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### *The Case Against Helicopter Money*

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Argumenty przeciw „pieniądom z helikoptera”

**Keywords:** quantitative and qualitative easing; helicopter money; Bitcoin

**Słowa kluczowe:** luzowanie ilościowe i jakościowe; *helicopter money*; Bitcoin

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#### **Introduction**

Money is probably the most important market phenomenon. Historically established as commodity money, it has contemporary no physical (intrinsic) value but is rather declared by a government as a legal tender, which has to be accepted for payments of all debts, private and public. Its issuance is controlled by the state, either directly (cash issued by central bank) or indirectly (deposits created by banks, which in turn are chartered/licensed and supervised by the state).

The authority has always treated money instrumentally. The reasons are obvious: controlling money allows achieving (or is expected to achieve) several goals such as war financing, easier government debt repayments using inflation, fostering GDP growth, but also securing stable prices.

Since the outbreak of the latest financial crisis, central banks in several countries have decided to apply non-conventional monetary policy measures. They comprise nowadays at least four elements [Pattipeilohy et al., 2013, p. 2; Sławiński, 2016, p. 13]:

- large-scale asset purchases,
- indirect government financing, if aforementioned purchases concern government bonds,
- negative interest rates,
- forward guidance of ultra-low policy rates over extended policy horizons.

The goal of the paper is to discuss threats and possible consequences of treating money instrumentally, pointing at first two elements only (quantitative and qualitative easing, government financing), and leaving interest rates aside. It is argued that such “active” monetary policy may foster the development of parallel money, such as Bitcoin. Statistical data come from the euro area, Poland, and Iran, where banking system is fully Islamic.

The remainder of the paper is organized as follows. Section 1 discusses shortly the quantitative easing. Section 2 looks at the role of government financing, possible implementation of “helicopter money” concept by the central bank, and reactions to abovementioned developments. In the end of the article there are concludes.

## 1. Monetary easing

Qualitative easing means an increase in the central bank’s balance sheet, while qualitative easing – the structural changes in the items on asset and/or liabilities side.

According to Borio and Disyatat [2009], quantitative easing is similar to reserve bank policy, which is defined as setting a specific target for bank reserves by the central bank regardless of how counter-balanced it is on the asset side of its balance sheet. Therefore, we first look at the increase in the balance sheets of selected three central banks in general. Tab. 1 presents the data for the European Central Bank (consolidated), National Bank of Poland, and Central Bank of Iran.

Tab. 1. Increase in the balance sheets of central banks, 2008–2015, in %

| Central bank | Nominal | Inflation adjusted | Infl. adj. less GDP growth |
|--------------|---------|--------------------|----------------------------|
| ECB          | 84      | 63                 | 62                         |
| NBP          | 118     | 81                 | 58                         |
| CBI          | 286     | -2                 | -16                        |

Period: 31 December 2007 – 31 December 2015 (in case of CBI: 20 March 2007 – 19 March 2014).

Source: annual reports of the central banks available on: [[www.ecb.int](http://www.ecb.int); [www.nbp.pl](http://www.nbp.pl); [www.cbi.ir/default\\_en.aspx](http://www.cbi.ir/default_en.aspx)].

The sum of assets/liabilities in 2015 was higher by 84% (ECB), 118% (NBP) and 286% (CBI) in comparison to 2008. The data adjusted for inflation<sup>1</sup> (deflator based on HICP for the Eurozone and on CPI for Poland and Iran) are also presented;

<sup>1</sup> Data source for all macroeconomic variables: [[www.imf.org/external/pubs/ft/weo/2016/02/weo-data/index.aspx](http://www.imf.org/external/pubs/ft/weo/2016/02/weo-data/index.aspx)].

interestingly the highest increase in nominal terms (Iran) was almost exactly reduced by inflation, but at the same time still large increase in the Eurozone and Poland did not result in general increase of prices to the similar extent.

If we consider that the central bank policy could (should) be in line with the real economic growth, again the European central banks' policy was very expansionary (about 60%), but real growth was very different (Eurozone about 1%, Poland about 23%). In Iran, the central bank balance sheet did not expand parallel to GDP growth (equal about 9%). Obviously, there is no simple relation between the real growth and central banks' assets/liabilities, especially during the crisis and post-crisis time.

Next, we look at the increase in central banks' liabilities to credit institutions (Tab. 2). This may be a better proxy for easing of monetary conditions; a kind of room for manoeuvre for the banks to create money.

Tab. 2. Increase in the liabilities to banks, 2008–2015, in %

| Central bank | Nominal | Inflation adjusted | Infl. adj. less GDP growth |
|--------------|---------|--------------------|----------------------------|
| ECB          | 104     | 81                 | 79                         |
| NBP          | 272     | 208                | 185                        |
| CBI          | 197     | -25                | -39                        |

Period: 31 December 2007 – 31 December 2015 (in case of CBI: 20 March 2007 – 19 March 2014).

Source: annual reports of the central banks available on: [[www.ecb.int](http://www.ecb.int); [www.nbp.pl](http://www.nbp.pl); [www.cbi.ir/default\\_en.aspx](http://www.cbi.ir/default_en.aspx)].

The highest increase in the reserve money and real growth was observed in Poland. In Iran the increase was almost 200%, but the inflation was even higher.

The next step is to look how the money aggregates increased, causing (or not) inflation and supporting (or not) real growth (Tab. 3).

Tab. 3. Increase in money aggregates, 2008-2015, in %

| Central bank  | Nominal | Inflation adjusted | Infl. adj. less GDP growth |
|---------------|---------|--------------------|----------------------------|
| ECB ( $M_2$ ) | 28      | 13                 | 12                         |
| NBP ( $M_3$ ) | 106     | 70                 | 47                         |
| CBI ( $M_2$ ) | 377     | 21                 | 7                          |

Period: 31 December 2007 – 31 December 2015 (in case of CBI: 20 March 2007 – 19 March 2014).

Source: annual reports of the central banks available on: [[www.ecb.int](http://www.ecb.int); [www.nbp.pl](http://www.nbp.pl); [www.cbi.ir/default\\_en.aspx](http://www.cbi.ir/default_en.aspx)].

The money supply in Iran increased by 377% and the accompanying inflation was not much lower. In effect, inflation and real growth adjusted values were 21% and 7%, respectively. In the Eurozone: 13% and 12%. In Poland, however, the increase of  $M_3$  (adjusted) was extremely high (70% and 47%).

To summarize, all central banks: from developed Europe, emerging country (Poland), and Islamic Iran, allowed for huge increase in the central bank money in nominal terms, between 100% and 300%. Please note that only one central bank (ECB) of the three under investigation applied nonconventional monetary instru-

ments. The highest increases, adjusted for inflation and real growth, have been observed in Poland, where the real growth was the highest as well, but this might be just a coincidence.

Nominal increases in  $M_3/M_2$  were more under control as might have been expected: the lowest increase was in the Eurozone and the highest in low-income Iran. The real (adjusted) increase was positive in all cases, being very high in Poland again.

This leads us to the conclusion that in every country money was available in excess, with one exception of reserve money in Iran. Positive values in the last column of Tab. 3 suggest that the risk of inflation is high. Accordingly, money is treated as something that has to be available. All central banks officially combat inflation, but none strictly obeys the target<sup>2</sup>. No distinctive behaviour of the Islamic central bank has been observed. In Islam inflation is not banned; it is rather a kind of phenomenon one has to live with. Money is mainly considered as a unit of account and a medium of exchange. The stable purchasing power in the long run is not crucial. However, one can lend in terms of gold or any currency, which is not considered vulnerable to inflation [Ayub, 2007, p. 174].

On the other hand, there are more “fundamental” views on the nature of money; “the monetary system created by the ruling European Judeo-Christian alliance was specifically designed to remove ‘money with intrinsic value’ from the money-system of the world and to replace it with money that had no intrinsic value. Such non-redeemable paper currencies could then be devalued” [Hosein, 2007, p. 10]. Accordingly the proposal is to return to gold and silver money or commodity money. Even if not realistic, there is obviously a need for “money” which primarily fulfils the function of wealth storage. We might call it “alternative money”.

## 2. Helicopter money and search for alternative money

As we have shown in the previous section, aggregate money supply was not a hindrance to economic growth. The growth itself was either low after 2008 (Eurozone) or just moderate (Poland, Iran) by former standards. Especially in developed countries the growth is sluggish; the phenomenon of “secular stagnation” was identified, a condition of negligible or no economic growth in a market-based economy. The symptom of advanced economies entering secular stagnation is the protracted excess of savings. In such situation the “natural” interest rate (which would facilitate equilibrium in the economy) is negative.

The authority arbitrary reinforces just one function of money: a medium of exchange (in order to artificially increase the sales and production of goods and services), while neglecting another major function: a store of value. Several special

<sup>2</sup> ECB 2%, NBP 2.5% +/- 1%, CBI <10%.

demand-stimulating measures have been applied and proposed in the Eurozone (but not necessarily in Poland or Iran). Let us look at a few of them.

First, banks in the Eurozone are encouraged to extend loans to the real economy. The more loans the participating banks issue to non-financial corporations and households, the more attractive the interest rate on their TLTRO borrowings becomes. Currently (March 2017) it is even negative (-0.4%).

Second, purchase of government bonds by monetary institutions. They usually acquire domestic government bonds on the secondary market. But in recent years the things have changed. ECB introduced so-called APP, under which private sector securities and public sector securities are purchased. It is intended to be carried out till inflation rates below but close to 2% over the medium term [[www.ecb.europa.eu/mopo/implement/omt/html/index.en.html](http://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html)].

Tab. 4 shows how the three central banks changed the share of government debt in their assets. NBP had no government bonds at all, both in 2008 and 2015. CBI decreased the amount of government bonds in real terms by 23%, as opposite to the ECB (+247%).

Tab. 4. Increase in government bonds in central banks assets, 2008-2015, in %

| Central bank | Nominal | Inflation adjusted | Infl. adj. less GDP growth |
|--------------|---------|--------------------|----------------------------|
| ECB          | 294     | 249                | 247                        |
| NBP          | 0       | 0                  | 0                          |
| CBI          | 258     | -9                 | -23                        |

Period: 31 December 2007 – 31 December 2015 (in case of CBI: 20 March 2007 – 19 March 2014).

Source: annual reports of the central banks available on: [[www.ecb.int](http://www.ecb.int); [www.nbp.pl](http://www.nbp.pl); [www.cbi.ir/default\\_en.aspx](http://www.cbi.ir/default_en.aspx)].

As a result, the share of government debt in central banks' assets increased from the beginning of 2008 till 2015 from 16% to 34% (ECB) and was at the same level in Poland and Iran (0% and 6%, respectively). Obviously the ECB is trying to indirectly finance the budget deficits, even if officially it is conducting open market operations.

Nevertheless, an increase in public debt to facilitate additional spending is not a viable option when considering current Eurozone debt drama. Instead, financing government expenditures by central bank is suggested. It could happen by direct purchase of perpetuities (consols) by the monetary authority in order not to increase debt and break the Ricardian equivalence. This supplementary money is sometimes called "helicopter money". From the macroeconomic point of view, such supplementary source of money creation could help the central bank to stabilize money supply and inflation, if the supply of money created by commercial bank loans grew markedly below the rate of growth in the demand for money consistent with the GDP potential [Sławiński, 2016, p. 16]. It should always boost demand, as noted by Buiter [2016]. The proponent of this controversial money creation method, Turner [2015a, 2015b], called by him "monetary finance", suggests however that the government

should be isolated from the decisions taken by the central bank which seems to be a little bit too idealistic.

The idea of “helicopter money” may be a subject of critique.

First, it concentrates on supporting global demand whilst ignoring the diminishing purchasing power of savings of individuals and companies, which inevitably occurs when the government spends new money.

Second, the conception idealistically presumes that the government will rely on decisions of independent central banks concerning the timeline and amounts of newly created money.

Third, the paradigm of desirability of steady growth is not as obvious as it looks. Especially if the growth comes at the expense of savers.

Fourth, according to Rogoff [2016, p. 25], not every mediocre government project should be done just because the current interest rates are low or the government got the money directly from the central bank. Similarly, Borio [2017, p. 9]: a resource misallocation is something natural when interest rates are effectively zero in nominal terms and negative in real terms.

Fifth, money supply is increasing at a high rate, taking into consideration the current inflation and real growth rate (Tab. 3).

Sixth, monetary policy is not an appropriate tool to boost the economic growth. It is not the supply side of the credit that needs action but the weak demand from the real economy. It seems that private companies and households have too much existing debt and do not want to borrow, while the banks have too much bad debt and do not want to lend more, at higher risk.

Seventh, secular stagnation is not as apparent as it seems; Borio suggests different explanation of recent developments, the so-called financial cycle drag hypothesis<sup>3</sup>, being an alternative to secular stagnation hypothesis. According to him, after the outbreak of crisis “there was too little balance sheet repair and too much reliance on traditional aggregate demand management, especially on monetary policy. Such a response tends to be ineffective when the private sector is overindebted, so that it wishes to retrench rather than spend, and when a broken banking system fails to transmit policy impulses” [Borio, 2017, p. 9].

Taking into consideration the attempts of central banks and governments to “save” the financial system and institutions and “stimulate” the economy, current fiat money is treated mainly as a medium of exchange. Fast growing money aggregates and awareness that there is no limit for money creation stimulate the attempts to store the wealth in a different form. “Different” means something between commodity [see: Bagus, Howden, Gabriel, 2014] and liquid official money, without their few limitations. This trend is especially valid for rich persons who want to diversify the wealth not only between fiat money, shares, bonds, real estate, and maybe alternative investments, but also “other money”, e.g. in the form of cryptocurrency, like bitcoin.

<sup>3</sup> Borio [2017] for details concerning financial cycle drag.

It is not necessary to explain the idea of bitcoin [see: [www.bitcoin.org](http://www.bitcoin.org); Dwyer, 2015]. The bitcoin has several characteristics, which make it alternative money. The amount of bitcoins is limited (by design) to 21 million. In this respect bitcoin is similar to gold. In addition, it is extremely easy to transfer bitcoins between any locations in the world<sup>4</sup>, at high speed and at very low cost. What is more, bitcoin relies on block chain, which avoids the problem of double spending<sup>5</sup> [Blundell-Wignall, 2014, p. 8]. Anonymity is another argument for (or against) bitcoin. However, bitcoin is in fact not anonymous and was not designed this way.

Price of bitcoin was \$1,192 by February 27, 2017. The forecasts, not necessarily very reliable, say bitcoin may cost \$80,000, \$100,000 or even more. However, there is also risk that its value may fall to zero: "It is possible to create a digital currency with a positive marginal cost of production as for bitcoin, but it is possible to create other digital currencies with zero marginal cost of production" [Dwyer, 2015, p. 85]. For this and other reasons, bitcoin is very volatile in terms of major currencies and cannot properly fulfil the function of a unit of account.

Authorities in many countries have a problem how to treat cryptocurrencies. What we already know from the past (e.g. the abrogation of gold clauses): if bitcoins begin to undermine the financial and tax systems, they will be shut down and all contracts between traders would be unenforceable.

Which cryptocurrency, if any, will spread out and to some extent replace official money, is not clear. But these things will eventually happen, taking into consideration current central banks' policies.

## Conclusions

Since 2008 central banks in many countries affected by the financial crisis have decided to apply non-conventional monetary policy measures. The goal of the paper was to discuss threats and possible consequences of treating money instrumentally (quantitative and qualitative easing, government financing by the central bank). Three central banks were under investigation: ECB, NBP and CBI. The authorities tend to arbitrarily reinforce just one function of money: a medium of exchange, in order to artificially increase the sales and production of goods and services, while neglecting other major function: a store of value. Fast growing money aggregates, awareness that there is no limit for money creation, and ideas such as "helicopter money" stimulate the attempts to store the wealth in a different form, e.g. cryptocurrency.

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<sup>4</sup> Bitcoin is often used to evade international capital controls.

<sup>5</sup> However, theoretically the risk of double spending in fast transactions cannot be eliminated; transaction is included in the block chain usually during 10 minutes.

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### Argumenty przeciw „pieniądom z helikoptera”

Po wybuchu ostatniego kryzysu finansowego banki centralne szeregu krajów zaczęły wykorzystywać niekonwencjonalne instrumenty polityki pieniężnej, zaś inne, choć pozostały przy bardziej tradycyjnych instrumentach, stosowały mało restrykcyjną politykę. Celem artykułu jest omówienie niebezpieczeństw i potencjalnych konsekwencji traktowania pieniądza w sposób instrumentalny (luzowanie ilościowe i finansowanie długu publicznego przez bank centralny). Władze państwowe mają tendencję do kładzenia nacisku na tylko jedną funkcję pieniądza, a mianowicie jako środka cyrkulacji, by w sztuczny sposób zwiększyć sprzedaż oraz produkcję towarów i świadczenie usług, przy jednoczesnym lekceważeniu innej ważnej funkcji: środka tezauryzacji. Szybko rosnące agregaty monetarne, świadomość, że nie ma tak naprawdę ograniczeń w kreacji pieniądza, jak również pomysły typu „pieniądz z helikoptera” powodują, że na znaczeniu zyskują pomysły, jak przechowywać bogactwo w innej formie, np. w kryptowalutach. Rozważania w artykule są prowadzone z perspektywy dwóch konwencjonalnych banków centralnych (EBC, NBP) i jednego islamskiego (Bank Centralny Iranu).

### **The Case Against Helicopter Money**

Since the outbreak of the latest financial crisis central banks in several countries have decided to apply non-conventional monetary policy measures. Other monetary authorities behaved more conventionally but conducted a very loose monetary policy anyway. The goal of the paper is to discuss threats and possible consequences of treating the money instrumentally (monetary easing, government financing by the central bank). The authorities tend to arbitrarily reinforce just one function of money, a medium of exchange, in order to artificially increase the sales and production of goods and services while neglecting other major function: a store of value. Fast growing money aggregates, awareness that there is no limit for money creation, and ideas such as “helicopter money” stimulate the attempts to storage the wealth in different form, e.g. cryptocurrency. The remarks were formulated from the conventional and Islamic finance perspective. Statistical data come from the euro area, Poland, and Iran, where banking system is fully Islamic.