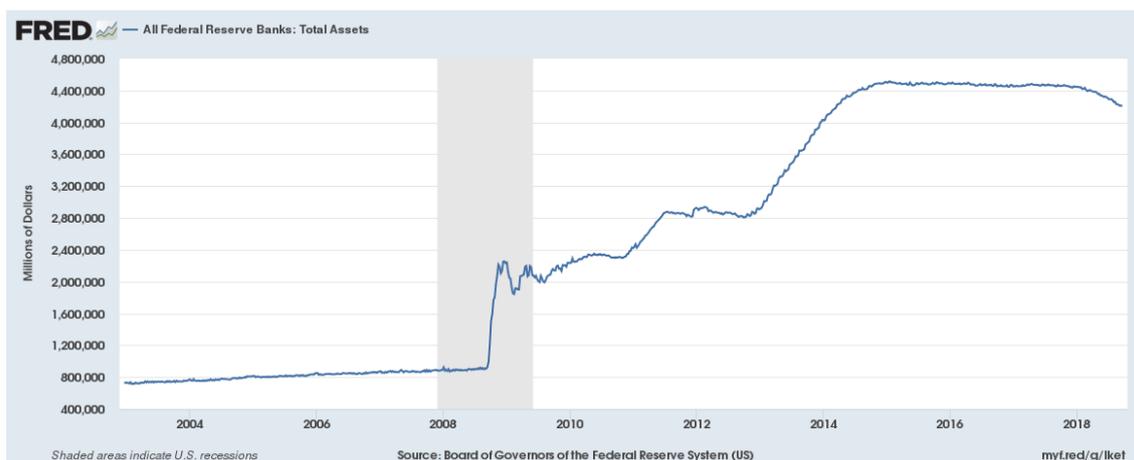


Quantitative Easing – Explaining It and Dispelling the Myths

Session 1: QE Basics – What it is and what it isn't

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QE: the central bank tries to ease monetary policy, usually after using up all or most of its interest rate “ammunition,” by buying assets (usually government debt securities) paid for by creating central bank reserves (deposits of banks with the central bank; not to be confused with foreign exchange reserves)



Simplified central bank balance sheet

Assets (A) = Reserves (R) + Banknotes (BK) + Government Deposits (GD)

The central bank is the banker to the banking system (R), is the banker to the government (GD), and provides banknotes to the public (BK)

Rearranging and expressing it in changes, not levels, yields:

$$\Delta R = \Delta A - \Delta BK - \Delta GD$$

Only three things can influence the level of reserves in the banking system:

If $\Delta A = \Delta GD = 0$, then $\Delta R = -\Delta BK$

(when you take money out of the bank, reserves go down)

If $\Delta A = \Delta BK = 0$, then $\Delta R = \Delta GD$

(when the government makes net transfers to the private sector, reserves go up)

If $\Delta BK = \Delta GD = 0$, then $\Delta R = \Delta A$ (what I call the “fundamental equation of QE”), in particular $\uparrow A \Rightarrow \uparrow R$

How does conventional monetary policy work?

- the central bank sets the short-term (overnight) interest rate, the rate at which banks lend reserves to, and borrow reserves from, other banks
- important background fact: before the financial crisis, the Fed (and most other central banks) did not pay interest on reserves
- given ΔBK and ΔGD , the central bank adjusts R so that the actual level of reserves is in line with “required reserves” (set by the central bank)
- given its control of the level of reserves, the central bank can push the interest rate up or down, as it chooses, by creating a shortage or surplus
- if the economy is overheating, it raises the interest rate; if the economy is flagging, it lowers the interest rate
- the central bank can influence medium- to long-term interest rates (the ones that count) via the expectations theory of the term structure
- think of monetary policy as a 3-stage process: the central bank adjusts the interest rate; financial conditions change; the real economy responds

QE:

- is needed because, unlike when they hike interest rates, central banks can run out of room to cut interest rates (“the zero interest rate bound”)
- by doing QE the central bank alters the composition of the private sector’s aggregate asset portfolio: it is akin to a central bank-enforced asset swap
- QE works via the “portfolio rebalance effect”: asset price equilibrium is disturbed and the process of it being restored eases financial conditions
- QE puts upward pressure on bond prices (downward pressure on interest rates), pushing down the term premium (extracting “duration”)
- “Plain vanilla” QE (ie, when the central bank buys government debt securities) can be viewed as a debt refinancing operation of the consolidated government (that is, the government including the central bank), whereby the consolidated government, via the central bank, retires government debt securities and issues central bank money in their stead
- QE does not work via the textbook “money multiplier” model, an increase in reserves (monetary base) multiplying into an increase in money supply
- it is misleading to characterize QE as “money printing”: for every dollar (yen, euro) of money created, a dollar (yen, euro) of assets is sucked out of the system – QE does not create any new purchasing power
- governments create money by running budget deficits, banks by lending