conseil d'analyse économique

Focus

N° 062bis-2021
June 2021

Helicopter Money in the Central Bank's Balance Sheet

Éric Monnet[1]

In order to visualise the impact of different helicopter money scenarios on the central bank's balance sheet, we start by a stylised and highly simplified balance sheet to which we assign arbitrary values.[2]

Table 1. Initial balance sheet of the central bank

ASSETS	200	LIABILITIES	200
Domestic assets	100	Cash in circulation	80
Loans to banks	80	Bank deposits	100
International assets (foreign exchange reserves)	20	Capital	20

Note: Domestic assets include all securities held for monetary policy purposes.

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The author would like to thank Thomas Renault and Miklos Vari for their comments but remains solely responsible for the content.

(1) EHESS and Paris School of Economics (PSE).

(2) In line with the Note by Martin P., É. Monnet and X. Ragot (2021): "What Else Can the European Central Bank Do?", *Note du CAE*, no. 65, June, we discuss the version of helicopter money in the form of transfers to households. For an analysis of the Central Bank's balance sheet in the case of a direct transfer to government, see Cecchetti S. and K. Schoenholtz (2016): "A Primer on Helicopter Money", *VoxEu.org*, 19 August and Cumming F. (2015): "Helicopter Money: Setting the Tale Straight", *Bankunderground*, 5 August.

1. Case of helicopter money (10 units) in the form of a transfer from the central bank to individuals' bank accounts (i.e. cheque)

In the case of a direct transfer to bank accounts, the new money created is a debt (liability) of the central bank to commercial banks. Helicopter money therefore takes the form of an increase in bank deposits on the liabilities side of the central bank. On the assets side, two options are possible.

1.1. Option 1

On the asset side, the central bank creates a **perpetual asset** item (equivalent to the perpetual zero-interest debt of an abstract entity). The central bank's balance sheet therefore increases by the amount of the helicopter money created.

Table 2. Central Bank Balance sheet with a perpetual asset

ASSETS	**210**	**LIABILITIES**	**210**
Domestic assets	100	Cash in circulation	80
Loans to banks	80	Bank deposits	**110**
Helicopter money perpetual asset	**10**		
International assets (foreign exchange reserves)	20	Capital	20

1.2. Option 2

The helicopter money is financed by the capital of the central bank. Total assets and liabilities are therefore unchanged but the central bank suffers a capital loss. If the amount of helicopter money needed exceeds the amount of capital, the bank must be recapitalised by governments, or operate with negative capital (which central banks generally refuse to do because of the bad effect on their reputation).(3)

Table 3. Central Bank balance sheet with capital losses

ASSETS	**200**	**LIABILITIES**	**200**
Domestic assets	100	Cash in circulation	80
Loans to banks	80	Bank deposits	**110**
International assets (foreign exchange reserves)	20	Capital	**10**

2. Case of helicopter money (10 units) in the form of cash, money coupons or prepaid cards

There are the same options 1 and 2 as above, depending on whether the central bank decides to take losses or to record a perpetual asset on its balance sheet. We reproduce only **option 1**.

The effect of helicopter money on the central bank's balance sheet is twofold.

(3) Dziobek C.H. and J.W. Dalton (2005): "Central Bank Losses and Experiences in Selected Countries", *International Monetary Fund*, no. 2005/072.

2.1. 1st stage: At the issuance

At the issuance date, the central bank's debt is to individuals and not to banks, as in the case of (bearer) notes.

Table 4. Central Bank balance sheet with a perpetual asset (at issuance)

ASSETS	210	LIABILITIES	210
Domestic assets	100	Cash in circulation + prepaid cards	**90**
Loans to banks	80	Bank deposits	100
Helicopter money perpetual asset	**10**		
International assets (foreign exchange reserves)	20	Capital	20

2.2. 2nd stage: after use

When individuals use their prepaid card or a banknote to buy a good, a commercial bank account is credited with the same amount. The central bank therefore owes the amount issued to a bank (NB: the case would be different if individuals had accounts at the central bank, that is if a *central bank digital currency* exists). The balance sheet is therefore ultimately identical to the case of helicopter money by bank cheque.

Table 5. Central Bank balance sheet with perpetual assets (after use)

ASSETS	210	LIABILITIES	210
Domestic assets	100	Cash in circulation	80
Loans to banks	80	Bank deposits	**110**
Helicopter money perpetual asset	**10**		
International assets (foreign exchange reserves)	20	Capital	20

3. Other important issues

3.1. What happens if the full amount of the cheques or prepaid cards is not used before the expiry date?

In this case, once the deadline has passed, the central bank no longer owes this unspent amount to anyone. It can therefore disappear from its balance sheet. If, for example, half of the 10 units of the helicopter money (= 5) is not used, then the central bank's balance sheet in option 1 has eventually increased by 5 units, not 10. The value of the perpetual asset is therefore ultimately 5.

3.2. Will helicopter money be costly for the central bank and the state?

It is if **option 2** (loss of capital) is chosen. It is not in the short term if **option 1** (perpetual asset at zero interest) is chosen. However, if the central bank raises the rate of interest on reserves (i.e. on bank deposits at the central bank), helicopter money leads to higher costs for the central bank and therefore lower profits for the government. Indeed, in this case, the increase in the interest rate on reserves cannot be compensated by an increase in the remuneration of the "perpetual asset" which does not bear interest. However, this type of cost should be low for several reasons:

- According to our estimates(4) the increase in bank reserves caused by helicopter money should remain a small part of the balance sheet, i.e. around 4% for a helicopter money injection of 2% of GDP;

(4) See Martin, Monnet and Ragot (2021) *op. cit.*

- The increase in the rate on reserves seems unlikely in the short term given the interest rate and inflation expectations;
- Before the ECB is in a position to raise interest rates, banknote issuance will have increased to keep pace with economic activity and will have decreased reserves by the same amount;
- to calculate the total cost for the state, the cost of interest rates payments on reserves have to be compared to benefits from the tax revenue derived directly (the transfer is subject to tax) and indirectly (increased activity and inflation) from the helicopter money.

3.3. Is helicopter money in the form of transfers to households by the central bank equivalent to a cancellation of public debt held by the central bank?

From a strict accounting point of view, this is the case if the public debt has financed transfers to households, as in the response to the pandemic (the state compensated the losses of businesses and workers), or if the state sends a cheque to the households (Biden Plan) and borrows from the central bank for this. Individuals deposit the money received (directly or indirectly) by the state in commercial banks. Commercial banks buy public debt and sell it to the central bank. This circuit results in an increase in bank reserves at the central bank, financing the increase in public debt. For 10 units of public debt, the balance sheet of the central bank is as follows.

Table 6. Helicopter money in the form of public debt purchases

ASSETS	**210**	**LIABILITIES**	**210**
Domestic assets	**110**	Cash in circulation	80
Loans to banks	80	Bank deposits	**110**
International assets (foreign exchange reserves)	20	Capital	20

If the central bank decides to cancel these 10 units of public debt (that are part of domestic assets), then it can choose between option 1 (the public debt is replaced by a perpetual asset) or option 2 (the cancellation is financed by the capital of the central bank) of the helicopter money described above (see Tables 2&3).

From the point of view of the central bank's balance sheet, making a direct transfer to households financed by money creation is equivalent to buying public debt that finances a transfer to households and then cancelling this debt.

However, the fact that these two options are equivalent on the central bank's balance sheet does not mean that they are equivalent in political and economic terms. First, they obviously have different consequences for public debt accounting. Secondly, as public debt cancellation is a direct transfer to the state, it is prohibited by the European Treaties, unlike helicopter money which is a direct transfer to households that is not prohibited. Thirdly, the cancellation of public debt purchased by the central bank to finance a specific program (e.g. cheques, like in the Biden plan) could lead to a demand for the cancellation of all public debt held by the central bank. The amounts involved would then be considerably different and have large implications for future monetary policy implementation. In the case of cancellation of all public debt held by the central bank and a rise in interest rates on reserves, creating a perpetual asset with a zero interest rate would result in a much more significant loss for the central bank and therefore for the government. It is therefore unlikely that the capital of the central bank would not decrease in this case. Finally, from a symbolic and political point of view, the cancellation of public debt or the creation of a perpetual asset in exchange for helicopter money are different. The first option amounts to assuming a total integration of monetary and fiscal policy. The second option maintains a distinction between the two by stating that helicopter money is a pure monetary policy tool (aimed at achieving the objectives of the central bank). This distinction allows the central bank to be more credible in renewing or terminating the operation when necessary.