QUANTITATIVE EASING IN THE EUROZONE: A ONE-YEAR ASSESMENT

It has now been one year since the Governing Council of the European Central Bank (**ECB**) announced its expanded asset purchase programme, known as quantitative easing (QE). The aim is to trigger an increase in private sector spending in order to address the risks of a prolonged period of low inflation. To date, the ECB has injected over €700 billion worth of central bank money into financial markets.

Given the size and strategic importance of QE, it is important to review whether QE is having its desired effect – whether the evidence corresponds to the theory. To achieve this end, this paper evaluates the Eurozone's QE programme according to the ECBs own standards and the original theory within which QE was implemented.

An assessment of the ECBs QE programme, according to its original objectives, reveals that the majority of the transmission channels through which QE is intended to work are displaying weak results. Moreover, before its implementation, several conditions that QE was meant to create were already in place. These results, coupled with the potential adverse side effects of QE, suggest that policy makers should think twice before expanding the size and duration of the programme. Indeed, policy makers need to begin considering ways to increase spending directly, such as Public Money Creation.

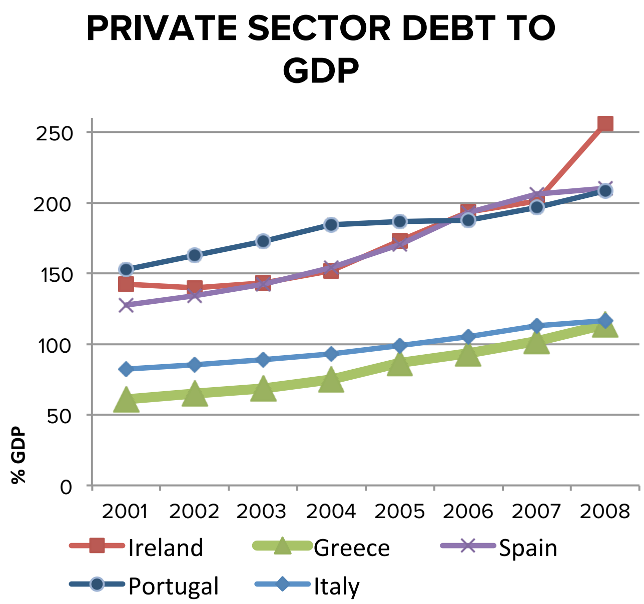
Spending and Price Stability in the Eurozone

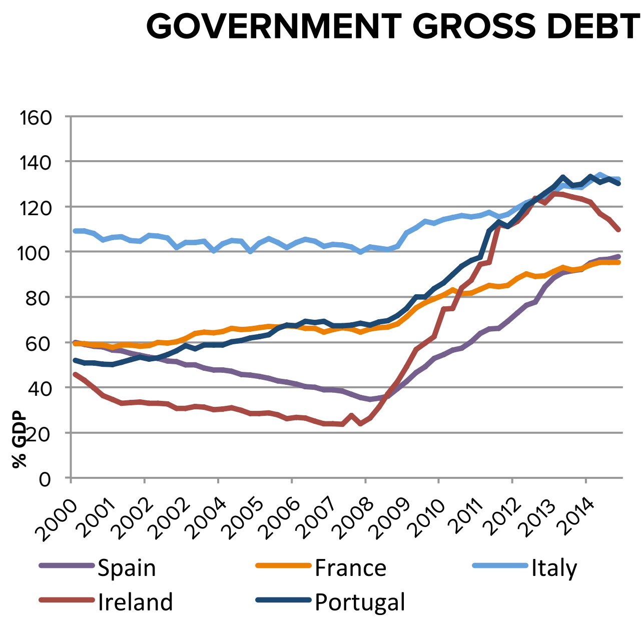
At the core of the Eurozone's economic malaise lies a crisis of spending. Understanding spending is crucial to understanding the Eurozone's current economic crisis. As John Maynard Keynes noted, one person's spending is another person's income.

So when spending starts to decline, household incomes are correspondingly reduced. This can turn into a negative feedback loop where less spending leads to less income, and the resulting reduction in income means there is less available to spend.

In the Eurozone, a rapid increase in private sector borrowing led to substantial increase in spending in the run-up to the 2008 crisis. However, in its aftermath, too much private debt and poor prospects for growth meant that the private sector has been sacrificing spending (either to pay down old loans or to save for when conditions pick up). New regulations and over-sized balanced sheets means that the banking sector has also generally unwilling to expand it's lending.

Together this resulted in a dramatic decline private sector spending.





Sources: Eurostat

After bailing out the banks, government's social expenditures increased (i.e. unemployment benefits) due to the recession. At the same time the reduction in private sector incomes meant that a reduction in tax revenue. As government expenditures increased and tax revenues declined, government budget deficits consequently expanded.

Soon after Eurozone governments began tightening their belts under the guise of austerity, and thus also restricted their spending.

Austerity in the public sector and deleveraging in the private sector meant that most Eurozone countries witnessed extensive cuts in spending. The decline in spending resulted in lower household incomes. With lowers disposable incomes, households demand fewer new goods and services.

The ECB eventually became concerned that demand would continue to decline, which could result in a fall in prices. If there is no demand for new goods and services, producers will start reducing the prices they charge. Falling prices eventually means that business profits are diminishing, and what follows is lower incomes and less spending.

In sum, cuts in private and public sector spending resulted in a substantial contraction in aggregate demand, which jeopardised the ECB's primary mandate of price stability.

The ECB's Quantitative Easing Programme

The ECB accordingly decided to implement a quantitative easing (**QE**) programme. QE is where central banks issue newly created reserves and use them to buy pre-existing financial assets, primarily government bonds.

The ECB and National Central Banks (NCBs) will be purchasing up to €80 billion of financial securities from the secondary market every month. The programme began in March 2015, and as it currently stands, it is scheduled to finish in March 2017. By the time the programme comes to an end, over €2 trillion of new central bank money will have been created.

The general aim of QE is to increase spending in order to achieve price stability (defined as low but stable inflation; or a sustained 2% increase in consumer prices). The money created under QE is intended to be temporary, and does not involve the ECB directly financing any private or public expenditure.

Instead QE aims to stimulate spending indirectly, through a number of complex channels. Rather than giving newly created money to the government or people, the ECB puts this money into financial markets – with goal of persuading the private sector to change it's borrowing and spending behaviour.

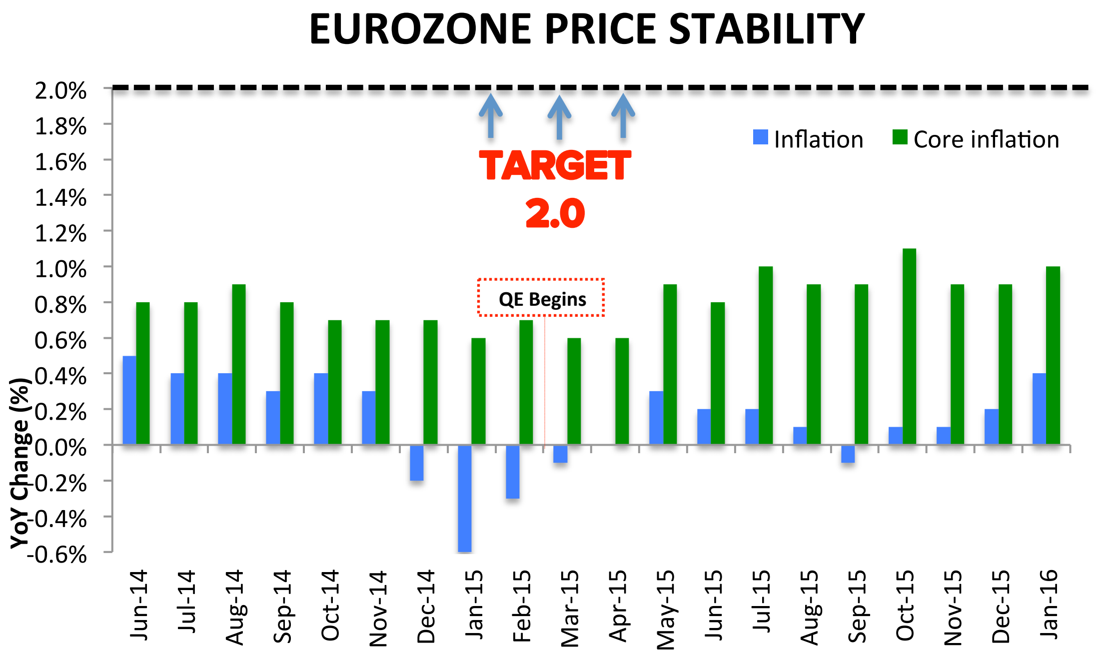
QE: Theory versus Evidence

Price Stability: On the surface of our assessment, we can begin by reviewing whether the ECB's QE programme has had its desired impact on price stability. The ECB's target is a sustained 2% increase in consumer prices – a low but stable rate of inflation.

After Draghi announced the launch of QE, from March to May 2015, there was small initial increase in prices. However, this increase was short-lived and the rate of inflation progressively declined for the following five months. Inflation emerged again from negative territory in October, but only to 0.3% in January, before falling to - 0.2% in February.

In the twelve months before the ECB launched its QE programme, inflation averaged 0.2% a month. Since launching its programme, inflation has performed at a slightly lower level of 0.1%.

However, there is good reason to believe that oil prices and other imports may still be distorting QE's effect on prices. Some may argue therefore that QE should be assessed according to core inflation, a measure of inflation that excludes items that face volatile price movements in imports such as oil.



Source: Eurostat

However, core inflation averaged 0.8% in the year before the QE programme began; and has averaged 0.8% since the programme was implemented. This still suggests that QE is not having its desired impact on prices.

However, throughout the globe prices have remained uncharacteristically low, which could distort an analysis of the ECB's QE programme. Accordingly, it may prove more useful to take deeper look and assess QE according to the transmission channels through which QE is supposed to work.

Expectations Channel: The large-scale asset purchases by the ECB is intended to give investors an idea about the future course of action that the central bank is going to take. Buying considerable amounts of long-term securities shows the market that the central bank is committed to keeping interest rates low in the future and reduces term premium. Accordingly, investors 'price in' this expectation and alter their investment portfolios based on the notion that the central bank will aim to keep rates low for an even longer period of time. In taking this bold action, the ECB signals its commitment to boost inflation and growth in the Eurozone.

According to the ECB, anchoring expectations to a stable and positive inflation rate is vital to the Eurozone's recovery. This is because expectations about future inflation are an important determinant of current inflation: when the private sector expects inflation to be relatively low and stable, wages and prices will be set in line with those expectations.

The ECB's favourite indicator for inflation expectations is the 'five-year, five-year' forward swap rate. This indicator measures the expectation for medium term prices; it attempt to measure the market's expectation of what the inflation rate will be in five years time.

While inflation expectations experienced a rapid increase in the wake of the announcement of QE, short and medium term expectations are now back where they were in late 2014, prior to the programme's announcement. In fact, longer-term market expectations recently hit an all time low (but were then slightly buoyed by the ECB's most recent announcement of expanding the QE programme).

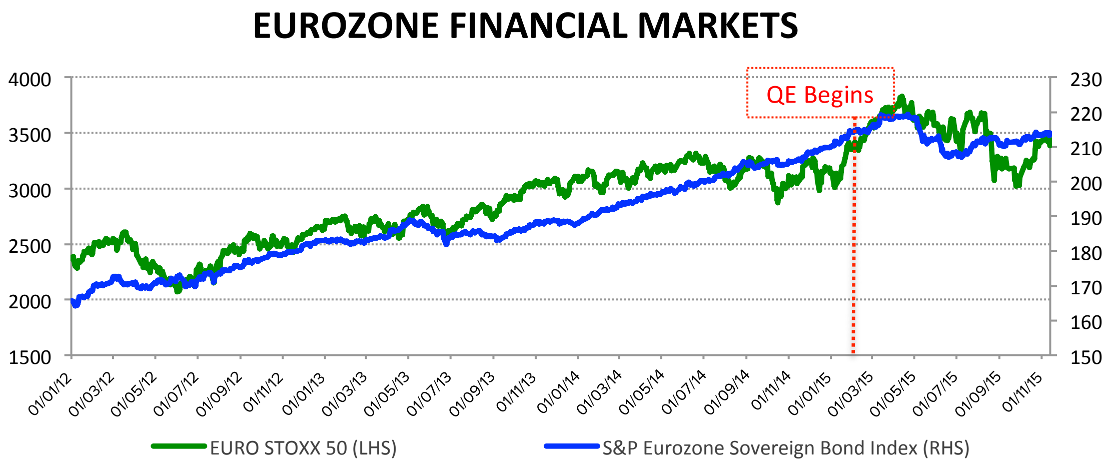
Source: Bloomberg

Portfolio-Rebalancing Channel: Mario Draghi succinctly explains the portfolio-rebalancing channel:

"You basically substitute bonds with cash, and therefore banks, at that point, will have more incentive to lend to the private sector, households and companies"

By buying financial assets with newly-created money the central bank pushes up the price of those assets, which simultaneously pushes down the yield (i.e. returns) earned by holders of these assets. The lower returns should force investors to rebalance their portfolio – moving their investments into riskier assets with higher yields (such as corporate bonds and shares), directing more credit and investment towards businesses in the real economy.

The effects and general process of the portfolio-rebalancing channel are extremely difficult to measure. There is good evidence to suggest that announcement and expectation of a QE programme most likely had a portfolio-rebalancing effect. However, this effect was short-lived and has since faded away.



Source: Bloomberg

Moreover, prices had been increasing and yields lowering for a significant amount of time before QE was even announced. This trend may have continued regardless of QE. Accordingly, this doesn't suggest that QE didn't have a rebalancing effect – more that its effect might be extremely limited given current pre-existing conditions.

But more importantly, yields have been falling since 2012 – whilst banks have been flooded with reserves through other policy programes – but we did not see an increase in spending or bank lending due to portfolio rebalancing back then. This begs the question of why should we expect to see one now?

Bank Lending Channel: Injecting new central bank reserves (liquidity) into the banking system, relieves banks' balance sheet constraints and lowers the funding costs of banks. This should allow banks to increase their lending to the economy.

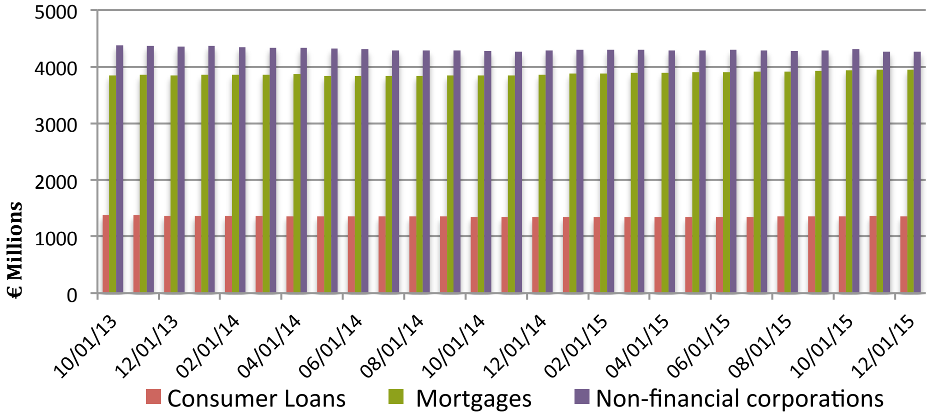
This channel is based on the textbook theory of the money multiplier, suggesting that banks require new reserves before they make new loans. Thus, an increase in reserves in the system (i.e. via QE) will automatically result in an increase in bank lending.

However, as suggested by the ECB's vice-president Victor Constancio, is not determined by the supply of central bank reserves, but endogenously by demand from the private sector for new loans. Accordingly, if there is weak demand for new loans, and banks are fearful of lending in a depressed economy, then bank lending to the private sector will not increase regardless of how much new central bank reserves are injected into the system.

It is hardly surprising therefore that a survey conducted by Commerzbank found that 85% of EZ banks did not increase their lending as a result of QE. Indeed, there has been a negligible increase in bank lending. An argument can be made that conditions improving albeit at extremely slowly. However, it important to note that conditions have been improving slowly for long time, before the announcement of QE.

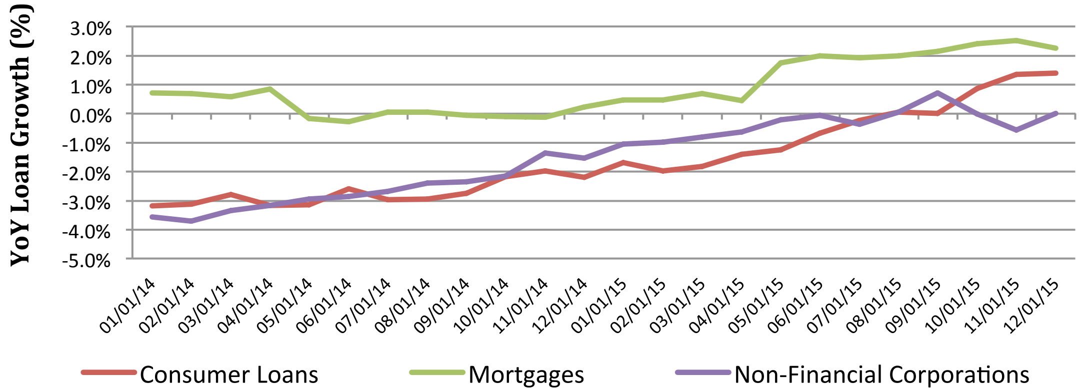
When we look at lending for real economy spending: last month consumer lending increased by 1.4% and business lending declined by 0.55%. The ECB will suggest that credit conditions are better and demand is increasing but the fact remains that real economy lending remains flat – and is still well below what would be needed to trigger a significant increase in spending.

Private Sector Lending



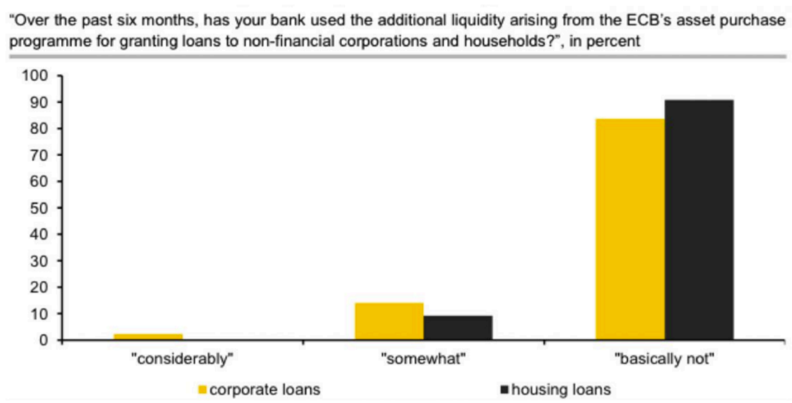
Source: Eurostat

Private Sector Loan Growth



Source: Eurostat

Bank Lending Survey



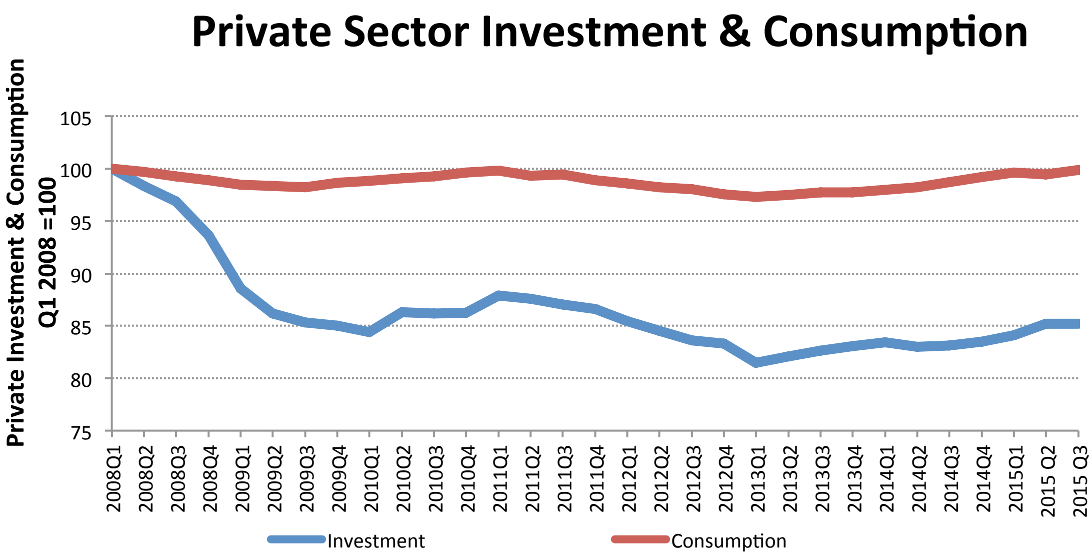
Source: ECB Lending Survey, Commerzbank Research

Wealth Channel: This suggests that higher asset prices can also increase demand via wealth effects. The idea is that by artificially increasing the price of financial assets, QE will increase the wealth of asset owners, who will have more disposable income to spend.

But firstly, wealthy asset owners have a very low marginal propensity to consume. A case study published by the ECB (2014) suggests that the richest 10% of the Eurozone population, who own over 52% of wealth in the Euro area, have a marginal propensity to consume of just 6%. This suggests that of every extra euro of wealth gained by asset holders through QE, only 6 cents will actually be spent.

But also the composition of financial markets is very different in the Eurozone when compared to the US and England, suggesting a comparatively weak wealth effect. A much lower proportion of European households hold financial assets, and the value of these assets is much lower in the Eurozone. For example, Ruparel (2015) shows that: 1) in Western Europe average financial assets per capita stand at €50,000, compared to about €115,000 in the US, and 2) the proportion of household wealth held in the form of financial assets is much smaller in the Eurozone (49%) than in the USA (82%).

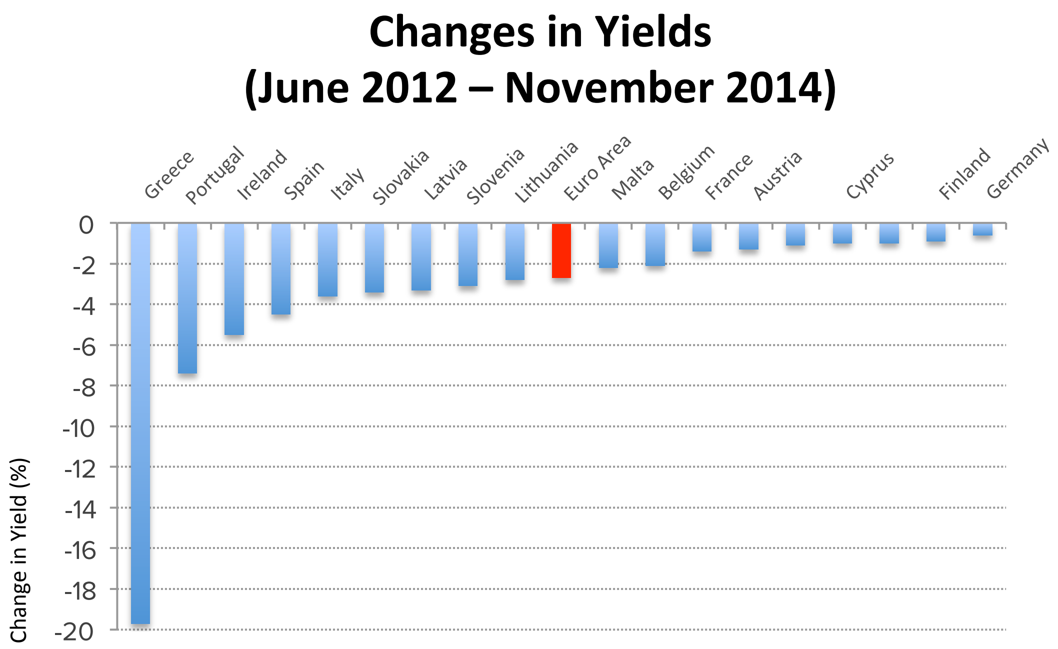
Finally financial asset prices have already been increasing since 2012, and yet this has not boosted consumption or investment in the real economy. There is thus little reason to believe that a further increase in asset prices will suddenly boost aggregate demand. Along these lines, its worth noting that consumption and investment have hardly increased since the onset of QE – and any increase has to be taken with a reduction in oil prices in mind.



Source: Eurostat

Fiscal Channel: By pushing up sovereign bond prices and pulling down bond yields, QE lowers the interest rates governments have to pay on their borrowing. In addition, the government bonds that are purchased by the national central bank are effectively 'interest free' to the government (as the central bank buys sovereign bonds issued by its respective central government, interest payments on those bonds go from the central government to the central bank, however, the profits of the central bank are remitted back to the central government).

While there may be a fiscal effect taking place, central banks do not commonly cite this as a benefit, as it would imply that the central bank is indirectly financing the government, a taboo in mainstream economics.



Source: Ruparel (2015)

More importantly, however, low-interest rates and the ECB's earlier pledge that it was "ready to do whatever it takes" meant that sovereign bond yields were already at exceptionally low levels before QE was even announced. In this sense, the lower borrowing costs accrued from QE would represent a negligible saving for Eurozone governments. For this reason, a study by Claeys et al. (2015) estimates that across the entire Eurozone, the aggregate profits accrued by NCBs (and paid to their respective treasuries) will amount to just €4 billion (0.04% of Eurozone GDP).

Exports Channel: By influencing yields and interest rates QE devalues the currency, leading to an increase in exports. Lower yields on financial assets such as bonds makes them less attractive to investors. As yields fall on assets priced in euros, investors will seek out foreign assets offering higher yields. This requires them to exchange euros for foreign currency to buy these assets, and that leads to capital outflows and a reduction in demand for the domestic currency, weakening its value relative to other currencies. A devalued currency may then have positive effects on the economy by making exports cheaper. Of course, it will also make imports more expensive, therefore pushing up inflation, which is one of the aims of QE

However, it important to remember that a number of other central banks are conducting some form of monetary easing. For example, central banks in more than a third of the 46 advanced and emerging economies in the MSCI All Country World index have cut interest rates. Indeed, central banks have cut rates a staggering 637 times since 2008, and collectively purchased over $12.8 trillion in financial assets. In doing so, many countries have devalued their own currencies – which may negate the export effects of a devaluation of the euro.

In addition, a currency devaluation due to QE cannot guarantee an increase in exports, as the case of Japan suggests. Indeed, with global growth expected to be exceptionally weak, devaluation is not likely lead to a significant increase in demand for exports. Finally, over 80% of Eurozone exports actually go to other Eurozone countries.

USD ($) PER 1 EURO (€)

Source: XE.com

Indeed, this channel had its greatest effect when QE was first announced – and has since faded. According to the trade weighted Euro index, the NEER, the euro has a higher exchange rate than before QE started. Between September 2014 and 2015, the Eurozone managed to increase its exports by a mere €3 billion. With a higher exchange rate than before QE started, this meagre increase in exports most likely did not occur because of the exchange rate channel of QE.

Adverse Side Effects

By artificially increasing the price of financial assets, QE runs the risk of creating bubbles in the financial markets – that could lead to further instability. The Financial Times noted that demand for sovereign bonds is so high that over $2 trillion of sovereign bonds with negative yields have been purchased, mainly in Europe. Indeed, the ten-year borrowing costs of Spain, Ireland, Italy, and Portugal are now at similar levels or even below the levels in the UK and USA. The potential for asset price bubbles and ensuing financial instability has even prompted the Bank of International Settlements to argue that QE and ultra-loose monetary policy should be abandoned.

QE also increases inequality. This is primarily because it is the wealthiest households who own the financial assets that are increasing in price. By increasing the price of assets, QE increases the wealth of the top income earners – with little benefits for those on lower incomes. In addition, by limiting the number of safe assets in the financial markets, QE re-channels investment towards pre-existing housing assets – making houses more expensive and less affordable for low income earners.

Finally, as argued by Turner (2013), QE is an extremely dangerous strategy given that excessive private debt is what caused the global financial crisis:

“We got into this mess because of excessive creation of private credit and money: we should be concerned if our only escape route implies building up a future excess.”

In this regard, QE is not dangerous because it largely relies on increasing levels of debt to boost incomes, but because it reinforces the same type of lending that led to the 2008 financial crisis. A primary cause of the global financial crisis is treated as the only palpable solution.

Conclusion

By injecting trillions of Euros into the financial system, QE aims to generate an increase in spending by encouraging the private sector to change it’s borrowing and spending behaviour. After one year, an assessment of the ECB’s QE programme according to its intended objectives suggests that QE is not having its desired effects.

The majority of the transmission channels through which QE is supposed to work are displaying weak results. Indeed many of the specific conditions that QE is intended to create were already in place in the Eurozone prior to the implementation of QE. The price of financial assets has not led to an increase in consumption, and has most likely increased inequality. The exchange rate and inflation expectations are higher or at the same level than when QE was first implemented.

There has been a negligible increase in bank lending, and will most likely fail to rise to the level needed to trigger a significant increase in spending. Finally, there may have been an initial portfolio-rebalancing effect, but this has since faded. Indeed, asset prices have been increasing since 2012, yet the Eurozone has not experienced a significant increase in spending or bank lending.

At the very best QE is generating sluggish results. The ECB will argue that had it not been for its QE programme, the economy of the Eurozone would be worse off. However, it is important to note that the objective of QE for the Eurozone was never to prevent the Eurozone’s economy from falling further into a recession. Moreover, it impossible to prove (or disprove) that the Eurozone economy would be worse off had it not been for QE. One could argue that the grounds for implementing policy programmes worth trillions of Euros cannot come down to such counterfactual arguments.

It is within this context that this paper finds that ECB's QE programme has predominantly failed to generate its intended results. It is therefore highly unlikely that expansions of the size and duration of the programme will lead to the increase in spending that certain parts of the Eurozone so desperately need. Policy makers should think twice before taking such measures, and should certainly start considering better and more direct ways of increasing spending in the real economy.