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Deficit Spending: A Scenario Analysis

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This bulletin provides a “scenario analysis” for the budget effects of the fiscal stimulus plan being considered by Congress. Unlike forecasting, which focuses on trying to present the most likely outcome, scenario analysis can depict uncertainty. It can draw attention to “black swans,” which are major risks that conventional forecasting tends to ignore.¹

The present scenario analysis highlights two black swans. The first one is Depression Averted, under which a stimulus keeps the economy from falling in a downward spiral of layoffs and shutdowns. The other black swan is Catastrophic Collapse, in which a loss of confidence by investors in U.S. government debt leads to a total collapse in the U.S. financial system, with economic activity contracting by 90 percent or more.

The case for or against a fiscal stimulus comes down to the relative importance of these two black swans. A stimulus is worthwhile if the probability of Depression Averted is very high compared to the probability of Catastrophic Collapse. Although neither scenario is likely, I believe that Catastrophic Collapse represents the greater risk.

The best policy would be one that offers insurance against both black swans. As such, policymakers should focus on fiscal policies that offer a more reliable stimulus with lower deficits. Also, policymakers should take steps to limit the government’s exposure to toxic assets and failing financial institutions.

Short-Term Scenarios

For the near term, the important questions regarding a fiscal stimulus and the economy are as follows:

1. Without a stimulus, will the economy suffer an ordinary recession and then recover, or will it spiral downward toward another Great Depression?
2. Will a fiscal stimulus provide a significant boost to output and employment, or will it have little effect?

Proponents of the current stimulus plan generally give a pessimistic answer to the first question. They say that without a stimulus, we could slide into a depression. Many opponents of the stimulus, including prominent Chicago school economists, tend to give a pessimistic answer to the second question. They argue on the basis of classical economic theory that a fiscal stimulus would have little or no effect on employment.

My inclination is to give an optimistic answer to both questions. That is, the economy will probably suffer only a limited recession without any stimulus. However, I remain an adherent of the “MIT school,” whose economists argue that fiscal stimulus can boost employment.

Rather than decide on specific answers, the scenario analysis in Table 1 acknowledges the current uncertainty.

Table 1. Short-Term Scenarios

	Stimulus Has No Effect	Stimulus Raises Output
Economy Enters Depression	Depression	Depression Averted
Economy Recovers by Itself	Recession	CBO Forecast

The most likely scenario is Congressional Budget Office Forecast. That projection shows the economy suffering a recession with unemployment approaching 10 percent. But that is nothing like the Great Depression, where unemployment was 15 percent or more for many years, and peaked at 25 percent. Relative to its baseline, CBO projects that a fiscal stimulus could reduce the unemployment rate by about one or two percentage points.

The scenario that stimulus advocates focus on is Depression Averted. This is an unlikely scenario because most forecasters believe that the economy will decline until unemployment rises to 10 or 11 percent, and then recovery will begin. Moreover, it could be that a fiscal

stimulus plan is not effective at boosting employment and output, in which case the Depression scenario would occur regardless.

Of the four scenarios in Table 1, the black swan is Depression Averted. It is not the most likely scenario, but it is an important risk, which a fiscal stimulus is intended to mitigate.

Long-Term Scenarios

Next, let's consider the long-term consequences of a fiscal stimulus. There are two questions here:

1. What will be the effect on long-term growth of the investments in infrastructure (roads, education, energy, broadband Internet, etc.)?
2. What will be the effect on long-term growth of the increase in government debt incurred by the fiscal stimulus?

Proponents of the stimulus say that the answer to the first question is that such spending will improve long-run economic performance. Others are skeptical, pointing out that much of the spending in proposed stimulus bills is for current consumption, not long-term infrastructure.

Both proponents and opponents of the stimulus are concerned with the effect it will have on the long-run fiscal outlook. The Obama administration has not produced a plan for returning to a sustainable spending path, which has troubled some economists, such as former federal budget director Alice Rivlin.²

The scenario analysis for the long-term effects of a large fiscal stimulus is shown in Table 2.

Table 2. Long-Term Scenarios

	Interest Rates Rise Slightly	Loss of Confidence in U.S. Solvency
Public investments produce benefits	Net Gain	Catastrophic Collapse
Public investments are mostly waste	Net Loss	Catastrophic Collapse

The most likely outcome in this table is probably Net Loss. Regardless of the good intentions behind borrowing to make new investments, much of the spending will not produce significant long-term benefits. Meanwhile, added government borrowing will raise interest rates and crowd out private investment. As a result, the economy will have less productive capital than if there had been no stimulus.

However, perhaps I am too pessimistic about public investment. If the improved government performance promised by the Obama administration came true, it may lead to the Net Gain scenario. In this case, for example, more spending on education would actually lead to better outcomes.

What has me concerned are the scenarios in which investors lose confidence in the fiscal solvency of the U.S. government. Last summer, we saw what happened when investors lost confidence in the solvency of Freddie Mac and Fannie Mae, the two mortgage giants. The two firms are big players in the credit markets, but all of a sudden they found investors concerned with their solvency and pulling back on buying their securities. As a result, borrowing costs rose dramatically, which made the outlook for Freddie and Fannie even worse, in turn causing more investors to stop lending them money.

This self-fulfilling cycle of doom with Fannie and Freddie unfolded over a period of just a few weeks, leaving the firms unable to survive. Similar "sudden stops" have occurred in many countries. The Asian debt crisis of the late 1990s is one example.

The catastrophe that would result from a loss of investor confidence in the creditworthiness of the U.S. government is difficult to overstate. Our banking system would collapse, because for depositors the insurance of their funds is only as good as the credit of the U.S. government. In other countries, anytime there is a crisis of confidence in the solvency of the government, there is a massive outflow of deposits from that nation's banks.

Economic activity requires a trusted financial instrument to serve as a medium of exchange. If U.S. government debt lacks credibility and bank checking accounts are no longer trusted, what medium of exchange would serve people in everyday transactions? There are not enough gold coins in circulation to suddenly switch to a metallic currency.

The Catastrophic Collapse scenario would be many times worse than the Great Depression. Economic activity would decline by 90 percent or more.

I am not predicting that a fiscal stimulus would result in Catastrophic Collapse. That scenario is a black swan, not a likely outcome. Still, my opposition to fiscal stimulus is based primarily on my concern that such a black swan might materialize. The risk of Catastrophic Collapse dominates my thinking on the stimulus, even though I hope that it will not occur. I oppose the stimulus because I could sleep much better with the risk of a depression than with the risk of Catastrophic Collapse.

Insurance against Both Black Swans

This scenario analysis has brought to the fore two black swans. The first black swan, Depression Averted, is a scenario in which the stimulus would be a good idea. The second black swan, Catastrophic Collapse, is a scenario in which a fiscal stimulus would be a disastrous mistake.

The best way forward is to look for ways to simultaneously insure against both black swans at the same time. By looking at the problem this way, more sensible policy alternatives will suggest themselves.

The first step to insure against both black swans is to scale back the bailout of the financial sector. The Troubled Asset Relief Program (TARP), the “creative” asset purchases of the Federal Reserve, and the various other bailouts all serve to add risk to the government's balance sheet. In trying to save banks, the government is like a good Samaritan who jumps into a raging river to try to save a drowning child, and in the process drowns himself.

History suggests that bank losses are minimized when troubled banks are shut down as quickly as possible. The longer that policymakers wait, the greater the cost of the eventual cleanup.

In the current crisis, policymakers have advanced a variety of reasons for using capital injections and asset purchases to keep financial institutions going rather than shutting them down. Instead, the overriding consideration should be to minimize the cost of the cleanup. To me, that means moving troubled financial institutions swiftly through the bankruptcy process or through standard FDIC procedures for resolution. By following those procedures and limiting taxpayer exposure, policymakers can reduce the risk of Catastrophic Collapse.

The key to averting the other black swan, a depression, is to restore business profitability, especially in the nonfinancial sector. In a capitalist system, profits and losses are signals. Profits signal businesses to expand, and losses are a signal to contract. Profits have been collapsing, resulting in firms laying off workers and pursuing few new investments.

The Bureau of Economic Analysis reports that total wage and salary disbursements grew 2.8 percent in 2008 over 2007.³ Meanwhile, corporate profits were down 9 percent through the third quarter of 2008.⁴ Fourth quarter data were not available as of this writing, but Bureau of Labor Statistics data for the fourth quarter show that labor costs rose faster than productivity at a 12-percent annual rate, which implies a further plunge in profits.

The government can help restore profitability in the private sector by reducing business taxes. Cutting the payroll tax rate on employers would be particularly

helpful. A 50-percent cut in this tax would amount to about a \$230 billion annual savings. Such a cut would increase the deficit by much less than the current stimulus bill, while likely producing a larger boost to employment. In addition to helping restore profitability, it would reduce the cost of labor at the margin, giving businesses an incentive to hire workers. Also, it would take effect more quickly than the spending in the current stimulus bill.

Conclusion

In today's uncertain environment, we need to look beyond the most likely outcomes from various policies. Instead, we should be watching out for black swans. The two black swans that emerge from this scenario analysis are the risk of spiraling downward into a depression and the risk of excessive government indebtedness causing a collapse of confidence by investors. Steering a course between these two risks requires policies designed more carefully than those being discussed in the current stimulus bill on Capitol Hill.

¹ Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007).

² Alice Rivlin, “Budget Policy Challenges,” Testimony before the House Committee on the Budget, January 27, 2009, www.brookings.edu/testimony/2009/0127_budget_rivlin.aspx.

³ U.S. Bureau of Economic Analysis, National Income and Product Accounts, Table 2.2B, www.bea.gov/national/nipaweb.

⁴ *Ibid.*, Table 1.12.