Helicopter Drops without Money[1]

In another post, *Helicopter Money without Helicopters and without a Central Bank* I demonstrated how governments alone may, and have, employed “helicopter money”. Thus cooperation with a central bank is not, in general, necessary for helicopter money to be employed in practice. In that post the money necessary for helicopter money was produced by the Treasury, not the central bank.

In this note I will show how the same end result obtained with helicopter money may, and has been, achieved without a lasting increase in the monetary base. Thus the title *Helicopter Drops without Money*. In this note, a permanent fiscal expansion is financed not by the issuance of additional financial liabilities (such as base money or debt) but by a reduction in government assets.

If we can obtain the impact of helicopter money without the money, then we can do so without infringing the independence of the central bank. If true, this is important.

In December 1993 I was passing through Istanbul on the way back from Central Asia. One morning I happened to be walking by the park that sits between Hagia Sophia and the Sultan Ahmet Mosque. Suddenly a helicopter appeared against the grey-blue sky and hovered over the park. I noticed objects start to fall from the helicopter—they were too small to be persons. As they reached the ground and assorted individuals began running over to collect them I realized they were pants—designer blue denim jeans. Several pairs fell into a tree at one corner of the park and a number of intrepid and athletic young men began to scramble up the branches to collect them. Now, in a 30+ year career at the IMF and as an independent consultant I have visited a lot of central banks. And as head of the IMF Central Banking Division we were responsible for quality control for the IMF’s advice on central bank operations for about 150 countries—but I never saw helicopter money, nor can I recall any central banker ever talking about helicopter money in a literal sense. But I have seen “helicopter jeans”. And it did have a real impact on the economy—albeit on a small scale. In fact, judging from the next day’s papers, the municipality was quite unhappy with the damage to the trees in the park caused and was contemplating seeking damages from the advertising agency that thought up the scheme.

In what follows I will discuss how governments and central banks may, and have, financed increases in expenditures with permanent reductions in sovereign assets. Once the transactions have been traced through the balance sheet, it will be evident that I am talking about nothing different in substance than “helicopter jeans”. The sovereign draws down its “treasure”, which is owned in a complex collective intergenerational sense, and provides it to currently living individual households in a very real private sense. Although this does not change the sum of national wealth at the moment of the transfer, it clearly transfers the power to dispose of a portion of that wealth to the individual from the collective. I denote these transfers of wealth “wealth re-allocation programs” or WRAP. That a WRAP would have real economic consequences is not difficult to imagine.

In order to carefully consider the analytics of helicopter drops (HD) or WRAP it is necessary to familiarize ourselves with the structure of the consolidated sovereign balance sheet—provided below:

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

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

Usually, the components of the balance sheet "owned" by the central bank are the foreign assets consisting primarily of foreign reserves, F; loans to banks, L; and part of the physical assets, P. Typical liabilities of central banks are banknotes outstanding, M; and bank reserves, R. In a world without central banks, the treasury would hold foreign reserves, central bank lending to banks would be subsumed under government lending, G; M would be restated as "Treasury notes" and bank reserves would not be liabilities of the sovereign (or would be depository liabilities of the treasury[2]).

A helicopter drop financed with monetary base impacts the consolidated balance sheet in the following way. The government announces the forthcoming expenditure to be financed with a permanent increase in bank reserves. At that moment, X, the present discounted value of future expenditure rises (say by 100) and E, equity, falls by an equivalent amount. Note that E must be the adjusting variable as, by announcing a permanent increase in R in the future, the government is implicitly saying that no other

[2] Cochrane (2014) *US Debt in the 21st Century*, imagines a situation where the Fed does not have a balance sheet and all transactions accounts are held at the US Treasury. The policy role of the Fed in that world is to set the overnight interest rate on those transactions accounts.

variable will adjust to compensate for the increase in X. For example, future taxes, T, will not be raised nor will any of the government's assets be sold nor will future expenditure be adjusted downward nor other non-monetary liabilities increased. Once the transaction is executed, X returns to its previous level (falls by 100)[3], and R increases by the equivalent amount (100). The net result of the transaction on the consolidated balance sheet is an increase in R and a corresponding decline in E.

As noted above, real economic consequences ought to arise from the transfer of wealth held in the rather nebulous collective form, E, to currently living individual households. Ricardian equivalence, from this angle, would be a bit difficult to imagine—as the government would have explicitly stated it will never raise taxes nor cut expenditures nor dispose of assets beyond the previously established path.

Nevertheless, the decline in E does imply that the value of the assets held by government, relative to its increased liabilities, has fallen. Therefore, were the government to cease to exist as an ongoing entity, that is, be liquidated, the residual value due shareholder/citizens after meeting all liabilities would be less than in the case where helicopter money were not employed[4].

Consequently, households, anticipating a reduction in the real value of their financial claims on government would attempt to spend those claims now, before they fall in value. Since prices are set in units of bank reserves (the monetary base), this is just another way of saying that households will try to spend their financial claims on government before prices of goods, services and real assets rise.

Before the demonstration that the same effect can be achieved without money, I would like to address two potential objections to the analysis—and they are in fact related. The first would be that the notion of sovereign equity in a liquidation scenario is nonsense and the second is that the consolidation of the central bank and treasury is artificial. Lurking behind these objections is the notion that the monetary base, bank reserves and banknotes, since they will not be exchanged by the sovereign (in a floating exchange rate world) for anything "real", are assets in the hands of households and banks but not really sovereign liabilities. In this view the "beef" in helicopter money is really in the money.

Without going into too much detail about the economic argument justifying consolidation—which centers on the fact that virtually all governments accept, and accept only, taxes paid in their own monetary base (no goats, no sheep, no gold coins)—let us contemplate the statements of the US Treasury and former Federal Reserve Chairman Alan Greenspan on this matter.

"Federal Reserve Banks obtain the notes from our Bureau of Engraving and Printing (BEP). It pays the BEP for the cost of producing the notes, which then become liabilities of the Federal Reserve Banks, and *obligations of the United States Government*. "Congress has specified that Federal Reserve Banks must hold collateral equal in value to the Federal Reserve notes that the Bank receives. This collateral is chiefly gold certificates [US Treasury obligations] and United States securities. This provides backing for the note issue. The idea was that if the Congress dissolved the Federal Reserve System, the United States would take over the notes (liabilities)…the government would also take over the assets, which

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[3] X comprises "future" expenditures, once the transaction occurs it falls into the past and out of X.
[4] Here I am neglecting any real impact of the wealth transfer on future income and wealth.

would be of equal value. Federal Reserve notes represent a first lien on all the assets of the Federal Reserve Banks, and on the collateral specifically held against them." (www.treasury.gov.faqs.currency). (Emphasis added).

"Central banks can issue currency, a non-interest-bearing *claim on the government*, effectively without limit. They can discount loans and other assets of banks or other private depository institutions, thereby converting potentially illiquid private assets into riskless *claims on the government* in the form of deposits at the central bank….That all of these *claims on government* are readily accepted reflects the fact that a *government* cannot become insolvent with respect to obligations in its own currency. A fiat money system, like the ones we have today, can produce such claims without limit. To be sure, if a central bank produces too many, inflation will inexorably rise as will interest rates, and economic activity will inevitably be constrained by the misallocation of resources induced by inflation."[5] (Emphasis added).

So it would seem that both the US Treasury and a former Federal Reserve Chairman view the monetary base as a liability of the United States government.

Returning now to the consolidated balance sheet. Probably the most frequent and macroeconomically consequential employment of "helicopter drops without money" in the 20th and 21st centuries has involved central bank provision of finance to insolvent financial institutions combined with foreign exchange intervention. Chile (1980s) and Indonesia (1990s) are prominent illustrations but they are just two of dozens of examples. Here is how this becomes manifest on the sovereign balance sheet.

The central bank or government announces a financial system rescue plan in the midst of a fiscal and banking crisis. X increases as before, say by 100, and E falls by 100. The central bank executes the operation by crediting banks with loans (against collateral that for simplicity's sake we will assume has value zero). It funds those loans with creation of bank reserves. Therefore, L and R rise by 100, X falls by 100 and E rises by 100. E at this moment is unchanged compared with the starting point as the sovereign has acquired an asset, L, of notional value equivalent to the increase in R. It is not yet "helicopter money". Over time it becomes clear that the financial institutions are insolvent and the collateral worthless so let us cut to the chase and write down L to zero. Then we are at the helicopter money stage…L falls by 100 and E falls by 100. At the same time, banks and households exchange the newly acquired monetary base for foreign exchange at the central bank. This reduces R and F by equivalent amounts. In substance, a transfer of wealth has taken place from the consolidated sovereign—foreign assets have been reduced under the control and disposition of the central bank/treasury and placed in the hands of banks. Accompanying this, in actual practice, is invariably a decline in the value of the domestic currency compared not only with foreign currency but domestic goods, services and real estate. Not only has there been no increase in the money base permanently, but in almost every case following a banking and foreign exchange crisis, the real monetary base falls—sometimes for decades below its previous level. (Note the decline in sovereign equity might be offset by an increase in the value of its remaining foreign assets, physical assets, and a decline in the real value of future expenditure).

[5] Central Banking and Global Finance", Remarks by Chairman Alan Greenspan at the Catholic University of Leuven, Leuven, Belgium, January 14, 1997.

Another WRAP might be colloquially termed a "lightning bolt out of the blue". Many countries have state owned enterprises that monopolize the provision of strategic commodities. The value of such enterprises is shown on the consolidated balance sheet as "S". Suppose the state owns an electricity monopoly and directed it to provide free electricity to all consumers for three consecutive months. This would take the budgetary form of a "transfer in kind", in this case electricity, and shown as an increase in X, again compensated with a decrease in E. As the electricity is given away—and presuming the government states that it will neither raise revenue nor issue debt to compensate the company, nor allow the company to make up for the losses with future tariff increases, S, the value of the state's shares in the company declines as X declines. Upon the completion of the operation, the value of the state's equity interest in the company will decline by an amount that is matched by a decline in the sovereign's overall equity. Once again there has been a transfer of wealth to current living households, here in the form of electricity, matched by a reduction in the value of their imputed share of collective claims on the net worth of the state—in particular on the electricity company (which might one day be sold). As in the previous case there has been no change in the monetary base. The public has simply caught "free" lightning in a bottle.

The last example is perhaps the most simple. The US Mint holds approximately 245 million ounces of gold in deep storage and another 13 million ounces of gold is held on behalf of the Treasury at the Federal Reserve Bank of New York.[6] There are approximately 125 million households in the United States. Suppose that Congress mandated that the Treasury fabricate out of its gold holdings 125 million two ounce gold bars and distribute them, one to each household. Let us presume that Congress does not establish that these bars are "legal tender" nor mandates that the Treasury affix any dollar value to them. How would this be reflected in the balance sheet?

We proceed with the by now customary increase in X and decrease in E. Once the bars are minted and distributed, X falls and P, the sovereign's holdings of physical assets (or if you prefer its holdings of foreign reserves, F) fall. We are once again left with a transfer of wealth, to current living households from the depths of the dirt under Ft Knox. No change in base money occurs.

My point with this note is to explain that the underlying economics of "helicopter drops" involves a transfer of wealth from a rather nebulous intertemporal collective claim on the sovereign into the hands of living individual households. This wealth transfer, which certainly would seem to have the possibility to engender real and/or nominal consequences, need not occasion a permanent increase in base money. Indeed, as I argue in a separate note (*Helicopter Bonds*), in a world with an astonishing surfeit of various base monies, mediating the wealth transfer through a permanent further increase in base money is inferior to mediation through additional government debt issuance[7].

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[6]Source: US Treasury Bureau of the Fiscal Service (as of June 30 2016).
[7] Not to mention that most advanced country sovereign debt is currently trading at negative nominal yields and would be less expensive to issue than banknotes yielding zero nominal and subject to physical printing costs.