Milton Friedman, Anna Schwartz, and *A Monetary History of the US*

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PEOPLE: Milton Friedman, Anna Schwartz

RELATED: Inflation, monetary stimulus, Quantitative Easing

DATES: *A Monetary History of the United States, 1867-1960* was published in 1963. Friedman and Schwarz's book was preceded and followed by substantial work on monetary policy and monetary history.

CHICAGO: Milton Friedman is one of the best-known economists to have taught at University of Chicago. Anna Schwartz was Friedman's co-author and collaborator, associated with the NBER

REFERENCES: *A Monetary History of the United States, 1867-1960*, particularly chapter 7

VIGNETTE

Milton Friedman and Anna Schwartz published their book *A Monetary History of the United States* in 1963; in doing so re-wrote monetary theory and history. In fact, it is only something of an exaggeration to say their research saved the world during the 2008 financial crisis. To see why we need to delve into monetary history, starting with the financial crisis and depression of 1907-08, following the thread through the founding of the Federal Reserve in 1913, the 1930s Great Depression, Friedman and Schwartz's revisions of monetary history (1960s), Ben Bernanke's acknowledgement (in 2002) of the Fed's role in creating the 1930s Great Depression, and finally the Fed's 2008 response with QE1's massive liquidity injection. Understanding the role of banks, money, and the Fed ties together the three episodes (the 1907-08 depression, the 1930s Great Depression, and the 2008 financial crisis) and illuminates how and why these differed. It also explains why 2008's massive increase in high-powered money was never likely to lead to inflation (contrary to what many predicted at the time), and why it is reasonable to say that the Fed, informed and educated by Friedman and Schwartz, did indeed save our financial system in 2008.

Understanding monetary history requires some basics of money and banking. We all use checking accounts aka bank demand deposits. Bank deposits have long been used as money, providing a convenient compliment to cash in our daily lives and business transactions. The liquidity of demand deposits, the willingness of anyone and everyone to immediately accept bank deposits at face value, is probably their key characteristic. Liquidity provides the lubrication to markets and transactions that we need for a smoothly functioning economy. When liquidity starts to disappear the usefulness of bank deposits also disappears.

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We take bank deposits for granted but they are in fact a little odd. A bank deposit is in reality a loan that we make to a bank. Like any loan the bank promises to pay us back, but like any loan the promise may be broken, the bank may default, and we may lose on the loan. And a bank deposit has two unusual characteristics that can lead to a dramatic switch from liquid deposits to bank run. First, it is a *demand* deposit, a loan that we can redeem at any time simply by going to the bank and asking for our money. Second, if a bank does default then debtors (bank deposit holders) are paid out on a first-come first-served basis. Contrast this with a standard corporate bond, where bond-holders are treated equally (pari passu) and share equally in any losses. For a deposit there is a huge incentive to be first in line and get paid back before others.

These two characteristics, redemption upon demand and first-in-line payment, conspire to make banks particularly subject to a run or liquidity crisis. Any hint of trouble encourages depositors to immediately redeem their loan and convert their deposits (checking account) into cash. This is a bank run that is self-fulfilling and pushes an otherwise sound bank to default simply because it does not have ready cash to satisfy the redemption demands by all depositors.

It is often claimed bank deposits make banks and banking particularly unstable and subject to runs, but this is only partially true. Banks that are large and diversified will naturally be more robust and resistant to runs, while small and poorly-diversified banks will be prey to runs and panics. Which sets the stage for understanding our American banking history.

It is hard today to imagine the American banking system as it existed in 1907, a banking system that was unique among the developed world and uniquely fragile and dysfunctional. Until the 1990s banking across state lines was generally banned and many states restricted banks to a single branch, one office only. This led to a fragmented and fragile banking system subject to recurring crises and panics. Between the 1840s and the present the US suffered (according to Calomiris and Haber [2015]) 12 systemic banking crises with multiple bank failures and economic disruption.[1]

In 1914 the US had 27,349 banks, 95% with no branches. For a population of roughly 99 million this meant an absurdly low 3,600 *people* per bank (and fewer customers per bank), a number far too low for most banks to reap either economies of scale or diversification against random or systemic shocks. Small rural banks with few customers were particularly subject to liquidity crises and runs; as Friedman and Schwartz point out:

> In a unit banking system with some 20,000 independent banks, the impact was bound to be uneven, to force some banks into suspension, and to threaten a chain reaction involving a cumulative increase in the desire on the part of the public to convert deposits into currency. Friedman and Schwartz [1963] p. 169

Autumn 1907 saw the emergence of yet another in the string of US banking and liquidity crises. During the summer and fall of 1907 the economy suffered a business contraction, bad but not exceptional. There was no evidence of unusual stress in the banking system. Then in October stock market speculation in copper led to difficulties – during the week of October 14th 1907 five New York clearing house banks and three others required assistance. The following week, on October 22nd, the Knickerbocker Trust Co suffered a run on deposits, and by October 24th two others suffered runs.[2]

There were two fundamental problems. First, with banks being small and non-diversified, any shock could cascade into a liquidity crisis, a series of runs that infected banks across the system. Of course if a bank was otherwise sound and could borrow or otherwise create cash to tide itself over, then the runs and the liquidity crisis could be forestalled or survived. But the second problem was that the US in 1907 had no way to create large quantities of new cash nor any way to lend that cash to banks.

[1] Calomiris and Haber [2015] provide the best analytic discussion of the history of American banking, contrasting it with Canada that had a nationwide banking system and no systemic crises over the same period.

[2] The *Economist* has a nice discussion of the 1907 crisis in Economist.

The New York banks did have a solution, the same solution they used in 1893. The banks banded together in a collective defense and restricted payments – refused to convert deposits into cash. Deposits could be transferred within the banking system, so that bills could be paid by check, but deposits could not be converted into cash. This neatly stopped banks runs. Although draconian it did allow business and the economy to limp along and it forestalled the wholesale collapse of the banking system. Nonetheless this was widely recognized as less than ideal.

The restriction on payments was lifted after a few months (in early 1908) but the repeated crises and restrictions (1893-94 as well as 1907-08) eventually led to the founding of the Federal Reserve System in 1913. Friedman and Schwartz would later highlight the need for "Short-period 'elasticity' in ... currency" (Friedman and Schwartz [1963] p. 169) – the ability to inject cash and liquidity into the system when banks and their customers demanded it – and one of the stated goals of the system was to provide liquidity (lending to banks) during a liquidity of crisis.

This now leads us to the Great Depression. The stock market crash of October 1929 was a serious event but did not, on its own, create the Great Depression. The economic contraction that started in August 1929 was, through autumn 1930 no more serious than the earlier crises of 1893-94 and 1907-08 and nothing on the scale of what was to come in 1932 and 1933. Starting in October 1930, however, failures in some mid-west states "led to widespread attempts to convert deposits into currency." (Friedman and Schwartz [1963] p 308) and banks started to fail more widely: 256 in November and 352 in December. The failure of the Bank of United States (a private bank in spite of the name) in December was particularly important.

With the Federal Reserve in place, New York banks had neither the responsibility nor the authority to restrict convertibility as they did in 1907 and 1893. Restrictions might have broken the cycle that led from the desire for liquidity, to conversion of deposits to currency, through to bank runs and failure, and increased desire for liquidity. Friedman and Schwartz express the opinion that restriction would have prevented the subsequent waves of failures. They also argue that, to no little extent, the severity of the Great Depression was a result of the Fed's failure to properly implement monetary policy.

In any case banks did not restrict convertibility nor did the Fed inject the required liquidity. Why did the Fed fail to act? Friedman and Schwartz address the question in their Chapter 7 section 7 starkly titled "Why was Monetary Policy so Inept?" The answer boils down to a confluence of unfortunate circumstances. Benjamin Strong, the president of the New York Fed, died from tuberculosis in October 1928. Strong had the knowledge, experience, and strength of character to provide leadership for the whole system; his death left a vacuum. Following Strong's death leadership migrated towards the Board of Governors in Washington, but at the time the Board was weak on knowledge and expertise and was unable to properly lead the system: "The explanation ... is the shift of power within the System and the lack of understanding and experience of the individuals to whom the power shifted." Friedman and Schwartz [1963] p. 411

Following the Great Depression the received wisdom was that monetary policy had been passive or ineffective during the period 1929-33. Friedman and Schwartz's publication in 1963 of *A Monetary History of the United States* was a masterful collection of data, narrative, and analytics. Their chapter on "The Great Contraction, 1929-33" forcefully and persuasively argued that monetary policy played a key role in the events of 1929-33, that the Fed failed to supply liquidity just at the time it was most needed, and in a real sense turned a what would have been a severe depression into the cataclysm of the Great Depression.

The lesson that the Fed caused the Great Depression was not lost on the Fed itself. In 2002 the University of Chicago hosted a celebration of Friedman's 90th birthday, with both Friedman and Schwartz attending. Ben Bernanke, at the time a member of the Board of Governors and later to take over the chairmanship, delivered one of the papers. In it he discussed and reviewed Friedman and Schwartz's analysis of the Great Depression (called by Friedman and Schwartz the "Great Contraction"). Most striking, however, was Bernanke's close when he addressed Friedman and Schwartz directly: "Let me end my talk by abusing slightly my status as an official representative

of the Federal Reserve. I would like to say to Milton and Anna: Regarding the Great Depression. You're right, we did it. We're very sorry. But thanks to you, we won't do it again." (Bernanke, Ben and Board of Governors of the Federal Reserve System (U.S.) [2002])

Which finally brings us to September 2008 and the global financial crises, when Lehman Brothers filed for bankruptcy, AIG nearly collapsed, and the global banking system was close to paralysis. The Fed reacted in 2008 as they should have in the 1930s by flooding the banking system with reserves (cash). From August 2008 to January 2009 bank reserves (supplied by the Fed) increased from about \$96bn to \$911bn, an increase of over 9-times! Any graph looks odd – the 100 years prior to August 2008 nothing but a flat line at zero, with then a sharp rise starting in September.

We can think of 1907 and the 1930s as extreme natural experiments in banking and monetary policy, showing what happens when the banking system has to act on its own (1907) and when the Fed as liquidity supplier fails to do its job (1930s). In both instances the economy contracted and prices fell. Prices fell because the demand for money (liquidity) rose and rose far more than the supply of money – the only way to equilibrate supply and demand was to push up the price of money (to push down the economy-wide price level, which is the inverse of the price of money).

Following the 2008 financial crisis the economy contracted, and economy-wide prices stayed flat or fell slightly, in spite of the big increases in liquidity. Both of these we would have expected from looking at 1907 and the 1930s. The banking system in 2008 was stressed, but unlike the 1930s did not collapse entirely. And for that we probably have the Fed, and Friedman and Schwartz, to thank.

References

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