

# Unconventional monetary policies, with a focus on quantitative easing

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*This article distinguishes between credit easing policies and quantitative easing (QE) policies. The authors argue that there are two broad transmission mechanisms associated with quantitative easing: the Friedmanian mechanism, which is based on the theory of the money multiplier and the fractional-reserve banking system; and the Keynesian mechanism, advocated by Keynes in 1930, which relies on its impact on interest rates. The article also deals with the likely consequences of various incarnations of QE policies: QE done with banks, QE done with non-banks, QE for the people, Corbyn's people's QE and green QE. This is done by looking at the impact of these policies on the balance sheets of banks, private agents, the central bank and the government, and on their consequences for the fiscal balance of the government when taking into account the profits that are distributed by the central bank to the government. It is concluded that accounting tricks cannot modify reality.*

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## 1 INTRODUCTION

The so-called unconventional monetary policy covers a range of different instruments. Here we will focus on the most discussed one, quantitative easing or QE, which has created great interest both among economists and the public at large. The advent of the financial crisis of 2008 and the way central bankers responded to it have generated a lot of confusion in the minds of several economists. Beliefs in theoretical concepts that were previously strongly held had to be questioned, as these beliefs did not fit with the evolving facts. In particular, the breakdown in the relationship between high-powered money and broad money came as a shock to those who taught the niceties associated with the money multiplier and the fractional-reserve banking system. Part of that confusion can be attributed to a misunderstanding of what quantitative easing is and what it can achieve. In this short note, we provide first a definition of quantitative easing; we follow with what we believe to be the two broad

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transmission mechanisms associated with quantitative easing; and finally we will use balance sheets to explain the impact of various kinds of quantitative easing.

## 2 DEFINITION AND TRANSMISSION MECHANISMS

As a start, one should define quantitative easing. It is a monetary policy, the main purpose of which is to increase the balance sheet of the central bank and the size of the reserves held by commercial banks on the liability side of the central bank. There is some similarity to a policy of credit easing. The latter may or may not lead to an increase in the balance sheet of the central bank and in the amount of reserves, but if there is an increase it is a consequence of the policy being pursued and not its main goal. This is why the US Federal Reserve (the Fed) has always been reluctant to use the expression ‘quantitative easing’, as it has seen itself as trying to ease liquidity conditions in financial markets by modifying the composition of the asset side of its balance sheet. A pure credit easing policy would be one where there is no impact on the size of reserves, for instance when the central bank undertakes a swap, purchasing risky private assets and providing the financial markets with safe (public) assets.

Broadly speaking, one can say that there are two mechanisms at play with quantitative easing. The first one is what we shall call the Keynesian view; the second is the Friedmanian or monetarist view. The Keynesian view goes back to Keynes’s *Treatise on Money* (1930), where Keynes was advocating quantitative easing as a possible solution to get the economy out of a slump.<sup>1</sup> Keynes argued that large non-sterilized open-market operations could bring down the long rate of interest and would bring the short rate of interest (the overnight rate) down to zero. Thus from Keynes’s standpoint, the transmission mechanism operated through a fall in interest rates as well as through a rise in the price of equities. It is interesting to note that, despite the fact that Keynes had a favourable view of what has now become the standard money multiplier, he did not envisage a direct transmission mechanism running from the creation of excess reserves to a larger supply of money and credit.

This direct mechanism is what we call the Friedmanian view. In its stronger incarnation, closest to monetarism, it assumes that the increase in bank reserves will automatically lead to an increase in broad money and thus in nominal spending; at a minimum, the increase in reserves will generate an increase in inflation expectations, as if everyone knew and believed in the monetarist model. The naïve supporter of the Friedmanian view sits balanced on a knife-edge: if quantitative easing works in the way described, then the huge increase in high-powered money should lead to high inflation rates or even hyper-inflation. In its weaker formulation, often associated with the New Keynesian bank lending channel, the argument is that the increase in bank reserves provides the banks with the loanable funds that will allow them to increase credit and hence economic activity. The strong Friedmanian view has been considerably hurt by the findings related to weak growth of monetary aggregates following large expansions in reserves from quantitative easing programs, first in Japan during 2001–2006, then in the USA and the UK during the Great Recession, and then later in the eurozone. This view is nonetheless regularly resurrected, most recently in 2013 in Japan, despite quantitative easing having proven to be so powerless there in the past. It is said that when conditions return to normal, usually meaning when the economy will get away from the zero lower bound, the huge amount of excess reserves will get activated and impact on aggregate spending as well as driving up the inflation rate. The weak Friedmanian (and New Keynesian) view rationalizes the lack of explanatory power of the money-multiplier mechanism by blaming banks for hoarding excess reserves and declining to make

1. As recalled by Kregel (2014) and Lavoie (2016).

loans, usually because of increased risk associated with finding less creditworthy borrowers in a recessionary environment.

Needless to say, we reject both views of this Friedmanian transmission mechanism. Quantitative easing is just monetarism in reverse gear: it was believed that restrictions on the supply of high-powered money would restrain aggregate demand and price inflation; with quantitative easing, it is believed that an expansion of high-powered money will induce an increase in aggregate demand and price inflation. In this sense, there is nothing unconventional about quantitative easing. But all this monetarist storyline ignores the fact that banks do not need reserves to make loans; nor do they need deposits for that matter.<sup>2</sup> Supplying more reserves will not induce banks to make more loans: they have already made all the loans they were willing to make to their creditworthy borrowers at the going rates of interest. Banks can only lend reserves to other banks or participants to the clearing system; they do not lend reserves to firms or households. As claimed by Martin et al. (2016: 197), 'the quantity of reserves held in the banking system in the absence of binding reserve requirements or significant currency withdrawals is determined in the United States solely by the Federal Reserve. Aggregate bank reserves are independent of and provide no measure of the availability of bank credit or banks' willingness to lend'. Similarly, for Charles Bean (2009: 4), the former deputy-governor at the Bank of England, 'the quantity of central bank reserves held by the commercial banks is useless as an indicator of the effectiveness of Quantitative Easing'. Banks, taken as a group, can do nothing to reduce the size of bank reserves, unless they had previously taken advances from the central bank.

As to the Keynesian transmission mechanism, its limits are well known. When the economy is in a slump, whether the fall in interest rates and the rise in the prices of financial assets will have a significant impact on production or investment decisions, or on the collateral constraints faced by either lenders or borrowers, remains to be seen. As the saying goes, 'you can bring a horse to water, but you can't make it drink'. Keynes for one, by 1936, had lost faith in the power of his monetary transmission mechanism, and had moved his preference towards fiscal policy.<sup>3</sup>

### 3 A MULTIPLICITY OF QUANTITATIVE EASING

Monetary theory has always attracted the interest and the imagination of non-specialists, but with the financial crisis and the size of the interventions pursued by central banks, this interest has reached a peak. There is much talk about 100 per cent money, positive money, QE for the people, green QE and other similar proposals, not forgetting proposals that are specific to the eurozone or the European Union and that purport to increase government expenditures without increasing sovereign debt, by circumventing the Maastricht Treaty and its offspring.

What is the effect of quantitative easing on balance sheets? When QE is done with banks, for instance, in exchange for asset-based securities, it is a simple matter, as shown in Table 1 (overleaf), under the assumption that the central bank purchases asset-based securities (ABSs). Obviously, there is no effect on the broad money supply, unless one believes

2. As the incredible expansion of the Icelandic banks in the 2000s demonstrated, at least for a while.

3. This is also the preference of most post-Keynesians, but not all of them. Basil Moore (1988: 367), who unfortunately passed away in March 2018, wrote that '[m]onetary rather than fiscal policy is the appropriate instrument for demand management'.

Table 1 Quantitative easing done with banks

Commercial banks		Central bank	
Assets	Liabilities	Assets	Liabilities
ABS -100		ABS +100	Reserves +100
Reserves +100			

Table 2 Quantitative easing done with non-banks

Commercial banks		Sellers of the assets		Central bank	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Reserves +100	Deposits of sellers +100	ABS -100	Net worth 0	ABS +100	Reserves +100
		Deposits at banks +100			
Reserves +100	Deposits of sellers +10	ABS -100	Loans from banks -90	ABS +100	Reserves +100
Loans -90		Deposits at banks +10			

that because banks hold extra deposits at the central bank it will induce them to find more creditworthy borrowers.

What if quantitative easing is done with non-banks? For some of the advocates of this alternative variant of QE, this was a way to get around the apparent refusal of banks to get the money-multiplier mechanism going. The central bank purchases securities directly from non-banks or even non-financial institutions. The mechanism is shown in Table 2. In this case, the obvious initial effect, shown in the first line of the table, is to increase the amount of reserves of banks and the amount of bank deposits held by non-bank economic agents by an equal amount. The hope was that the sellers of the assets would now feel more liquid and would immediately spend their newly acquired deposits so as to get the economy on track again.

A puzzle soon arose however, which threw another spanner into the money-multiplier theory and the theory of fractional-reserve banking. The puzzle appeared essentially in the case of the Bank of England. It turned out that the increase in money deposits was much smaller than the increase in bank reserves. While advocates of the Friedmanian view of quantitative easing would have expected a rise in money deposits being several times larger than the rise in bank reserves, it turned out that the rise in money deposits was several times smaller than the rise in bank reserves. In addition, in contrast to the bank lending channel, there was a decrease rather than an increase in bank loans. The explanation is simple and is illustrated in the second line of Table 2. With their extra 100 units of deposits, the sellers of ABSs may decide to reduce their debt by 90 units. Instead of using their newly acquired money balances to purchase goods, economic agents might use them to reduce their outstanding liabilities, thus deleveraging. This is what Richard Koo (2013) has associated with a balance-sheet recession and debt minimization by the private sector. In that case, quantitative easing is a non-event. It is not that banks are refusing to lend; rather, the problem is that there are no willing borrowers, with debtors seeking to deleverage.

A variant of this QE with non-bank agents has been made by a number of organizations and even by some scholars (Bützer 2017). This is *QE for the people*, also sometimes called *helicopter money*. The difference with the previous version is that there is no

exchange of financial assets between the central bank and the non-bank agents. What is being advocated is an outright creation of broad money, with the central bank making a transfer to all individuals, either in the form of cash or bank deposit. Once again, the main idea is that by dealing directly with non-bank agents, the monetary authorities can circumvent the banking system, which is assumed to be reluctant to create credit and money deposits. There is a second argument, however, tied to income distribution, which is that QE for the people would benefit all individuals, and not just those who happen to hold financial assets. Finally, there is a third justification for favouring this approach: whereas in the case of standard QE there is no creation of net wealth for the private sector, with QE for the people there is an addition to the net wealth of individuals.

The first line of Table 3 describes QE for the people. As the central bank sends funds to the bank accounts of individuals, there is no acquisition of a financial asset by the central bank. The consequence is that the net worth of the central bank goes down, while that of the private sector goes up. It is estimated that even if less than half of the bank transfer is being spent, €700 per person may be enough to generate a 1 per cent increase in GDP. However, once again, as shown in the second row of Table 3, if households decide to deleverage, the positive effects are likely to be much smaller. Still, the net worth of households has gone up, so that, the argument goes, if QE for the people is pursued with enough determination, it will eventually convince people to spend more. On the other hand, one may wonder about the decreasing net worth of the central bank, which may become negative. Some, such as Otto Steiger (2004), have held that if the central bank were to make losses on its assets, with its net worth becoming negative, it would need to be refinanced by injections from the government; the latter would issue securities, the sale proceeds of which would go into the equity of the central bank. The consensus today, however, seems to be that negative equity is irrelevant, the argument being that the central bank (if its liabilities are mostly in domestic currency) cannot become illiquid as it can always issue its own currency;<sup>4</sup> the negative equity would be left as is.

Neo-Chartalist authors have pointed out that QE for the people is not really a monetary operation: it is more akin to a fiscal operation. Indeed, besides determining which institution holds the negative net worth, all the consequences of QE for the people are identical to those of a government deficit generated by a transfer of funds from the government to the population, with the government issuing securities that eventually end up on the balance sheet of the central bank (through purchases on the primary or secondary markets, at a positive rate of interest, as shown in line 1 of Table 4 (overleaf). In the latter

*Table 3 Quantitative easing for the people*

Commercial banks		Central bank		Households	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Reserves +100	Deposits +100	Reserves +100 Net worth -100		Deposits +100	Net worth +100
Reserves +100 Loans -90	Deposits +10	Reserves +100 Net worth -100		Deposits +10	Net worth +100 Loans -90

4. The argument is similar to that encountered in 2011 when the Swiss National Bank decided to stop the Swiss franc from appreciating versus the euro. The Swiss central bank could sell Swiss francs in unlimited amounts.

*Table 4 Fiscal transfers through a government deficit*

Commercial banks		Central Bank		Households		Government	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
		Bonds and bills +100	Govt deposits +100			Govt deposits +100	Bonds and bills +100
Reserves +100	Household deposits +100	Bonds and bills +100	Reserves +100	Deposits +100	Net worth +100		Bonds and bills +100 Net worth -100

case, it is the government that adds to its negative net worth. It does not matter whether the central bank creates bank deposits on its own or whether the government issues securities to finance the transfer of funds so that households acquire the same bank deposits (as in line 2 of Table 4).

The consequences on the government fiscal balance are (fairly) identical. With the government deficit, the government has to make additional interest payments on its new debt; with QE for the people, the central bank will be making losses on its current account, because the interest payments that it would make on the reserves held by banks will not be compensated by a revenue on the asset side. As a consequence, the profits that the central bank normally distributes to its government will be reduced by an amount which is equivalent to the interest payments that the government would need to pay if such a fiscal policy based on transfer payments is chosen as an alternative to QE for the people. Indeed the consequences for the fiscal balance of the government in these two cases will be totally identical if the interest rate on reserves is exactly equal to the interest rate on government debt. This is something which is often misunderstood. And the consequences, once more, will be identical if the government can get a loan from the central bank at a zero interest rate or if it sells its securities directly to the central bank (on the primary market) at a zero interest rate.

A similar argument can be made with regard to *green QE* and to the *people's QE* of Jeremy Corbyn (the leader of the UK Labour Party). With respect to green QE, ecologists argue that the central bank should provide free funds to green projects, or, perhaps, that the central bank should finance green bonds from firms engaged in ecological projects at a zero rate of interest. The scheme of Corbyn's people's QE is nearly identical, except that the free funds for public investment, financed by the money created by the central bank, would transit through some national investment bank. But, again, this kind of financing will reduce the profits to be distributed to the government because the central bank needs to pay interest on its liabilities. The exact same result could have been achieved if the government had provided finance at a zero interest rate to green projects or if it had itself engaged in public infrastructure projects and had financed these expenditures by issuing its own securities at market rates. Why make it complicated when it is simple? There is, however, one crucial difference between, on the one hand, QE with the banks, QE with the non-banks, QE for the people and a fiscal transfer through a government deficit, and on the other hand, green QE and Corbyn's people's QE: in the latter case, the money being created is actually being spent, whereas in the former case it may or may not be spent.

#### 4 CONCLUSION

The mitigated success of standard quantitative easing programs on economic activity has sometimes been attributed to the reluctance of the banking system to create credit. Such reluctance is itself often explained by the belief that the balance sheets of banks are impaired by non-performing loans, with banks thus refusing to proceed to additional leverage. Thus, in a sense, this is a symptom of Koo's balance-sheet depression, but carried out from the side of banks. Another way to put it is to say that banks are suffering from a lack of equity. In normal times, banks can always issue more equity or keep more of their retained earnings. But in a deep slump, banks make no profits and the cost of equity finance may be prohibitively high. What is needed, then, is for the government or the central bank to buy bank equity. Quantitative easing alone will not do. QE could even impair equity if low interest rates undercut the profitability of banks by reducing net interest margins (Seccareccia 2017).

The analysis of QE operations in their various incarnations should make it obvious that monetary policies have a weak effect in a slump; public investment and public purchases by the government, by contrast, will raise GDP in a much more direct way.

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