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From the Cross of Gold to Central Banking: Three Key Episodes in American Financial History

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In 1890, the United States government had no agency empowered to control the overall supply of money. Fifty years later, it had a full set of monetary institutions, including a central bank whose structure is much the same today. Further, it had enough experience to know both the promise and the pitfalls of monetary control. How did the nation's monetary institutions change so much? History books make the progression from the 1890s debates and early twentieth century crises look inevitable. Yet because there is little economic content, the textbooks do not explain monetary history within a contextual framework that includes choices, costs, and incentives. As in other areas, textbooks underplay the economic way of thinking.

This article outlines the macroeconomic understandings required to help students navigate the complexities of a key period in American monetary history. We show how economic reasoning illuminates three episodes from that period—the hard currency debate of the 1890s, the panic of 1907, and the Great Depression of the 1930s.

Hard Currency: Sound Money or a Cross of Gold?

In the 1890s, the federal government had no systematic control over money, but its actions had certainly influenced money and prices—and the fortunes of millions of farmers and Main Street America. The issues were crystallized at a political convention in 1896, as a dispute about silver coins and how to set the value of the dollar was cast in religious imagery by the brilliant young orator, William Jennings Bryan. "You shall not crucify mankind upon a cross of gold," Bryan thundered.[1] But was the monetary policy he condemned really that harsh? Were the government's policies so punishing that they deserved the symbolic label "Cross of Gold"?

To truly understand this issue requires an understanding of some monetary economics. During the Civil War, the U.S. government paid for a large portion of its wartime expenses simply by printing and spending paper money. This new flow of paper money ("greenbacks") expanded the supply of money in circulation. This dramatic increase in the money supply resulted in inflation (a rise in the average price level). Inflation can deliver an unwelcome surprise to banks and lenders in general because they are repaid with money that is worth less than the money they lent out.

Here is an example to help your students understand the effects of changes in the supply of money. Consider a tiny economy—one so tiny that its only product is cereal. The producers in this economy make four boxes of cereal per time period. The money supply in the economy is \$4, and people spend that money once per time period. In such a simple economy, the price of cereal will be \$1. If the money supply doubled to \$8, but there were still only 4 boxes of cereal produced, the price of cereal would double to \$2 per box.

Although the example is simple, the insight is a powerful one: overall prices rise when the supply of money grows faster than production of goods and services in an economy. In this example, money doubled (from \$4 to \$8) while production (four boxes of cereal) stayed the same—so prices doubled. This is an example of inflation. Prices of goods and services are rising along with the costs of producing those goods and services —materials used to produce goods and services as well as wages paid to workers.

After the Civil War, government leaders tried to withdraw greenbacks from the money supply until each dollar in circulation was backed 100 percent by precious metals. The decrease in the money supply led to deflation and economic depression. Deflation is a decrease in the average price level. And, although lower prices sound like a good thing, typically with deflation, incomes fall as well. So, unless you have a lot of money available, you are unable to take advantage of the decreasing prices of goods and services.

In our cereal-box economy, this would be like reducing the supply of money to \$3 even as four boxes of cereal were still being produced. Think of it this way: Consumers of cereal are no longer able to pay \$1 per box. To sell the cereal, the producer must lower the price. A box of cereal then would sell for 75 cents (\$3 ÷ 4 = \$0.75).

A shortage of gold during the decades that followed further reduced the money supply and added to deflation. The result was the Long Depression—the Depression of 1873–1879.

Deflation late in the 1800s created a special problem for farmers. Farmers' prosperity then was most affected by two factors: (1) the prices they could charge for the crops they grew and sold; and (2) the amount of money they would need to earn in order to repay farm loans they had taken out.

Typically, farmers borrowed money to get crops planted. They expected to repay the loan and interest, in time, with the harvest. Suppose a farmer borrowed \$500 to grow wheat. The farmer planned to repay the loan amount by selling 500 bushels of wheat at \$1 per bushel. Some additional bushels sold at \$1 each could repay interest on the loan and other expenses, leaving a nice profit. But what if deflation had pushed down the price of wheat to 80 cents per bushel by harvest time? Now to repay the same \$500 loan amount, the farmer would have to sell 625 bushels of wheat from the crop, not just 500! This meant that he had 125 bushels less wheat to sell for his own income, even before accounting for interest and other expenses. Or, in the worst circumstances, he was unable to repay the bank and eventually lost his farm.

The monetary policy debate after the Civil War involved "loose" money versus "tight money." Printing of large amounts of paper money would mean rapid growth in the supply of money—that is, loose money. Alternatively, the government could pursue loose money by buying up large amounts of silver and issuing new silver coinage. Silver was plentiful relative to gold. On the terms proposed by loose money advocates, silver was capable of supporting a large expansion of money to stem the deflation that was hurting farmers and rural interests.

"The Sacrilegious Candidate," *Judge*, 1896, by Grant Hamilton, in reference to William Jennings Bryan's "Cross of Gold" Speech.

The opposite policy involved much slower money growth, to ensure that money would keep its value. This policy, aimed at avoiding any threat of inflation, was known as tight money. Lenders preferred to be repaid with the valuable money that a tight money policy would create. East Coast banks and urban interests favored tight money. Simply put, Bryan's "Cross of Gold" speech was an impassioned plea for loose money, accomplished through silver coinage.

Bryan did not win the 1896 election in which he was the Democratic Party's presidential candidate, but an oddity of the gold standard made monetary policy looser anyway. How? Under a gold standard, money responds to gold mining activity, independently of the government's policies. After 1896, new discoveries of gold in Colorado, Alaska, Australia, and South Africa made gold more plentiful. The increased supply of gold increased the money supply, which then pushed prices up. That overall increase in prices, by definition, was inflation. It decisively reversed the deflation of the late 1800s. In the end, monetary policy was reversed by gold discoveries rather than deliberate political choice, and there was still no systematic ability to regulate the national money supply.

Financial Panics and the Creation of the Federal Reserve System

Today we read about history's financial panics and see the creation of the Federal Reserve System as a natural consequence. Like many other policy choices, however, it was not inevitable. To understand financial panics it is important to realize that banks are not just "money warehouses." They accept customer deposits but do not simply place them in storage until a customer comes to reclaim the money. Banks make loans and charge interest, which allows owners of the bank to earn profit.

To make loans, banks pool customer deposits that might otherwise be idle and lend money to customers who are likely to repay it. Households can buy goods and services with the money they borrow, and businesses can use loans to expand their operations. In this way, bank lending expands the supply of money, which results in more production of goods and services and therefore in economic growth.

Historically, what made banks valuable for economic growth also made them vulnerable. When banks lend out some of their deposits, they no longer have all of their customers' money at hand. Ordinarily, lending out deposits was not a problem. Customers preferred to keep most of their money in the bank. And, banks kept some money on reserve—that is, they set some aside for day-to-day transactions. If a bank was faced with an abnormally high number of customers seeking to withdraw cash, it could use its reserves. But, what if many customers tried to withdraw all of their money on deposit from their bank on the same day? If the bank didn't have the cash on hand, the results would be

Crowds gathered outside the 19th Ward bank in New York City in one of a string of bank runs as numerous banks failed nationwide. c. 1907–1914

(Courtesy of the Library of Congress)

devastating as others rushed to get their money from that bank.

This "run" on a bank would encourage customers of other banks to panic as well. If a panic occurred, and bank customers throughout the system tried to withdraw their money at the same time, there would be devastating results for the economy. Financial panics occur when banks suddenly lose a large amount of their value, causing fear and widespread losses among their customers. For much of the nineteenth century, the financial system was freewheeling, with money being issued not only by the federal government but also by states, cities, and even private banks.

As we saw, in the 1800s there was no centralized control over the economy's money. There was no "lender of last resort," a source of money a healthy bank could use to stem a run. (Think of the movie *It's a Wonderful Life*: Mary and George Bailey became lenders of last resort, putting up their honeymoon money to stem a run on the Building and Loan.) In a panic, financial losses led to widespread economic weakness, including losses of production and jobs. In history, the economy eventually would right itself after a panic, but in the meantime the distress was widespread.

Before the Federal Reserve System was established in 1913, banks kept their reserves at other banks for security. The chain stretched from small-town agricultural banks to the financial center of New York City. The small-town banks kept their reserves at larger banks in nearby cities, geographic nearness being important in a day before rapid communications. The larger-city banks, in turn, kept their reserves in New York City banks.

A financial panic could start with the failure of a single large industrial firm with money on deposit in major banks, perhaps in New York. Banks would try to sell their holdings in an attempt to raise cash, but that would only make the problem worse as panic spread through the banking system. Given the interdependence of the banks, depositors anywhere in the country could wake up one morning to learn that their money—all their personal savings deposited in banks—was gone.

The Panic of 1907 is an example of such an episode. It began as the failed attempt by a former mine owner named F.A. Heinze to corner the market on the United Copper Company's stock. The failure led to a string of bank runs and a national panic. The failure of numerous banks and trusts, particularly the Knickerbocker Trust Company in New York, led to a crisis of confidence in the banking system.

Enter the private citizen J. Pierpont Morgan. He had the unique capacity to control the situation. And, he did. He and his associates acted as the lender of last resort by providing loans to banks they regarded as sound and denying help to others such as Knickerbocker Trust Company. While the panic ended soon enough, it turned out to be a defining moment in American financial history. It prompted widespread calls for reform. A National Monetary Commission created by Congress in 1908 studied the problem and issued reports that became the basis for the Federal Reserve Act of 1913. The act was signed into law by President Woodrow Wilson, and the Federal Reserve System went into operation in 1914.

The Federal Reserve System is the central bank of the United States, an institution designed to coordinate and serve the entire banking system. Often called the Fed, it was established as a lender of last resort. If a sound bank faces a cash crisis, it can turn to the Fed for assistance. The Fed also provides a secure way for banks to hold reserves. With the Fed in place, any bank could keep its reserves at the Fed instead of relying on the health of a nearby city bank, which in turn would be dependent on the health of a New York City bank. The Fed was also designed to facilitate the payments system; that is, to make it more efficient to move funds to pay for goods and services.

continued on page 85

Courtesy of the National Archives and Records Administration

Unemployed men queued outside a depression soup kitchen opened in Chicago by Al Capone, 1931.

The Fed's First Big Challenge: The Recession of 1929

On paper, the Fed had the ability to limit financial panics and keep any future downturn from becoming a depression. In practice, monetary policy was challenging to implement. The Fed faced its first big challenge in 1929, with a downturn that did not seem severe at first.

The trouble started with housing and automobiles, two industries whose expansion had led the growth of the 1920s. By the end of the 1920s, the people most likely to buy homes and cars had already bought them. When purchases of homes and cars slowed down, the stage was set for a mild recession in 1929. With sales of housing and cars falling, unemployment in those industries soon followed. The reduced spending from laid-off workers spread the damage beyond the housing and automotive industries. For separate reasons, agriculture had bad years in the late 1920s. Even so, nothing unusual had yet happened. The pattern of economic activity from 1929 through 1931 looked like one of the temporary pauses often experienced in the long upward march of prosperity.

The Depression followed soon after the stock market crash of 1929, but that sequence of events does not mean that the crash caused the Great Depression. Economists still study the Great Depression today because they disagree about what caused it. Global and U.S. experience show that it is possible to have a stock market crash without a depression. The U.S. economy had stock market crashes in 1973–1974 and 2000–2002 that led only to mild recessions. It had a major stock market crash in 1987 with no recession at all.

A stock market crash is bad for an economy, to be sure. It causes people to be less wealthy and reduces their income from stocks they own. The 1929 stock market crash sparked doubts about the health of the economy that led consumers and businesses to pull back on spending. The crash also destroyed considerable wealth—but the crash alone did not cause the Great Depression.

One well-tested explanation of the Great Depression focuses on the collapse of the U.S. banking system and the resulting contraction of the nation's money supply, or "money stock." Monetary historians Milton Friedman and Anna Schwartz called this specific reduction in money supply the Great Contraction.[2]

continued on page 88

Macroeconomics is Headline News

- Explain to students that macroeconomics is the study of the overall ups and downs in the economy. When people study macroeconomics, they seek explanations for the fluctuations and an understanding of how policy can be used to minimize both the fluctuations and any damage caused by them. Macroeconomics thus focuses on the economy as a whole. Macroeconomists are interested in measures that summarize data across the country—across many different markets.

- Explain that some macroeconomic topics are particularly relevant when discussing three key episodes in American financial history—the hard currency debate of the 1890s, the panic of 1907, and the Great Depression of the 1930s. Those relevant macroeconomic topics are inflation and deflation; money and banking; and monetary policy. Write these topics on the board.

- Provide students with the following list of fictional (though plausible) headlines from past and present day:

  A. Federal Reserve Open Market Committee Holds Federal Funds Rate Constant
  B. FDIC Increases Coverage to $250,000 Per Account
  C. Presidential Candidates Debate Bi-Metallic System
  D. Bank Runs Lead to Panics
  E. Housing Prices Fall for the Sixth Month in a Row
  F. Concerns about Falling Prices Increase
  G. Overall Prices Higher as Cost of Crude Oil Skyrockets
  H. Average Home Loan Rates Hit All-Time High of 17%
  I. Inflation at Record High
  K. Fed's Volcker Says High Interest Rates Necessary to Lower Inflation
  L. Banks Unwilling to Lend
  M. Roosevelt Declares Bank Holiday

- Tell students to place each headline in the broad topic area in which they think it belongs.

Inflation and Deflation	Money and Banking	Monetary Policy
Housing Prices Fall for the Sixth Month in a Row	Bank Runs Lead to Panics	Federal Reserve Open Market Committee Holds Federal Funds Rate Constant
Concerns About Falling Prices Increase	FDIC Increases Coverage to $250,000 Per Account	Average Home Loan Rates Hit All-Time High of 17%
Overall Prices Higher as Cost of Crude Oil Skyrockets	Presidential Candidates Debate Bi-Metallic System	Fed's Volcker Says High Interest Rates Necessary to Get Inflation Under Control
Inflation at Record High	Banks Reluctant to Lend	
	Roosevelt Declares Bank Holiday	

- Have student groups report how they categorized headlines and discuss with them how to get things they don't understand into a category.

- Ask students, based on the categories and topics, to develop some questions they want to answer regarding the categories. Questions might include the following:

  A. Why was the Federal Reserve created?
  B. What is the Open Market Committee?
  C. What are inflation and deflation and how are they measured?
  D. What Federal Reserve policies would promote economic growth?
  E. Are inflation and deflation both bad for the economy?
  F. What are bank runs and panics and what is their impact on the economy?
  G. Why did Roosevelt declare a bank holiday?
  H. What is the FDIC?
  I. What does inflation have to do with interest rates?

- Encourage students with similar questions to work together to find resources and tools that will help them answer their question.

Resources for Teaching about the Currency Debate of the 1890s, the Panic of 1907, and the Great Depression of the 1930s.

The Council for Economic Education provides high school lessons designed to teach U.S economic history in *Understanding Economics in U.S. History* (New York: Council for Economic Education [formerly National Council on Economic Education], 2006). Included in these lessons are:

- *Free Silver or a Cross of Gold?* Students view a series of visuals to learn about the money controversy of the last decade of the nineteenth century. They conduct a simulation designed to show why proponents of the Greenback and Free Silver movements believed that an increase in the money supply would raise prices.
- *Money Panics and the Establishment of the Federal Reserve System*, a lesson in which several students perform a play that illustrates how an unregulated banking system contributed to a number of severe money panics in the late nineteenth century. The students then read a passage about the establishment of the Federal Reserve System and identify features of the new system that improved banking stability and availability of credit.
- *Whatdunnit? The Great Depression Mystery*, a lesson in which students read a brief passage posing the basic question about the Great Depression: Why did it happen? A brief simulation activity shows how unemployment in one part of the economy can lead to unemployment in other parts of the economy. With the aid of visuals, the teacher compares the simulation to the business cycle and introduces the role of bank failures in the Depression.

The Federal Reserve Bank of St. Louis has online resources for teaching about these financial episodes that include:

- *The Free Silver Movement*, a lesson in which students learn that money is a medium of exchange that facilitates economic activity. They learn about the relationship between the money supply and inflation through an inflation auction using gold and silver notes to better understand the historic debate of the Free Silver Movement. Students read Bryan's "Cross of Gold" speech to relate the historical context and use historical data to calculate income, fixed expenses, and variable expenses of a farmer to further understand the historical argument presented. **www.stlouisfed.org/education/the-free-silver-movement-and-inflation/**
- *J.P. Morgan and the Panic of 1907*, a lesson in which students learn about the Panic of 1907 and the wonderful, yet manipulative tactics J.P. Morgan used to finance and save the major banks and trust companies. Students also employ close reading to analyze texts from the Pujo hearings and newspapers, as well as reactionary articles, to develop their own evidence-based argument about the existence of a harmful money trust and the validity of a Morgan-led cartel.
- A website for teaching about the Great Depression, **www.stlouisfed.org/great-depression/**. The site includes six print lesson plans with SMART™ applications—*Measuring the Great Depression, What Do People Say?, What Really Caused the Great Depression?*, *Dealing with the Great Depression, Turn Your Radio On*, and *Could it Happen Again?* The Great Depression website also includes online courses, articles, pictures, and PowerPoint presentations for addressing topics such as measuring the Great Depression, causes of the Great Depression, monetary and fiscal policy during the Great Depression, and lessons learned by the Fed.

Wohl Publishing offers a book for the high school classroom by two of the authors of this article, Mark C. Schug and William C. Wood: *Economic Episodes in American History* (Morristown, NJ: Wohl Publishing, 2011). This textbook is not designed to replace a history textbook, but rather to offer in-depth supplemental material that provides an economic lens for understanding complex historical issues, policies, and events. The first chapter introduces the economic way of thinking as an approach to understanding history. Each subsequent chapter has sections on framing the issue, presenting the historical context, focusing on the economic principles pertaining to the chapter's main content, posing historical questions and economic answers, presenting a primary source, and introducing a modern-day example relating to the chapter's main content.

The textbook includes the following chapters:

- Chapter 14, Hard Currency: Sound Money or a Cross of Gold?
- Chapter 17, How Did Financial Panics Lead to the Establishment of an Independent Central Bank?
- Chapter 20, Why did a Mild Recession in 1929 Become the Great Depression of the 1930s?
- Chapter 21, Was the New Deal Good for the U.S. Economy?

THREE KEY EPISODES *from page 85*

They showed how the Great Contraction turned a mild recession in 1929 into the Great Depression of the 1930s. Friedman and Schwartz make a strong case that the falling money stock caused a sharp decline in output and prices in the economy. Spending on goods and services declined, which caused firms to cut prices and output and to lay off workers. Faced with declining incomes, borrowers had difficulty repaying loans. Defaults and bankruptcies soared, creating a vicious spiral in which more banks failed and the money stock contracted further, leading to a continued decline in output, prices and employment.

Friedman and Schwartz showed that the real culprit behind the Great Depression was the failure of the Federal Reserve to act as the lender of last resort. The Federal Reserve had the ability to make loans from its reserves to troubled member banks. Although by law the Federal Reserve could not lend directly to banks that did not belong to the Federal Reserve system, it could have purchased securities in the open market and the money it paid for these securities would have flooded the banking system with reserves.[3] However, the Federal Reserve hesitated. Waves of bank failures struck the economy between 1930 and 1933. More than 9,000 banks failed. The failures were caused in large measure by misguided monetary policies—specifically, the Federal Reserve allowing the money stock to collapse as panics engulfed the banking system. It is difficult to overstate how shocking widespread bank runs followed by bank failures can be.

The Federal Reserve's reasons for letting banks fail seemed plausible at the time. The Fed could not by law directly lend to banks that did not belong to the Federal Reserve System. Some of the failing banks were badly managed. Letting them fail would rid the banking system of its weaker elements—ideally, making the remaining banks stronger. Yet any advantage of strengthening remaining banks was crushed in the banking panics.

Banking systems rely on the confidence of depositors that they will be able to access the money they have in banks whenever they want to. If that confidence is shaken, as it was during the Great Depression, there are runs on banks that lead to panics. During the Great Depression, many banks could not or would not borrow from the Federal Reserve because they either lacked acceptable collateral or did not belong to the Federal Reserve System. As depositors pulled their money out of banks, banks lost reserves and had to contract their loans and deposits, which reduced the money stock. The monetary contraction, along with the chaos caused by the failure of large numbers of banks, caused the economy to collapse.[4]

We now know that misguided monetary policy played a major part in allowing what started as a mild recession to become the Great Depression. Conventionally written history makes the Great Depression seem inevitable, but the length and scope of the downturn would have been far less severe if policy makers had chosen differently. The United States came to the eve of World War II with a central bank that was quite modern in its structure, but also with experience that showed regulating an economy through its banking system and money supply was no easy matter.

Conclusion

The 50 years that took the United States from a jarring deflation through recovery from the Great Depression are critical to the development of our modern monetary system. These historical events can be better understood through the lens of economics. An understanding of basic macroeconomic content—money, money supply, inflation, deflation, unemployment, monetary policy, fiscal policy, Gross Domestic Product, international trade, and the Federal Reserve System—can greatly enrich the study of this key period. By integrating economics, students come to understand the complexities of the issues and the policies developed to address them.

Notes

1. *New York Times*, "Repudiation Has Won," (July 10, 1896), www.nytimes.com/learning/general/onthisday/big/0709.html#article.
2. Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States*, 1867–1960 (Princeton: Princeton University Press, 1971)
3. David Wheelock, "The Great Depression: An Overview," www.stlouisfed.org/great-depression/pdf/the-great-depression-wheelock-overview.pdf.
4. Ibid.

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