Currencies and Cultures

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The Impact of Culture on Economic Policies and the Foundations of Money

By

Noel Mark Noël

Cambridge Scholars Publishing

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Dedicated to my three Janes and son, Nicholas

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"The Best Way to teach kids about taxes is by eating 30% of their ice cream."
— *Bill Murray comedian*

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INTRODUCTION

CURRENCIES AND CULTURES

Keywords: *cui bono; economic history; Cliometrics; moral relativism*

"The only thing new in the world is the history you don't know."
President Harry Truman

Various historians have written about history from the view of the eye of the beholder. This book presents a pragmatic and factual account grounded in *following the money*. The Romans question everyday transactions by way of a common Latin phrase *cui bono* literally meaning *to whose profit?* —a protocol followed throughout researching the sources for this book. The author hopes to take the traveler on a different journey through time by connecting currencies and their economic policies and foundations with various cultures and civilizations. Hopefully, surprising twists and turns will bring the reader into a deeper appreciation of currencies, money, and the documented human and cultural behaviors behind them.

The interdisciplinary study of economic history, sometimes called the "*new economic history"* goes by the formal name of *Cliometrics.* Clio is the personified lyre-playing muse of history and poetry in Greek mythology. A view through the lens of cliometrics provides a quantitative set of fact-based econometric tools including historical methods, economic theory, statistical tools, demographics, labor data, financial, institutional, and business case studies. Modern cliometric studies bring an assortment of historical facts and interdisciplinary insights together to form an added human dimension to economic history. As the noted 20th-century philosopher George Santayana wrote: "*Those who cannot remember the past are condemned to repeat it."* Similarly, Albert Einstein noted: *"Insanity is trying the same thing over and over and expecting a different result."* A more holistic approach to history may help us understand our cultural behavior and avoid being condemned to repeat its mistakes.

Economic history, as a discrete academic discipline, began in the 1930's with a dispute between the London School of Economics (LSE) and the

University of Cambridge. Cambridge viewed economic history as inseparable from the general study of history across disciplines and consigned it to the history departments commonly housed today in most colleges of the liberal arts. The study of history is frequently criticized based on *moral relativism,* as historical narratives vary according to each author's interpretation and are thus unreliable or circumspect. LSE, on the contrary, housed the study of economic history within the school's business program and international relations department. They currently support economic and geopolitical history courses, a focused research agenda, a dedicated faculty, and department chair separate from the discipline of mainstream history departments. The result is that the sciences of today are often void of their own history. Cliometrics, however, is still not widely adopted in most business programs, nor disseminated to the public at large, although business faculty often embrace business case studies as a favored pedagogical instructional method.

Modern scientists in archeology and anthropology have adopted a transdisciplinary reassessment of the origins of civilizations and cultures to study what makes them successful—or not successful. Scientists once commonly held the belief that all civilizations arose from rudimentary farming, agriculture, and animal husbandry. More recently, however, archeologists and anthropologists have begun to rethink this assumption by way of cliometric studies. It is now frequently accepted that the fundamental foundation of any civilization or culture is centered on barter, trade, and exchange—along with a division or a specialization of labor.* The nature and character of how these human behaviors evolved provide a unique cultural signature of their economic success or failure.

Human behavior is inherently insatiable with an outsized consumer desire for just about everything imaginable. Some may call this greed while others goodwill. We, humans, have the option to either take what we want, steal, murder and wage war—or we can be civilized and barter, trade, and negotiate for it. Germany and Japan once waged global war to forcibly take resources from their neighbors—only to lose the war and become great and prosperous industrial powers based on barter, trade, and exchange. Their people and culture learned how to create specific goods and services for others who were willing to reciprocate in a similar manner. Barter, trade, and exchange underlie the fundamental human incentive to design and develop things that others want and for others to respond in-kind.

The earliest humans learned to live with each other by producing goods that others wanted. Fashioning an arrowhead takes time and skill to create leading to a specialization of labor. The same holds true for a baker, a cheesemaker, or a fisherman. The 18th century economist Adam Smith described the process as a *division of labor* by those who use their skills to produce something they can trade. It was this very desire to exchange goods and services that motivated the earliest humans to specialize and fashion agriculture, farming, and animal husbandry into products that others wanted. Commerce is, therefore, the prime motivator behind most human endeavors.

Throughout history, daily transactions have led to slow, prolonged and time-consuming negotiations between the buyer and seller. Some unsuccessful cultures discouraged and even nullified this process. The Neanderthals, from what we know of them, failed miserably in their ability to trade, as did many autocratic societies that are now consigned to the trash heap of history.

The economic signature of a successful culture is based on how it can best expedite and advance the barter and trade process. Transactions are built on trust inculcated and defined by the unique signature of a culture's values, norms, and beliefs. Trust becomes the defining moral and cultural characteristic based on the widely held beliefs by its people. Successful cultures make policies to advance these behaviors and strengthen the economic foundations of their money. The social fabric of a culture rests on the degree of trust built behind its currency. Likewise, the currency and supportive economic policies mirror the level of trust within the culture.

The author will take you on a journey to explore how cultures have come to expedite and advance the process of barter, trade, and exchange. How we humans have come to adopt and use various currencies helps explain many of the cultural differences in our values, norms, and beliefs—and provide insights into who we are and the policies we make for ourselves. Recognition of our past provides insights into today's challenges brought on by globalization and the new arrival of digital cryptocurrencies and block-chain technologies. The modern application of economic history into how various cultures have exploited their wealth will ultimately reveal *cui bono* or *to whose profit?*

* For a spirited presentation that the basis of human behavior was first grounded on commerce and trade: Ridley, M. (2010). *The rational optimist: How prosperity evolves.* Harper

CHAPTER ONE

THE BIZARRE WORLD OF CURRENCIES AND CULTURES

Keywords: exonumia; Rai-stones; knife money; manilla (slave trade money); digital cash

> "He had heard people speak contemptuously of money: he wondered if they had ever tried to do without it."
>
> —W. Somerset Maugham, *Of Human Bondage. 1915*

Money is one of the most misunderstood, overlooked, essential, and taken for granted human schemes used in our everyday lives. We count on it as our primary means of value and exchange. We possess it, hold it, spend it, save it, and hoard it thinking that its value is permanent and unchanging. We use it to let others know how important we are and how smart we are to own it and hold onto it. We like to believe that the money we possess is sound and trustworthy. But money is only as sound and trustworthy as the culture is principled, honest, and uncorrupted.

The concept of *"money"* seems extremely simple and straightforward. When "money" is defined as a type of *"currency,"* however, its value becomes more complicated. The world's most bizarre and unusual currencies have their roots in some form of intrinsic value. Other than coins and paper money as official legal tender, unsanctioned items are referred to as "*exonumia."* These are highly prized personal items either hoarded or used sparingly for trade or gifts. Their perceived value, subjectively judged at that moment in time, becomes an effective mechanism for trade and exchange. Anthropologists and archaeologists have recently come to agree that many human species and cultures have perished based on their inability to engage in barter and exchange. [1] Barter or trade is an arduous method of negotiation, while exchange needs a commonly accepted form of currency to expedite the transaction based on a value that is widely recognized as consistent, stable, and uniform.

The alternative to a negotiated exchange is simply to plunder and steal what is desired. For example, anthropological evidence suggests that the Neanderthals, who became extinct around 40,000 years ago, failed as a result of living in small groups that were sparsely dispersed leading to inbreeding and congenital mutations. Their encampments, which included hand-made tools found within a mile of their dwellings, suggest a lack of engagement with others. There was no indication of decorated shells, jewelry, or items of creative artistry that may have been evidence of trade. Their self-imposed isolation and lack of any barter or exchange with others outside of their small tribal group are recognized as the likely cause of their demise. Their culture failed to advance them into an inclusive network of human beings trading and exchanging goods among themselves and with others. [1]

Human nature is never completely satisfied; perhaps that is why so many of us remain awkwardly unhappy even when we are otherwise comfortable and wealthy. Prosperous cultures are driven by the insatiable desire of humans for "more." Culture teaches us how to get *more* through the barter and exchange of goods and services, and that process is built upon commonly accepted norms and values. Adam Smith, the Scottish moral philosopher, and pioneer in political economy published his classic work "*An Inquiry into the Nature and Causes of the Wealth of Nations*" in 1776. He postulated that the wealth of a nation is built on trade, driven by a specialization of labor among those seeking an exchange.

Humans who repeat a task usually learn to do it better the next time. A vintner will likely need to exchange his wine for cheese, and the cheesemaker is likely to trade the baker for bread. People who specialize in a trade or profession eventually become better at it while some will become noted experts. The geological resources of a region or country further drive others to negotiate an exchange for goods unique to that area. Olive oil from Spain, for example, may be exchanged for cheese from Holland. This "black hand" of exchange behavior, as Smith would call it, was something far different from the dominating political and religious institutions that preceded this new institution called an *"economy."* Recognized as the first economist, Adam Smith added a new institutional dimension to how we define ourselves and our culture based on trade and exchange.

Rai Stones or Stone Money

People from all parts of the globe have used different items to facilitate barter and exchange resulting in some strange currencies. The famed economist Milton Friedman based his University of Chicago master's thesis on Rai Stones; a currency used until the 19th century on the Islands of Yap and Guam. Located in Micronesia, Rai, or stone-money are large round disks carved out of limestone. Each stone had a hole in the middle to allow the physical movement of the larger stones, some as large as 12 feet in diameter and weighing up to four metric tons. The smaller ones (7-8 centimeters) were traded or worn as jewelry. The Island of Yap had a long established and stable population of 5,000 to 6,000 residents, and the ownership of the stones was based on oral history and trust. Using one of these stones to buy an item was as easy as saying that it no longer belonged to you, but that it was now owned by the person to whom you gave it. Larger transactions were often marked in chalk on the larger stones and placed in the center of the village for all to see. No physical movement of the larger stones was necessary as everyone knew where they were located, marked, and to whom they belonged. [2]

The people of Yap and Guam were happy with their reliable and stable currency which remained a means of efficient exchange among themselves. Their economy came to an untimely end when the Irish-American David O'Keefe was shipwrecked off the Island of Yap in 1871. O'Keefe was warmly nursed back to health by the natives and, in return, he convinced them to trade their dried coconut meat for iron tools from the surrounding islands. When the natives used the iron tools to carve more Rai stones, severe inflation followed as the newly produced stones were considered more valuable and prized than the older ones. Trade with Rai-stones finally stopped in the 19th century, as the occupying Japanese expropriated the stones and used them for construction and military fortifications. *His Majesty O'Keefe,* a 1954 adventure film starring Burt Lancaster, is entertainingly based on these events.

Milton Friedman used Rai-stones as a cultural lesson in economics. He compared the exchange of these stones with the transfer of gold between the governments of France and the U.S. during the heat of the global monetary crisis of 1933. France had requested that the U.S. government pay all its debts in gold just before the U.S. was due to abandoning the existing gold standard. Instead of shipping the gold back to France, however, it was simply moved from one vault in New York into another vault close-by that was identified as owned by France. The exchange, which was made public and deemed newsworthy, was said to have contributed to the financial panic of 1933. [2]

Figure 1-1 *Stone Money of Yap, Western Caroline Islands 1904 by William Henry Furness III*

Milton Friedman summarized this as a monetary example along with *"numerous additional ones—that illustrate how important is myth and unquestioned beliefs in monetary matters. Our own money, the money we have grown up with, the system under which it is controlled, these appear real and rational to us. The money of other countries often seems to us like paper or worthless metal, even when the purchasing power of individual unit is high."* [3]

Salt Currency

The word s*alary* stems from the Latin word "*salarium"* meaning *salt.* The early Romans paid their soldiers an allowance of salt, and *salarium* came to be a term for military pay. A soldier's salary was cut if he was "*not worth his salt,"* a common expression still used to this day. It was not until 396 B.C. that the first Roman soldiers were paid with coins. The long-delayed adoption of coinage is a phenomenon unique to the Romans, as coins were already in widespread use by other cultures. Salt is not only a food preservative, but a necessity as all humans and animals require some amount of salt to survive. Difficult to find in some places, as it was in Rome, salt was highly valued for trade and used as a common currency.

Slabs of rock salt were used as a form of coinage in what is now modern-day Ethiopia. The coins were made of dried salt, cast into slabs ten inches long by two inches thick, and easily broken into smaller sizes to make an exchange. As early as the 6th century B.C., the Moorish merchants commonly traded salt for gold at the same value per measure or weight! Ancient "s*alt roads*" were historic and heavily traveled trade routes over which salt was transported to regions in vital need of it. Trade in salt existed in the early Bronze Age and spread throughout the archaic world. The historic Roman road "*Via Salaria"* ran from the Adriatic coast to Rome and is considered by some to be the road that built Rome. [4]

Knife Money

Many cultures around the world used weapons as a currency. Archeologists have uncovered large amounts of arrowheads which they believe were used as currency to facilitate barter. What is fairly unique is the Chinese "*knife money"* of the Zhou dynasty from around 600 B.C. Knives were fashioned and inscribed with numbers and single words such as "*goat*" or "*fish"* to determine their value.

Figure 1-2 *Chinese knife money*

Manilla or Slave Trade Money

Currencies have been tied to all manner of items. Currency, or what is in *circulation,* has only recently been thought of as banknotes and coins. Forms of early currencies reflected the intrinsic value of items used as personal ornamentation, long before they were considered for use as a means of exchange for barter and trade. The early Phoenicians, based in what is now Syria and Lebanon, were thought to be the originators of a valued form of "*penannular*" (almost ring-like) money which they likely copied from the ancient Egyptians.

Penannular money is crafted ornamentation, originally bracelets and armlets, that evolved for use in trade as a more stable and constant representation of value. The Phoenicians were considered the greatest maritime traders of the Mediterranean from 3200 B.C. to 300 B.C. They deplored the inefficient, archaic, tedious and time-consuming effort required by bartering for trade. It took what seemed forever to determine: *Exactly how much is that goat in trade for wine or cheese?* They were quick to accept common items as recognized benchmarks of personal value to expedite the barter and trade process.

Phoenicia in classical Greek means "*land of purple*" in reference to the Phoenicians' export of valuable and highly prized purple murex-shell dye. The Tyrian dye turns cloth red and develops over time into royal crimson hues, which today remain a highly alluring fashion feature. True Tyrian purple paint currently exceeds $3,500 a gram. The Phoenicians' seafaring expeditions recorded their trade with the ancient Egyptians as early as the 14th century B.C. The Egyptians commonly used written receipts on papyrus for their daily transactions, which were recorded and certified by the high priests. The trusted religious community of high-level priests backed these accounts with precious metals, stones, grains, and foodstuffs as a sign of the Pharaoh's wealth over the state.

The ancient Egyptians were late in human history to introduce their first coin, the "*Nefer-nub*" (meaning fine gold) minted circa 360 B.C. The Greek General Ptolemy, who served under Alexander the Great, likely introduced the first coinage to Egypt. The Pharaoh Teos first used these coins to pay for Greek mercenaries in his service to battle the Persians. Finding no value in papyrus receipts, and before the minting of gold coins, the Phoenicians would accept metals for trade, especially common and useful jewelry like bracelets and armbands.

Figure 1-3 *Egyptian gold coin or the "Nefer-nub" (fine gold). Coinage was introduced to Egypt by Pharaoh Ptolemy I Soter (a general of Alexander the Great and founder of the Hellenistic state of Egypt) circa the beginning of the Ptolemy dynasty 323 B.C. The coin featured the head of Queen Arsinoe II (first daughter of Ptolemy I Soter) and was stuck under the rule of her husband and brother Ptolemy II. 8.42 grams 14-15 mm.* Figure 1-4 *Manilla slave token circa 1850s, sizes varied.*

Before the introduction of coinage, one general purpose currency that was widely used throughout ancient Egypt and Africa and into the late 1940s was the *manilla*. "*Manilla"* is derived from the Spanish word *"manella"* or bracelet and was commonly used as a medium to buy and sell slaves. Manillas were usually horseshoe-shaped jewelry clasps, with flattened ends facing each other, and likely originated in the ancient southeast Nigerian coastal cities. The Africans had names for a wide variety of manillas based on their metal content, and even the quality of the sound they made when struck. Gold manillas were regarded as adornments or jewelry and used for external trade with other distant tribes. Copper manillas were primarily crafted and produced for internal exchange among the local tribes. [5]

Copper is still regarded as the "*red gold"* of Africa and was initially mined and traded across the Sahara. It was first transported over the Silk Roads by merchants from Arabia to as far as Northern Europe and China, and often traded in the form of copper manillas. Many of the smaller copper manillas were used as a currency, while larger ones were worn as bracelets, anklets, hairpins, head jewelry, and as a show of wealth. Crafted metal clips were widely used to fasten cloth robes, capes, and fashioned as hair adornments.

The early Portuguese explorers were the first Europeans to adopt the local custom of copper bracelets and leg-bands as the common means of trade and exchange along the west coast of Africa. Portugal was then under Islamic rule and later united with Spain to form the Iberian Peninsula Union from 1580 to 1640. The Portuguese were the first to develop deep-water craft, and with the newly invented compass, were able to set sail and navigate across the ocean rather than follow the safety of the coastline. They found the navigation of the Indian Ocean child's play. [6] The Portuguese were known to have landed in the seaport of Calabar, Nigeria in 1505. These early traders purchased ivory tusks, peppers, spices, palm oil, and slaves by exchanging currency *bracelets* acceptable to the Africans. Eventually, the manilla currency became known as slave trade money and was widely used by Europeans to purchase slaves. [7]

Later, Dutch traders "*…bought slaves against payment in rough grey copper armlets which had to be very well made, otherwise the natives rejected them by the hundred.*" [8] A slave sold for about 12 to 15 brass manillas in the 1490s but correspondingly less if the manillas were solely of copper. In 1522 a female slave aged 16 in Benin cost about 50 manillas. Later, smaller pattern "*popo manillas*" which were too small to wear as bracelets, were mass produced in Birmingham England solely for the slave trade. The price of a slave, expressed in manillas, varied considerably according to time, place, and the quality of the manilla being offered.[9]

In Nigeria, the Native Currency Proclamation of 1902 prohibited the import of manillas except with a permit from the High Commissioner. The law encouraged the use of coined money pegged to the British pound, and to replace the image of the manilla as a slave currency. However, manillas were still in regular use and constituted an administrative problem until the late 1940s. The largest ethnic group in Africa, the Igbo tribe, still use them to this day. At Wukari in Nigeria, a deep-bowl of corn is considered equal to one large manilla, and a cup-shaped receptacle filled with salt is worth one small manilla. Manillas were considered legal tender as they floated in value against British and French West African currencies. The palm-oil trading companies often manipulate the value of the manilla to their advantage during the market season. [9]

Over time, humans have tried to use different items of personal value as money, from beaver pelts in North America, parmesan cheese in Italy, and tea bricks in Mongolia. Many commodities in short supply and high demand have been used to facilitate trade and barter of goods and services. Whether it be Ria-stones, salt, knife money, or manillas, they once had their place in human history, but eventually became obsolete.

Cigarettes

We shouldn't be complacent in thinking that these strange currencies only existed in history. The *funny money* of history has been reenacted even in modern times. Following Germany's defeat in World War I, the Treaty of Versailles forced Germany to pay considerable reparations to the victorious Allies. Germany simply went off the gold-backed *Goldmark* and converted it to a fiat *Papiermark* to finance the payments. By the end of 1923, it took one trillion *Papiermarks* to buy one single *Goldmark*! Prudent German middle-class savers were punished as all of their savings lost value. Again in 1945, Germany's defeat saw an end to the gold-backed *Reichsmark*. Three years elapsed before the Deutschemark was officially introduced in June 1948. During the three-year interim, the de facto currency was American cigarettes: primarily of prized value were Pell Mell and Lucky Strike brands. Both were used as currency for commonly traded goods, while more expensive items, gifts, and favors were paid in cognac.[10]

Even today cigarettes serve as an international currency in some parts of the world. Prisoners in many penitentiaries and reformatories use cigarettes or postage stamps as common currencies. Giving and sharing cigarettes is customary in China as cigarettes play a routine role in Asian culture. Although all forms of corruption are officially banned, nothing gets done unless those in power are presented with gifts for favors. Cartons of *Good Cat* brand cigarettes have become the customary currency that is used to bribe officials for favors in China.[11] Please, don't tell the Chairman!

Red Gold – Copper & Bronze Currency

Copper, found pure in nature, was the first metal to be used by humans. Neolithic artifacts of raw hammered copper, discovered in items made by native Indians in the Great Lakes region of the U.S., dating back to 8,000 B.C. The technology which led to furnace-like pottery kilns, circa 4,000 B.C., provided the higher temperatures necessary for the smelting and refining of copper. Anthropologists, therefore, link the excavation of pottery to the ability of a culture to smelt copper. The addition of other metals, by early 3500 B.C., was used to harden copper into bronze.

Copper in the early Roman era was largely mined on the Mediterranean island of Cyprus. The word for Cyprus is corrupted from "*cuprum*" from which we now get the English word copper. Copper, silver, and gold are in Group 11 of the periodic table and share certain attributes which make them valuable to humans. Copper is bright red-orange, mixes well with other metals at relatively low temperatures, and is found in abundance. The price of copper has been historically unstable, as demand for it correlates to fluctuating economic conditions. It is used in the building trades, electric wire, plumbing, electronics, and even jewelry.[12] "*Red gold"* was considered as a precious metal for use in an exchange transaction.[13]

Large quantities of copper were discovered in Sweden about 1,000 years ago in a place named Stora Kopparberg or the Great Copper Mountain. The Falun Mine produced over two-thirds of Europe's copper needs up until the 18th century. Copper smelting started with local farmers, who chopped down trees and started large fires alongside the mountain. Eventually, the dangerous task of digging into the mountain led to the certification of licensed miners as the first professionally recognized occupation. King Olof Skotkonung was very impressed by his miners as they made Sweden wealthy by trading copper with other nations. The miners unionized in A.D. 1288, and the King gladly granted the free-miners shares and ownership control as an incentive for them to increase production. Later, in A.D. 1347, King Magnus IV granted a corporate charter.

Today the company is named Stora Enso and continues as a privately held Swedish company with some 27,000 employees. It owns half as much territory as Belgium and operates primarily as a forest and paper products company.[14] Stora Enso is believed by many experts to be the oldest continuously operating corporation in the world. Copper can be credited with giving the world its first chartered corporation and the first ownership shares to its laborers.

In the 17th and 18th century Sweden, owing to its numerous high-quality copper mines, was one of the great empires in Europe. Queen Christina of Sweden (A.D. 1632 to 1654) initially offered paper-based money backed by copper. The official proclamation incentivized overproduction, resulting in the loss of value for both the copper and the paper money it backed. The Queen then issued copper in lumps as large as fifteen kilograms (33 pounds) to serve as hard currency. Unwieldy as it was, this first copper-based monetary system worked for a while until the world copper price slumped from overproduction. Baron von Görtzhe, a Swedish central banker, saw this as an opportunity to issue a copper-based coin currency. The copper coins were easy to counterfeit and became so abundant that they depreciated rapidly towards their raw metal value, spreading the belief that the copper coins would soon be unacceptable as a form of payment of taxes. Görtz was blamed for this failure and was subsequently beheaded as punishment, greatly pleasing the Swedish people.[15]

Gold: The Big Brother of Copper

Gold, like copper, occurs purely in nature. Humans have used it as a show of status in jewelry and other art forms since the beginning of recorded time. This colorful, shiny yellow metal is durable, corrosion-resistant, conducts electricity, and is widely used and valued for industry. It never deteriorates and lasts indefinitely. Gold crafted artifacts were first found in present-day Israel with many items dating back to the 4th millennium B.C. Hieroglyphs from 2600 B.C. describe Egyptian gold as more "plentiful than dirt" among the wealthy and social elite. Egyptian gold was mined in the Nubian mountains and panned downstream of the Nile River as it flowed from the highlands of central Africa to the Mediterranean Sea.

Pure gold coins are a relatively new invention, with the first ones appearing about 550 B.C. Today an estimated 50% of gold is used in jewelry, 40% as investments and 10% by industry. It is estimated that for every ounce of gold, miners will dig up and haul away 30 tons of rock. The rock then requires a tedious and hazardous process to extract and refine it. Gold primarily remains valuable due to its scarcity. The gold standard, as a stable monetary system, was successfully implemented among nations for more than several hundred years. The existence of such a small amount of gold provides a benchmark for the value of any currency by which it is officially backed.[16]

Figures from the Thomson Reuters' Annual Gold Survey are used by investors to track the daily value of gold. This real-time report accounts for all the gold that has ever been mined. This includes all the above-ground gold stored in Fort Knox and the New York Federal Reserve, all central banks around the globe, all jewelry, coinage, and everything else that is gold. Gold is measured in *tonnes*, with one metric tonne equal to 1.10231 U.S. tons—often called a short ton. An American short ton of 2,240 pounds equals one metric tonne or 1,000 kilograms. The global quantity of gold currently weighs in at 183,600 tonnes. (The gold tomb of Tutankhamen's coffin contains 1.5 tonnes). Given a spot price of about $1,300 (January, 2019) per troy ounce, 183,600 metric tonnes at 32,150.75 troy ounces of gold per tonne, would today yield a value of $7,673,741,010,000 or about $7.6 trillion.[18]

If you have gold for your wedding ring or watch, it may have been mined by the Romans over 2,000 years ago. The United States Government Gold Reserve reports 261,498,926 troy ounces of gold, mostly in deep storage in Denver CO, Fort Knox KY, and West Point NY. The U.S. has the largest of all government reserves with some 8,133.5 metric tonnes or 2.1 percent of all sovereign countries' holdings worldwide. United States gold production was estimated to be just 200 tons in 2015. U.S. government's ownership of gold is followed by Germany's 3,381 tonnes, Italy's 2,451, France's 2,435, China's 1,693, Russia's 1,317 and Switzerland's 1,040.[19]

Figure 1-5 *Trustworthy estimates conclude that all the existing gold in the world if cast into a square cube, would measure 20.7 meters or 67.9 feet on each side—the equivalent of a single six-story square building!* [17] *The United States is the largest sovereign holder of gold but holds only four percent of the global total – the size of a small retail store in a six-story building.*

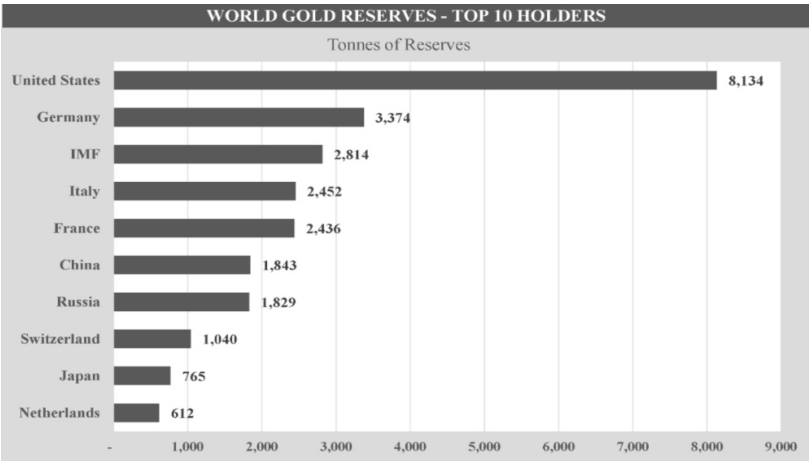

Figure 1-6 *Chart of the top ten largest gold reserves 2018 Data Source: World Gold Council.*

Two of the largest holdings of gold today can be found in New York and London. The largest known stockpile is buried deep in the bedrock of Manhattan by the Federal Reserve Bank of New York. However, only 2% to 5% is owned by the U.S. government while the remainder is owned by foreign countries. If Germany wants to pay Russia for something in gold, it calls the U.S. Federal Reserve and has the bars physically moved to the Russian vault for a small transaction fee. Few such transactions now occur, however, as gold is no longer officially recognized as a government-backed currency used for exchange.[20]

The New York Mercantile Exchange's commodities division trades a variety of metals, including gold, silver, copper, and platinum, which are stored in vaults throughout New York. This cache is used to back futures contracts through its commercial trading venue. The world's largest stash of silver is housed in London, not because the British government uses the pound sterling as a currency, but because J.P. Morgan Bank keeps tons of silver as collateral to back Barclays IShares silver (SLV) exchange-traded fund.

Historically the United States issued paper currency backed by both gold and silver. However, due to the inflationary costs of the Vietnam War, the War on Poverty, and other fiscal entitlements and spending, President Nixon repealed the Bretton Woods Agreement in August 1971 which had tied all the world's currencies to the dollar. The United States and most European governments at the time posted little sovereign debt. If a government issued too much currency over that of its fiscal productivity, it would clearly be seen as inflationary. In 1971, the U.S. went off of the gold standard and entered the world of fiat money as it refused to address its fiscal problems. Fiat is Latin for *"let it be done"* as in a government decree or edict. The U.S. government, through the Federal Reserve Bank, now sells paper dollars–not backed by gold but by decree. Globally, since 1971, other governments have followed the U.S.'s lead in determining the value of their fiat currencies, and national debt loads for all counties have spiraled upwards. The Swiss franc was changed to a fiat currency on May 1, 2000—the last currency that was backed by a gold standard.

Most central banks, however, still maintain their sovereign gold holdings as they figure into the Special Drawing Rights (SDR) assigned by the International Monetary Fund (IMF) to a basket of key international currencies which is reviewed by the IMF every five years. To supplement a shortfall in preferred foreign exchange reserve assets, the SDR was created in 1969 to deal with the lack of a common gold standard. SDRs are technically not a currency, but instead, represent a claim to currency held by IMF member countries for which they may be exchanged. Effective October 1, 2016, the IMF decided that the Renminbi (Chinese yuan) would be added to the basket of SDRs. Currently, the basket now consists of the following five currencies: the U.S. dollar 41.73%, Euro 30.93%, Chinese renminbi 10.92%, Japanese yen 8.33%, and the British pound 8.09%.[21]

The Federal Reserve Economic Data (FRED) estimates the M2 Money Stock (liquid instruments of cash, checking deposits, mutual funds, and other no-interest time deposits, or near cash deposits that can be quickly converted into cash within two days) is reported to be $13,060,900,000,000 or 13 trillion dollars as of September 2016. In 1971, the M2 money stock totaled only 611 billion dollars representing an increase of nearly 22 times in just 45 years. The United States government reports gold holdings of 8,133.5 metric tonnes with 32,150 troy ounces per tonne. Dividing the M2 currency of $13 trillion by 261 million troy ounces of U.S. gold reserves results in an astonishing $49,808 per troy ounce of gold today–significantly more than the $35 per ounce gold standard in 1971.[22]

The Silver Standard

In the early 1500s, King Ferdinand of Spain proclaimed the priorities for his conquistadors as they set sail for the New World. "*Get gold*," he told them, "*humanely if possible, but at all costs, get gold!*"[23] Not only did the new civilizations they encountered possess gold, but they also held vast amounts of silver. Silver is often produced as a plentiful by-product of gold mining. Compared to gold, the price of silver can be notoriously volatile. Although silver coinage was in widespread use throughout the centuries, it was the Spanish discovery of enormous silver deposits in Potosi, Bolivia, and Lima, Peru in the 16th century that established a new international silver standard. The repercussion of this would have enormous consequences on trade, war, and conquests as well as currency markets worldwide.

The great Spanish treasure fleet, founded primarily on silver and some lesser gold shipments, was a convoy system of ships governed for over two centuries by the Spanish Empire (1566 - 1790) linking Spain to its territories in the new world. Spain at that time controlled the seas and required, by law, return trade with its colonies to be assigned to only one port in Seville. Seville became the official Spanish port where import taxes were collected to replenish the King's treasury. Spanish cargo fleets transported lumber, agricultural goods, spices, and tobacco, however, the prized commodities were gold and silver confiscated by the conquistadors.