

FEDERAL RESERVE

An Anchor of Gold

BY STEPHEN SLIVINSKI

Some modern critics of the Federal Reserve suggest that it could be eliminated and replaced with a gold standard. They claim that monetary policymakers are apt to bend under pressure to inflate the currency. A gold standard, on the other hand, can serve as an anchor for the currency that puts a limit on the growth rate of the money supply.

There are benefits to a gold standard, but there are costs too. The history of the gold standard provides important context for the suggestion that the United States should return to a commodity-backed monetary system — gold historically being the most commonly used commodity. Additionally, policymakers and the public could benefit from a greater understanding of how the gold standard works, even if reforms of the monetary system do not include its restoration.

Mechanics of a Gold Standard

In the United States, the gold standard operated for most of the 18th century and the early 20th century before the creation of the Fed. (See sidebar).

In the absence of a central bank, nations that committed to the gold standard agreed to redeem their currency at a fixed price of gold. The gold standard effectively fixed exchange rates between participating nations since those currencies were themselves fixed to gold. When the stock of gold is relatively fixed, this arrangement can provide a predictability that currencies not anchored by a commodity standard may fail to produce. The supply of money is constrained by the amount of gold in the vaults of each nation. By contrast, fiat money created by central banks and not backed by a commodity in relatively fixed supply could be devalued simply by printing more of it.

That doesn't mean that prices wouldn't change under a gold standard. In practice, the price level of nations would tend to move in tandem under this arrangement. The mechanism that drives the movement in the price level is the balance of payments that results from trade between nations. For example, assume that a technological innovation increases economic growth in the United States. Since the supply of gold, and therefore the money stock, is fixed, prices in the United States will fall since it is cheaper to produce goods domestically as a result of the innovation. Prices of U.S. exports to other countries would fall too. That leads to lower demand for U.S. imports — which are now relatively more expensive — and increased demand for U.S. products abroad.

Under a gold standard, the currency and the commodity by which it is backed travel together. In the example above, the trade surplus would also result in a balance-of-payments surplus in which gold from overseas would find its way into the coffers of U.S. banks as foreign traders use dollars to purchase U.S. goods.

The stabilizing effect of the gold standard manifests itself here in how prices would react to this surplus. The new gold in the United States will reverse the initial price decline. Meanwhile, the exodus of gold from abroad will lower the price level in the countries that traded with the United States since smaller amounts of gold equal a shrinking of the money supply. Equilibrium is reached when the relative prices between nations converge.

Weighing the Costs and Benefits

While anchoring the money supply to gold may have obvious benefits, there are risks to consider. One potential

How the gold standard works in theory and practice



Historically, many countries have linked their currencies to gold. Pictured, in 1963 a member of the vault staff at the Federal Reserve Bank of New York checks the melt number and fineness inscribed on each gold bar.

downside is the effect that a discovery of large amounts of gold would have on the price level. This was a problem in the late 1840s when the California gold rush introduced large amounts of gold into circulation, causing a “monetary shock” and a rise in the price level of goods. In addition, mining and minting gold is costly. Economist Milton Friedman once estimated that the resource price of producing gold and maintaining a full gold coin standard for the United States would be more than 2.5 percent of GDP. However, that cost could fall over time as new technologies are developed.

Some believe that gold flows between nations serve as a check on inflation. Tame inflation over the long term was a strong characteristic of the gold standard. Yet gold flows could transmit detrimental shocks, both monetary and non-monetary, between economies. In the past, vulnerability to economic shocks caused prices to be highly unstable in the short run. Economist Michael Bordo of Rutgers estimated the “coefficient of variation” in the price level under the historical gold standard. A higher coefficient indicates more short-term instability. For the United States between 1879 and 1913, the coefficient was 17, which Bordo notes is quite high. Between 1946 and 1990, when central banks were able to deviate from the automatic responses required by the gold standard, it was only 0.88. By association, real output is also highly variable under a gold standard. The coefficient for variation was 3.5 between 1879 and 1913. But between 1946 and 2003 it was only 0.4.

Central banks would later mitigate the costs of economic shocks by pursuing countercyclical policies. Yet a

gold standard, by definition, makes the money supply procyclical — when the economy contracts, so does the money supply. For supporters, this is a benefit: It can limit the potentially expansionary impulses of central bankers. Supporters also point out that the system can work without a central bank officiating the movement of gold. Instead, each government must make a credible commitment to allow currency holders to redeem their bills for a predetermined amount of gold. One way to do this is to pass a law that fixes the exchange rate between gold and the currency. In the United States, the Gold Standard Act of 1900 set the price of one ounce of gold at \$20.67. However, keeping such credible commitments may prove difficult in the wake of unexpected shocks and geopolitical upheaval.

Central Banks and the Gold Standard

Much of the 20th century featured a mixed system in which central banks and the gold standard existed simultaneously. The ideal role of central banks when an international gold standard is in force is to sustain the fixed exchange rates and allow prices and output to vary as required by the movement of gold across borders. When gold is flowing into the country, for instance, the central bank should raise the interest rate at which it lends to banks — the discount rate — to facilitate the inflow. Conversely, the central bank should lower the discount rate to facilitate the gold outflow when a balance-of-payments deficit materializes.

However, there can be temptations for central banks to stop playing by the rules. Monetary policymakers could “sterilize” the gold flow: They could buy or sell domestic

The U.S. Gold Standard Before the Fed

Between the nation’s founding and 1971, the United States had been on one form or another of a gold standard. The authors of the Constitution were of the opinion that any money minted by the federal governments should be backed by some “specie” standard (i.e., gold or silver).

On the recommendation of Secretary of State Alexander Hamilton, the U.S. Congress passed the Coinage Act of 1792. That officially put the United States on a bimetallic standard in which the dollar was defined as equaling a specified weight in gold or silver. However, the ratio between gold and silver that the act established — 15 grains of silver to 1 grain of gold — served to undervalue gold relative to silver after the act was passed. This was particularly true over the next three decades as mines in Mexico yielded more silver. As a result, gold began to flow out of the United States and silver began to flow in. While gold and silver coins were still accepted as legal tender, gold coins became quite scarce.

The Coinage Act of 1834 put the United States on a de jure gold standard. It moved the ratio of silver to gold to 16-to-1. That helped remedy the imbalance, and gold coins became more common in the United States.

Before the Civil War, state-chartered banks could issue

notes and certificates that were redeemable in specie. During the war, a partly decentralized national banking system existed in which federally chartered banks would deal in “greenbacks” issued by the U.S. government backed by little specie. The return to an operational gold standard occurred in 1879 when the U.S. government resumed payments of gold to dollar holders who demanded them. By that point, however, a series of Supreme Court decisions had made the greenbacks legal tender, which over time crowded out state-issued currency.

The United States tied itself to a de facto monometallic standard with the Gold Standard Act of 1900. It set the dollar price of gold at \$20.67 per ounce, effectively relegating silver to a subsidiary role in the monetary system. This meant that dollars would circulate alongside silver coins, and the U.S. Treasury would aim to sustain the dollar price of gold.

The creation of the Federal Reserve in 1913 took away from the executive branch the explicit power of money stock maintenance. The history of the 20th century would show, however, that the relationship between a gold standard and the central bank was an uneasy one.

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securities — in other words, either expand or contract the money supply relative to gold — to shield the domestic money supply from the external disequilibrium. This would weaken the ability of the gold standard to anchor the value of money in the economy.

Economic downturns, political pressures, and wartime threatened the gold standard in the 20th century. Just as it was at the peak of its effectiveness in 1914, World War I broke out. Britain, the banking center of Europe, experienced a run on sterling and enacted trade and exchange controls, including a postponement of domestic and international payments. This basically made the international gold standard nonoperational. Other countries instituted similar capital controls. In addition, the issuance of short-term debt to finance the war effort in the United States led the federal government to pressure the Fed to abandon the gold standard rules on exchange rate targets and instead focus on keeping the interest rates on war bonds low.

After the war, the developed nations tried to reconstruct the gold standard. The 1917 U.S. embargo on gold exports was lifted in 1919, and the convertibility of the dollar at the prewar gold price was restored in 1922. The gold value of the dollar rather than the pound sterling soon became the reference point for other currencies. The post-war gold standard was faced with new challenges, though. High tariff barriers during the 1920s hindered the price adjustment process. Also, the United States, France, and England began routine sterilization of gold flows.

The economic pressures of the Great Depression weakened support for the gold standard. Britain left the standard in 1931 after a massive gold outflow. The United States followed in 1933 when emergency measures allowed the federal government to abrogate all gold-related clauses in all public and private contracts. In 1934 it devalued the dollar by raising the fixed price for gold to \$35 per ounce. Emergency measures also allowed the issuance of Federal Reserve notes that did not have to be backed by gold. World War II drove central banks even further away from the gold standard as they again sought to keep government borrowing costs low at the expense of the fixed exchange rate. Trade and capital restrictions also hindered whatever cross-border price adjustment might have occurred.

After the war, the finance ministers and treasury secretaries of the Allied nations met in Bretton Woods, N.H., to reconstruct some form of a gold standard. The agreement essentially linked the dollar to gold and, in turn, all other major currencies were linked to the dollar. Yet it also allowed some flexibility for central banks to pursue changes in the

exchange rate. Foreign governments were also allowed to trade in their dollars to the U.S. government in return for gold. The expectation was that the United States could credibly commit to maintaining the standard over the long term.

In the early 1950s, the United States held close to 60 percent of the world's gold reserves. By the 1960s, however, dollars began to rapidly flow out of the United States as a result of the Fed monetizing the debt issued to pay for spending on the Great Society social programs and the Vietnam War. The inflationary policies of the United States put pressure on currencies that were linked to the dollar to revalue their currency to satisfy the balance of payments — pressure that reached its peak in 1970. Additionally, U.S. gold reserves were beginning to dwindle because foreign governments were rapidly trading in their dollars for gold. Many foreign policymakers were not convinced that the U.S. government would regain a commitment to exchange rates per the Bretton Woods rules in the near term. To put an end to the international pressure, President Richard Nixon finally took the dollar off gold in 1971, effectively killing the international gold standard.

Gold and Monetary Policy Today

Since the episode of runaway inflation in the 1970s, monetary economists have learned a number of lessons. Foremost among them is an understanding of how central bank credibility is vital to monetary policy. In some sense, that is also a lesson of the gold standard years. Regardless of the signals central bankers use to navigate policy, public trust that they will stay the course is essential to making the policy work. Even under a gold standard, the stability provided by the commodity anchor dissolves if the central bank can't or won't credibly commit to the rules of the standard.

Today, the price of gold is just one of a number of signals that Fed policymakers may use to make decisions about the direction of monetary policy. Since the 1980s, the Fed's independence and need to maintain its credibility have largely been helpful in keeping inflation under control even when it has to occasionally embark upon countercyclical policy. Many of the traits that supporters of the gold standard value, such as long-term price stability, have materialized over the past 20 years under a fiat money system not directly tethered to the price of gold.

It's unlikely that the nations of the world will adopt the gold standard again. But the lessons of central bank credibility are a product of the gold standard years. Strong public expectations about how the Fed conducts policy may produce the same benefits today that a gold standard once did. **RF**

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