

By Martin Armstrong



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Monetary Crisis & Money

t the very core of trying to ascertain why there has been constant monetary reforms throughout history, we truly must come to an understand of the not just what is money, but what is the true role of money within the economy. It is one thing to argue that there is a Monetary Crisis Cycle which runs through history like a regular heartbeat. But what are we truly measuring?

There are arguments that many have made that money must be commodity based and have some intrinsic value. This concept truly goes back to the very beginning or society when we simply were engaging in barter – I will give you three potatoes for two carrots. There was no "labor" factor at this early stage. It was still very primitive.

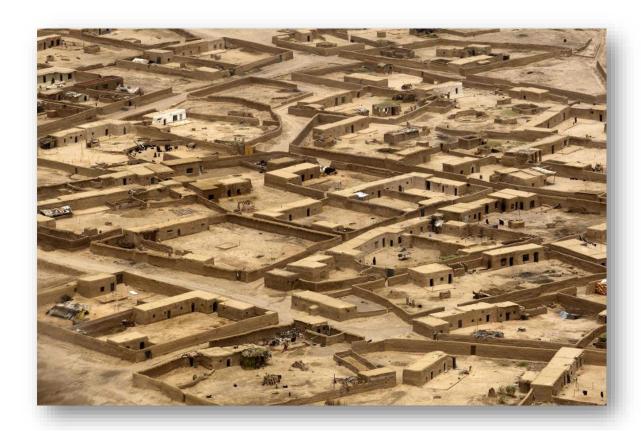
Indeed, there is a hard-wiring within humans that seems to drive us to herd together like most animals rather than we remain as solitude individuals. We create families which is a distinction forming of what I refer to this as collective behavior which has emerged over the centuries. It is this collective behavior which thus inspired one tribe to trade with another from which barter was even born.



It is quite interesting for within this tendency to herd together giving birth to collective behavior, there is the cycle which emerges from the collective behavior of the mob which is distinct from the individual free will to reason that allows us to participate in mob behavior or to see the trend of the whole and move in an opposite direction. Financial Panics emerge from the collective behavior. It is like the zebra on the edge of the herd who spots a lion. He begins to run and the entire herd then panics and starts to run assuming something is wrong even though they never saw the lion.

The assent and ebb of civilization follows the course of life in all its aspects. Each civilization is born from an implicit agreement that gives birth to a culture, how we do things. This includes of course the first requirement, a common language. Once communication is established, then our inherent social nature is to group together. This may be our herding instincts. To a large extent, in order to comprehend how nations and empires die, we must also understand truly how they emerge.

Going back to the Stone Age, we know that people came together forming tribes for quite simplistic reasons – safety in numbers. There was of course the personal safety aspect, mating, and the ability to hunt together to bring down larger prey. This was the traditional hunter–gatherer stage. Humans roamed around the globe following the migration of animals, but still in single tribe formation.



Urban life does not appear to have emerged until around 8,000BC. This development marked the idea of creating domesticated animals and agriculture. This effectively ended the nomadic life style and introduced barter as a monetary system.

It was about 6700BC when the earliest city began to appear known by the name *Catal Huyuk* located in Turkey which covered about 30 acres. The buildings were mud and brick construction, but inside there appeared plastered walls. No doubt, this was the latest modern invention, that illustrates two important developments.

First, this confirms the birth of an urban trade skill and secondly, homes were found with paintings on the walls suggesting the flourishing development of art, one of the last skills to develop within urban life reflecting good economic times. This means that artists developed a trade. But it also means that there had to also be a monetary system in order to pay for labor.

The existence of plastered walls and art in Stone Age *Catal Huyuk*, has serious economic implications. This indicates a successful agricultural society and the domestication of animals and there had to be an acceptable medium of exchange – money. With these developments, now everyone no longer needs to

be nomadic nor engage in the production of food. This evolution allowed the development of trade skills.

In this case of civilization, the emergence of various trade guilds like construction and artists, requires the development of money and the medium of exchange since these people are no longer hunting and gathering. In order for trades to emerge, the labor employed must be then compensated. While we do not find coinage for about 6,000 years later, nor do we find the use of gold and silver, what



must have emerged was barter reflecting some exchange of value.

It is obvious that barter would be completely inefficient to allow an organized society to emerge. If a person has an apple and he proposes to exchange it for a tomato, the transaction can only take place if the person needs the other commodity. This is when transactions evolved from barter to a standard item which became universally

accepted as a medium of exchange because they knew it would be accepted by another in trade. That is the instant when "money" was born – the simple unit of universal exchange within a limited society.

Money thus emerged as an agreed upon item that everyone within a particular society would accept in exchange. This emerged as cattle in some societies,

sheepskins in others or some acceptable medium of exchange. In prisons where there was no money, cigarettes and even packets of fish served as the medium of exchange even if the person did not smoke and hated fish.





We obtain a hint of the monetary system pre-recorded history which emerges with the Bronze Age in 3300BC. Here we have a bronze ingot of the Minoans. While they were the dominant society which we could call the Financial Capital of the Ancient world at that time spreading the Bronze Age to all parts of Western society,



Celtic # "proto-money" was composed of bronze rings of various diameters from approximately 10mm to 45mm and were generally used between 600BC and 200BC

their ingots took the shape of sheepskins which reflected that the at least one universal object of value in the ancient world was the sheepskin.

The ancient Greek story of Jason, mythological hero and leader of the Argonauts, was on a quest for the Golden Fleece featured in Greek literature. The Golden Fleece is the golden-woolled of the winged ram, Chrysomallos. The fleece is a symbol

of authority and kingship. It is interesting that the fleece holds such a status pre-Bronze Age.

As the Bronze Age develops, we find raw lumps circulating as money at first. We begin to see bronze take shapes of ingots by 1400BC and then of rings or arrowheads generally after 1000BC in the Balkans out to the Black Sea region.



Black Sea Region bronze arrowhead 'proto-money'

The distinguishing factor making the transition from barter to money was the fact that the object such as bronze became a universally accepted unit of value for the purposes of being the medium of exchange. It had a **utilitarian-value** where it could be shaped into a weapon or a tool.

The rule of law appears about 700 years before we see bronze ingots of the Minoans. Hammurabi (c.1810–c.1750BC), King of the first dynasty of Babylon, authored what was once believed to have been the earliest known formal laws around 1800BC. Within the legal code of Hammurabi, we find an early recorded attempt to regulate interest rates. Hammurabi's legal code appears to be merely a copy of one which is at least 400 years older. A discovery in the desert of Iraq after the first Gulf War uncovered the **Legal Code of Ur**-



Legal Code of Ur-Nammu (circa 2100BC)

Nammu (ca. 2100BC) which is now the oldest known written law code.

The significance of Hammurabi's legal code is that it documents that money was acceptable in units of grain or silver. The fact that prices are prescribed as well as wages implies there were financial crises even during this period. Interest rates are also regulated and this is where we find that agreements must be recorded in writing giving birth to contract law. Additionally, we find evidence of the first futures

Ancient Egypt
The Deben Monetary System - 14th to 4th century BC

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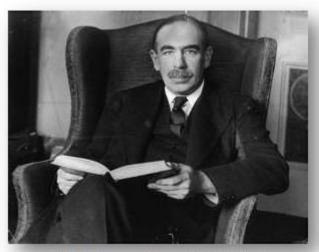
and option markets dating to this period in time as well.

Indeed, Egypt never developed coinage until it was conquered by Alexander the Great during the 4th century BC. Their monetary system consisted to grain receipts, silver and gold wire.

There is Adam Smith (1723–1790) and his seminal work *Wealth of Nations*, but the vast majority of the analysts and people ignore what the very reasoning of the book was all about. True, many people have reduced *Wealth of Nations* to the principle of the *Invisible Hand*. Nevertheless, they have ignored entirely the

principle behind Smith's motivation to even undertake such a major work.

John Maynard Keynes (1883–1946) in all fairness admitted his theory was wrong that the business cycle could be manipulated, tempered, and controlled by government using monetary policy. Just prior to his death in 1946, Keynes told Henry Clay, a professor of Social Economics and Adviser to the Bank of England at the time that he



John Maynard Keynes (1883-1946)

hoped that Adam Smith's Invisible Hand would help Great Britain get out of the economic depression it was in following its peak in 1914 and loss of the once great status of being the Financial Capital of the World. Keynes told Clay: "I find myself more and more relying for a solution of our problems on the invisible hand which I tried to eject from economic thinking twenty years ago."



Francois Quesnay (1694-1774)

Franqois Quesnay (1694–1774) was a French educated as a surgeon in Paris who was the Court physician to Louis XV in 1752. Quesnay also delved into economics and is principally remembered for his book *Tableau Economique* (1758). The vision and imagination of this work made him by far the most outstanding Physiocrat, which was a member of an 18th–century group of French economists who believed that agriculture was the source of all wealth. They maintained agricultural products represented a natural order of social institutions.

In *Tableau Economique*, Quesnay divided society into three groups: agricultural workers, proprietors,

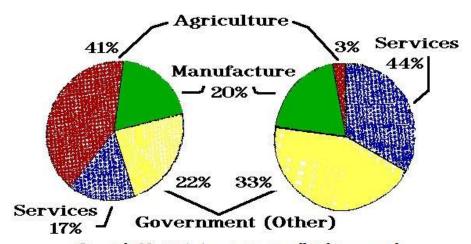
and the 'sterile manufacturing sector.' The Physiocrats believed that nature was



Adam Smith (1723-1790)

the **source** of all wealth and that agricultural workers provided society's means (if receiving the surplus, or 'produit net' given up by nature. Tableau Economique sets out to illustrate how this 'produit net' was distributed among the various classes of society and was the first attempt to look at the workings of the economy as a whole. This is the origin of the debate over what constitutes money and those who argue that money must be gold are still maintaining this idea of the source of all wealth must be commodity based.

US Civil Work Force 1900 1980



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We can see why the Physiocrats came up with this concept that money was agriculture. During as late as the mid-19th century, 70% of the civil work force was employed in agriculture so you can see where their ideas emerged. Go back to the 17th century, agriculture represented over 85% of the economy. The Industrial Revolution was in fact changing the economy. By 1900, still 40% of the civil workforce was employed in agriculture. By 1980, agriculture fell to just 3% with respect to its use of manpower in the civil workforce.

It was Adam Smith (1723–1790) who wrote *Wealth of Nations* to rebut that argument of the Physiocrats. Smith explained that if a farmer sells his crop to

Monetary Crisis & Money

someone in another country and a candlestick maker did the same, they both returned with income and contributed that to the wealth of a nation. It was not restricted to purely agriculture where the Physiocrats saw the blacksmith making harnesses and shoeing his horses was a parasite living off of the wealth created only by the farmer.

The wealth of a nation is purely its educated and productive capacity of its people. To argue that money must be backed by gold is in reality saying that the labor of all citizens is worth nothing and contributes nothing to the economy as a whole. That is an absurd proposition.

Consequently, to understand what creates the **Monetary Crisis Cycle**, we must understand what is money and only then can we understand the regularity of these financial crises throughout history.

Presumption of Intrinsic Value



ightharpoonup his presumption that money need have some sort of intrinsic value flies in the face of what has constituted money throughout the ages over very different societies. Money has been everything from cattle and sheepskins to bronze based upon a **utilitarian-value**. It is true that money also evolved where there was no longer a utilitarian-value, but it became one of a luxury-value that only fulfilled desires rather than a use within society. In this second class of luxury-value is where gold, silver and even cowrie shells have emerged as money. It still has no true "intrinsic value" for it lacks a utilitarian-value.

Further proof of that statement is during World War II, nickel was more valuable than silver and thus the US replaced the nickel in a 5-cent coin with cheaper silver. The copper penny was replaced with steel. There is a very bright line between true utilitarian-value and that of merely a

US War Nickels During World War II - Nickel Became more Valuable than Silver Between 1942 and 1945 the US Replaced the 5 cent Nickel with 56% Copper - 35% Silver & 9% Manganes

luxury-value which is determined only by the whims of demand – not by a definitive intrinsic value as shown in the coins of war.

Legendary 1943 Copper Penny









In China, Cowrie shells were a medium of exchange which reflected that "money" had already moved beyond the more simplistic medium of exchange having an intrinsic or **utilitarian-value**. Here we see the same transition as took place in Minoan society with sheepskins being



replaced by bronze imitations. Here we have a bronze imitation of a Cowrie shell.

This is what became known as the Bronze Age which began in 3300BC but representative forms of bronze appear by 2100BC reflecting the fact that "money" had become a more universally accepted item of value such as bronze. This appears to evolved given Hammurabi quotes prices in grain and silver about 700 years later. For prices to be quoted in grain implies more advanced agriculture development. The **utilitarian-value** of bronze was rather clear. It could be fashioned into weapons or tools for farming.

Somewhere along the lines, "money" (medium of exchange) moved beyond useful objects into the realm of objects of appreciation as we first see in China moving from Cowrie shell to its bronze imitation. Yet the Cowrie shell clearly was of an aesthetic value rather than utilitarian. The medium of exchange made that next transition from a purely **utilitarian-value** to an object of desire with no particular use whatsoever.

This is where gold and silver begin to emerge as a medium of exchange. So, what was the attraction? Gold was rare and at first was confined to the use of kings. It was believed to have been the tears from the sun. It was used in objects such as cups or jewelry.





Death Mask of Agamémnon (circa 12th Century BC) (Greek: Αγαμέμνων, Αγαμέμνονας) ("very resolute") discovered by Heinrich Schliemann in 1876 at Mycenae





(4500-4000 BC)
(The presence of scepter and other findings in this tomb, suggests this is a royal tomb showing gold was still an ornament rather than money)

As ornamental objects, gold begins to appear only around 5000–4500BC. It is **NOT** used as money during this period. Perhaps because it was restricted for the use of kings it made it very prestigious to own. As gold became more common, this is when we see it begin to be used as jewelry for the upper class. It appears to have been nearly universally appreciated since we find gold objects from Egypt to the Balkans off into Asia. People are buried with gold objects as we see in graves even in Bulgaria.

In Greece, there were gold objects from cups to death masks as that of Agamemnon of Mycenae. Of course, the fames gold objects of king Tut of Egypt are renown right down to his

entire coffin made in gold. We do not see gold being

used as a medium of exchange until after the fall of the Bronze Age in which only Egypt barely survives. The fall of the Bronze Age comes around 1180BC in which civilization nearly is wiped out.



Tutankhamun's Death Mask (b 1341; 1333-1323 BC)



Earliest Varierty of Electrum Stater

We begin to see gold emerge as a medium of exchange post-fall of the Bronze Age most likely first in Egypt around 900BC. The next phase is to create standardized weights. The spark of innovation takes place in Anatolia (Turkey)

about 700-650BC in the western region. It is impossible to say with certainty which city gave birth to the invention of a coin if we define that as a standard weight object.

Most likely the first city was located in Lydia, the city of Sardis where electrum is obtainable by panning for gold in the Sardis River. It is clear that the metal came from Sardis, but these early 7th century electrum coins have been found in the Ionian city of Ephesus. Perhaps the discovery of these early coins of a standardized weight being found at Ephesus assigns this invention to that city. But the alloy comes from Sardis.



These earliest examples have no design but a punch mark on the reverse. We seem to then emerge with a geometric design most likely because people began to shave off gold to increase their personal money supply. This invention obviously facilitated trade greatly advancing in the course of developing civilization, for this also implies the spread of language and the **Rule of Law**. This new concept of standardization of the weight of the electrum became what is called a "stater" weighing 14.2 grams in Lydia.



Additional smaller denominations begin to appear such as the Trite, which was one-third of a stater. There was also a hekte which was about one sixth of a stater and then a half-hekte with a weight of 1.37 grams.

A wide variety of denominations now begin to appear divisible by three. Thus, we have a stater, $1/3^{rd}$ stater, $1/6^{th}$, $1/12^{th}$, $1/24^{th}$, $1/48^{th}$, and $1/96^{th}$ of a stater all struck out of a natural alloy of a mixture of gold and silver – electrum. The $1/96^{th}$ of a stater only weighs 0.15 grams.

It appears that the first design after a geometric design to be created took place in the city of Sardis about 650BC. The design was the head of a lion. The reverse

was still a punch

mark. The metal was still not refined and was a natural alloy known as electrum which was a mixture of gold and silver.

Examples exist, such as that illustrated here, where despite the official state marking, there are **NINE** countermarks applied around the edges. This illustrates that there were markings for what was the ancient profession of foreign exchange broker



Sardes Before Kroisos 6th Century BC

certifying he had tested the coin previously. This example is quite pale in color



Highly Worn Stater with 9 countermarks

indicating low gold content. It is not known if the marks refer to weight or to the fineness of the specimen. Nevertheless, this illustrates that the coin was still being tested and certified in trade by nine different brokers.

Clearly, the evidence is conclusive that there were problems with the electrum coinage. The fineness of the gold content would vary considerably from coin to

coin. This most likely led to some coins perhaps being valued more than others based upon their color.



What is clear, however, is that this invention of coinage spread between 600 and 550BC for the first 52 Each of the years. surrounding cities in Western Turkey began to issue their own

coinage with a badge of the city forming the design. There was no standardized weight agreement. In Mysia, the stater was 16.4 grams compared to 14.2 grams in Lydia. In Smyrna the electrum stater was 16.1 grams. In Phokaia the standard was

16.5 grams for a stater. On the Island of Samos we find an electrum stater produced at 17.4 grams.

In Troad (Troy) at the city of Lampsakos, the weight appears to follow the standard set between that of Lydia and Mysia – 15 grams. Miletos uses the Lydian weight standard of 14.2 grams. Foreign exchange brokers had it good during this 52-year period.



Time of Kroisos 560BC First Monetary Reform



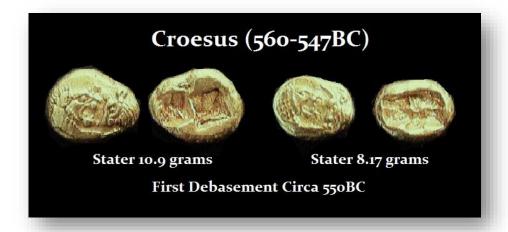
Gold and Silver Staters

The Monetary Reform takes place 560–550BC during the age of Croesus (Κροῖσος, *Kroisos*) (b 595BC, king 560–547BC) who was a famous king of Lydia renown in the ancient world for his wealth. Therefore, it was Croesus who instituted a monetary reform that set–in motion the foundation of money for thousands of years into modern times. Croesus introduced a **Bimetallic Monetary System** by refining the

electrum and separating gold from silver. He then struck gold staters with a reduced weight to 10.89 grams. He then issued also a silver stater with the same weight of 10.89 grams. The silver to gold ratio was at first 10–12:1. Croesus changed the design of the coins from lions to a lion confronting a bull.



The gold denominations were a stater (10.9), $1/3^{rd}$ stater (3.63), $1/6^{th}$ stater (1.82), and a $1/12^{th}$ stater (0.91). By separating the gold from the silver, it is likely that this ended the difference in value based most likely on color. However, it also expanded the use of coins for now the silver denominations provided for the ability to use coins for petty transactions.



What is amazing is that at the very beginning of monetary history we encounter inflation caused by war and government expenditure. Clearly, those who unrealistically believe that a state can tax its way to whatever goal it desires, represent the triumph of hope over experience. For here we have the not merely

the birth of the bimetallic monetary system, we also have the **FIRST** debasement. The gold stater is now reduced from 10.9 grams to 8.17 grams. Obviously, the cost of preparing for war imposed a great financial stress upon the resources of Lydia. This was reflected in the weight reduction of the gold stater. The Persians conquered Lydia led by Cyrus II the Great (b 576; 550–530/29BC) and they retained the invention of money and at first made no effort to even change the designs.

The reign of Cyrus the Great lasted at best 31 years. He was succeeded by his son, Cambyses II (530/29–522BC), who managed to add to the empire by conquering Egypt, Nubia, and Cyrenaica during his short rule. The coinage remained unchanged. A rebellion broke out on March 11th, 522 BC and Cambyses II was killed. Darius I was Cambyses' lance-bearer. He then assumes the throne after killing a usurper.



Aegina (530-525 BC) Tortoise - Union Jack style punch Stater (12.57 grams) Drachm (6.28 grams)

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A small island between the Peloponnese and Attica (Athens) by the name of Aegina (Aigina) was the first city state in Greece proper to adopt the invention of minting coins. The design was simple with a tortoise on the obverse and a punch on the reverse and the weight was 12.6 grams equaled a stater. These coins became very popular and started to widely circulate in mainland Greece. They first appear at least by 530BC.

Aegina eventually falls to Athens in 456BC and wins its independence again with the loss of Athens in the war with Sparta in 404BC. However, these coins minted by Aegina became the Aeginetic standard that was based on a silver didrachmstater of about 12 grams. This became a widely followed standard throughout Greece, the Aegean islands and Crete.

Athens (545 - 515BC) **Monetary System**

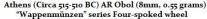






Athens (Circa 515-510 BC) AR Drachm (14mm, 3.76 grams) "Wappenmünzen" series Wheel with four spokes







Athens (Circa 515-510 BC) AR Obol (8mm, 0.55 grams) Athens (Circa 561-546 BC) AR Hemiobol (6mm, 0.31 grams) "Wappenmünzen" series Apple

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The rise of Athens introduced a competing standard known as the Attic Standard based upon a drachm of about 4.27 grams and the didrachm (2 drachms) of about 8.5 grams. This would be followed by a tetradrachm of 17 grams that eventually became the primary unit of account.

The coinage record of Athens illustrates the rise of a truly great city-state empire which became the next Financial Capital of the World as its currency became widely recognized around the Western Ancient World. Such coins have been found well beyond the Greek theatre and were imitated in even Asia.

What is also significant is the fact that this coinage begins to reflect the rise of inflation, whereas before 510BC, the primary denomination was the didrachm and

post 510BC it becomes the tetradrachm that emerges as the primary unit of account. This suggests that there was a significant rise in the prices that indicates about a doubling in the money supply.

This silver four drachm denomination (tetradrachm) was minted at a weight of 17 grams. Additionally, it was with the birth of Democracy that we then see the



Athens Tetradrachm (4 Drachms) 510-505BC

design of the coinage change adopting the image of Athena on the obverse and her Owl on the reverse with the city name "AOE" (Athens).



During the 5th Century BC, there was an explosion of Greek art that now manifested itself in Greek coinage. We can see a tremendous improvement in the design of the Athenian Owls which became the dominant currency of the era much like that of the US dollar post World War II.

US \$20 St. Gaudens Teddy Roosevelt Experiment



1907 High-Relief Roman Numeral Date

1907 low-relief general production issue

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Virtually every city-state issued coins and now there was an implicit competition to achieve perfection. Former President Teddy Roosevelt was an ancient coin

collector. He was so impressed with the high reliefs, that he ordered the US Mint to do the same in 1907. He introduced new styles to the \$20 gold Double Eagle to be struck in high relief as was the case among the ancient Greek city-states. It proved to be far too difficult to produce and was quickly abandoned.



Naxos (Sicily) Silver Tetradram 460BC



The Persian rule of Lydia begins about 546BC under Cyrus the Great. He continued to mint the same coins with the same design of the lion confronting the bull. The weight remains effectively about the same. This production lasted until Darius I (522–486BC) comes to the throne, who now alters the design showing himself as

an archer shooting a bow with a quiver behind. The weight remains the same and the coin is now known as a Daric rather than as stater and the silver coinage is a siglos with a ratio of 12–13:1 or 5.35 grams of silver to a siglos and 20 siglos equal one daric.

It was the failure of the Second Persian invasion of Greece that truly had sparked the confidence of the Greeks and inspired an age of spectacular artistic coinage. The Persians invasion had been held off by just 300 Spartans at the famous pass at Thermopylae. While the Spartans died, Greece ultimately won the war and that propelled Athens onto the stage of a new rising world leader displacing Persia as the new financial capital of the Western World.

Athens became the leader as it formed the Delian League to contribute to a common treasury for the possible defense of yet another Persian invasion which never came. By 454BC, the Delian League could be fairly characterized as an Athenian Empire. This dominance of Athens led to discontent and ultimately led to a conflict between Athens and Sparta which erupted into the Peloponnesian War.



In this contest, the coinage of Athens reflected the inflation created by war. For this is the first record of a **DEBASEMENT** in the official coinage of any state. The silver Owls were debased being now reduced to merely bronze between 406 and 404BC silver plated. This is a pattern we will see throughout many centuries that come to pass.



AR Tetradrachm (Athena helmet/Owl)

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Following the Peloponnesian War, Athens eventually creates a new coinage. The late coinage has lost its artistic style and what we are seeing in the fall of Athens that will eventually take place to the invasion from the north of what they regarded as barbarians – the Macedonians from which will arise Alexander the Great.

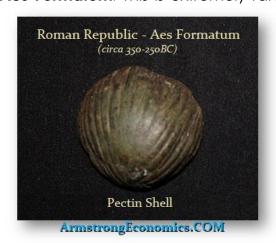
Roman Monetary System

The Romans began at first with cattle being "money" or the medium of exchange. Dragging around cattle to shopping the local mall would obviously not be very convenient. Nevertheless, as bronze also had a **utilitarian-value**, it began to provide a more convenient means of providing a medium of exchange. Therefore, the earliest forms of a medium of exchange in Rome was lumps of bronze known as Aes Rude.

Here we begin to see the transformation of odd lumps of bronze into a more standard

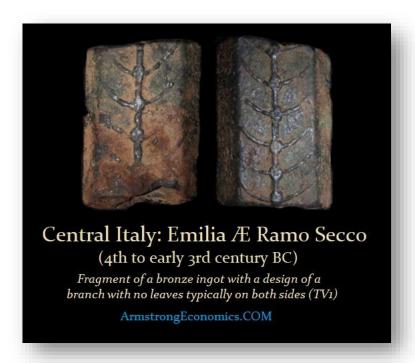
Roman Aes Rude 750BC to 4th Century BC

weight system with it being cast into the shape of objects which is then known as **Aes Formatum**. This is extremely rare insofar as the overwhelming specimens that



have survived from the early period tend to be the Aes Rude lumps in various sizes and weights.

During the 4th century BC, we find the beginning of ingots known as *Æ Ramo Secco* which are from central Italy probably from the ancient town of Emilia. They date to the late 4th to early 3rd century BC.



The *Æ Ramo Secco* are normally found in fragment of a bronze ingot. There appears to be a design of a branch with no leaves typically on both sides. The *Ramo Secco* cast ingots are the most common of the cast bars of the fourth and third centuries BC. Always found in fragments and subdivisions, they generally weigh anywhere from 500 grams to 2000 grams, normally with weak or missing designs. They are found predominantly in Emilia, hence the attribution to this city.

Aes Signatum (Latin, "stamped bronze") were cast ingots of bronze of measured



quality and weight that were embossed with a design perhaps with the government approval. They appear to have begun in central Italy and the idea then moved to

Rome. Unlike the Ramo Secco issue of Emilia, here the items are of a specific weight and tended to be traded intact. However, we still find some which have been broken into smaller pieces obviously to provide small change. We also find some with the design of a bull representing the fact that also cattle were once money.



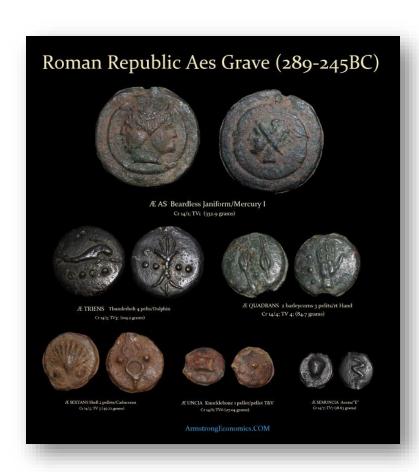
Roman Aes Signatum 5th Century BC

While the ingots began to be used as currency

(medium of exchange) in central Italy and then spread to Rome, the fact that we see these ingots often broken to make small change obviously led to the next innovation – standardization of weights and denominations to facilitate small change.

Rome Introduces Denomination 3rd Century BC

Therefore, this early 5th century use of ingots is then followed by the introduction of Aes Grave (heavy bronze) series of denominations during the early 3rd century BC.



Aes Grave series consists bronze cast coins of value whose was generally indicated by signs: "I" for the As, "S" for semis and pellets for unciae. Standard weights for the As began with about 350 grams where the *Aes Signaturm* was ideally equal to 5 As. The primary fractional denominations were the Æ Semis 150 grams, Æ *Triens* 104.2 grams, *Æ* Quadrans 84.7 grams, Æ Sextans 49.22 grams, Æ Uncia 27.04 grams and the Æ Semuncia 18.63 grams.

Desirability v Utilitarian-Value

Desirability

While money in Western Culture developed along the lines of bronze with a **utilitarian-value** use and then into precious metals simply based upon desirability since neither silver or gold was suited for tools or weapons, in Asian cultures the path tended to be first desirability and second the authority of the state. Even among American Indians, they cherished the labor it required to even craft a Wampum Belt. It had no intrinsic use value, yet it became the medium of exchange.

To many, currency without some intrinsic value just doesn't make sense. They make the assumption that in ancient times the value of money was solely based upon its intrinsic metal content. There is no such evidence to support that idea. Historically, there are two separate distinct paths – desirability v utility.

The Bronze Age emerged at different times globally appearing in Greece and China around 3,000BC but it came late to Britain reaching there about 1900BC. It is known that copper emerged as a valuable tool in Anatolia (Turkey) as early as 6,500BC, starting to replace stone in forming tools. It was the development of casting bronze that also appears to aid the urbanization of man in Mesopotamia fulfilling this path of **utilitarian-value** behind money.



By 3,000BC, copper is in wide use throughout the Middle East and starts to move up into Europe. Copper in its pure stage appears first, and tin is eventually added creating actual bronze. It was this addition of tin that really propelled the transition of copper to bronze and the tin was coming also from England where vast deposits existed at Cornwall. This is where there truly appears the invention of the wheel and the ox-drawn plow begins to emerge.

China & the Creation of Money

The great Chinese historian Sima Qian (c. 135–95BC) who authored Shih-chi ("Historical Records"), provides us with a glimpse as to what was considered to be objects of value for trade. Sima instructs us that "tortoise and cowrie shells, gold and bronze coin, knife-shaped and spade-shaped money" all existed. Gold did provide a medium of exchange, but by weight and not for the general population.

First Bronze Coinage Of the Zhou Dynasty (770-255BC)



Even going back further, during the Zhou Dynasty (770–255BC) period overall, the kings were said to have made back then "pearls and jade their superior currency and gold their second currency, while knife-shaped and spade-shaped bronzes were relegated to the position of inferior currencies," according to the 3rd Century Guanzi (manual of political theory) (W.A. Rickett 1985, Vol I Princeton).



We see both China and Rome are beginning to emerge during this period using bronze cast into shapes. Clearly, the first bronze coinage was an imitation cowrie shell. The second phase known as the Warring States Period (475–221BC), we see bronze coinage in the shape of farm tools such as a knife and spade.

Bronze Coinage of the Warring States Period (475–255BC) was making the transition from a **utilitarian-value** which was intrinsic form of money to a more symbolic whereas the bronze was cast in the shape of it former utilitarian form – the knife and how. "DAO" meaning knife and "BU DAO" hoe coinage, appeared during this 5th century BC period. The economy began to expand rapidly during the Zhou (Chou) (Spring and Autumn Period) (740–476BC).



Qin Dynasty, Shih Huang-ti (246-210 BC) Ban Liang (1/2 Liang)

At the end of the Warring States Period in 221BC, we see the Monetary Reform of the first Emperor of the Qin Dynasty, Shihuangdi, who unified China. It was Emperor Qin who made major reforms that included civil service, establishing standard weights and measures, that contributed to his Monetary Reform system which introducing the first Asian a round coin. The shapes actually meant something whereby the circle equals heaven and the square hole represents the earth

Nevertheless, although the first-round coin in China issued about 246BC, it is important to note that the value of this coin was by no means its inherent metal content. The Chinese coins known as "cash" were valued based on an assumption of worth because the Emperor issued the coin and he was appointed to rule by god on earth. Therefore, the value of the coins had no relevance to the metal content.



The Qin Dynasty (221– 206BC) was followed by the Han Dynasty (206BC– 220AD), which was in turn followed by the Jin Dynasty (265– 420AD). This was simultaneous with the period of the Sixteen Kingdoms or Dynasties (304– 409AD). The Jun Dynasty was followed by the Southern and Northern Song Dynasties (420–589AD), followed by the Sui Dynasty (581–618AD). The eventual fall of the Sui dynasty was also due to the many losses caused by the failed military campaigns against Goguryeo. This depleted its treasury and weakened the economic standing of the Dynasty. It was after these defeats and losses that the country was left in ruins and rebels soon took control of the government as is always the case just like the change in government in Germany after the loss of World War I.



Sui Dynasty (581-618AD) Last Wu-Zhu Coin issued

The Sui Emperor Yang was assassinated in 618AD. He had gone South after the capital being threatened by various rebel groups and was killed by his own advisors. This opened the door for the aristocrat Li Yuan (李淵) in the North who led an uprising where he ascended the throne to becoming Emperor Gaozu of Tang, which gave birth to the Tang Dynasty (618–907AD).

There was an interregnum in the Tang Dynasty between 690 and 705AD when

Empress Wu Zetian seized the throne, proclaiming the Wu Zhou dynasty and becoming the only legitimate Chinese empress regnant. That notwithstanding, the Tang Dynasty is one of the most notable dynasties for it had to rebuild China after the disastrous fall of the Sui Dynasty.

The Tang Dynasty saw major economic reform as the government



Tang Dynasty (618-907AD)
Kai Yuan Tong Bao Coin (621AD)

withdrew from its role in managing the economy which created a free market that exploded in trade. It is also here during the Tang Dynasty that an account of history was assembled. The Roman Empire claimed to rule the world (*orbis terrarum*) yet on the opposite end of the world stood the Han Dynasty (206BC–220AD) which also claimed to have ruled the world (*tianxia*). This History Book for Tang–Dynasty mentions 17 times what appears to be the Roman Empire.



It was the Han Dynasty which began the Silk Road forming a network of trade routes connecting China with the Middle East and Europe. The Han Dynasty officially opened trade with the West in 130BC and the Silk Road routes actually remained in use until 1453AD, when Byzantium fell and the new Ottoman Empire boycotted trade with China shutting down all contact. Alexander the Great was well aware of Asia and that this was the source of spices and silk. He attempted to invade India perhaps following the rout of trade which predated the Han Dynasty by perhaps 200 years.

The mummified remains have been found along the ancient Silk Road on the edge of the Qinghai–Tibet Plateau showing that it was clearly in use more than 2,000 years

ago. Mummified bodies have been found along the ancient Silk Road inside China as it crosses a wide stretch of arid desert land. Some were Caucasian confirming that the ancient Silk Road was a global trade route.

The History Book for Tang–Dynasty describes an envoy that was sent by the Roman Emperor to China. The Roman Emperor was recorded to have been "Anton". The account of such an envoy who visited the older Han Dynasty predates the Venetian traveler Marco Polo (1254–1325) by more than 1,000 years. This envoy has been attributed to 166AD during the reign of Marcus Aurelius Antoninus (121–180AD). This envoy established diplomatic contact at the peak in the Roman Empire from which a disastrous decline begins. Any political–economic aspirations to further such a relationship would then die with Marcus Aurelius. Yet also, both empires would suffer the same fate of barbarian invasions. The Han Dynasty falls in 220AD from which emerges the chaotic period known as the Three Kingdoms (220–280AD) – the division of the once unified Chinese Empire.



Tang Dynasty (618-907AD) "Flying Cash"

One kwan note issued during the reign of Emperor Wu Zong(841-846AD)(9x6 inches)
This issue was made in variable amounts and were transferable since they could be
exchange for coin. The Tang notes were issued in accordance with an official government
decree. The were used in commerce rather than coin in order to allow payment over
various distances providing security from literally highway robbery along the way.

The legal and tax reforms of the Tang Dynasty stimulated international trade. By 780AD, the old grain tax and labor service of the 7th century was replaced by a semiannual tax paid in cash, signifying the shift to a money economy supported by a rising merchant class created by free trade. Most interesting is the fact that as a byproduct of this free trade, we also find the birth of paper money.

As trade developed, there was a risk to carrying money – highway robbery. Indeed, people would be robbed while traveling. An alternative was the creation of paper money which could easily be transported and provided a cushion of security. These Tang notes were officially issued by the government and facilitated trade. They allowed for the transfer of money securely over distances for they were backed by the Tang Dynasty and redeemable in coin. Thus, the first introduction of paper money officially issued by a political state was this issue of Tang notes.

The peak in the Tang Dynasty came during the reign of Emperor Xuanzong (713-756AD), which is known as the golden age with low economic inflation and an economic growth that was built on free trade. Xuanzong abolished the death penalty in the year 747AD and he worked to reduce deflation by increasing the money supply allowing the use of private coinage, whereby previously the government sought to maintain a monopoly over the money supply.



China Sycee (細絲) Private ingots of gold or silver used in trade.

Sycee date from the founding of China under the Qin dynasty until the 20th century.

Sycee were made by individual goldsmiths or silversmiths for local exchange and were not government issues. They would also facilitate trade on the SIlk Road

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The China sycee was a type of silver or gold ingot currency that was used in China until the 20th century. The name "sycee" is derived from the Cantonese words meaning "fine silk" because it was bolt of silk that was really money. Silk is what the world wanted from China first and second its porcelain from which people in the west called them Chinese because the sold china to the West. These ingots formed a two-tier monetary system whereby they really facilitated international trade. The only circulating coins were bronze or iron.

After 737AD, Emperor Xuanzong had used non-Chinese generals which created dissent fostering ultimately a serious rebellion against Xuanzong. In 755AD, the Anshi Rebellion at Fanyang broke out and the rebels quickly seized the eastern capital Luoyang, and then the imperial capital Chang'an six months later. It was at this time that Emperor Xuanzong was forced to flee and he eventually abdicated the throne to Li Yu who became Emperor Suzong (756–762AD) of the Tang Dynasty.

In China, the fall of the Tang Dynasty in 907AD was orchestrated by Zhu Wen (852–912AD) who rose through the ranks to eventually control the imperial court by 903AD. He compelled the Emperor Zhaozong of Tang to relocate the capital to Luoyang, in a strategic move as he was planning to usurp the throne for himself.

In 904AD, Zhu Wen assassinated Emperor Zhaozong and he then replaced him with the emperor's young son Emperor Ai of Tang. The following year, Zhu Wen

executed 9 brothers of Emperor Ai as well as many officials along with the Empress Dowager. Then in 907AD, Zhu deposed the Emperor Ai and seized the throne for himself taking the name Emperor Taizu of Later Liang. The following year, Zhu ordered the deposed Emperor Ai to be killed with poison. was followed by the very chaotic period of the Five Dynasties and Ten States (907–960AD). This was a period where China reverted to a fragmented country broken into feudal states which naturally ended the golden age of trade.

Nevertheless, it was during this chaotic period when we find the invention of printing. The first printing press using wooden blocks was invented. Eventually, Confucian classics in 130 volumes between 932AD and 953AD were printed. We also see the printing begin to also appear of Buddhist texts. It was this invention which would enable the birth of paper money in the subsequent dynasty.

Korea did not begin to use money until the Koryo Period (Goryeo 高 麗) (936–1392

AD) when coins from China's Song Dynasty (宋朝) (960–1279 AD) were actually imported and began to circulate. Prior to this time, barter based on rice and cloth was the principal means of exchange.



King Seongjong of Goryeo (960–997; r. 981–997AD) 6th monarch of the medieval Korean kingdom Bronze oinage of 996 AD

Yet, this chaotic period of Five Dynasties and Ten States (907–960AD) came to an end with the rise

of the Song dynasty (宋朝) (960–1279AD). The Song Dynasty was founded by Emperor Taizu who usurped of the throne ending the chaotic period. While the Song was not able to reunify the whole of China, the separated regions ensured that conflict with the contemporaneous Liao, Western Xia, and the Jin Dynasties in the north would ultimately allow China to fall to the Mongols who would reunite China under the Yuan dynasty.



Southern Sòng dynasty Níngzōng (1194-1224AD) Æ 3 Wén (35mm, 12.43 grams)

Nevertheless, the Song government was historically quite important in the monetary history of China and the world for that matter. It was during the Sona Dynasty that we see the next evolution of paper money from the official issues of the Tana to assist trade to and actual banknotes that marked the issue circulation of paper money.



Liao dynasty (916-1125AD) Qing Ning Tong Bao (Chinese: 清寧通寶)

It was also the Song Dynasty that created a permanent standing navy and made the first use of gunpowder.

They also appear to have invented the compass.

The Song Dynasty (960–1279AD) went through its early financial crisis due to the debasement of the bronze coinage over the years leaving the money supply consisting of iron coins. Inflation destroyed the economy to the point that 1.5 pounds of iron

coins now purchased only 1 pound of salt. An ounce of silver was now worth 91.25 pounds of iron coins. There was a serious rebellion and the government nearly collapsed.

The Liao Dynasty (916–1125) carried on border raids against the Song Dynasty 960–

This 1279). conflict was eventually settled in 1004. when the Song finally agreed to pay an annual tribute to the Liao to buy peace. The Liao Dynasty was eventually destroyed by the Juchen tribes who they had previously subjugated. The Liao fell in 1125 and the Juchen also defeated the Sona in Northern China forcing the Song further



Liao Dynasty (916-1125AD) Emperor Dao Zong (1055-1101AD) Da An Yuan Bao cash (circa 1085-1094AD)

south (1127–1279) and the Juchen became the Jin (Chin) Dynasty (1115–1234).

When the Jin invaded and forced the Song Dynasty to flee in 1127, this invasion had a profound impact upon the monetary history of China, and the world. The Song fled their capital city of Kaifeng, but they had no time to take the treasury with them. It is believed that Jin captured as much as 100 million guan (strings of 1000 bronze coins). This was the primary reason why paper money began officially.

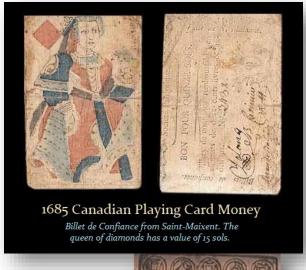
China & Coin Famine – Introduction of Paper Money

The innovation or printing invented during the period of the Five Dynasties and Ten States (907–960AD), would prove to be extremely important in the subsequent Song Dynasty.

The contemporary writers called this the "coin famine" during the late 1150s, and this had the effect of creating **DEFLATION** for commodity prices then declined to account for the shortage of coin. By 1159AD, the government enacted laws punishing the hoarding of coin. The limitation was 10,000 guan (strings) per individual

or 20,000 per family. Any excess was required in 1159AD to be turned over to the government who would then replace it with paper receipts or vouchers in exchange for commodities. This legislation had no real effect upon citizens without searching homes, but it did have the serious effect of reducing the rising financial industry by preventing moneychangers from possessing inventory and issuing paper huizi.

Within about 6 months, the prefect of Hangzhou began issuing huizi notes given there was a shortage of coin and now there was a shortage of huizi. The





Jiaozi - of the Song Dynasty



Revenue rather than just the city. He argued for a national takeover of the huizi to cover military costs. They were in fact introduced in 1161AD driving the private bills out of circulation entirely. The huizi notes increased in issue, but the local

governments would not accept them for taxes.

prefect, Qimaan Duanli, then ran for a new position and the head of the national Ministry of

Presumption of Intrinsic Value

There really was not enough coin to redeem the notes, and thus they began to fall in value.

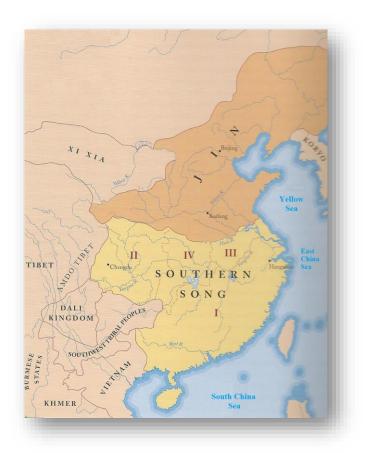
In Canada, there was a shortage of money during the late 17th century and early 18th century. The solution was similar. That lack of coins was made up by taking playing cards and inscribing them as money for local circulation.

Monetary Reform of Xiaozong



Emperor Xiaozong (1162 –1189AD) China, Southern Song Dynasty, Bronze 2 cash

Emperor Xiaozong (1162–1189) was a fiscal conservative. He was very concerned about the collapse in value of the huizi notes. The Emperor made available 112,500 kilos of silver to redeem more than 20 million guan in notes. This still left about 6 million guan (strings) in circulation. Naturally, the value of the huizi notes soared. In 1168AD, the issue of huizi notes was revised where the notes expired in three years thereby forcing them to be redeemed. The quantity of the issue was limited to 10 million guano However, they ended the pretense that the notes were convertible for hard currency.



The Song government had to flee leaving behind their reserves forcing the government to then issue a variety of promissory notes to procure the military supplies they needed to defend the nation. These new promissory notes were redeemable in coin at the state Monopoly Trade Bureau, located in the new capital near the coast at Hangzhou. Inflation soared due to the government defeat and the collapse in confidence within government. This contributed greatly to the hoarding of coin that resulted in prices rising sharply. The ore located in the North was no longer available and the actual mintage of coin fell to about one-tenth of its previous annual output. This led to further debasement of the coinage to lead and iron and that merely invited counterfeiting. Bronze vanished entirely.







United States Civil War Encased Postage Stamps (1861 - 1865)

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During the American Civil War in the 19th century, there was a shortage of metal and coins. Postage stamps began to circulate as money and private merchants began to mint their own private coinage in order to do business. The same thing developed here whereby moneychangers emerged in Hangzhou who began to issue their own paper receipts that emerged as negotiable bills the same as the private coinage during the American Civil War. The people accepted them and thus they became negotiable. This private issue became known as *bianqian huizi* (convenient cash bills) or also jifu huizi (consignment bills).

The government saw these private issues as competition and in 1135AD, all private huizi were banned from circulating outside of Hangzhou. The corruption was sufficient to create political support to rescind the ban. Other huizi were issued in other cities in southern China and thus the circulation of the notes increased significantly.

Eventually, the Song Dynasty split in 1127AD with the north falling and the south surviving between 1127AD and 1279AD. This would present a setback for China with the division of the empire and would open the door for the subsequent invasion of the Mongols led by Genghis Khan (1162–1227AD) who invaded China in 1211AD. By 1215AD, he conquered the new Jin capital at Beijing. The Jin now fled to the old Song capital of Kaifeng. The Jin now were forced to issue paper currency to pay for the defense known as **baojuan** (*treasure certificates*).

The Jin managed to survive for about 20 years, but their monetary system had been reduced to poverty. The Mongols finally just exterminated the Jin Dynasty in 1234. The Mongols threatened the Song and they suffered the burning of their capital city. Most of the capital was destroyed, including ancient temples. This merely led to extensive new paper money issues and the depreciation of the currency overall.

With the fall of the Jin Dynasty to the Mongols in 1234, the Jin territories were divided into mostly autonomous fiefdoms that were distributed among the Mongol nobility. This included the future emperor, Khublai (Khubilai) Khan. These new Mongol overlords retained much of the Jin administration and that included the issue of paper money, which was denominated in silk or silver that circulated only within that fiefdom, not nationally. The taxes and tribute demanded was payable in silver.

Eventually establishes the Yuan Dynasty (1271–1368AD) was declared. Kublai Khan became the Mongol leader who established the capital at Beijing. Although the Mongols had ruled territories including modern-day North China for decades, it was not until 1271 that Kublai Khan officially proclaimed the dynasty in the traditional Chinese style,

The new Mongol Empire was the largest to have ever existed from a land base perspective stretching from China through Russia down to Iran. They devastated the Muslims in Uzbekistan (1216–1223).

Within just a matter of months of assuming the throne, Kublai Khan introduced a new paper currency that was officially known as Zhongtong yuanbao jiaochao ("'Inaugural Treasure' Exchange Vouchers of the Zhongtong Reignperiod"). This new **Zhongtong chao** was denominated in the traditional bronze coinage of China, but could be redeemed **ONLY** in silver. The Mongols had long been accustomed to silver that flowed through the Silk Road. Bronze, had been a unique Chinese main currency.

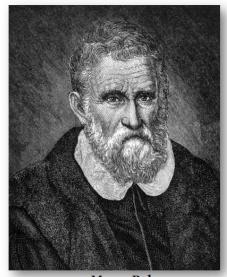


Zhongtong chao (1263) Notes Convertibel into Silver of Kublai Khan

Kublai Khan simultaneously banned the use of bronze coins.

Kublai turned south, and in 1276, the Song Dynasty capital at Hangzhou fell to the new Mongol Yuan Dynasty. This brought into the Yuan Dynasty another 60 million people, which was about double the Chinese population captured in the north. It had been Song Dynasty that opened sea trade and dramatically expanded their economy being cut off in the north and from the Silk Road. The interesting choice made by the Yuan Dynasty administration, was very interesting. The Song Dynasty paper currency that should have been worthless just as the Confederate paper currency after the American civil war, was allowed to be exchanged for the Yuan Dynasty *Zhongtong chao* at a rate of 50 guan to the 1 guan of the Yuan notes. This truly

magnanimous idea to preserve the southern economy and trade, backfired. This resulted in a sharp increase in the *Zhongtong chao* notes, but like the fall of the gold standard in 1971 when there were far more dollars created than gold to back them, the same mistake took place here. The *Zhongtong chao* were redeemable not in bronze, as were the *Song buizi*, but in silver, Now, there was not enough silver to back all the currency issued. This does not appear to be a deliberate inflation, but just the same stupid mistake as modern governments made for 1971.



Marco Polo (1254 - 1324)

Marco Polo (1254–1324AD) was a Venetian explorer known for the book *The Travels of Marco Polo*, which describes his voyage to Asia. Polo is said to have traveled extensively with his family, journeying from Europe to Asia from 1271 to 1295 and remaining in China for 17 of those years. This was the period when China was ruled by the Mongols. Marco Polo became close with Kublai Khan. This was certainly the period when Kublai Khan was perhaps at the peak of his power.

The Monetary Reform of 1287 appeared to have suppressed the inflation and during the remaining years of his reign, Kublai Khan had restricted the issue of paper money. This would have provided a period of 1287 until 1294 where the observations of the strange monetary system of China appeared to be working as Marco Polo reported.

The final years of the Yuan dynasty were marked by internal struggle, famine, and rising discontent among the Chinese populace who saw them as a foreign invader as well as among the Mongol population who viewed them as too Chinese. The reigns of the later Yuan emperors were generally short in duration not unlike the political process in Roman Empire during the 3rd century. Here there were 10



Zhiyuan chao (1287) of Kublai Khan

Mongol emperors between 1295 and 1368. Most reigned for 3 years or less. China simply became dominated with rising civil unrest.

The last Mongol Emperor, Toghon Temür (1333–1368), was a Buddhist which did not sit well with the Mongol population which by this time were mostly converted to Islam. Since the late 1340s, people in the countryside in China suffered from climate change with the weather turning very cold which sparked frequent natural disasters, droughts and floods. This all combined into famines. The malnutrition has often been citied throughout history as one element that make populations susceptible to disease. It was this time period where of course the **Black Plague** helped to end the Yuan Dynasty of the Mongols.

The Yuan dynasty-controlled China and Mongolia during the first half of the 14th century. This was the period of great political unrest as the last remnants of the Mongol empire in China devolved to regional warlords and the Ming Dynasty began to develop. Record keeping does show three rounds of massive epidemic in 1330–1350 each taking over 60% of at least regional populations. While medical descriptions of the plague have not survived in China, the records do suggest that the overall Chinese population was reduced 25–30% loss in other regions. In 1333, there appears to have been a great death rate in some regions as much as two

out of three people died of the plague. Therefore, accounts that the **Black Death** came from Asia during the 14th century appear to be on point.

Against this backdrop, a rebellion broke out in 1348, triggering many revolts around the empire. Not the least of which was the **Red Turban Rebellion**, which started in 1351 and grew into a nationwide uprising. It was the **Red Turban Rebellion** (1351–



1368) targeted the ruling Mongol-led Yuan Dynasty, and eventually it succeeded in overthrowing of Mongol rule in China.

The Ming dynasty (1368–1644AD) came to power following the collapse of the Mongol-led Yuan dynasty. The Ming Dynasty was the last imperial dynasty of China ruled by Han Chinese. This Chinese Ming Dynasty note is inscribed with the title Great Ming circulating treasure note and a warning that counterfeiting was punishable by death. Paper money in China was clearly a well-accepted medium of exchange.

The Ming Dynasty would fall when their primary capital of Beijing fell in 1644 to a rebellion led by Li Zicheng who established

the Shun Dynasty. Some regions called the Southern Ming – survived until 1662.

The Core Economy

The core economy of the dominant power will routinely see its currency circulate beyond its borders. Here in 2019, about 70% of all physical US dollars circulate outside the United States. Even the coinage of ancient Macedonia was imitated during the 4^{th} century BC.



Japanese Monetary System (760 - 958AD)

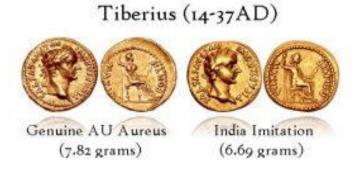


In the case of China, its coins circulated in Korea and Japan. Japanese emperors would devalue all outstanding coinage to 10% of its value and issued their own coinage for profit. This practice led the population to use Chinese coins and rice. Eventually, nobody would accept Japanese coins because of this practice. Thus, the end result was that Japan lost the ability to issue coins at all for 600 years after 958AD.



The True Backing of Currencies

Therefore, currencies today are still backed by the belief in the economy of every nation. The fact that the money used in the dominate nation circulated outside of its domain establishes that not even coins traded purely on their intrinsic value. The value of any currency is **NEVER** its intrinsic value even throughout history. Proof of that statement is the fact that the surrounding economies exist from Asia to Europe. The Roman Empire saw its gold and silver coinage imitated for a single reason – the coins were accepted and regarded as worth MORE than their intrinsic value simply in metal content. Here is an Indian imitation of a gold aureus of Septimius Severus (193–211AD) where the imitation weighs more than the original.

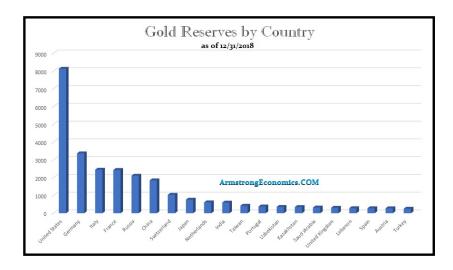


The spice trade existed in ancient times which originated in India where they imitated the gold coinage of Rome from the reign of Tiberius (14–37AD) to Gordian III (238–244AD). Obviously, India had gold but the coinage of Rome carried a



premium. There would have been no other reason to imitate Roman coinage if the monetary system was purely intrinsic.

Obviously, **ALL** currency is backed by the collective economic productive capacity of its people. Further proof of that statement also exists in modern times. Just look at China, Japan, and Germany and you will see that each economy rose to the top 10 list in the world when they had **NO** gold reserves after World War II. It was the total capacity of its people which created the wealth of those nations. Russia, on the other hand, is one of the richest nations based upon resources from gold, energy and diamonds just to mention a few. If resources were the dominant factor, then Russia should be at the top of the list. It is not because the government devolved from communism to an oligarchy preventing a free market from emerging.



Italy has more gold reserves than France, yet Italy is considered to be the third-largest economy behind France. Algeria has the largest gold reserves in Africa followed by South Africa. At the end of 2017, Algeria had a GDP of about US\$170 billion. But South Africa's GDP is about US\$350 billion. The size of an economy does not correlate to its gold reserves.

A currency moves into hyperinflation **NOT** because it increases its money supply with no backing. It moves into hyperinflation **BECAUSE** of the collapse in the confidence of the government both domestically among its citizens and internationally.

Most people are unaware that with 300,878 million barrels of proven oil reserves, **Venezuela** has truly the largest amount of proven oil reserves in the world. The **VEF/USD** has collapsed to **0.09** from a high of **0.46** back in 2010. Despite having

intrinsic assets, the collapse in the currency reflects the total collapse in the confidence of the government.

There is absolutely no evidence whatsoever that the popular idea that money must be backed by something tangible. This is just an urban legend and any investigation reveals it is simply not true.



"It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest."

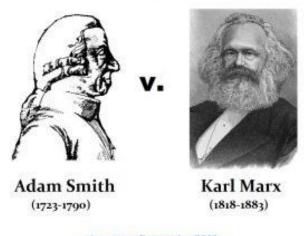
Adam Smith, Wealth of Nations 1776, Book L. Chapter II, Of the Principle which gives occasion to the Division of Labour

Therefore, step back a moment and abandon this old-world mercantilist idea of the wealth of a nation which was more Physiocrat than Adam Smith. Your labor is not worthless. Each of us constitutes the wealth of a nation. American has the greatest economy **NOT** because of gold, but because it has the biggest consumer market on the planet to which everyone tries to sell goods in order to take home money.

This idea that money **MUST** be tangible is not realistic. It is the product of people frustrated by the business cycle no different than Karl Marx (1818–1883). Marx

sought to confiscate all wealth to kill the business cycle and others keep preaching a gold standard to fix the currency to also defeat the business cycle. If money were truly fixed and could not rise or fall, that means your house can never rise or fall in value and you should not expect a raise at work.

Money is the perception of the wealth of a nation which is its total productive capacity of its people -



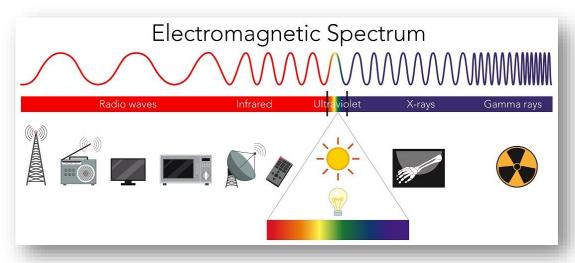
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not its gold reserves or tangible resources. The fluctuations in currencies are how capital votes on the confidence of the political state behind each currency. The

Presumption of Intrinsic Value

wealth of a nation is created by the people pursuing their own self-interest, Adam Smith (1723–1790). Whenever a government interferes with that free economy and attempts to regulate and control every aspect from some central vantage point, the economy will always suffer. Just look at Venezuela and the failure of Communism around the world.

Understanding Cycle Frequency



t is imperative to understand that the very nature of cyclical activity is the blueprint upon which the entire universe was constructed. If we look at light emanating from the sun, we perhaps only see this one dimension of warmth we call sunlight. However, there are many components hidden from our view. If you change the frequency, you get an entirely different effect. This is the very nature of how cyclical movement unfolds. Both the starting points as well as the frequency will produce different effects.

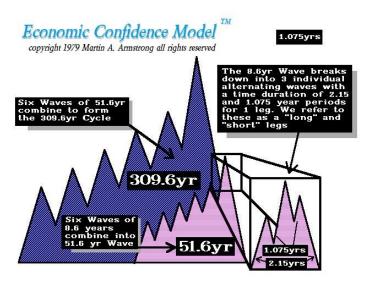
In exploring the world economy and back-testing it to ascertain the various different frequencies and effects we obtain is essential to grasp an understanding of the economic environment in which we live. As with the electromagnetic wave, we can only see a small portion of the wave. This is why economists acknowledge there is a business cycle, but dispute that it can be defined and predicted. They are unaware of how cycles even function and the complexity which stands behind the wave structure. They also fail to understand that everything is included within the economic business cycle. Both weather and disease have had profound impacts. It was the **Black Death** of the 14th century that ended feudalism and gave birth to capitalism insofar as the shortage of labor resulted in wages begin offered.

INTE	RNATIC	ONALLY	<u> </u>		-		
L683							
711	1720	1731	1745	1763	1772	1783	1792
1814	1818	1825	1857	1866	1869	1871	1872
	1873	1884	1890	1893	1895	1896	1899

While the 18-year Monetary Crisis Cycle emerged from currency movements directly, there is also a more dynamic 37.33-Year Monetary Crisis Cycle which had had the added component of political upheavals as well. If we begin with the 224-Year Cycle of Political Change, we know that dividing this by 26 produces the 8.6-year cycle – the base core of the Economic Confidence Model. This I

discovered when doing research at the Firestone Library at Princeton University.

As I explained many times, I came across a list of panic from 1683 to 1907. This covered a period of 224 years and contained 26 events which resulted in the 8.6153846 frequency. From that, I tested the existence of the business cycle and found that it built up into six wave of intensity that would culminate



into 51.6-year waves. These in turn, proved to be fractal and six wave of 51.6 years produced major waves of 309.6 years which tended to result in the rise and fall of empires, national, and city states.



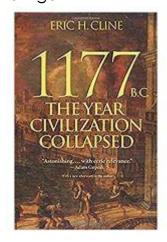
Sallie Baliunas

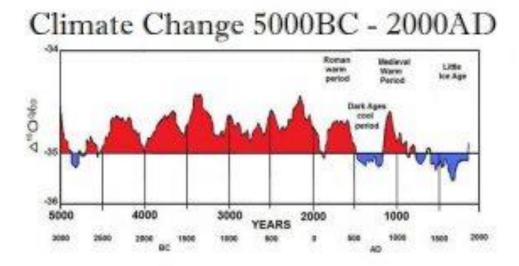
senior staff astrophysicist at the Harvard-Smithsonian Center for Astrophysics, Deputy Director of Mount Wilson Observatory and Senior Scientist at the George C. Marshall Institute in Washington, DC.

I attended a lecture by Sallie Baliunas who was an astrophysicist at the Harvard-Smithsonian Center for Astrophysics and at one point was the Deputy Director of the Mount Wilson Observatory. She presented the cyclical discoveries from the ice core samples taken from the North Pole. What she presented was a clear 300-year cycle in the energy output of the sun, which made sense since it was a thermodynamic system which pulsates or beats like your heart.

When she presented the findings from the ice core sample and revealed the 300-year cycle, the dates shocked me for they matched what I had ascertained from the economic data which led me to observe the 309.6 years cycle. Suddenly, what I saw was the backdrop and reasoning why such a major cycle existed. It in fact dictated climate change which created massive migrations and the rise and fall of civilizations included the mysterious collapse of the Bronze Age.

There were about eight civilizations that all collapsed with the exception of Egypt post–1250BC as discussed by Eric Cline in his book 1177BC The Year Civilization Collapsed. It was caused by a major shift in climate change that led to droughts which resulted in the widespread famine that inspired migrations/invasions. This event of 1177BC was the Bronze Age equivalent to the fall of Rome, for they both were followed by a Dark Age.



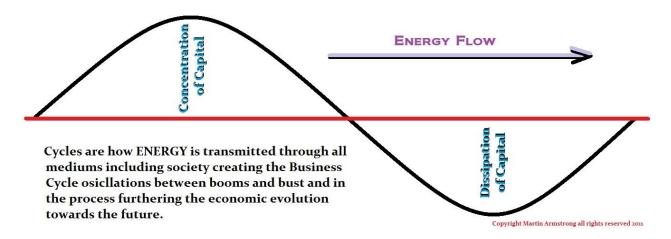


Many have attributed this collapse of the Bronze Age to the Sea Peoples, which were most likely northern Mediterranean mass migrants due to the climate getting colder in Europe. Eric Cline put together a nice assembly of sources, but he missed the climate change aspect. He assumed there was a migration southward. However, we can see the first dip to cold came about 1,800 years ago. We can see that the all-time high temperature was about 3,300 years ago. As temperatures warmed, people migrated north. Once the climate change took place, they migrated south seeking a warmer climate where they could grow food.

The collapse of the Bronze Age was mostly complete by about 1100–1000 BC. Our computer has identified a 1720-year cycle beginning in the Dark Ages with the fall of Rome in 476AD when the last pretend Emperor reigned (Romulus Augustus (575–476AD)). Our model highlighted the cycle between the Dark Ages of 1720 years which brings us to 1244BC — right on target for the beginning of the collapse of civilization.

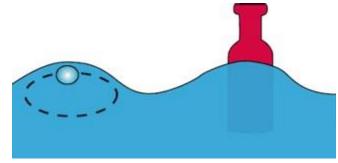
How Civilization Collapses

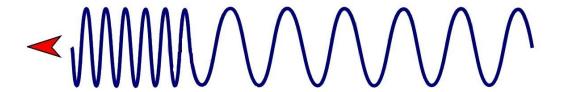
- 1) Collapse in centralized government
- 2) The rich flee and economic growth declines
- 3) The economy implodes without investment
- 4) Birth rates decline with population
- 5) People migrate and abandon urbanization



Obviously, understanding that we get different effects based upon different frequencies is essential to comprehending how the world really ticks. The entire core of everything in the universe is constructed upon cyclical movement. If we just look at the ocean, we see the illusion was water moving as the waves crash upon the short. Yet if you throw a bottle into the water you will notice that the

waves pass through the water and the bottle rises and falls vertically. This is because the waves are caused by energy moving through the medium of water – it is not the water itself moving. The ocean has its own current which is distinct from the energy on the surface moving through the water.



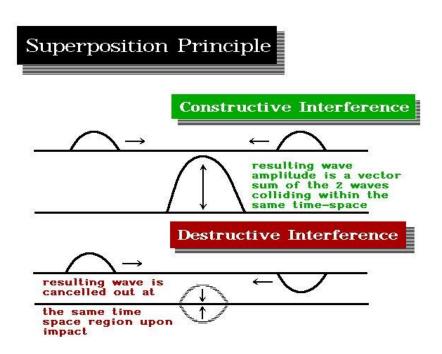


This is the same process with sound. We hear sound from an oncoming car or train but it is the sound moving through the medium of the air – it does not cause the air to move or else we would feel the win. The sound is louder as the object is closes to us for the frequency is shorter. As the object passes us, the wave frequency diminishes widening so the sound gradually fades away.

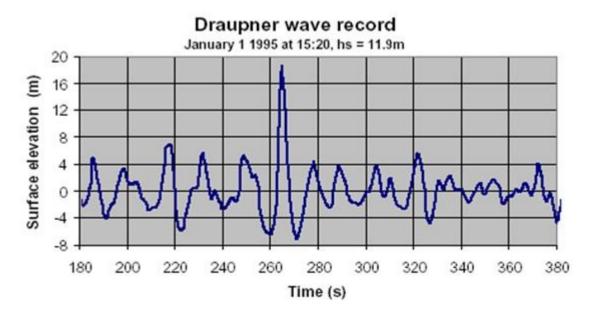
Understanding Cycle Frequency



You will notice the same effect when a drop of water impacts a standing pool of water. The waves emanating from the point of origin are the most intense and as the energy from the impact spreads, the wave will begin to diminish.



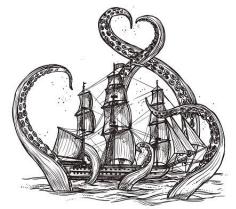
In economics, we see the same effect. There can be major events which have taken place centuries ago, the energy behind that event is still rippling through time. It may collide with another event and its energy will combine with the new event creating a distortion in the wave size and structure. It can also lead to the canceling out of those events.



Sailors have always had legends of rogue waves that would appear out of nowhere in the middle of the ocean and swallow ships whole. These were often told as stories of sea monsters reaching out and dragging the ship below the waves. This was one legend that kept many

fearing the open sea for centuries.

In 1995, this was recorded for the first time known as the Draupner Wave Record. On that day, there were between ten to twelve-meter high storm waves and a wave of almost 83 feet (26 meters) high under the oil drilling platform named Draupner appeared. This was the very first time one of these rogue waves was actually measured by the sensors on the platform. Since then, what was once dismissed as legend has entered the



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field of reality. It is simply the frequencies of several waves colliding and producing a giant wave by combining the energy of each independent wave.

This process of combining frequencies and producing enormous waves of energy is inherent in how all energy moves and that includes the energy moving from the combination of events in the world economy. The ECM is also in part a measurement of frequencies which build in time with intensity producing major events throughout economic history.

Monetary Crisis Cycles



here are two primary **Monetary Crisis Cycles** which have been one of the most regular events that have dominated the world economy for a time in memorial. This next target event will be due in 2021/2022. On many levels, we can smell a crisis coming in the air. We have Donald Trump ramping up trade disputes and accusing China or being a currency manipulator when in fact if anything China has been trying to support its currency rather than suppress it.

There have been two frequencies which have been consistent throughout recorded history – the **18-Year Monetary Crisis Cycle** and the **37.33-Year Monetary Crisis Cycle**. Both have impacted the world economy and it appears that they are the product of governments and their fiscal mismanagement albeit one tends to be more short-term and the other more longer-term.

I have explored this phenomenon throughout recorded history and discovered that it has prevailed throughout ancient times as well as modern. Why would such a cycle even exist, I asked myself. The point of research is never to begin with a theory and then run off and try to prove it. The only way to proceed is to collect the data and allow it reveal the trend.

I have stated numerous times that one of the reasons the Roman Empire survived for hundreds of years was because it simply created currency, as needed, instead of borrowing as we do today. The various debt crises that unfolded in ancient times were primarily private – not public. The money was coined and some people would assume that since the coinage was precious metals, it had some intrinsic value which distinguishes it from money paper currency monetary systems of today. As previously explained, this is a frivolous argument. The coins of the Roman Empire were like the US dollar today. They circulated outside the Empire and have even been discovered in Japan.



As pointed out, India routinely imitated Roman coinage and some specimens were even overweight. This demonstrated that the coins carried a premium to simply raw gold. Besides the Roman coinage being imitated during the 1st to 3rd centuries AD in Asia, if we go back to the 4th century BC we also find that the Celts in Europe were imitating the gold coinage of Alexander the Great's father - Philip II (359-337BC). As Alexander the Great invaded Asia, we also begin to see Asian imitations of his silver coinage appear. All of this establishes that the coins were worth more than their metal content.

Ever since the adoption of Keynesian **Economics** post-Great Depression, the governments on a global level have





taken only the justification to run deficits perpetually with no intention of paying off their debts at any time in the future. This has been the greatest departure in the history of fiscal mismanagement of any government in recorded history. As I have stated, there were no national debts in ancient times. No government borrowings. There were no central banks to manipulate money supply in hopes to controlling the business cycle. That does not say there were not attempts to limit private debt, forgive debts, and to increase the money supply to aid during periods of economic crisis. Yes, they took such measures historically as well as monetary reforms on a fairly regular basis.

Nevertheless, this fiscal mismanagement here in modern times is absolutely without precedent in human history. How this comes to an end places civilization itself at risk for these are the things that bring down central governments and at times has led to separatist movements and the reestablishment of even feudal structures.

has really going on since 1949 when the first break in Bretton Woods began with the devaluation of the British pound. We are facing a crisis where the central banks can no longer control the economy and they are quietly behind the curtain demanding that there must be political help to support the economy during this immediate decline.

While it has been uncanny in modern times, the 18-year Monetary Crisis Cycle even picked events such as the famous Sack of Rome in 455AD by the Vandals, who stripped even the copper from the roof tops giving rise to the term that has survived to this day – vandalize. Keep going back you come to 31BC, the Battle of Actium where Octavian defeat Marc Antony and Cleopatra effectively bringing the cycle war to an end and the beginning of the new Imperial Age of Rome with the monetary reforms of Augustus. It was Marc Antony who issued a vast amount

Mark Antony & Cleopatra VII (83-30 BC) (69-30BC) (Silver (debased) Tetradrachm)

of coinage to pay his legions for that battle and he was the first to debase the silver coinage pre-Imperial era.

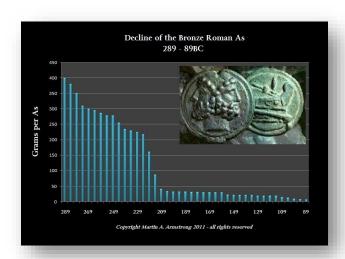




Caligula (37-41AD)

The Peloponnesian War

(431–404BC) was a major profound event for Athens was the Financial Capital of the World. The cost of the war was reflected in the stark debasement of the currency. This is really the first time we see debasement of the coinage. Previously in Lydia, the cost of the war with Persia was reflected in the reduction of weight, but not actually debasement of the gold coinage. In the case of Athens, the government adopted the method employed by the counterfeiters



who used chemicals to transform bronze into effectively silverplated coins to imitate silver coinage. The debasement begins with the **Monetary** Crisis Cycle and the war comes to an end when Athens is defeated by Sparta.

If we turn to Rome,

we can see the collapse in the bronze coinage as a result of the Punic Wars with Carthage. The first Punic War took place 264–241BC followed by the Second Punic War 218–201BC and then the Third Punic War 149–146BC. Note the date 211BC. That is when the Roman

311329

347 365

-175 -157

Monetary Crisis Cycles

Denarius appeared reducing the silver weight. Note 49BC is when Caesar Crossed the Rubicon ending the Republic.

The year 41AD is when Caligula was assassinated setting off a financial panic. The 59AD is when Nero orders his mother to be killed setting in motion his own decline and he is the first Roman Emperor to start debasing the silver coinage in 64AD with the Great Fire of Rome

Following the First Jewish–Roman War (66–73AD) and the fall of Jerusalem in the year 71AD, Titus left for Rome, leaving Legion X Fretensis to defeat the remaining Jewish strongholds including Herodium and Machaerus, finalizing the Roman campaign in Masada in 73–74AD. Vespasian (69–73AD) came to power out of the civil war following Nero's death. The cost of the war was evident in the purity of the coinage for Nero's debasement from 98% to 93% was further reduced to 89% when Vespasian came to power. But the Jewish–Roman War added tremendous cost with no great wealth to be gained for Rome. It was 77AD when the

debasement appears to have reached a low



Vespasian (69-79AD)

AR Denarius (18mm, 3.35 grams)

Rome mint Struck AD 77-78AD - Silver content 80%

Jumping forward to the target of 275AD we come the murder of Aurelian (270–275AD). The debasement of the Roman denarius to virtually zero was the corruption of the bureaucracy. He sent in troops to put down a rebellion by mint officials that resulted in 7,000 being killed. The next target of 293AD brings us to the monetary

reforms of Diocletian (284–305AD) where he imposes wage and prices controls and reintroduces silver coinage.

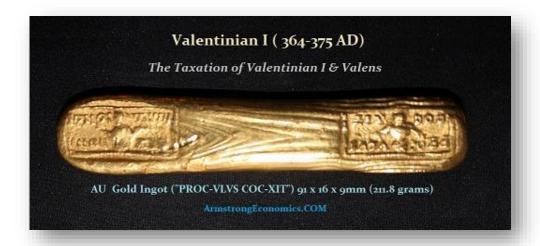
The next target of 311AD starts the civil war and yet another monetary crisis. Within months, Constantine the Great takes Rome in the Battle of Milvian Bridge beginning a new era. The next target of 329AD saw the collapse of the Han Zhao Dynasty in China. Constantine founded the new capital of the Roman Empire on the existing site of the ancient Greek city Byzantium renaming Constantinople. The next target of 347AD marked the official split between the East and West in Christianity ultimately dividing the Roman Empire.



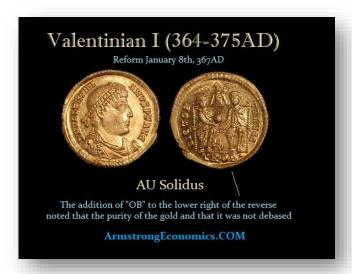
Historical accounts describe an earthquake and tsunami on 21 July 21st, 365AD which destroyed cities and drowned thousands of people in coastal regions from the Nile Delta to Crete. Evidence from radiocarbon data and field observations that western Crete have confirmed that the earthquake actually lifted land above sea level about 10 meters or 32 feet. The Roman historian Ammianus Marcellinus (Res Gestae 26.10.15–19) recorded the event and said ships were cast inland by as much as 2 miles at Alexandria, Egypt. The biggest reported wave in modern time stood at 1720 feet in Alaska during 1958 at Lituya Bay which was considered to be a megatsunami. The same may have taken place in the 365AD tsunami which devastated Alexandria. It was so massive; the day was remembered for nearly 900 years as the anniversary of the disaster was still commemorated annually at the end of the 6th century AD in Alexandria as the "day of horror". Calculations of tsunami show that the uplift of the sea floor by the earthquake would have generated a megatsunami throughout much of the eastern Mediterranean. The economy was devastated in the summer of 365AD.

That megatsunami od 365AD sent the empire into crisis and necessitated the biggest tax increase in Roman history up to that point in history. To pay for the disaster and the rising costs of the military efforts required during his time in reconstruction and defense, Valentinian saw himself forced to introduce the highest, and most oppressive Roman taxes in history. He was keenly aware how bad this was and raised the taxes reluctantly. He then made an interesting sincere

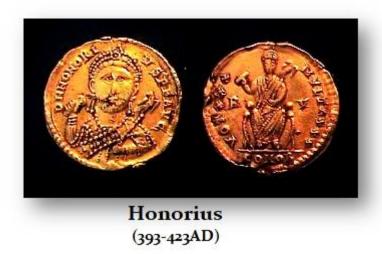
effort to protect the poor. In an attempt to share the financial burdens more justly he made great efforts to ensure that the privileged few would no longer avoid paying their taxes. He also created the office of 'Defender of the People', the role of which was to assist the poor. In every town such a Defender was appointed, empowered to protect the interests of the poor from infringements by the privileged classes and to ensure they were not bankrupted by the taxes.



Because of the large number of underweight and fake solidi in circulation and the corruption among officials, on September 17th, 366AD Valentinian ordered that all taxes were to be paid in gold and that the gold must be melted down and sent to the treasury in bars, Therefore, gold collected in taxation was to be melted into



ingots and tested before acceptance. He reformed the coinage adding "OB" to certify that the gold coins were pure.



The next target was 401AD. This is the very year when on November 18th, 401AD, the Visigoths, led by king Alaric I, cross the Alps and invade northern Italy. Emperor Honorius moved the capital from Rome to the coastal city of Ravenna, which is protected by marshes and strong fortifications but is south of Venice.

Going into the next target of 419AD the west has been devastated. The Visigoths led by King Alaric have sacked Rome in 410AD. Its economic has continued to decline in ruin. In Asia, the Jin dynasty came to an end by Liu Yu. The West was truly in shambled by the next target of 437AD. The Vandals have risen as a formidable force and they conquered Carthage on this target. The next target was 455AD which was the precise year the Vandals sacked Rome. In America, the city of Chichen Itza was founded in Mexico in 455AD.

The target 473AD saw the barbarian Gundobad proclaimed Glycerius Emperor of the West at Ravenna in March 5th, 473AD. He was not recognized by the Byzantine Emperor Leo I. The Eastern Emperor Leo I. Accordingly, Julius Nepos, a relative of Leo I by marriage, was commanded to invade Italy, depose the usurper and occupy the Western throne himself. Glycerius soon found himself deserted by Gundobad. Left with no military capability to defend his claim to the throne, he was dethroned by Nepos at the city of Portus near the mouth of the Tiber. He was then forced to become bishop of Salona in June 24th, 474AD.

Julius Nepos was duly proclaimed Emperor of the West and once more two Augusti reigned in unison. In the summer of 475AD, the barbarian troops in Italy were incited to rebellion and Nepos was forced to flee from Rome to Ravenna and he became an Emperor in exile until his death five years later.



Romulus Augustus (475–476AD) was the young son of the barbarian Orestes who led the rebellion against Julius Nepos. He now declared his own son as Emperor. After ten months of power, in August, 476 AD, Orestes' barbarian mercenaries mutinied once again and proclaimed Odovacar King. This ended even the pretended emperors being appointed by barbarians.

Welcome to the insanity of political economy – two words that should have been divorced when they first met. We simply **MUST** stop putting people in charge who are ignorant of the past and the rule of law if we hope to create a better future for our posterity rather than a desolated land and a new Dark Age because we have

Aethelred II (the Unready) (978-1016AD)

Normal Portrait Issue Agnus Dei Issue of 1000AD

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stupidly destroyed our own civilization.

The 18-year Monetary Crisis Cycle has been uncanny with respect to financial and political crises. As the year 1000

approached, many believed the end of the world would takes place. The King of England Aethelred II even removed his portrait from the coins and put the Christian symbol of the lamb in its place.

Many of these targets picked the start of so many wars like 1337 began the 100-year War. The period between 1301 and 1319 saw Philip IV of France seize the Catholic Church and all its wealth moving it to Avignon and then seized the Knights Templars who were the truly the international bankers of Europe creating an economic decline. Capital always contracts during wars that take place of the soil of the inhabitants. This is what made the United States the financial capital of the world following World War I & II for capital fled from Europe to America.



Even the Protestant Reformation began on the cycle in 1517 Martin Luther posts 95 theses on October 31st beginning the major economic reform – the birth of modern banking and capitalism. His paper then contained the 95 revolutionary opinions that would begin the Protestant Reformation which was funded by Catholics who wanted to enter the banking system. Like the Arabs, Catholics were forbidden to lend money for interest. Becoming Protestant, they could then compete with the only bankers – the Jews.

As the next target 1535 came into play, in England, Henry VIII passed the first **Act** of **Supremacy** was passed on November 3rd, 1534 and later that month, Henry passed the **Succession to the Crown Act 1534** requiring an Oath that every subject was required to accept the King as the head of the Church of England. By May 1535, the first Catholic Martyrs were executed in England and on June 22nd, 1535, Cardinal John Fisher, Bishop of Rochester, was executed for his refusal to swear an oath of loyalty to King Henry VIII of England. Then on July 6th, Sir Thomas More, author of Utopia and former Lord Chancellor of England, was executed for treason after refusing to recognize King Henry VIII as head of the English Church.



Keep in mind one thing. Behind the headlines of such major events as Henry VIII seizing the Catholic Church lies economics. Henry was also going broke. He used the refusal to allow him to divorce by the Pope who was being threatened by the Holy Roman Emperor with imprisonment should he grant that request since the wife of Henry was his relative.

Henry began debasing his coinage. This is when the question of money supply and inflation was philosophically established with Gresham's Law. Gresham worked in Amsterdam and witnessed the response to the debasement of Henry VIII in England. His proposition that bad money drove out good money from circulation was one important observation.



Sir Thomas Gresham (1518-1579)

Henry VIII saw that his debasement failed. People began to hoard the old coinage and this the money supply contracted forcing more and more debasement.

As Henry came to realize the futility of debasement, he used the excuse of the divorce to seize the Catholic Church, confiscate all property and assets, and used this to refill his Treasury. This was why there were martyrs for they saw this for what it was – not a dispute with religion, but a money grab.

After Henry's death in 1547, Protestant reforms made their way into the church during the reign of Edward VI. But, when Edward's

half-sister, Mary, succeeded the throne in 1553 on the next target, she persecuted Protestants and embraced traditional Roman Catholic ideals.

These two targets of 1535 and 1553 were major economic upheavals in Europe dividing the Continent not merely in religion, but also in economics as banking became a Christian enterprise.

On the next target of 1571, on January 23rd, the Royal Exchange opened in London, England giving birth to the stock market. There were many conflicts over religion still going on. In 1571 there was the famous Catholic Rebellion in Scotland during September that year. The Austrian nobility were granted freedom of religion so they could become bankers. The Swedish Church Ordinance 1571 created the first complete order of the Protestant Swedish church.

However, the other major event economically speaking was the use of mercury in the silver extraction process which tremendously increased the output of silver



Philip II King of Spain (1556–1598) Potosi - The Grea Silver Flow

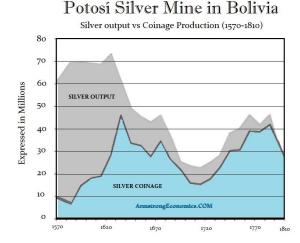
which began what became known as the Great Silver Flow which altered the monetary system of Europe from the Potosí silver mine in Bolivia. (see *Potosi: The Silver City That Changed the World*: By Kris Lane). This took place during the reign of Philip II King of Spain (1556–98).

It was this massive output of silver which turned the Spanish 8 reales into the new

dominant currency in the world. Even China adopted this as their new silver

standard and the coins became the alternative to Britain pounds so much so that when the US dollar was created, it was based upon these Spanish coins which were called alternatively dollars.

The next target of 1589 marks an economic decline as war erupts in Europe. In France, it was really a revolution known as the **War of the Three Henrys** which starts with the Catholic League rebellion against King



Henry III for killing Henry I in December 1588. Then Henry III was killed by a

Monetary Crisis Cycles

Dominican friar which resulted in the throne going to the notorious King Henry IV of France. The Pope had acclaimed the imprisoned Charles, Cardinal de Bourbon, as the rightful King of France, Charles X. Ultimately, Henry IV defeated those of the Catholic League. An English Armada, led by Sir Francis Drake set sail to attack the Spain but fails to achieve any naval advantage.

The next target was 1607 is famous for the founding of Jamestown in America beginning the colonization from England, but economically the far more important Sovereign Default of Spain wiped out the Italian Bank of Genoa on January 13th, after the announcement of national bankruptcy in Spain.

The next target was 1625 and this was notable for the founding of New York City by the Dutch under the name of New Amsterdam. This is also when the Treaty of Southampton formed the alliance between England and the Dutch Republic, against Spain. The Dutch fleet attacks San Juan, Puerto Rico and this alliance aids in shifting power from Spain in the New World. Meanwhile, the English Parliament



was required to consent to impose any tax which was not a divine right of the king unless the nation was in danger. Parliament refused to vote King Charles I the right to collect customs duties for his entire reign, restricting him to one year instead.

The next target was 1643 which marked the beginning of the First

English Civil War with the First Battle of Middlewich. It was on July 28, 1643 when the Battle of Gainsborough saw Colonel Oliver Cromwell distinguish himself as a

Monetary Crisis Cycles

cavalry leader who would become Lord Protector of England ten years later in 1653 replacing the king's image with his own on the coinage. Meanwhile, the Battle of Tuttlingen took place where France is defeated by forces of the Holy Roman Empire.



Oliver Cromwell (1599-1658)(Lord Protector until he died 1653-1658)



The next target of 1661 saw the body of Oliver Cromwell exhumed and subjected to a posthumous execution which was truly a highly political revenge while King Charles II of England, Scotland, and Ireland was crowned in Westminster Abbey, for the second time. This was also the year when paper money made its appearance with the issue by a private bank known as Stockholms Banco founded in 1657. They issued the first modern bank notes in Stockholm, Sweden. Although a private bank the king decided the directors.

Stockholms Banco collapsed when it could not redeem its notes and it was the first bailout but the banker was condemned to death, but later received clemency. On September 17th, 1668, banking license was transferred to the Riksens Ständers Bank ("Bank of the Estates of the Realm") and was run under the auspices



Spainish Fleet of 1715 Shipwreck Set

8, 4, 2, 1, Escudos Cob type struck in Mexico 1714-32 all dated 1714 of the parliament of the day. Eventually, in 1866, the name of the bank was changed to Sveriges Riksbank – its central bank.

The next target of 1679 brought the King dissolving Parliament and a new Parliament was elected. It was at this time that they enacted the Habeas Corpus Parliament which defined and strengthen the ancient prerogative writ of habeas corpus requiring a court to examine the lawfulness of a prisoner's detention and thus prevent unlawful or arbitrary imprisonment that had been a prerogative of kings.



King William III (b 1650; 1689-1702)

The Great Recoinage of 1696 was an attempt to replace the hammered silver that made up most of the coinage in circulation in Britain that had been clipped replacing it with machine produced "milled" coinage

The next target of 1697 saw a monetary reform of massive importance. King William III of England decreed that all the old coinage that hand been produced in the ancient tradition of hammering coins manually with the new invention of machine milled coinage was an admirable plan. The outstanding coins had often been shaved down and clipped.

The introduction of machine milled coinage began in 1663. This was a tremendous improvement over the old hammered coinage. However, the decree to turn-in all the old hammered coinage in 1696 presented a massive problem for the Royal Mint. They could not produce enough coinage to replace the entire money supply in such short order.



This was part of the monetary reforms which also saw the Bank of England formed in 1694. The Bank of England did not get a monopoly on issuing banknotes until 1844. Private banks had also issued not which began to be restricted in 1708.

The next target was 1715 which resulted in a financial crisis when Spain's Treasury Fleet sunk off the coast of Florida in a hurricane. Of the 12 ships carrying a massive amount of gold, only one made it back to Spain with the loss of over 1,500 sailors. Part of the treasury was discovered during the 1960s.

The next target of 1733 saw the Battle of Kirkuk which led to the decline of the Ottoman Empire. It was the next target of 1751 which saw Britain adopt the Popish



Gregorian calendar so this was the last time that New Year's Day took place on March 25th instead of January 1st thereafter. Economically, this was also the year that the fall of Spain led to the Maria Theresa thaler becoming the new international currency.



Frozen Thames in London - 1767 Climate Change

The next target was 1769. While the climate was starting to warm from the depths of the Little Ice Age first drastic low in 1650, another very cold spike came in 1770, with the third spike low in 1850. The weather remained extremely volatile as it shifts in these periods of climate change. In September 1769, the volatility in climate resulted in a massive drought which struck in Bengal creating a historic famine of 1770, in which ten million people, or one third of the population, died. There was no other famine in modern times which has ever matched the extent of this natural disaster. The British were forced to agree to a treaty of mutual assistance, but the British East India Company increases its demands on the Bengali people to keep profits up seeding resentment which would not be forgotten.

The next turning point was 1787. It was on May 14th, 1787, in Philadelphia, Pennsylvania, is where the delegates began arriving to write a new Constitution for the United States. The Bank of North America, the first central bank of the United States, was reincorporated in 1787. The Colonial coinage of New Jersey ceased after 1788.



1787 New Jersey (Nova Caesarea) Penny (issued 1786 - 1788) New Jersey is English Translation of Latin Land of the New Caesar after Julius Caesar



The next target of 1805 and there was a silver crisis with the United States stopped minting silver dollars in 1804 and issued no silver dollars at all between 1805 and 1840. In 1792, Congress adopted a bimetallic standard and the 15 to 1 ratio of silver to gold. The precious metal content of a US dollar was fixed at 371¼ grains of silver or 24¾ grains of gold. By 1795, the 15:1 ratio was under pressure because of the revolution in Paris as Gold rose against silver pushing the ratio to 15½ ounces of silver to one ounce of gold. By 1799, the ratio continued to expand reaching 15¾ ounces. This presented a huge arbitrage opportunity, so bullion dealers bought United States gold coins using Spanish silver coins and they shipped them to Europe to be melted and re–sold profiting almost 10z of silver.

The net gold capital outflow was huge and American coin was vanishing rapidly. Finally, in 1804, when Napoléon Bonaparte became Emperor, President Thomas Jefferson was forced to order the suspension of minting gold \$10 eagles and silver coins. All we see are copper coins being produced at this point in time. This was the backdrop to the Act of 1806 which made all foreign coins legal tender.

The next target was 1823. This marked the start of the Australian Gold Rush as this was the first-time gold was discovered on that continent. The Congress of Central America declares absolute independence from Spain and Mexico. President James Monroe declares the Monroe Doctrine European attempts to recolonize the Americas would be considered a hostile act towards the United States. This was followed in 2 years by the Panic of 1825 which was a speculative bubble that resulted in the Panic of 1825 involving the imaginary country of Poyais as people were keen on emerging markets.

The 1825 bubble unfolded creating a contagion which spread to the domestic hot stocks in the Canal Bubble. Here there was the Loughborough Canal Navigation Co. which consistently paid the highest dividend of any canal company in England and it was the leading share at that time domestically. In 1824 its share price actually hit £5000, which was an incredible amount of money.

Their share price never split and the annual dividend reached £200. Shareholders were getting paid a dividend that was MORE than what they had paid for the share, to begin with.

The next target of 1841 and between 1841 and 1842, eight states and the territory of Florida defaulted on their debts in the United States creating a major sovereign



1842 Bond State of Louisiana

default. Three other states narrowly avoided default. Five of the nine defaulting states repudiated all or part of their debts entirely - Arkansas, Florida, Louisiana, Michigan, and Mississippi. The credit of the U.S. federal government, which never defaulted after the debt restructuring of 1790, was tarnished for decades along with the states that did not default. Pictured here is a State of Louisiana bond issued in 1842 and is hand signed by the State's Governor, Andre Bienvenu Roman and Treasurer, F. Gardner. This historical document states it was issued to "...revive the Charters of the several banks located in the

City of New Orleans..." Louisiana experienced years of economic growth as the number of banks doubled and capital increased thanks to Jackson's bank war.

It was also this target of 1841 when American President John Tyler vetoed on August 16th, 1841, the bill to re-establishment of the Second Bank of the United States during the economic collapse from the Panic of 1837. Two days later, an angry mob showed up at the White House late at night, firing guns and hanging Tyler in effigy in front of the mansion. This was the worst public protest against a president ever to take place on White House grounds.

1841 also brought the unification of Montreal into Canada and Britain then occupied Hong Kong in addition to the fact that New Zealand became a British colony.

Monetary Reforms (1857 - 1864)



With the Panic of 1857, there was a monetary reform which began in the United States by reducing the size of the penny by about 30% and changing the metal from bronze to copper-nickel. They also introduced the new design of a flying eagle. This gave way on the next target of 1859 introducing the Indian Head

penny. Then after the American Civil War, the composition was changed back to bronze in 1864.

It was also this target of 1859 which was the beginning of Pike's Peak Gold Rush in Colorado in the Colorado Territory and also the discovery of the Comstock Lode in the western Utah Territory (present-day Nevada) which would undermine the American economy during the second half of the 19th century.

Just as a side note, this was also when the chimes of Big Ben rang for the first time in London. It was also the year that marked Charles Darwin's publication of the Origin of Species. It also marked on September 1–2, 1859, one of the largest recorded geomagnetic storms that ever took place disrupting even telegraph communication.

The next target of 1877 marked the first telephone line installed between Boston and Somerville, Massachusetts. This was also the beginning of the rise of Marxism in the United States. It was known as the Great Railroad Strike of 1877 when riots erupted in Baltimore and Maryland which was joined by sympathy strikes in Pittsburgh which also resulted in violent rioting. In St. Louis, a full-scale worker's

rebellion began and they went as far as to establish an actual Communist government which forced President Rutherford B. Hayes to send in armed troops. This was sparked by what was called a Depression back then which began in 1873 and lasted until 1879. The Depression even saw a shortage of copper and the penny, which in 1875 saw a mintage of over 13 million coins to a collapse of just 852,500 pennies in 1877.

The next target of 1895 came during the next Depression which began in 1893 and really lasted into 1900. On February 20th, 1895, this is when the gold reserve of the U.S. Treasury was saved, when J. P. Morgan and the Rothschilds loaned \$65 million worth of gold to the United States government to prevent its default of the gold standard.

The bonds went up for sale are sold out in 22 minutes. This led to cries that J.P. Morgan had profited making millions upon millions of dollars on the bond issue. It was reported that most would go overseas.

The fact that the bonds were oversubscribed led to the wild stories that Morgan had personally benefitted from the transaction. This would shape his reputation until he died.



Democrat and Chronicle Rochester, New York February 21, 1895, Thursday • Page 1



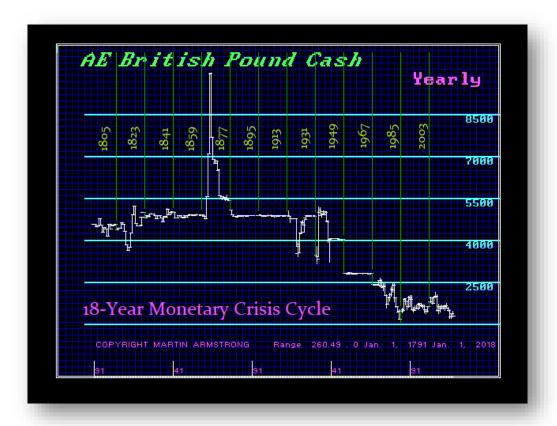


The next target was 1913 was very critical. It marked both they birth of the Income Tax. Tariffs were really viewed as an additional tax on for they only seek to protect labor at the expense of everyone else. Tariffs benefits only the producers by rewarding them with a higher income than the free market would provide. However, the other side of the coin on this issue was that Wilson also created the income tax. The Revenue Act of 1913 reduced the average import tariff rates from approximately 40% to about 26% and the revenue shortfall was to be be made up with income taxes.

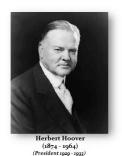
Wilson also signed the Act to create the Federal Reserve. However, the structure of the Federal Reserve was quickly altered when World War I started the following year.

This was also a major turning point which would creat the next boom – Roaring '20s. The Lincoln Highway was finished allowing the first automobile road across the United States. The Ford Motor Company introduced the first moving assembly line. This innovation reduced assembly time from $12\frac{1}{2}$ hours to 2 hours, 40 minutes.

South of the boarder, the Mexican Revolution erupted when Pancho Villa returned to Mexico from his self-imposed exile in the United States.



From the turning point of 1913, the shift in the Financial Capital of the World began. We can see that the British pound had peaked in 1964 against the dollar at \$9.97. The US was virtually bankrupt in 1895. But by 1913, Europe was headed into World War I. From here on out, the tables reversed. The pound would move into crisis mode on each turning point like clockwork.



During this new stage of the depression, the refugee gold and the foreign government reserve deposits were constantly driven by fear hither and yon over the world. We were to see currencies demoralized and governments embarrassed as fear drove the gold from one country to another. In fact, there was a mass of gold and short-term credit which behaved like a loose cannon on the deck of the world in a tempest-tossed era.

THE MEMOIRS OF Herbert Hoover - The Great Depression 1929-1941, id/p 67

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The 1931 target produced the Sovereign Debt Defaults which ended up pushing the dollar to record highs. This sparked the protectionist era which only fed into the economic crisis that would lead to World War II because of the punitive measures of the Reparation Payments imposed on Germany.

TWENTY COUNTRIES DEVALUE THEIR CURRENCIES

Pakistan Only Commonwealth Nation Against Devaluation

LONDON, September 21.—Early today 20 countries—the other, two were Hong Kong and Indonesia—had decided to follow Britain's example and devalue their currencies.

Pakistan last night decided not to devalue the Pakistan rupee.

The decision was taken at a five-hour Cabinet meeting. Pakistan is thus the only Commonwealth nation not to devalue her currency after the devaluation of the pound sterling.

The next target of 1949 witnessed the devaluation of the pound as the British Empire began to separate into republics as the pound was clearly overvalued relative to its economy. On September 19th, 1949, the United Kingdom government devalues the pound sterling from \$4.03 to \$2.80, leading to many other currencies being devalued. During the hard times in Britain, they had actually imposed a rationing of clothes. Rationing of clothes ends in Britain. Canada's decision to enact its Canadian citizenship law, effective from January 1st, 1947 led to Australia following suit in 1949. It was the 1949 Commonwealth Prime Ministers' Conference which allowed any other nation to remain in the Commonwealth despite becoming a republic.

In the case of Italy, at the time of the Allied invasion, the Italian lira exchange rate was set at US\$1 = 120 lire. In June 1943, the exchange rate was reduced to 100 lire the next month. After the war, the value of the lira fluctuated, before Italy set a peg of US\$1 = 575 lire within the Bretton Woods System in November 1947. However, following the devaluation of the pound, the lira was devalued the lira to US\$1 = 625 lire also on the 21st of September 1949. This rate was maintained until the end of the Bretton Woods System in the early 1970s.

While the IMF began in 1945, it was 1949 when the North Atlantic Treaty is signed in Washington, D.C., creating the NATO defense alliance. It was also 1949 when the first "networked" television broadcasts began.

In the case of Japan, to cope with output collapse and unemployment, the Japanese government printed money to finance subsidies while imposing price controls. Obviously, such a strategy could not be sustained for long. Monetization of fiscal deficits created triple-digit inflation toughing nearly 700% from 1946 to 1949. Black market inflation was even higher, especially in the early period. This was the highest inflation that Japan ever experienced, before or since. As the Japanese economy started to shrink, the Korean War (1950–53) broke out which revitalized the Japanese economy creating employment to produce goods and crops for Korea. The year 1949 was thus a watershed year. The Tokyo Stock Exchange resumed operations, after a four-year shutdown during the war.



Deutschland One Pfennig 1948 F

BRD Bank Deutscher Länder

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The Federal Republic of Germany is established in 1949. The prelude was the Monetary Reform of 1948 to facilitate the introduction of the Marshall Plan, eliminate the black market, and create a more favorable ratio between goods available and the amount of money in circulation. The currency reform of June 20th, 1948, introduced the Deutsche Mark (DM) in the Western occupation zones. As part of its launch, every resident was given start-up money in the amount of 40 DM. (A second installment of 20 DM was paid out later.) The only coin to be struck in 1948 was the 1 pfennig. The 5, 10, and 50 pfennig coins followed in 1949 and the one mark in 1950 with the two mark in 1951. In 1948, the exchange rate was fixed at 3.34 marks to the dollar. It was devalued in 1949 with the pound to 4.2 to the dollar or .2385 to the dollar.



The next target was 1967. Britain turned socialist electing the Labour Party in 1964. The Labour Prime Minister Harold Wilson faced with a deficit of £800 million, which sparked a series of sterling crises. A possible solution was to devalue the pound. By the summer of 1966, sterling was under a lot of pressure but Wilson resisted devaluation seeing the pound was a symbol of national status. Then on the 12th of July 1966, the Cabinet rejected the devaluation imposing deflation and austerity instead.

Nevertheless, by November 1967 the financial pressures reached crisis mode and on the 16th of November, the Chancellor of the Exchequer recommended sterling should be devalued by just under 15%. On November 18th, the pound was devalued from \$2.80 to \$2.40.

The 1967 devaluation was confined to Great Britain. The Deutschmark rallied into April 1966 illustrating the pressure building on sterling. Previously, the rise of Germany was becoming more evident for in March 1961, the DM was revalued higher from 4.2 marks to the dollar to 4 marks – a rise of 4.75%.



There was also the 1966 stock market crash and the prelude which was the strain on the Bretton Woods system. President Kennedy signed in 1963 executive order to remove silver from the coinage which began in 1965. The pressure continued to build and in 1968, they were forced to allow gold to trade freely on London exchange as they attempted to allow a two-tier market with fixed values between nations.



1985 Plaza Accord
From left are <u>Gerhard Stoltenbera</u> of West Germany, <u>Pierre Bérégovoy</u> of France, <u>James</u>
<u>A. Baker III</u> of the United States, Nigel Lawson of Britain and <u>Noboru Takeshita</u> of Japan

The next target was 1985 which of course produced the record high in the US dollar where the pound sterling fell to \$1.03. The strength in the dollar was caused



Nixon closes Gold Window August 15th, 1971

by the policies of Paul Volcker raising the Federal Reserve Discount Rate to 14%. This send capital pouring into the dollar and drove it to historic highs.

This last 18-year cycle between 1967 and 1985 was very eventful. The quarter cycle of 4.5 years from 1967 brought the collapse of Bretton Woods on August 15th, 1971. This marked the beginning of the floating exchange rate monetary system.

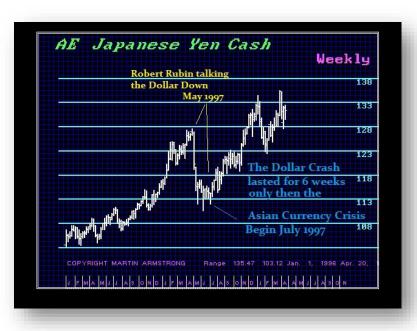
The half-cycle was due in 1976. This was the low in the financial crisis that produced the first major recession post-Great Depression. The share market crashed as OPEC struck with its embargo producing stagflation – cost-push inflation that eventually convinced people it was cheaper to buy today which led to the inflationary boom from the 1976 low.

From 1985, the next quarter cycle was during at the end of 1989 which produced the Bubble Top in Japan which had been 43-year rally from the 1946 low economically and the 700% peak in inflation which took place. This was a profound major high for Japan which nobody quite understands how significant this event would be.



The half-cycle came in 1994 marked the peak in Southeast Asia where capital concentrated after the Tokyo Bubble peaked in 1989. The capital would shift from

1994 leaving that as the peak in their markets. As the capital fled from Southeast Asia the currency crisis hit in 1997. The next quarter-cycle was due in late 1998 which represented both the collapse in Russian bonds which resulted in a global contagion and the Long-Term Capital Management Crisis in 1998 as well as the birth of the Euro.

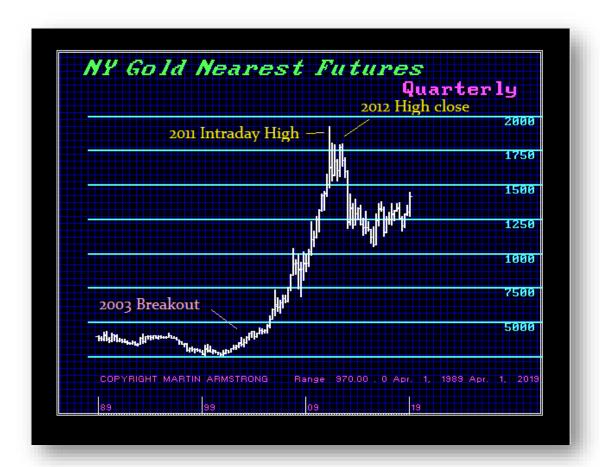




The next target was 2003, the breakout against the dollar following 2000 high which took place with the **DOT.COM Bubble** as capital poured into the US market

on the latest hot investment. The British pound took off from 1.36 level in 2001, reached about 1.80 in 2003, and kept going into a high in 2007 at 2.1151. The Euro bottomed in 2000, began its breakout in 2003 against the dollar, and then rallied into its major high in 2008 going into the next quarter-cycle. While the US market peaked in 2007, the capital concentration was in Europe.

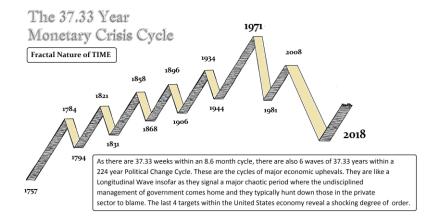




Gold, for the first time in many years, finally exceeded the high of the previous rally in 1999 on this target of 2003. It was clearly a breakout on many different levels. The next half-cycle was due in 2012. In gold, 2011 produced the intraday high while 2012 produced the highest yearly closing. From there, gold turned down. The next quarter-cycle was 2016 where it made a high which could not be breached until 2019. The next cycle would be due in 2021.

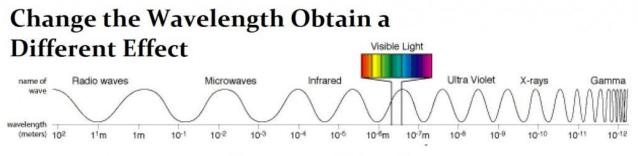
The next target will be 2021. Keep in mind that these previous targets like 1949 and 1967 were breaks in the fixed exchange rate system. We are now on a floating exchange rate system so these tend to pinpoint the start of problems that force political changes rather than just the end of a trend that culminates in the breaking of a pegged currency.

The 37.33-Year Monetary Crisis Cycle



he two critical factors to comprehend about cycles is that (1) frequency determines the effect and (2) the structure is always fractal. There are 37.33 weeks within an 8.6-month cycle. If we divide 224-years by 6, we also produce 37.33 years. This further demonstrates the fractal nature of what we are dealing with. This is all the derivative of Pi.

There is a global correlation to the frequencies of all other markets. Hence, there is not a single cycle that we must comprehend, but an array of cycles which will converge and produce different effects. (8.6 years = 3,145 days). Even sunlight, the electromagnetic wave produces a different result with different frequencies.



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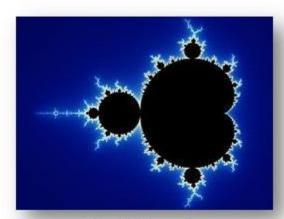


Each generation of cyclical wave motion is created through a process of referring back in time to the previous wave and attempting to duplicate its shape and size.

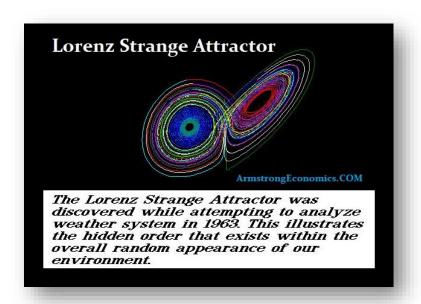
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Cycles are the key to the universe itself. The earth travels around the center of universe and reaches the same spot once every 250 million years or so and the precession of the Earth is one cycle of 25,800 years (3 \times 8.6 = 25.8). We also are born, we live, and then we die – the cycle of life. Yet this is still only just scratching

the surface. At the core of everything lies the fractal design within nature. It is more than just a Mandelbrot Set. We have children who are copies of ourselves taking bits of both parent's DNA and combining them. That is the process of cyclical reproduction by self-referral – the offspring is a DNA copy referring back to the source.



Mandelbrot Set



Then there is the Lorenz Strange Attractor which was discovered from fascinating cyclical the behavior of weather systems. After putting in weather data, the computer revealed there were long-term cycles and plotted them becoming the strange attractor.

Absolutely everywhere we turn, we are confronted with the cyclical behavior no matter what the system we

have under study. Just go to the beach and pay attention to the waves which crash upon the shore. Count the number of waves between a large wave and you will suddenly be confronted with a cyclical pattern. Nature is based upon cyclical movement and everything is fractal. Look closely at a tree leaf. You will

see veins that run through the leaf that take the same shape as branches emerging from the trunk of a tree.

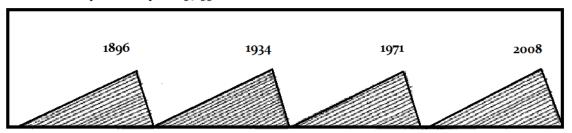
Cycles are the blueprint of the Universe. It is how energy even moves. You have brain waves and your heart beats to a cycle. The absence of a cycle means you are dead.

It is imperative to understand that we obtain different effects with changes in the frequency. It is also



critical to grasp that everything within the universe is fractal by design. Withy these two realities, we can take that step through the looking-glass and enter a whole new world of fascination and design.

The Monetary Crisis Cycle - 37.33 Years



The **37.33-Year Monetary Crisis Cycle** is a fractal derivative of the Economic Confidence Model's 8.6-year Pi structure.

In 1895, J.P. Morgan reorganized departing from his former alliance with the important Philadelphia family of Drexel, that was known as Drexel Morgan & Co. It was in 1895 that the split created J.P. Morgan & Company. Nevertheless, the great financial crisis of 1896 led to J.P. Morgan gathering a consortium of world banks to bailout the United States Government. J.P. Morgan's firm sold all of a \$62 million Government bond issue, the sale ended a gold shortage in the U.S. Treasury, that had been instigated by the desire to create inflation through altering the gold-silver ratio., By valuing silver at a higher rate to gold, other nations delivered silver to the United States exchanging it for gold that led to a vast shortage of gold where in effect the Government could no longer pay its obligations in international trade.

It was the 1896 turning point that marked the economic turmoil. It was this very target year when William Jennings Bryan (1860–1925) delivered his famous speech at the Chicago Democratic Convention.

"Having behind us the producing masses of this nation and the world,

supported by the commercial interests, and the toilers everywhere, we will answer their demand for a gold standard by saying to them; You shall not press down upon the brow of labor this crown of thorns, you shall not crucify mankind upon a cross of gold."

The 1896 Financial Crisis was the Government trying to deliberately create inflation at the request of farmers and silver



William Jennings Bryan (1860-1925) Cross of Gold Speech - July 9, 1896

miners. Those lobby groups fought hard and their overvaluation of silver drove gold to Europe bankrupting the federal Government.



The 1934 event was when Franklin Roosevelt devalued the dollar from \$20.67 for an ounce of gold to \$35 confiscating gold in the process from the people ending the lawful ownership of gold which remained in effect unto 1975 (41 years). Roosevelt announced he was confiscating gold on April 19th, 1933. This was finally ratified by Congress on June 5th, 1933. The new reduced size Federal Reserve Notes also began to be issued in 1934. There were even \$500, \$1,000, and \$5,000 denominations.

The next interval of the **37.33-year cycle** brings us to 1971 where on August 15th, 1971 Richard Nixon cut the ties to gold completely even between nations. This was



Nixon closes Gold Window August 15th, 1971

not a new monetary system that was designed by some world gathering as at Bretton Woods back in July 1944 where 44 countries gathered.

The 1971 turning point was truly chaos. The new monetary system that emerged by default did so only because of a trade dispute where President Nixon closed the gold window and would no longer redeem dollars for gold for the French and the Swiss. This brought an end to Bretton Woods. It was not planned. It was not even discussed at a major world meeting.

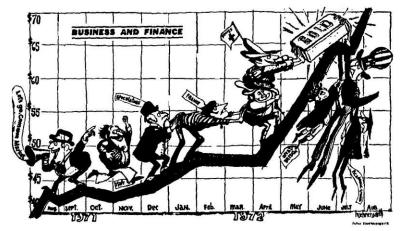


In an interview with New River Media before he died, Milton commented on the events of 1971:

You had inflation running at about 3 to 4 percent, per year, in 1971. Yet, on August 15th, 1971, Richard Nixon imposed wage and price control in order to stop inflation, which was at a level that today we would consider very moderate. And he really didn't impose it in order to stop inflation, he imposed it because we go back to a more complicated picture in which you are having a drain in the U.S. currency. The U.S. currency was pegged to gold at that time, again. We were supposedly maintaining the price of gold at \$35 an ounce. At that price gold was abnormally cheap, and people were wanting to buy gold, so we were having a drain on gold.

Nixon had to do something about that, and what he did was to close the gold window, that is to take the U.S. off the gold standard. But, if he had done only that every newspaper in the country would have had a headline about negative Nixon, and Nixon takes the country off gold. Instead he wrapped it up in a big package, as a package to get the U.S. moving again, bring prosperity to the U.S. And the package included closing the gold window, but also wage and price controls, which he sold as a positive program.

That unquestionably in my opinion, the wage and price controls not only did not cut down inflation, but it was a major reason why we had both inflation and stagnation during the rest of the 1970s.



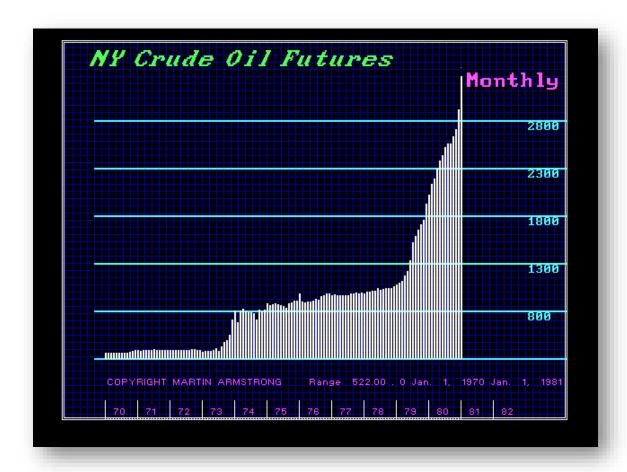
The Gold Rush: What Price Money!

There was a trade dispute with Europe and it was the French in particular who were draining the US gold reserves in hopes of rising to the stature of the financial center of Europe. President Richard Nixon's 1972 visit to the People's Republic of China was an important strategic and diplomatic overture. He was seeking to open trade with China to offset the trade deficits with Europe. That 1972 trip was more than a mere resumption of harmonious relations between the United States and mainland China after years of diplomatic isolation.

To be fair to Nixon, abandoning gold was not the primary cause of inflation for the 1970s. The 1973 oil crisis began in October 1973 when the members of the Organization of Arab Petroleum Exporting Countries (OPEC) proclaimed an oil embargo. The embargo targeted nations supporting Israel during the Yom Kippur

War, namely Canada, Japan, the Netherlands, the United Kingdom and the United States. The embargo also later extended to Portugal, Rhodesia and South Africa. By the end of the embargo in March 1974, the price of oil had risen nearly 400%, from US\$3 per barrel to nearly \$12 globally.





The 1979 Second Oil Crisis (oil shock) occurred in the world due to decreased oil output in the wake of the Iranian Revolution in February 1979. The rising militant religious government in Iran led to the full-scale invasion of Iran by Iraq on September 22nd, 1980. The price of crude oil more than doubled to \$32 per barrel over the next 12 months, and long lines once again appeared at gas stations, as they had in the 1973 oil crisis.

With the events of Nixon's Impeachment process which began in the United States House of Representatives on October 30th, 1973, following the "Saturday Night Massacre" episode of the Watergate scandal. With impeachment by the House and removal by the Senate virtually certain, on the night of August 8th, 1974, Nixon took to the airwaves and delivered an address in which he announced his decision to resign the following morning. This event distracted Congress and then the OPEC oil price shocks took place and by the end of the decade, the floating exchange rate system became the de facto monetary system by distraction rather than design.



The United States had not experienced a floating exchange rate monetary system since the American Civil War. It was not taught in schools. Economists did not know even what to teach. Previously, the United States abandoned the gold standard during the Civil War. Gold traded on the New York Stock Exchange expressed in the form of "greenbacks" to gold. That Led to **Black Friday** in 1869 with a riot as investors dragged the bankers out and hung them in the streets. That is what "Black Friday" really meant. The riot was so bad the Government had to send in troops to suppress the chaos when gold hit \$162 back in 1869. Adjusted for inflation, that may be far beyond \$10,000 today.

The **37.33–Year Financial Crisis Cycle** has been exceptionally accurate governing a specific reaction within the political–economic structure of the world economy. Indeed, even the previous target of 1859 was the bottom of the worldwide Panic of 1857. It also saw the discovery of the Comstock Lode in the western Utah Territory which set off the undermining of the US dollar and Pike's Peak Gold Rush begans in the Colorado Territory that same time. Yet often overlooked, on August 27th, 1859, Edwin Drake drilled the first oil well in the United States, near Titusville, Pennsylvania, beginning the Pennsylvania Oil Rush.

The next target following 1971 would be 2008, which was a profound turning point which has indeed altered the world economy from which it has still not recovered

as we enter 2020. The 2008–2009 Financial Mortgage–Backed Securities Crash was far worse than the 1929 Great Depression. It ended two of the five investment banks – Lehman Brothers and Bear Stearns.

True, the 1929 Great Depression produced higher unemployment, but that was also created by the climate change with the Dust



Bowl and extremely volatile weather. The rise in unemployment was also the result of the advancement in technology with tractors and machines which then reduced the labor needed in agriculture. It had been agriculture which employed 40% of the civil work force in 1900. Today, it has been the internet which is displacing jobs in local stores.



The impact of the 2008 target has been monumental. It has resulted in the artificial collapse of interest rates to a 5,000 historic low. The economy has been unable to recover ever since and more than 10 years of **Quantitative Easing** has completely failed. The solutions proposed include the elimination of physical money and to move exclusively to electronic money so governments can eliminate hoarding, bank runs, and collect every penny of tax they believe they are entitled to. As the central banks have engaged in **Quantitative Easing**, the political side of government has been aggressively pursuing tax enforcement. The two policies



have been at odds with each other yet they are unable to grasp what they are doing is counterproductive.



The next turning point on that major global cycle frequency of 37.33-years will be 2045. Given the fact that this one arrives after the peak of 2032.95 on the Economic Confidence Model implies there really will be a complete new monetary system which arises in the aftermath of that event. The Economic Confidence Model wave which peaks in 2032.95 and the bottom of the first 8.6-year wave into the next cycle which will be 2045.85.

The 13-Year Interval

There is a 13-year interval from the major targets of the 37.33-Year Monetary Crisis Cycle which at times will line up with the 18-year Monetary Crisis Cycle and that tends to produce very important events.

For example, 1859 + 13 brings us to the Panic of 1873 when silver was demonetized. 1896 + 13 brings us to 1909



which was actually the highest annual closing and reaction rally from the 1907 Panic low. This is when Congress enacted the Republican-sponsored Payne-Aldrich Tariff, which would lead to a compromise of introducing the income tax in 1913 to compensate for the loss in revenue by reducing these tariffs, the capital flows shifted and a 5-year bear market began until World War I.



Bretton Woods Monetary Conference

The next target of 1934 when Roosevelt devalued the dollar and confiscated gold, brings us to 13 years later and 1947. Bretton Woods took place on July 1–22, 1944. The birth of Bretton Woods Agreement actually is measured from the start of the IMF (International Monetary Fund) which came into formal existence when it was created in December 1945. That is when its first 29 member countries signed its Articles of Agreement. However, the IMF began did not begin operations until March 1st, 1947 (1947.164) on the 13-year target. Later that year, France became the first country to borrow from the IMF.

The next target of 1971.621 (August 15th, 1971) was followed by the 1984 target which was not merely the Indria Ghandi assassination and the attempt to kill Margaret Thatcher in the Grand Hotel Brighton Bombing which she narrowly escaped, that year was the economic plunge with 70 bank failures in the USA. Gold plunged from \$517 in 1983 to \$304 in 1984 as the dollar rose dramatically. The British pound collapsed from \$1.60 in 1983 to \$103.45 in February 1985.

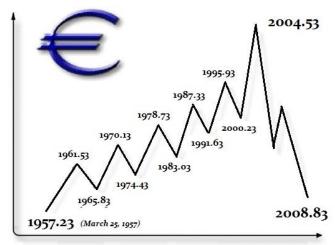
Here we have the 13-year interval coming in 1984 and the 18-year Monetary Crisis Cycle due in 1985. These two targets were back to back and this combination led to the birth of the G5 (Group of 5) in order to manipulate the dollar down. This was announced at the Plaza Accord 1985.726 (September 22nd, 1985).







The Economic Confidence Model The European Union 1957-2008

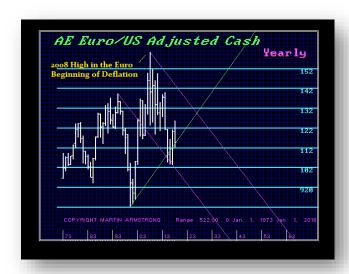


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The next target was 2008 which produced not only the Great Monetary Collapse of 2008–2009 from which the world has still been unable to recover, but it also produced the peak in the Euro which began the decline and fall of the European

Union which has yet to see its nadir. This was the beginning of not just Quantitative Easing, but of **DEFLATION** where people began to contract and hoard their wealth.

By creating the Mortgage Backed Securities, the banks undermined the most important market of all which impacts the psychology of everyone. As long a people believe that their home is a major part of their savings for the future, they spend freely. If they



see that their home is worth less, that is perceived to be a loss and they contract in their spending. Not everyone trades stocks or bonds, but just about everyone else has some sort of stake in real estate once they mature in life.



2021-2022

Even if we take when the IMF began its operations on March 1st, 1947 (1947.164), we can calculate the **37.33-Year Monetary Crisis Cycle** from that point and it too brings us to the 1984/1985 convergence 1984.494 (June 3rd, 1984) when the dollar began to rally significantly thrusting gold lower in dollar terms. This would make US assets appears cheap and lured in Japanese investors who then bailout of the US assets creating the 1987 Crash.

The next target using the birth of the IMF comes in at 2021.824 (Tue., Oct. 5, 2021). This also lines up with the **18-Year Monetary Crisis Cycle** which is due on the next target also in 2021. Keep in mind that these previous targets like 1949 and 1967 were breaks in the fixed exchange rate system. We are more likely to hear screaming that there has to be a return to some sort of a fixed exchange rate system which will just fail. Since we are on a floating exchange rate system at this time, we are more likely to witness the start of problems that force political changes rather than just the end of a trend that culminates in the breaking of a pegged currency. The various pegs in currencies are likely to break going into this target.



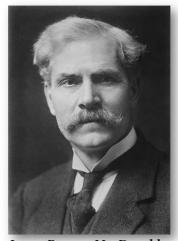
If we focus in on the British pound which has an uncanny correlation to this 18-Year Monetary Crisis Cycle, the prospect that the British pound could see a breach of the 1985 low of \$1.03 remains quite high. Technical projected support by 2021 lies at 98.66 and the drastic extreme target of 56.93. The second target would be possible ONLY in the event that 98.66 is broken perhaps in 2020. That would tend

to suggest more of a political change in Britain where Labour would seize control.

Capital in Britain is absolutely terrified if Labour were to seize Parliament. There is no question that if Jeremy Corbyn became Prime Minister, that would lead to the pound falling below par. In the aftermath of World War I, the US dollar's growing dominance



began to reduce sterling's importance as a reserve currency. There was a massive run on sterling thanks to the win of the **first Labour government** taking office on January 22nd, 1924. However, Labour held control only between January 22nd and November 4th, 1924.



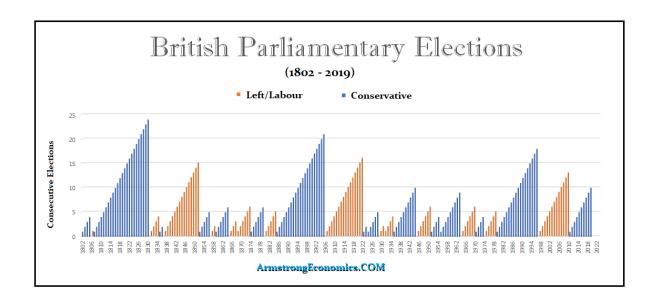
James Ramsay MacDonald (1866 – 1937) First British Labour Prime Minister First Term: January 22, 1924 – November 4, 1924 Second Term: June 5, 1929 – June 7, 1935

There was a huge was of socialism which was engulfing Britain that led to rising union strikes and militancy which really began in 1925 in the coal industry and then in 1926 a six-month coal strike began and a general strike which only accelerated unemployment. These events undermined the British Economy as there was no way the pound sterling would possibly remain as a reserve currency after Labor retook control between June 5th, 1929 and June 7th, 1935.

Ramsay MacDonald (1866–1937) began his second term as Labour Prime Minister at the head of a minority government and with the economy in deep crisis. Britain was still in the grip of the Great Depression with at least two million workers who were unemployed.

With high unemployment, tax revenues declined and demand for unemployment benefits had soared. Unable to meet the deficit, by 1931 it was being proposed that benefits and salaries should be cut. Labour ministers rejected the plan as running counter to their core beliefs. MacDonald went to the king, George V, to proffer his resignation. George suggested MacDonald to try and form a 'national government' or coalition of all the parties. MacDonald was able to form a new government as prime minister, but Stanley Baldwin, leader of the Conservative Party, remained as strong power behind the throne. MacDonald was seen as compromising the Labour Party goals.

This is why capital is sacred to death if Labour were to win Parliament under Corbyn for he is even more extreme than anyone ever was in Labour historically. It would be a repeat of history for it was the economic collapse under the Labour government which culminated in a massive run on sterling in 1931. Capital from Britain fled and poured into the United States. The Gold Standard broke down globally between 1930–1933 as Europe was clearly turned more socialistic at the time. The pound remained floating until 1939 and the outbreak of World War II.



We can see from the broader trend in British politics that there has been an overall decline in how long one party will hold control of Parliament. Curiously enough, there were 24 changes in government between 1802 and 2010 which conformed to the 8.6-year frequency (208/24). This clearly set the target for the collapse of Theresa May as Prime Minister here in 2019. There is certainly a risk of a Labour Government seizing power by 2022 and at the latest 2025.

Climate Change & Rise of Socialism/Communism 2021

It was the month of May 1946 which was the rise of communism/socialism postwar. On May 20th, 1946 (1946.383), the British House of Commons nationalize mines. Then

on May 26th, 1946, this was the last Czechoslovak parliamentary election where the Communists won with (38%). Once they took power, all democratic processes were terminated and it simply became a communist takeover.

Make no mistake about it, the same goals are intended by the left once again but using Climate Change to seize control of the economy. Their goal is not merely some reform against pollution, it is the take



complete control of the economy which is much more akin to the Communist movements of the 20th century.



It we also calculate the **37.33-Year Monetary Crisis Cycle** from the postwar socialism takeover in Europe, that also brings us to 2021.043 or Sat., January 16th, 2021. Therefore, we have a rising trend of this socialistic takeover of the economy which would be economically as devastating as Communism for it will seek to control all development and advancement from central planning. These people are truly against the Industrial Revolution.

Therefore, the rise in Communism/Socialism in May 1946 beings us to 2021 as the next serious target which will converge with the other cycles warning that the 2021/2022 target period is going to be politically tense. These are the people who are advocating not just the takeover` of a single country, but the entire world. They so want to also impose a one-currency system based upon the recent model - the Euro. They will only spread of the economic chaos around the world and they will never make headway into China.

To these people, it is Capitalism which is failing not Socialism. They argue that seizing control of the economy and raising corporate taxes as well as wealth taxes on the rich to insane levels will bring the land of utopia back into existence. They will not give up their dream of living off of other people's money and the problem with the world is human induced climate change which their only solution is to reverse the industrial revolution.

Thomas Piketty, the French economist from communism's birthplace, is back and this time he wants to drive a stake through the heart of capitalism, end human



Thomas Piketty
(French economist whose work focuses
on wealth and income inequality)

rights, and deny equal protection of the law in the true spirit of Marxism. Now in his latest treatise, "Capital and Ideology," he argues that governments should fix the inequality of wealth by confiscating all the assets of the rich thereby ending capitalism.

Piketty has been influential, and his team have been the advisors to Elizabeth Warren's presidential platform in the 2020 election. Despite the fact that this philosophy was tried in both Russia and China and failed, Piketty believes allowing the ownership to still exist, just tax them at excessively high rates. He assumes they will not leave and still produce wealth at the same rate

regardless of the tax. Human nature does not work in such a fashion. He finds it wrong that a 75-year-old may have a few million dollars tucked away and a 25-year-old is broke to be something evil.



Risk of Electronic Currency as a Monetary Reform

Europe knows all about canceling currencies. Americans do not. The dollar remains legal tender, since inception. In Europe, all nations canceled currency pre-Euro every 20 years of so. With Christine Lagarde taking the head of the European

Central Bank (ECB), the risk of moving toward an electronic currency and canceling all physical money remains very high. The practicality of such a measure is truly very low. They may compromise and keep very small denominations of €10 or less.

Indeed, Christine Lagarde who is set to replace Mario Draghi on November 1st, 2019, is extremely pro digital assets. She has advocated already for state-backed cryptocurrencies as well as settlement tokens like XRP and JPM coin. She was the main party threatening tax havens to turn over accounts or they would be blocked from Swift transfers. She even threatened the Vatican to comply with demands on revealing all transfers or be removed from the Swift system.

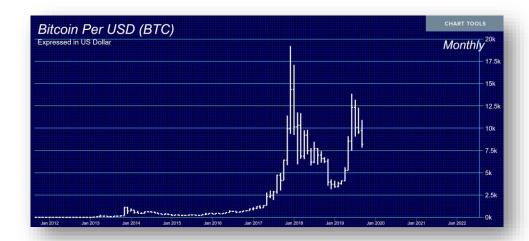
Christine Lagarde fully believes that the number one problem is tax avoidance and hoarding. Therefore, she will be instrumental is pushing Europe into the electronic currency realm to collect more taxes and prevent hoarding which she believes will force the economy to recover ending deflation. On this score, she is just a lawyer who has no background in understanding how the world economy even functions. This is another reason why they are desperate to remove Trump in 2020 for he will never agree to eliminating cash.



BITCOIN & the Fantasy of a Digital Alternative to Fiat

Then there is the greatest sales job I have ever seen next to Global Warming and Human-Induced Climate Change – BITCOIN. The idea that anyone in the private sector could create a currency which will bypass all central banks is up there with would you care to give your account details to this fella in Nigeria who has \$1 billion he is trying to give away.

The 37.33-Year Monetary Crisis Cycle



While they are all called a "digital currency" to create the image that it is money, in fact they are not a currency at all and just a trading product. This sales pitch that they circumvent central banks and are therefore not fiat is a good one. It implies they will retain value. But a simple look at the chart of Bitcoin reveals that there is no store of value and it is simply just another trading instrument no different than a stock or commodity, but, of course, there is no dividend. What they have provided is a test ground for government see how the people will react to the elimination of physical paper money. Or as Australia puts it: "Cash is for Criminals!" There is ZERO prospect of any digital currency actually becoming a currency in the real world.

Monetary Reform Cycle



The Imperial Era of the Roman Empire & the Prohibition against Government Borrowing & Monetary Reforms

eviewing the documented historical evidence after assembling and then reconstructing the entire monetary system of Rome from the coinage, what emerged was a cycle of **Monetary Reform** which was interlaced with **Monetary Crisis** events on occasion. Because the government had no national debt and no central bank, we have still free market pressures which appear cyclically that compelled monetary reforms.

Post–Dark Ages, kings began borrowing money during the 13th century normally to wage wars since there were no social programs and kings did not have to bribe people to vote for them with promises of unfunded liabilities.

Therefore, from the 13th century onward, all we see is a countless run of sovereign defaults. There have been only two brief exceptions to where governments paid

of their debts – the US during the early 19th century, and Romania which imposed harsh deflation to accomplish that end.

The first major sovereign defaults unfolded with France and England under the huge burden of their war with each other during the 13th to 14th century. Orlando Bonsignori was the leading banker and his firm, the Gran Tavola, can be considered the forerunner of the universal or international bank. The **Gran Tavola** expanded with branches in Bologna,



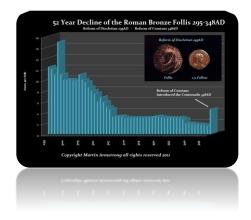
Philip IV (1285-1314) King of France

Genoa, Marseille, Pisa, and Paris. What gave it its statue was the fact that it was the banker to the Papacy as people donated money to the Church throughout Europe. The **Gran Tavola** had expanded into lending to King Philip IV (1285–1314) of France, which would prove to be a fatal mistake.

The **Gran Tavola** declined and went bankrupt in 1298. The failure of the bank arose because Philip IV of France confiscated Sienese assets he claimed to have been owed by the Bonsignori. Their loss of papal business under Pope Boniface VIII also contributed to their demise. The failure of the **Gran Tavola** set in motion an economic collapse in Siena, creating a contagion that spread to several other Sienese banks at the time. This event no doubt led to the 1320 collapse of Siena as a financial center with an international stature.

The Medici Bank of Florence (1397–1494) had a special clause prohibiting lending money to kings and princes of Europe no doubt inspired by the default of Philip IV. It read: "to deal as little as possible with the court of the Duke of Burgundy and of other princes and lords, especially in granting credit and accommodating them with money, because it involves more risk than profit" (id/ p 343; The Rise and Decline of the Medici Bank, by Raymond de Roover).

In England, it was Edward I (1272–1307) left his country deeply in debt. Regulations against the Jews in their moneylending began in 1215 in England. Edward I, borrowed heavily from the Jews to fund his war with France. When he could not pay, he suddenly discovered they were Jewish, defaulted on his loans, confiscate much of their property, and then banished them from England.



Clearly, we have the Roman Imperial era where there was no state borrowing. The crises that would emerge tended to be debt issues rising from the private sector which would still be impacted by the business cycle.

Between 35BC and 425AD, a total of 460 years, there were events of monetary reforms. This produces and average cycle of 17.03 years. Divide that by 2 and we come up with 8.51 years Clearly, this is a very close to the 8.6-year frequency of the (ECM) Economic Confidence Model. The reform Octavian in 35BC took place on the ECM 8.6-year Wave #700 whereas the wave which peaked in 2015.75 and bottoms 2020.05 in January 2020 is **ECM 8.6-year Wave** #938 in our database.

Monetary Reforms of the Roman Empire during the Imperial Era

Octavian Introduces Sestertius 35BC

Augustus Monetary Reform 15BC

The Monetary Reform of Nero 64AD

The Monetary Reform of Trajan 107AD

Monetary Reform of Commodus 177AD & 187AD

Monetary Reform of 194AD

Monetary Reform 215AD – Double Denarius

Monetary Reform of Elagabalus – Only Gold Acceptable

for Taxes 220AD

Monetary Reform of 222AD – End of Double Denarius

The Monetary Crisis of 235–238AD

Monetary Reform 238AD – Restoration of Double Denarii

Monetary Reform 249AD Double Aureus & Sestertius

Inflation Soars & Public Confidence Decline 251AD

Collapse of the Monetary System 260–268AD

The Double Antoninianus of 283AD

Diocletian's Monetary Reforms of 290AD

Diocletian Silver Reintroduction 294AD

Diocletian Bronze Monetary Reforms of 294AD

Diocletian Edict 301AD - Wage & Price Controls

The Monetary Reforms of Constantine 309AD

Constantine Bronze Monetary Reform of 313AD

Bronze Monetary Reform 348AD

The Bronze Double Centenionalis of 350AD

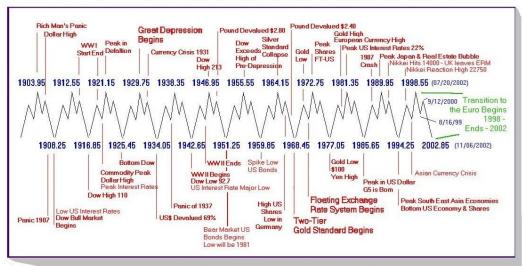
Monetary Reform of Theodosius I – 383AD

Legal Reforms - Codex Theodosianus 438AD

Tribute to Attila Hun - Abundance of Gold

Gold Dominates Monetary System post 425AD

Economic Confidence Model



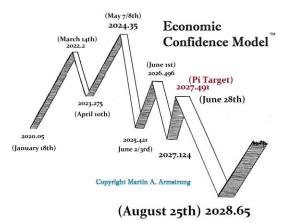
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Therefore, we have also witnessed **Monetary Reforms** unfolding in conjunction with the **Economic Confidence Model** (ECM) as well. From 35BC, the turning point aligned with the ECM in 2011. That means the half-cycle shows 2020 as a target. As stated, many times, this is a model derived from international panics and not specific to any single country. The intensity unfolds when a par5ticular individual market or economy lines up with this model so that the capital flows shift and then result in a concentration of capital into a specific country and market. This is what took place in 1929.75 as then the capital fled Europe and concentrated into the

USA and it also shifted resulting in the capital concentration in Japan on the 1989.95 wave.

Consequently, we should then look for a convergence with the ECM and the potential for **Monetary Reform** during the next 8.6-year Wave which peaks in 2024.35.

Thus, we have a combination of the 18-Year Monetary Crisis Cycle pointing to 2021/2022, the ECM pointing to 2022.2 and then we have the important high in this wave due 2024.35.





Ack on the 5th of June 2014, the European Central Bank (ECB) Governing Council lowered the Main Refinancing Operation rate to 0.15% and the Deposit Facility (DF) rate to negative -0.10%. Since banks held significant amounts of excess liquidity during this period, short-term market rates closely tracked the DF rate. In reality, it was the DF rate which became the de facto main policy rate. With this decision, the ECB ventured into negative territory for the first time in its history.

On September 11th, 2019, the ECB signaled that it was reaching the limits of what it could possibly do to stimulate the Eurozone economy. The ECB cut a key interest rate and revived a money-printing program, but later issued an unusually strong call for Eurozone governments to do more of the economic heavy lifting. The ECB



stated that those countries that can afford it should stimulate growth by increasing public spending. Mario Draghi speaking for the ECB at the news conference was asked whether the message to political leaders was that they can't expect the central bank to come to their rescue forever. Mr. Draghi answered this question: "Definitely yes."

The theory that lowering interest rates will stimulate demand has been a tool which has existed for centuries. It has never worked because people will never borrow in the middle of a recession/depression if they have no confidence in the future. This is what central bankers refuse to look at because they know it is a confidence game and all they can due to preach in hopes that someone will listen.

Central Banks have consistently lowered interest rates as soon as the stock market crashes and it appears the economy is doing the same. They have no other tool and they cannot be seen as simply doing nothing despite the fact that they are not in charge of anything.

Mario Draghi's statement in September 2019 admitted that this entire policy of negative interest rates has completely failed along with Quantitative Easing and in fact it has caused far more damage than anyone is willing to even talk about publicly. The damage to pension funds and the elderly is beyond description. People who have saved their entire lives believing they would be able to live off the interest have watched their retirement plans vanish into thin air. Pension funds are on the brink of insolvency and laws that restricted their investment to government bonds have come back to undermine the foundations of decades of socialism.

The damage has yet to fully manifest itself in Europe. About 30% of the bonds issued by governments and companies are trading at negative yields in Europe which is now about \$17trillion of outstanding debt (\$ trillion being private). This unprecedented reversal of normal practice has raised profound questions about the outlook for bonds. This is seriously impacting core holding for institutional investors. Worse yet, when this Bond Bubble bursts, it will be devastating to the European economy.

What has transpired is the buyers of these negative bonds have been simply traders or punters. They have not bought this stuff to actually hold to maturity. They have been happy to trade them assuming rates would continue lower so it would be a bond rally. When the bubble bursts, there will be no place to sell these time bombs and the price will collapse dramatically to compensate for what a normal interest rate should have been plus a premium. That would most likely be far closer to 10% at bare minimum

We are looking at **SERIOUS** credit risk once again but instead of the time bombs being mortgage-backed securities, this time it will be negative-yielding bonds issued by governments primarily in Europe. The bond markets have been converted into a child's game of musical chairs. When the music stops, someone will be left holding

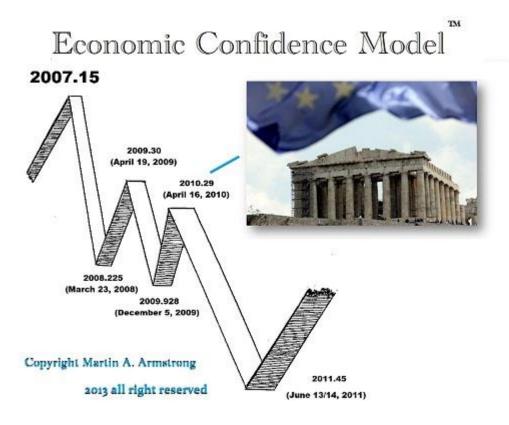


negative-yielding bonds that will only be salable at even deeper discounts.

The interest rate risk that negative-yielding bonds will carry is beyond unbelievable. It is totally artificial supported only by punters. The financial system simply doesn't work with negative rates and this is also contributing to shortages of cash for Repo markets. A slight rise in interest rates will create a massive debt crisis and if you undermine the bond market, that is what creates great depressions. Negative yields have been confined to places outside the USA. Nevertheless, we have a

convergence of forces which are creating the perfect financial storm on the horizon and this time it will come out of Europe.

From the Treaty of Rome in 1957, two intervals of the 37.33-Year Monetary Crisis Cycle brings us to 2032. This implies that Europe will not survive beyond 2032 as the European Union. Instead, it will fracture and return to separatists according to language.



Of course, the Euro peak against the dollar on the 2008 Turning Pint on the 37.33–Year Monetary Crisis Cycle. The European debt crisis began on the Pi Target of April 16th, 2010 on the previous Economic Confidence Model 8.6-year wave which bottomed in 2011. The peak of the next 8.6-year wave was 2015.75 (October 1st, 2015) which market the Russians entering Syria.

It all began when on July 15, 2015, **Time Magazine** wrote, "Berlin's role as the enforcer in negotiations over Greece's debt could cause lasting damage to Germany's global image." Merkel has kept her own poll people to make sure she turns and stays with the popular swings. When her image was tanking due to her policies in Greece, this is when, without a European vote, she flipped solely for her personal political career. Images of elderly Greeks committing suicide in Syntagma

central square in front of the Greek Parliament in Athens had been making the front pages in the international press. Merkel's image was becoming that of a money-grubber without any humanity. Pictures of retired Greeks who were moved



to tears after being unable to withdraw any money from banks and unable to buy food ran around the world.

Then, the **Washington Times** wrote on September 10, 2015, "Angela Merkel welcomes refugees to Germany despite rising anti-immigrant movement." The entire refugee crisis was created by Merkel as a diversion because Germany was being viewed as the harsh enforcer of loans, which were structured to hide what Goldman Sachs had instituted to get Greece into the euro from the outset.

The entire reason for the refugee crisis was simply the view of Merkel globally. She needed to reshape her image from the

loan shark to the caring Mother Merkel. That decision was unilateral and was never put before the EU members to vote. That policy has been at the core of creating tension within the EU and rising calls for separatism. It worked, and Merkel made the cover of Time Magazine in 20915 as person of the year.

There has long been a set-in motion an 18-Year Monetary Crisis Cycle which is due to begin to unfold in 2021/2022. Ever since the adoption of Keynesian Economics post-Great Depression, the government has taken only the justification to run deficits perpetually with no intention of paying off the debt at any time.



Nevertheless, this fiscal mismanagement has really going on since 1949 when the first break in Bretton Woods began with the devaluation of the British pound. We are facing a crisis where the central banks can no longer control the economy and they are quietly behind the curtain demanding that there must be political help to support the economy during this immediate decline.

The structural crisis behind the Euro has been the failure to consolidate the debts of all member states from the outset which has led to the policy of even bail-ins because that would amount to transferring wealth from one nation to another. This in itself demonstrates that the Eurozone is anything but one happy family. Because of this refusal to consolidate the debts, there is an enforcement policy whereby Brussels assumes the power to dictate domestic policy and budgets within each of the member states. This is exactly opposite of the United States where each state is on its own. The US dollar is not dependent upon the budgets of each state as is the case in Europe – one fails and the Euro declines for all member states.

The refusal to consolidate the debts from the outset has also subjected the banking system to tremendous risk and this is where we see the greatest danger. The failure to have consolidated the debts means that the reserves of the banks in Europe must consist of a portfolio of debt issued by the member states. In the



USA, bank reserves are exclusively federal debt – not the bonds of all 50 states.

Additionally, institutions must still choose which Euro bonds to buy since there are no federal bonds. This means that the volatility which appeared in the currency markets before the Euro introduction was merely transferred to the bond markets in the form of credit risk. Capital invests in Euro still predicated upon the confidence within each member state.

4 BUSINESS

nu crusader conquers Wall Street

Europe's currency soldier has found that most Americans are wary, says **ANTHONY BROWNE in New** York, But the financiers see a buck to be made





'What surprises me is the impact of Emu on the international monetary system is not even discussed here in Washington'

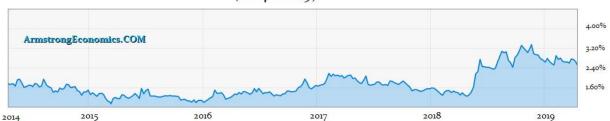
baby euro ready

Baby euro ready to challenge dollar domination

The entire sales pitch to sell the Euro was that combing under Brussels, the new Euro would defeat the dollar. But the Euro could never become a reserve currency without a federal debt. The claims it would produce a single interest rate for all pointing to the United States was also a deliberate misrepresentation since each member of the 50 states in the USA pay different interest rates according to risk.

ITALY-GERMANY 10-YEAR BOND SPREAD

(2014 - 2019)



Consequently, the dream that the Euro would provide a single interest rate as they pointed to the dollar was never realized. Each state within the USA pays a different interest rates according to its own credit ratings. The very same pattern emerged in Europe despite the political promises that there would be a convergence of interest rates when the Euro was created. All the press back in 1998 only spoke of invoicing goods in Euro and that Europe had a current account surplus so the Euro would defeat the dollar and become a major player.

There was never any serious discussion of the details about how the Euro was going to be structured. There were some critics who warned that losing the flexibility of the floating currency would introduce tremendous risks to member states that would introduce a gradual decline in competitiveness within Europe. Nations would surrender the ability to devalue their currency to bring costs into line to stimulate the economy. In reality, nobody would listen.

When we look at these structural flaws, we can see without the debt consolidation, each state would retain its central bank and they would surrender control over their interest rate policy as well. Between the loss of any currency to offset costs and the loss of interest rate policy for their domestic economy, there was a serious question as to how this pretend structure would truly function.

The failure to consolidate the debts of member states would be no different than any country issuing debt denominated in US dollars. Here, they would issue their debt in Euros, but they would lack the control to adjust their currency or local interest rates precisely what takes place by a foreign nation issuing debt in US dollars. Here, all nations would suffer the pains of the Euro that were beyond their local domestic control. This was born out when Greece applied for an IMF loan in 2010.

The global impact of the Euro has been felt within the international capital flows. The Euro may have eliminated currency risk among the member states within the Eurozone, but that risk was internally transferred simply to the bond market.

Externally, the currency risk has prevailed but now the Euro rises and falls as a collective introducing still factors that reflect on the domestic economies differently within each member state.



The rise and the fall of the Euro has not truly delivered the promised-land to Europe. Southern Europe (Italy, Spain, and Greece) had their past national debts converted to Euro which then nearly doubled in real terms going into 2008. This introduced tremendous deflation and it merely wiped out economic growth. The youth suddenly found themselves hopelessly unemployed becoming known as *the Lost Generation*. Naturally, those young people see this as a failure of Capitalism rather than the failure to structurally design a new currency from scratch.

The global impact of the Euro has been dramatic. The collapse in confidence in Europe after more than 10-years of failed **Quantitative Easing** has been profound. Additionally, Germany's insistence upon Austerity for fears of reliving hyperinflation leading has only exposed their distrust of Southern Europe's fiscal management. Yet, Helmut Kohl (1930–2017), Germany's Chancellor, pushed the Euro through as a dictator. He admitted: "I knew that I could never win a referendum in Germany," he said. "We would have lost a referendum on the introduction of the euro. That's quite clear. I would have lost and by seven to three."

Ironically, Kohl's insistence that the debts would not be consolidated knowing that the Germans would not trust the fiscal management of the South, is now the very reason that the entire Euro system is at risk. Because of this policy, there cannot be bailouts of banks for money would flow from Germany to say Italy. This has led to the bail-in policy. Thus, even Germany under Merkel has stated there will be no bailout for Deutsche Bank. The risk factor in Europe has emerged exponentially and the Monetary Crisis Cycle appears poised to expose the weak links.



CONCLUSION

he 37.33 Year Monetary Crisis Cycle target for 2008 with the 13-Year Interval points to 2021 as does the 18-Year Monetary Crisis Cycle. We have the Monetary Reform Cycle which appears to target 2020 for the start of this problem and 2024 as perhaps the final culmination of this trend.

The crisis appears to be emanating from Europe most likely the result of the structural flaws underlying the Euro. The prospects of Christine Lagarde taking a much more aggressive stance in Europe to force some sort of recovery will have the opposite effect. What we fact appears to be the collapse of confidence in central banks and government to manage the economy. There are no new theories to come to the rescue that they are willing to listen to until it is too late.

There will be calls for the elimination of paper currency to save the day because the Keynesian Model has failed. They will never admit that is the case so to compel by force to prevent hoarding will be the outcome. We should expect to lose more rights as this process unfolds. By the time we reach 2032, the decline and fall of Western Society will become obvious to one and all.