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## Quantitative Easing – The Impact is Uncertain

- Central banks are resorting to their full arsenal to ease stress in credit markets and revive economic growth. They have not only injected liquidity, but cut interest rates sharply, and in some cases, to zero, or near zero. Some of the more aggressive central banks, including the US Fed, the Bank of England, the Bank of Japan and Swiss National bank, have shifted to a strategy of quantitative easing (QE). But what is quantitative easing, has it been done before, and more importantly, will it work?

### What is Quantitative Easing?

- To economists, QE occurs when a central bank focuses less on the **price** (interest rates) of money than the **quantity** of money. In other words, QE occurs when a central bank stops focusing on an interest rate target, but directs its efforts toward providing a higher level of liquidity in the banking system. This is done through the purchase of all kinds of securities, including government, agency and corporate bonds and asset-backed securities, or even foreign exchange market intervention to increase the supply of domestic currencies.
- But to the general public, QE is simply the “**printing of money**” by central banks, although these days the money does not literally have to be printed but is created electronically. QE works by using money that has been created to buy assets such as government and corporate bonds. This in turn is supposed to boost the amount of money in the economy and make banks more willing to lend and individuals to spend.

### Why the fuss about QE, is it different from open market operations?

- The financial markets reacted violently to the Bank of England and the Fed's latest announcement of shifting to QE, with the US dollar tumbling 3% against the euro and longer term government bond yields falling sharply. Even the Chief Executive of the Hong Kong Monetary Authority Mr Joseph Yam said that he had not seen a 50 basis point reduction in 10-year Treasury yield in the past 20 years.
- Why is there such a fuss about QE, when central banks already buy and sell government securities all the time in what is termed open market operations (OMO)?



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- In modern day central banking, central banks set a target for overnight interest rates at policy meetings. They will then buy and sell securities regularly in open market operations to smooth out interbank liquidity, ensuring that overnight interbank rates stay close to the official rates. The operations can be done by outright purchase or sale of short term government securities, which will change the size of central bank's balance sheet on a permanent basis. Or more frequently, OMO are conducted through repurchase agreements (repos to create money and reverse repos to destroy money), which will only change the size of its balance sheet temporarily.
- In contrast, central banks will only pursue QE in the last resort, after running out of other monetary easing tools, i.e., when official rates are at, or near, zero. The major differences between OMO and QE (in the form of securities purchase) are summarized in the following table.

**Exhibit 1: Difference between OMO and QE**

	<b>Open Market Operations</b>	<b>Quantitative Easing (in the form of securities purchase)</b>
<b>Timing</b>	Conducted regularly	The ultimate tool of central banks, pursued when official rates are at, or near, zero
<b>Policy Tool</b>	Buy or sell short term government securities	Buy longer dated government bonds and private securities
<b>Objective</b>	Aim to influence overnight interest rates to converge with the policy rate	Aim to bring down longer dated interest rates
<b>Impact on central banks' balance sheet</b>	Largely affect central banks' balance sheet temporarily	Increase central banks' balance sheet permanently

## Has QE been done before?

- Yes, the Fed ran a programme called "**Operation Twist**" from 1961 until 1965 to buy longer-dated Treasury securities while simultaneously selling short-term bills in an effort to flatten the yield curve to simultaneously tackle a recession and a lingering trade deficit. Lower long term rates were intended to stimulate domestic investment, and higher short-term rates were supposed to attract foreign investment to the US through a relatively high rate of return. As the operation involved the Fed purchasing longer-dated Treasuries and selling short-term Treasury bills, it had little impact on the money supply.
- Japan also adopted QE in the 1990s and again from 2001 to 2006. In the latter period, the BOJ added reserves to the banking system through OMO and by directly purchasing government securities from the secondary market. The size of the bond-buying operation became the policy tool to target the level of reserves rather than the policy rate, which was fixed at virtually zero.





## Who is pursuing a strategy of QE this time?

- A number of central banks have shifted to a strategy of QE recently. The first was the Bank of England. It decided after its policy meeting on March 5 to undertake a programme of asset purchases, including government bonds and other securities, of up to GBP150 billion. This will be financed by the issuance of central bank reserves, i.e., by printing money.
- Then, the Swiss National Bank said on March 12 that it would intervene in the foreign exchange market to prevent any further appreciation of the Swiss franc against the euro. It did so on the same day in an attempt to flood the market with Swiss franc to contain deflation risks, which is a form of QE.
- The Bank of Japan followed suit. Its policy committee decided on March 18 to buy JPY1.8 trillion of government debt each month, in addition to purchasing up to JPY1 trillion of subordinated loans from banks.
- While these central banks adopt different forms of QE in an attempt to bring down borrowing costs in general, the Fed's approach has been more specific. The Fed decided on March 18 that it would buy up to USD300 billion of longer-term Treasuries and expand an existing programme to buy debt and mortgage backed securities issued by Fannie Mae, Freddie Mac and other agencies by USD850 billion to USD1.45 trillion. There are also other programmes to purchase other types of debts, with the aim of bringing down borrowing costs in specific sectors.

## Why use QE?

- Central banks have been cutting interest rates aggressively in the past year in an attempt to unlock the credit markets and revive the growth engine. With rates in the US, Japan and the UK already at, or near, zero, there is little room for manoeuvre.

**Exhibit 2**

<b>Central Bank Rates</b>			
	<b>Peak (%)</b>	<b>20-Mar-09 (%)</b>	<b>Quantitative Easing</b>
<b>US</b>	5.25%	0 to 0.25%	✓
<b>Japan</b>	0.50%	0.10%	✓
<b>Canada</b>	4.50%	0.50%	
<b>UK</b>	5.75%	0.50%	✓
<b>Euro Area</b>	4.25%	1.50%	
<b>New Zealand</b>	8.25%	3.00%	
<b>Australia</b>	7.25%	3.25%	

Source: Bloomberg, Hang Seng Bank

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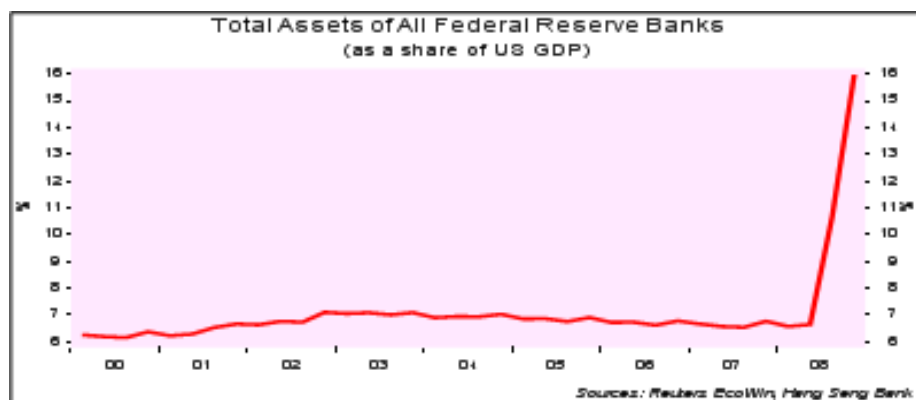


- Despite historically low interest rates, however, banks are still not lending. Many banks are unable or reluctant to lend as their balance sheets are still burdened by toxic assets. Financing difficulties are aggravating the downturn, pushing many of the advanced economies into deep recession. The downturn has in turn caused bad loans to mount, leading to a strengthening of the so-called negative feedback loop between the financial sector and the real economy. US Fed Chairman Ben Bernanke has said that for the US economy to recover, it was important to first resolve the toxic asset problem of the financial sector.

## Will QE work?

- The BOE and Fed's move to purchase longer term government bonds led to a plunge in long run interest rates as the size of planned purchase is large relative to outstanding debt. For instance, the BOE's GBP75 billion initial purchase is equivalent to about 20% of the amount outstanding for the 5yr+ gilt segment. But can QE succeed in stimulating lending and boosting growth?
- Quantitative easing will not work if economic agents are sceptical about growth prospects. Despite lower interest rates, individuals will not borrow if they have no jobs or have job insecurity and banks will not lend for fear of having more bad loans. QE had little success in Japan in the 1990s and again in the early 21st Century.
- If QE works, the exit strategy is also important. Central banks have to drain liquidity on a timely basis; otherwise it runs the risk of uncontrolled expansion of money supply and inflation.
- While the impact on the economy and inflation is uncertain, QE will inevitably lead to an expansion of central banks' balance sheets. The quality will also deteriorate as they purchase more securities other than those issued by governments. In the Fed's case, the injection of liquidity into financial markets has already led to a ballooning of its balance sheet, from USD900 billion in early September 2008 to over USD2 trillion in March 2009, or from 6% to over 15% of US GDP. Many see it expand to USD4 trillion, or about 30% of GDP by the end of this year as more assets are bought.

## Exhibit 3





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