Helicopter Money: A Preliminary Appraisal

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Abstract

Helicopter money is a monetary policy tool to boost spending levels in an economy experiencing low nominal demand, deflation and high debt to GDP ratio. It is the monetary financing of fiscal deficits, in a strict sense of "seigniorage", in order to reach the inflation and the growth targets in the economy. We critically review in this paper how helicopter money is carried out through direct transfers to the public, or through a "fiscal stimulus" (tax cut or public expenditure boost). Helicopter drops are gaining relevance today in context of the non-efficaciousness of orthodox monetary policy tools like Quantitative Easing (QE) and the persistently low demand levels in the economies. However, the political economy determinants, the macroeconomic policy context and the fiscal-monetary policy linkages are crucial in the effective implementation of helicopter money and it is indeed challenging. When fiscal consolidation strategies adopt public expenditure compression rather than tax buoyancy to reach the rule-based fiscal policies and in turn its adverse consequences on economic growth - which has started showing up in growth downturn - a re-look into the plausible financing patterns of deficit and new monetary policy tools is refreshing.

Keywords. Helicopter money, Quantitative easing, Demand, Fiscal stimulus.

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Introduction

Of the many instruments of monetary policy, one important component is Open Market Operations, the most conventional way of conducting monetary policy. It is conducted through the control of short term nominal interest rates prevailing in the economy. The central banks conduct monetary policy by buying or selling debt securities to target the short term nominal interest rates. The purchase or sale of assets affects the nominal interest rates as well as the monetary base in the economy. This is bound to stimulate the economy to consume and invest more through asset price and credit channels.

A fall in the nominal interest rates leads to higher borrowing for investment and consumption. However, the conventional monetary policy can no longer boost the economy once the interest rates reach the zero lower bound (ZLB). In a situation of a liquidity trap, when the nominal interest rates are zero, money and bonds are considered to be perfect substitutes by the public. Hence, the excess liquidity in the system is incapable of boosting demand in the economy as all the money is held in the form of currency with the public ‚under the mattress'.

After the financial crisis of 2008, the major economies of the world reduced their interest rates to the zero lower bound (ZLB). However, the policy turned out to be ineffective, could not promote a recovery and the world was in a recession. This led the world to resort to unconventional monetary policies such as Quantitative Easing.

After successive rounds of Quantitative Easing by the European Central Bank, Bank of Japan and the Bank of England, these central banks have failed to boost their economies and reach their respective inflation targets. The unconventional policies having failed to produce the desired results, the globe today is facing a downturn in most parts. Low spending levels, extremely low levels of inflation and high debt to GDP ratio are only some of the challenges today. The Central Bankers have applied every strategy possible- real interest rates are at the zero lower bound (ZLB), the conventional monetary policy has clearly failed and so have the range of unconventional measures, including quantitative easing (QE) and negative interest rates(NIR). Hence, there is a growing consensus that the efficacy of monetary stimulus has reached its limits. Stuck in the liquidity trap, the inflation levels still remain low and the demand remains sluggish.

Economists have argued that further efforts to support economic recovery will likely require fiscal interventions, such as helicopter money – the permanent injection of funds into the economy by the central bank through the printing of money. This paper is divided into four sections. Section 2 draws a comparison between Quantitative Easing and Helicopter money and the mechanics of the latter to boost any economy. Section 3 explores the channels of helicopter drops. Section 4 conducts a review of helicopter money as money financing of fiscal programmes. Section 5 discusses the effect of this unconventional monetary policy on the demand levels of an economy. Section 6 concludes.

II **Why helicopter money?**

Let us suppose now 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 the community. Let us suppose further that everyone is convinced that this is a unique event which will never be repeated", wrote Milton Friedman, in his magnum opus "The Optimum Quantity of Money” in 1969. Introduced by the monetarist Milton Friedman in 1969, the concept of helicopter money as suggested by the quote above, is the financing of private consumption by the printing of money. Helicopter money, essentially involves a central bank handing money directly to citizens. This can take place either as a direct transfer to the bank accounts of individuals or as a fiscal stimulus provided to the economy in the form of higher expenditures or tax cuts, one which is gaining more relevance nowadays.

Like quantitative easing, helicopter money involves the central bank printing money. However, the money printed under QE is used to buy debt and other securities while helicopter money is given directly to the public to spend on goods and services. It is a bit like a national bank handing out a check to everyone in the economy. The thing about helicopter money as opposed to QE is that the change in the monetary base is permanent. Under QE, the central bank buys government bonds, pays interest on them and it leads to crowding out. However when the bonds are redeemed the increase in the monetary base is reversed. The change in the monetary base, under helicopter money, unlike QE, is permanent.

In today’s time, helicopter money referred to as the overt monetary financing of government deficits, can be implemented via fiscal stimulus given by the government in the form of higher expenditure or tax cuts in order to incentivize the people to spend. While QE will largely depend on the behaviour of individuals, whether they save or spend, helicopter money is a direct policy tool that ought to boost aggregate demand via a fiscal stimulus by the government. The transmission of QE to the real economy has been indirect and does not provide much bang for your buck. Direct transfers into people’s accounts, money-financed tax cuts or government spending may prove to more effective, directly influencing aggregate demand. In contrast to that, QE relies on a trickle-down effect from the financial markets. Moreover, with QE, the strategy has been to put excess liquidity in the system in order to boost demand but it has not occurred precisely because of several reasons. Firstly, the clear expectation that the increase in the monetary base would be reversed as economic conditions became favourable has acted against the purpose of the policy. In the case of the United States, the Fed always planned to eventually return its balance sheet and, by implication, the monetary base back to the trend path it was on prior to the QE programs. This was communicated by the Fed through the announcement of its exit strategy plans in 2011 and 2014 meetings that point to a reduction in the monetary base. They intended to reduce the holdings of securities in the long run. Hence QE has been ineffective due to its temporary nature to an extent and has led to high debt levels.

The debt to GDP ratio in the US was105 % in 2015 while it stood at 229 % in case of Japan. Thus QE has led to side effects which helicopter money can definitely correct for. Though helicopter drops are gaining attention and are being proposed as the only policy tool left, fears of uncontrollable inflation and mostly hyperinflation continue to haunt the central bankers. However, inflation is precisely what the policy makers are targeting. Thus in regard to the inflationary scenario in the world, it is argued that a higher inflation due to helicopter money will in fact be a benefit rather than a cost. In addition to this, the central banks have complete control on the printing press and hence powerful enough to decide how much money is to be printed to meet the inflation target. Hence, it is argued that there is no reason why the central banks would not decide the amount of seigniorage in accordance to the inflation target.

Past experiences have shown that monetary financing has been successful in boosting growth. Firstly, the central bank and the government together have the power to decide how much to print. As much money should be printed that helps hit the inflation target and no more than that. Hence, there would be no reason why inflation beyond what is wanted will occur. Secondly, there have been instances in the past where monetary financing has worked out successfully. A study emphasizing, on the activities of the Bank of Canada and the government during the period 1935–75, asserted that the Bank engaged in significant direct or indirect monetary financing to support fiscal expansion, economic growth, and industrialization. (Collins, 2015).

The Bank of Canada demonstrated that monetary financing can contribute towards positive and non-inflationary macroeconomic outcomes. The Canadian economy recovered quickly from the Great Depression in the 1935–70 period and then enjoyed a 25-year period of relatively stable and high growth. Reduction in public debt, budget surpluses and full employment characterized the Canadian economy (Collins, 2015). The Bank of Canada played a key supporting role by directly and indirectly financing government debt, controlling government debt markets and in domestic credit creation. For the majority of the period, the Bank was not independent of the government and the primary objective was full employment and growth of the economy rather than price stabilization. The empirical results support the qualitative findings. To quote another instance from Ryan Collins (2015), the Bank of Japan under the finance minister Korekiyo Takahashi engaged in direct debt monetization between 1931 and 1934. The program helped Japan come out of recession and led to a major expansion in public infrastructure too. Interestingly, Takahashi appears to be Prime Minister Abe’s inspiration for the current combined QE and fiscal expansion policies (Turner 2015).

Yet another example is of New Zealand, the Reserve Bank of New Zealand supported the economy by making advances available for the building of state housing, public works activities, and export guarantees which was equivalent to almost 20% of total fixed capital investment and 4% of GDP (Collins, 2015). In the past, moderate use of monetary finance, has led to beneficial effects, not produced hyperinflation in the Pennsylvania Colony in the early 18th century, in the Japanese economy under Takahashi in the early 1930s, and has been used effectively and without hyperinflation by the US government in the Second World War. However, excessive monetary finance led to hyperinflations in Weimar Germany in the early

1920s, several Latin American countries in the 1970s and 80s, and in Zimbabwe recently. The impact all depends on the quantity of the monetary finance operation. (Turner, 2015) .

Turner (2015) has argued that there is no technical reason why the scale of the impact of monetary finance cannot be managed to produce a desired pace of expansion of nominal demand. If the central bank and the government of a country together, credibly commit and decide on a policy which would create only a finite quantity of money, bringing the inflation back to the target, there is no reason why hyperinflation might result as long as precautionary measures are implemented (Turner, 2015). In this the case for helicopter money is completely valid.

Monetary financing of increased fiscal deficits is bound to stimulate nominal demand due to its direct impact on nominal demand and because it leads to an increase in the perceived and actual nominal net wealth of the private sector (Turner, 2015). It is argued that monetary financing can play a huge role in helping countries deal with their current high debt levels.

III The Channels

In short, helicopter money is permanent QE, one financed by printing money along with the implementation of the fiscal policy. This Money Financed Fiscal Program (MFFP) (Bernanke, 2016) might become the last resort of central bankers and governments in economies with extremely low levels of inflation and low consumer spending. Bernanke, nicknamed 'Helicopter Ben' suggests that a Money Financed Fiscal Program (MFFP) is expected to work when conventional monetary policies have been ineffective and the initial level of government debt is high. Supporting this view, Adair Turner of the Institute for New Economic Thinking and former head of UK's Financial Services Authority mentions, that it is one policy that will always stimulate demand (Turner, 2015).

Another proponent of helicopter drops, Buiter (2014) asserts that there will always exist a combination of fiscal and monetary actions that will boost private demand given that the fiat base money is irredeemable, there are benefits from holding it and that the price of money is positive.

Blyth and Lonergan (2014) argue that a direct transfer to the public is believed to not only, increase spending but also reduce inequality. Higher transfers to the bottom 80 percent of income distribution can reduce inequality. Hence, printing of money is bound to be effective. (Blyth and Lonergan, 2014). The Berkeley Economist, Bradford DeLong (2016) asserts that an extended period of depressed growth should lead to the implementation of helicopter money and hence providing extra cash to the public. Though the helicopter money debate has attracted many eyeballs, undoubtedly, it comes with its own set of challenges.

Highlighted by Ben Bernanke, the central banks will have to deal with difficulty in implementation. Since the monetary policy around the world is managed by the central banks while the fiscal policy by the government, the implementation of a MFFP require coordination between the government and the central bank. The British economist, Simon Wren Lewis' (2014) supported the view, adding that the institutional divorce between fiscal and monetary policy' is one reason why the economies cannot find a way out of the liquidity trap.

Buiter (2014), in his analysis elaborates that, cooperation and coordination between the Central Bank and the Treasury is required for the real-world implementation of helicopter money drops. The political difficulty and the need for an institutional framework stands in the way of successful implementation of helicopter money.

The opponents of Helicopter Money, Kiochi Hamada, the chief economic adviser to Prime Minister Shinzo Abe and Micheal Heise, the chief economist of the Allainz SE, are worried about the political risks that such a policy may pose (Heise, 2016). It is believed that policy makers would always have an incentive to reduce debt burden while letting the inflation levels surge and hence such a policy may only lead to inflation due to political motives. It may happen that before an election politicians use this tool to boost their economies. Consequently, surging inflation and fulfilment of political motives may result. Some economists fear that such a policy might threaten the independence of the Central Bank. Turner (2016) and Bernanke (2016), argue that both the aspects can easily be dealt with. According to Bernanke (2016), an arrangement wherein the Central Bank conducts a technical analysis of whether a MFFP is needed and determines the amount of money to be created will do no harm to the independence of the Central Bank. This will not only retain the independence of the bank but also limit the ability of the fiscal authority to spend frivolously. At the same time, the fiscal authority can determine their course of action (Bernanke, 2016).

It is necessary to construct rules and responsibilities to mitigate the political risk of excessive use of money (Turner, 2016). The central banks should be given the authority to approve a maximum quantity of monetary finance if they believe doing so is necessary to achieve their clearly defined inflation target. Rather than prohibiting the use of helicopter money completely, a disciplined approach is suggested. Factoring in individual behaviour, Michael Woodford, in Jackson Hole speech 2012, asserts that the fiscal effect of both QE and Helicopter Money will be the same if the people expect the increase in the monetary base to be permanent in both the cases. Only if the public believes that the central bank has the intention to maintain the monetary base at a higher level permanently; spending under helicopter money will increase unlike under QE. A policy suggestion for a bond-financed fiscal transfer, combined with a commitment by the central bank to a nominal GDP target path is likely to have the same impact as the policy of helicopter money, given that there is perfect foresight. However, perfect foresight may not naturally arise and hence an overt money finance policy may have to be adopted (Reichlin, Turner and Woodford, 2013).

Helicopter money is believed to stand in the way of strict structural reforms if policymakers can resort to it during periods of slow growth (Heise, 2016). Moreover, the political risk of overuse of fiat money to monetize the deficit is a debatable topic and can only be dealt with by implementation of the policy in a disciplined manner. Thus, a disciplined use and not necessarily a prohibition of the "helicopter drops" has been suggested. In effect, monetary financing can be used to finance public investment and battle inflation, both at the same time. Such an investment is not just a free lunch but a meal that diners are being paid to eat. (Watt, 2015).

Considering the global scenario, it is interesting to predict the first central bank to implement the policy of helicopter money. Speculation over the policy began as early as 2016. With the Euro Zone still facing an inflation rate way below its target of 2%, the European Central Bank(ECB) might be the first one to put such a fiscal stimulus in place (Draghi, 2016). ECB President Mario Draghi recently mentioned that the ‚concept of helicopter money was very interesting. But they have never really considered this possibility to bolster the Euro Zone' (Draghi, 2016). At the same time, the negative interest rate policy in Japan has been unable to boost demand. The Japanese economy, apart from deflation, has accumulated high levels of public debt (250% of GDP).The monetization of public debt is possibly the only way out to increase spending in the economy. The likelihood of Japan, resorting to helicopter drops is high. However, Haruhiko Kuroda, the Governor of the Bank of Japan has expressed his concerns about ‚the division responsibilities between parliament, which is responsible for fiscal policy, and the central bank, which sets monetary policy.

In Raghuram Rajan's view, in an environment where helicopter drops are implemented consumers would save rather than spend due to uncertainty. Questioning the political feasibility and the economic benefits of the policy, people will regard it as an unusual activity and save more out of fear. According to Ben Bernanke, it is important that markets and the public appreciate that, should worst-case recession or deflation scenarios occur, governments do have tools to respond. Moreover, with central banks in Europe and Japan struggling to reach their inflation targets, money financed fiscal actions may receive more attention outside this country' (Bernanke, 2016). In no time, if the risk of deflation continues, this overt policy will be a reality.

4. Helicopter Money :The Money Financing of Fiscal Programmes (MFFP)

Turner (2015) advocates the case for monetary financing of deficits. Comparing monetary finance of the fiscal deficit to the other policy alternatives, Turner (2015) asserts that the former is the need of the hour and is sure to boost nominal demand. While explaining the feasibility of the technical case for the implementation of helicopter money, Turner (2015) argues that the political risk of overuse is a challenge.

There is a need to devise rules in order to prevent the political risk. If the authorities can credibly commit to follow the rules, monetary finance will no longer be a taboo (Turner, 2015). Greater coordination between the fiscal and the monetary authorities and a control over the maximum quantity of monetary finance by an independent central bank is all that is needed to mitigate the political risk.

Essentially the case for monetary financing is political (Turner, 2015). Highlighting the case of Japan, Turner (2015) mentions that it is a policy tool which can deal with the issues of 'secular stagnation' and high levels of debt in the economy.

Buiter (2003) advocates the use of helicopter drops as suggested by Friedman and argues that such a policy will always boost demand. Buiter (2003) formalizes the irredeemability characteristic of base money and proves that a liquidity trap will only exist till the time the public believes that the expansion in the monetary base is temporary. Buiter (2014) supports the implementation of the helicopter drop of money and develops an analytical framework to prove that monetary and fiscal policy coordination will always fight deflation. He argues that a permanent increase in the monetary base is bound to increase consumption given that base money is irredeemable, there are benefits from holding it and the price of money is positive. He asserts that the irredeemability of base money is the most crucial assumption for the effectiveness of the helicopter drop.

Considering the intertemporal budget and the solvency constraints of the State and the households, Buiter (2003) in his analytical framework successfully proves that helicopter money drops are an obvious policy choice. However the real world implementation requires the coordination of the monetary and the fiscal authorities, given that it will always boost nominal demand.

Analyzing the effects of money financed fiscal stimulus in a Classical and a New Keynesian framework, Gali (2014) highlights the importance of nominal rigidities in shaping the effects of such a stimulus. He suggests that a fiscal stimulus financed entirely through seignior age will boost aggregate demand, output and employment without fail. Gali (2014) in his analysis proves that the impact on inflation is much more than that on economic activity in the presence of flexible prices and wages. On the other hand, in the presence of nominal rigidities, the increase in demand is substantial with mild inflation in the economy. This situation is favourable and hence the use of a money financed fiscal stimulus is advocated.

Auerbach and Obstfeld (2004) argue that in a liquidity trap situation, permanent open market operations will lead to an increase in the output in the absence of fully flexible prices. Considering the case of Japan, Auerbach and Obstfeld (2004) asserts that if the monetary base is further increased it will certainly improve the welfare of the country. It will help fight deflation and reduce the burden of debt in the economy. Also the policy will have a positive impact on the output in a Keynesian economy, one with nominal rigidities. A credible commitment by the central bank is the key to boosting demand in case of monetary finance.

Eggertsson, Gauti and Woodford (2003) argue that one way to make monetary policy effective at the zero lower bound is by managing the expectations about the future policy conduct of the central bank. Not only that, the central bank must credibly commit to what they intend to undertake in the future and tale actions to implement it. The private sector will form its expectations with respect to the behaviour of the central Bank in the past. Hence making credible commitments will help bring the economy out of the deflationary phase. Eggertsson, Gauti and Woodford (2003) mentions that along with monetary policy, fiscal policy can also be used to fight deflation but both should be coordinated in order to produce the desired result.

Mentioning the role of fiscal policy significantly in the case of zero lower bound (ZLB), Eggertsson, Gauti and Michael Woodford (2006), assert that the combination of both the policies essentially requires credible commitment of the central bank. Fiscal policy is an improvement over the monetary policy in case of tax smoothing rule for taxes only when the expectations of the public are managed well.

Woodford (2012) while exploring the possibility of the success of forward guidance and quantitative easing in boosting nominal demand at the zero lower bound concludes that such policies have clearly been less effective than expected. He mentions that a fiscal stimulus i.e. a coordinated fiscal and monetary policy is a definite way to increase aggregate demand. With particular focus on the Euro Zone, Andrew Watt (2015) discusses the need of monetary financing around the globe. Despite the implementation of QE, the demand remains sluggish. Hence there is a strong case for a '*conditional overt monetary financing of public investment*' (COMFOPI). (Watt, 2015). Comparing QE with helicopter drops, Watt (2015) argues that while the former works through indirect channels, the latter leads to higher spending directly in the economy. He considers it to be a viable policy option and proposes the implementation of overt monetary financing to overcome current stagnation and lead to recovery.

While addressing the problem of deflation and high levels of debt in Japan, Bernanke (2003) proposed a temporary and explicit cooperation between the monetary and the fiscal authorities of Japan as a sure shot way to end deflation. The strategy suggested was one of a price level target rather than an inflation level target in order to reflate the economy. Besides this, the issue of the condition of Japan's Central bank balance sheet was addressed and it was proposed that an improvement is possible by greater cooperation, for a limited time, between the monetary and the fiscal authorities. Talking essentially of the concept of helicopter money, Bernanke (2003) remarked that this different approach would not harm the independence of the central bank as some economists fear. Stating the difference in the role of the central bank during periods of inflation and deflation, Bernanke (2003) advocates that excessive money creation in times of deflation will not be a problem and hence greater cooperation towards a common goal will prove to be successful rather than harm the economy. Bernanke (2016) furthers the argument by adding that a fiscal policy is a 'powerful alternative' when the economy is stuck in a liquidity trap. Though Bernanke (2016) emphasizes the success of helicopter money, he also discusses the need to address the issue of implementation of this program without compromising on the independence of the Central bank.

Calling helicopter drops a Money Financed Fiscal Program (MFFP), Bernanke (2016) suggests that the Central Bank should have the responsibility of deciding whether a MFFP is needed or not and the amount of money required for the same. At the same time the fiscal authority can independently decide how to spend this money to boost spending. Thus in extreme situations, the independence of the Bank will not be harmed and the economy will be out of the deflationary phase.

Simon Wren Lewis (2015) argues that the helicopter drop is considered a taboo mainly because the central bank does not receive an asset in return for the money it creates and because political gains may override economic concerns once money is created. In short, if the government and the monetary authority do not cooperate the helicopter drop may lead to uncontrolled inflation and hence prove to be a cost rather than benefit.

Krugman (1998) has put forward that the solution to Japan's problem is the permanent, rather than temporary, increase in the money supply and a credible commitment by the Central Bank to achieve a higher price level target in a liquidity trap situation. However he advocates that the helicopter drop and QE will have the same effects and that the increase in money supply should be debt financed rather than money financed. He believes that helicopter drops aren't any good and spending can be increased even with QE given that the money increase is permanent and the Central bank is committed to achieving its targets. 5. Effect on welfare: An analysis of the existing frameworks Formal models to estimate the impact of helicopter drops on the demand in an economy have already been developed.

Gali (2014) asserts that in the Classical model, with fully flexible wages and prices, a helicopter drop will have a ‚very small effect on the economic activity and a huge, heavily frontloaded impact on inflation. The effect on welfare is unambiguously negative.' However in a Keynesian framework, allowing for a realistic calibration of nominal rigidities, ‚a money- financed fiscal stimulus has very strong effects on economic activity, with relatively mild inflationary consequences.' Furthermore, if output is sufficiently below its efficient level, a money financed fiscal stimulus may raise welfare even if based on purely wasteful government spending. (Gali,2014).

Using a formal model, Gali (2014) analyses the effects of a money financed fiscal stimulus in a classical framework elaborates on its limited effectiveness in stimulating output and employment and its large inflationary consequences, even though the latter are restricted to the very short run. The model proves that a debt-financed fiscal stimulus has the same effect on activity as money financed fiscal stimulus but only a very limited impact on inflation. Hence, in a classical economy, a debt financed fiscal stimulus might be preferred. However, in an economy characterized by the presence of nominal rigidities i.e. in a New Keynesian model, the role of staggered price setting in the transmission mechanism of money financed fiscal stimulus has been highlighted. Under such a framework, the effect on demand will be higher than that on inflation. The key difference in the results of the classical and the New Keynesian approach lies in the behaviour of consumption and interest rates under the two frameworks (Gali, 2014). The real interest rate is more responsive to monetary injection that accompanies the fiscal stimulus in the New Keynesian framework. The reduction in the real interest rates leads to a large increase in consumption and hence to a large multiplier and greater effectiveness of the stimulus. The decline in the real interest rate observed in the New Keynesian model in response to the money-financed fiscal stimulus is accompanied by an increase in the nominal rate, which is brought about by a large expansion of money demand due to higher prices and consumption. A high rate of inflation leads to the gap between the real and the nominal interest rates which in turn results from the gradual adjustment of prices. Gali (2014) also finds that the presence of non-Ricardian households does not affect the impact of a helicopter drop on output and inflation under the new Keynesian framework. Exploring the effects on welfare the study finds that though, in a classical framework the impact on welfare is negative, the impact is positive in a New Keynesian economy. On the other hand, Buiter (2014) conducts a simple analysis of the impact of helicopter money on the economy by considering the household sector and the State i.e. the government and the Central Bank. Buiter (2014) explains, ‚as long as the price of money is positive, the issuance of fiat base money can boost household consumption demand by any amount, given the inherited stocks of financial and real assets, given current and future wages and prices, and given current and future values of public spending on goods and services‛.

Buiter (2014) considers a closed economy analytical framework and characterizes household behaviour. The framework is used to show that helicopter money drops can boost household demand regardless of whether there is Ricardian equivalence or not. Considering the household utility function and the budget constraint the paper arrives at the optimal levels of consumption and money demand for the households. Similarly, for the State, which issues the base money the budget constraint has been considered. The equations prove that the base money injected into the economy directly affects the optimal amount of consumption in the economy. Through the analytical framework, Buiter (2014) argues that a monetary injection will always boost consumption. This leads us to the conclusion that technically the theory of helicopter money is completely valid and viable. However, the institutional implementation of helicopter drops requires cooperation and coordination between the Central Bank and the fiscal authority.

Discussing in close proximity with the helicopter money parable given by Friedman, a permanent fiscal stimulus financed by the issuance of base money can be implemented by the coordinated actions of the fiscal and the monetary authorities. Talking about the working of money financed fiscal program, the Government would make a one-off cash transfer to all eligible households and fund these payments by selling Government debt to the Central Bank (Buiter, 2014). As the transfers happen to the households, the Government's balance is run down. Hence forth, the monetary base increases because the transfer payment to the households either ends up as increased cash/currency held by households, corporates or banks or as increased bank reserves held with the Central Bank (Buiter, 2003 and 2014). A similar process would take place if the Government engages in a program of current or capital expenditure. When the State can issue unbacked, irredeemable fiat money or base money with a zero nominal interest rate, which can be produced at zero marginal cost and is held in positive amounts by households and other private agents despite the availability of risk-free securities carrying a positive nominal interest rate, there always exists a combined monetary and fiscal policy action that boosts private demand – in principle without limit (Buiter, 2014).

VI. Conclusion

We conclude that the adoption of helicopter money as a monetary policy tool depends on the "country context" and the "implementation strategies" within the macroeconomic framework whether it is bound to affect consumption under any circumstances. The viability of this Money Financed Fiscal Program (MFFP) depends on the macroeconomic policy space and the fiscal-monetary policy linkages of a particular country-context. The "implementation" of this monetary policy tool – helicopter money - poses various challenges. The coordination between the monetary and the fiscal policy authorities is a necessity for its implementation whereas in the real world the two authorities engage in a game of "who gets the first mover advantage?". Thus, the implementation issue becomes political and how these political economy context is tackled in the implementation of helicopter money determines whether it generates the desired effects of higher nominal demand, or it leads to uncontrollable inflation and harm the independence of the monetary authority. Having said that, under the fiscal dominance of rule-based regulations where public expenditure compression rather than tax buoyancy determines the fiscal consolidation path, a re-look into the financing pattern (not only the levels of deficits) of fiscal programmes and an unconventional monetary policy tool like helicopter money is refreshing.

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