INTERNATIONAL USE OF THE DOLLAR AND THE US ECONOMY

What if the global currency market stops using the dollar? (Extended response).

Some people fear that the US dollar will stop being so popular, and that will cause an intolerable rise in inflation. If the US is to experience intolerable inflation, it will likely be as a result of both domestic and international forces; therefore, the international role of the dollar does not tell the whole story.

Inflation is the general increase in prices of goods and services in an economy. The annual percentage change in the general price index (the consumer price index) measures the inflation rate of an economy. As each unit of currency buys less in the market, the economy is experiencing positive inflation because the general price of goods in that economy rises.

The growth of the money supply is supposed to be a tool to cause inflation, though it is not always effective at doing so. When an economy experiences a "liquidity trap", the increase in the money supply does not yield anticipated inflation. Liquidity traps are believed to be the reason that major money injections sometimes do not result in predictable consumer price index changes (thus, do not result in proportional inflation).[1]

Following the 2008 financial crisis, the Federal Reserve injected billions of US dollars into the economy, however inflation did not go up. Pursuant to this strategy, the Federal Reserve adjusted their tools and expectations to align with New Keynesian theory – the new model of the economy is harder to model (less parsimonious than the elegant neoclassical models of yore), but more accurately represents issues of debt and credit on the international scale. This model in turn develops a more sophisticated perspective of what inflation expectations are to come from global macroeconomic issues.

[1] For a sampling of Krugman's work concerning liquidity traps, see: Krugman (1998) "Japan's Trap" at https://www.princeton.edu/~pkrugman/japans_trap.pdf; Krugman and Eggertson (2011) "Debt, Deleveraging and the Liquidity Trap: A Fisher-Minsky-Koo Approach" for the Federal Reserve of New York and Princeton University at http://www.frbsf.org/economic-research/files/PKGE_Feb14.pdf;

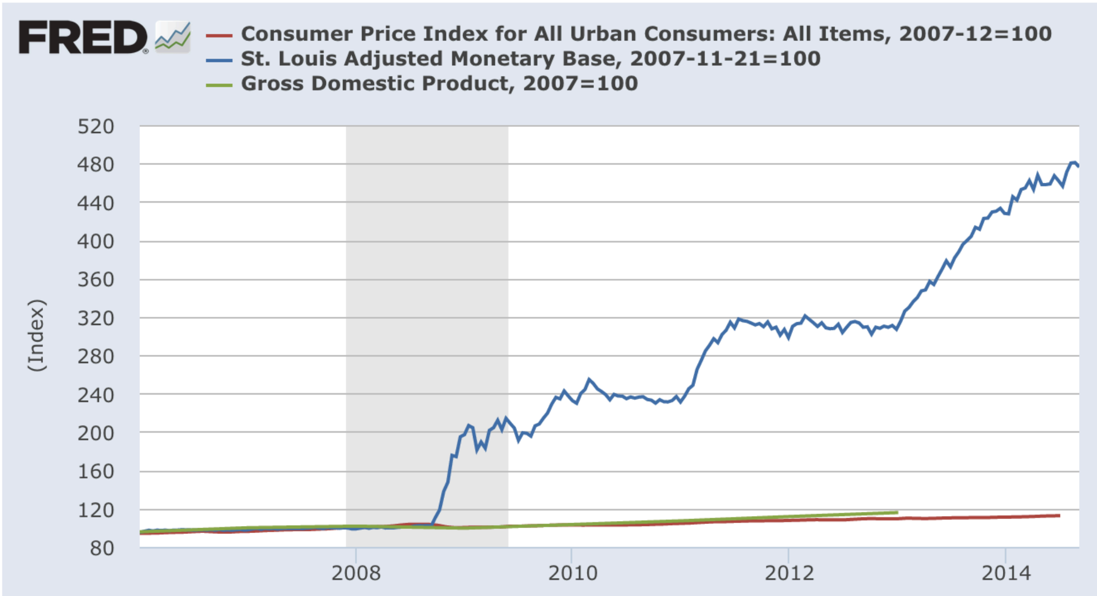

Figure 1 Source: Federal Reserve of St. Louis database

Here we see the change in output of GDP, the monetary base and inflation from the recession until today. Though the monetary base as grown dramatically, the consumer price index grew approximately 12%. This behavior indicates that an increase in the money supply does not lead to a significant increase in consumer prices in the real world.

So, you may wonder when (if ever) inflation will arise rise given the massive money supply increase. Given the experience of the last five years or so, inflation does not seem to be caused by expansion of the money supply. In fact, it seems to be far removed from it. Theories that expect otherwise are, at the moment, based more upon theory than upon US experience. Since the dollar is in such high demand, the liquidity preference adjusts to the changes in supply.

One way to look at the relationship between the demand for dollars (also known as the "liquidity preference" of the dollar), and the money supply is the IS-LM model, which attempts to mathematically explain Keynes' *General Theory* by comparing the interest rate with the real output of the country.[2] The model assumes fixed price levels, and is used to describe how shifts in the aggregate demand curve occur; however, the model is useful for policymakers to assess stabilization policies and to analyze fluctuations in the market. So, if you're trying to wrap your head around the idea of the Federal Reserve's decisions to increase the money supply, consider the IS-LM model.

[2] Several macroeconomists utilize this model. It can be found in seminal New Keynesian works such as Krugman and Obstfeld's standard textbook, as well as journal articles by Post Keynesians such as Hicks, John (1980–1981), "IS-LM: An Explanation", *Journal of Post Keynesian Economics*.

On a fundamental level, the two major factors that impact the demand for the dollar (or any currency) are the interest rate and the expected future exchange rate. Further explanation of the relationship between the money supply and foreign exchanges is modeled in Figure 2.

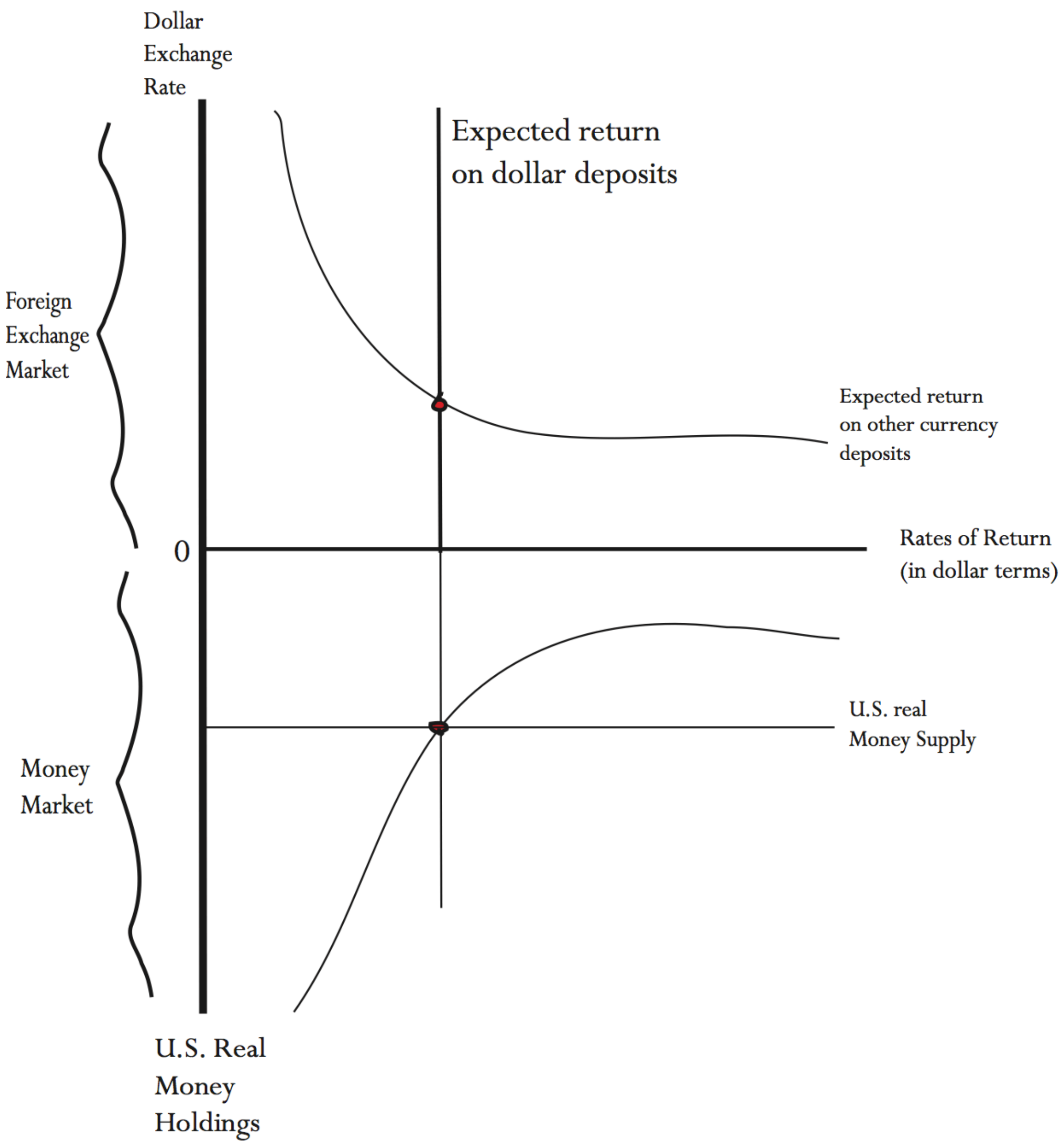

Figure 2 **Derived by author from Krugman and Obstfeld, "Money, Interest Rates and Exchange Rates" Chapter 14 of *International Economics: Theory and Policy*, 2009.**

The Money Supply has a relationship with Interest Rates. This has a significant meaning in the US as the money supply is held globally – East Asian governments, for example, save government reserve accounts in dollars. The same holds true of most international companies. Alternatives such as the pound sterling and the euro are more prone to collapse or have suboptimal interest rates. So, in many ways, the US dollar is the reserve currency by default.[3] The Federal Reserve has ensured the quality of US dollars, even after the financial crisis, through acting as a risk-absorber and lender of last resort.[4]

One way to explain this demand is to understand how stable economists expect the US market to be. The US economy is expected to be predictable. In Keynes' famous beauty contest concept, he stated:

> "It is not a case of choosing those [faces] that, to the best of one's judgment, are really the prettiest, nor even those that average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practice the fourth, fifth and higher degrees."[5]

His theory is consistent with inflation patterns and is followed by Nobel-winning economists the world over. For example, an *Economist* poll across multiple financial institutions demonstrates that everyone expects the US to be consistent in the short-run. And in the long run? "In the long run… we're all dead."[6]

Academia is reluctant to assign a numerical quantity that determines when the dollar stops being the reserve currency.[7] International cooperation is very strong around the dollar, and many countries prefer to use the dollar to SDRs for central banking purposes.[8] Right now the global demand for the dollar eats up much of the monetary base that would otherwise cause core price inflation in the US. There are no expectations that international institutions will dump their dollar holdings into the market as this action would ruin their own currency value (which is measured against the dollar), and no precedent for a country acting so poorly in their own, and global, interest. If it were to happen, the international community as a whole would intervene to protect the US dollar and thus their currencies before inflation hit. The remaining Bretton Woods institutions, the other large economies, and the US itself would change the monetary base before significant inflation would impact the economy.

[3] Prasad, Eswar. "The Dollar Reigns Supreme, by Default" *Finance and Development* (International Monetary Fund: March 2014), link: http://www.imf.org/external/pubs/ft/fandd/2014/03/prasad.htm.
[4] Thoma, Mark. Ibid.
[5] John Maynard Keynes, (1936) *The General Theory of Employment, Interest, and Money*, Chapter 12.
[6] Famous quote by John Maynard Keynes, *A Tract on Monetary Reform* (1923) Ch. 3
[7] Institutions funding the research considered include: Princeton, the Department of the Treasury, IMF, National Bureau of Economic Research, the Federal Reserve, and the London School of Economics.
[8] SDRs, or Standard Drawing Rights, are a product of the IMF for central banks to purchase a currency basket product, which is still similar to dollars. Many countries still prefer dollars to SDRs because the dollar is more established.