"Helicopter Drop": Perspectives on Modern Central Banking Challenges

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This paper aims to discuss the idea of Milton Friedman's "helicopter drop" of money, analyzing the concept. It is an unconventional measure of monetary policy seen as a permanent uplift in the nominal monetary mass with a zero nominal interest rate, to finance budget deficit of fiscal authority from money issued by Central Bank. It could be a fiscal stimulus or purchases by the Central Bank of non-monetary sovereign debt, in both cases without affecting the current public spending from state budget. The paper takes into account the opportunity costs of such measure being deployed by ECB, looking at end-users (consumers) and psychology of decisions over money. In the end, the article reviews the opinions of leading economists and the conclusions reflect that it is not the time or necessity for ECB to resort to such measure now, as the previous measures of quantitative easing and negative interest rate are starting to pay-off producing the targeted result of 2% inflation rate.

Keywords: Central Bank, Helicopter Money, Inflation and Deflation, Interest Rates, Quantitative Easing for the People, Unconventional Monetary Policy

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"Let's suppose now that one day a helicopter flies over this community and drops an additional USD 1000 in bills from the sky, which is, of course, hastily collected by members of the community. Let's suppose further that everyone is convinced that this is a unique event which will never be repeated."

Milton Friedman

"The Optimum Quantity of Money", (1969)

1. Brief explanation of theory and concept

When discussing about unconventional monetary policy measures it is imperative to keep in sight two main views: the monetary needs of the society today, in all its complexity and the need to understand rather radical concepts such as "helicopter [money] drop" in the light of "new normal" economic paradigm in which other unconventional monetary measures have already been deployed by central banks and are increasingly becoming a standard toolkit (e.g. Quantitative Easing flooding markets with monetary liquidity and negative interest rates altering the price of money to encourage consumption and prices increase to combat a feared combination of adversaries for economic growth: deflation plus recession). To look back to basics, the concept of "helicopter drop" of money has been presented by Milton Friedman in 1969, in a period of time when US Dollar was the only currency exchangeable to gold in a fixed exchange rates system (abandoned by president Nixon on August 15, 1971, which ended the Bretton Woods Agreement). In Friedman's proposal, central banks can give money directly to people, however in recently revived proposals, this measure can take many forms: monetizing fiscal deficits permanently, central banks making direct money transfers to private sector accounts or only to population, or presently distributing future wealth – all measures aiming to brusquely change view on immediate consumption opportunity and thus, lead to final objective of modern central banks: avoid deflation (nominal objective still remains to target inflation at 2%).

Right from beginning, Friedman discusses about what the optimum quantity of money is for an economy and how the community can be determined to hold that quantity, mentioning four factors: "the optimum behaviour of the price level, the optimum rate of interest, the optimum stock of capital and the optimum structure of capital" (p.2). The assumptions are that it is a "stationary" society with a constant population, unchanged preferences, a determined volume of resources and standards. The difference in the present approach of "helicopter money" is that it is required and it emerges as necessary exactly from the dynamics of society and economy today for interventional effective measures of monetary policies in

an unconventional economic environment (falling prices, excess liquidity, low cost of capital and new technologies). Friedman points out that cash needs to be attractive for utilitarian perspective, so that the "helicopter miracle" will be desired by consumers (being convinced that it is a single unrepeatable event in time).

A factor affecting desirability of holding cash money is the cost of physical storage and the depreciation of purchase power due to erosion of inflation. However, in the current economic context facing deflation and negative interest rates, this factor is an incentive to store physical cash, as negative rates and dropping prices act as a premium for the storage of cash, as there is an excess of liquidity and a misbalance of the optimum quantity of money to allow a forceful circulation of push effect into the economies. That is why there are wealth creation and welfare effects due to a premium of money transposed in the price of financial assets to mitigate opportunity costs of investing over the cash holding choice. Cheaper financial assets mean a gain in capital overvaluation at maturity date of those assets. This effect can be expressed as discounting the future wealth for today. In deflation, bringing future wealth at a discount today and considering the marginal utility of holding an additional currency unit near to zero due to storage costs will encourage spending for financial assets with higher marginal utility so money circulate into the financial system changing form from cash to assets that bring along assuming risks and the benefit of future higher potential gains measurable today. In reverse, there is a "welfare loss from inflation ... because a smaller real volume of cash is being held for productive purposes". (Friedman, 1969, p. 33)

This cash is about shifting focus on investments, from interest rate driven investments (impacted by negative interest rates), towards project finance and shared future profits. According to Islamic finances, the interest is forbidden as it is a pledge today on future value, not being in accordance with Sharia (Institute of Islamic Banking and Insurances, 2017). Such approach can be found in Christian religion: "Do not charge your brother interest, whether on money or food or anything else that may earn interest." (Deuteronomy 23:19).As a parallel, the negative interest rates today are not forbidden but prohibit future gains being a pledge of efficiency today over upfront invested capital, i.e. requiring accepting a loss today over future redeemable value. That is why it encourages investments in other financial assets than cash, to achieve positive returns in project finance and corporate private assets. The effect is a shift towards private sector and riskier assets or projects, assuming not only risks but profit-sharing. Interest rates at negative levels in financial investments are about to be substituted with dividend yields. This drives not only prices and spending up, but points to shifting from deflation to inflation via the effects of price mechanism and capital formation by lending at low cost today as a multiplier effect to investments.

2. The opportunity of "helicopter money" in 2017.

To understand the effect of the unconventional monetary measures in the context of deflation, the Japanese experience shows reasons for concern to avoid a "liquidity trap" (Sanchez, 2012). For more than 20 years, Japan faced a combination of low level of nominal interest rates constantly below 0.5% and positive inflation rate recorded only in three years. Gross Domestic Product pointed an average output increase rhythm of 1.15% from 1997 to 2007. More liquidity via open market operations had limited effect and it only pushed prices down further, as only a small part translated into expenses for consumption and the rest of cash holdings were perceived as an affordable form of self insurance.

A study on around 12.000 people in 12 countries in Europe (ING, 2016) revealed the answers to the question "Imagine you received EUR 200 in your bank account each month for a year. You are free to do what you want with the money and don't need to repay it or pay taxes on it. How would you use this extra money?" One out of four persons would spend and two out of four would save for self insurance or invest and 15% would lower existing private debts (returning the money to the banking system into other accounts), less than half anticipating a rise in inflation due to this monetary policy measure, should it be implemented. &0% of respondents would doubt effects on economic growth. The Japanese experience of 1999 and 2009 sending people time-limited shopping coupons resulted in sales spikes and then, decreasing consumption to same levels or below. It is about the human psychology on spending money and about making decisions over money allocation and spending by households.

The findings of this study are interesting: should this monetary policy measure be implemented by ECB as an action on a timeless limit, people fear that the quality of life will be affected as inflation could be spiralling upwards above expected target of 2% in conjunction with continuation of Extended Asset Purchase Programme by the end of 2017 and negative reference rate for deposit facility with ECB (ECB, 2016, 2017). In February 2017, estimates are to have already achieved 2% inflation rate, it remains to be seen whether it can be maintained at this level. (Eurostat, 2017)

Another effect is financing the budget deficit accumulated and also future expenses. The government could, via "helicopter money", to cut its borrowing or repay previous debt with no cut in future spending, lowering deficit and resulting in improved confidence levels (no expectations for future increase on taxes and lower financing costs for future borrowing due to decreased levels of debt and risks of repayment). Using extra money for infrastructure projects can lead to increase in wages and employment. Unemployment rate in Euro Area is at 9.6%

(Eurostat, January 2017). In United States of America, quantitative easing started to be pulled off and reference interest rate hiked when unemployment proved stable, below 5%, today being maintained below this level at 4.7% (Trading Economics, January 2017). Decreasing unemployment and increasing wages and investments can boost consumption and inflation.

The calculation according to the study released by ING: 24% "yes, I would spend" X EUR 200 x 12 months equals 576 EUR. Rounded average consumption per capita in Euro Area is EUR 17.000 (Eurostat, 2017). The increase is 576 / 17.000 is around 3,38% in nominal terms and around 2% in real terms at 1.8% inflation rate in January 2017 (ECB, 2017). Euro Area has a population of 340 million people and the total amound required for such "helicopter money" would reach EUR 800 billion (representing around 8% of GDP). It is a high cost. Still, 3 out of 4 people would want to receive the money.

GDP annualized growth rate in Euro Area is 2.4% with household final consumption expenditure annualized growth rate at 2.5% (ECB, 2017) with APP and negative rate for deposits facility in place. The question is – there are voices in academic world debating the necessity and the opportunity of such radical measure of monetary policy – "helicopter money" – to be implemented.

The idea of Milton Friedman has been subject to discussion in Adair Turner's book "Between debt and the Devil", the former chairman of FSA in UK. In June 2016, 18 members of European Parliament addressed a letter to Mario Draghi, chairman of ECB asking ECB to consider "helicopter money" as well as bonds purchase from European Investment Bank. (QE4PEOPLE, 2016). The group "Quantitative Easing for the People" suggested such measure, considering that quantitative easing combined with fiscal austerity only leads to inflating asset prices, but not supporting consumption. Earlier in April 2016, Wolfgang Schaeuble stood against what he called ECB's easy money policy, as the effect paved the way for extremist parties in Europe and Germany.

3. The views of economists on "helicopter money"

The general consensus of majority of economists is that at this point in Europe, only the monetary policy is the main tool for economic growth, as the fiscal policies are caught in political debates and opposing views, leaving ECB to implement "one-arm" approach with resorting to unconventional monetary policy measures, such as quantitative easing and negative interest rates. Central banks are seen as "the only game in town" (Roubini, 2016). Furthermore, ECB is being challenged with a really "out-of-the-box" approach, to add "helicopter money" to the toolkit of unconventional measures.

QE's purpose is to provide liquidity support for the banking system buying government bonds and decreasing yields (leading to a decrease in interest rates as cost of borrowing reflected in zero or negative policy interest rate in a spill-over effect). The transmission mechanism for monetary policy in Euro Area is facing constraints due to high prices for housing in Germany and France, reducing consumer spending and the housing wealth is not translated in increased consumption, compared to USA (where the second rank mortgage market is giving access to financing as leveraged effect), excluding mortgage lending from ECB's long term refinancing operations (LTRO). APP as government bonds buying at low yields – high prices leads to losses for ECB and QE mechanism should be reversed. APP is also fuelling money into asset prices purchased generating wealth asymmetry effects. Under these circumstances, additional quantity of money should not be issued (Muellbauer, 2014).

The European Treaties prevent ECB from financing government debt. ECB could resort to using the public databases (Electoral Registers) to distribute "helicopter money" to population, as there is no prevention in the European Treaties. Handling out cash to population can be one method to allow central bank to achieve its mandate of targeting inflation rate directly. Previous studies suggest that around one third of income could be spent in the first 3 months after receiving the cash (Johnson et al., 2006), mainly on non-durable goods favouring spikes in immediate consumption (Parker et al., 2013), even when cash means tax exemption as in Australia (Leigh, 2012). The propensity to spend is estimated at 40%-60% (Aron et al., 2012). Kemal Dervis, former minister of Economic Affairs of Turkey and former administrator for UNDP said in March 2016 "there is plenty of cheap water, it seems, but the horse refuses to drink" refering to the access of cheap money in the banking system via the APP.

From functional viewpoint, "helicopter money" is equivalent to a government deficit increase financed by permanent increase in non-interest bearing liabilities in central bank's balance sheet that needs to be seen as non-reversible operation, committing to never increase the reserves and withdraw the stimulus (Reichlin et al., 2013) boosting nominal demand by long term relaxation of budget constraints (Buiter, 2014). The result is a permanent state of zero-bound interest rates or equivalent to debt or tax exemption financing for government deficit (Borio et al., 2016). But extra-cash can be used for deleveraging older debts and the moral hazard is that population could be enticed to take more future risks, knowing about the possibility of bail-out from debt with public money (a moral hazard problem). Another aspect is the government being enticed to forget implementing austere fiscal reforms, having debt financed by public money at no cost. What's more, the population misunderstands the concept of "earning" as the effort to

benefit from money, receiving them as gift representing an unfair compensation for no actual effort of lucrative endeavour.

4. Conclusions

For ECB, the proposed evolution of APP could be "helicopter money" financing fiscal deficits of Euro Area member countries, by indirect transfer to population via national governments or, directly crediting citizens' bank accounts with a fixed amount of money over a determined period of time. At present, this appears to be a remote zone for the monetary policy measures, as APP in conjunction with negative interest rate on deposit facility seems to have paid off the expected result, as the estimated inflation reported on ECB website in February 2017 is around 2%. It needs to prove its reliability for being maintained at this level.

Deflation leads to curb spending as consumers and businesses know that prices continue to fall and it is worth deferring payments in the future, withholding from consumption today. As a consequence, deflation makes economic growth sluggish as production and output suffer, generating unemployment and further consumption cuts. From this circle, the ECB needs to deploy more monetary measures to reverse this trend. APP and NIR have already been used, and the effect is seen after 2 years (APP has been launched in March 2015). "Helicopter money" added above these measures does not seem required at this point, since inflation target of 2% has been achieved, even if it is a unique event (February 2017).

European Union did take radical monetary measures, even before the existence of ECB. Look no further than 1991, when there is a precedent in a radical foreign exchange market intervention when central banks agreed to ditch the variation interval of plus/minus 2.25% in favour of plus/minus 15% in a severe financial market conjuncture (the commencement of the subprime American market for mortgages). The Maastricht Treaty is one of the pillars of fiscal discipline in European Union, limiting the fiscal deficit to 3% of GDP. Can this limit be revised so that the fiscal policies measures could start functioning and being implemented? My point is that the fiscal discipline is required now more than ever in Europe, as there are two choices regarding economic growth: by issuing new debt altering future prosperity, or by assets, inflating prices and creating wealth. It's a debt crisis due to absence of money, but in this context the monetary policy is the answer to financing necessities by inflation targeting in order to lead to unemployment drop and wages increase boosting consumption. Wages increase should be accompanied not by an increase in taxes but an increase in collecting taxes to public budget.

In the end, inflation and interest rate are linked to a common ground: the value of money over time which is reflected in the concept of "price" as in "valuation". The asymmetry of valuation in money affects the optimum quantity of monetary mass as it changes the opportunity cost for the private sector to keep reserves or use the financial resources. Subsidizing the cost of money impacts the true opportunity cost for money. Such measures of monetary policy ("quantitative easing", "negative interest rate", "forward guidance" or "helicopter money") impacts the global economy. The international Fisher effect explains the correlation between the foreign exchange rates, the interest rates, the inflation and the purchase power parity in all aspects respective to the value of money (direct valuation through FX rate, price of money through interest rate, value of depreciation through inflation and value of money in equivalent prices for same goods).

NOTES

1. The purpose of this article is to analyze public data and information. All this information is available from public sources in a complete form and according to specified methodology and can be accessed and seen in the sources indicated for reference. Therefore, it is not in the scope of the article to reproduce tables and charts, but to use the relevant data to answer to questions about causes, effects, time, locations, impacts, costs, responsibilities, actions, benefits.

2. This article focuses on a very specific subject (the opportunity of "helicopter money" to be considered by ECB) and takes into account a multi-disciplinary approach (financial, economic, political as in policies, etc). Being a broad topic, it needs future observation, analysis and in-depth survey on all coordinates. It remains open for further development.

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