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Auro ex Oleum:
Departing the American Gold Standard*

Working Paper No. 58

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Abstract: This inquiry seeks to establish that the character of the United States dollar fundamentally changed over the course of the 20th century as it moved away from its being rooted in the gold standard. As the global economy transitioned into the 20th century and the United States began establishing itself as a cornerstone of global trade, the dollar evolved into the standard currency of the world economy, changing significantly along the way as it moved from a gold-backed standard to the reserve currency of the international petroleum trade. These changes are reflected in U.S. foreign and monetary policy throughout this timeframe. [Words: 100]

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*Main title translates from Latin to English language as "Gold from Oil"

> The importance of money flows from it being a link between the present and the future. – John Maynard Keynes

This inquiry seeks to establish that the nature of the U.S. dollar ($US) fundamentally changed over the course of the 20^{th} century as it moved away from its roots in the gold standard to its place as an international reserve currency backed by the petroleum market. As the global economy transitioned into the 20^{th} century and the United States began establishing itself as a cornerstone of global trade, the dollar evolved into one of the key currencies for the world economy. This paper will go over key variables that led to this development, with a focus on standards of currency. For the purposes of this text, a "standard of currency" is defined as a universally recognized valuable resource, used to back the value of a currency through a standard rate of exchange. For a long time precious metals were set up as the traditional standard of currency relied upon to back the value of paper money. For the sake of simplifying a complicated subject, I have minimized the mention of other precious metals used as media of exchange, although it should be noted that silver also played an important role in the fundamentals of the U.S. dollar. The controversies between metallic standards may be important in understanding early fiscal politics, but do not add significantly to the topic of this inquiry. As the U.S. dollar became the reserve currency of the world economy, it took the place of gold as a universal standard of exchange. Furthermore, the 1971 decision by the Nixon administration to formally abolish the gold standard led to the establishment of a quasi-petroleum standard, with the international oil trade taking the place of gold as a means of securing the universal value of the dollar. As the foundations of the dollar changed over time, these shifts reflected and caused changes in the greater institutions of U.S. economic and foreign policy.

History of the Dollar Before the 20th Century

In its original inception, the U.S. dollar was merely the denomination of a set amount of gold. Instead of gold forming a basis of abstract value for a national currency, gold *was* the national currency. Although precious metals have some drawbacks as a liquid store of value (counterfeiting, purity differences and physical mass among them), they are highly effective as a universally accepted standard of currency. Being able to exchange currency across international borders is important for any economy that hopes to be able to trade internationally, and gold proved and remained a reliable way to transfer value. The scarcity of gold, combined with the intensive labor needed to extract and refine it, means that it holds a certain inherent value that transcends the power of individual governments. Indeed, we can surmise that this inherent value of gold runs much deeper than merely supply and demand. In his book *Money: Whence it Came, Where it Went,* John Kenneth Galbraith (2017, 42) writes that man's attachment to gold is buried deep in the subconscious, and has a unique attachment to our idea of value. On its own, gold served as a perfectly valid standard of international and interpersonal trade. However, as the American economy grew in mass and influence, the worth of the U.S. dollar began to outgrow and abstract from the basis of a gold standard. Although the founding fathers were widely distrustful of paper currency and opted for a simple bimetallic standard of gold and silver, the challenges and opportunities of a growing economy would lead the American government to experiment with straying from the gold standard during the 19^{th} century. Issues emerged during the American Civil War when the Union government was in desperate need of resources to finance the ongoing war effort. The solution was the Legal Tender Act of 1862, a bill which authorized the issuance of paper fiat currency completely removed from a peg to gold or silver. These were known as "greenbacks", and nearly $450 million were printed to finance the Civil War. Although this was a controversial and relatively short-lived measure, it marks America's first foray into free-floating, unsecured fiat currency. Following the Civil War's end, the Federal Government reversed this decision through large-scale buybacks of greenbacks, shifting back to gold and removing fiat bills circulation. However, the "spirit of the greenback" would live on, and its legacy can be seen on the face of every modern American dollar.

In addition, the banknote continues to signify the paper dollar. Traditional banknotes are certificates issued by banks, redeemable for a set quantity of precious metal stored in the bank's vaults. This has served to provide an advantage to the banknote's holders, as they can conduct transactions without the tedious process of exchanging metals such as gold. As a medium of exchange, banknotes have the advantage of taking up little physical space, and are not subject to potential discrepancies in purity. Insofar as the bank's reputation is trusted by both parties involved in a transaction, the note holds every bit of the value assigned to it by the bank. Thus, the banknote is a natural abstraction of gold as a standard of currency. By issuing and utilizing banknotes as currency, an economy of exchange gains advantages of flexibility. However, the issuance of banknotes is not without its risks as this serves to concentrate monetary power into the hands of private enterprise.

In a letter to François Adriaan Van der Kemp, President John Adams (1809) wrote that every bank bill not backed directly by a measured quantity of gold or silver "represents nothing, and is therefore a cheat upon somebody". This statement stands as a condemnation on the state of the American monetary system back in his day. Adams (1809) had observed a "Multitude of Swindling Banks which have emitted bank Bills to an immense amount beyond the Deposits of Gold and Silver in their Vaults." In addition, Adams viewed the issuance of banknotes as weakening the larger American economy, because the issuance led to the circulation of unstable dollars dependent solely on the credit of the bank. In this sense banknotes can be viewed as a currency collateralized by debt based on a bank's reputation and the perceived value of an underlying asset (the stores of gold and silver held in the bank's vaults). Adams thought that this should not serve as the basis for a standard of currency.

While banknotes may be accepted as a medium of exchange, they are *not* the original dollar, a distinction that becomes very important once holders of the banknotes endeavor to exchange them for the underlying precious metals. This is not a problem for the bank provided that the quantity of currency withdrawn does not exceed the levels of money stored in the bank vaults. Instead, the stability of this system lies in that assumption. The moment a bank's reserve currency supply does not meet the demands for the withdrawals of certificate holders, the banknotes effectively become worthless and the bank runs the risk of completely going under, taking a significant chunk of financial markets down with it. Galbraith (2017, 40) writes that one of the more dramatic examples of a bank run occurred when the Argentine government defaulted on its bonds in 1891, and English bankers were suddenly saddled with over £21 million in useless debt. Under circumstances such as this, banks have no choice but to raise lending rates high enough that borrowing money is severely discouraged if not impossible, and to take out loans from other banks or governments to meet the demands of all those who came to withdraw their funds. Occurrences such as this reflect the relationships between banks and governments in regulating the monetary system; under conditions that neither institution can function properly without the other, and it is in the best interests of all parties involved to coordinate closely in order to properly manage a currency.

Abstraction of the Dollar in the Early 20th Century

Following a devastating banking panic and subsequent recession in 1907, caused in large part to unregulated banks over-leveraging deposits, President Woodrow Wilson signed into law the Federal Reserve Act of 1913. This created a state-sponsored system of currency and credit, run ostensibly by a private company but with direction by the Federal Government. To stave off recession, the federal reserve quickly became creative with the monetary supply, introducing new and improved ways to leverage the federal government deeper into debt. An elaborate combination of controlled inflation, continued relaxation of the gold standard, and propaganda pushing the patriotic retail purchase of war bonds kept the economy afloat during this timeframe. By raising levels of inflation, moving away from gold-backed currency, and creating debt backed by bonds, the Federal Reserve (often colloquially shortened to "the Fed") was able to create invisible taxes on the use of the dollar. In their dissertation *Creating the Federal Reserve,* Sarah Binder and Mark Spindel (2017, 13) explore the effects of these powers on the character of the dollar and its impact on the global economy. While still effectively the same in the eyes of the common man, both entities became far more flexible and easily manipulated. With the power to both issue currency and control rates, the newly formed Federal Reserve implemented the latest and greatest economic ideas of its time, and that is to boost the American economy to previously unseen levels of prosperity. During the 1920s, the U.S. economy boomed, with a post-war Europe fueling demand for American exports and increased industrialization leading to a higher quality of life for the average U.S. citizen. Unfortunately, exponential leveraging of the monetary system was not without its risks, and the massive influx of unsustainable debt from Europe backing the U.S. economy would contribute to—if not directly cause—the Great Depression of the 1930s. In an effort to reverse an economic slowdown caused by unsustainable growth and a reduced need for exports from a heavily-indebted Europe, the Fed raised rates dramatically in an effort to combat inflation. However, this only served to intensify the downturn, as deflation caused prices for goods and services to drop. A century earlier, David Ricardo (1811, 112) penned a pamphlet observing that "The depreciation of the circulating medium has become more injurious to monied men… the farmer more than any other class of the community is benefited by the depreciation of money, and injured by the increase of its value". Related to what Ricardo described back in 1811, apparently, American bankers responsible for the Fed prioritized the value of their dollars over the livelihoods of the working class, and deflation combined with the environmental catastrophe of the Dust Bowl to create a storm that ushered in the Great Depression. The original Fed failed to predict, prevent, or mitigate this unprecedented economic collapse, and lawmakers rewrote the Federal Reserve Act to further centralize control of monetary policy in Washington (Binder and Spindel 2017, 26). This would create the basis for the Federal Reserve in its current form, as a centralized body with total control over U.S. monetary policy, ultimately responsible to Congressional authority. Lessons learned during this timeframe also taught the Federal Reserve the principle of maintaining an inflationary policy in order to encourage trade and economic activity.

During the Great Depression, the American economy slowed to a crawl and the unprecedented downturn led to the need for a more flexible monetary policy. While gold-backed U.S. dollars were stable, the supply was also inflexible, and rising gold prices combined with deflation spurred by Fed rate increases triggered a panic among the public. Seeking a safe store of value following the stock market crash of 1929, the frightened citizens began hoarding gold in favor of paper money. However, this hording only served to worsen the economic crisis, as fewer dollars circulating in the economy led to overall activity slowing even more. In 1933, President Roosevelt signed the "Gold Reserve Act," thereby making it illegal for the public to possess most forms of gold. The U.S. Bullion Depository became the new home for what had been hoarded gold, and all citizens were required to exchange their bullion and coins for paper money at a rate of $20.67 per oz. In the view of Steven Bryan, author of *The Gold Standard at the Turn of the Twentieth Century* (2010, 60), this policy proved to be an important move for strengthening the dollar and for moving away from the gold standard, as it allowed the U.S. government to back the dollar with the largest reserve of gold in world history.

This officially moved the U.S. dollar off of the original gold exchange standard, signifying the next stage in its development. While the dollar was still pegged to gold at a stable rate, the *supply* of dollars was no longer limited. The Fed raised the price of gold to $35 an oz, hoping that inflation would spur the economy, and began to radically increase the money supply. In 1933, $500 million was granted to the states for emergency relief, which was put to work in the creation of the Federal Emergency Relief Agency. During the Franklin Roosevelt administration, this agency would set a precedent for funding extensive work relief programs intended to raise the demand for skilled labor and inject cash into working-class sectors of the economy. While the Great Depression would come to an end by the start of the 1940s, the flexible monetary policy and market-making tactics of the Fed would continue on as an integral part of the U.S. economy. This came to comprise another layer of abstraction on the value of the dollar. Following this point, it was no longer simply a means of exchange for gold. By holding the world's largest supply of gold at Fort Knox in Kentucky, the Fed ensured that the dollar no longer needed to be backed by gold. Rather, the concentration shifted towards setting the price of gold. With this maneuver, gold coins were destined to become a relic of the past, and the age of government-issued paper currency had been ushered in.

The Dollar as a Global Standard for Currency

Another major change from this era that would come to define American economic policy was the role of federal debt. While the U.S. had run deficits in the past, traditional economic wisdom ensured that keeping debts to some kind of a minimum proved to be the best way to keep the economy performing robustly. However, following World War I and the Great Depression, the U.S. began to consistently run a budget deficit limited only by the strength of its credit. The debt was not limited to foreign governments and banks; U.S. government bonds were heavily advertised to citizens as a safe, patriotic investment, and held in large quantities by institutional banks. This radical policy of "spending money we don't have" to boost the economy was heavily influenced by the ideas of John Maynard Keynes, a flamboyant British Economist who stressed the importance of tying economic actors together using large amounts of debt to ensure a kind of mutually assured destruction. His "Keynesian economics" proves counter-intuitive at times, but provides notable advantages for a government seeking to ensure the stability of its economy. In a basic sense, Keynes advocates for seeing markets less as untouchable, sacred instruments of God (as is presupposed by many classical economists), and more as fluid instruments that governments should freely manipulate in order to maximize production and avoid economic downturns. In the Keynesian view, a monetary system based on gold is the "barbarous relic" of an archaic past, and it is the responsibility of the government to regulate the markets using any and all tools at its disposal. In an address to postwar English bankers, Keynes (1972, 277) proclaimed:

> We should be taking the risks of a new and unknown predicament. We should be trying to run a managed credit system disguised as an automatic gold standard in the totally new conditions created by our indebtedness.

Keynes' influence was not limited to the economy of his native England. Rather, his ideas would come to play an important role in the development of U.S. monetary policy.

Following World War II, the U.S. seized the opportunity to expand and claim a place at the top of the global economy. While Europe was devastated by two back-to-back World Wars, the American economy was revitalized and wholly intact. European countries repaid American debts through payments in gold, and the vaults of Fort Knox were soon filled with a majority of the known gold supply on earth. Following World War II, delegates from 44 allied countries—with Keynes joining in the meeting—met in Bretton Woods, New Hampshire to discuss a new system of foreign exchange. The delegation came to an agreement, and it was decided that the world's currencies would no longer use gold as a reserve currency. Instead, the dollar would serve as the new global standard of currency. (Hughes and Cain, 2011, 551) As another abstraction onto the value of the dollar, this development cemented America's place as the driving force in the global economy. Although the dollar was still pegged to the value of gold—and backed by the largest reserve in known history—its value was taking shape as an institution independent from the value of gold. The dollar was now the world reserve currency, and with this responsibility came an enormous amount of power the Fed was only too happy to wield. Foreign countries began using the dollar as a store of value analogous to gold itself, hoarding reserves in the vaults of their national banks. U.S. Treasury bonds soared in international demand, and the debts that bound the global economies together became enumerated in terms of USD.

The system laid out at the Bretton Woods would remain relatively intact for several decades following the second World War; however, ultimately the U.S. economy would not be able to meet demands placed upon it by international expectations. During the 1960s, the Vietnam War became a growing threat to the stability of the U.S. budget. To combat this, the Federal Reserve began dramatically increasing the money supply, causing widespread global inflation and calling into question the ability of the U.S. dollar to serve as a standard reserve currency. Countries started to swing back towards gold as a stable store of value, and the demand for the precious metal on an international trade scale soared once again as central banks sought to exchange their stashes of U.S. bonds and dollars for bullion. This created a situation not unlike the bank runs seen with gold-backed certificates; the stability of the Federal Reserve's gold hoard was on perilous ground. In his book *After Bretton Woods,* Barry Eichengreen (2019) focuses upon the causes of these crises, often dubbed the "Nixon Shocks". To avoid potential economic crisis, President Nixon ended the international convertibility of the dollar and gold in 1971. While this was originally meant to be a temporary measure, the free-floating dollar would never again return to the gold standard. Various attempts to devalue the dollar in relation to gold were tested out, but ultimately the "emergency measure" of removing the gold peg from the global currency exchange would become permanent. The dollar's original function as a denomination of gold had been fully abstracted, and a new age of wholly fiat currency was ushered in. A century after the unveiling of the original greenback, the vision of a global economy built on fiat had been wholly realized. By studying the history of the dollar during this time period, we can see the alchemy that took place on a mass scale (Eichengreen, 2019, 24). Paper had been turned into gold, and a global standard based on fiat currency had replaced the antiquated system of precious metal exchange. The value of the dollar might have been very similar to the individual consumer, but on a macroeconomic scale our shift away from the gold standard reflects the adoption of a globalized, Keynesian economy where the strength of a country's currency is a reflection of its greater economic policy and ability to exert influence over the global markets.

Indeed, fiat currency can be seen as a pure expression of energy exchange on a mass scale. A successful fiat currency survives and thrives as a medium of exchange on the strength of its use case. The dollar was only able to wholly de-tether from gold because it had secured a vital place as a cornerstone of the global trade economy. If it dropped in value, so would every other institution tied to it. The price and supply of the dollar, under the modern system, is flexible and subject to the whims of the Fed. The importance of a currency lies in *how* it is used to facilitate trade. While gold was an integral part of establishing the dollar's value, it ceased to be important once the medium of exchange was secured. The dollar's status as a reserve currency ensures that, barring unprecedented catastrophic economic collapse, it will always be acceptable as a fungible medium of exchange. An integral part of this stability emerged in the 1970s, as the dollar was struggling to find its footing without a gold peg amid rampant inflation. The solution to the dollar's woes was found in another important medium of exchange: petroleum, the liquid gold of the 20th century.

Establishment of a "Quasi-Petroleum Standard"

Petroleum may be a commodity, but it is a unique resource that often functions as the lifeblood of the modern, global economy. The ability to produce energy and plastics proves integral to the productivity of industrial nations, and oil's ubiquity and importance—combined with a limited supply that requires large capital investments to find and prepare for market—also suggests that oil plays an integral role in international trade. In an article titled: *The Oil Shocks and State Responses,* author John Ikenberry (1988) explores the deeper roots of the oil shocks. During the 1970s, the price of oil was in constant fluctuation as demand spiked to record levels and a coalition of petroleum exporters collaborated to fix prices. The Arab Organization of Petroleum Exporting Countries (OPEC) enacted embargoes against Israel-supporting countries, the price of oil fluctuated wildly. In contrast, the U.S. dollar was a universally accepted medium of exchange that was rapidly losing its value as the reserve currency of the world economy. The American government saw an opportunity; through bilateral discussions with Saudi Arabia, the U.S. managed to convince the members of OPEC to denominate the price of all oil in USD on the international market. This offered increased stability to the petroleum exporters, and ensured that the dollar occupied, once more, an integral part of the global trade economy. To this day, oil prices from OPEC countries are exclusively enumerated in USD, and any country that wishes to purchase petroleum must do so through USD. In a uniquely innovative way, the use-case of oil serves as a substitute for the inherent value of gold. The dollar isn't backed by mountains of oil hidden deep within Fort Knox, but by an entire *market* of energy exchange on an international level (Ikenberry, 1988, 13).

Throughout these developments, the U.S. dollar was in the process of shifting from a gold standard to a quasi-petroleum standard. While the similarities between gold and oil might not be immediately apparent—one is a metal that maintains value on a premise of history and scarcity, the other a liquid commodity valued on its industrial use-cases—there are some interesting parallels that can be drawn between the two. For instance, petroleum and gold are both limited natural resources mined through capital and also labor-intensive processes. Both substances, once a supply is discovered to exist in a given area, tend to create waves of speculation and dramatically increase the perceived natural value of the land, often attracting international attention that can destabilize an emerging economy just as quickly as it can develop one. Just as an economy based on the gold standard cannot function without the precious metal, an industrialized economy breaks down in the absence of petroleum. The commodity's inherent necessity in the conduction of industrial processes such as plastic manufacture, asphalt production, and fuel for internal combustion engines render petroleum an integral part of our modern industrial economy. While gold fetches a far higher price per oz, the value of oil comes from its *availability*. As Ikenberry (1988, 3) emphasizes, then it becomes no surprise that oil is often referred to as "black gold."

However, natural resources can become the focus for geopolitical rivals and imperial power-plays. European colonization of the Americas was fueled by promises of vast natural reserves of precious metals, and countries such as Portugal, Spain and England (areas with relatively scarce supplies of natural resources, but strong military forces), used the perceived wealth of the New World to launch a series of military campaigns that served to enslave and also decimate the indigenous populations. In contemporary times, oil reserves frequently make smaller countries into targets for foreign military intervention. As the strength of the U.S. dollar depends on the regulation and control of the global petroleum trade, the American military has become increasingly involved in the affairs of countries with rich petroleum deposits. Concentration of U.S. military power in the Middle East from the 1980s to the present day can be used as a clear example of U.S. foreign policy reflecting the dollar's shift to a quasi-petroleum standard.

As David Orrell and Roman Chlupatý (2016, 139) note in their book *On the Evolution of Money*, the traditional neoclassical conception of money as a passive medium of exchange is antiquated by modern economic and mathematical models. By studying forms of currency as shifting social institutions and not simply units used to easily quantify variable change, we can form a more flexible and accurate view of the economy as a whole. It can be argued that the traditional view of money comes from attributing the properties of gold—a stable, static, inert, and finite substance—to that of the financial system as a whole. This creates a very narrow, limited view of the monetary supply as a machine built to optimize utility, which fails to explain or integrate the multivariate sociological entities that make up the concept of currency and are responsible for the constant fluctuations of its nature. By studying the evolution of the dollar, we can raise ideas inquiring as to the greater nature of currency as an economic institution.

Conclusion

This inquiry has sought to establish that the underlying nature of the U.S. dollar has fundamentally changed since its inception as a denomination of gold. By studying the history of the dollar, we can identify the layers of abstraction upon which it derives its value and predict its future evolutionary cycles. Whenever a U.S. dollar is used as a part of a transaction, all parties involved implicitly buy into the institutions that support and maintain its value. When the gold standard was in effect, that meant agreeing upon the value of gold relative to their transaction, and of the value of the dollar relative to that of gold. In the age of paper fiat currency, it meant that actual the paper represented the relative strength of the American economy. With the advent of the petrodollar-led economy, USD is backed by the use-case of petroleum products on the international market, and by the flow of energy necessary for the maintenance of an industrialized global economy. Taking into account the rapidly evolving nature of modern technology, it can be assumed that the nature of currency will continue to shift to adjust to changing market needs. However, one fact remains clear—the dollar remains important as an intangible and constantly evolving institution, and it has shown an affinity to adapt fundamentally to suit the needs of changing markets. Consistent and effective media of exchange are integral to a functional and prosperous economy, regardless of diverse underlying fundamentals.

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