The Impact of Quantitative Easing on the World Economy (Part I) 量化寬鬆對全球經濟的影響(上)

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- ◆ To Taper or Not to Taper 遞減還是不遞減?
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- "Quantitative Easing (QE)" was started by the U.S. Federal Reserve Board on 25th November 2008, in the immediate aftermath of the collapse of Lehman Brothers. At the time, the World economy was shell-shocked from the freezing up of the entire financial system. Financial institutions did not trust one another and credit had all but dried up.
- Quantitative easing, as opposed to just easing, implies that not only would short-term credit be easily available, as indicated by the extremely low federal funds interest rate for overnight money, but also that the Federal Reserve Board would try to bring down medium and long-term interest rates by purchasing U.S. Treasury and other securities of such maturities in large quantities on a regular basis.

◆ At the start of QE1, the U. S. Federal Reserve Board announced that it would purchase up to US\$600 billion in U.S. agency mortgage-backed securities (MBS) and agency debt, mostly held by the U.S. financial institutions, in an attempt to restore liquidity to the financial system and shore up the financial balance sheets of the financial institutions. On 18th March 2009, the Federal Reserve Board expanded the programme by an additional US\$1.05 trillion for the purchase of U.S. Treasury securities and agency debt. • "QE1" was successful in rescuing the major financial institutions in the U.S. and prevented the U.S. financial system from collapsing. 4

- As the U.S. real economy did not seem to respond to QE1, QE2 was launched by the Federal Reserve Board on 3rd November 2010, when it began to purchase an additional US\$600 billion of longer dated U.S. Treasury securities, at a rate of US\$75 billion per month, with the objective of lowering the longer-term interest rates so as to stimulate real investment by U.S. firms. This programme was concluded in June 2011, followed by "Operation Twist" in September 2011.
- "Operation Twist" was a plan to purchase US\$400 billion of bonds with maturities of 6 to 30 years and to sell the same quantity of bonds with maturities of less than 3 years, thereby lowering the longer-term interest rates without having to increase the money supply. In June 2012, the Federal Reserve Board expanded "Operation Twist" by adding a further US\$267 billion.

• A third round of quantitative easing (QE3) was launched by the Federal Reserve Board on 13th September 2012, committing to the purchase of US\$40 billion of agency mortgage-backed securities (expanded to US\$85 billion and to include U.S. Treasury securities in December 2012) per month until the labour market improves "substantially". ◆ In May 2013, Chairman Ben Bernanke of the Federal Reserve Board raised the possibility of "tapering" and eventually ending QE3 publicly for the first time.

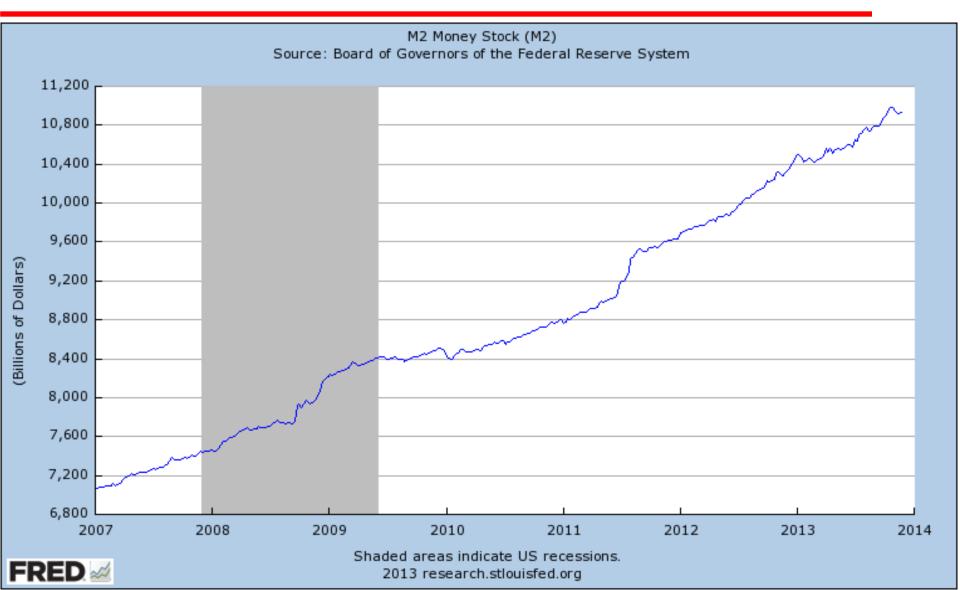
## The Objectives of Quantitative Easing 量化寬鬆政策的目的

- QE1 was launched essentially to restore liquidity to the financial system and to take the mortgage-backed securities off the balance sheets of the major U.S. financial institutions.
- QE2 and QE3 were meant to stimulate the real economy, but fell far short of their objectives. They also had the effect of devaluing the U.S. Dollar relative to most of the currencies of the World. The QEs could be viewed as a form of currency manipulation as given the already low domestic rates of interest in the U.S. the excess liquidity was bound to leave the U.S. en masse to seek higher yields elsewhere in the absence of U.S. capital control, thus 7 driving up the exchange rates of the other currencies.

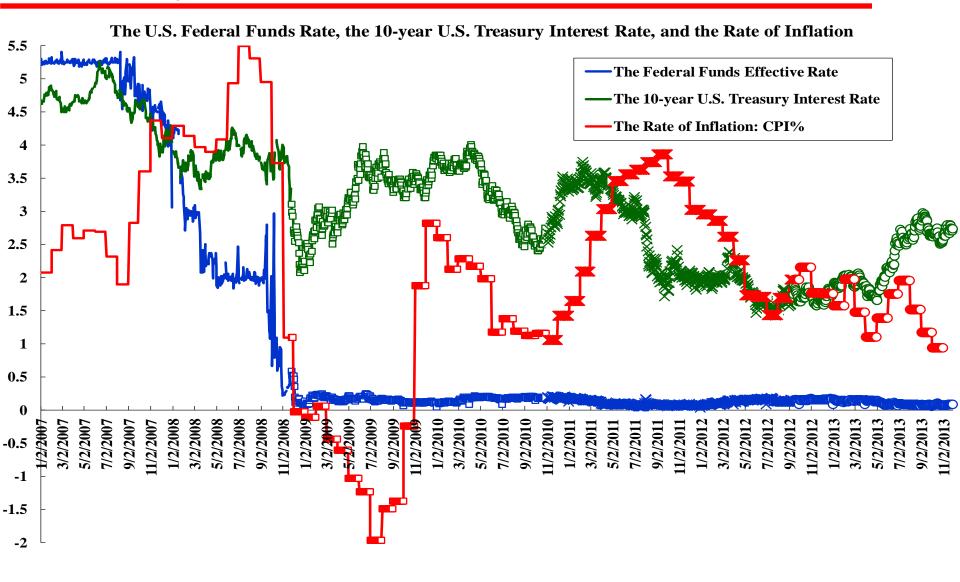
## The Effects of Quantitative Easing on the U.S. Economy 量化寬鬆在美國經濟效果

- With QE1, the U.S. money supply was increased quickly and the short-term interest rate was also driven quickly to almost zero, and it has stayed there since.
- However the long-term interest rate remained relatively high until the introduction of "Operation Twist" under QE2.
- QE3 was quite effective in keeping the long-term interest rate low, until the possibility of "tapering" was introduced to the market in May 2013.
- Successive QEs led to large increases in the U.S. money supply (M2).
- However, the U.S. unemployment rate came down very slowly, and the rate of growth of U.S. real GDP remained sluggish and tentative, certainly relative to past economic recoveries.

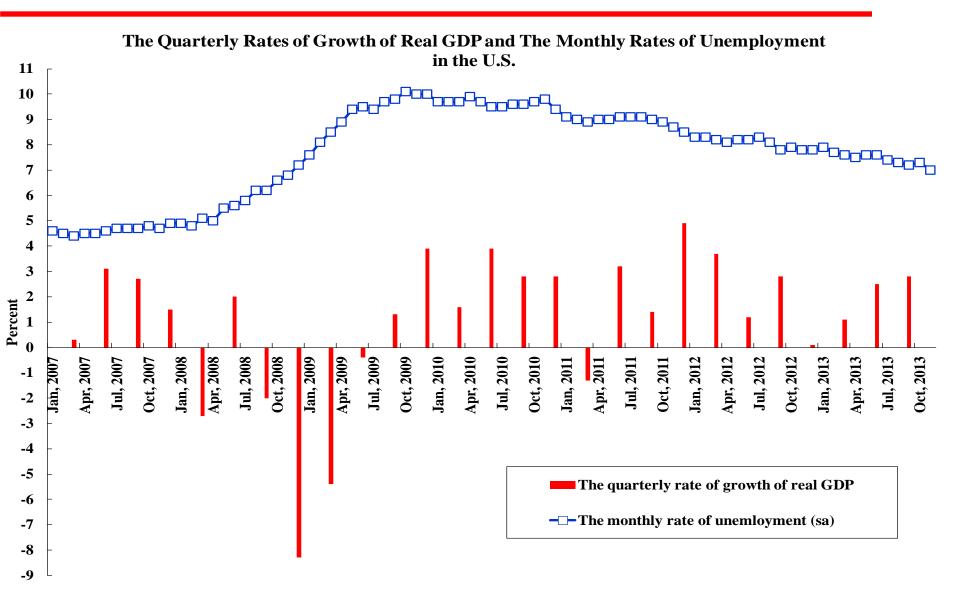
## U.S. Money Supply (M2), trillions US\$, 01/01/2007-11/25/2013



## U.S. Federal Funds Rate, the 10-year U.S. Treasury Rate, and the Rate of Inflation



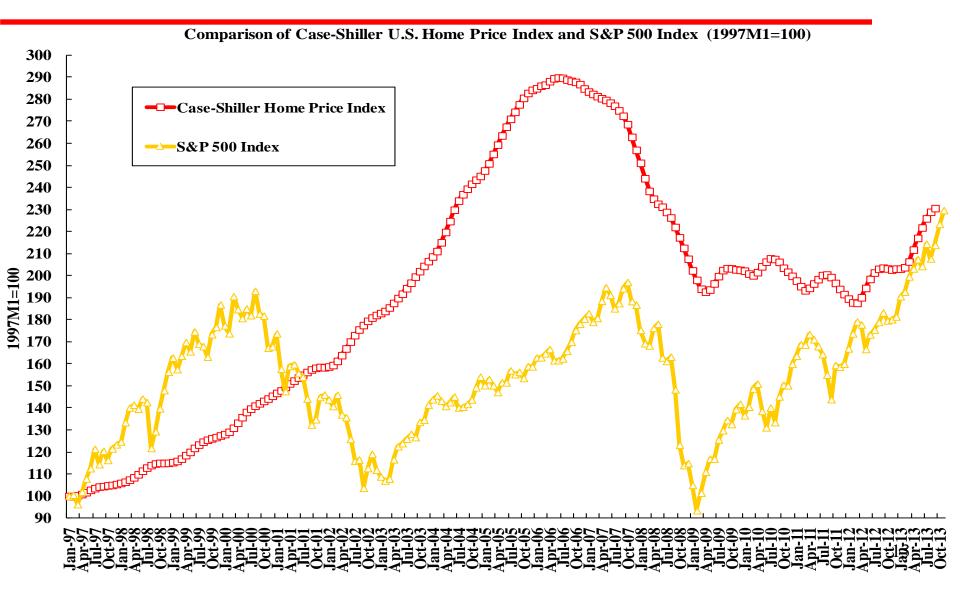
## The Quarterly Rates of Growth of Real GDP & Monthly Rates of Unemployment in the U.S.



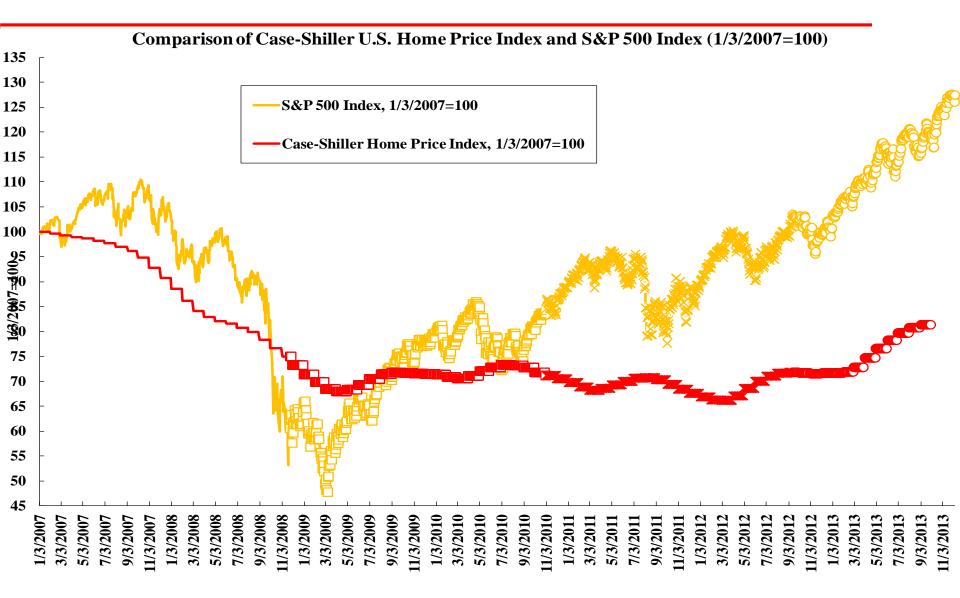
# The Effects of Quantitative Easing on the U.S. Economy 量化寬鬆在美國經濟效果

- The low interest rates in the U.S. drove up the U.S. stock market as evidenced by the S&P 500 stock price index.
- However, it took the decline in the long-term interest rates to push the price of housing back up moderately, at a level still far short of its peak in 2006.
- The QEs, through their release of liquidity worldwide, have driven up the exchange rates of most other currencies (thus effectively devaluing the U.S. Dollar), and lowered interest rates almost everywhere. They have led to economic boomlets in a number of emerging markets.

#### Comparison of Case-Shiller U.S. Home Price Index and S&P 500 Index (1997M1=100)



#### Comparison of Case-Shiller U.S. Home Price Index and S&P 500 Index (1/3/2007=100)



### Exchange Rate Indexes of Selected Economies (11/25/2008=100)

