R O M E

Research On Money in the Economy

No. 18-02 – June 2018

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Ansgar Belke

ROME Discussion Paper Series

ISSN 1865-7052

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Abstract

Helicopter money has once been proposed as a theoretical thought experiment by Milton Friedman in order to elucidate the effect of money injections into the macroeconomy over time. However, some Euro area member states nowadays consider helicopter money, i.e. permanent Quantitative Easing (QE), as a permanent ingredient of future EMU governance. We set helicopter money apart from QE monetary policy measures and also distinguish it from a traditional fiscal stimulus. We then deal with and critically assess further developments of the helicopter money idea à la Bernanke und Buiter. Furthermore, the paper then comes up with three practical variants of helicopter money, basically available for the European Central Bank. Taking this as a starting point, the pros and cons of helicopter money and its closely defined implementation conditions are discussed. Finally, we derive some implications of helicopter money implementation for the monetary system as a whole.

JEL-Classification: E52, E58, E63

Keywords: economic stimulus programmes, full reserve banking, helicopter money, interest rate, joint analysis of fiscal and monetary policy, Quantitative Easing

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by

Ansgar Belke

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Essen and Brussels

Abstract

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**I gratefully acknowledge comments received from participants at the Conference „Notenbanken auf dem Prüfstand“, Volkswirtschaftliche Bankenrunde, Keditanstalt für Wiederaufbau, Frankfurt, April 19, 2016, from participants in the Conference “The Italian Public Debt in the Eurozone”, Italian Chamber of Deputies, Rome, 3 July, 2017, and from my master students in monetary economics at the University of Duisburg-Essen in the summer terms 2016 and 2017. A shorter version of this paper has been published as “Helicopter Money: Should Central Banks Rain Money from the Sky” in Intereconomics - Review of International Trade and Development, Vol. 53/1, pp. 34-40.*

Introduction

Ultra-low interest rates have become an endemic and potentially problematic characteristic of the global economy.[1] Central banks in the Euro area, the United States, Japan and Australia have bet on lowering interest rates to increase inflation, but despite their efforts, core inflation remains stubbornly below the desired two per cent. However, central banks have another tool at their disposal that has the potential to stimulate inflation: helicopter money.

Imagine a helicopter is flying over a community and drops a load of money. People scramble around to pick up as much of it as they can. However, they do not know if this represents a one-off event, or if the helicopter will come back again. So what will they do with that extra money? The people will spend it, in turn boosting the economy and stimulating inflation in this process.

This **thought experiment** was proposed by **Milton Friedman** in order to elucidate the effect of money injections into the macroeconomy over time. Ultimately, it inadvertently demonstrates the limits to central banks' influence and reduces monetary policy to near absurdity. However, John Maynard **Keynes was more determined** than Friedman in that direction. In the 1930s, he arguably proposed burying bottles of bank notes in old coal mines. As soon as the cash is unearthed like gold, it would create new wealth and spur spending.[2]

Nevertheless, many economists are now defending the use of helicopter money or the printing of money to artificially raise inflation.[3] Since, for instance, the European Central Bank (ECB) cannot lower interest rates any further without abolishing cash, some observers argue that it should use helicopter money as a "nuclear option".[4] Hence, they **put pressure on central banks to directly distribute money to consumers**. And also Fed President Janet Yellen and ECB chief economist Peter Praet have already admitted that they would not rule out helicopter money as an option under extreme circumstances. And also ECB President Mario Draghi found it interesting for a while. The most extreme example is the new Italian government which frankly advocated helicopter money to get rid of the country's excessive public debt.[5]

[1] See the papers presented at the conference „Zero Interest Rate Policy and Economic Order", Leipzig, 2017, A. Belke and G. Schnabl (2016), Zero Interest Rate Policy and Economic Order, Vol. 50/2, pp. 101-104.
[2] See M. Blyth, E. Lonergan: Print Less but Transfer More - Why Central Banks Should Give Money Directly to the People, Foreign Affairs, September/October Issue, 2014.
[3] See K. Derviş: Time for Helicopter Money?, Project Syndicate, 3 March, 2016, and A. Turner: The Case for Monetary Finance – An Essentially Political Issue, Paper presented at Sixteenth Jacques Polak Annual Research Conference, International Monetary Fund, Washington/DC, 2015.
[4] See C. Borio, P. Disyatat, A. Zabai: Helicopter Money: The Illusion of a Free Lunch, VoxEU, CEPR's Policy Portal, 24 May, 2016.
[5] See A. Evans-Pritchard: Guru of 'Helicopter Money' Takes Italy's Treasury as Insurgents Gain Their Way, 1 June, 2018, available at https://www.telegraph.co.uk/business/2018/06/01/guru-helicopter-money-takes-italys-treasury-insurgents-gain/.

So why are the Fed, the ECB, the Bank of Japan and the Reserve Bank of Australia not printing money to revive their economies? Presumably this is because this tactic has been employed before – in countries like Argentina, Zimbabwe and in 1920s Germany – with disastrous outcomes in each case.

What is helicopter money?

While "helicopter money" has for decades been regarded as merely an academic thought experiment, some commenters now see it as a plausible last resort for monetary policy in practice.[6] It is sometimes also called monetary financing (MF), implying **overt monetary financing of government deficits.**[7] In order to assess the costs and benefits of "helicopter money", it is important to start from a benchmark, which is given by Friedman's work on the subject. Later on, it will become clear that proponents of helicopter money certainly need additional model ingredients beyond the Friedman-type helicopter and different assumptions on the status of the economy (disequilibrium instead of equilibrium as a starting point) in order to show that helicopter money is able to have persistent effects on the real economy.

In his famous paper "The Optimum Quantity of Money", Friedman (1969) came up with an illustrating parable to define his notion of "helicopter money". He starts with the effect of **a once-and-for-all change in the nominal quantity of money, something he calls "**Bonanza from heaven".[8] "Let us suppose that one day a helicopter flies over this community and drops an additional $1,000 in bills from the sky which is, of course, hastily collected by members of this community". And he adds: "Let us suppose further that everyone is convinced that this is a unique event which will **never be repeated**".

"To begin with, suppose further that each individual happens to pick up an amount of money equal to the amount he held before, so that each individual finds himself **with twice the cash balances he held before**". "If every individual simply decided to hold on to the extra cash, nothing else would happen. … But this is not the way people behave. **Nothing has occurred** (income changes etc.) **to make the holding of cash more attractive than it was before**, given our assumption that everyone is convinced that the helicopter miracle will not repeated".

[6] See L. Reichlin, A. Turner, M. Woodford: Helicopter Money as a Policy Option, VoxEU, CEPR's Policy Portal, 20 May, 2013, and A. Turner: Between Debt and the Devil, Princeton University Press, 2016.

[7] See A. Turner: Debt, Money and Mephistopheles: How Do We Get Out of This Mess?, Lecture at the Cass Business School, London, 6 February, 2013.

[8] See M. Friedman: The Optimum Quantity of Money, in (Friedman, Milton, ed.), The Optimum Quantity of Money, Introduction by Michael D. Bordo, Aldine Transaction Publishers, New Brunswick, London, pp. 2-51, 1969.

The money drop from the helicopter as a one-time event

In other words, Friedman stresses the important proviso that the money drop is a one-time, never-to-be-repeated event. And this is exactly because "(i)n the absence of this assumption the mere **appearance of the helicopter** might **increase** the degree of **uncertainty** anticipated by members of the community which in turn might change the demand for real cash balances". Translated to today's circumstances this would correspond to increasing fears of the depositors and the commercial banks that the governments may withdraw cash money forever as is in the cards today.[9]

Milton Friedman then continues: "The assumption that he was in a stable equilibrium before means that he will now want to **raise his consumption and reduce his cash balances** until they are back at the former level. Only at that level is the sacrifice of consuming at a lower rate just balanced by the gain from holding correspondingly higher cash balances".[10]

How much time will the reduction of excess cash balances need and how much time will real effects thus have to unfold? "To this question we have no answer. The answer depends on the characteristics of his preferences which are not reflected in the stationary equilibrium position".[11] This is, however, **not valid on the aggregated level**: "(o)ne man can spend more than he receives only by inducing another to receive more than he spends".[12] And: "(i)t is easy to see what the final position will be. The process will **bid up the nominal values of services**. The additional pieces of paper do **not alter the basic conditions of the community**. They make no additional productive capacity available. They alter no tastes. They alter neither the apparent nor actual rates of substitution".[13]

The money drop and its distributional consequences

Milton Friedman also had an eye on the potential distributional effects of the one-off money drop from the "helicopter which in turn may cause real economic effects: "(w)e can now **drop** the assumption that each individual happened to pick up an amount **equal** to the amount he had to begin with. … This will induce **initial distribution effects**".[14] Helicopter money may have effects on the real economy because "(t)his has one substantive implication: the **transition can no longer be instantaneous**, since it involves more than a mere bidding up of prices".[15] This implication is driven by the fact that "(t)hose individuals who have picked up

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[9] See K. Rogoff: The Curse of Cash, Princeton University Press, 2016.
[10] M. Friedman, op. cit., p. 5, 1969.
[11] M. Friedman, op. cit., p. 5, 1969.
[12] M. Friedman, op. cit., p. 5, 1969.
[13] M. Friedman, op. cit., p. 6, 1969.
[14] M. Friedman, op. cit., p. 6, 1969.
[15] M. Friedman, op. cit., p. 6, 1969.

more than their pro-rata share of cash will now have larger real balances than they want to maintain. They want to **"spend" the excess but over a period of time**, not immediately", and vice versa for "losers".[16] In this context, Friedman (1969) focuses on the "(e)quilibrium path of adjustment, i.e. the rate at which relative gainers transfer their excess balances to the relative losers".[17]

So what is the essence of Friedman's argument regarding "helicopter money"? The **attempt** of the individuals to spend more than they receive ("though doomed to fail") leads to an increase of nominal expenditure and income. However, he teaches us to differentiate between the final position of the economy and the **transition** to it, i.e. the long-term statics and the short-run dynamics. What is more, Friedman stresses the importance of the **"real balance"-** effect and its role in the realization of the transition from one stationary equilibrium to another. Finally, he presents nothing else than an empirical generalization of long-run monetary economics: (a) the **nominal** amount of money is determined by **supply** side conditions and (b) the **real** amount of money is driven by **demand** side conditions – the functional relation among real money and other system variables. Hence, thinking about "helicopter money" necessitates using **basic principles of monetary economics** such as differentiating between nominal and real money and between alternatives available to an individual and the society as a whole. In addition, one should be able to distinguish the "flow identity" (**flow expenditures = flow of receipts**) from the "stock identity" (sum of cash balances = total stock of money).[18]

Finally, when judging about the effectiveness of "helicopter money", one should acknowledge the "**importance of attempts**" and the difference between "ex ante" und "ex post". In that moment in which the additional cash is collected, desired expenditure exceeds the anticipated revenue (**ex ante**). But **ex post** both have to be equal to each other ex definitione.

As said, Friedman's one-off proviso suggests he might *oppose putting his idea into practice*. However, member of the ECB's Executive Board Peter Praet argued into another direction: "All central banks can do it" if needed.[19] "The question is, if and when it is opportune", and Clarida: "We will see a variant of helicopter money (perhaps thinly disguised) in the next 10 years if not the next five."[20] In addition, close observers of the debate on the Euro area's future

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[16] M. Friedman, op. cit., p. 7, 1969.
[17] M. Friedman, op. cit., p. 7, 1969.
[18] M. Friedman, op. cit., pp. 7f, 1969.
[19] See F. Giugliano , T. Mastrobuoni: ECB open-minded about more rate cuts, chief economist says, La Repubblica, 17 March 2016, available at http://www.repubblica.it/economia/2016/03/17/news/peter_praet_interview_deposit_rate_cuts_still_possible_ecb_s_chief_economist_says-135733082/.
[20] See G. Ipp: The Time and Place for 'Helicopter' Money, 2016, and M. van Rooij, J. de Haan: Will Helicopter Money Be Spent? New Evidence, DNB Working Paper No. 538, Dutch National Bank, Amsterdam, December, 2016.

governance have noticed since some time that permanent QE, which is nothing else than helicopter money,[21] is seen by some governments in the Euro area periphery to an increasing extent as a *constitutional element of this governance* in the future.[22] So it is not completely unrealistic that, after the next credit crisis, we will see, although probably disguised, some sort of a permanent ‘helicopter money’ program implemented.

The money drop as a continuous event

However, going beyond Friedman’s one-off proviso it is in principle also possible that helicopter money has a systematic effect on the real economy if one admits continuous money drops by the helicopter. Accordingly, Friedman investigates the “effect of **a continuous increase** in the nominal quantity of money”.[23] In this case, he derives a longer-lasting real effect: “(i)f individuals did not respond instantaneously, or if there were frictions, the situation would be **different during the transition period**”. “This is because “(i)t takes time for people to catch on to what is happening”. “**Initially, they let actual balances exceed long-run desired balances**; partly because they may take initial price rises as a harbinger of subsequent price declines, an anticipation which raises desired balances; and partly because the initial impact of increased money balances may be on output rather than prices, which further raises desired balances”. However, Friedman alludes to **negative welfare effects** of helicopter money in the form of a loss of consumer surplus in that case.

The effects are “real” when suppliers can meet increased demand by **selling from inventories** or producing new goods and services by **employing idle resources**. But what if people used the money to pay down bank credits or to increase their money savings?[24] Hence, helicopter money should be more effective in situations of under-employment (an argument amplified by hysteresis): “The basic principle is that if a central bank wants to raise inflation and output in an economy **that is running substantially below potential**, one of the most effective tools would be simply to give everyone direct money transfers”. “In theory, people would see this as a permanent one-off expansion of the amount of money in circulation and would then start to spend more freely, increasing broader economic activity and **pushing inflation back up to the central bank’s target**”.[25] There is a broad consensus that

[21] See M. Woodford: Methods of Policy Accommodation at the Interest-Rate Lower Bound, Speech at Jackson Hole Symposium, Wyoming, 20 August to 1 September, 2012.
[22] A. Belke: Economic Recovery in a Diverging Monetary Union: Italy and the Euro", Keynote Speech, Italian Chamber of Deputies, Rom, Conference “The Italian Public Debt in the Eurozone”, 3 July, 2017.
[23] M. Friedman, op. cit., pp. 8f, 1969.
[24] See, for instance, T. Mayer: From Zirp, Nirp, QE, and Helicopter Money to a Better Monetary System, Flossbach von Storch Research Institute, Economic Policy Note 16/3/2016.
[25] See https://www.weforum.org/agenda/2015/08/what-is-helicopter-money/ and C. Borio, P. Disyatat, A. Zabai, op. cit., 2016.

helicopter money can best be defined as an increase in the nominal purchasing power of economic agents through a permanent addition to their money balances.[26]

Setting helicopter money apart from Quantitative Easing

The **major difference** between QE as it has been carried out and helicopter drops as envisaged by Friedman is that the vast majority of QE purchases have been **asset swaps**, through which a government bond is exchanged for bank reserves. While this alleviates reserve constraints in the banking sector (one possible reason for them to cut back lending) and has lowered government borrowing costs**, its transmission to the real economy has been indirect and underwhelming**.[27] As such, it does not provide "much bang for your buck".[28]

With helicopter money, the boost to demand is said to materialize through a perceived **wealth gain by households.** The traditional ways of supplying central bank money would not create this same effect, because the newly created money is usually extended to the commercial banks merely as a credit or is used to purchase marketable assets from them.[29] However, this differentiation is not convincing and might even be considered misleading, because it suggests a **policy regime change.** But as long as the ECB continues to buy sovereign bonds ("permanent QE") – whether through its Securities Market Programme[30] or via QE – a shift to helicopter money will not represent a true policy regime change. The money created in this way can **already be considered helicopter money,** because the Euro area governments have already financed transfers to their citizens or have eschewed tax increases through government income from the increases in government debt, which in turn have been financed by the printing press. For this assessment, it does not play any role that the governments have to pay interest on their emitted debt securities, because these interest payments to the ECB flow back to the governments via the ECB's distributions of profit.[31]

According to some economists, it is an economic truism that the issuance of helicopter money is equivalent to the **combination of an expansionary fiscal policy with an expansionary monetary policy**. Consequently, the economic effects must also be the same, i.e. similarly

[26] See B. Bernanke: Some Thoughts on Monetary Policy in Japan, Speech to the Japan Society of Monetary Economics, Tokyo, May 31, 2003.
[27] See A. Belke, D. Gros, T. Osowski: The Effectiveness of the Fed's Quantitative Easing Policy: New Evidence Based on Interest Rate Differentials, Journal of International Money and Finance, , Vol. 73, pp. 335-349, 2017.
[28] https://www.weforum.org/agenda/2015/08/what-is-helicopter-money/.
[29] See, for instance, H.W. Sinn: Helicopter Money, in: B. Frey and D. Iselin (Eds.), Economic Ideas You Should Forget, Springer, pp. 129-130, 2017.
[30] See A. Belke: Driven by the Markets? ECB Sovereign Bond Purchases and the Securities Markets Programme, in: Intereconomics, Vol. 45, No. 6, 2010, pp. 357-363.
[31] H.W. Sinn, op. cit., 2017.

underwhelming. But what hasn't functioned yet, will not even work if it is wrapped differently. The **only difference** between the "old" and the "new" version of helicopter money seems to be of a **legal** nature: whereas in today's world democratic governments determine the extent of public debt and the receivers of transfers or the beneficiaries of tax cuts, it is the ECB itself which makes the decisions regarding new helicopter money.[32]

Direct transfers into people's bank accounts, or **monetary-financed tax breaks and government spending** would increase the effectiveness of the policy by directly influencing aggregate demand **rather than hoping for a trickle-down effect from financial markets**. Haven't central banks been doing that, through Quantitative Easing, known as QE? No. Helicopter money - which, in its more practical forms, is called monetary finance (MF), or monetizing the debt - is used to purchase goods and services. With QE, however, the newly created money is used to buy government bonds. This pushes down bond yields, which should prompt consumers to borrow and spend more – as interest rate cuts do in normal times. But that may not work if people are so **risk-averse** that they are willing to hold Treasury bills or cash with no return whatsoever rather than spend.[33] But some say, as already indicated above, that "helicopter money" may be **equivalent to permanent QE** (see later sections).

Distinguishing helicopter money from a traditional fiscal stimulus

Helicopter money is also **different from a traditional fiscal stimulus**, in which the government sells bonds to the public and uses the proceeds to directly stimulate demand, for example by building highways, hiring teachers or cutting taxes. Eventually, more government borrowing **will push up interest rates**, hurting private investment and raising solvency worries. Households, expecting their taxes to rise, may **spend less** (a phenomenon called Ricardian equivalence). From a theoretical perspective, the appealing aspect of a monetary-financed fiscal programme (MFFP) is that it should influence the economy through a number of channels, making it extremely likely to be effective - **even if existing government debt is already high and/or interest rates are zero or negative**. In our example the channels would include:[34]

1. the **direct effects of the public works spending** on GDP, jobs, and income;
2. the **increase in household income from the tax cut**, which should induce greater consumer spending;

[32] See, for instance, H.W. Sinn, op. cit., 2017. This may only be interpreted as an advantage with an eye on the fact that the new form of helicopter money will help to surmount the democratic hurdles and legal brakes for public debt which have been erected by the parliamentary democracies in the Euro area. However, similar arguments are propagated by those people, whom the ECB should certainly not join.
[33] M. van Rooij, J. de Haan, op. cit., 2016.
[34] See B. Bernanke: What Tools Does the Fed Have Left? Part 3: Helicopter Money, Brookings, 11 April, 2016.

3. a temporary **increase in expected inflation**, due to the increase in the money supply. Assuming that nominal interest rates are near zero,[35] higher expected inflation implies **lower real interest rates**, which in turn should incentivise capital investments and other spending; and
4. the fact that, unlike debt-financed fiscal programs, a money-financed program **does not increase future tax burdens**.[36]

Standard (debt-financed) fiscal programs also work through the first two channels. However, when a spending increase or tax cut is paid for by debt issuance, as in the standard case, future debt service costs and thus future tax burdens rise. To the extent that households today anticipate that increase in taxes - or if they simply become more cautious when they hear that the national debt has increased - they will spend less today, offsetting some of the programme's expansionary effect.

In contrast, according to proponents of helicopter money, a fiscal expansion financed by money creation **does not increase the government debt or households' future tax payments** and so should provide a greater impetus to household spending, all else equal (channel 4).[37] Moreover, the increase in the money supply associated with the Money-Financed Fiscal Program (MFFP) should lead **to higher expected inflation** (channel #3) - a desirable outcome, in this context - than would be the case with debt-financed fiscal policies.[38]

The assumption that helicopter money would **avoid any increase in government debt** is **not uncontested**, however. This is because the issuance of helicopter money implies, from the perspective of the ECB and the Euro area member states, the waiver of the perpetual flow of interest income which would emerge under traditional money creation. This waiver is equivalent to a permanent obligation to pay interest as it would emerge under an open accumulation of debt.[39] However, one may argue that the waiver is only hypothetical, because the helicopter adds on to the existing amount of money.

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[35] See, for instance, P. Krugman: The Simple Analytics of Monetary Impotence (Wonkish), The Opinion Pages, New York Times, December 19, 2014, and A. Turner, op. cit., 2015.

[36] See C. Borio, A. Zabai: Unconventional Monetary Policies: a Re-appraisal, BIS Working Papers No 570, Bank for International Settlements, Basle, July, 2016.

[37] Krugman comments on this popular argument quite ironically: "(I)t's certainly something I've heard from helicopter money types, who warn that something like Ricardian equivalence will undermine fi scal expansion unless it's money-fi nanced." See P. Krugman: Chris and the Ricardianoids (Wonkish), The Conscience of a Liberal, 30 August 2016, available at https://krugman.blogs.nytimes.com/2016/08/30/chrisand-the-ricardianoids-wonkish/.

[38] B. Bernanke, op. cit., 2016.

[39] See C. Borio, A. Zabai, op. cit., 2016, Box 2, and C. Borio, P. Distayat, A. Zabai, op. cit., 2016, and H.W. Sinn, op. cit., 2017.

However, the **hypothetical loss,** as compared to ordinary money creation via open market operations, will turn into a **true loss** if the amount of money must be reduced to its normal level once the inflation target is reached. Since it will be rarely possible to recollect the helicopter money, in the same way as government debt can hardly be settled, the ECB will have to **withdraw its credit money from circulation**. This in turn will lead the ECB to distribute smaller profi ts to the governments of the Euro area member states.[40] This is similar to the situation with QE in the US, where the Fed has consistently and transparently planned to eventually return its balance sheet and thus the monetary base back to their prevailing trend paths prior to its QE programmes. But the Fed was also implicitly committing to a mere temporary expansion of the monetary base by not raising its inflation target.[41]

And if the monetary base will not be decreased again, because there is not sufficient credit money around to do this or in order to make QE successful in the end, **inflation may explode**.[42]

Indeed, the standard view in modern macroeconomics is that, in order for QE to make a meaningful difference, the associated **monetary base growth needs to be permanent**.[43] This is because a permanent expansion of the monetary base leads in the long run to a permanent rise in the price level. This mechanism in turn creates an incentive to start spending more in the present period when goods are still cheaper. According to Krugman,[44] based on his now-famous 1998 model applied to a zero-lower bound scenario, “(a)nything you do — monetary or fiscal — affects current consumption to the extent, and only to the extent, that it moves the expected future price level. Full stop, end of story“. In other words, expressed in Wicksellian terms, lowering real interest rates to their market clearing level would imply a temporary surge in expected inflation.[45]

Further developments of the helicopter money idea

Helicopter money merges QE and fiscal policy while, at least in theory, **getting around limitations on both**. The government issues bonds to the central bank, which pays for them with newly created money. The government uses that money to invest, to hire and to send

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[40] See H.W. Sinn, op. cit., 2017. This can be interpreted as the “true“ problem of the helicopter money. The governments of the Euro area member countries become impoverished because their citizens receive donations which in turn imply a permanent burden for the budget at the amount of the interest payments on these donations and, thus, a corresponding disadvantage of future generations of tax payers.
[41] See J. Cohen-Setton: Permanent QE and Helicopter Money, Blogpost, Bruegel, Brussels, January 5, 2015, and M. Woodford, op. cit., 2012. After all, the same was the case for Japan’s QE policy in the period 2001-2006.
[42] H.W. Sinn, op. cit., 2017.
[43] See D. Beckworth: The Federal Reserve's Dirty Little Secret, December 22, 2014, comes up with a useful compilation of corresponding citations of Woodford, Svensson, and Obstfeld among others which are supporting this view. See also C. Borio, P. Disyatat, A. Zabai, op. cit., 2016.
[44] P. Krugman: The simple …, op. cit., 2014.
[45] See J. Cohen-Setton, op. cit., 2015.

people checks or cut taxes, virtually guaranteeing that total spending will go up. Because the central bank, not the public, is buying the bonds, **private investment is not crowded out**.

Unlike with QE, the central bank promises never to sell the bonds or withdraw from circulation the money it created. It returns the interest earned on the bonds to the government. That means households **will not expect their taxes to go up to repay the bonds**. It also means they should expect **prices eventually to rise**. As spending and prices rise, nominal GDP goes up, so the **debt-to-GDP ratio** can remain **stable.**

Helicopter money variants à la Bernanke und Buiter

"From Friedman's paper, other academics including former Federal Reserve Chair **Ben Bernanke** and economist **Willem Buiter** have developed the theory further".[46] Ben Bernanke has ennobled Friedman's basic idea to a real world monetary policy option. Shortly before the end of the millennium, in 1999, he discussed whether the helicopter money could help Japan out of the deflationary spiral. Bernanke[47] repeated these extremely unconventional considerations as a Fed board member, which gave him the nickname **helicopter-Ben**.[48]

Bernanke[49] raised the possibility for **monetary-financed tax cuts**, whereby a government could cut taxes in a slump with the central bank committing to purchasing government debt in order to prevent interest rates from rising:

"A broad-based tax cut, for example, accommodated by a programme of open-market purchases to alleviate any tendency for interest rates to increase, would almost certainly be an effective stimulant to consumption and hence to prices. Even if households decided not to increase consumption but instead rebalanced their portfolios by using their extra cash to acquire real and financial assets, the resulting increase in asset values would lower the cost of capital and improve the balance sheet positions of potential borrowers. **A money-financed tax cut is essentially equivalent to Milton Friedman's famous 'helicopter drop' of money**.".[50]

Buiter[51] provides a rigorous analysis of Milton Friedman's parable of the 'helicopter' drop of money – a permanent/irreversible increase in the nominal stock of fiat base money which respects but relaxes the intertemporal budget constraint of the consolidated Central Bank and

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[46] https://www.weforum.org/agenda/2015/08/what-is-helicopter-money/.
[47] See B. Bernanke: Deflation: Making Sure "It" Doesn't Happen Here, Remarks Before the National Economists Club, Washington, D.C., November 21, 2002.
[48] See D. Mattews: To Fix the Economy, Let's Print Money and Mail It to Everyone, 2015.
[49] B. Bernanke, op. cit., 2002.
[50] See M. Woodford, op. cit., 2012.
[51] See W.H. Buiter: The Simple Analytics of Helicopter Money: Why It Works – Always, Vol. 8, 2014-28, August 21, 2014.

Treasury – the State.[52] Examples are a **temporary fiscal stimulus funded permanently through an increase in the stock of base money** (helicopter money) and **permanent QE**, an irreversible, monetized open market purchase by the Central Bank of non-monetary sovereign debt. The latter is exactly what has been demanded quite frankly several times more recently in Brussels by some EMU member countries forming the anti-austerity alliance as a permanent element of EU governance. The fiscal consequences of these two policies should be exactly the same in principle.[53]

The effects would only differ if the implications for future policy were not perceived the same way by the public in practice. In case of Quantitative Easing, markets might not anticipate the increase in the monetary base to be permanent, as Japan's experience with its Quantitative Easing policy from 2001 to 2006 revealed. And also US, UK and Euro area policymakers insisted that the expansions of those central banks' balance sheets won't be permanent, either. In that case, there is actually no reason for demand to increase. This might be different for helicopter money. In that case, the likelihood would increase that the intention to maintain a permanently higher monetary base would be credible.[54]

For Buiter,[55] helicopter money is more than just any unspecified combination of an expansionary fiscal policy with an expansionary monetary policy. According to him, **three conditions** must be satisfied for helicopter money to always **boost aggregate demand**. First, there must be benefits from holding fiat base money other than its pecuniary rate of return. Second, fiat base money is irredeemable – viewed as an asset by the holder but not as a liability by the issuer. Third, the price of money is positive.

Given these three conditions, there always exists – even in a permanent liquidity trap – a combined monetary and fiscal policy action that boosts private demand. And this is in principle valid without limit. Deflation, 'lowflation' and secular stagnation are therefore unnecessary. On the contrary, according to Buiter,[56] they are just **policy choices** and can be **avoided through helicopter money**.

Today, governments are trying to get inflation higher, not lower. But QE and deficit spending to date have yet to accomplish that. Would helicopter money be more successful in that respect? Richard Clarida often declared that **central banks and governments must coordinate** at the outset to have the desired effect.[57] Rather than commit, as the Fed has done, to eventually get rid of its bonds, it must **promise to hold them forever**. "If markets

[52] See C. Borio, A. Zabai, op. cit., 2016, Box 2.
[53] See M. Woodford, op. cit., 2012.
[54] See L. Reichlin, A. Turner, M. Woodford, op. cit., 2013.
[55] W.H. Buiter, op. cit., 2014.
[56] W.H. Buiter, op. cit., 2014.
[57] See, for instance, The Time and Place for 'Helicopter Money', The Wall Street Journal, 21 March 2016, available at https://blogs.wsj.com/economics/2016/03/21/the-time-and-place-for-helicopter-money/.

expect the new debt to be sold into the market in the future that would **depress consumption** as households and firms expect a future tax increase." Moreover, he notes, the Fed **must not pay interest on the reserves it creates** when it buys the debt, as that would negate the fiscal benefits.

In practice, there are basically **three variants** of helicopter money available to the European Central Bank (ECB). They have been critically and sensationally discussed in the media and are described in the following.

Helicopter money variant 1 – The ECB prints money, the government distributes it

The first option is a „**broad-based tax cut combined with money creation by the central bank to finance the cut**".[58] This method is inspired by a concrete United States precedent. During the Great Recession, the US Government spent $100 billion that it borrowed from the Fed. 70 million households received tax cuts via checks which on average were worth $950.[59]

In accordance with this approach, the **central bank would have to cooperate with the government authorities**. For example, the tax authorities could pass the funds to taxpayers. The success of this approach depends crucially on how credibly the government is able to communicate that the money spent **will not be recovered via future tax increases**. Nobel Laureate Chris Sims has argued that monetary-financed tax cuts would only work if fiscal authorities obliged the government not to introduce new taxes.[60] If citizens anticipate that they eventually have to pay for the tax cuts, they will save most of the money to cope with future tax increases, severely limiting the impact of the tax cuts.

Helicopter money variant 2 – The ECB transfers money to the private sector

A second approach would be that the central bank makes the **money directly available to citizens**. For example, the ECB could open up an account for each EU citizen and provide it with a fixed amount. A specific and binding expiration date could force citizens to spend the money quickly. In order to balance out the ECB's balance sheet according to the principles of double bookkeeping, it could at the same time take **virtual debts** onto its books, for example bonds which do not have to be repaid and for which interest is not due.

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[58] See B. Bernanke, op. cit., 2002.

[59] See J.A. Parker, N.S. Souleles, D.S. Johnson, R. McClelland: Consumer Spending and the Economic Stimulus Payments of 2008, NBER Working Paper No. 16684, National Bureau of Economic Research, Cambridge/MA, 2011.

[60] As summarised by C. Sims: Fiscal Policy, Monetary Policy and Central Bank Independence, Paper presented at the Jackson Hole Symposium, Wyoming, 25-27 August, 2016, and critically discussed with respect to the helicopter money issue by P. Krugman: Chris and …, op. cit., 2016.

Contrary to government tax refunds, citizens could thus be sure that the **money will not be recovered from them**, and they would be likely to spend a greater share of the money. In the medium term, however, this variant would weaken the balance sheet of the central bank: as citizens transferred the money to their own accounts and their claims on the commercial banks increased, the latter would have to increase their minimum reserves at the ECB accordingly. The central bank would then have to pay interest on the reserves **without receiving interest on its own debts**. This would make it more difficult for the central bank to raise interest rates again, because it would lose money in doing so.

Helicopter money variant 3 – The ECB prints and the government invests

The third variant of helicopter money represents a strategy in which a central bank such as the ECB prints money and **transfers it directly to the government, which in turn spends it immediately** - a variant **much closer to traditional Keynesian models**. In this case, too, the Euro area member countries could issue bonds in exchange for freshly printed money; **the bonds would not bear interest and would not have to be repaid to the ECB.** This would only happen in order to guarantee that the ECB's balance sheet still meets the usual requirements. In other words, the ECB would buy government debt titles and substitute them with no-interest bearing bank reserves, i.e. loans of unlimited duration.[61] Or, as a standard case, the central bank acquires assets but **rebates the interest paid** on the government bonds **back to the national treasuries**, so that the budgets of all parties remain the same, as if no government bonds were actually acquired - as is explicitly the case with helicopter money.[62]

In addition, the central bank could take over the debt service of the government, pay the interest and, if a government bond expires, disburse the owners of the bonds without a new government bond being issued for this purpose. The government's absolute debt would thus be reduced. And less debt finance means **lower interest payments, forever.**[63] Adair Turner[64] pleads for this form of helicopter money, even if it would not represent helicopter money in its pure form anymore. Some politicians from the financially distressed peripheral EMU member countries also tend to consider it even as a constitutional part of permanent Euro area governance.

While private households would still use a portion of the helicopter money to save or pay off their debts, the **government would completely spend it,** according to this variant. In addition, money could **flow into sustainable investment**, for example in schools, streets or data lines.

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[61] See P. Pâris, C. Wyplosz: To End the Eurozone Crisis, Bury the Debt Forever, VoxEU, 6 August, 2013, and P. de Grauwe, Y. Ji: Fiscal Implications of the ECB's Bond Buying Programme, VoxEU, 14 June, 2013, and C. Borio, A. Zabai, op. cit., 2016, Box 2.

[62] See M. Woodford, op. cit., 2012.

[63] C. Borio, A. Zabai, op. cit., 2016, Box 2.

[64] A. Turner, op. cit., 2016.

However, it may take some time before the money actually reaches the economic cycle, due to the strict rules of awarding contracts.

It does not come as a surprise that this third variant is discussed **primarily in the US and the UK**. Given the strict ban on the funding of government deficits and the de facto absence of fi scal policy coordination in the Euro area, the ECB would hardly be in a position to inject money through government accounts.[65]

Variants I to III – The upshot

These programmes should only run until the desired inflation rate of two percent is reached. Their main purpose is to guide the global economy back onto its normal path with normal interest rates and normal growth. It is crucial that the money issued by the „helicopter“ does not have to be repaid. Any demand for regular helicopter money distributed by central banks such as the ECB - a kind of basic income – is, however, misguided. Helicopter money would instead be a one-off monetary policy impulse, and it should not be viewed as a means to guarantee long-term social protection.

Important facets of the debate

Supporters of helicopter money such as Adair Turner, Lawrence Summers and other economists such as Lars Svensson, Willem Buiter, Jordi Gali, Lucrezia Reichlin and Michael Woodford and commercial bankers see helicopter money as a way to let money directly pour into the real economy in order to boost it. The main purpose of helicopter money then is to overcome the long-lasting deflationary phase since the financial crisis.

What he thought of helicopter money, ECB President Mario Draghi was asked.[66] "It's an interesting concept …" he replied, giving the observers an excitement. Afterwards, Draghi was trying to backpedal verbally. But, after all, investors put each of his words on the gold scale. He argued that the ECB had not dealt with the concept, at least „not yet“, since it is very complex „accounting-wise“ and „legal-wise“.

Did he thus make matters even worse? In any case, the combination of "interesting" and "not yet" was sufficient to trigger a discussion about the sense and nonsense of helicopter money. Even more important, he stifled expectations about helicopter money to become a realistic option. If helicopter money has not been an issue, why were the ECB leaders talking about it again and again?[67] In the same vein, the Swedish bank Nordea recently has brought a sum of

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[65] See T. Mayer, op. cit., 2016.
[66] See M. Draghi: Q&A, Press Conference, European Central Bank, Frankfurt/Main, March 10, 2016.
[67] See Wallstroem: Helicopter Money – Next Year's Christmas Present?, Nordea Research, 12 December, 2014. According to Reuters, the Swedish banking house Nordea recently mentioned a sum of 1300 euros, which could distribute the banknote directly to every citizen of the 19 countries of the Euro area.

1300 Euros into the discussion which should be directly distributed to each citizen of the 19 member countries of the Euro area.

Taking all this as a starting point, the German media even speculated about whether Finance Minister Wolfgang Schäuble expects the ECB to print „helicopter money". Did he mistrust the ECB? And did he thus even consider to go to court against the ECB?[68]

On the extreme edges of the political spectrum there have been politicians who have sympathy for a central bank financing of economic stimulus programs. Jeremy Corbin, the British Labor Party's stubbornly left-wing leader, stands for "Quantitative Easing for the People".[69] Marine Le Pen, Front National, is also focussed on the printing press to boost the economy and cover budget deficits, but with a less sophisticated way of reasoning. Especially in Anglo-Saxon countries the idea of helicopter money pushes open ears. The influential columnist of the British "Financial Times" Martin Wolf ("Helicopter drops might not be far away") as well as the magazine "The Economist" wrote conspicuously well about helicopter money in 2016.

In Germany, in contrast, most economists have been no less than **allergic** to such proposals. They see the weakness of the southern European economies rather in structural problems, mainly in non-competitive cost structures. Accordingly, former ECB Chief Economist Otmar Issing frankly argued: "Using helicopter money would be equivalent to declaring bankruptcy. ... I think it is a total mental confusion." However, current ECB Executive Board member Benoit Cœuré retaliated: "I would say there is a certain irony in the fact that they criticize us for our insistence on the inflation target. For it was the insistence of Germany that the ECB was committed to inflation in the treaties - and I think it was correct". But another „German" institution, Deutsche Bank, has shown some sympathy for helicopter money.[70]

To clarify issues then, what are the main pros and cons of „helicopter money" in detail?

Helicopter money: pros

Friedman[71] used the helicopter as a metaphor to argue that the **central bank could always create inflation by printing enough money**. As people spent the money, nominal GDP would

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[68] See Oswald, A.: Wird Japan Geld vom Himmel regnen lassen?, Handelsblatt, 17 July, 2016, available at http://www.handelsblatt.com/finanzen/vorsorge/altersvorsorge-sparen/helikoptergeld-hat-die-ezb-die-debatte-um-helicopter-money-indirekt-befeuert/13882640-4.html.

[69] See M. Blyth, E. Lonergan, op. cit., 2014, A. Kaletsky: Suddenly, Quantitative Easing for the People Seems Possible, Reuters, 9 August, 2012, available at http://blogs.reuters.com/anatole-kaletsky/2012/08/09/suddenly-quantitative-easing-for-the-people-seems-possible/.

[70] See Lorz, O: Deutsche Bank zeigt gewisse Sympathie für Helikoptergeld - Anwendungsfall könnte näher liegen als erwartet, Börsenzeitung, 16.04.2016, available at https://www.boersen-zeitung.de/index.php?li=1&artid=2016073035.

[71] M. Friedman, op. cit., 1969.

rise, either through the production of more goods and services, higher prices, or both. As Bernake points out: “In theory at least, helicopter money could prove a valuable tool. In particular, it has the attractive feature that it should **work even when more conventional monetary policies are ineffective and the initial level of government debt is high**.”[72] However, he argues further that a key presumption of MFFPs is that the financing of fiscal programs through money creation will lead to **lower future tax burdens than financing through debt issuance**.

According to Bernanke’s view, one pro is that solutions are available for implementation problems. “As a practical matter, the use of helicopter money would involve **some difficult issues of implementation**. These include (1) the need to integrate the approach with standard monetary policy frameworks and (2) the challenge of achieving the necessary coordination between fiscal and monetary policymakers, without compromising central bank independence or long-run fiscal discipline".[73]

Bernanke also proposes some tentative **solutions for these problems**.[74] The central bank’s inflation target could be temporarily increased. Payment of interest on reserves could either be eliminated or at least be set at a rate lower than the interest paid by the Treasury on government debt. All these proposals refer to the field of topics (1). What is more, a special treasury account at the Fed to be filled at emergency times in accordance with the FOMC could be created. And the Congress should decide upon how to spend the funds but can also leave it unspent. This proposal belongs to the field of topics (2).

Another argument in favour of helicopter money is that it would enable the central bank to inject money directly into the real economy in order to overcome the deflationary phase that has prevailed since the financial crisis. After all, leading central banks have not yet achieved their desired inflation levels through their use of previous exceptional instruments.

However, this argument may be **less valid today** with a headline inflation rate of around 2 percent in the Euro area, assuming one disregards the fact that the core inflation rate is much lower and that the current headline inflation rate might not be sustainable due to its dependence on oil price developments. Hence, the helicopter money proposal appears logical (but regarding Europe only until 2015/16). Since the financial crisis, prices in the Euro area have been falling (or increasing at a slower rate) in many sectors and for many products. This deflation (disinflation) is alleged to be bad for companies, because they take on too little credit and are too cautious with their investments. Helicopter money could quickly change this dynamic.

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[72] B. Bernanke: What tools …, op. cit., 2016.
[73] See B. Bernanke, op. cit. See also S. Wren-Lewis: On the Stupidity of Demand Deficient Stagnation, 31 December, mainly macro blog, Comment on macroeconomic issues, 2014.
[74] B. Bernanke, op. cit., 2016.

Moreover, private debtors‘ deleveraging through helicopter money tends to increase the ability to consume. This rebuts the caveat by IMF Chief Economist Maurice Obstfeld that the recent **„helicopter-type“ oil price decline did not take effect** as a business cycle stimulus programme.[75]

At the same time, the commercial banks continue to allocate only small quantities of the money made available to them by the ECB to companies and citizens. This has been especially relevant for Greece, but also to Italy.[76] Since the financial crisis, the banking system has no longer functioned as it should ("Impossible Trinity of Bank Policy").[77] In that sense, zero interest rate policy (ZIRP), negative interest rates (NIRP) and Quantitative Easing (QE) have not worked to a sufficient extent. This explains the appeal of helicopter money as a means to **bypass banks and provide central bank money directly to citizens**. Proponents hope that the additional demand stimulated by helicopter money acts as an impetus for higher prices and more growth.

On the one hand, helicopter money would be a new instrument. But on the other hand it would **not be the first time** in the last ten years that money and fiscal policies are set in a way that **was inconceivable before**. One example is that the Fed forced the government in 2008 to inject public capital into the commercial banks in order to stabilize the US banks.[78] Another one is the ECB's introduction of negative deposit rates.[79]

Under helicopter money, the ECB could buy government debt and replace it with interest-free and indefinite loans without causing inflation to overshoot the target.[80] This is because the increase in the monetary base is not inflationary under the - as some observers argue - current low-inflation conditions. In addition, the central bank could always offer its own debt securities and absorb excess money.[81]

Some argue that helicopter money is not a structural solution, but that one of its basic ideas is at least debatable: in order to finance a short-term stimulus to increase inflation, the European

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[75] See G. Hosp: Perverse Geldpolitik, Neue Zürcher Zeitung, 11 April 2016, available at https://www.nzz.ch/wirtschaft/wirtschaftspolitik/perverse-geldpolitik-wenn-notenbanken-sich-hoehere-erdoelpreise-wuenschen-ld.12726.

[76] See A. Belke, F. Verheyen: The European Central Bank and the Financing Conditions of Small and Medium-Sized Enterprises in Europe, in: Rivista di Politica Economica, IV-VI 2014, Vol. 103/2, pp. 199-215.

[77] See T. Mayer, op. cit., 2016.

[78] See J. Gattuso: Paulson and the Banks: What an Offer You Can’t Refuse Looks Like, The Daily Signal, May 15, 2009, available at https://www.dailysignal.com/2009/05/15/paulson-and-the-banks-what-an-offer-you-can’t-refuse-looks-like/.

[79] See T. Yates: You Can’t Have Your Helicopter Money Cake and Eat High Interest Rates, Adair, longandvariable blog, 2 February, 2016.

[80] See P. Pâris, C. Wyplosz, op. cit., 2013.

[81] See L. Bini-Smaghi: Conventional and Unconventional Monetary Policy, Keynote lecture at the International Center for Monetary and Banking Studies (ICMB), Geneva, 28 April, 2009, and A. Belke, op. cit., 2010.

national central banks could increase their pay-outs to the governments so that the public sector would have room for additional expenditure. This would not represent a monetary financing of public debt if the central bank operated on its own initiative and in order to achieve its inflation target.[82]

In addition, some specific variants of helicopter money are clearly legal. "The ECB has to obey to strict legal requirements," German bank analyst George Saravelos and two of his colleagues wrote. "However, the treaties are offering her much more room for manoeuvre than it seems at first glance."[83] The transfer of freshly printed cash to private individuals (i.e. not variant III) does not contradict EU legislation in western industrialized countries (Article 20 of the Treaty on other instruments of monetary control, Statute of the ESCB and the ECB).[84]

In addition, the mainstream view is that central banks can work with negative equity capital for an unlimited period of time without the need to compensate for this by means of a cash injection. The government would thus not even have to pay for the helicopter money through the back door.[85]

Helicopter money: cons

"As a practical matter, the use of helicopter money would involve some **difficult issues of implementation**".[86]

"One obstacle is the **institutional separation between monetary and fiscal policy**. That separation exists for a good reason: Central banks were granted independence so that they would not become the printing press for feckless politicians"[87]. "The most difficult practical issues surrounding MFFPs involve their governance - who decides, and how? Unlike orthodox fiscal and monetary policies, MFFPs would seem to require close coordination of the legislature and the central bank, which may be difficult to manage in practice. To the extent that coordination is successful, some worry, it might **put at risk the longer-term independence of the central bank**.

Another concern is that the option of using money finance might be a **"slippery slope" for legislators, who might be tempted to use it to facilitate spending or tax cuts** when such

[82] See Klaus Adam in: P. Plickert: Wenn es Geld vom Himmel regnet, available at http://www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/geldpolitik-mit-helikopter-geld-wenn-es-geld-vom-himmel-regnet-14101989.html.
[83] See G. Saravelos et al.: Helicopters 101: Your Guide to Monetary Financing, Deutsche Bank Special Report, 15 April 2016, pp. 7 f.
[84] See also T. Mayer, op. cit., 2016, p. 2.
[85] For a different view see A. Belke, T. Polleit, How Much Fiscal Backing Must the ECB Have? The Euro Area Is Not the Philippines, in: Économie Internationale, Vol. 124, pp. 5-30, 2010.
[86] See B. Bernanke, op. cit., 2016.
[87] G. Ip, op. cit., 2016.

actions no longer make macroeconomic sense".[88] "The main concern with monetary finance is that inflation is an **arbitrary tax** on holders of cash and bonds. If politicians get used to the printing press, they **could let inflation rip**, destroying the wealth of many households". Paul Krugman argues exactly in the same way: "… (V)ery relevant to other helicopter people, a deficit ultimately financed by inflation is just as much of a burden on households as one ultimately financed by ordinary taxes, because inflation is a kind of tax on money holders. From a Ricardian point of view, there's no difference".[89]

Turner, however, disagrees: "There is no technical reason money finance should produce excessive inflation."[90] "The government could require banks to hold more of the newly created cash as reserves at the Fed. By limiting how much banks can lend, the government would limit how fast nominal GDP would rise"[91].

Another argument against the use of helicopter money is that it does not represent "manna which falls from heaven, but would **rip huge holes in central bank balance sheets**".[92] Ultimately, Euro area member states and their taxpayers would have to bear the costs of helicopter money because central bank profits would fail to materialize for a long time. In addition, **governments and parliaments are the institutions which would to make this decision**. Central banks would have no mandate in this respect, and hence, the ECB may *exceed its mandate* if it attempted to implement helicopter money.

What is more, it seems straightforward – apart from climbing academic heights - to argue that **granting free money is very risky** per se. According to the Chief Economist of the Berenberg Bank, Holger Schmieding, and Joerg Kraemer, Chief Economist of Commerzbank, it would be extremely dangerous if a central bank did not lend money but just gave it away: "The helicopter money is nonsense."[93] In economic terms, it may **not** be **necessary,** and politically it would create a **dangerous precedent**. It would nourish the illusion that central banks could simply print more and more money for the citizens and thus solve their problems.[94]

People would learn that they would not have to earn money through work, and in the next crisis voters or politicians would demand that the central bank **once again fire up the rotors**. There

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[88] See B. Bernanke, op. cit., 2016.
[89] P. Krugman, op. cit., 2016.
[90] A. Turner, op. cit., 2016.
[91] G. Ip, op. cit.
[92] See J. Weidmann: Weidmann mag kein „Helikoptergeld" – Bundesbank-Chef widerspricht Draghi und EZB-Chefökonom, in: Handelsblatt, March 21, p. 29, 2016.
[93] See T. Kaiser: So könnte das Konzept "Helikoptergeld" funktionieren, Die Welt, 21 March 2016, available at https://www.welt.de/wirtschaft/article153499288/So-koennte-das-Konzept-Helikoptergeld-funktionieren.html; and "Helikoptergeld ist Quatsch", Frankfurter Allgemeine, 21 March 2016, available at http://www.faz.net/aktuell/fi nanzen/anleihen-zinsen/chef-volkswirt-der-berenberg-bankgegen-helikoptergeld-14137226.html.
[94] Op. cit.

are concerns that if governments become used to being able to fund tax breaks or investment projects with newly printed money, they might decide **that the tool is too useful to be given up, even in good times**.[95] Even Turner points to the risk that governments that use this instrument once will run the risk of using it again and again.[96] No one could thus know how often and how heavily the central bank will let rain money in the future. This would lead to huge **uncertainty regarding future inflation**. The **consequences for savings, investments and growth prospects** would be **dramatic**. In an extreme case, citizens could ***lose confidence in the monetary system***. People would realise that the bank could simply print money, and they would no longer believe in the stability of their currency. If such a loss of confidence occurs, even **hyperinflation** would be a possibility.[97]

After Mario Draghi had commented on the topic in the midst of March 2016, Bundesbank President Jens Weidmann spoke up a few days later. It is interesting to note that he is involved in this debate at all, with an eye on the fact that the German attitude towards loose monetary policy is well known. Obviously, the **comments of Mario Draghi and Peter Praet** gave the debate such weight that Weidmann felt compelled to comment. "This would be nothing more than the complete confusion of monetary policy and fiscal policy, and incompatible with central bank independence," the Bundesbank President said. "Instead of bringing ever more daring monetary policy experiments into play, it would make sense to stop once. Money policy is **not a panacea, does not replace necessary reforms in individual countries and does not solve the growth problems of Europe** either. Anyone who asks for it, overpowers it and will be disappointed in the end."[98]

Essentially, the critics are concerned about the fact that the ECB has, in principle, to obey the **prohibition of monetary financing of public debt** - probably for good reason. Countries that used to print money from nothing in the past to finance government spending were plagued by **hyperinflation** quite quickly.[99] The conditions for this to happen have been derived earlier in this article.

Moreover, Obstfeld argued that the recent sustained drop in the price of oil, a real situation analogous in its impact to a helicopter money drop, has not led to the desired result of more

[95] T. Hirst: What Is Helicopter Money?, World Economic Forum, 13 August 2015, available at: https://www.weforum.org/agenda/2015/08/what-is-helicopter-money/.
[96] A. Turner, op. cit., 2016.
[97] T. Kaiser, op. cit.
[98] A. Oswald: Wird Japan Geld vom Himmel regnen lassen? Was ist mit dem Konzept "Helikoptergeld" gemeint?, Handelsblatt, 16 July 2016, available at http://www.handelsblatt.com/finanzen/vorsorge/altersvorsorge-sparen/helikoptergeld-was-ist-mit-dem-konzept-helikoptergeld-gemeint/13882640-2.html.
[99] A. Oswald: "Helikoptergeld" – wie die EZB die Inflation befeuern könnte, Handelsblatt, 9 April 2016, available at http://www.handelsblatt.com/finanzen/maerkte/devisen-rohstoffe/5000-euro-fuer-jeden-helikoptergeld-wie-die-ezb-die-inflation-befeuern-koennte/13422680.html.

economic growth and inflation. Instead, consumers have saved more or deleveraged on their debts.[100]

The most important caveat is that helicopter money risks blurring **the boundary between monetary and fiscal policy**. "To be honest, I do not see how helicopter money could work without **government risk sharing** which is **problematic** for practical and legal reasons".[101] As a member of the ECB Executive Board, he felt a considerable amount of scepticism and caution against helicopter money. In his view, the ECB has no mandate to support the financing of individual projects. And, as Mayer argued: “In the times of Friedman, the distribution of cash may well have created **positive feelings**. **Today**, politicians and economists want to **abolish cash**. So helicopter money may not be efficient”.[102]

Further problems

“In order to get a helicopter-drop style policy, you would first **need to coordinate the responses of a government and the independent central bank**. While this doesn’t present much of a barrier in theory, in practice the two seldom operate seamlessly with one another and indeed frequently operate at cross-purposes”.[103] The most obvious **examples** can be seen in the **US debt ceiling stand-offs** between Democrats and Republicans in Washington, which was ultimately settled with a default package of government spending cuts. These cuts, however, effectively **pushed back against the efforts of the Federal Reserve** to keep the country’s economic recovery on track. Then the Fed’s Bernanke told the Senate Banking Committee in 2013: “There’s a **mismatch with the timing of the spending cuts**. The problem is long-term, but the cuts are short-term and do harm to the recovery.”

At the present time, there might be **no concrete plans of the ECB for letting helicopter money drop in the Euro area** – particularly since the ECB is that bank out of all central banks worldwide which would find it most difficult to drop the money. Together with Japan, the Euro area represents the economy which, according to some analysts, should employ helicopter money most urgently. However, the Euro area is at the same time that economy which will implement helicopter money with the lowest probability or imposes the highest hurdles for its implementation. In the end, the ECB would have to coordinate issues with, after all, 19 Ministries of Finance. This type of **coordination failure** represents a huge problem for advocates of helicopter money. As Buiter makes clear in his analysis of helicopter money,

[100] G. Hosp, op. cit.
[101] See P. Briançon: No ‘Absurd’ Negative Interest Rates: ECB Executive Board Member Says, Politico, 30 March 2016, available at https://www.politico.eu/article/qa-with-benoit-coeure-european-central-bankexecutive-board-member/.
[102] T. Mayer, op. cit., 2016.
[103] M. Woodford, op. cit, 2012.

"cooperation and coordination between the Central Bank and the Treasury is required for the real-world implementation of helicopter money drops".[104] In that respect, former Bank of England economist Tony Yates worries that helicopter money could **shatter the fragile political consensus** that has given central banks broadly sensible mandates and preserved their independence.[105]

Another critical issue is that it is **unlikely** that the ECB will be able to **reach its inflation target** with helicopter money. "To be successful, **the central bank would have to know exactly** how much of it is spent and which part is used for the acquisition of goods and services, whose prices enter the consumer price index, and which part is used to acquire assets, whose prices are not recorded there. It would have to know how much spare capacity exists in the economy and how prices would respond to a rise in aggregate demand".[106]

In short, it would need knowledge that it cannot possibly have. Hence, it could pursue its inflation target only through **trial and error**. In doing so, it may well inject more money than is compatible with achieving its inflation target. At this point, people could **lose confidence in the purchasing power of money** and the **rise of inflation could no longer be controlled**. Against this background, introduction of helicopter money would have to be accompanied by the **end of inflation targeting** as a monetary policy strategy.[107]

Summary and outlook

To conclude, helicopter money should be regarded as a **double-edged sword**.[108] On the one hand, it could – as frequently emphasized by Tom Mayer - **smoothly enable a changeover** from our current credit money system to a **new money system**, in which money is no longer created as private debt but as an asset which is backed by the issuer's reputation (full reserve banking). On the other hand, helicopter money could cause a **loss of confidence in the current money** and thus, finally, to a money crisis, if it is implemented by inflation targeting central banks to push inflation higher.[109] "Most likely, we shall first have to **pass through a money crisis** on way to new and better monetary system".[110] Above all, a big risk for the sustainability of the Eurozone would arise if some EMU member countries consider permanent

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[104] W.H. Buiter, op. cit., 2014.
[105] See Yates (2016), available at https://www.weforum.org/agenda/2015/08/what-is-helicopter-money/, and P. Hüttl, A. Leandro: Helicopter Drops Reloaded, Bruegel Blog Post, Bruegel, Brussels, 2016.
[106] See T. Mayer, op. cit., 2016.
[107] See F.A. Hayek: The Denationalisation of Money, Institute of Economic Affairs, London, 1976, and, derived from the former also T. Mayer, op. cit., 2016.
[108] See S. Freigedo: Helicopter Money is A Double Edged Sword, 17 August, 2016, Markets & Money, available at https://www.dailyreckoning.com.au/helicopter-money-double-edged-sword-cw/2016/08/17/.
[109] See T. Mayer, op. cit., 2016.
[110] See T. Mayer, op. cit., 2016.

QE which is equivalent to helicopter money as a central ingredient of the new Euro area governance structure.

Something which is not accomplished by the zero lower-bound will also not be solved by money gifts distributed by the ECB. Hence, one should beware of central banks bearing gifts.[111] Helicopter money, as envisioned according to the concepts described in this contribution, imposes a **heavy price**. More or less, it implies **giving up on monetary policy** discretion **forever**. “Once the models are complemented with a realistic interest-rate setting mechanism, a money-financed fiscal programme becomes more expansionary than a debt-financed programme only if the central banks credibly **commits to setting policy at zero once and for all**. Short of this, these models would suggest a rather **limited additional** expansionary impact of monetary financing. If something looks too good to be true, it is. **There is no such thing as a free lunch**”.[112]

Future research could thus attempt to identify policies that might deliver the **same effect as helicopter money**, but that would be able to **preserve** the traditional separation between **monetary and fiscal policy**. For instance, Woodford argues that one could achieve a similar effect as helicopter money through a bond-financed fiscal transfer, combined with a commitment by the central bank to a nominal GDP target path.[113] The perfect foresight equilibrium would be exactly the same in this case, but this policy alternative would not involve the central bank in making transfers to private parties.

[111] See N. Hungerford: Beware of Central Bankers Bearing Gifts, CNBC, 10 November, 2015, available at https://www.cnbc.com/2015/11/10/beware-of-central-bankers-bearing-gifts.html.
[112] See C. Borio, P. Disyatat, A. Zabai, op. cit., 2016.
[113] M. Woodford, op. cit., 2012.