# ECONOMICS OLD AND NEW



Benjamin Samuel Brasford



#### Contents

Introduction	3
What is Money?	3
Types of Monies	4
The Role of Money	5
Money in relation to trade for goods and services	5
Money in relationship between individuals	6
Money in relationship to property	7
Money in relationship to investment	7
Ancient Egypt	7
Matters of Property in Ancient Egypt	8
Barter in Ancient Egypt	8
Ancient Greece.	10
Role of Money in Ancient Greece	10
Money in relation to trade for goods and services in Ancient Greece	11
Wars and Taxation in Ancient Greece	11
Money in relationship to property in Ancient Greece	11
Ancient Rome	12
Types of Monies in Ancient Rome	12
Role of Money in Ancient Rome	12
Differences and Similarities Between Old and New Economies	15
Ancient Economies vs. Modern Economies	16
Conclusion	16
Implications	17
Bibliography	19



"NEVER BEFORE HAS AN ENTIRE ECONOMIC SYSTEM BEEN GOVERNED PRIMARILY THROUGH FINANCES. ALL OF OUR TRANSACTIONS ARE PRIMARILY HANDLED THROUGH THE GIVING AND RECEIVING OF FINANCIAL TRANSACTIONS WHETHER PHYSICAL OR DIGITAL."

#### Introduction

This short work explores some of the key differences between our economy and that of three ancient civilizations. Compared to these ancient societies, we are now very different in the modern era since we do not do barter, and no longer rely on property money (gold), but instead on fiduciary media (fiat currency). For the first time, we have an economy that is entirely, at least officially, based upon a monetary system for exchange without barter or some other method being an accepted method of exchange. Thus, for economies old and new, the story starts with money.

#### What is Money?

ost people view money as only paper bills and coins. Is this true? Not quite. Actually, money also exists in many other forms. Money is defined as, "legal tender as defined by a government and consisting of currency and-coin. In a more general sense, money is synonymous with cash, which includes negotiable instruments, such as checks' based on bank balances." (John Downes 444)

What are the other forms of money? For example, there is banking credit, which can also be considered as money, since banks lend credit to borrowers via promissory notes. (Gonczy 3) Along with paper money and coins in the pockets and purses of the public, the U.S. Federal Reserve includes several other types of money, "...demand deposits (non-interest-bearing checking accounts in banks); and other checkable deposits, such as negotiable order of withdrawal (NOW) accounts, at all depository institutions, including commercial and savings banks, savings and loan associations, and credit unions. Travelers checks also are included in the definition of transactions money." (Gonczy 2) Checks are also considered money. (Gonczy 3)

Money is utilized in many different ways. For example, it is primarily utilized in the purchasing of resources, the purchasing of an arrangement for the movement of goods, or for the

provision of services. Money and its various forms are also utilized within the transaction(s) of business and trade.

In contrast to money, which refers to physical bills, coins, and other forms of conveying legal value, the management of money is called finance, "The management of large amounts of money, especially by governments or large companies," (O. U. Press, finance, n.1) as well as "the monetary resources and affairs of a state, organization, or person." (O. U. Press, Finance, n. 1.2) When dealing with such specific monetary resources, they are called financial assets.<sup>ii</sup>

Next, when considering a broader perspective, we have an economy<sup>iii</sup>, "The state of a country or region in terms of the production and consumption of goods and services and the supply of money." (O. U. Press, economy, n.1) Economics, iv is the study of the economy, and is defined as, "The branch of knowledge concerned with the production, consumption, and transfer of wealth." (O. U. Press, economics, n.1.) When looking at the total economy and all the money that is available, the Federal Reserve defines all money within circulation as the sum of the transaction's accounts in depository institutions and currency to include travelers' checks possessed by the public. (Gonczy, 1992, p. 14)<sup>v</sup>

One last term that is important to bring up is business<sup>vi</sup>, which is defined as, "a person's regular occupation, profession, or trade." (O. U. Press, business, n.1) The backdrop to economics and business is finance which only partly involves money.

#### Types of Monies

Specie is defined as, "money in the form of coins rather than notes." (O. U. Press, specie, n.) Others define specie to include notes. (Quigley, 10. Western Civilization 380-381) Currency is "money; coins and bills that are authorized by a government as legal tender for the payment of obligations." (Friedman 169) The amount of money is gleaned from the total amount that is in circulation. Vii

#### The Role of Money

Let's take a take a look at how money is utilized in everyday life. Money is used for the transfer of goods and services, by individuals, in relation to property, and for investment. As observed earlier in the 1900s by Karl Helfferich, "Money is not taken for its own sake; the recipient does not take it for consumption or for prolonged use, but in order, sooner or later, to part with it again, either as a transfer of purchasing power or in return for other economic objects or services." (Helfferich 1)

#### Money in relation to trade for goods and services

#### **Gross Domestic Product**

Money is utilized in purchases to acquire and for the arrangement of goods and services. Meanwhile, finance is utilized for the management of monetary resources as well as a measure reflecting the totality of such monetary resources. Economics is utilized to measure the production, consumption, and transfer of wealth to include money and finances. A modern nation measures its economy in relation to the value of it by utilizing the Gross Domestic Product (GDP).

Viii The Bureau of Economic Analysis defines Gross Domestic Product (GDP) as,

"The value of the goods and services produced in the United States is the gross domestic product. The percentage that GDP grew (or shrank) from one period to another is an important way for Americans to gauge how their economy is doing. The United States' GDP is also watched around the world as an economic barometer." (Analysis)

GDP is a metric that is used for several purposes, such as to address the following questions:

- How fast is the U.S. economy growing?
- How does my state's economy stack up against others?
- Which industries are growing? Which are slowing? (Analysis)

GDP is utilized by the White House and Congress to plan spending and tax policy, the Federal Reserve uses it to set monetary policy, <sup>ix</sup> and business people use it to make decisions involving jobs, operations expansion, investments, etc. (Analysis)

The origin of the concept of GDP came from William Petty in the 1600s, when he used it to attack "...landlords against unfair taxations during warfare between the Dutch and the English between 1652 and 1674.[8]" (Wikipedia), (Limited) Later on in 1695, it was further developed by Charles Davenant. In modern times, Simon Kuznets, was the first to provide this measure in a report to Congress in 1934.<sup>x</sup>

Importantly, for modern economies, GDP became the dominant measure of a country's economy after the Bretton Woods Conference, which would set the stage for post-World War II (WWII)<sup>xi</sup> economic recovery and growth around the world.<sup>2</sup> GDP was significant because the terms of peace settlements were negotiated by considering GDP, debt,<sup>xii</sup> interest,<sup>xiii</sup> inflation,<sup>xiv</sup> and public debt.<sup>xv</sup> Another measure, Gross National Product (GNP) was the estimate that was used at that time, and measured production based upon a country's citizens at home and outside of the country. There was a switch in 1991 from the GNP to GDP.

#### Money in relationship between individuals

"Many things - from stones to baseball cards - have served this monetary function through the ages." (Gonczy 2) Bartering<sup>xvi</sup> as an acceptable means for trade<sup>xvii</sup> became a thing of the past as Western Civilization moved into the age of central banking. The only time that bartering would appear again was when economic times worsened and the value of money became next to, if not completely, worthless. One of the most extreme examples of the depletion of the value of money in the modern era was during World War I (WWI), when Germany reverted to barter during the

<sup>&</sup>lt;sup>1</sup> Sir William Petty, (born May 26, 1623, Romsey, Hampshire, England—died December 16, 1687, London), English political economist and statistician whose main contribution to political economy, *Treatise of Taxes and Contributions* (1662), examined the role of the state in the economy and touched on the labour theory of value. (Britannica, Sir William Petty)

<sup>&</sup>lt;sup>2</sup> Bretton Woods Conference, formally United Nations Monetary and Financial Conference, meeting at Bretton Woods, New Hampshire (July 1–22, 1944), during World War II to make financial arrangements for the postwar world after the expected defeat of Germany and Japan. (Britannica, Bretton Woods Conference)

last stages of 1922 to 1923. Those who possessed real assets, xviii the rich industrialists, did well, while those who did not possess real assets, did rather poorly. (Ahamed 122-123)

#### Money in relationship to property

Property refers to tangible items, such as personal property, xix and real property. We use money to purchase personal property such automobiles, furniture, etc., as well as to purchase real property such as a home or land, whether residential or commercial, and to lease or rent an apartment, house, whether single-family, townhome or otherwise, or to lease or rent business office space.

#### Money in relationship to investment

From extensive searches about our past history, there seemed to have been no ancient equivalents to modern financial markets.<sup>xxi</sup> The first stock market on record appears as recently as the 1600s, within the work of Joseph De La Vega entitled, "*Confusions of Confusions*." (Vega) When we think of stock<sup>xxii</sup> markets and bond<sup>xxiii</sup> markets, these are the financial markets that were created so that we could buy and sell financial assets.

#### Ancient Egypt

Ancient Egypt is one of the, if not oldest, most intact civilizations that has come down to us literarily and archaeologically. In contrast to ancient Greece and Rome, there is not much written by modern scholars about the economy of ancient Egypt.

What we do know, is that ancient Egypt possessed houses of treasury or treasury departments, storehouses, and was said to even have a central finance department. (Erman, Chapter V: Political Conditions in Egypt Under The Old Empire 85) There were also granary treasuries where food was transported to these storehouses via bags, xxiv and temple treasuries which consisted of specie of gold, silver, and copper. From the tomb of 'Amt'en, the Prince of the 17<sup>th</sup> province

and a contemporary of King Snofru is an inscription that sheds some light on the Old Empire. While the governing style became looser under the Middle Empire, the superintendence of the royal treasury and property did not differ from the Old Empire. Dues were owed to the treasuries along with tribute<sup>3</sup> from other nations, which were used within the dedication of buildings and the treasuries themselves to the "gods." Ancient Egypt performed mining operations locally, xxv as well as in Nubia and Arabia. (Erman, Chapter V: Political Conditions in Egypt Under The Old Empire 96-97)

#### Matters of Property in Ancient Egypt

Strict measures were taken for the recording of matters related to property and other things where the treasury was concerned.

"Copies also were made of certain deeds, so that original and copy might vouch for each other. <sup>11</sup> Nothing was given out by the treasury department without a written order, and even an official who wanted to take his annual quantum of fuel and coal from the treasury was not able to get it before the superintendent of the house of silver had given him a written order. <sup>12</sup>" (Erman, Chapter V: Political Conditions in Egypt Under The Old Empire 113-114)

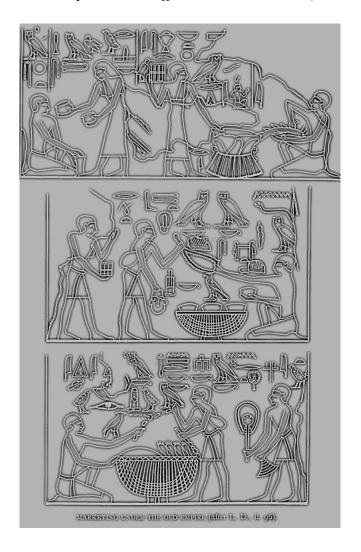
#### Barter in Ancient Egypt

It has been observed by some that bartering was "not a particularly ancient phenomenon at all, but has only really become widespread in modern times." (Graeber 37) According to Adolf Erman, ancient Egypt bartered as well.

The remarkable pictures in a tomb at Sakkarah show us scenes of daily life in a market of the time of the Old Empire; they represent a market such as would be held on the estate of a great lord for his servants and his peasants. The fish-dealer

<sup>&</sup>lt;sup>3</sup> Tribute: *historical usage [mass noun]* Payment made periodically by one state or ruler to another, especially as a sign of dependence. (O. U. Press, tribute, n.2.)

is sitting before his rush basket, he is busy at this moment in cleaning a great sheath-fish, while he haggles about the price with his customer. The latter carries her objects for barter in a box, and is very far from being silent—she is holding a long conversation with the salesman as to how much she "will give for it." Near this group another tradesman is offering ointment or something similar for sale. Another is selling some objects that look like white cakes; the collarette which is offered him for one of these does not seem to him to be enough. 'There (take) the sandals (as well),' says the buyer, and thus the bargain is brought at last to a conclusion. (Erman, Chapter XIX: Traffic and Trade 494-495)



#### **Ancient Greece**

Ancient Greece had treasuries and markets, with both domestic and international trade. Trade was a form of work or business as well. The evidence, however, is sketchy at best. (Davies 333) Instead of focusing on archaeology, our focus is on the ancient narratives of the early Greek writers, though it has been observed by others that this method is not without its problems. Gleaning how the economy worked through the behaviors of the people of the time still provides us with more than enough insight into their economies. (Seaford) Inscriptions from the classical period are also used by some scholars as a reference. Davies observed,

Laws and decrees of state, calendars of sacrifices (often stating the prices of victims), leases of public property, records of property sold or pledged, and especially annual accounts of public financial transactions drawn up and promulgated by state or sanctuary officials, all yield invaluable insight into economic activities and systems. (Davies 333)

#### Role of Money in Ancient Greece

The minting of coins, governed by existing weights and measures, was a function performed at the state level. (Davies 357) The treasuries of ancient Greece were maintained by different states. Offerings and tribute were made to their treasuries from different countries. Wars were also funded from the treasuries of the states as well as payments to mercenaries to aid them in the event of war. Silver offerings were made to temples such as the oracle at Delphi, along with gold in the form of talents<sup>4</sup> and bowls. After an explanation from Herodotus on the offerings of Gyges to the temple at Delphi, A. D. Godley noted,<sup>2</sup> "Many Greek states had special "treasuries" allotted to them in the temple precincts at Delphi, in which their offerings were deposited." (Herodotus 19)

<sup>&</sup>lt;sup>4</sup> A former weight and unit of currency, used especially by the ancient Romans and Greeks. (O. U. Press, talent, n.2.)

#### Money in relation to trade for goods and services in Ancient Greece

There were marketplaces for the trade of food and other goods such as clothing. (Herodotus 25) Meanwhile, the Persians of Persia, now modern-day Iran, were said to have no marketplaces.

"This threat he uttered against the whole Greek nation, because they have market-places and buy and sell there; for the Persians themselves use no marketplaces, nor have they such at all." (Herodotus 193)

#### Wars and Taxation in Ancient Greece

There is evidence that Ancient Greece funded their wars with money and received tribute from other nations. (Thucydides 135-137; 163-165) The Greek states acquired more wealth through the imposition of taxation on money. (Thucydides 35)

#### Money in relationship to property in Ancient Greece

Ancient Greece used money in the form of talents<sup>4</sup> to build statues, buildings, and to produce military equipment.

"[16] Lycurgus provided for the state-treasury six thousand five hundred talents more than Pericles, the son of Xanthippus, collected, and furnished for the procession of the Goddess golden figures of Victory and ornaments for a hundred maidens; for war he provided arms and missiles, besides increasing the fleet to four hundred warships. As for buildings, he completed the theater that others had begun, while during his political life he built dockyards in the Peiraeus and the gymnasium near what is called the Lyceum. Everything made of silver or gold became part of the plunder Lachares made away with when he became tyrant, but the buildings remained to my time." (Pausanias 165)

#### **Ancient Rome**

Fortunately, to gain some insight into the ancient Roman economy, we have far more evidence to assist us in understanding how their economy functioned. According to numerous scholars, their economy operated much like ancient Greece. There are still limitations when looking back at the sources and how such sources were presented to us when perusing the works of historians. (Minnen 226)

#### Types of Monies in Ancient Rome

Coins of gold and of silver were made during the days of the Roman Empire. (Suetonius 143; 159-160; 279), (Tacitus, Book VI. 509-510) These coins were obviously used for the purchase of goods and property, but also to gain an audience with the king. Bartering was also a part of the Roman Empire.

#### Role of Money in Ancient Rome

One key difference in ancient Rome was that money-lenders or creditors imposed high levels of interest on their borrowers. (Suetonius 14) There were even securities in regard to land ownership, similar to modern day mortgages, and there were commonwealths<sup>5</sup> even as early as the time of Julius Caesar.

Tacitus informs us that usury<sup>6</sup> was practiced by the money-lenders, a detriment that Julius Caesar challenged through laws. This usury situation caused much conflict early on within the Roman commonwealth. It later became illegal, first being lowered, and later being removed

<sup>&</sup>lt;sup>5</sup> An independent country or community, especially a democratic republic. (O. U. Press, commonwealth, n.1.)

<sup>&</sup>lt;sup>6</sup> Usury, in modern law, the practice of charging an illegal rate of interest for the loan of money. In Old English law, the taking of any compensation whatsoever was termed usury. With the expansion of trade in the 13th century, however, the demand for credit increased, necessitating a modification in the definition of the term. Usury then was applied to exorbitant or unconscionable interest rates. (Britannica, Usury)

altogether. Usury reared its ugly head at successive times after several revisions and removals of it through law. The Roman Empire, too, like in our modern times, would experience periods of less money within their supply. Creditors then, just as at times now, would for whatever reason end up in situations where their accounts were unbalanced, and as a result, the debtors would have to foot the bill. Tacitus informs us that as the debtors were coerced into selling their lands in order to make up for the lack of money that the creditors possessed. The creditors would do their best to purchase the land at reduced prices, even to the point of ruining entire families. Emperor Tiberius had to step in to reverse the mess that was created by the money-lenders. (Tacitus, Book VI. 259-260) Unfortunately, when systems are repaired due to the meddling of the greedy, time passes and the greedy find a way to reverse what was repaired. The more things change, the more they remain the same.

#### Western Civilization and Central Banks

The modern era of Western Civilization is run through banking, specifically through central banks. Another name for central banking is fractional reserve banking, which began in proto form with the Bank of England in 1694. There are now a host of central banks throughout the world.<sup>7</sup>

After discussing the fluctuations and limitations of the money supply that Western Civilization dealt with in times past, Carroll Quigley observes,

Thus, by the late seventeenth century and much of the eighteenth century, the flow of bullion was not sufficient to satisfy either the demands of an expanding economic system or those of a mercantilist political system supported by a mercenary military system. This inadequacy began to be remedied at the very end of the seventeenth century, notably by the establishment of the Bank of England in 1694. This remedy rested on the use of banknotes backed to only a fractional part of their value by specie reserves. This was a partial solution of the problem of money for two reasons: (1) it permitted a great increase in the volume of money

<sup>&</sup>lt;sup>7</sup> https://www.bis.org/cbanks.htm

when the supply of bullion was increasingly inadequate and (2) it permitted the volume of money to fluctuate to some extent in response to changing needs for money in the economy. (Quigley, 10. Western Civilization 380-381)

Fractional reserve banking is a central function of the central banking system(s). In order to not hinder a nation's productive resources in an effort to ensure that those resources are fully employed without price inflation, "...the modem bank must keep available, to make payment on demand, a considerable amount of currency and funds on deposit with the central bank." (Gonczy 4) Bank reserves or legal reserves are considered, "Currency held in bank vaults ... as well as deposits (reserve balances) at the Federal Reserve Banks. Both are equally acceptable in satisfaction of reserve requirements" (Gonczy 4)

Fractional reserve banking works by leveraging money. In the United States, a bank is only required by the Federal Reserve to keep 10 percent of the amount of a deposit, of which the remaining 90 percent can be loaned or invested. (Gonczy 6) "The public acquires currency from banks by cashing checks.<sup>6</sup> (Gonczy 16) Most banking done between the Federal Reserve and other banks is done electronically. This system was setup mainly due to the Great Depression, which began in the United States during the 1930s.

The Great Depression was said to be one of the worst depressions of the 20<sup>th</sup> century. The Federal Deposit Insurance Corporation (FDIC) was formed to avoid future financial runs on money (Walter) The 1933 Banking Act created the FDIC in order to provide a certain amount of deposit insurance to depositors in U.S. commercial banks and savings institutions. This provided an assurance to depositors that their money placed in a bank would not suddenly disappear or become inaccessible. That amount covered by deposit insurance has increased over time.

Today, a major role of the Federal Reserve is to implement monetary policy.<sup>ix</sup> Monetary policy can increase or decrease the money supply by performing certain functions, such as through open market operations, <sup>xxvi</sup> and changes in the discount rate.<sup>xxvii</sup> Prior to the Federal Reserve, there was no bank that performed such a function on a mass scale for an entire nation.

#### Differences and Similarities Between Old and New Economies

Western Civilization was said by some to be the "richest and most powerful social organization ever made by man." (Quigley, V. The First World War, 1914-1918) For the purposes of not only our study, but also for measuring ancient economies in general, it is not as easy to measure ancient economies as we have come to measure economies during the modern times of Western Civilization. A major reason is the fact that there was no GDP. Not only was there no GDP, there was no equivalent to the GNP nor national income.

Therefore, in answering the following three questions, such as by removing the U.S. and replacing it with Ancient Egypt, Ancient Greece, or Ancient Rome, is rather difficult, though perhaps not impossible depending upon certain periods of ancient history in regard to the three ancient civilizations of Egypt, Greece and Rome.

How fast is the U.S. economy growing?

How does my state's economy stack up against others?

Which industries are growing? Which are slowing? (Analysis)

One good thing found during this study was that market exchanges did at certain times, and in certain places, exist during the ancient world. "I infer from this mixture of evidence from different times and places that much of the Mediterranean trade of the biblical era was exchange, coordinated by market activities; it was market exchange." (Temin 148-149) Due to some evidence found that there were imports as well as exports, one can conclude, "Even if these products were not all the object of market exchanges, they all were articles of reciprocal trade." (Temin 148-149) Reciprocal trade would prove the presence of market exchanges.

In Western Civilization, we have predominantly developed along the lines of capitalism, xxviii in stages. Carroll Quigley defined capitalism as,

Capitalism might be defined, if we wish to be scientific, as a form of economic organization motivated by the pursuit of profit within a price structure." (Quigley, 8. Canaanite and Minoan Civilizations 240)

There were different periods of capitalism as observed by Quigley. From as early as circa 670 C.E. to 1934, Western Civilization moved from Manorial, to Commercial Capitalism, to Industrial Capitalism, to Financial Capitalism, to Monopoly Capitalism, and finally to a Pluralist Economy. (Quigley, II. Western Civilization to 1914 37)

#### Ancient Economies vs. Modern Economies

There was some evidence as demonstrated above, of our three ancient civilizations possessing credit within their economic systems. Some primary examples show that earlier civilizations improvised credit systems, perhaps because, "actual money-gold and silver coinage—was in short supply." (Graeber 38) With the modern discoveries about some of the ancient civilizations of our past, some have concluded that, "credit systems of exactly this sort actually preceded the invention of coinage by thousands of years." (Graeber 38)

From the evidence shown above, it would be quite difficult to prove the size of the money supplies of the three ancient civilizations as well as whether or not they began to function under credit as opposed to coinage first, especially since there was bartering which was an accepted method of trade. Today bartering may still happen, however, it is on a miniscule scale and is still not an accepted form of trade in our market systems.

Today money, whether physical or digital, is the accepted method for transactions to obtain goods and services. That money can even be at times in the form of physical metals, i.e., gold and silver. But in order to entice a person to deliver their good or service, some form of money needs to exist for an acceptable exchange. One cannot go into a store and trade shoes for bread.

#### Conclusion

Though this study is limited in its function to demonstrate the differences between economies old and new, it has shown that Western Civilization has done something altogether different than earlier civilizations. One of the main tenets of capitalism that socialist movements have seen as a negative was "its emphasis on the price-profit system as the dominant factor in all

human values." (Quigley, VIII. International Socialism and the Soviet Challenge 375) Like all things, good and bad are a natural part of systems, whether practical, spiritual or otherwise.

Our modern economic system(s) has brought about many positives for humanity. It is not easy to handle finances on a societal level with all of the existing dynamics in such a large system. With so many people and so many moving parts in a society, managing such a vast system that continues to change is not an easy feat. Therefore, simple answers or solutions to the various issues within our economic system(s) are not going to be straightforward.

For example, in discussing the provision of food for the people of a large nation, it is not straightforward to argue that we can supply all our food needs from locally-sourced organic family-owned farmers. In fact, local farming and corporate farming are both needed to ensure that millions of people do not starve. With this being a reality, the mass production of food is one such vehicle that had to be developed, even though much of that mass-produced food is questionable in terms of being an optimal nutrient source for overall health.

#### **Implications**

Never before has an entire economic system been governed primarily through finances. All of our transactions are primarily handled through the giving and receiving of financial transactions whether physical or digital. Money is created, distributed, and tracked at both a physical and digital level, though not as well at the physical level due to a lack of receipts. The more money that one obtains, the more freedom comes along with it. Money has social status implications as well as class implications. Although there are cultural barriers, in general, money is for the most part, depending upon how much of it one has, seen as a mechanism that determines the haves from the have nots. In our capitalist system, one is almost forced to continue to move up the economic ladder depending upon their own individual lot in life. For families to survive and thrive, the continual accumulation of wealth and money is a major determining factor for such upward mobility. With prices steadily increasing and the rise of interest rates over time, the value of money diminishes along with such increases. The amount of money in circulation also determines the value of that amount of money within that circulation.

Real wealth vs. money alone is another thing to consider within this discussion. Physical assets are far more valuable than just money alone. One will still need enough money in order to obtain physical assets such as land, buildings, etc.

Money is such a vital part of our lives today. Perhaps with a large population, there is no other way. Perhaps there are some alternatives? What is in store for us going forward?

In future studies, we will delve deeper into the concept of money from a historical standpoint, even utilizing economic anthropology. Reading the ancient narratives, as we have seen, aids in gleaning how money was dealt with in times past and how it has changed in modern societies. Unfortunately, it is difficult if not almost impossible to measure the ancient economies effectively utilizing modern tools.

#### Bibliography

- Ahamed, Liaquat. "Part Two: After the Deluge 7. Demented Inspirations." Ahamed, Liaquat.

  Lords of Finance: The Bankers Who Broke the World. New York: Penguin Group (USA)
  Inc., 2009. 99-129. Book.
- Analysis, Bureau of Economic. *Gross Domestic Product*. 6 September 2018. Website. 11 November 2018.
- Breasted, James Henry. "Reign of Ramses II: Sections 251-568." Breasted, James Henry.

  \*Ancient Records of Egypt: The Nineteenth Dynasty. First Illinois Paperback. Vol. 3.

  \*Urbana and Chicago: University of Illinois Press, 2001. 5 vols. 102-237. Book.
- Breasted, James Henry. "Reign of Ramses III: Building and Dedication Inscriptions of Medinet Habu Temple (Sections 1-456)." Breasted, James Henry. *Ancient Records of Egypt: The Twentieth to the Twenty-sixth Dynasties*. Vol. 4. Urbana and Chicago: University of Illinois Press, 2001. 5 vols. 3-221. Book.
- Breasted, James Henry. "Reign of Thutmose III: The Annals: (Sections 391-779)." Breasted, James Henry. *Ancient Records of Egypt: The Eighteenth Dynasty*. Vol. 2. Urbana and Chicago: University Illinois Press, 2001. 5 vols. 163-303. Book.
- Britannica, The Editors of Encyclopaedia. "Bretton Woods Conference." 24 June 2018. *Encyclopædia Britannica*. Encyclopædia Britannica, inc. Encyclopedia Entry. 25

  November 2018. <a href="https://www.britannica.com/event/Bretton-Woods-Conference">https://www.britannica.com/event/Bretton-Woods-Conference</a>.
- —. "Sir William Petty." 22 May 2018. *Encyclopædia Britannica*. Encyclopedia Entry. 24 November 2018. <a href="https://www.britannica.com/biography/William-Petty">https://www.britannica.com/biography/William-Petty</a>.
- —. Usury. 13 April 2018. inc. Encyclopædia Britannica. Encyclopedia Entry. 25 November 2018. <a href="https://www.britannica.com/topic/usury">https://www.britannica.com/topic/usury</a>.
- Davies, John K. "12 Classical Greece: Production." Walter Sheidel, Ian Morris, Richard Saller. *The Cambridge Economic History of the Greco-Roman World*. United Kingdom:

  Cambridge University Press, 2008. 333-361. Book.
- Erman, Adolf. "Chapter V: Political Conditions in Egypt Under The Old Empire." Erman, Adolf. *Life in Ancient Egypt.* Trans. H. M. Tirard. London and New York: Macmillan and Co., 1894. 79-101. Book.

- Erman, Adolf. "Chapter XIX: Traffic and Trade." Erman, Adolf. *Life in Ancient Egypt*. Trans. H. M. Tirard. London and New York: Macmillan and Co., 1894. 479-519. Book.
- Friedman, Jack P. "Terms." Friedman, Jack P. *Dictionary of Business and Economics Terms*. Hauppauge: Barron's Educational Series, Inc., 2012. 1-782. Book.
- Gonczy, Anne Marie L. *Modern Money Mechanics: A Workbook on Bank Reserves and Deposit Expansion*. Chicago: Federal Reserve Bank of Chicago, 1992. Book.
- Graeber, David. "2 The Myth of Barter." Graeber, David. *Debt: The First 5,000 Years*. Brooklyn: Melville House Publishing, 2011. 21-41. Book.
- Helfferich, Karl. "Chap. I. The Origin of Money." Helfferich, Karl. *Money Two Volumes in One*.Ed. T. E. Gregory. Trans. Louis Infield. Vols. 1, 2. New York: Augustus M. KelleyPublishers, 1969. 2 vols. 1-33. Book.
- Herodotus. "Book I." Herodotus. *Herodotus with an English Translation in Four Volumes Books I and II*. Trans. A. D. Godley. Vol. I. London and New York: William Heinemann and G. P. Putnam's Sons, 1920. 4 vols. 1-271. Book.
- John Downes, Jordan Elliot Goodman. "Terms." John Downes, Jordan Elliot Goodman.

  \*Dictionary of Finance and Investment Terms. Tenth. Hauppauge: Barron's Educational Series, 2018. 1-874. Book.
- Kuznets, Simon. "National Income, 1929-1932." Kuznets, Simon. *National Income, 1929-1932*.

  New York: National Bureau of Economic Research, 1934. 1 12. Document.

  <a href="http://www.nber.org/chapters/c2258"><a href="http://www.nber.org/chapters/ca258"><a href="http://www.nber.org/chapte
- Limited, The Economist Newspaper. "Petty impressive: Meet Sir William Petty, the man who invented economics." 21 December 2013. *The Economist*. Magazine Article. 25 November 2018. <a href="https://www.economist.com/finance-and-economics/2013/12/21/petty-impressive">https://www.economist.com/finance-and-economics/2013/12/21/petty-impressive</a>.
- Minnen, Peter van. "11. Money and Credit in Roman Egypt." Harris, W. V. *The Monetary Systems of the Greeks and Romans*. Ed. W. V. Harris. New York: Oxford University Press, 2008. 226-241. Book.
- Pausanias. "Book 1.-Attica." Pausanias. *Pausanias Description of Greece with an English Translation in 6 Volumes*. Cambridge: Harvard University Press, 1918. 1-243. Book.

- Press, Cambridge University. "Personal Property." 2018. *Cambridge Dictionary*. Dictionary Reference. 20 November 2018.
  - <a href="https://dictionary.cambridge.org/dictionary/english/personal-property">https://dictionary.cambridge.org/dictionary/english/personal-property</a>.
- Press, Oxford University. *bartering*, v.1. 2018. OED Online. 22 November 2018. <a href="https://en.oxforddictionaries.com/definition/barter">https://en.oxforddictionaries.com/definition/barter</a>.
- —. *business*, *n.1*. 2018. OED Online. 22 November 2018. <a href="https://en.oxforddictionaries.com/definition/business">https://en.oxforddictionaries.com/definition/business</a>.
- —. *commonwealth, n.1.* 2018. OED Online. 25 November 2018. <a href="https://en.oxforddictionaries.com/definition/commonwealth">https://en.oxforddictionaries.com/definition/commonwealth>.</a>
- —. *economics*, *n.1*. 2018. OED Online. 22 November 2018. <a href="https://en.oxforddictionaries.com/definition/economics">https://en.oxforddictionaries.com/definition/economics</a>.
- —. *economy, n.1.* 2018. OED Online. 25 November 2018. <a href="https://en.oxforddictionaries.com/definition/economy">https://en.oxforddictionaries.com/definition/economy</a>.
- —. *Finance, n. 1.2.* 2018. OED Online. 21 November 2018. <a href="https://en.oxforddictionaries.com/definition/finance">https://en.oxforddictionaries.com/definition/finance</a>.
- —. *finance*, *n.1*. 2018. OED Online. 25 November 2018. <a href="https://en.oxforddictionaries.com/definition/finance">https://en.oxforddictionaries.com/definition/finance</a>.
- —. *specie*, *n*. 2018. OED Online. 22 November 2018. <a href="https://en.oxforddictionaries.com/definition/specie">https://en.oxforddictionaries.com/definition/specie</a>.
- —. *talent, n.2.* 2018. OED Online. 25 November 2018. <a href="https://en.oxforddictionaries.com/definition/talent">https://en.oxforddictionaries.com/definition/talent</a>.
- —. *trade*, *n.1*. 2018. OED Online. 22 November 2018. <a href="https://en.oxforddictionaries.com/definition/trade">https://en.oxforddictionaries.com/definition/trade</a>.
- —. *tribute*, *n.2*. 2018. OED Online. 25 November 2018. <a href="https://en.oxforddictionaries.com/definition/tribute">https://en.oxforddictionaries.com/definition/tribute</a>.
- Quigley, Carroll. "10. Western Civilization." Quigley, Carroll. *The Evolution of Civilizations: An Introduction to Historical Analysis*. New York: Macmillan Company, 1961. 333-414.

  Book.

- Quigley, Carroll. "8. Canaanite and Minoan Civilizations." Quigley, Carroll. *The Evolution of Civilizations: An Introduction to Historical Analysis*. New York: Macmillan Company, 1961. 239-268. Book.
- Quigley, Carroll. "II. Western Civilization to 1914." Quigley, Carroll. *Tragedy and Hope: A History of the World in Our TIme*. San Pedro: GSG & Associates Publishers, 1998. 31-77. Book.
- Quigley, Carroll. "V. The First World War, 1914-1918." Quigley, Carroll. *Tragedy and Hope: A History of the World in Our Time*. San Pedro: GSG & Associates Publishers, 1998. 209-264. Book.
- Quigley, Carroll. "VIII. International Socialism and the Soviet Challenge." Quigley, Carroll.

  \*Tragedy and Hope: A HIstory of the World in our TIme. San Pedro: GSG & Associates Publishers, 1998. 373-405. Book.
- Seaford, Richard. *Money and the Early Greek Mind: Homer, Philosophy, Tragedy*. United Kingdom: Cambridge University Press, 2004. Book.
- Suetonius. Suetonius. The Lives of the Twelve Caesars; An English Translation, Augmented with the Biographies of Contemporary Statesmen, Orators, Poets, and Other Associates.

  Trans. Alexander Thomson. Philadelphia: Gebbie & Co., Publishers, 1883. 73-173.
- Tacitus. "Book VI." Tacitus. *The Historical Works of Tacitus in 2 Volumes*. Ed. E. H. Blakeney.Trans. Arthur Murphy. Vol. 1. London and New York: J. M. Dent & Sons Ltd, E. P.Dutton & Co. Inc., 1937. 246-287. Book.
- —. *The Historical Works of Tacitus in 2 Volumes*. Ed. E. H. Blakeney. Trans. Arthur Murphy. London and New York: J. M. Dent & Sonx Ltd., E. P. Dutton & Co. Inc., 1937. Book.
- Temin, Peter. "6 Mediterranean Trade in Biblical Times." Ronald Findlay, Rolf G. H.
  Henriksson, Ha°kan Lindgren, and Mats Lundahl. *Eli Heckscher, International Trade,*and Economic History. Cambridge: Massachusetts Institute of Technology Press, 2006.
  141-156. Book.
- Thucydides. "Book I." Thucydides. *Thucydides with an English Translation in Four Volumes I History of the Peleponnesian War Books I and II*. Trans. Charles Forster Smith. Vol. I. Cambridge and London: Harvard University Press and William Heinemann LTD, 1980. 4 vols. 1-255. Book.

Vega, Joseph De La. Confusion De Confusiones. Trans. Professor Hermann Kellenbenz.

Cambridge: Harvard University Press, 1957. Book.

Walter, John R. "Depression-Era Bank Failures: The Great Contagion or the Great Shakeout?"

FRB Richmond Economic Quarterly 91.1 (2005): 39-54. Journal.

<a href="https://ssrn.com/abstract=2185582">https://ssrn.com/abstract=2185582</a>.

Wikipedia. Gross domestic product. 9 November 2018. Website. 11 November 2018.

<sup>&</sup>lt;sup>1</sup> CREDIT loans, bonds, charge-account obligations, and open account balances with commercial firms. Also, available but unused bank letters of credit and other standby commitments as well as a variety of consumer credit facilities." (John Downes 159)

FINANCIAL ASSETS assets in the form of stocks, bonds, rights, certificates, bank balances, etc., as distinguished from tangible. Physical assets. For example, real property is a physical asset. but shares in a REAL ESTATE INVESTMENT TRUST (REIT) or the stock or bonds of a company that held property as an investment would be financial assets." (John Downes 257)

ECONOMY recognizable and cohesive group of economic performers (producers. labor, consumers) who interact largely together. Economies usually are recognized geographically (countries' states) or, occasionally, as worldwide industries.

<sup>™</sup> ECONOMICS study of the economy. Classic economics concentrates on how the forces of supply and demand allocate scarce product and service resources. MACROECONOMICS studies a nation or the world's economy as a whole, using data about inflation, unemployment and industrial production to understand the past and predict the future. MICROECONOMICS studies the behavior of specific sectors of the economy, such as companies, industries, or households. Various schools of economic thought have gained prominence, including AUSTRIAN ECONOMICS, KEYNESIAN ECONOMICS, MONETARISM, and SUPPLY-SIDE ECONOMICS. (John Downes 223)

<sup>&</sup>lt;sup>v</sup> CENTRAL BANK - country's bank that (I) issues currency (2) administers monetary policy, including OPEN MARKET OPERATIONS: (3) holds deposits representing the reserves of other banks; and (4) engages in transactions designed to facilitate the conduct of business and protect the public interest. In the United States, central banking is a function of the FEDERAL. RESERVE SYSTEM. (John Downes 112)

<sup>&</sup>lt;sup>vi</sup> BUSINESS commercial enterprise, profession, or trade operated for the purpose of earning a profit by providing a product or service; also called business enterprise. Businesses are created by ENTREPRENEURS who put money at risk to promote a particular venture for the purpose of a profit. They vary in size from a one-person SOLE PROPRIETORSHIP to an international CORPORATION having billions of dollars in assets and thousands of employees. See also BUSINESS ORGANIZATION. (Friedman 80-81)

vii CURRENCY IN CIRCULATION paper money and coins circulating in the economy, counted as part of the total money in circulation' which includes DEMAND DEPOSITS in banks. (John Downes 167)

viii GROSS DOMESTIC PRODUCT (GDP) market value of the goods and services produced within the borders of the United States GDP is made up of consumer and government purchases' private domestic investments, and net exports of goods and services. Figures for GDP are released by the Commerce Department on a quarterly basis. Growth of the U.S. economy is measured by the change in inflation

adjusted GDP, or real GDP. In 1991, CDP replaced Gross National Product (GNP), which includes American producers outside the U.S. and excludes foreign producers in the U.S. (John Downes 318)

- MONETARY POLICY FEDERAL RESERVE BOARD decisions on the MONEY SUPPLY. To make the economy grow faster, the Fed can supply more credit to the banking system through its OPEN MARKET OPERATIONS, or it can lower the member bank reserve requirement or lower the DISCOUNT RATE-which is what banks pay to borrow additional reserves from the Fed. If, on the other hand, the economy is growing too fast and inflation is an increasing problem, the Fed might withdraw money from the banking system, raise the reserve requirement, or raise the discount rate, thereby putting a brake on economic growth. Other instruments of monetary policy range from selective credit controls to simple but often highly effective MORAL- SUASION' Monetary policy differs from FISCAL POLICY' which is carried out through government spending and taxation. Both seek to control the level of economic activities measured by such factors as industrial production, employment, and prices. (John Downes 457-458)
- \* Chapter in NBER book National Income, 1929-1932 (1934), Simon Kuznets (p. 1 12) Published in June 1934 by NBER (Kuznets)
- xi The history of the concept of GDP should be distinguished from the history of changes in ways of estimating it. The value added by firms is relatively easy to calculate from their accounts, but the value added by the public sector, by financial industries, and by intangible asset creation is more complex. These activities are increasingly important in developed economies, and the international conventions governing their estimation and their inclusion or exclusion in GDP regularly change in an attempt to keep up with industrial advances. In the words of one academic economist "The actual number for GDP is therefore the product of a vast patchwork of statistics and a complicated set of processes carried out on the raw data to fit them to the conceptual framework."[13]" (Wikipedia)
- xii DEBT 1. money, goods, or services that one party is obligated to pay to another in accordance with an expressed or implied agreement. Debt may or may not be secured. 2. general name for bonds, notes, mortgages. and other forms of paper evidencing amounts owed and payable on specified dates or on demand. (John Downes 169)
- xiii INTEREST 1. cost of using money, expressed as a rate per period of time, usually one year, in which case it is called an annual rate of interest. 2. share, right, or title in property. (John Downes 355)
- xiv INFLATION rise in the prices of goods and services. as happens when spending increases relative to the supply of goods on the market in other words. too much money chasing too few goods. Moderate inflation is a common result of economic growth. Hyperinflation. With prices rising at 100% a year or more, causes people to lose confidence in the currency and put their assets in hard assets like real estate or gold, which usually retain their value in inflationary times. See also COST-PUSH INFLATIONI DEMAND-PULL INFLATION. (John Downes 357)
- \*\* PUBLIC DEBT borrowings by governments to finance expenditures not covered by current tax revenues. See also AGENCY SECURITIES: MIJNICIPAL BOND: TREASURIES. (John Downes 588)
- xvi Exchange (goods or services) for other goods or services without using money. (O. U. Press, bartering, v.1.)
- The action of buying and selling goods and services. (O. U. Press, trade, n.1.)
- "... factories, land, stocks of goods ..." (Ahamed 122-123)
- xix Personal Property [LAW] the things you own which you can take with you, such as money, vehicles, furniture, rather than land or buildings: (C. U. Press)

PERSONAL PROPERTY tangible and intangible assets other than real estate. (John Downes 552)

PERSONAL PROPERTY things movable, as distinguished from REAL PROPERTY. or things attached to the realty: also called personalty. Gains on the sale of personal property used in a TRADE OR BUSINESS are generally taxed under SECTION 1231 as though they were CAPITAL CAINS except for DEPRECIATION CORECAPTURE, which is taxable as ORDINARY INCOME. Section 1231 losses are ORDINARY LOSSES. Personal property used in a trade or business may qualify for INESTMENT TAX CREDIT or a rapid write-off in the year of purchase. See also ADDITIONAL FIRST- YEAR DEPRECIATION. SFCTION 179. (Friedman 529) \*\* REAL PROPERTY land and all property attached to the land, such as houses, trees, fences, and all improvements. (John Downes 608)

- <sup>xxi</sup> FINANCIAL MARKET market for the exchange of capital and credit in the economy. Money markets concentrate on short-term debt instruments; capital markets trade in long-term debt and equity instruments. Examples of financial markets: stock market, bond market, commodities market, and foreign exchange market. (John Downes 268)
- xxii STOCK I. ownership of a corporation represented by shares that are a claim on the corporation's earnings and assets. See also COMMON STOCK; PREFERRED STOCK. 2. inventories of accumulated goods in manufacturing and retailing businesses. (John Downes)
- BOND any interest-bearing or discounted government or corporate security that obligates the issuer to pay the bondholder a specified sum of money. usually at specific intervals, and to repay the principal amount of the loan at maturity. Bondholders have an IOU from the issuer, but no corporate ownership privileges, as stockholders do. An owner of be are r bonds presents the bond coupons and is paid interest, whereas the owner of registered bonds appears on the records of the bond issuer. See also CONVERVITIBLE; DEBINTURE: INDENTURE; PERFORMANCE BOND: SECURED BOND; SURETY ZERO-COUPON SECURITY. (John Downes 77)
- xxiv (Erman, Chapter V: Political Conditions in Egypt Under The Old Empire 110-111), (Erman, Chapter XIX: Traffic and Trade 496-497), (Breasted, Reign of Ramses II: Sections 251-568 219; 223)
- \*\*\* "perfumes from the incense countries, minerals from the mountains, and costly blocks from the quarries.3" (Erman, Chapter V: Political Conditions in Egypt Under The Old Empire 85)
- OPEN-MARKET OPERATIONS activities by which the Securities Department of the Federal Reserve Bank of New York-popularly called the DESK-carries out instructions of the FEDERAL OPEN MARKET COMMITTEE designed to regulate the money supply. Such operations involve the purchase and sale of government securities, which effectively expands or contracts funds in the banking system. This, in turn. alters bank reserves, causing a MULTIPT.IER effect on the supply of credit and, therefore, on economic activity generally. Open-market operations represent one of three basic ways the Federal Reserve implements MONETARY POLICY, the others being changes in the member bank RESERVEE REQUIREMENTS and raising or lowering the DISCOUNT RATEE charged to banks borrowing from the Fed to maintain reserves. (John Downes 516)
- government securities or ELIGIBLE PAPER as collateral. This provides a floor on interest rates. since banks set their loan rates a notch above the discount rate. See also DISCOUNT WINDOW. 2. interest rate used in determining the PRESENT VALUE of future CASH FLOWS. See also CAPITIALIZATION RATE. (John Downes 196)
- capital provide income for the individuals or firms that accumulated it and own it; (3) individuals and firms are relatively free to compete with others for their own economic gain; (4) the profit motive is basic to economic life. Among the synonyms for capitalism are LAISSEZ-FAIRE economy, private enterprise system, and free-price system. In this context economy is interchangeable with system. (John Downes)