

ON GENUINE DEREGULATION: REPLY TO SELGIN AND BOSSONE

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George Selgin and Biagio Bossone have taken much time and effort to analyze my proposal for banking deregulation (Thomas 2000). Selgin challenges many points in my proposal, but he shares my underlying belief in banking reform and the superiority of the private sector. We both favor eliminating deposit guarantees and removing restrictions on banks' ability to offer mutual fund accounts. Bossone wishes to see banking remain an oligopoly that is closely regulated by the government, but he too favors modest reforms. In this reply, I highlight the differences between myself and Selgin, correct some of his misconceptions, and explain my proposal in greater detail. I also take issue with Bossone but show how his reforms partly coincide with mine.

Private Clearing Systems Such as CHIPS Are Effective

Both Selgin and I believe that governments should not subsidize intraday (or any other) loans to financial intermediaries (FIs). We also agree that private sector payment systems can provide efficient service. Selgin, however, misinterprets me: I do not favor abolishing CHIPS or any other private sector payment system (see Thomas 1998). CHIPS provides inter-FI clearing but does not provide direct settlement with the central bank. Contrary to what Selgin suggests, CHIPS provides finality in real time on its wholesale payments. In CHIPS's own words:

The completion of settlement of any payment message in accordance with Rule 13 constitutes a final settlement of that payment message and a final discharge and payment of the Sending Partici-

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part's obligation to pay the amount of that payment message to the Receiving Participant [CHIPS 2001: Rule 2c].¹

But because CHIPS does not define the U.S. dollar, CHIPS' net balances close at the end of each day through Fedwire. Under my reforms, CHIPS would still continue to offer efficient wholesale services to FIs. At the end of the day, it would as it does now, close through Fedwire, but Fedwire itself would be reformed—along the lines of the Swiss or Hong Kong models—to eliminate intraday credit

Selgin points out that, in many RTGS systems, intraday lending occurs, a fact I alluded to but did not emphasize in my paper. CHIPS also effectively extends intraday credit to achieve finality but removes credit risk through a combination of collateral and a mutual sharing of the obligations of the failed bank by the remaining banks. CHIPS implemented this solution in 1990. For this reason, the CHIPS and other real-time clearing systems can provide clearing with effectively zero systemic risk.

I part company with Selgin in his discussion of unwinding. Selgin implies this is an acceptable part of wholesale banking. It is not. In the 1990s, the entire developed world moved to RTGS systems because the costs of “unwinding” are prohibitively high.² Selgin misleads the reader, and incidentally understates the efficiency of CHIPS, when he compares payment through CHIPS to the writing of a check. The former is an unconditional payment in real time. The latter is an unconditional (but not irrevocable) paper-based, batch-processed order to a bank to make payment, with payment subject to funds availability.

Not Everyone Would Want Access to the Clearing Accounts of the Central Bank

Both Selgin and I believe that final settlement in fiat currency regimes must occur across the books of a central bank. Both of us agree that restricted access to those accounts can confer economic advantage on those FIs that are granted access. Both of us agree that the central bank should open final settlement facilities to any legitimate FI (including clearinghouses). Selgin implies that I wish to increase the role of the central bank simply because I wish to increase

¹The classification of CHIPS as a real-time gross-settlement (RTGS) system is not strictly correct since the system achieves real-time finality, yet clears on a net basis at the end of the day through Fedwire.

²The 1974 Herstatt crisis and the 1985 Bank of New York incident support this contention (see Herring 1992 and BIS 1998).

access to the central bank. In fact, I wish to restrict the roles of the central bank (and other FI regulatory agencies). Central banks should not act as lenders of last resort, not operate check-clearing systems or expanded payments networks, and not compete unfairly with the private sector. My diagram (Thomas 2000: 241) shows that, contrary to what Selgin alleges, individuals and other retail depositors would prefer to make payments through FIs, rather than through a user-unfriendly central bank.

Changing Definitions of Money

I part company with Selgin over the definition of high-powered money. High-powered money is changing. Under the old definition, high-powered money consists of two parts: (1) notes and coins and (2) clearing balances with the central bank. Both are highly liquid obligations of the central government.

Today, in many jurisdictions (but not yet in the United States) bank regulators have abolished primary reserve requirements—that is, clearing deposits with the central bank. Non-interest-bearing primary reserve requirements function as a tax imposed on banks by the central bank, and serve little liquidity management role. Precautionary settlement balances, on the other hand, form a part of bank liquidity management. However, as RTGS systems have come into play, banks have become much more precise in targeting liquidity: essentially they need no net clearing balances beyond regulatory requirements. Within this environment, the operation of monetary policy is somewhat different from that of the classic definition. Central banks set net clearing balances to zero. The money supply (largely deposits of banks) is not a multiple of reserves with the central bank because the net level of those reserves is zero. Central banks directly target interest rates with an operating band functioning as a penalty bid-ask spread for clearing balances. The raising and lowering of interest rates exercises a dampening and stimulating effect on the demand for debt, which leads to the shrinkage or growth of the true but unobservable money supply.³

Using Selgin's argument that high-powered money can only be central bank clearing balances (plus notes and coins that, for the purposes of our discussion, can be ignored), one is forced to conclude that, in the new environments outlined above, there is no high-

³This system is currently in place in Canada (see Saunders and Thomas 2001: 169–74, and Howard 1998). Other countries with zero reserve requirements include Hong Kong and Great Britain.

powered money. A more reasonable conclusion is that liquidity, liquidity management, monetary policy, and the definitions of high-powered money and the money supply are evolving. Central bank clearing balances are more liquid than treasury securities, but both are highly liquid assets. Both are also obligations of the central government. If a treasury bill is registered in a depository account and can be repo-ed or sold for central bank clearing balances in real time, its liquidity is only minutes lower than that of clearing balances. This has suggested to central bankers that a new definition of high-powered money is appropriate. The definition of high-powered money to which Selgin takes exception is not mine—it comes from Joseph Yam, head of the Hong Kong Monetary Authority, Hong Kong's central bank (see Yam 1998).

I stated that, after implementing my proposal, central bankers would be “no less able to control the money supply than they are today” (Thomas 2000: 247). I was speaking somewhat loosely: I should have said “to set monetary policy,” not “to control the money supply.” Currently, the Fed formulates monetary policy in terms of a target for the federal funds rate, not the money supply. In the past, policy was formulated in terms of other indicators, including a specific definition of the broad money supply: M2. But M2 is a poor approximation for the true money supply. The Fed abandoned targeting the money supply because standard definitions do not provide useful benchmarks for the conduct of monetary policy.⁴

Selgin dismisses the new definition of high-powered money as an elementary error—akin to the error that first-year students make when they “include unspent credit-card lines of credit as a component of one or several monetary aggregates.” Let me analyze his analogy. The first-year student is wrong to consider the credit card line to be a part of the money supply. Money is liquid financial assets held by the nonfinancial sector. The money supply is made up of obligations of the financial sector. A credit card loan is not a financial asset of the credit card holder: a loan is the credit card holder's liability. Prior to it being extended, the (uncommitted) line of credit is neither an asset nor a liability (nor even an off-balance-sheet contingency). Now consider treasury securities and clearing balances. Assume that the FI holds two liquid assets, a 30-day treasury security and a clearing deposit with the central bank. This FI is holding two different *reserve assets*: a secondary reserve asset and a primary reserve asset respec-

⁴In 2000, the Humphrey-Hawkins legislation requiring the Fed to set money supply targets expired and was not renewed.

tively. The difference between the two is in liquidity (and minor interest rate risk). If the liquidity of the former increases, the difference between the two decreases. From the central government's point of view, both are irrevocable obligations. As I demonstrated above, liquidity of treasury securities in a RTGS environment has greatly increased. This is not a semantic quibble. This is modern monetary reality.

100 Percent Money and Mutual Fund Banking

Milton Friedman (1959: 66) advocated that banks be required to hold 100 percent (primary) reserves against deposits with those primary reserves bearing interest. If the U.S. Treasury and the Fed were a single entity (as analogous institutions are in some other countries), this part of my proposal would look like Friedman's 100-percent-reserves-with-interest proposal. I am guilty as charged by Selgin of being indebted to Friedman.⁵ This guilt, however, does not invalidate my proposal.

In my proposal, economic agents gain access to final settlement with the central bank through two different routes: Route 1 is direct, with (some) wholesale depositors maintaining accounts in the central bank; Route 2 is indirect, through Money Funds. Money Funds are mutual funds whose assets are limited to treasury securities.

Selgin seeks to show that my proposal is either not feasible or not original by considering two extreme cases. In the first case, he suggests that 100 percent of depositors would use Route 1. Because he has misunderstood the changing nature of high-powered money, he does not recognize that FIs today target zero net, nonstatutory clearing balances. He does not see that, in my proposal, they would continue to do so. He does not understand that treasury securities held by depositors would be sold (or repo-ed) to obtain clearing balances for payments. He therefore insists on using his own definition of high-powered money. Given his definition, he concludes that Route 1 would undesirably entail all depositors converting all of their deposits into clearing balances with the central bank. He calls Route 1 "100 Percent Money."

In fact, the assets of the Route 1 depositors are treasury securities available for sale or repo to the central bank. The depository, who holds the securities, is linked to the central bank so that the deposit

⁵Friedman (1959: 21) refers to funding war purchases with government debt as "the equivalent of running the printing presses." This reinforces the new definition of high-powered money. In Friedman's day, treasuries were not as liquid as they are now.

holder can obtain clearing balances in real time. When a depositor in Route 1 wishes to make a payment, he sells those securities to the central bank for clearing balances. The central bank then, following the depositor's instruction, debits the depositor (payor) account and credits the payee account in real time. The payee (the recipient of the funds) then uses the (non-interest-bearing) clearing balances to buy the (interest-bearing) treasury bills. So at the end of the cycle, the clearing balances revert to zero.

Route 2 is essentially mutual fund banking. Selgin comments, and I agree, that a badly run money market mutual fund can lose money—either through massive managerial incompetence or interest rate risk. Selgin says that my omission is a minor mistake. I add, by way of defense, that well-run money funds would have lower management expense ratios and would attract more business. Selgin says that Cowen and Krozner's (1990) mutual fund banking is superior to mine because their proposal allows the funds to invest in nontreasury securities. In my proposal, however, Money Funds assets have to be treasury securities because only those securities would be accepted for sale or repo by the central bank to obtain clearing balances. While one could devise a system where the central bank could accept nontreasury securities, this would unnecessarily expand the role of the central bank to providing credit to the private sector.

Selgin states that conventional bank deposits are capable of generating higher returns than money funds. Of course he is right. Credit risk should always command a premium and FIs typically book credit risk. In my proposal, retail investors will choose to allocate their fixed-income portfolios between lower yielding Money Funds and higher yielding but risky FI debt and non-Money Fund fixed-income mutual funds. Wholesale investors retain the choices they face today.

Why Not Just End the Subsidies?

Selgin and I agree that government subsidies to the banks should be ended. He asks, "So why not just end the subsidies by abolishing the guarantees, that is by doing away with the FDIC and by shutting down the Fed's discount window?" He gives the example of Hong Kong as a jurisdiction that has achieved this blissful state. If it only were so simple.

In truth Hong Kong is now designing its soon-to-be-implemented deposit insurance system (see Hong Kong Monetary Authority 2000). Hong Kongers widely believe that the Hong Kong government will come to the rescue of failing banks if those banks are domestic and sufficiently large. That belief has been corroborated by the rescues, orchestrated by the Hong Kong government in the mid-1980s, of

Hang Lung Bank, Overseas Trust Bank, the Hong Kong Industrial and Commercial Bank, and Kah Wah Bank (Beecham 1996: 9). The probability and conditions of bailouts were uncertain prior to their occurrence. This uncertainty adversely affects the Hong Kong financial environment. If the government specifically lays out the extent of deposit insurance, proponents of deposit insurance argue, the government will limit its unstated but very real implied liability.

Selgin says I condemn bank deposits because they are risky. I do not. I condemn bank deposits because (1) society perceives bank deposits to be riskless and (2) there is no truly riskless, convenient, alternative to bank deposits. In my proposal FIs can issue and the public can purchase debt of any maturity and pay-out structure. I vehemently oppose FIs calling such debt “money.” People think that money is riskless ultimate liquidity. FI debt securities should be recognized as risky. Ending subsidies without providing a riskless alternative to deposits would *not* end implicit deposit insurance. Governments would remain bound to bail out banks if their failure threatened society’s money.

The Cost of the Reform

Both Selgin and I recognize that reform is not costless. Particularly, in the context of leaning to implement monetary policy under my proposal, these costs must be analyzed and compared to the benefits of the reform. Selgin misunderstands my proposal, however, when he says it involves “massive legal restrictions to FIs” and blocks “FI funding avenues.” Under my proposal, FIs would be able to fund themselves as before, and nonbank FIs would enjoy increased funding alternatives. I propose only two restrictions: (1) FIs should be precluded from using any account but a Money Fund account for receipt and remittance of payment for *retail customers*, and (2) FIs should be prevented from calling their short-term debt securities “deposits” and their FIs “banks.” Operationally, restriction (1) is easy for an FI to implement using standing instructions of Money Fund purchases and sales. Some readers may say that restriction (2) is nothing more than semantics. But words have meanings. The public must be educated to distinguish between risky investments and riskless liquidity. These restrictions educate the public.

The Special Role of Banks in Creating Money by Lending

While Selgin says that my reforms do not go far enough, Bossone says I go too far. He alleges that

- I neglect the fact that banks make loans, yet banks are the only institutions that can create money by simultaneously taking deposits and lending.
- My reforms would remove the money-creating ability of deregulated banks.
- Problems with RTGS systems would force central banks to make uncollateralized loans to banks in order to restore their credit- and money-creating powers.

He concludes by advocating Frederic Mishkin's (1999) collateralized deposit insurance program.

One of Bossone's misconceptions concerns how banks create money. He says:

By lending a bank essentially issues a new liquid liability which it commits to honor from the moment the borrower draws on her loan account to make payments. The new liability adds to the existing deposit liabilities.

Bossone implies that *undrawn* lines of credit create new liquid liabilities (that can be drawn by the borrower) and that these increase the money supply. This is not true. An undrawn line of credit is not a liability of a bank any more than is a credit card line. Economists do not generally regard commitments to lend (and the implied "deposits" that the approved potential borrower has access to draw) as part of the money supply. When the line of credit is drawn, it becomes an asset of the bank. The new asset is funded by a new liability (or by selling an existing asset). The drawing of the loan does not create the deposit that funds it. The money supply is expanded through the multiplier effect when the drawn loan is redeposited in other banks. Whether the lender is a bank or a nonbank FI, there can be redepositing (or reinvesting) of the drawn loan's proceeds into bank or other FI liabilities. As long as those new liabilities are considered liquid, money is created.

Bossone says that when banks provide credit they increase the money supply, but when nonbank FIs provide credit they simply transfer existing money. He comes to this conclusion tautologically because he defines the claims on banks as part of the money supply and the claims on nonbanks as outside the money supply. But the theoretical money supply is just the sum of liquid claims held by the non-FI sector of the economy, regardless of the legal status of the issuer of those claims.

RTGS Systems, Capital, and Central Bank Credit

In Bossone's words, under an RTGS system:

Banks must either preaccumulate more *capital* [emphasis added] (for any given volume of deposits to be mobilized) than they would have to under non-RTGS rules, or they would have to curtail their overall lending.

If he truly means “capital” then his statement is incorrect. “Capital” in banking refers to equity capital. There is no direct link between equity levels of participating institutions and the ability to function in a RTGS system unless the authority controlling the RTGS system applies such a restriction. If, as I suspect, he means not “capital” but “bank funds in clearing accounts with the central bank,” then he still misses the mark. Deposits are liquid liabilities that fund illiquid loans. A deposit does not need to be “mobilized” unless it is withdrawn. At that point, regardless of the payments system's structure, the bank must obtain sufficient liquid assets to make payment. Because withdrawals are not fully predictable, banks maintain reserves of liquid assets. Modern banks have less need of primary reserves—i.e., deposits with the central bank and vault cash—than in the past because they can predict withdrawals more accurately and because their secondary and tertiary reserves—particularly treasury securities—are highly liquid. RTGS and the linking of securities depositories with the clearing system have greatly facilitated that increase in liquidity. Moreover, central banks in many jurisdictions now target net zero clearing balances. Bossone implies that central banks using RTGS need to lend on an uncollateralized basis to allow payments to be made. The reverse is true. Recent RTGS systems have been set up precisely to restrict the exposure of central banks to participants in the payments system at the same time as they reduce systemic risk. Fedwire should be reformed to eliminate intraday, uncollateralized credit.

The Mishkin Proposal

Bossone and I share common ground in our endorsement of Mishkin's proposal to implement collateralized deposit insurance. Mishkin (1999: 689) states:

Narrow bank (or collateralized) deposit insurance is insurance which would apply to accounts which are very similar to money market mutual fund accounts: assets backing these accounts would be restricted to be ones of very high quality whose value is very transparent because they would be marked to market frequently.

One method for implementing collateralized deposit insurance is through special-purpose vehicles (legally distinct from the broad bank) in a structure similar to the Money Funds that I propose. Both Mishkin's reform and mine differ from narrow banking that restricts the bank from making conventional loans. Mishkin's banks that hold uninsured deposits and make conventional loans would be able to issue collateralized deposits. My FIs (no longer called banks) that issue uninsured short-term debt (no longer called deposits) also manage retail money funds. Both reforms allow banks (FIs) to continue to take advantage of economies of scope between lending and funding. And both reforms eliminate the subsidy of deposit insurance and target retail banking. Funding and lending of wholesale financial intermediation would largely be unaffected. But Mishkin says, and I concur, that it is impossible to get rid of implicit deposit insurance simply by using a collateralized deposit insurance (or Money Funds) program. Mishkin, endorsed by Bossone, advocates increased vigilance of supervision and "constructive ambiguity" concerning bailing out uninsured depositors. I disagree.

Technology can reduce systemic risk in the payments system at the same time as increasing access to it. By implementing these two reforms at the same time as collateralized deposit insurance/Money Funds, regulators can credibly repudiate implied deposit insurance. Such reforms, however, must be *unambiguously* embraced. Just because we have lived through a generation of increasing bank supervision where regulators took the lead prescribing risk management and underwriting the resultant financial structure does not mean that we have to follow that trend in the future.

Conclusion

In summary, I thank both Selgin and Bossone for considering my proposal. I agree with them that my proposal will *not* be implemented in its current form, but I do believe that it contains the seeds of genuine deregulation and that such deregulation is important.

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