POLICY BRIEF

PB 20 - 53
June 2020

WOULD HELICOPTER MONEY HAVE ANY SAY IN THE COVID-19 CRISIS?

By Karim EL MOKRI

POLICY CENTER FOR THE NEW SOUTH
THINK • STIMULATE • BRIDGE

Would Helicopter money have any say in the Covid-19 crisis?

By Karim EL MOKRI

Summary

The current pandemic has hit all countries hard, with severe repercussions at all levels. In economic terms, and given the scale of the damage, countries have reacted quickly by drawing on their available toolboxes. However, unlike in 2008, room for maneuver this time is much more limited and many countries have no choice but to go into massive debt to cope with the effects of the pandemic. For a country like Morocco, such a situation should lead the authorities concerned to study all possible solutions that could help the country to limit its reliance on external debt. Helicopter money, which has made a strong comeback in recent discussions, is a potential instrument whose feasibility should be considered. Its use is, however, far from being an easy decision to make, in the absence of practical experience at the international level, even if certain measures taken recently by some countries may suggest that it is helicopter money. In this Policy Brief, we will address the potential benefits of this concept, but also draw attention to the extent of the risks involved. We will also show that, if Morocco were to adopt, hypothetically, this instrument, certain prerequisites must necessarily be put in place to limit its potential negative externalities, which can be destabilizing.

I. Helicopter money is 51 years old but has never left the school ...

Helicopter money or monetary helicopter is a concept that dates back to 1969. It was first mentioned by the economist Milton Friedman in his book « The Optimum Quantity of Money »[1]. Originally, the general idea of this concept was that the Central Bank creates money and then distributes it to households, directly and free of charge. It is not, therefore, a debt instrument, but rather a distribution of money without any counterpart, with the aim of boosting demand. Subsequently, other variants of the helicopter money concept have emerged, without altering the basic idea.

Since its appearance, helicopter money has remained a theoretical concept, mostly debated among specialists, without ever being applied in practice. The measures proposed in some countries, particularly in the United States recently, do not correspond to the concept of helicopter money, since they are measures that go through the state budget and not through the Central bank.

Helicopter money is not to be confused with the concept of universal basic income. While at first glance they may appear similar, the two instruments differ in form and purpose. In form, the universal basic income goes directly through the state budget,

1. Friedman M. (2006) [1969], The Optimum Quantity of Money : And Other Essays, New Jersey : Transaction Publishers

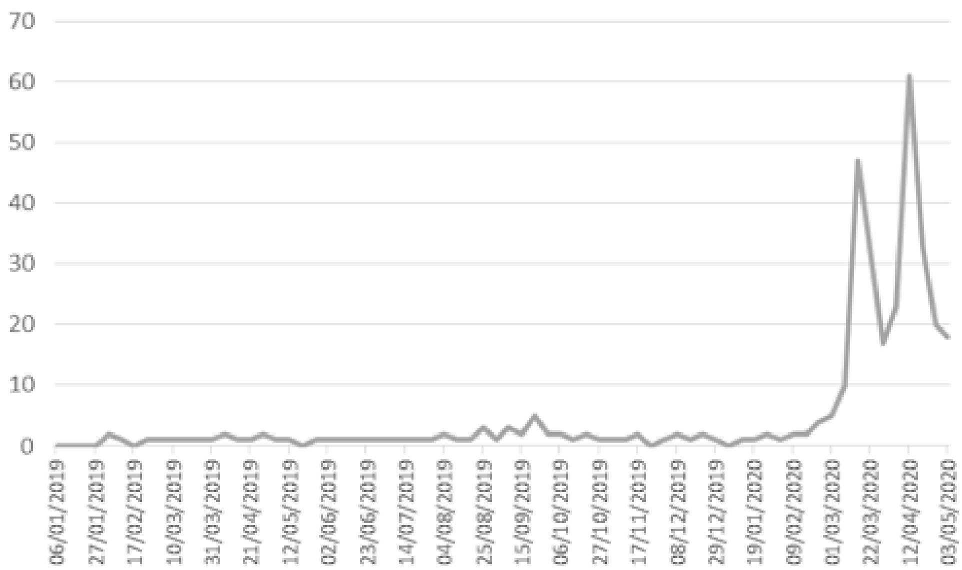
while the distribution of helicopter money is based, rather, on the creation of money by the Central Bank. As to differences in terms of objectives, helicopter money is, above all, a temporary instrument that can be used for short-term economic recovery objectives. On the other hand, the universal basic income has a rather social function and a permanent character, since its justifications generally relate to aspects that are not cyclical but rather structural, such as the need to counteract the effects of automation on employment or those due to the decline in the share of labor income in value added or, again, the objective of reducing poverty and the vulnerability of populations. Therefore, setting up a temporary universal basic income, which would only be activated in times of crisis, would not allow it to respond adequately to the above-mentioned structural objectives. However, this does not preclude the fact that the acceptability of the universal basic income mechanism could benefit from a successful implementation of helicopter money at this time, as the two concepts are by no means mutually exclusive.

Having delineated the concept of helicopter money, it is worthwhile to return to the context of its recent resurgence. In recent years, there has been a lot of criticism about the effectiveness of monetary policies during recent crises, namely unconventional measures such as quantitative-easing. These questions led to an increasing number of calls for the introduction of new and more effective instruments.

Helicopter money is, in fact, one of the concepts that has seen a resurgence of interest since 2016, an interest that would have peaked in recent months with the advent of the Covid-19 crisis worldwide.

Despite this renewed interest, the question of the feasibility of such a mechanism is far from being settled. The current debate on the concept of helicopter money between, on the one hand, its fervent advocates, who see it as the miracle solution in the current context, and, on the other hand, those who point to its potential undesirable effects, creates ambiguity and does not make it easy for decision-makers, particularly Central Banks, to take the first step.

Chart 1. Indicator of interest in « Helicopter money » as a Google search topic



Source: Developed on the basis of Google Trends data

II. What are the comparative advantages of helicopter money?

Helicopter money has certainly never been implemented yet in its standard form. Nevertheless, this does not exclude the fact that it has some potential advantages that can make a difference in times of crisis:

- In the first place, helicopter money implies a direct distribution of sums of money created by the Central Bank to the beneficiaries, in this case households, without incurring additional expenses from the state budget. Consequently, this instrument would make it possible to support part of the recovery effort, while slowing down the rate of increase in the Treasury's debt. This is, it should be stressed, a major advantage in a period of crisis such as the Covid-19 crisis, when most countries seem to be compelled to increase their recourse to debt.

- The second advantage of helicopter money lies in its potential capacity to directly finance the real sector, thereby avoiding the long delays in the transmission of monetary policy. Monetary policy decisions (e.g. a decrease in the key interest rate or an increase in the collaterals eligible for bank refinancing) are only reflected in growth and inflation after a certain delay, which may last several quarters. However, the current crisis requires urgent measures with an immediate impact on real activity, hence the adaptability of helicopter money, which is a much more direct approach.

- Beyond the slowness of the monetary policy transmission mechanisms, the problem lies rather in their efficiency, which is increasingly questioned around the world. A decrease in the key interest rate would, at best, allow other rates, particularly lending rates, to be reduced. In a crisis context, however, this decrease is far from being sufficient, especially when households and companies are already heavily indebted and, therefore no longer have leeway to take out new loans, even after a cut in interest rates. Moreover, in a context of lockdown, restriction of activities and a sharp drop in foreign demand, a reduction in interest rates would have little impact since demand is simply not yet at its ordinary level. In the same vein, in the current economic climate, the risk of borrowers' default is so high that even with state guarantee instruments, the supply of credit might not react mechanically to a fall in interest rates.

- Similarly, so-called non-conventional measures of quantitative easing type, through programs of massive purchases of securities on the financial market by the Central Bank, do not guarantee an upturn in economic activity. The experience of the 2008 crisis showed that these measures did not benefit the productive sector. Rather, they would have inflated Central Bank balance sheets, led to large injections of liquidity into the banking system and caused asset market bubbles. It is for these reasons that helicopter money seems more appropriate in the current environment, since it can redirect liquidity to the real sector without being hampered by the inefficiency of monetary policy transmission channels.

- Another potential contribution of helicopter money, and not the least, would be its ability to overcome the penalizing effect of the « Ricardian » equivalence that a fiscal stimulus policy[2] can generate. Behind this apparently complex concept (D. Ricardo, 1821, Buchanan, 1976), lies a relatively simple principle. Indeed, in the current context, an aggressive fiscal stimulus policy is unavoidable, the objective being to stimulate demand, while easing the pressure on government deficit and debt.

However, the effectiveness of such a policy could be reduced because of the behavior of economic agents who may anticipate, in the future, an increase in taxes to offset the current widening of the deficit, which would lead them to save more, as a precautionary measure, instead of spending and stimulating growth. Helicopter money, for its part, could make it possible to overcome the Ricardian equivalence problem insofar as the stimulus effort does not involve a widening of the budget deficit and economic agents would have no reason to anticipate a future tax increase that could lead them to curb their spending and break the recovery.

III. In practice, helicopter money could take several forms

In the economic literature on the subject, helicopter money could take at least three distinct forms. The first form, known as « Helicopter drop », whereby the Central Bank transfers money directly, free of charge, to households on a permanent basis. The second option is for the Central Bank to transfer Central Bank money directly to the Treasury's account at the Central Bank without a counterparty. This money will enable the Treasury to finance stimulus measures in times of crisis. The third form, on the other hand, consists in cancelling all or part of the Treasury debt held by the Central Bank in the form of treasury bills only in exceptional circumstances. This would allow government to free up fiscal space for recovery, while avoiding an increase in treasury debt and preserving its sustainability vis-à-vis the financial markets (J. Couppey-Soubeyran, 2020)[3]. These three options result in a contraction of the Central Bank's equity capital in order to achieve equilibrium in the balance sheet of the issuing institution.

IV. Limitations: The promises of helicopter money are not without risk

Not surprisingly, there has been widespread criticism of helicopter money, particularly in relation to its two forms, which involve the temporary monetization of treasury debt or the partial or total cancelling of the treasury debt held by the Central Bank.

The reason is first of all « ethical », since this new instrument goes against the dominant trend advocating monetary orthodoxy, and violates the rules of Central Bank independence, which has become a « religion » with which most Central Banks have aligned themselves for years.

---

2. M. Kasongo Kashama (2016), Helicopter money and debt-financed fiscal stimulus : one and the same thing? - NBB Economic Review.

3. Jézabel Couppey-Soubeyran (2020), "Helicopter money against depression in the wake of the health crisis" - Veblen Institute

Admittedly, the risk is considerable. However, in extreme cases, such as the Covid-19 crisis, would it not be conceivable to deviate temporarily from the rule? Ultimately, the objective is none other than to finance recovery and job creation, without undermining the sovereignty of states in a period of unbridled competition for public debt, the long-term consequences of which remain uncertain. Moreover, the deviations from the rule, generated by helicopter money, would only be temporary, until the recovery bears fruit in terms of growth and job generation. Thereafter, helicopter money could be deactivated.

The second limitation lies in the potential negative effect of helicopter money on the credibility of the Central Bank, which would end up with negative capital, and could therefore give destabilizing signals to the markets. Indeed, helicopter money distributed by the Central Bank is accounted for on the liabilities side of the Central Bank's balance sheet. However, since it is not reimbursed by the beneficiaries, it has no counterpart on the assets side of the Central Bank's balance sheet. Consequently, and in order to maintain a sound accounting balance sheet, these outflows are financed by the Central Bank's equity capital, which is contracted as a result.

On this point, too, some articles attempt to provide answers, without however being able to reach a decision on the issue. Among these answers are those provided by J. Couppey-Soubeyran (2020), who argues that the Central Bank does not operate like a commercial bank or a private company that must absolutely make a profit. The credibility of the Central Bank would not depend on the level of its capital, but rather on its ability to achieve its targets (inflation, growth, employment, etc.), according to its mandate, and on its ability to communicate and convince market players of the merits of its decisions. Indeed, some Central Banks that have had negative capital adequacy for more than nine years, such as the Czech Republic, Chile and Mexico, have still managed to achieve their monetary policy objectives and maintain their credibility (D. Archer and P. Moser-Boehm, 2013).

On the other hand, even if the Central Bank's capital equity were to become negative, this would only last for a limited period of time, and a replenishment of this capital could take place gradually as economic recovery takes hold. It would also be possible, once the crisis is over, to allow the Central Bank to reduce the percentage of dividends paid to the state budget over a certain period of time, in order to enable it to rebalance its capital situation. Confrontation of the various arguments shows that uncertainty about the possible repercussions of helicopter money on the credibility of the Central Bank, remains high. Empirically, the link between the level of capital equity and the achievement of monetary policy objectives remains unclear, since most of the studies that have dealt with the subject lack robustness[4].

The third criticism levelled at the type of helicopter money designed to directly finance the Treasury in times of crisis is that it would make no difference to Central Bank financing of the Treasury through the purchase of securities. Once again, answers have already been given by some authors, namely J. Couppey-Soubeyran, who argues that at a time when Treasury financing through the purchase of treasury bills by the Central Bank involves repayment and remains affected by the uncertainties of interest rate movements on the financial markets, helicopter money, for its part, makes it possible to circumvent these limitations by remaining free of charge and without intermediation by the financial markets.

4. David Archer et Paul Moser-Boehm (2013), « Central Bank Finance », BIS Papers No 71.

On another level, helicopter money is criticized for representing a risk of inflationary pressure by increasing the volume of the monetary base at the level of the Central Bank's balance sheet. Theoretically, the reasoning is certainly plausible. Nevertheless, this inflationary risk was already mentioned at the time of mobilizing the quantitative easing[5], an instrument that major Central Banks do not hesitate to use, especially since the hyperinflationary risk attributed to this type of measure has never been materialized. Moreover, helicopter money is seen as a redirection of Central Bank money to the real sector, and not through the banks, rather than as additional money creation. According to this assumption, this instrument should not result in more inflation than usual. Another argument that puts the inflationary risk of helicopter money into perspective in times of crisis, such as the Covid-19, is that the gap between actual output and potential output (output gap) is generally negative and capacity utilization rates are significantly lower than normal. Therefore, stimulation of demand by helicopter money is not expected to lead to a significant increase in prices, given the existence of unused production capacity margins in many sectors, which can be quickly mobilized to meet any additional demand.

The final risk associated with helicopter money relates to a possible « leakage » effect that would reduce the multiplier effect of recovery by helicopter money. In other words, the risk would be that households would save a significant proportion of the sums received, which would limit the additional demand generated and thus the additional growth points expected. While this assumption has the merit of obeying a certain logic, the sequence of facts it describes is however far from being so mechanical. As a matter of fact, it is always possible to avoid these leaks through appropriate and targeted operational solutions.

V. If Morocco were to hypothetically apply this instrument, what would be the prerequisites for deriving maximum benefit and limiting the risks?

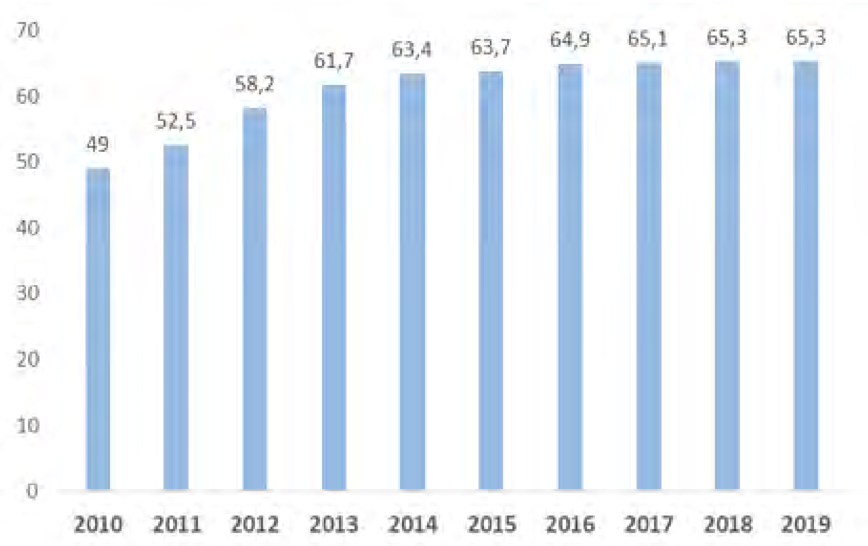
Clearly, it is difficult to decide on the effectiveness of helicopter money, given the divided opinions. The potential benefits are significant, but the risks in terms of loss of credibility and erosion of the independence of the Central Bank from the government, as well as the potential impact on inflation, fuel legitimate concerns. Moreover, the fact that this concept has so far remained without extensive experimentation at the practical level does not make it possible to verify to what extent its expected beneficial effects can outweigh its potential negative effects.

The debate on the use of helicopter money is rare in developing countries, unlike in advanced countries. In the present context where the repercussions of the Covid-19 crisis are unprecedented, in economic, social and health terms, all potential instruments deserve to be studied by developing countries. The need is particularly acute for a country like Morocco, where the Treasury's debt ratio will exceed 65% of GDP in 2019 (more than 81% when the guaranteed debt is taken into account). This level of debt, although it remains sustainable, will undoubtedly be part of an upward trend during the exit phase of the crisis.

---

5. Jézabel Couppey-Soubeyran (2020), « Helicopter money against depression in the wake of the health crisis » - Veblen Institute.

Chart 2. Treasury debt in Morocco (in % of GDP)



Source: Data from the Directorate of the Treasury and External Finance

Morocco has taken a series of emergency measures aimed at limiting the negative effects of the crisis on the economic and social levels, an important part of which has been financed by the Covid-19 Special Fund. Without going into detail on the measures in question, as this information is sufficiently covered by other publications, the actions taken have concerned monetary and prudential policy as well as fiscal policy and social security measures. In addition to these instruments, Morocco has used the Precautionary and Liquidity Line (PLL) with the International Monetary Fund (IMF).

So far, Morocco has been able to collect resources that will be used to pool the risks incurred by the various sectors over a certain period of time. However, uncertainty about the duration of the crisis and the profile of the recovery (V, U, W or L) in Morocco and among its main partners, particularly the euro area, increases the likelihood of even greater recourse to debt on external markets. This was confirmed by the approval, on 7 April, 2020, by the Parliamentary Finance Committee, of the decree on exceeding the thresholds of external financing. A decision that seems appropriate in such an exceptional situation and which allows us to take advantage, while it is still possible, of the low level of interest rates on the markets.

However, in the current context, fears of a slippage in terms of public debt sustainability are legitimate, especially since Morocco had gone through a difficult period of debt crisis exit under the Structural Adjustment Programs. This argument increases the relevance for Morocco to study the feasibility of new stimulus instruments that do not go through the budget, such as helicopter money.

At the same time, fears of an uncontrollable inflationary effect that could result from the use of helicopter money do not seem very justified in the case of Morocco. First of all, current inflation is very low, and would even have reached a historically low level in 2019, i.e. 0.2%. In addition, the output gap, which measures demand pressures, has remained negative since the beginning of 2018, a situation confirmed by the decline in the production capacity utilization rate of the domestic industrial sector, which fell by 16 percentage points in March 2019 to nearly 56%[6]. These indicators only confirm the fact that Morocco has a fairly low initial level of inflation and significant unused production, which constitute non-negligible margins that would enable it to support demand with helicopter money without fear of excessively high inflation during the recovery phase.

On another point, it is possible that by circumventing the commercial banks, helicopter money may initially cause a loss of earnings for these banks. Nevertheless, this tool would spare the Moroccan banking system a significant increase in outstanding receivables in this period of crisis. Moreover, the rate of outstanding receivables in Morocco has remained at an average of 7.7% since 2016, instead of an average of 5.7% over the 2009 – 2015 period.

Having said that, and although helicopter money can take many forms, in the case of Morocco we will focus on the configuration where the Central Bank would distribute money to households on a free but temporary basis. Other forms involving the cancellation of the Treasury's debt held by the Central Bank or monetary transfers by the Central Bank directly and without counterpart to the Treasury's account, are ruled out at this stage. Indeed, for the two types mentioned above, the possible negative repercussions that could disrupt the perception of markets and the risk of moral hazard with regard to the use of this tool by public authorities, may turn out to be more important and ethically less tolerable.

If we assume that Morocco opts for helicopter money in the form of a direct transfer to households to contribute to recovery, this decision would not be without risk either. Therefore, we can suggest a number of conditions that need to be met in order to maximize the benefits of this tool and, more importantly, to minimize its potential negative repercussions:

- First of all, implementation of helicopter money in Morocco must be based on a clear and reassuring communication strategy. Above all, it must be presented as a provisional instrument that is only used in large-scale « extreme cases », such as the Covid-19 crisis, and must be deactivated as soon as confirmation of a return to normalcy is confirmed. Market participants and rating agencies should not perceive this instrument as a means that Morocco could use in a frequent and arbitrary manner, without proper justification. To this end, it would be essential that the conditions of its use, its maximum duration of implementation and the objective definition of the concept of « extreme case », be explicitly defined in legal texts.

- The use of helicopter money in Morocco should only be made when other available measures would prove insufficient to quickly revive demand.

- Helicopter money should not be seen as a substitute for, but rather as a complementary measure to, conventional measures of accommodating monetary policy or expansive fiscal policy. A policy mix is more necessary than ever.

- The choice of timing for the implementation of helicopter money is important: indeed, the period of exit from the crisis is in turn composed of two sub-periods, the first being the current phase that Morocco is going through, where the main objective is

6. A business survey by Bank Al-Maghrib.

not yet recovery, but rather to limit losses and stabilize the situation. During this stage, the effect of all measures may be very minimal. The additional demand provided by helicopter money, like the other more traditional instruments, would not guarantee a significant effect in terms of a recovery in growth and employment, because of the bottlenecks that characterize this first sub-period (lockdown, social distancing, sectors forced to close, paralysis of supply chains, lack of foreign demand for certain sectors…) and hinder the response of supply to macroeconomic policies in several sectors.

- On the other hand, the expected multiplier effect of helicopter money would be greater in the second sub-phase of the exit from the crisis, the phase of recovery. The improvement of the multiplier effect is due to the fact that, during this second sub-period, the above-mentioned bottlenecks begin to loosen (lifting of lockdown, return of foreign demand, gradual lifting of restrictions on foreign trade flows, etc.). Therefore, if Morocco were to adopt helicopter money, and in order to ensure maximum impact, it would benefit from applying it at the end of the containment period.

- Avoiding leakage through savings: the aim is to prevent a large proportion of transfers of helicopter money to Moroccan households from ending up being saved as a precautionary measure in a context of lack of visibility. In other words, public authorities should seek to maximize the share of transfers that will be consumed by households during the recovery period. Certain operational solutions are generally proposed to alleviate this problem, in particular the targeting of beneficiaries, retaining only the most disadvantaged, since according to Keynesian theory, their marginal propensity to consume (the share of additional income devoted to consumption) is generally higher. This proposal is, however, a deviation from the original formulation of « drop money », which does not distinguish between the income level of the beneficiaries. The alternative would be for these transfers to take the form of « time-limited vouchers ». Although this solution might encounter technical difficulties in implementation, the limited validity period of the vouchers in question would ensure that beneficiary households would consume the totality of transfers for a maximum effect on growth and would therefore not be able to save a significant proportion of them.

- Avoiding leakage through imports: in other words, the aim here is to reduce the risk that part of the demand generated by helicopter money in Morocco is met by imports. This is a major challenge given Morocco's heavy dependence on imports of goods and services, which account for nearly 50% of its GDP, compared with around 31% in Turkey and Brazil, 30% in Egypt and 27% in Chile. Therefore, a number of conditions are necessary during the recovery period in order to reduce this leakage through imports. These are as follows:

  "Encourage consumption of domestic products through awareness campaigns;
  "Urge large companies to give preference to inputs produced by domestic micro businesses and SMEs;
  "Make full use of public procurement to stimulate the activity of local micro businesses and SMEs".

- Beyond the prerequisites to be put in place in case of adopting helicopter money, Morocco should remain vigilant with regard to its inherent risks. Therefore, as soon as disruptive signals appear, the Central Bank should not hesitate to deactivate the mechanism of helicopter money (exit clauses are necessary). We can refer to two main signals that would justify the discontinuance of the instrument in question. The first is the case of a strong and persistent depreciation of the dirham that could occur following the launch of helicopter money transactions and which could be synonymous with a weakening of confidence in the national currency as a result of this change. This risk is very high for developing economies that generally do not have strong or sufficiently in-demand currencies at the international level. The second signal that could justify the early deactivation of helicopter money would be the case of a bad reaction of the markets, lenders and rating agencies, following the introduction of this new instrument, which could increase Morocco's borrowing costs on the international market.

VII. In conclusion: Helicopter money is only a temporary instrument, since the post-Covid-19 phase requires consideration of other, more long-term approaches

If the prerequisites are in place, helicopter money could be a quick and effective response during the recovery phase. However, there is no guarantee that the above-mentioned risks will not materialize, which, if helicopter money is adopted, would require increased vigilance and careful monitoring of market signals. Finally, a review of the economic literature on the subject shows that the analysis of the costs and benefits of helicopter money does not allow for a clear-cut opinion until the mechanism has been tested. Any evaluation can only be made a posteriori, especially since its results would depend on the specific features of each economy.

Furthermore, it is important to recall that helicopter money remains a temporary instrument. The Post-Covid-19 phase will have to rely on medium- and long-term reforms that would outline a new way of anticipating and reacting to shocks.

There is a growing need to study a number of policy areas. The resulting decisions will subsequently change the functioning of the Moroccan economy and society. The structural reforms required go beyond the scope of this paper. This does not, however, prevent addressing a number of decisive questions that deserve a clear answer from Morocco: How to strengthen the multidimensional sovereignty of the country, especially in the most strategic sectors (food, health, technology, energy, digital, etc.)? After a globalized movement of disengagement by states from certain sectors to the benefit of the private sector, what should their positioning be from now on regarding the priority social sectors? Should these sectors continue to be considered like any other profit-driven and market-driven activity? On another subject, isn't it time to support niche substitution imports in a context of rising tensions and trade wars? What growth model should Morocco follow? Domestic demand-led growth vs. export-led growth or wage-led growth vs. debt-led growth? Can universal basic income increase household resilience to shocks? Finally, how can we catch up in terms of digitalization and in terms of R&D and innovation?

Bibliography

- D. Archer and P. Moser-Boehm (2013), « Central Banks Finance », BIS Papers No 71.
- J. Couppey-Soubeyran (2020), « Helicopter money vs. depression in the wake of the health crisis » - Veblen Institute.
- M. Friedman (2006) [1969], «The Optimum Quantity of Money: And Other Essays», New Jersey: Transaction Publishers.
- M. Kasongo Kashama (2016), « Helicopter money and debt-financed fiscal stimulus: one and the same thing? » - NBB Economic Review.

About the author, Karim EL MOKRI

Karim El Mokri is an economist and a researcher. He graduated from Mohammed V University, Rabat, and from the National Institute of Statistics and Applied Economics. His research topics and areas of publication focus on macroeconomic policies, long term growth and structural transformation, industrial policies, as well as aspects related to technological progress and employment. Since 2004, he has held various positions in the field of studies and research in different public and private institutions.

About the Policy Center for the New South

The Policy Center for the New South: A public good to strengthen public policy. The Policy Center for the New South (PCNS) is a Moroccan think tank aiming to contribute to the improvement of economic, social international public polices, that are of concern to Morocco and Africa as integral parts of the global South.

The PCNS advocates the concept of an open, responsible and energetic « new South », a South that defines its own narratives, as well as the mental maps around the Mediterranean and South Atlantic basins, within the framework of an uninhibited relationship with the rest of the world. Through its work, the think tank aims to support the formulation of public policies in Africa, and to give experts from the South a voice within the geopolitical developments that are relevant to them. This positioning, based on dialogue and partnerships, consists in cultivating African expertise and excellence, capable of contributing to the diagnosis and solutions to African challenges.

POLICY CENTER FOR THE NEW SOUTH
THINK • STIMULATE • BRIDGE

Policy Center for the New South

Suncity Complex, Building C, Av. Addolb, Albortokal Street,
Hay Riad, Rabat, Maroc.
Email : contact@policycenter.ma
Phone : +212 (0) 537 54 04 04 / Fax : +212 (0) 537 71 31 54
Website : www.policycenter.ma