

**A Reply to Mr. Timberlake
and a Defense of the
Real Bills Doctrine**

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Michael F. Sproul
UCLA
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Department of Economics
University of California, Los Angeles
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JEL Code: E50

Abstract

Richard Timberlake's recent essay *Gold Standards and the Real Bills Doctrine in U.S. Monetary Policy* (August, 2005) assigns blame for the Great Depression to the real bills doctrine. In this essay I explain two versions of the real bills doctrine: the traditional view, which holds that money should only be issued for productive purposes, and the backing view, which holds that money should be issued only in exchange for adequate backing. I hold that the traditional view is invalid, and that issuing money only for "productive" purposes can lead to excessively tight money. The backing view, however, is a completely satisfactory theory of money which leads to stable prices, while automatically adjusting the supply of money to conform to the needs of business.

Introduction

Richard Timberlake's recent article, *Gold Standards and the Real Bills Doctrine in U.S. Monetary Policy* (August, 2005) blames the Great Depression, among other things, on the real bills doctrine. In particular, he states that

After Strong's death, with Real Bills central bankers in charge, the Great Contraction devastated both the monetary and economic systems... What failed was the theory—the Real Bills Doctrine—that U.S central bankers were using in [the gold standard's] place to guide monetary policy into the monetary disequilibrium that never ended. (Timberlake,(a) 2005, p.228.)

In this essay I hope to convince the reader that the troubles usually blamed on the real bills doctrine were not the result of any fundamental flaw in that doctrine, but instead the result of misunderstanding of the doctrine. Unfortunately, Timberlake's critique does not correct these misconceptions, and perpetuates a misguided view of the real bills doctrine.

Like any theory that has been around for 300 years, the real bills doctrine has been stated in many different ways, with varying degrees of error and misinterpretation. The following statement by John Fullarton probably has as good a claim as any to being a definitive statement of the real bills doctrine:

And, much as I fear I am disgracing myself by the avowal, I have no hesitation in professing my own adhesion to the decried doctrine of the old Bank Directors of 1810, "that so long as a bank issues its notes only in the

discount of good bills, at not more than sixty days' date, it cannot go wrong in issuing as many as the public will receive from it." In that maxim, simple as it is, I verily believe, there is a nearer approach to truth, and a more profound view of the principles which govern circulation, than in any rule on the subject which has since been promulgated. (Fullarton, 1845, p. 207)

The banker's T-account in Table 1 will help to clarify this statement and answer Timberlake's indictment of the real bills doctrine.

	<u>ASSETS</u>	<u>LIABILITIES</u>
1)	100 ounces of silver deposited	\$100 paper
2)	Farmer's IOU worth \$200	\$200 paper lent to a farmer
3)	Gambler's IOU worth \$300	\$300 paper lent to a gambler

Table 1

In line 1, the banker receives 100 ounces of silver on deposit, and issues 100 paper receipts ("dollars") in exchange. Each paper dollar is convertible at the bank into 1 ounce of silver. The creation of these dollar notes would probably not meet with any objection from economists of any persuasion, but they were not issued on real bills principles. They were issued in exchange for silver, not for real bills. But from an accounting viewpoint, we can say that the 100 paper notes are adequately backed by the 100 ounces of silver. Everyone would agree that at this point each paper dollar will be worth 1 ounce of silver

in the open market, and of course each paper dollar will be convertible into one ounce of silver at the issuing bank.

In line (2) we suppose that a farmer requests a loan of 200 paper dollars from the bank. Assuming the farmer offers adequate collateral and pays an adequate interest rate, any profit-seeking banker would agree to print 200 additional paper dollars and lend them to the farmer. The farmer, for his part, might write an IOU to the banker, promising to pay \$220 after 1 year. At a 10% interest rate, this IOU or “bill” will be discounted to \$200. That is, the banker will pay \$200 in paper today for the farmer’s \$220, 1-year IOU.

Can we say that the 200 paper dollars were issued “in the discount of good bills”? That depends. If the farmer offered only his future production of corn as collateral for the loan, then the farmer’s IOU satisfies Timberlake’s idea of a *real (i.e., good) bill*: “Borrowers and banks agree that these forthcoming productions serve as collateral for the dollar value of the loans.” (Timberlake, (b) 2005, p. 3.) But if the farmer offered his farm itself as collateral, then there would be no direct promise of “forthcoming production” and the farmer’s IOU would not qualify as a real bill. Furthermore, the farmer’s IOU does not meet the condition of being due “at not more than sixty days’ date”.

The hair-splitting question of whether a bill is “real” or “short-term” would be irrelevant to the banker, and with good reason. The banker only cares that his loan will be repaid with interest, and the banker would view the farm as being at least as good collateral as the farmer’s future production. In fact, the banker might reasonably prefer to lend \$300 newly-printed dollars to a gambler on his way to a casino (line (3)), as long as the gambler offers his house as collateral, and as long as the house is worth at least \$300. In this case there is hardly any chance that the newly-printed \$300 will result in any

forthcoming productions at all, but that is irrelevant to the banker who has received adequate collateral for his loan.

Now we come to the key question: After the bank has completed all the transactions shown in Table 1, having issued a total of \$500 newly-printed dollars on loan, thus multiplying the original \$100 six times, what is the value of a paper dollar? The answer is the same as it always was: one paper dollar is worth one ounce of silver. It is obvious that if the bank had issued only \$100 against 100 ounces of silver, then each dollar would be worth 1 ounce. It is also obvious that if the bank issued the additional \$500 without taking any additional assets in return, then the public would hold \$600 against only 100 ounces of silver in the bank, and each dollar would be worth only 1/6 ounce. But the banker *did* receive one dollar's worth of assets for every dollar issued, and each dollar is adequately backed.

Define the exchange rate E as the value of the dollar, measured in silver (oz./\$). Since assets (100 oz. + IOU's worth $500E$ oz./\$) must equal liabilities (\$600 worth E oz./\$), it must be true that

$$100 + 500E = 600E, \text{ or } E = 1 \text{ oz./\$}.$$

In normal times, the banker will be able to immediately redeem up to \$100 for silver at the rate of 1 oz./\$. If the banker expects a heavy demand for silver, he can sell the \$500 worth of IOU's for 500 oz. of silver and be ready to redeem all \$600 at 1 oz./\$. Even if the banker faces a run, where customers suddenly and unexpectedly demand silver for their dollars, the banker could survive the run by selling the \$500 worth of IOU's for

\$500 of his own paper dollars, and burning the paper dollars he receives. Then there would be only \$100 of paper left in the hands of the public, which the banker could redeem with his 100 oz. of silver. At no point would the value of the dollar fall below 1 oz./\$, but note that the banker could not survive the run if he did not have adequate assets backing the dollars he has issued.

Now let us reexamine the traditional view of the real bills doctrine: “that so long as a bank issues its notes only in the discount of good bills, at not more than sixty days’ date, it cannot go wrong in issuing as many as the public will receive from it.” According to what I will call the “backing view” presented above, it is only necessary that a bank issues its notes for assets of sufficient value. It is irrelevant whether the assets are due in sixty days or sixty years. It is also irrelevant whether the assets in question are “productive” (like a farmer’s IOU based on forthcoming productions) or “unproductive” (like a gambler’s IOU). It is even irrelevant whether the asset is a “bill” or not. One paper dollar could just as well be issued for a dollar’s worth of land as for a commercial bill worth \$1.

Once the real bills doctrine is stripped of these irrelevancies, we can restate it as follows

So long as money is only issued for assets of sufficient value, the money will maintain its value no matter how much is issued.

This statement is clearly true of the paper dollars described in table 1. It is also true of financial securities in general. For example, we all recognize that if GM stock is currently

selling for \$60 per share, then GM can issue 1 new share, sell it for \$60, and there will be no change in the price of GM shares, since assets will have risen exactly in step with the number of shares issued. One of the many weaknesses of the quantity theory of money is that it claims that money is valued for entirely different reasons than any other financial security. One virtue of the *backing* version of the real bills doctrine is that there is no need for any “special” theory of money. The value of money is determined on exactly the same principles as any other financial security.

I am asserting that the real bills doctrine is fundamentally valid, but that it has been encumbered by the false notion of “productive” bills. Historians of economic thought might recall that classical economic theory itself had a similar problem that resulted from Adam Smith’s fallacious distinction between productive labor and unproductive labor. Fortunately, economists were able to expunge this fallacy from classical economics without dismissing economic theory as a whole. Unfortunately, the same thing did not happen with the real bills doctrine. Rather than discarding the parts of the real bills doctrine that were fallacious, economists discarded the entire doctrine.

Real Bills and Financial Crises

When Timberlake blames the real bills doctrine for the Great Depression, he is of course referring to the traditional view of the real bills doctrine, and not to the backing view. Timberlake states the mainstream view that the Great Depression was caused by the Fed’s tight money policies, which in turn resulted from the Fed’s prohibition of loans made for “speculative” purposes. This view is consistent with the backing view that I have explained above. For example, the bank in table 1, instead of issuing \$600 in paper,

might decide to discourage speculative loans, and would therefore refuse to make the \$300 loan to the gambler in line (3). By itself, this action leaves the community with half as much money as it otherwise would have had. In this case the tight money conditions were a result of the bank refusing to make speculative or “unproductive” loans. But if the bank had followed the backing view, it would have made the \$300 loan, subject only to the condition that the gambler offered sufficient collateral. The extra \$300, being adequately backed, would not have been inflationary, but it would have alleviated the tight money condition. If we apply this argument to Timberlake’s explanation of the depression, we see that it was not the real bills doctrine per se that led to the Fed’s tight money policies, but the fallacious belief that the Fed should make only “productive” loans.

Timberlake also claims that the real bills doctrine can lead to inflation, as bankers who lend money find that “new loans and deposits exceed the market value of the goods and services that the borrowers can generate, and monetary inflation results” (Timberlake, (a) 2005, p. 206). In this passage, Timberlake assumes what he is trying to prove.¹ Only according to the *quantity theory* is inflation caused by new money exceeding the market value of the goods and services that the borrowers can generate. On the real bills view, money’s value is determined by the backing of the money, not by how much money is “chasing” a given amount of goods out in the market. Once the real bills doctrine is viewed as a recipe for maintaining the backing of money, it cannot be denied that bankers who only issue new money in exchange for adequate backing will always cause the supply of money to move exactly in step with the assets backing that money.

¹ This same erroneous criticism of the real bills doctrine pervades the work of real bills critics like Henry Thornton (1801) and Lloyd Mints (1945). I have answered those criticisms in another paper (Sproul, 1998).

If the real bills doctrine is not to blame for inflation, then how can we explain historical inflations? The answer is that inflation occurs when money-issuing institutions fail to take adequate backing for their money. For example, suppose that the bank's only loan was the \$200 lent to the farmer, but that the farmer's collateral was inadequate—perhaps worth only \$100 instead of the \$200 required. In this case, if we again let E represent the exchange value of the dollar (oz./\$), then setting assets (100 ounces + the IOU worth 100E oz./\$) equal to liabilities (\$300 worth E oz./\$ each) yields

$$100+100E=300E, \text{ or } E=0.5 \text{ oz./\$}$$

After this inflation has occurred, we can well imagine the banker following the example of the German central bankers of the 1920's and denying responsibility for inflation, on the grounds that he had dutifully limited his money-issue to a "productive" loan to the farmer. The banker would be forgetting that he had failed to follow the first rule of banking, and the first rule of the real bills doctrine: to take adequate collateral for money lent. Here again we see that the "productive loan" fallacy gives the real bills doctrine a black eye. Money's value is not maintained by restricting banks to "productive" loans, but by the banks taking assets of adequate value for every loan or other issue of money. Unfortunately, when bankers have issued money for productive purposes, but failed to take adequate assets in exchange, the resulting inflation has been seen as a reason to reject the real bills doctrine in its entirety, rather than rejecting the fallacious idea of "productive" loans.

A Note on the Gold Standard

Timberlake blames the real bills doctrine for causing both recession and inflation, but holds the gold standard essentially blameless. The gold standard certainly has its virtues, but one should be aware of its weaknesses, principally its vulnerability to bank runs. For example, suppose the banker in table 1 has issued \$600 in exchange for the assets shown, but now the farmer defaults on his loan. Suppose further that when the bank seizes the farm, it finds that the market value of the farm has fallen from \$200 to \$100. By the same calculations as above, the exchange value E of the dollar will fall to 0.5 oz./\$

In crises like this, bankers have a long history of trying to “defend” their money by maintaining convertibility at artificially high rates. So suppose that this banker, knowing that each of his paper dollars was originally a promise to pay 1 ounce of silver on demand, tries to keep his promise by maintaining convertibility of his dollars at 1 oz./\$. The bank’s customers, seeing that the dollar is only worth 0.5 oz./\$, will return dollars to the bank, demanding silver in return. After 50 dollars have been redeemed at this rate, the new exchange value of the dollar will be given by

$$50 + 400E = 550E, \text{ or } E = 0.33 \text{ oz./\$}$$

The community will now face two problems: inflation caused by the bank’s loss of assets, and tight money. The real value of the community’s money supply started at 600 oz. of silver, but the 550 paper dollars that remain in circulation are worth only 0.33 oz./\$, so the community’s real money supply has fallen to 183.3 oz. of silver. The proper

course for the bank to follow would have been to either devalue its dollars to 0.5 oz/\$ immediately after the farmer's default, or to suspend convertibility (i.e., abandon the gold (or rather, silver) standard) and let the market value of its dollars fall to 0.5 oz./\$ on its own. This would at least prevent a bank run and avoid further inflation. The real value of the community's money supply will still have fallen to 300 oz., but this tight money condition can easily be corrected if the bank issues another \$600 in exchange for assets worth 300 oz. of silver, thus returning the money supply to a real value of 600 oz. of silver.

Conclusion

I have discussed two views of the real bills doctrine: the *traditional view*, which holds that banks should issue money only in the discount of "productive" (i.e., real) bills, and the *backing view*, which holds that banks should issue money in exchange for assets of sufficient value, without regard to whether those assets are productive. Timberlake has attacked the traditional view, but he has wrongly rejected the entire doctrine, rather than confining his criticism to the fallacious idea of productive bills.

The backing view of the real bills doctrine holds that as long as banks issue money in exchange for sufficiently valuable assets, they may issue any amount of money without causing inflation. Conversely, when a bank refuses to issue money on these terms, it will cause tight money conditions in the economy, which will be recessionary. This is one area in which the backing view is partially consistent with Timberlake's contention that the real bills doctrine was responsible for the Great Depression. Timberlake and I agree that if the Fed refuses to issue enough money, it can cause a recession. We differ in that

Timberlake says that the Fed should never follow the real bills rule of issuing money for good security, since that rule can lead to an excessively tight money policy. My contention is that the Fed should follow the real bills rule, except that it should issue money in exchange for *any* assets of sufficient value, without limiting itself to assets based on real production. This rule would not lead to tight money conditions.

While Timberlake blames the real bills doctrine for economic crises, he exonerates the gold standard. This is a misguided view. The gold standard is particularly vulnerable to bank runs, and when these occur, blind adherence to the gold standard can lead to both recession and inflation.

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