

Our Perspective on Issues Affecting Global Financial Markets

THE FED IS NOT MAGICAL...UNLESS YOU THINK REITS ARE MAGICAL

Will the economy stall as the Federal Reserve retracts all the money that has been sloshing around the system? Like any other bank or real estate investment trust (REIT), the Fed is just another financial intermediary, borrowing money to buy bonds.

The **Fed** is **Not Magical**... Unless you Think REITs are Magical

"Stocks and bonds around the world are a house of cards because of the Federal Reserve's bond-buying."

Trivestors love simple explanations for complex phenomena. So we should not be surprised to routinely hear "The Fed did it" as a catch-all reason for asset price movements and economic developments. Far be it from us to deny the Fed's place as a large US financial institution. But the Federal Reserve as the universal cause is as convenient as it is bogus.

Our work here is to dispel common notions of central banks as more than mere financial intermediaries. As we enter an era of "policy normalization," where overnight policy interest rates move higher, worries of a market apocalypse are overblown. A near \$80 trillion global economy can survive the Fed's tinkering. The Fed's balance sheet, we contend, looks more like a mortgage REIT than it does the instrument of an all-powerful puppet master guiding the global economy.

Our evidence sits in plain view. Each week the world learns anew the composition of the Federal Reserve's balance sheet: what the US central bank owns and to whom it owes. The data show unambiguously that both the structure and the size of the Fed's operation are altogether common. There is no magic. Like many other financial intermediaries, the Fed uses short-term borrowing (it issues liabilities) to fund long-term assets (it holds Treasury and government backed mortgage securities).

If you thought that it is the scale of these operations which makes today's Fed unique, think again. Compared to the Fed's own history, or compared to other central banks around the world, the Fed's balance sheet isn't even very big.

> **«THE FED'S HUMBLE ORIGINS** ARE A GOOD STARTING POINT FOR CONSIDERING WHAT THE **CURRENT INSTITUTION IS AND** WHAT IT IS NOT. PUT PLAINLY, THE FED'S ORIGINAL CHARTER WAS THE PROVISION OF CREDIT TO THE FINANCIAL SYSTEM IN TIMES OF PANIC AND THE **REGULATION OF BANKS»**

DID YOU KNOW?

Wait...What is a Mortgage REIT?

A mortgage REIT is a special type of real estate investment trust (REIT) which uses short-term borrowing in the form of reverse repurchase agreements to make mortgage loans, to purchase existing mortgages, or to buy mortgage-backed securities. The profitability of a mortgage REIT depends on the spread between their cost of borrowing and the return they make on their assets. What makes the REIT structure attractive? So long as certain criteria are met, the trust is exempt from taxation and public market investors can gain exposure to real estate.

Like other REITs, to maintain their status mortgage REITS must distribute at least 90% of each year's income to shareholders and must earn at least 75% of its gross income from real estate investments, among other criteria. According to research done by the Richmond Federal Reserve Bank, the first mortgage REIT still in existence today is the Capstead Mortgage Corporation, founded in 1985. Initially created for buying mortgages and making collateralized mortgage obligations, 95% of Capstead's liabilities were securities issued. Only 8 years later, though, reverse repurchase agreements accounted for 40% of all liabilities. Today, reverse repurchase agreements represent 55% of all mortgage REIT liabilities.

The gig is up. Get used to it. The Fed of the past, present and future, is just another player in the global bond market.

FROM WHENCE WE CAME

The Fed's humble origins are a good starting point for considering what the current institution is and what it is not. Put plainly, the Fed's original charter was the provision of credit to the financial system in times of panic and the regulation of banks.

Created in 1913 by the Federal Reserve Act, Congress sought to quiet the constant economic fluctuations caused by violent credit cycles. Top of mind was the recent financial panic and attendant recession of 1907 when the US banking system found itself short on liquidity. The eminent J.P. Morgan presided over (and arm-twisted) a quasi-private bailout, using the vast capital at his disposal to guarantee deposits and halt a nationwide run on the banking system.

The discovery that one powerful person stood between credit crisis and the country's financial health prompted quick Congressional action. The Federal Reserve Act "provided for the establishment of Federal Reserve Banks, to furnish an elastic currency, to afford means

Payden & Rygel

fig.1 THE FED'S BALANCE SHEET vs. A MORTGAGE REIT'S BALANCE SHEET: CAN YOU TELL THE DIFFERENCE?

MORTGAGE REITS

LIABILITIES

REVERSE REPO

BONDS

LOANS

MISC.

FEDERAL	RESERVE	MORTG
ASSETS	LIABILITIES	ASSETS
RESERVE ASSETS	RESERVES	DEPOSITS
SDR CERTIFICATES	CURRENCY	& CURRENCY
TREASURY CURRENCY	REVERSE REPO	AGENCY & GSE DEBT
LOANS	MISC.	CORPORATE & FOREIGN BONDS
TREASURY DEBT		MORTGAGES
AGENCY & GSE DEBT		MISC.
EQUITIES		
MISC.		

of rediscounting commercial paper, [and] to establish a more effective supervision of banking in the United States..."1

MISSION CREEP: PRICE STABILITY AND MAXI-**MUM EMPLOYMENT**

Life changed for the Federal Reserve in 1977. After decades of relative economic peace and no banking crises, the malaise of the 1970s combined with rip-roaring oil prices and high unemployment had Congress itching for help. Where formerly the federal government was tasked with "promot[ing] maximum employment, production, and purchasing power," advances in economic theory gave some members of Congress the idea that maybe the Fed would be better suited for pursuing such economic ends.2

This piece of the story is familiar to anyone who has taken an undergraduate economics course. Promulgated as an unassailable truth until 2008, more scientific-seeming economics and a general boom in global economic activity through the 1980s and 1990s convinced many that the US central bank (along with other "modern" central banks) had

cracked the code of the business cycle. Buying and selling bonds, it was assumed, was sufficient to crack the whip on inflation when the economy overheated, or enable companies to hire when the gas in the economic tank was running low. But 2008 would change all of that.

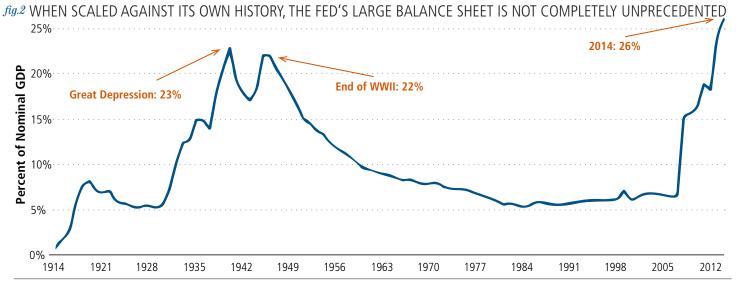
INTO THE PRESENT, BACK TO THE ROOTS

It is August 2008. Washington D.C. is muggy with late summer humidity. As New York Fed President William Dudley noted in the Fed's August 5th meeting, "the probability assigned by market participants to further easing is lower than the probability assigned to tightening." On the eve of the worst financial crisis, the central bank was squarely and firmly focused on their charge as maker of monetary policy, not as a lender of last resort.3

One month later and it was back to basics. Motivated by the bankruptcy of Lehman Brothers, the Fed remembered to deploy its balance sheet in the capacity for which it was originally intended: lending to those illiquid counterparties in times of illiquidity. On the one hand the Fed created "reserves" to give to liquidity-starved borrowers, on the other hand the Fed accepted securities as assets. These lending activities were not in the name of stabilizing inflation or promoting maximum unemployment. In the winter of 2008, the Federal Reserve did combat with a financial market panic.

RECOVERY AND BALANCE SHEET EXPANSION. SAME OLD SONG

After 2008 the US economy recovered slowly. But the Federal Reserve's balance sheet kept expanding. In December 2014, the Federal Reserve system held \$4.5 trillion worth of assets on its balance sheet, the result of quantitative easing (QE) with the aim of lowering unemployment and raising inflation. That is, Fed policy has been con-



Source: FRB, BEA, Historical Statistics of the United States/Haver Analytics



ducted in an effort to satisfy their 1977 remit to guard employment and inflation.

Despite the different dressing, we think the substance of the operation is the same. No matter if done in the name of saving the housing market by buying mortgage debt or done in the name of lowering interest rates to boost unemployment, the Fed has deployed the same financial tools: expanding the asset side of their balance sheet by issuing reserves. The Fed is a financial intermediary. Like a bank. Or a mortgage REIT. It is not a magic puppet master controlling the macro economy.

Of course we recognize that the Fed is unique in two ways. First, banks are legally required to hold Fed liabilities as assets (reserves and currency). Second, the Fed is not profit driven. Unlike a REIT or other intermediary, if the Fed's assets don't pay, they can take losses without going out of business. Taxpayers bear the loss rather than the shareholders and creditors of a private institution.

THE ANATOMY OF A FINANCIAL INTERMEDIARY

Like any other financial intermediary, the Fed issues liabilities to fund asset purchases. In common parlance, they borrow money and invest in things that pay. Pick up a dollar bill and have a look. It says "Federal Reserve Note." It is actually a liability of the Fed! One of the ways the Fed borrows money is by issuing currency (see Figure 1 on previous page).

Another way the Fed funds itself is by issuing reserves. Just as the bank "borrows" money from you through your checking account to make home loans elsewhere, so the Federal Reserve holds account balances for banks and use those deposits to invest (or make loans to the Treasury). When the Fed buys a Treasury bond, the open market operations desk at the New York Federal Reserve contacts a dealer, gets a price quote, and buys the security by crediting that bank's account in its system.

And that "interest on excess reserves" you might have heard about? Think of it this way. Most banks require that you hold a minimum amount in your account. Banks with deposits at the Fed also have to hold a minimum amount of reserves. Like your bank, though, the Fed pays banks interest on their reserve balances that are in excess of what the banks are required to hold by law. The idea is to provide an incentive to the banks to keep their extra reserves at the Fed, just like a bank has to compete with your neighborhood credit union to attract deposits (which is probably offering more interest on a savings account!).

Fine, you might say, I get it. The Fed's operations are nothing special. But it is the scale at which they have conducted their borrowing and lending which is so inappropriate. We'd be ready with two responses. First, when scaled against GDP, the current size of the Fed's balance sheet isn't so unprecedented.⁴ Following the Great Depression, and into World War II, the Fed held assets worth nearly 25% of US nominal gross domestic product. Today that figure stands at exactly 25% (see Figure 2 on previous page).

The second point to raise is that the Fed's asset holdings are more modest still when compared to other major central banks' holdings. Today the Swiss National Bank holds assets valued at nearly 90% of nominal GDP, the Bank of Japan has 65%, while the People's Bank of China holds over 50% of nominal GDP. Other major central banks have lower total holdings as a percent of GDP.

WHERE DO WE GO FROM HERE?

We've laid out two major conjectures. Number one: the Fed is just a financial intermediary which holds assets and liabilities. They do their best to adjust the size of their balance sheet to temper interest rate movements, but they are by no means in total control. Number two: historically and globally the size of the Fed's balance sheet today is common and should not alone be a cause for concern.

Putting these pieces together, the future of the US economy (thank goodness) doesn't depend solely on what the central bank does with its balance sheet. Just as we survived a rapid creation of reserves and asset purchases, if the Fed sells assets—unlikely in the short-term—the Treasury and mortgage markets will not disintegrate, even if prices make jerky adjustments.

As the Fed rolls out new programs, no matter under what guise they are sold, we encourage you to remember that the Fed is nothing special. It has a balance sheet like any other financial intermediary that it uses to buy and sell bonds. If that has an effect on macroeconomic variables like inflation and unemployment, so be it. Maybe the Fed is not just one big, slow, overly-communicative mortgage REIT. But its tools are very similar.

SOURCES

- 1 Federal Reserve
- 2 Meltzer, Allan (2010). A History of the Federal Reserve, Volume 2, Book 2: 1970-1986. Chicago: Chicago UP.
- 3 Minutes of the August 5, 2008, Federal Open Market Committee meeting
- 4 The Rise and (Eventual) Fall in the Fed's Balance Sheet, Lowell R. Ricketts and Christopher J. Walker, The Regional Economist, January 2014.