and for others around the world?

Governments have had centuries of experience actively using the public debt to prevent sharp changes in taxes or spending. Sometimes they just passively roll the debt over for many years, hoping for the best, or falling for the seduction of reckless schemes. Economic theorists have analyzed how much and for how long debt can be sustained using impressive-sounding concepts like “bubbles", “Ponzi schemes", and “transversality conditions." Together, theory and experience have shown that ever-delaying the collection of taxes to pay for past debts is sometimes possible, but always eventually limited. Recently, a growing literature has found a third leg on which to sustain public debt: to collect some new revenue every time that new public debt is issued. I call this the *debt revenue*. This essay describes where it comes from, and its implications for whether the current level of public debt is sustainable.

Intuitively, what is debt revenue? When the government tries to sell a public bond, it must compete with many other prospective borrowers, including foreign governments, firms, and even households, as a bank that lends more to the government may cut back on its personal credit. There is a market interest rate at which the borrowing by all equals the total amount lenders are willing to give. For some reason, the creditors give the government a discount, charging less on the public debt than that market rate. This discount times the amount of debt is the debt revenue. It saves the government the need to collect future taxes to repay a debt that grows at a lower rate than market returns.

Many governments in the past two decades received such a large discount that the real interest rate they paid was negative. In these cases, the revenue is visible: creditors give more today than what the government will pay them back in the future, so the government can set aside the repayment and spend the difference right away. But even if the real interest rate is positive, there is a debt revenue as long as there is a discount. The revenue may be realized, if the government borrows at the reduced rates and gives public loans at close-to-market rates, keeping the profits. Or, it may be be implicit, by considering hypothetical counterfactuals: the government could borrow at its discounted rate, transfer that amount to households that were previously borrowing at market rates, and tax those same households back by the original amount times the market rate. The household's resources have not changed at all, but the government is left with the debt revenue after it pays the original government debt. Yet another way to see the debt revenue is through the lenses of the sustainability of public finances: for a given plan for spending and taxes, the public debt will grow at a slower rate as a result of the discount; without it, debt would explode faster and require that austerity arrives sooner.

Why has this debt revenue been negligible, and so typically ignored, in analyses of debt sustainability? What is special about government debt that gives rise to the discount in the returns that it pays its creditors in the first place? How large is the debt revenue, and how does it compare with the seignorage that central banks earn, a more familiar revenue from issuing a public liability? Does debt revenue come with different trade-offs facing policymakers when deciding how much to spend and tax? This article reviews the answers that a rapidly growing literature has given to these questions.