

# Economic Vices Faced by the Fed

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## Abstract

Money supply has grown at a healthy rate of around 5% since WW2; in August of 2009 however, the US experienced an 18.5% year-to-year increase in M1. Moreover, as our financial system is picking up again, people have started to reinvest in stocks and bonds, creating an excess supply of currency. In theory, such an excess supply should generate lagged inflation as the market is flooded with US dollars. On a seemingly unrelated note, the IMF released a report in late 2007 which detailed its outlook for the US mortgage market. This report showed that reset values will gain momentum in 2010 and peak in 2011 at approximately \$39 billion. In order for these ARM resets to go largely unnoticed, the federal funds rate must remain at its current low levels, but according to neoclassical economic theory, the Fed must raise the interest rates to stop inflationary effects. This is the dilemma the Fed will face over the next several months. The remainder of the article outlines the Fed's potential solution and associated pitfall.

## Introduction

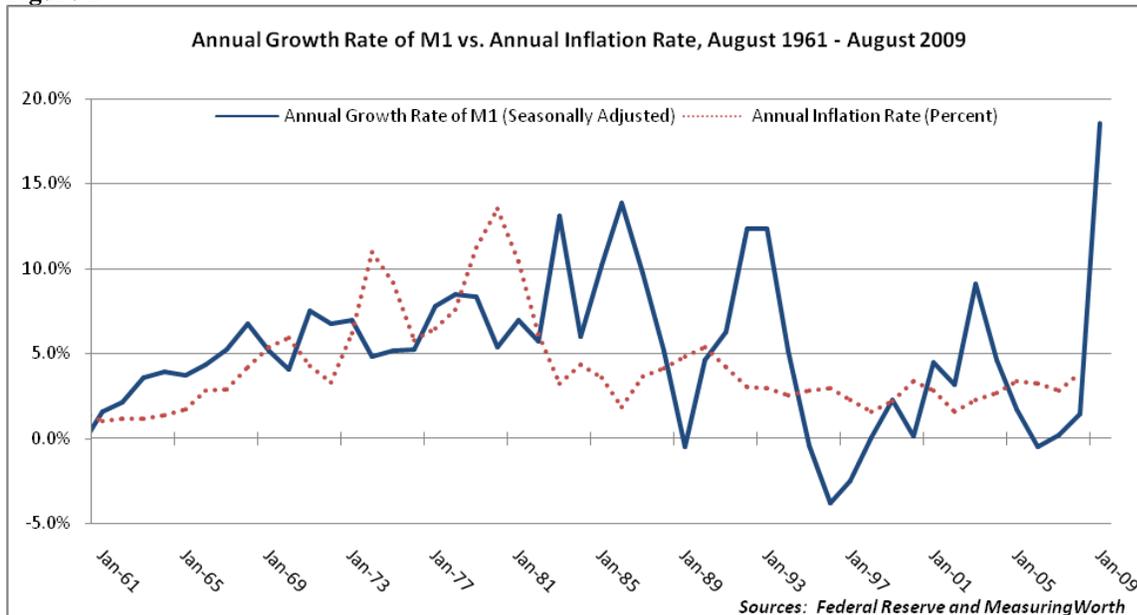
What will happen in the wake of America's largest money printing spree of our generation? Are we in the clear yet? Markets have already begun to react to economic news, but where is the reasoning behind these movements? The Fed's recent money gorging has done a few important things to our economy, excluding the fact that it *almost* made Paris Hilton's spending habits look reasonable. Many of these effects have shown up already, including an apparent recovery in asset markets and a near miss of mass bank nationalizations. But perhaps the most important effects are yet to come. The questions posed at the beginning of this article attempt to broadly cover the issues many Americans are facing as they start to pull their money out from their mattresses.

## The Money Vice

### How has the Fed's spending affected the economy?

Over the last 50 years, the growth rate of the money supply, measured by M1, has been relatively tame. M1 is typically used as a proxy for money supply because it includes all money that is readily spendable, such as currency and demand deposits. Figure 1 shows the historical percentage changes in M1.

**Figure 1**



Money supply has grown at a healthy rate of around 5% for the last 5 decades; in August of 2009 however, the US experienced an 18.5% year-to-year increase in M1. The US hasn't seen money growth like this since WWII, when inflation and deflation were still running wild (Federal Reserve *Money Stock and Debt Measures*, 2009; Federal Reserve Bank of St Louis, 2009). This abnormal increase is mainly due to the Fed and the Treasury injecting close to \$1 trillion into the economy to alleviate toxic debt (Andrews, 2009). M1 increases since a substantial portion of this money comes from the Fed buying Treasury securities. Such an open market operation boosts the money supply because the Fed uses bank reserve funds to purchase these securities. The Treasury then invests in flailing banks or other assets as the money begins its months-long journey to consumer wallets. While this maneuver by itself doesn't hurt the economy, it puts the Fed in a delicate position.

Another important factor increasing M1 is the economic recovery. As our financial system is picking up again, people have started to reinvest in stocks and bonds, creating an excess supply of currency. In theory, such an excess supply should generate lagged inflation as the market is flooded with US dollars. This fear of inflation is why many conservative investors are beginning to move their US currency to gold, propelling gold futures to record levels (Larkins & Pavliva, 2009). As investors continue to unload dollars, our currency is sliding against most other major currencies.

### **How can the Fed battle the inflationary side of the vice?**

The Fed can alter the federal funds rate to raise broad market interest rates and therefore curb inflation. The intuition behind this logic is simple: by raising interest rates, it becomes harder to borrow and money stops changing hands as quickly. The end effect is to reduce the velocity of money and the money multiplier. The theoretical justification for this type of policy comes from the Fisher equation:

$$\text{Real Interest Rate} + \text{Expected Inflation} \cong \text{Nominal Interest Rate}$$

Based on this equation, one would expect the Fed to raise the real interest rate through the federal funds rate to reduce inflation. Economists consider the right hand side of the equation

fixed, and hence if the real interest rate component of the left hand side increases, the inflation component must decrease. In the past, the Fed has successfully used this strategy to keep inflation around 2% to 3%.

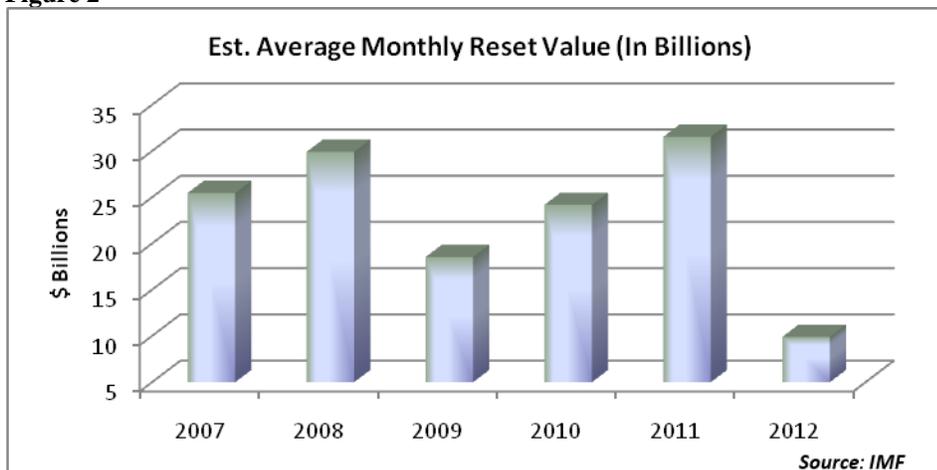
## The Housing Vice

### Are we in the clear with respect to defaults?

The other side of the Fed's dilemma comes from adjustable rate mortgages, also known as ARMs. This particular type of mortgage bases interest payments on the prevailing market rate. ARM interest rates are typically updated every 3-7 years to reflect current market rates. Usually, if interest rates are falling like they did during the housing boom, ARM payments fall and no one complains (Federal Reserve *Effective Federal Funds Rate*, 2009). Instead, this is the opposite of what is currently happening.

The IMF released a report in late 2007 which detailed its outlook for the US mortgage market (Dattels, Bell, Craig, Kiff, MCCAughrin, Morris, Saiyed, Unterberdoerster & Walker, 2007; p. 4). One of the key statistics included in this report was the value of mortgages resetting for the first time since their origination. Figure 2 summarizes their data.

Figure 2



The reset value was roughly \$25 Billion per month during 2007 and \$28 billion per month during 2008 (peaking at close to \$36 billion per month in the summer months of 2008). This initial wave of resets caused mass defaults of subprime mortgages, and subsequently fostered the current recession. According to the IMF report, we are presently in a lull with respect to resets; 2009 resets were approximately \$18.5 billion per month—roughly a 38% decline in resets per month as compared to 2008. The IMF shows that reset values will gain momentum again in 2010, peaking in 2011 at approximately \$39 billion worth of resets in the late summer.

The US had a mortgage crisis when subprime borrowers began to default in 2006-2007. If we have a similar wave of defaults in 2010-2011, we can expect companies holding mortgage backed securities to find themselves in trouble once again. Many wonder how it is even remotely possible that this could happen, again. Since congress is stalling its financial rule overhaul, companies continue to trade collateralized debt obligations (CDOs) based on these mortgages, largely unregulated.

However, the future may not be as bleak as the numbers indicate, according to a senior analyst and portfolio manager at a major global investment bank. The bank's research shows that while many of these resets will cause financial hardship and subsequent defaults, a significant number of ARMs are already delinquent (i.e. they have defaulted on payments already even though their loan is due for an interest rate reset). Another cushion for these numbers comes in the form of refinancing. This particular investment bank expects many of those who are not "under water" (i.e. those who have a house worth more than their outstanding mortgage payments) to refinance in the upcoming months while interest rates remain low. As for the remainder of Americans facing potentially higher mortgage payments, the quickest way for the economy to move past this recession is to speed up the foreclosure process. According to this senior analyst, "We will all be better off if we can get people out of houses they can't afford. The best way we can do this is to make defaulting as easy as putting your keys in an envelope and sending it to the bank. Once we finish this process, the economy will begin to recover. Anything that postpones [this process] is just prolonging the inevitable."

### **How can the Fed battle the housing side of the vice?**

In order for these ARM resets to go largely unnoticed, the federal funds rate must remain at its current low levels; however, there will still be some repercussions of the resets since the federal funds rate is a risk free interest rate. To combat the increased probability of default on mortgages, banks attach a significant risk premium on top of the going market rate. This risk premium may be burdensome for many families, including those who initially faced "teaser" interest rates that were well below market rates when originally issued. Nonetheless, if interest rates remain flat, homeowners will face more moderate increases in their mortgage payments when their ARM contract rates get updated to prevailing market rates. By keeping their federal funds rate low, the Fed can essentially avoid round II of the housing bust.

### **The Major Dilemma**

The Fed must decide between curbing inflationary effects from its money spending splurge and nipping another potential mortgage crisis in the bud. It must raise the interest rates to stop inflationary effects, but in order for the ARM resets to pass without causing mass defaults, the Fed must keep rates where they are now.

### **Potential Solution**

The Fed sticks with their plan to keep rates low for roughly a year, allowing those who are not "under water" adequate time to refinance. Since the housing market has begun to stabilize in many states (including real estate upticks some areas), refinancing may be a viable option for many people facing ARM resets (Howley & Chandra, 2009). Government agencies will refinance a substantial portion of these mortgages as they have done in recent months, mainly through the Federal Housing Administration program (Luhby, 2009). After these precautionary measures are taken to avoid another huge wave of defaults, those who are still unable to make payments will face a speedy foreclosure. Inflation will spike with low interest rates, but this will subside once the Fed begins to raise the federal funds rate.

## Worst Case Scenario

Too many dollars are dumped into the market as investors return to the stock market, futures market, and bond market. The dollar devalues against other currencies and countries begin to switch reserves from dollars to a more stable basket of currencies. In anticipation or in response, the Fed raises interest rates prematurely to tackle inflation and devaluation. Faced with higher market rates, the economy gradually steps into another more moderate recession as ARM holders cannot meet reset payments. Defaults occur in smaller numbers than the subprime crisis, but Americans still get an unpleasant dose of déjà vu.

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## Additional References for Figures

Figure 1:

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Figure 2:

International Monetary Fund (2007, October). Global Financial Stability Report. *Financial Markets*. Retrieved September 8, 2009 from <http://www.imf.org/external/pubs/ft/gfsr/2007/02/pdf/chap1.pdf>