Joint Economic Committee
Republicans
Representative Kevin Brady
Vice Chairman

REPUBLICAN STAFF COMMENTARY

UNITED STATES MONETARY HISTORY IN BRIEF

PART 2: EXPERIENCE WITHOUT A CENTRAL BANK—CIVIL WAR TO CREATION OF THE FED

February 29, 2012

Monetary policy and the Federal Reserve are often perceived to be shrouded in mystery or incomprehensible to all but central bankers. This three-part monetary history series attempts to remove that veil of mystery by offering an historical vantage point that sheds light upon and makes monetary policy more comprehensible.

SETTING THE STAGE

Part 1 of this series covered the founding of a central bank in the United States by the 1st Congress in 1791; the rise and fall of the First and Second Banks of the United States; and life in America with and without a central bank from 1791-1860. Generally, America's economy prospered with an independent central bank, managed by competent individuals, and America's economy did not fare as well absent a central bank or when a central bank endured interference from politicians. The period closed without a central bank—except for the Treasury taking on some central banking functions. Meanwhile, advances in technology were forging a single national economy as the nation headed into the Civil War.

CIVIL WAR: FROM A GOLD & SILVER STANDARD TO A FIAT CURRENCY

In 1860, the U.S. money supply consisted of $500 million in both currency and bank deposits. With the opening of Civil War, the public began to hoard gold in anticipation of inflation, and by the war's end four years later, prices—including that of gold—had doubled.

With the opening of the Civil War, the public began to hoard gold in anticipation of inflation, and by the war's end four years later, prices—including that of gold—had doubled.

To combat the hoarding and help finance the Civil War, in December 1861, President Abraham Lincoln suspended the redemption of bank notes for gold or silver at their mint prices, $20.67 and $1.29 per troy ounce, respectively. Thus, Americans could no longer demand gold or silver from banks in exchange for dollars, and the effect was to move the U.S. from a bimetallic gold and silver standard to a **fiat currency**. *Fiat money derives its value from government declaration rather than from the value of a metal such as gold.*

In December 1861, President Abraham Lincoln suspended the redemption of bank notes for specie, effectively taking the U.S. off the bimetallic gold and silver standard and establishing a fiat currency.

The supply of money was then increased in February 1862 by the 37th Congress through the **Legal Tender Act.** This law authorized the issuance of $150 million in U.S. notes—known as "greenbacks"—and the circulation of these greenbacks was increased to $400 million by war's end. Also, Congress authorized the issuance of 3% Treasury notes, which were like savings bonds but could be used as either currency or bank reserves.

Next, the Congress passed the **National Bank Act of 1863** (with significant amendments in 1864 and 1865), which established the Office of the

(Continued on the next page …)

Comptroller of the Currency to charter, supervise, and regulate national banks. National banks could issue up to $300 million of national bank notes, but unlike pre-war state bank notes, national bank notes traded at par with each other and U.S. notes, thus restoring a national currency.

The National Bank Act recreated a national currency in 1863, the first national currency since 1836.

National bank notes were fully collateralized by U.S. government debt securities (i.e., Treasuries). In other words the notes were fully backed, which increased their demand because the public was protected from losses on notes when a national bank failed. Further, the National Bank Act instituted a punitive 10% tax on state bank notes, which was intended to drive state banks out of business. Nevertheless, state banks survived because of the rapid growth of checkable deposits after the Civil War.

RESUMPTION OF THE GOLD STANDARD

The U.S. faced difficult challenges following the Civil War, including whether and how to resume the gold standard so that Americans could freely convert dollars to gold. As European countries that had been on either a silver standard or a bimetallic standard were switching to a gold standard during this period, U.S. policymakers did not consider returning to the pre-war bimetallic standard. Four monetary policy options were considered: (1) Contract the money stock, causing a rapid price deflation, reducing the market price of gold to the pre-war mint price of $20.67 per troy ounce; (2) Freeze the money stock, which (combined with real GDP growth) would cause a gradual price deflation, reducing the market price of gold to the pre-war mint price; (3) Devalue the U.S. dollar by raising the mint price of gold to its market price with convertibility at the new parity; and (4) Abandon the gold standard and have a fiat currency.

During Reconstruction, a combination of the first and second monetary policy options were implemented. From 1865 to 1868, Secretary of the Treasury Hugh McCulloch used federal budget surpluses to retire about $250 million in greenbacks and 3% T-notes, causing prices to decline by 20%. Then, Congress froze the supply of greenbacks at $356 million in 1868, though the Civil War era legislation had authorized up to $400 million, creating a reserve of $44 million at the Treasury.

The Coinage Act of 1873 demonetized silver and replaced the bimetallic standard with a de facto gold standard. However, slower gold production from the 1870's to 1890's, combined with booming real GDP growth in the U.S. and many other countries, led to global price deflation and inflamed political disputes about U.S. monetary policy.

President Ulysses S. Grant signed an act into law on July 12, 1870, which increased national bank notes by $54 million and decreased 3% T-notes by $45 million with most of the new national bank notes allocated to banks in southern and western states. Yet prices did not fall much and movement toward resumption of the gold standard was minimal during Grant's first term. So, early in his second term, Grant signed the **Coinage Act of 1873**, which demonetized silver and replaced the bimetallic standard with a de facto gold standard.

To those who wanted silver in circulation, this Coinage Act was referred to as the "Crime of 73"—especially following new silver finds in Colorado, which greatly increased the supply of silver and depressed its price. Moreover, gold production slowed beginning in mid-1870's and did not increase until mid-1890's, while real GDP growth boomed in the U.S. and many other countries. Over the next two decades, this combination produced persistent global price deflation and inflamed political disputes about U.S. monetary policy.

PANIC OF 1873 & THE FORM-SEASONAL ELASTICITY PROBLEM

During the second half of 19th century, a troubling new policy-induced phenomenon became commonplace—seasonal financial panics. Such was the case with the **Panic of 1873**.

Though technological advances before and during the Civil War helped to forge a single national economy, how individuals operated within the economy varied greatly. For instance, most businesses and urban households used checks to make payments, whereas most farmers and rural households still used cash. As these preferences collided in the national banking system, completely avoidable crises would beset the U.S. economy.

Economic panics, such as the Panic of 1873, were unnecessary and policy-induced through the inelasticity of the U.S. money supply relative to the seasonal fluctuations in the demand for currency and bank deposits.

The **form-seasonal elasticity problem** would begin late in the summer as cash would flow out of banks to pay farmers for crops, and then the cash would flow back into banks as farmers paid their bills. Ideally, a monetary system should be sufficiently flexible to allow for seasonal conversions from deposits to cash and back without affecting money supply, prices, or interest rates. However, two principal rigidities in the national banking system of this period limited the form-seasonal elasticity of the U.S. money supply:

(1) There were federally-established limits on the issuance of U.S. and national bank notes, even though there was rapid population and real GDP growth; and
(2) Treasuries, which were used as collateral for issuing national bank notes, were in short supply because of the federal budget surpluses of this period, forcing national banks to pay large premiums to secure Treasuries in the fall.

When cash flowed out the banking system each fall, national banks could not easily expand the supply of national bank notes. To meet the demand for cash, national banks had to build large reserves in the winter and spring. If these reserves proved insufficient, national banks would demand immediate repayment on many of their outstanding loans to generate cash. The ensuing impact on the economy could be devastating. Frequently during the fall, short-term interest rates spiked from less than 2% to more than 30% annualized rates; and asset fire-sales to generate cash resulted in depressed asset prices. Consequently, the U.S. economy was extremely vulnerable to shocks during the months of September and October. This is why panics during this era, such as the Panic of 1873, usually occurred in the fall.

FALLOUT FROM THE PANIC OF 1873

The form-seasonal elasticity induced panic of 1873 had national consequences. Treasury receipts dipped below federal outlays in November and December and the Secretary of the Treasury—taking on the role of a central banker—was forced to reissue $26 million of the $44 million greenbacks in reserve. The political uproar and populist accusations stemming from this action—the Treasury serving as lender of last resort—flowed freely and in some ways are still echoed in the early 21st century (i.e., Washington favors New York). The resulting political and economic climate for the 1874 election swung control of Congress to the Democrats for the first time since the Civil War.

Populist outcry over the Panic of 1873 remained acute, but it was more targeted at the panic's effects rather than its cause: the form-seasonal elasticity problem.

Populist outcry over the Panic of 1873 remained acute, but it was more targeted at the panic's effects rather than its cause. As a result of the 1874 elections, the outgoing Republican-controlled Congress passed the **Specie Payment Resumption Act** in January 1875 that required the Treasury to resume the convertibility of dollars to gold at the pre-war mint price of $20.67 per troy ounce by January 1, 1879.

FREE SILVER CONTROVERSY

Between 1873 and 1896, the United States and major European countries experienced rapid GDP growth while there were no new major find of gold. As a result, long-term price deflation occurred. Consequently, in the U.S., farmers—particularly in the south and west—suffered as the real debt burden of the mortgages on their farmland grew.

So, in opposition to resumption of the gold standard, the free-silver/cheap-money movement emerged. Rep. Richard "Silver Dick" Bland (D-MO) and Democratic presidential nominee William Jennings Bryan became champions of "free silver." In response, a divided Congress (a Republican-controlled Senate and a Democratic-controlled House) enacted the **Bland-Allison Act** in 1878 after overriding the veto of President Rutherford B. Hayes. This Act was a compromise that required the Treasury to purchase between $2 million to $4 million per month of silver and mint it into silver dollars. However, Treasury had discretion about circulating these silver dollars since the federal government was running surpluses. Secretary of the Treasury John Sherman did not circulate the silver dollars, and gradual price deflation continued. Furthermore, through the Bland-Allison Act, Congress froze U.S. notes (greenbacks) at $346.7 million, which though it prevented a legally mandated reduction of the cap, still maintained a cap, which was again one of the causes of the form-seasonal elasticity problem. Under Sherman, Treasury accumulated gold reserves of $135 million to back the greenbacks, and resumption at the pre-war mint price of $20.67 per troy ounce occurred without incident on January 1, 1879.

Resumption of the conversion of dollars to gold, at the pre-war mint price, occurred without incident on January 1, 1879.

Nonetheless, free silver advocates were dissatisfied with the implementation of the Bland-Allison Act. In the Republican-controlled 51st Congress, Rep. William McKinley (R-OH) and Sen. John Sherman (R-OH) engineered a legislative compromise between different factions of Republicans. In exchange for the support of pro-silver Republicans from western states for the **McKinley Tariff Act**, Republicans from the northeastern and midwestern states agreed to support the **Sherman Silver Purchase Act.** President Benjamin Harrison signed the Sherman Silver Purchase Act into law on July 14, 1890. This act required the Treasury to purchase an additional 4.5 million ounces of silver bullion every month with a special issue of U.S. notes that could be redeemed for either silver or gold. However, the plan backfired as people turned in the new notes for gold, thus depleting the Treasury's gold reserves. Simultaneously the McKinley tariff increased the average tariff rate to 48%, reducing gold payments to the Treasury.

The Sherman Silver Purchase Act backfired as people turned in the new notes—which could be redeemed for either silver or gold—for gold, thus depleting the Treasury's gold reserves and contributing to the Panic of 1893.

PANIC OF 1893

In his second non-consecutive term, President Grover Cleveland presided over the **Panic of 1893** and the subsequent depression—the third worst in

U.S. history—which lasted until 1897. The gold drain from the Treasury following the Sherman Sliver Purchase Act and the form-seasonal elasticity problem were the primary causes of this panic, though there were other non-monetary dynamics at work. Among the other things, Cleveland blamed the depression on high tariffs and the Sherman Silver Purchase Act. The Democratic-controlled 53rd Congress repealed the Sherman Silver Purchase Act in 1893 and then enacted the **Gorman-Wilson Tariff Act** in 1894, which reduced tariff rates and imposed a 2% federal income tax on income over $4,000. However, this income tax was ruled unconstitutional in the 1895 Supreme Court Case **Pollock v. Farmers' Loan & Trust Company**.

THE GOLD STANDARD

During the second half of the 1890's, global gold production doubled after major finds of gold ore in South Africa and Alaska, and the invention of new processing technology that increased the yield of pure gold from gold ore. The rapid increase in global gold supply relative to global GDP growth led to mild global price inflation through 1913. In 1900, President William McKinley signed the **Currency Act**—the Gold Standard Act—that made the gold standard, which had been the de facto standard, the official standard for the United States, marking the high water mark for the classical gold standard.

In 1900, President McKinley signed the Currency Act, officially putting the U.S. on the classical gold standard.

COMBATTING THE SEASONAL PANICS

At the dawn of the 20th century, despite three decades of policy-induced economic panics, the root cause of the form-seasonal elasticity problem had still not been addressed. Not until President Theodore Roosevelt appointed Leslie Shaw to serve as Secretary of the Treasury were the first real strides made toward addressing the problem. Shaw was a skilled banker who, as Secretary, engaged in central banking to counter the form-seasonal elasticity problem through: (1) seasonal transfers of federal deposits between the Treasury and national banks; (2) acceptance of other bonds for collateral for federal deposits, freeing Treasuries to collateralize national bank notes; (3) abolishing reserve requirements for federal deposits; and (4) allowing gold importers to use gold interest-free from its purchase abroad until it was delivered to the Treasury. While Shaw served as Secretary from the spring of 1902 to the spring of 1907, the United States was spared from the seasonal panics.

President Theodore Roosevelt's Secretary of the Treasury Leslie Shaw engaged in central banking from the Treasury to counter the form-seasonal elasticity problem. However, Shaw's successor lacked his skills to prevent the Panic of 1907. This panic—and the need for a more permanent solution to avoid panics—provided the final impetus for the foundation of a new central bank.

PANIC OF 1907

Still, something more permanent was necessary than mere reliance on the skills of a talented Secretary of the Treasury like Shaw. This again became apparent in the fall of 1907 when Shaw's successor at the Treasury, George Cortelyou—despite trying to follow Shaw's policies—was unable to finesse the situation like Shaw, resulting in yet another panic.

During the **Panic of 1907**, Roosevelt worked with banker J.P. Morgan to secure lines of credit from foreign banks and organize national banks to make loans to other solvent, but illiquid banks. Roosevelt sent Cortelyou to Wall Street, depositing $68 million in national banks in New York City and issuing $50 million of Panama bonds and $100 million of Treasuries to provide additional collateral for national bank notes. In essence, Roosevelt

The framework of the modern Federal Reserve central bank, which came from the National Monetary Commission, grew out of the American experience of panics and economic hardships springing from the form-seasonal elasticity problem.

asked Morgan to perform the lender-of-last-resort function of a central bank on an ad hoc basis, while Cortelyou supplied additional liquidity.

In response to the Panic of 1907, the following year, the Republican-controlled 60th Congress passed the **Aldrich-Vreeland Act**, which established a **National Monetary Commission**. In 1910, the Commission recommended: (1) Creating the **National Reserve Association** (NRA)—a central bank that would hold the reserves of all commercial banks; (2) Using the NRA's discount rate to regulate the money supply in the context of the gold standard (the discount rate is the interest rate that a central bank charges for fully collateralized loans to commercial banks); (3) Making the NRA the monopoly issuer of bank notes; and (4) Adhering to 'Bagehot principles' related to being a lender of last resort.

In a financial crisis, Bagehot's lender-of-last-resort principles hold that a central bank should lend freely to solvent, but illiquid commercial banks and other financial institutions based on collateral that would be good in normal times at a penalty rate of interest.

Walter Bagehot was an English businessman and editor-in-chief of *The Economist*. In 1873, he published *Lombard Street*, which outlined the principles for lender-of-last-resort operations during financial crises. Central bankers and economists still hold Bagehot's principles in high regard today. In a financial crisis, Bagehot advised, the Bank of England should lend freely to solvent, but illiquid commercial banks and other financial institutions based on collateral that would be good in normal times at a penalty rate of interest.[1]

CREATION OF THE FEDERAL RESERVE

President Woodrow Wilson, elected in 1912, generally agreed with the recommendations of the National Monetary Commission to create a central bank, though with changes to increase federal oversight.

However, Wilson's support for a central bank faced strong opposition, even from within his own cabinet. In particular, Wilson was presented with a challenging dilemma when his Secretary of State, William Jennings Bryan, threatened to walk out on him and lead congressional opposition to the central bank. By acquiescing to Bryan, Wilson would have lost support for reform from bankers and business leaders; by pushing forward in opposition to Bryan, Wilson would have risked a divide within the Democratic Party and a loss of his entire domestic agenda.

The 1913 Federal Reserve Act created the 12 regional Federal Reserve Banks; created the Federal Reserve Board of Directors in Washington, DC; required all national banks to join the Federal Reserve System; and authorized Federal Reserve notes to replace U.S. and national bank notes.

Wilson's solution was to work with Rep. Carter Glass (D-VA) and Sen. Robert Owen (D-OK) to find a middle way—the **Federal Reserve Act**—which was enacted in 1913. This act created a Federal Reserve System with:

- A monetary policy mandate to provide an "elastic currency" within the context of a gold standard to combat the form-seasonal elasticity problem;
- 12 regional Federal Reserve Banks, each headed by a Governor;
- A Federal Reserve Board of Directors based in Washington, DC and composed of the Secretary of the Treasury, the Comptroller of the Currency and five other members to supervise the Reserve Banks;
- A requirement that all national banks join the Federal Reserve System by purchasing stock in their respective regional Reserve Bank and an option for state-chartered banks to join; and
- Federal Reserve notes—to replace U.S. and national bank notes—which would be U.S. government obligations.[2]

The Federal Reserve Act was thus crafted with multiple contradictory provisions, which allowed both advocates and opponents of the central bank to claim victory. On one hand, Bryan Democrats correctly claimed that Board would assure the federal government, not private bankers, would determine monetary policy. However, Bryan Democrats incorrectly assured their constituents that the Federal Reserve was not a central bank because each regional Reserve Bank would conduct an independent monetary policy. On the other hand, northeastern Democrats and Republicans correctly asserted that the Federal Reserve Act had created a central bank. Yet, because of nominal private ownership of the stock in the regional Reserve Banks, northeastern Democrats and Republicans incorrectly assured their constituents that private bankers, not the federal government, would determine monetary policy.

The Federal Reserve Act was crafted with multiple contradictory provisions, which allowed both advocates and opponents of the central bank to claim victory. These contradictory provisions would later ignite a destructive power struggle within the Federal Reserve in 1928, at the front end of the Great Depression.

These contradictory provisions would later ignite a destructive power struggle within the Federal Reserve in 1928, at the front-end of the Great Depression. Further complicating the birth of the Federal Reserve, World War I began before the central bank became operational in 1915, thus requiring Treasury Secretary William McAdoo to once again intervene to prevent a panic in the fall of 1914 by issuing $363 million in currency under the provisions of the Aldrich-Vreeland Act.

Life in America without a central bank was at an end. The age of seasonal panics—and the recessions and depressions stemming from them—was past. In the coming decades, the country would experience the best and the worst of central banking with the Federal Reserve gradually growing from these experiences into the modern central bank of the 21st century.

---

[1] For further discussion of Bagehot principles, see Joint Economic Committee Report, *An International Lender of Last Resort, the IMF and the Federal Reserve*, 1999.
Available at http://www.house.gov/jec/imf/lolr.pdf

[2] In 1913, the Federal Reserve was required to hold gold equal to 40% of the outstanding currency, and 35% of commercial bank reserves.

For reference and further reading, see, Timberlake, Richard H., *Monetary Policy in the United States: An Intellectual and Institutional History*, The University of Chicago Press, Chicago, 1993.