Helicopter Bonds[1]

In *Helicopter Money without Helicopters and without a Central Bank* and *Helicopter Drops without Money* I demonstrated how governments could effectively carry out an operation financially equivalent to "helicopter money" without relying on a permanent increase in central bank money.

If the same policy efficacy as helicopter money may be achieved without constraining central bank independence, then an important reason for not employing helicopter drops is removed. On the other hand, the analysis demonstrates the important role fiscal authorities play in such policies.

In this note I demonstrate another way in which helicopter drops (which I have called elsewhere "wealth re-allocation programs" or WRAP) are possible without an increase in bank reserves. This method, using bonds to finance the fiscal expansion, is the most conventional and, indeed, is the most straightforward way to demonstrate that money creation is not a necessary condition to finance highly expansionary fiscal expansions. I have purposefully avoided discussing it until this point for two reasons.

The first is that it is likely to be the one method that—being the most conventional—would be rejected out of hand by most readers. Indeed, is not the entire point of helicopter drops that the policy be financed by money and not bonds? Well, no, the entire point of helicopter drops is that they are not, never, financed by *taxes nor reductions in future spending*.

The second is that many persons believe (erroneously) that during the three decades or so preceding the Great Recession central banks determined the amount of base money held in the economy. Furthermore they believe (erroneously) that central banks imposed their (non-existent) target for base money through buying and selling bonds. Consequently, they believe that exchanges of bonds for bank reserves have a special power over the economy—that the monetary base is indeed a magically special ingredient in the financial system. Nothing is further from the truth[2].

That modern financial systems get by with trivial amounts of bank reserves and that their existence warranted barely a footnote in bank financial reports before the crisis is a leap for many persons…and the fact that total US bank reserves were lower in nominal terms in 2008, ($13.4 billion at midyear) than they were in 1951 ($20.1 billion)—a fact I have repeated all over the world—seems not to have changed many minds. In other words, the US economy, total US credit market debt outstanding, and total US public debt outstanding rose 4,113 percent, 11,743 percent and 3,828 percent, respectively, while bank reserves *fell* 33 percent[3].

Bank reserves are as essential in modern financial systems as vacuum tubes are in modern electronics.

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[1] This is the third of three companion notes to: *What is Helicopter Money?* elsewhere on this blog.

[2] I discuss this in *Printed Money* http://**bit.ly**/1sh9gMm. Bonds are nothing more than promises to pay monetary base in the future. Since bonds fluctuate in base money value, the latter is more useful as a unit of account but as a store of wealth bonds are superior since there are neither institutional nor legal constraints to trade them among all economic agents. Bank reserves may be traded only among those entitled to hold central bank accounts, severely restricting their fungibility. The rough equivalence of money and bonds has been shown at least as far back as Wallace (1981), *A Modigliani-Miller theorem for open market operations*. American Economic Review 71.

[3] Sources: Annual Report of the Federal Reserve 1951; US Treasury website; and the US Flow of Funds Accounts, FRB H.4.1 (for data on credit market debt outstanding and the end June 2008 figure on reserve balances).

Let us now consider how helicopter drops, or WRAP, could be financed with bonds. One method would involve just a small tweak in Friedman's original allegory. Rather than drop banknotes out of the helicopter, drop treasury bills[4].

If we consider the consolidated sovereign balance sheet shown below, the helicopter drop or WRAP consists of an increase in future spending, X, and a decline in sovereign equity, E. How the realized spending is financed—money or bonds—comes down to simply whether R or S increases.

Simplified Consolidated Sovereign Balance Sheet

Assets		Liabilities	
Foreign Assets (including Reserves)	F	Treasury Securities Outstanding	S
Treasury deposits in banks	D	Other Treasury Borrowing	B
Central Bank Lending to Banks	L	Central Bank Notes	M
Government Lending	G	Bank Reserves	R
Equity in state-owned enterprises	S	PDV Future Expenditure	X
Physical Assets & Real Estate	P	Total Liabilities	TL≡S+B+M+R+X
PDV Future Revenue	T		
		Equity	E ≡ A - TL
Total Assets	A	Total Liabilities and Equity	TL + E

In the case of a "money" drop, R must increase by the full amount of the drop, say 100. Since only banks may hold R, this means that the asset side of the balance sheet of the consolidated banking system must rise by 100 (presuming there is no offsetting decline in bank lending). Since bank balance sheets must balance, the liability side of the consolidated banking system balance sheet must also rise by 100. The economics of this is easy to understand…households (HH) "pick up" banknotes in the street and deposit them in banks so HH bank deposits rise. HH wealth has increased by 100, bank liabilities and assets both rise by 100. If the increase in R is fixed "forever" this amounts essentially to the central bank forcing banks to finance the operation by keeping additional deposits equal to 100 at the central bank, deposits which in turn must be financed by banks borrowing from HH. On the sovereign balance sheet, R increases and E decreases.

[4] Of course I am not literally proposing dropping paper bonds out of helicopters. A practical WRAP would initially involve the issuance of bank reserves quickly absorbed by the issuance of treasury securities.

In the case of a “bond” drop, S must increase by the full amount of the drop, 100. Since HH and other nonbanks may hold S, there is no reason that banks would finance the sovereign for the entire amount of the operation. In other words, the financial market would determine the distribution of the additional amount of S among HH, nonbanks and banks. There is absolutely no reason to assume a “corner solution”, i.e. that all the additional bonds would wind up on bank balance sheets.

How the WRAP is financed in the initial stage has no impact on the wealth transfer—E falls in both scenarios by equivalent amounts. But in the case of the “bond drop”, a mix of securities of different duration may be issued—not just overnight demand deposits (reserves). More importantly, in the securities-financed WRAP, the banking system is not compelled to “purchase” the entire amount of the sovereign liabilities issued. Nor is the distribution of the initial liabilities fixed for eternity. If fungible securities are issued, their allocation among economic actors may be efficiently determined and those agents would be free to redistribute them among themselves in real time. Furthermore, the sovereign, as the debt comes due, would be able to readjust the duration of the debt outstanding or monetize it. In neither case is the sovereign compelled to raise taxes to reduce liabilities in the future.

In a global financial system where banks are awash in trillions of dollars, euros and yen of excess reserves while nonbanks seek “safe assets” and sovereign bond markets are increasingly illiquid, it is fairly easy to see that it is more efficient to finance increased fiscal spending with bonds rather than bank reserves. This is true whether or not reserves earn positive, zero, or negative nominal interest[5].

The key difference between those who insist that WRAP be financed with permanent increases in bank reserves and the argument presented in this note lies in our differing views on how the type of instrument used to finance WRAP influences or does not influence future tax policy.

Helicopter *money* advocates view financing with permanent increases in bank reserves as signaling the sovereign will never increase taxes to cover the cost of the WRAP while financing with securities signals the sovereign will eventually raise taxes to cover the cost of the WRAP—and accumulated interest.

My view is the opposite. The sovereign balance sheet is more efficiently financed with a diverse range of securities than by bank reserves only. In a world awash in excess reserves a permanent increase in government securities outstanding is more credible than a permanent increase in bank reserves.

The historical evidence during the 20th and 21st centuries is overwhelmingly on my side. As noted earlier, between 1951 and 2008, US bank reserves fell in nominal terms by 33 percent while US public debt outstanding rose by 4,113 percent. In the face of those numbers, and technological innovations that are driving the demand for monetary base toward zero, how can a permanent increase in bank reserves be more credible than a permanent increase in sovereign debt?

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[5] See Exiting Well, elsewhere on this blog, for the full argument.