The Borrower of Last Resort

KEYNES and HAYEK: We've been going back and forth for a century

KEYNES: I want to steer markets

HAYEK: I want them set free

BOTH: There's a boom-and-bust cycle, and good reason to fear it

HAYEK: Blame low interest rates!

KEYNES: No, it's the animal spirits![1]

A Move toward Austerity?

Two years ago the world's developed economies were in the midst of the financial crisis that ultimately led to the failure of Lehman Brothers, a major fall in global stock markets, a spike in unemployment, and a deep recession. These events evoked a massive governmental response, both monetary (interest rates) and fiscal (taxation and government spending). The fiscal response has driven a very large increase in government spending, especially in the United States, with a corresponding increase in government borrowing.

Over the past eighteen months or so, economic conditions have improved, giving us reason to hope that the global economy has avoided a major depression. While like many economists I believe that the stimulus measures have helped avoid an economic catastrophe, that isn't a foregone conclusion. We can't say what would have happened without the stimulus, and some argue, with Hayek, that such measures merely defer pain and ultimately make it worse.

Feeling that the worst of the crisis has passed, and fearing that large deficits may not be sustainable in the long run, policy makers and observers have now begun to examine the steps that governments might take to reduce their deficits.[2] In Europe, where large borrowings have

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[1] EconStories, "'Fear the Boom and Bust,' a Hayek and Keynes Rap Anthem," http://www.youtube.com/watch?v=d0nERTFo-Sk

[2] See, for example, David Oakley and Peter Garnham, "Austerity pros and cons preoccupy markets," *Financial Times*, June 28, 2010 http://www.ft.com/cms/s/0/cfba5ae6-82df-11df-b7ad-00144feabdc0.html

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contributed to fears for the economic stability of countries like Greece and Portugal, austerity plans calling for increased taxes and reduced government outlays have already taken shape.

Proponents of austerity point to the difficulty Greece has encountered in financing its large public debt. They argue that unchecked sovereign borrowing eventually renders a country unable to roll over its existing debt, leading to one of two remedies — a default, in which lenders suffer losses and the sovereign has difficulty borrowing for years to come, or high inflation, in which everyone in the country suffers a decline in the value of their savings. Austerity, proponents argue, restores a sound financial base, laying the groundwork for future prosperity.

On the other side, proponents of maintaining or expanding the current stimulative policies contend that without continued government spending, growth in our Gross Domestic Product (GDP) would likely reverse, dropping the US and global economy back into a severe recession. They point both to the direct contribution government spending makes as a component of GDP[3] and to the Keynesian argument that government spending helps contribute to personal incomes. That, in turn, supports aggregate demand for goods and services, which can sustain a business recovery that might not otherwise occur without an insupportable delay.

Proponents of stimulus also highlight the danger of a deflationary spiral, which could result in a prolonged economic contraction. Deflation might seem like it would be a relief, but it can have a pernicious, enervating effect on economic activity. The basic problem is that while inflation is good for borrowers, encouraging households and businesses to borrow and spend, deflation rewards savers, discouraging both spending and capital investment. In deflation, consumers tend to defer purchases, depressing demand. Faced with reduced demand, business may produce less, reducing employment. Faced with reduced employment prospects, households may spend less. As demand weakens, so may prices, reinforcing the cycle.

Keynes spoke of the "paradox of thrift,"[4] the notion that excessive aggregate savings translates to insufficient aggregate demand, potentially leading to a spiral of economic weakness and deflation, which could result in a prolonged recession. The paradox, of course, lies in discrepancy between the soundness of the common-sense advice that households should save and the concern that if too many of us heed that advice, it could be bad for all of us.

In my view, the balance of risks in the economy still argues against austerity, because of the possibility that it could lead to a deflationary savings surplus. However, when the

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[3] The Keynes character in the EconStories video makes reference to the basic national income identity $Y = C + I + G + (X - M)$. Y represents GDP, C is consumption, I is investment, and G is government spending. $(X - M)$ represents net exports — X for exports and M for imports.
[4] See Keynes's *General Theory of Employment, Interest, and Money,* 1935, Chapter 7. That's the book the Hayek character in the YouTube video finds instead of a Gideon Bible in the bedside table.

Government spends to compensate for a slowdown in economic activity and borrows in a time of weak investment opportunity, it is in effect intermediating an unusually large portion of the economy. For policymakers, the challenge is to balance the objectives of restoring economic growth and returning activity to the private sector. For investors, the main deterrent to saving — inflation — seems likely to remain quiescent. With inflation low, Treasuries remain a good choice on the low-risk end of the spectrum. Investors able to bear risk may want to look to equities for their potential to advance sharply once the focus of economic activity swings decisively back to the private sector.

Show us the Money

To understand the argument against austerity, let's look at the paradox of thrift. It is a plausible enough idea in terms of aggregate demand (although it isn't any less controversial than the effect of economic stimulus), but I'd like to look at it in monetary terms. Excess savings does not just threaten to depress aggregate demand directly. It also threatens to reduce the stock of money chasing the goods and services in the economy, potentially leading to deflation.

The notion that excess savings could reduce the stock of money may seem paradoxical at first. After all, if we aren't spending, then aren't we keeping plenty of money in reserve? If anything, shouldn't savings increase the amount of money, since we aren't using up so much? Actually, this reasoning is exactly wrong, for two reasons. First, when we spend money it doesn't disappear; it circulates. Roughly speaking, the faster individuals and businesses spend the money they take in, the more commerce those dollars can support. Slowing down that circulation would reduce the price pressure in the system — a deflationary effect.

The second reason excessive savings can be deflationary has to do with the rate of money creation in the economy. By paying down their debts and saving instead, households and businesses actually reduce the amount of money in the financial system. To understand why, it's crucial to understand the connection between money and credit in our banking system: broadly speaking, money and credit are the same thing. To see why, let's look at an example.

Let's suppose that I go to Peet's Coffee and buy a pound of coffee for $14. I could pay with cash, but say I use my bank debit card instead. When I get home I'll look at my bank account online, and I'll see that the bank has deducted $14. Let's follow the whole transaction. The barista swipes my card, launching an electronic query to my bank, which verifies that I have enough in my account to cover the purchase. My bank (assume it's Bank of America) then initiates a transfer of $14 to Peet's bank (Wells Fargo, say), for credit to Peet's account. Peet's can then use the money to buy coffee and supplies, pay wages, rent, and utilities, or distribute as a profit. I walk out of Peet's with my coffee in exchange for nothing more than the expectation that the balance available to the store at its bank has increased by an appropriate amount.

In the debit card transaction, all we've done is transfer balances from one bank to another. If we trace the accounting book entries at the two banks, they look like this:

BAC (JT's bank)

Cash (asset) –$14	JT balance (liability) –$14

WFC (Peet's bank)

Cash (asset) +$14	Store balance (liability) +$14

When I use my debit card a cash balance moves from B of A to Wells Fargo. B of A's balance sheet shrinks by $14, and Wells Fargo's increases by the same amount. The aggregate amount of money in the economy remains the same.

But what if I reach into my wallet and pull out my B of A credit card instead? Bank of America still initiates a $14 transfer to Wells Fargo, but instead of deducting that amount from my checking account balance (a liability from the bank's point of view), B of A *adds* $14 to the balance I owe on my credit card — an asset from the bank's point of view. If I use a credit card, the T accounts look like this:

BAC (JT's bank)

Cash (asset) –$14	
JT CC balance (asset) +$14	

WFC (Peet's bank)

Cash (asset) +$14	Store's balance (liability) +$14

Now Bank of America's balance sheet has remained the same size, since they have replaced one asset, cash, with another — my debt to them. But Wells Fargo's balance sheet has still grown by $14. By lending me $14, Bank of America has increased the aggregate balance sheet of the banking system by $14. In effect, they have called into being $14 of money *that did not exist before*. It seems as though a bank has created new money of nothing at all, but that isn't quite true. They stand to suffer a loss if I default on my credit card balance, so the new money rests on the legal enforceability of my obligation to pay, and on the bank's assessment of my ability to do so. So the new money, in effect, is a representation of my credit.

If a bank can create new money by extending credit, the process can work in reverse, too. If I take my earnings and instead of spending them use them to make a transfer from my checking account to pay down my credit card balance, then my bank's balance sheet *contracts*. The banks' total cash position stays the same, but it reduces an asset (the amount I owe on my credit card) and a liability (the amount in my checking account) by the same amount. In effect, by paying down my credit card I *destroy* money.

The Borrower of Last Resort

At critical moments during the mortgage crisis, the Federal Reserve stepped in as lender of last resort, extending credit to the banking system in an effort to reduce the incidence of insolvency and financial failure. In the fall of 2008, Congress passed the TARP bill, authorizing the Treasury to act as investor of last resort, buying troubled assets, along with preferred shares in a number of firms that might otherwise have gone under. Shortly after President Obama took office, Congress authorized a major stimulus bill, an effort to prevent a deep reduction in gross domestic product by positioning the Government as spender of last resort.

The TARP and the stimulus both involved large cash outlays. In addition, the recession that has accompanied the crisis has had a dampening effect on tax revenues. As a result, the Federal deficit has become much larger, requiring huge Treasury borrowings. Yet one of the most notable developments at the height of the financial crisis in the financial markets was the collapse in yields on short-term US Treasury bills. At the beginning of 2008, a four-week T-bill yielded 3.02%. On several days in December of 2008, the officially-recorded yield on a one-month bill was 0.00%, and on at least two days, December 11 and 19, the yield was −0.01%.[5] In effect, investors were willing to pay the Treasury to store their money.

The mortgage crisis and the resulting recession induced a marked contraction in credit as household savings increased, business investment decreased, and rates of default on existing debt

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[5] US Treasury, Bureau of the Public Debt, Daily Treasury Bill Rates at http://www.ustreas.gov/offices/domestic-finance/debt-management/interest-rate/daily_treas_bill_rates_historical_2008.shtml

became elevated. That contraction in credit imposed on investors a need to find places for their money, and a desire for safety. This drove T-bill yields negative for a time. (The demand persists; even now a one-year Treasury obligation yields about 0.3%). By borrowing so heavily, the Treasury has more than offset the destruction of private credit, holding off what might otherwise have been a disastrously deflationary monetary contraction. In effect, Government in the past couple of years has not just been lender, investor, and spender of last resort — Government has also been *borrower* of last resort. For that reason, a temporary (and I stress temporary) surge in the Federal deficit is not necessarily so dangerous as it appears.

So Why Isn't This a Free Lunch?

Can Government really adopt a program of massive stimulus, and have even the borrowing that supports it provide an economic benefit? That sounds too much like a free lunch. There's no such thing — even in the Keynesian world of Government spending to fight recession. So what's the limitation?

Government borrowing is beneficial in itself only to the extent that it absorbs savings that would otherwise cause a deflationary contraction in credit. For the last twenty years, the Japanese government has run large deficits, financed with the issuance of Japanese Government Bonds, and yet inflation in that country has been very low, as have the yields on those bonds. One main reason is that household savings in Japan have run at a high rate, and those savings have funded the issuance of JGBs, either directly or indirectly.

In contrast, Germany in the 1920s is the textbook example of the perils of unrestrained Government borrowing. The Weimar Republic ran high deficits, funded largely by simply printing money. The resulting inflation was notorious. It fed on itself, intensifying as it destroyed both the accumulated savings of the middle class and any desire for households to save further. George J. W. Goodman, writing as "Adam Smith" in *Paper Money*, described it this way:

> A factory worker described payday, which was every day at 11:00 a.m.: "At 11:00 in the morning a siren sounded, and everybody gathered in the factory forecourt, where a five-ton lorry was drawn up loaded brimful with paper money. The chief cashier and his assistants climbed up on top. They read out names and just threw out bundles of notes. As soon as you had caught one you made a dash for the nearest shop and bought just anything that was going." Teachers, paid at 10:00 a.m., brought their money to the playground, where relatives took the bundles and hurried off with them. Banks closed at 11:00 a.m.; the harried clerks went on strike.
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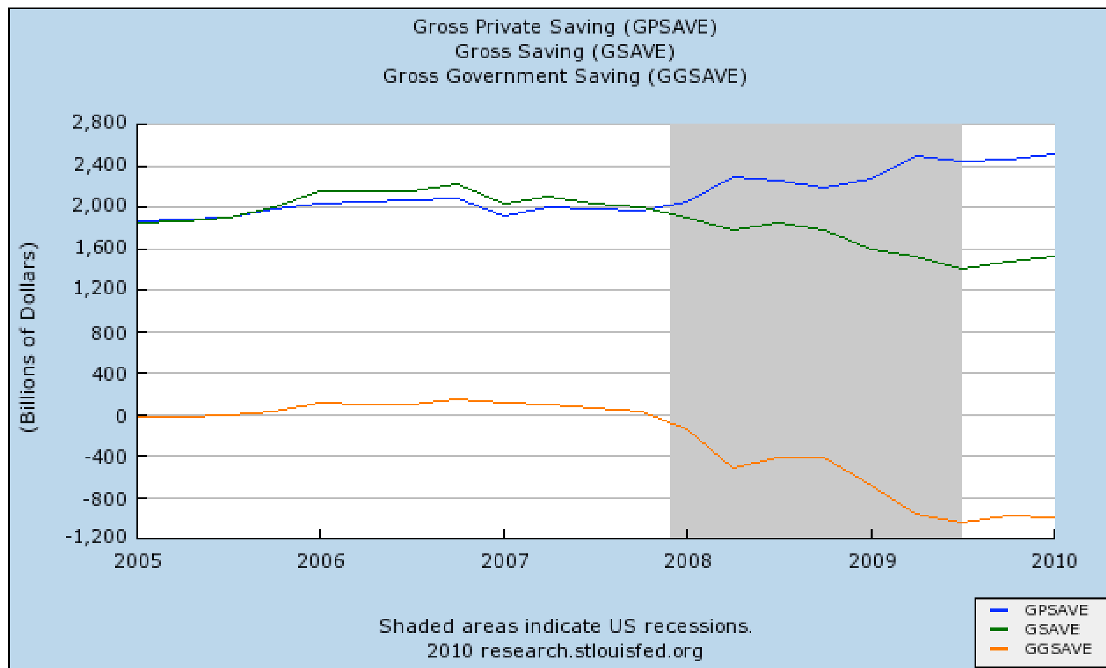
> The flight from currency that had begun with the buying of diamonds, gold, country houses, and antiques now extended to minor and almost useless items -- bric-a-brac, soap, hairpins. The law-abiding country crumbled into petty thievery.

Copper pipes and brass armatures weren't safe. Gasoline was siphoned from cars. People bought things they didn't need and used them to barter — a pair of shoes for a shirt, some crockery for coffee.[6]

During the Weimar inflation the currency ceased to function as a store of value. People spent everything they earned within hours, because prices would be substantially higher in the afternoon than they had been in the morning. People who had saved conscientiously for decades found those savings worthless, and there was no effective way to save more. With no savings, the basis for credit collapsed, and only when the Reichsbank succeeded in reestablishing that basis did the episode come to a close.

So Where Are We Now?

If you've taken a break to watch the YouTube video (it's entertaining in a geeky sort of way, and it's reasonably accurate) you have an idea of where I might look for the answer to the austerity-stimulus debate. As I've hinted in the previous sections, it comes down to savings.



[6] "Adam Smith" (George J. W. Goodman), *Paper Money*, 1981. Excerpt at http://www.pbs.org/wgbh/commandingheights/shared/minitext/ess_germanhyperinflation.html

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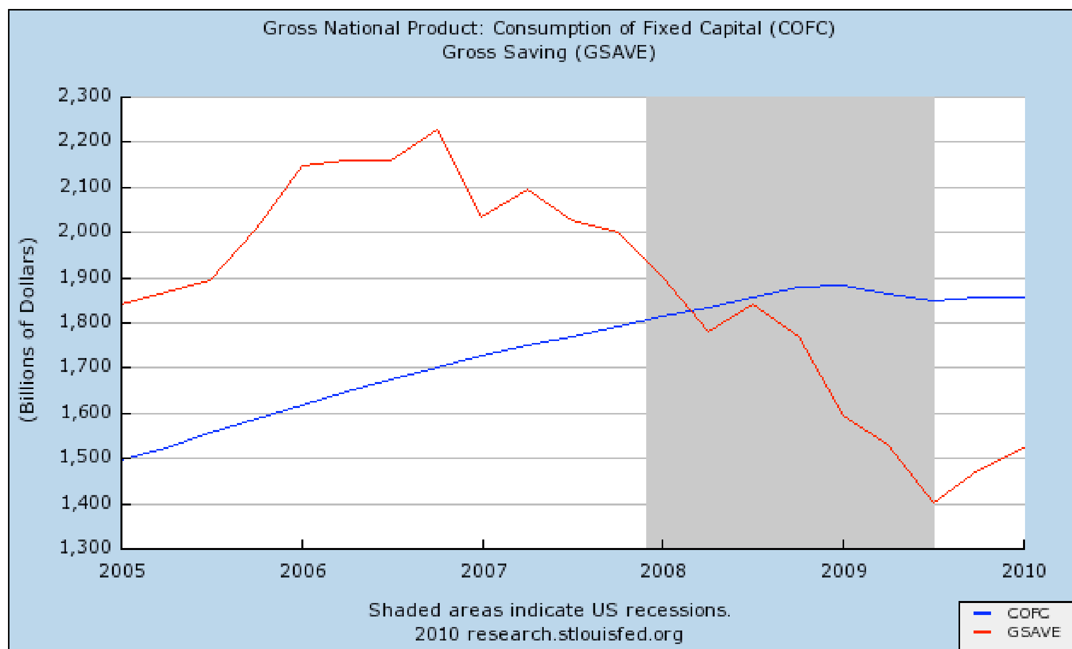
Keynes argued that excessive savings depresses aggregate demand, causing business to slow. In a crisis this could start a deflationary spiral, depressing investment. Hayek, on the other hand, considered savings the fount of capital, and therefore of investment. In my own thinking I tend to be more aligned with Keynes, but the difference between the Japanese and Weimar experiences shows that Hayek had a point. Without underlying savings, high Government spending and deficits can result in disastrous inflation. But with sufficient private savings, that same Government spending and borrowing can help offset the recessionary and deflationary effects that could otherwise result from a decrease in demand and credit.

The news on the savings front is mixed. The financial crisis has, in fact, motivated a large increase in private savings. To the extent that banks have been buying Treasury securities rather than making loans, much of this increase has gone to fund the increase in Government borrowing. Private savings hasn't, however, completely offset the increase. The graph above[7] shows gross private savings, gross government savings, and gross savings (the sum of the two) for the past five years. The figures show seasonally adjusted annual rates. Roughly speaking, since the start of 2007, government savings has fallen to a deficit of about one trillion dollars a year, while private savings has increased by about $600 billion a year. So gross savings has fallen by about $400 billion a year. This might not be too bad, so long as it's temporary. Nobody really knows how long it can last without causing problems.



[7] Source for both figures: St. Louis Federal Reserve FRED database, at http://research.stlouisfed.org/fred2

But there is a second danger sign: The second graph compares gross savings to consumption of fixed capital (think of it as depreciation). The difference is net savings. That picture is less reassuring. It shows that net savings has fallen from about $350 billion a year in 2005 to a negative $300 billion or so a year currently, a swing of –$650 billion. The figure has improved since the middle of 2009, but we still have a way to go.

Conclusion — You Have Keynes's Permission to Save

The gross savings figure shows that the financial position of the overall US economy has not deteriorated nearly so badly as the increase in Government deficits would seem to indicate. But while private savings has taken up much of the increased Government debt, we still have a savings shortfall. In addition, about a trillion dollars a year worth of extra economic activity now flows through the public sector. In the political world, the main controversy currently concerns the degree to which large fiscal deficits are sustainable, and whether the activity they support is desirable. The challenge for policymakers is to balance the objectives of restoring economic growth and returning activity to the private sector. Withdrawing stimulus too quickly could impair the global economic recovery. But allowing deficits to remain too large for too long could result in a sovereign debt crisis with the potential to impair governments' capacity for fiscal responses to future problems.

In my view, the flexibility of governments to maintain stimulative fiscal policies depends largely on the rate of private savings. We would prefer to see those private savings channeled to private, rather than government-directed, investment. Still, government spending and borrowing in the right amounts can absorb private savings, preventing the type of deflation that Keynes feared from the paradox of thrift. Reducing deficits is a desirable goal, but doing so too suddenly is a recipe for disaster.

As things stand today, there is plenty of public borrowing to absorb a high level of private savings, and that high level of borrowing has not seemed to ignite inflation. So saving remains a sensible thing for individuals to do, and Treasuries continue to represent a reasonable store of value on the low-risk end of the investment spectrum. Unless our economy is irretrievably broken, equities can provide investors with longer horizons the potential for sharp gains once the focus of economic activity swings decisively back to the private sector.

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