The financial crisis of 2007-08 significantly worsened the budget picture in almost all industrialized countries. Budget deficits became larger (i.e., more negative) and government debt levels increased.

Mostly this was because of the loss of tax revenue that occurs when any economy goes into recession. To some extent, lower taxes offset the slowdown and are part of what is known as “automatic stabilizers” – think in terms of the IS curve not moving down and to the left as much as it would otherwise.

To the extent there was additional “discretionary” fiscal stimulus, with the goal of limiting job losses and avoiding a Great Depression, this also increased debt levels. The role of discretionary policy is larger relative to automatic stabilizers when the size of government is smaller (i.e., lower revenue of general government relative to the economy.) Among leading industrialized countries, the US has one of the lowest levels of general government revenue and spending.

To think about “debt sustainability,” begin by splitting government spending into two parts: interest payments and the “primary balance” (the term used for everything else). The key measure is the debt-to-GDP ratio. This will tend to increase when interest rates are higher than the GDP growth rate. However, a sufficiently large primary surplus effectively pays down the debt and stabilizes or lowers debt-to-GDP. The size of “fiscal adjustment” in a country is often discussed in terms of the change in primary balance that is needed or achieved.

There are three problems with simple linear calculations of debt sustainability, either for the United States or anywhere else.

First, a great deal depends on your assumption about interest rates. Historically, rates stay low – implying market confidence – even when debt levels are quite high. But then market confidence suddenly declines and interest rates spike – implying that the country is no longer on a sustainable or non-explosive debt-to-GDP path. Expectations of a crisis can be self-fulfilling.

Foreign financing of budget deficits is particularly prone to collapse. Japan has an advantage in this regard – most of its government debt is held by Japanese residents.

Second, no one can tell you with any reasonable degree of certainty how much debt is “too much”. Debt levels below 50 percent of GDP are conventionally regarded as reasonable, while levels above 90 percent often raise red flags. Government gross debt numbers may overstate the problem –net debt in the hands of the private sector is often a better measure.

To the extent there is a credible central bank, able to buy government debt when necessary – and without creating inflation expectations – this is helpful. The Fed has this role; the ECB does not.

Third, shocks hit economies all the time – in terms of financial crises, wars, and other pressing national priorities. The net impact of the 2007-08 financial crisis on US medium-term debt (i.e., the level for 2018) is about 50 percent of GDP. The collapse of Irish banks (and consequently the rest of the economy) pushed a “fiscally responsible” state to the verge of bankruptcy.

Early thinking about fiscal responsibility insisted that the government should aim to pay down its debts entirely; now 60 percent debt-GDP is considered responsible (by the policy consensus). Scaling the responsible debt level depends on how big you think the future shocks will be.