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Why is the Government Buying Long-Term Bonds?

BY ALEJANDRO REUSS

I heard that the government is now buying long-term bonds. What's that all about?

Basically, the government is purchasing long-term bonds in order to push down long-term interest rates. (While the Federal Reserve is buying both government and private bonds, here we will focus just on purchases of government bonds.) The reduction in long-term interest rates, in turn, is meant to stimulate investment and other forms of spending.

Wait a minute. Don't banks decide what interest rates to charge—like on business loans, home mortgages, car loans, or whatever? How would the government force banks to charge the interest rates that the government wants? And what does buying bonds have to do with it anyway?

Those are all good questions. Let's start with how the government influences interest rates.

When we hear about government policies designed to change the money supply or influence interest rates (monetary policy), we are talking about the role of the Federal Reserve (or "the Fed"). This is the central monetary-policy making authority for the United States.

The main way that the Fed influences interest rates is by buying and selling government bonds. It decides whether to increase or decrease interest rates depending on whether it aims to pump up or rein in overall demand for goods and services. When Fed policymakers decide that they want to raise interest rates, the Fed sells government bonds. This sale reduces the price of bonds and raises the interest rate on these bonds. (We can also think of this as the Fed reducing the money supply. This makes money less plentiful and drives up the price of borrowing.) When Fed policymakers decide they want to lower interest rates, the Fed buys government bonds. This purchase increases the price of bonds and lowers the interest rate on these bonds. (We can think of this as the Fed increasing the money supply, which makes money more plentiful and drives down the price of borrowing.)

Usually, the Fed buys and sells short-term government bonds in order to change a very short-term interest rate called the "federal funds rate." Now, the Fed is buying and selling longer-term government bonds, with the aim of influencing longer-term rates.

When the Fed buys government bonds, does that just mean paper is shuffling back and forth between one part of the government and another?

No, the Fed buys bonds previously sold by the U.S. Treasury to "members of the public" (to some extent to individuals, but mostly to financial firms, in the United States and abroad) and to the central banks of other countries.

When the government needs to borrow, the U.S. Treasury sells bonds. (A bond is basically an IOU, the government's promise to pay the owner of the bond a certain amount of money at a specific date in the future. In the meantime, the government can spend the money it received in exchange for the bond.) At any time, there are lots and lots (and lots) of bonds owned by people or institutions who have either bought them directly from the Treasury, or bought them from someone else in the "bond market." Bonds may change hands lots of times after their initial sale by the Treasury. When the Fed wants to lower interest rates, it buys some of these bonds from their owners.

You said that when the bond price goes up the interest rate goes down, and vice versa. Why do the bond price and the interest rate move in opposite directions?

That's a good question. Suppose that you can buy a bond today for \$100 and it promises you \$110 in a year. The interest rate is the difference between what you will get and what you paid ($\$110 - \$100 = \$10$), divided by the purchase price (\$100). That comes to 10%. Suppose the purchase price for that bond increases to \$105, but it still promises \$110 in a year. Now the difference between what you get and what you paid is only \$5. Divide that by the purchase price (\$105), and you get an interest rate of less than 5%. So when the bond price goes up, the interest rate goes down. (It works just the same in the opposite direction.)

More demand for bonds (including demand from the Fed) means a higher bond price, and that pushes down interest rates. So when the Fed wants to push interest rates down, it buys bonds.

OK, so the Fed can push down the interest rate on government bonds, but how does that push down interest rates that banks charge and consumers or businesses pay?

Imagine a bank deciding to whom to lend. The bank can lend to the government (by buying government bonds), or it can lend to private businesses, to individuals, and so on. If the risk of lending to one borrower is the same as the risk of lending to another, the bank will make whichever loan fetches the higher interest rate.

The U.S. government is a very safe borrower, so much so that government bonds are considered “risk free.” Let’s set risk aside for now, and assume that there are other borrowers that are just as safe as the U.S. government. Suppose that the interest rates on government bonds and these very safe borrowers’ bonds are both equal to, say, 2%. So the bank can buy either bond for \$100 today and be promised \$102 in a year.

Suppose the Fed starts buying government bonds, and that makes the bond price go up to almost \$101 (pushing the interest rate on government bonds down to 1%). Let’s think about what the bank will do now. Suppose that it had just paid \$100 for a government bond that promises \$102 in a year. The bank can hold onto that bond and still get \$102 in a year. But it can also sell the bond for \$101 and buy a private company’s bond for \$100. The private company’s bond still promises \$102 in a year, but the bank, having sold a government bond for \$101 and bought a private bond for \$100, also gets to pocket the difference of \$1. If the bank were to sell 100 government bonds, it could buy 100 private-company bonds, plus use the extra \$100 it pocketed to buy one extra bond. A bank that wants to make as much profit as possible, then, will sell the government bonds it holds and buy private-company bonds.

If banks start buying private-company bonds (with the money they made by selling government bonds), then the price of private-company bonds will go up and the interest rate on those bonds will go down. In other words, private companies will now be able to borrow at a lower interest rate than before.

So how low will interest rates for private companies go?

If the risk on private-company bonds were the same as on government bonds, as we assumed in our example, then the process would continue as long as the interest rate on the private bonds remained higher than that on the government bonds. The two would eventually end up equal.

In reality, however, the risk on a loan to a private company (even the most rock-solid) is greater than the risk on a loan to the U.S. government. When lending to a private company or individual (or, for that matter, to state or local governments, or national governments deemed less credit-worthy than the U.S. government), lenders insist on a higher interest rate to compensate them for the greater perceived risk. The difference in interest rate between a risky loan (like a business loan, home mortgage, car loan, etc.) and a “risk-free” loan (as to the U.S. government) is called the “risk premium.”

If the risk premiums between different loans (to different borrowers) do not change, then lowering the interest-rate on a risk-free loan will lower the interest-rate on risky loans by the same amount. You can think of different interest rates, associated with different levels of risk, as being “stacked” on top of each other. The idea behind Fed policy is that, by lowering the interest rate on the bottom of the “stack,” the interest rates above it will also come down. In real life, the “spreads” between interest rates may increase, especially during a crisis, when investors are desperately looking for safe places to park their money. So the interest rates on top of the stack may not come down as much as the interest rate on the bottom.

Why does the Fed want to bring down interest rates now?

The idea is that lower interest rates encourage people and companies to spend, adding to demand for goods and services and stimulating production and employment.

Economists especially emphasize the relationship between interest rates and investment spending. In this context, “investment” means the purchase of highly durable goods, like machinery, new factories and office buildings, and new houses (not purchases of stock or other “paper” assets). When companies make investment decisions, they decide whether the cost of buying new factories or new machines is justified by the expected profits from the sale of goods (made with those factories or machines). The idea behind government policies to lower interest rates is that some projects that would not have been profitable for a company at a higher interest rate would be profitable at a lower interest rate. So, if the government can bring down interest rates, companies will undertake some projects that they would not have otherwise, increasing production and employment.

Hasn’t the government been bringing down interest rates for a couple of years now? Why keep on doing the same thing if it’s not working?

Yes, the Fed has brought interest rates down in response to the current economic crisis. As mentioned earlier, during a recession the Fed usually buys short-term government bonds, which has the effect of driving down short-term interest rates. The Fed usually targets a certain level of the “federal funds rate,” the interest rate that banks charge each other on very short-term (overnight) loans. The federal funds rate has basically been 0% for a couple of years now.

There are a couple of problems with this policy:

First, the interest rates that the Fed directly targets are not directly relevant to the decisions made by businesses and households. Neither businesses nor families can typically borrow at the same rates that banks can. Moreover, long-term interest rates are usually more important to businesses and individuals than very-short-term rates. When businesses buy factories or expensive machinery, or people buy cars or houses, they usually take out loans for five, ten, twenty, or thirty years (certainly not overnight).

Second, once the government has pushed the federal funds rate to 0%, it cannot go any lower. If that’s not enough to stimulate substantial new spending and pull the economy out of a recession, there’s nothing more that the government can do using “conventional” monetary policy (that is, a policy that focuses on short-term rates).

This is why the Fed is now turning toward policies aimed at bringing down longer-term interest rates.

If the Fed keeps this up, isn’t it going to cause runaway inflation?

The U.S. economy is currently operating far below capacity. There are about 15 million unemployed workers, plus millions more who are working part-time but want full-time jobs. This is not at all like a situation where the economy is already operating close to full capacity. Under conditions of full employment, additional demand cannot result in more goods being produced. Instead, prices are bid up, causing inflation. When there is lots of excess capacity, however, more demand can result in increased production of goods and services. Even though demand has increased, so has supply, so prices need not increase (at least not very much).

Even if the inflation rate were to increase a bit, that would not be such a bad thing.

First, the current inflation rate is very low. The risk right now is deflation, a decrease in the general price level. If people expect prices tomorrow to be lower than prices today, they tend to put off purchases. For this reason, deflation would exacerbate the depressed demand that is causing high unemployment. In addition, deflation means that people’s money incomes decline. (People’s incomes are largely based on prices of one kind or another, so as prices fall across the board, so do people’s incomes in dollar terms.) Their debts, however, stay the same. So deflation would make real debt burdens larger.

Low-income people tend to be net debtors (to owe more than they are owed) and high-income people tend to be net creditors (to owe less than they are owed). Therefore, deflation has the effect of redistributing income from low-income people to high-income people. People with low incomes also tend to spend all or almost all of their incomes, while people with high incomes tend to save more of their incomes. If income is redistributed from people who would spend it to people who would save more of it, overall spending will decrease. So deflation, by redistributing income from debtors to creditors, would likely reduce overall spending.

Second, just as deflation would depress spending now, modest positive inflation would encourage spending now. If people expect that prices tomorrow will be higher than prices today, they will tend to spend now, rather than put off purchases. Given widespread fears of unemployment and reluctance to spend, this effect will not, by itself, pull the economy back to full employment, but it would probably boost spending somewhat. A bit of inflation would also reduce real debt burdens.

I’ve also heard that the policy will weaken the dollar. Is that true?

This policy is, indeed, likely to “weaken” the dollar. This means that the same number of dollars would buy fewer units of another currency, like the euro (€).

A weaker dollar means that goods produced in other countries will become more expensive in terms of dollars. Suppose you want to buy a t-shirt that sells for 10€. If you can get 10€ for \$10, then the t-shirt costs you \$10. If the dollar weakens against the euro, and now you can only get 10€ for \$11, the same 10€ T-shirt now costs you \$11. This effect would cause domestic prices to increase as well, since domestic producers would face less international competition. While this contributes to inflation, remember that a bit of inflation would not be all bad, for the reasons described above.

A weaker dollar also has the effect of making goods produced in the United States cheaper to people in other countries. If someone in Europe can get \$10 for 10€, then they can buy a \$10 t-shirt for 10€. Suppose the dollar weakens against the euro, and now they can get \$10 for 9€. This means

that the European buyer can get the same \$10 t-shirt for 9€. This increases demand for U.S. exports—and that extra export demand, just like extra domestic demand, tends to increase U.S. output and employment.

A weaker dollar, by making U.S. exports cheaper for buyers in other countries and those other countries' exports more expensive in the United States, could mean less demand for goods produced in other countries (and therefore reduce output and employment in those countries). Remember that the policy is also intended to boost overall U.S. demand for goods, which would tend to increase U.S. demand for imports. It's not clear whether the exchange-rate effect or the demand effect would be larger, so we can't say for sure that the policy would reduce demand for goods produced in other countries. Nonetheless, the governments of Germany and China have criticized the Fed's plan, evidently fearing the effects on their trade balances, and on employment in exporting industries.

U.S. politicians and the mainstream media often talk about boosting the U.S. trade balance (reducing the trade deficit, or bringing about a trade surplus) as if it were obviously a good thing. One's conclusion about whether it would be good or bad, however, depends on whether one thinks that increased employment in the United States—even at the expense of employment in other countries (even much lower-income countries)—is a good thing or not.

OK, is this new strategy likely to work?

There are major problems.

First, it's not clear how effective the policy will be at lowering long-term interest rates. The Fed has increased the money supply dramatically over the last few years. Banks have sold bonds to the Fed and received cash in return. The Fed's idea was that the banks would try to loan out as much of that money as possible, lowering the interest rates they charged in order to find new borrowers. In fact, however, banks have held onto much of that money in the form of "excess reserves" (over and above the amount they are required to hold by law). Uncertain about the value of assets they held (especially those related to home mortgages), banks held on to reserves as a hedge against the risk of insolvency. It's possible that the new infusion of money into the banking system will, likewise, remain in banks' coffers.

Second, it's not clear that lower interest rates (even long-term rates) would have much of an effect on investment demand. Remember, investment means purchases of highly durable goods, like machinery, new buildings (including new housing), and so on. Right now, businesses still have negative expectations of future sales, and so are not trying to increase output very quickly. Moreover, they have vast amounts of excess capacity—meaning shuttered buildings, unused machinery, and so on. Under such conditions, lower interest rates are not very likely to entice businesses to run out and buy new plant and equipment. New construction of residential housing is even less likely to resume soon, given the excessive construction during the housing boom and looming foreclosures, which will dump enormous numbers of existing houses on the market.

If this won't work, is there anything that might?

One possible answer is another round of fiscal stimulus. In contrast to the policies discussed above, which involve changes in the money supply and interest rates and are therefore termed "monetary" policies, "fiscal" policies involve changes in government expenditures and taxes. A fiscal stimulus involves increased government expenditures or decreased taxes, with the idea of boosting demand, and therefore output and employment.

It's not that the first fiscal stimulus "didn't work," and that the government should try the same thing while expecting a different result. The first stimulus was way too small—as serious economists pointed out at the time. It did not create nearly enough demand (through increases in spending and reduction in taxes) to counteract the collapse in private consumption and investment, as well as the decline in state-level spending.

Some fiscal policies that make sense now include: 1) Increases in unemployment insurance payments (making payments more generous and extending their duration). Unemployment insurance both provides some relief to the unemployed and helps boost demand, since unemployed people are likely to spend all or nearly all of their benefits. 2) Federal government grants to prevent state budget cuts. Budget cuts at the state level are not only eliminating essential services, but also reducing demand, both directly and indirectly (by putting people out of work, which causes them to cut back their spending as well). 3) Additional government spending on real goods and services. Some obvious possibilities would be infrastructure investments, like renovations of school buildings, public housing, and so on. Investments in alternative energy (such as windmills or solar energy) and new transportation systems (like high-speed rail) could not only boost demand now but also plant seeds for new "green" technologies and industries. 4) Direct government hiring, like under the Works Progress Administration (WPA) and other "alphabet soup" programs during the Great Depression.

None of these things is theoretically very complicated. If they seem unlikely now, which they are, the reasons lie in the distribution of political power, rather than any inherent mystery about our predicament or what can be done about it.

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