The Shadow Gold Standard: Assessing the Viability of an Updated Version of a Sound Commodity Currency

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Declaration

I do hereby declare that this research is solely the result of my original work, unless otherwise stated by reference or acknowledgment.

Relevance of this Research

This thesis entitled "The Shadow Gold Standard: Assessing the Viability of an Updated Version of a Sound Commodity Currency" is a result of the detailed analytical research performed by this author for the purpose of his successful presentations at international conferences throughout the course of his academic and professional career.

The relevance of this advanced theoretical and empirical research to the successful achievement of the Degree of Doctor of Business Administration (DBA) relies on its potential and actual application to the fields of Business and Management from both a Macroeconomic and a Microeconomic level as key analytical dimensions regarding the way in which it has been thoroughly conducted.

On a Macroeconomic level, the assessment of the monetary proposal hereby thoroughly outlined and explained in even further detail provides a forward-looking view of a continuously evolving business environment and its suitability for the advancement of entrepreneurial opportunities within a constantly changing market structure involving new challenges and demanding real-time updates on an intertemporal basis, thereby also highlighting the key relevance of a sound monetary standard to even further enhance free markets in the fields of money and banking and this way avoid any kind of government meddling with the inner workings of such highly relevant fields.

On a Microeconomic level, the detailed analysis hereby performed regarding the implications stemming from the evolution of interest rates and the fundamentals which explain the key underlying aspects from the backstage of their theoretical and empirical background thereby provides a sound basis for the assessment of the process of project planning along with project

management, which indeed constitute key aspects within the financial structure of any kind of business in general and most particularly within the context of a globalized world, thus highlighting the key relevance of providing an assessment of the viability of investment projects from a wide array of perspectives.

Such key analytical dimensions from which this research has been thoroughly performed ultimately and by extension also explain the viability of any kind of business, which clearly denotes their suitability for the enhancement of a free market business environment, not only on paper but also in practice.

Contents

Abstract

The key purpose of this research is to asssess the viability of successfully evolving from a paper fiat currency exchange standard into an updated version of a sound commodity standard, and in so doing also unmasking the intertemporal inconsistencies stemming from the monetary determinants of business cycles.

From the perspective of the Austrian School of Economics, the occurrence and recurrence of business cycles are mainly explained by the monetary determinants of unsustainable booms leading to inevitable busts followed by recessions.

This is mostly fueled by fractional reserve commercial banking systems within the framework of fiat monetary standards based on floating paper currencies.

Going back to a sound commodity currency system backed-up by gold as classical monetary asset would therefore set the stage for a pure free market unhampered by the constraints of government meddling with monetary affairs through inflationary central banks.

Introduction

In this research, focus is placed on the theoretical and empirical background on the monetary determinants of business cycles, in order to outline a monetary proposal ultimately aimed at evolving from the current floating paper fiat currency exchange standard into a sound commodity standard, the viability of which might even go beyond the scope of classical fiat currencies and might therefore be susceptible to being achieved through cryptoassets evolving into media of exchange within the blockchain universe, thus becoming cryptocurrencies.

From a cyclical perspective, monetary inflation at first leads to asset inflation, eventually spilling over into price inflation as the bull market in financial assets loses steam right at the onset of a subsequently upcoming downturn or bust, which is often followed by an inevitable recession and a subsequent depression.

Empirically speaking, this explains the very essence of the boom-bust cycle approach to explaining the occurrence and recurrence of business cycles on an empirical and aprioristical basis from the causal perspective of the Austrian Business Cycle Theory (ABCT).

Hence, the research questions hereby driving this thesis are the following:

i) What are the underlying monetary determinants of business cycles from the perspective of the Austrian School of Economics?

ii) What would be the best empirical approach towards the prospective restoration of a sound commodity currency, taking the US Dollar (USD) as worldwide reference currency?

The answer to the first question is thoroughly analyzed in further detail by digging into the monetary determinants of business cycles from an Austrian perspective, in particular throughout the essay from the first chapter, which outlines an updated and extended version of an essay originally entitled "The Backstage of Recurring Monetary Booms", which was first successfully presented at the Fifth Edition of the Austrian Economics International Conference held in Rosario (Argentina) back in 2014, and later published online.

Moving on to the essay from the second chapter, the monetary Austrian approach and its cyclical and implications are explored even further by digging deeper into the inconsistencies of Fractional Reserve Banking (FRB), within the context of the updated and extended version of a research that was first outlined for the Sixth Edition of the Austrian Economics International Conference held in Rosario (Argentina) in 2016, then also selected for presentation at the Austrian Economics Research Conference held in Auburn (USA) in 2017, to end up being successfully presented at the Austrian Economics International Conference held in Vienna in 2019, constituting a milestone through the iconic return of this internationally renowned

academic and professional conference to the city where the Austrian School of Economics had first come into existence with the publication of Carl Menger's "Principles of Economics" back in 1871.

This essay, originally entitled "Fractional Reserve Banking Unmasked", would also be later published as a chapter in a book comprising most presentations held at that conference, entitled "The Indispensability of Freedom".

In line with this, the answer to the second question is elaborated by developing an applied prospective approach to the restoration of a commodity currency by taking the US Dollar (USD) as general worldwide reference currency, within the framework of an aprioristical approach outlined in even further detail in the third and final chapter of this research, thus constituting the pinnacle of the evolution reflecting the practical application of an analytical research which has been thoroughly in progress for over a decade.

In short, our thesis here is that business cycles are caused by monetary inflation setting in motion unsustainable booms enhanced by commercial bank credit expansions fueled by fractional reserve banking systems, thus leading to inevitable busts and the ultimate destruction of the currency.

This is why we may aprioristically assert that the evolution of unbacked paper fiat currencies into commodity currencies as defined in terms of gold would therefore imply achieving monetary freedom by linking such currencies back to the underlying monetary commodity emerging from the inner workings of the free market itself on an evolutionary basis, that is to say precisely gold, and from which the exchange value of the such paper currencies as media of exchange is ultimately derived.

In order to successfully fulfill the purpose of this research by answering the hereby formerly presented questions driving this thesis, we will therefore begin by analyzing the monetary determinants of business cycles, then moving on to dig even deeper into unmasking the inconsistencies and cyclical implications stemming from fractional reserve commercial banking, so as to ultimately combine this theoretical and empirical framework into the outline of a monetary proposal aimed at returning to a sound commodity standard based on gold as the key reference monetary asset.

Chapter 1: The Backstage of the Monetary Determinants of Business Cycles

Austrian Business Cycle Theory (ABCT): Unmasking the Mainstream Brainwashing Masterplan

In light of the causal cyclical perspective of the Austrian School of Economics, it is then highly

relevant to begin by pointing out that what is often labeled and therefore most widely known today as the Austrian Business Cycle Theory (ABCT) was first developed by Ludwig von Mises in 1912, and later even further perfected by his followers, among which we will be particularly focusing on the enlightening approach developed in even further detail by Murray Newton Rothbard. (1)

Having said that, the recurring nature of business cycles is analyzed in depth precisely by Murray N. Rothbard in light of the Misesian roots of the Austrian Business Cycle Theory (ABCT) as explained before. (2)

Such an enlightening framework, often neglected by the focus on mainstream analyses limited to merely addressing the effects of downturns, emphasizes the unsustainability of the booming stage as the cause for the following resulting bust, usually in the form of a credit crunch, and the subsequent recession.

Hence, when analyzing the types of credit expansions performed during the artificially unsustainable booming periods subsequently leading to downturns followed by recessions, within the framework of the Austrian Business Cycle Theory (ABCT) it is often highlighted that during such an artificially distorting stage credit expansion is performed precisely through loans to businesses investing on capital goods, as derived from the artificial decline in interest rates caused by such an unsustainable credit expansion performed by commercial banks in the first place.

This is because such artificially lower interest rates portray a time preference structure entailing a proportion of savings to consumption that is in fact not consistent with actual time preferences, that is to say, such underlying actual time preferences are indeed higher than those misleadingly portraying a higher proportion of savings to consumption and thus denoting a higher level of liquid resources being freed up and therefore being made available to be channeled into long-term investment projects.

Moving even further into the bust stage, once those real proportions have been restored between saving/investment versus consumption and then evidence becomes clear that those long-term investment projects in capital goods to which the formerly described unsustainable fractional reserve commercial bank credit expansion is mostly being channeled are unsustainable through completion, we may then infer that in line with such trend consumption credit, even to a somewhat lesser extent, also influences the advent of the bust stage as it helps speed up the restoration of market ratios between saving/investment and consumption, precisely by fostering demand for consumer goods over that for capital goods at an even faster pace.

From the formerly presented analytical framework, we may then also contend that the Austrian approach clearly addresses the business cycles issue on the grounds of an ex-ante perspective

by focusing on the causes for such fluctuations, that is to say, aprioristically, as opposed to the mainstream viewpoint, which merely focuses ex-post on their subsequent effects and therefore lacks consistence when attempting to provide a thorough understanding on this subject matter.

Hence, this wide array of misconceptions stemming from the underlying inconsistencies in the mainstream approach might then be labeled as part of some sort of “brainwashing masterplan” aimed at neglecting the real cause-effect approach on inflation and business cycles.

Furthermore, it is precisely this misleading approach that has ended up inducing most individuals to disregard the actual connection between monetary inflation and fractional reserve commercial bank credit expansion as the core determinants of recurrent business cycles and prolonged recession periods often ending up in even deeper depressions.

In this sense, such a disconnection might therefore be ultimately regarded as the leading cause for many people to act as if the booming stage of the cycle, throughout which most of the damage in cyclical terms is actually done, could last forever even despite its evident unsustainability in terms of its own inconsistency among other relevant issues regarding this particular subject matter.

This clearly exposes the level at which manipulation is therefore conducted on individual time preferences during the booming stage, on a two-level basis.

At first, demand for money is fostered via demand for loanable funds by expanding businesses investing on capital goods in order to perform long-term investment projects, as if the ratio between savings/investments versus consumption had actually increased, when it actually remains at the same level or even lower than before such an unsustainable expansion was ever being conducted.

Eventually, once people´s demand for consumer goods has proven to be at the same level or at an even higher level than that for capital goods, the latter declines as businesses eventually come to realize that those long-term investment projects which they had embarked upon are in fact unsustainable and must thus be liquidated before completion, that is to say, within a temporal horizon much shorter than originally expected and outlined during the initial project planning stage.

This ends up showing the aforementioned intertemporal inconsistencies in terms of actual time preferences, given the fact that the tradeoff cannot and should not be overlooked between real savings and available funds for consumption: capital and consumption goods sectors cannot expand simultaneously on a sustainable basis.

Any overestimation of the amount of real savings necessary implies an overestimation of people

́s demand to hold money in terms of cash balances in a strictly Rothbardian sense, which then becomes even more evident when demand for capital goods in the first place proves unsustainable and then demand for consumer goods even further speeds up the already ongoing erosion in the purchasing power of the currency, precisely by exposing the declining demand for money in terms of goods and services, thus ultimately leading to price inflation as one of the effects exerted by prior monetary inflation along the way.

The Aprioristically Cyclical Approach to Inflation

In line with this formerly presented analytical framework, when approaching a theoretical analysis of inflation, Ludwig von Mises (2007) specifically refers to a *semantic trick* leading to noticeable inconsistencies regarding the causes and consequences of such an unsustainable policy, as a way to describe what governments usually do in order to create some sort of confusion about inflation by defining it through its effects instead of doing it in terms of its real underlying causes. (3)

In this sense, emphasis is often placed on how the advent of the Keynesian framework back in the 1930s brought about a misleading shift in focus from the real causes of inflation (increasing quantity of money outstanding over and above the stock of specie backing it up, namely gold under a commodity standard, that is to say, monetary inflation) to merely its most widely acknowledged consequence (rising prices, that is to say, price inflation).

At such point, this misconception appeared to have left behind the significant theoretical distinction between monetary inflation and price inflation, the former referring to the causes eventually leading to the latter.

In light of the misleading interpretations on inflation ascribed to such newly established approach reigning from the Great Depression onwards, it is now astonishingly common to experience how in practice there seems to remain an unchallenged lack of distinction between the causes and consequences of inflation.

From a theoretical and empirical perspective, the Rothbardian approach even further refines the Misesian analysis on inflation on a cyclical basis, by breaking it down into three chronological stages describing the ultimate destruction of the currency, thereby theoretically and empirically proving that inflation is indeed a monetary phenomenon in itself.

Along this cyclical process, during the first stage, people's demand to hold money initially tends to offset price inflation due to their expectations regarding a prospective future decline in such price inflation, since they at first expect prices to go down eventually in the near future.

However, moving on to the second stage, such expectations are proven wrong when prices

quoted in terms of the currency whose supply is being artificially boosted through monetary inflation as its underlying cause continue to increase at an even higher pace, thereby speeding up a shift in expectations and building up on the distorting effects exerted precisely by monetary inflation, which brings about a subsequent fall in people's demand to hold money in terms of the depreciating currency.

Finally, the third stage, often labeled as the "crack-up boom", is framed by an acceleration in the formerly described decline in people's demand to hold money, therefore speeding up the pace at which the depreciating currency is actually being exchanged for goods and services and the proportion by which price inflation eventually ends up outperforming monetary inflation, which ultimately leads to hyperinflation and the destruction of such currency as it loses its feature of general acceptability as money when the vertiginous erosion in its purchasing power is reflected precisely by such plummeting demand to hold it in the first place, until such demand hits literally zero and that currency is in fact no longer money, thereby ultimately disappearing as such.

That is why, before going into even further detail regarding the cyclical implications stemming from the evolution of monetary aggregates, it is highly relevant to first distinguish between primary and secondary monetary expansion.

On the one hand, primary monetary expansion refers to the increase in money conducted directly by governments through their central banks, the core aggregate reflecting such process usually being the monetary base.

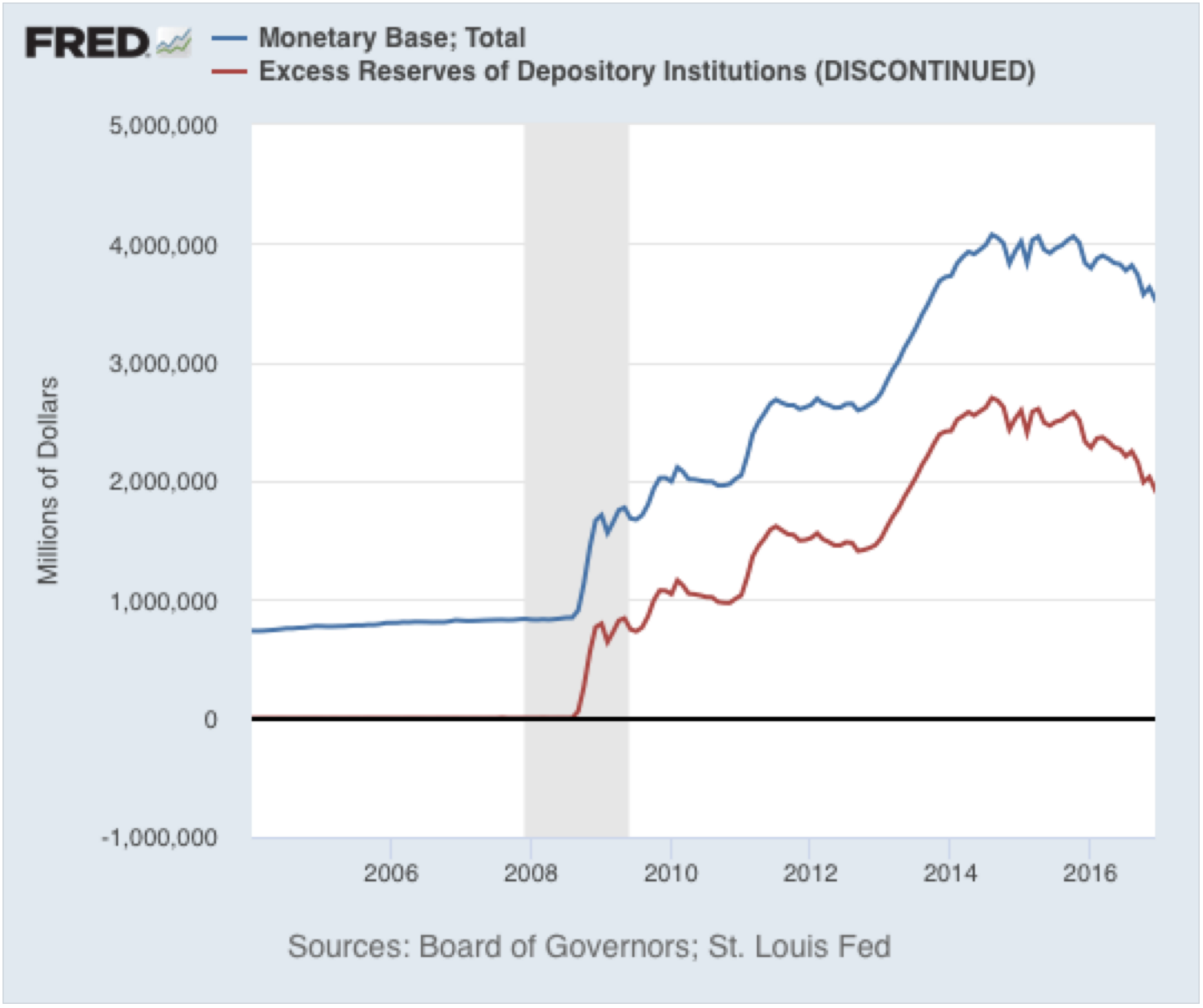
On the other hand, secondary monetary expansion is derived from primary expansion in the sense that it stems from the process of credit expansion led by fractional reserve commercial banks through a multiplying effect on the monetary base by pyramiding on top of it, which is ultimately made possible by the inherently inflationary practice of fractional reserve commercial banking, thus often reflecting in aggregates such as M1 and M2 for instance, among others.

Having stated such a distinction, there arises a clear parallelism between the aforementioned cause-effect relationship between monetary inflation versus price inflation on the one hand, and primary monetary expansion versus secondary monetary expansion on the other hand.

Throughout the unsustainable booming stage of the business cycle, secondary monetary expansion tends to outperform primary monetary expansion, which is often clearly reflected by a more than proportional expansion undergone by M1 and other monetary aggregates with respect to the monetary base, as a result of an unsustainable fractional reserve commercial bank credit expansion derived from an intertemporal distortion in time preferences reflected by artificially lower interest rates, just as previously analyzed in even further detail through the Austrian Business Cycle Theory.

When approaching the bust stage, there comes a point at which the expansion then seen in the monetary base tends to outperform that undergone by M1 and other monetary aggregates, thus denoting a shift in booming tendencies regarding monetary aggregates from secondary monetary expansion back into primary monetary expansion, the latter then being dominant over the former, given the fact that the lingering lack of confidence leading to a credit crunch brings the formerly booming unsustainable bank credit expansion to a halt, which often prompts central banks to mistakenly attempt to offset the natural evolution of such cyclical process by pumping in money indirectly through open market operations (consisting essentially of bond purchases) and even directly through Quantitative Easing (QE), which outright implies the issuance of legal tender currency literally out of thin air.

For instance, after the credit crunch ultimately leading to the Great Financial Crisis and subsequently to the Great Recession, these unconventional policies then conducted by the US Federal Reserve (Fed), namely interest rates paid on excess reserves piling up in the vaults of commercial banks, alongside open market bond purchases on a massive scale and eventually quantitative easing, would end up leading commercial banks to outright refrain from channeling such an unprecedented primary monetary expansion conducted by the Fed into a subsequent fractional reserve commercial bank credit expansion, which is clearly reflected in the fact that there was a point at which the evolution of such excess reserves had perfectly mirrored that of the monetary base during the aftermath of the formerly referred to credit crunch:

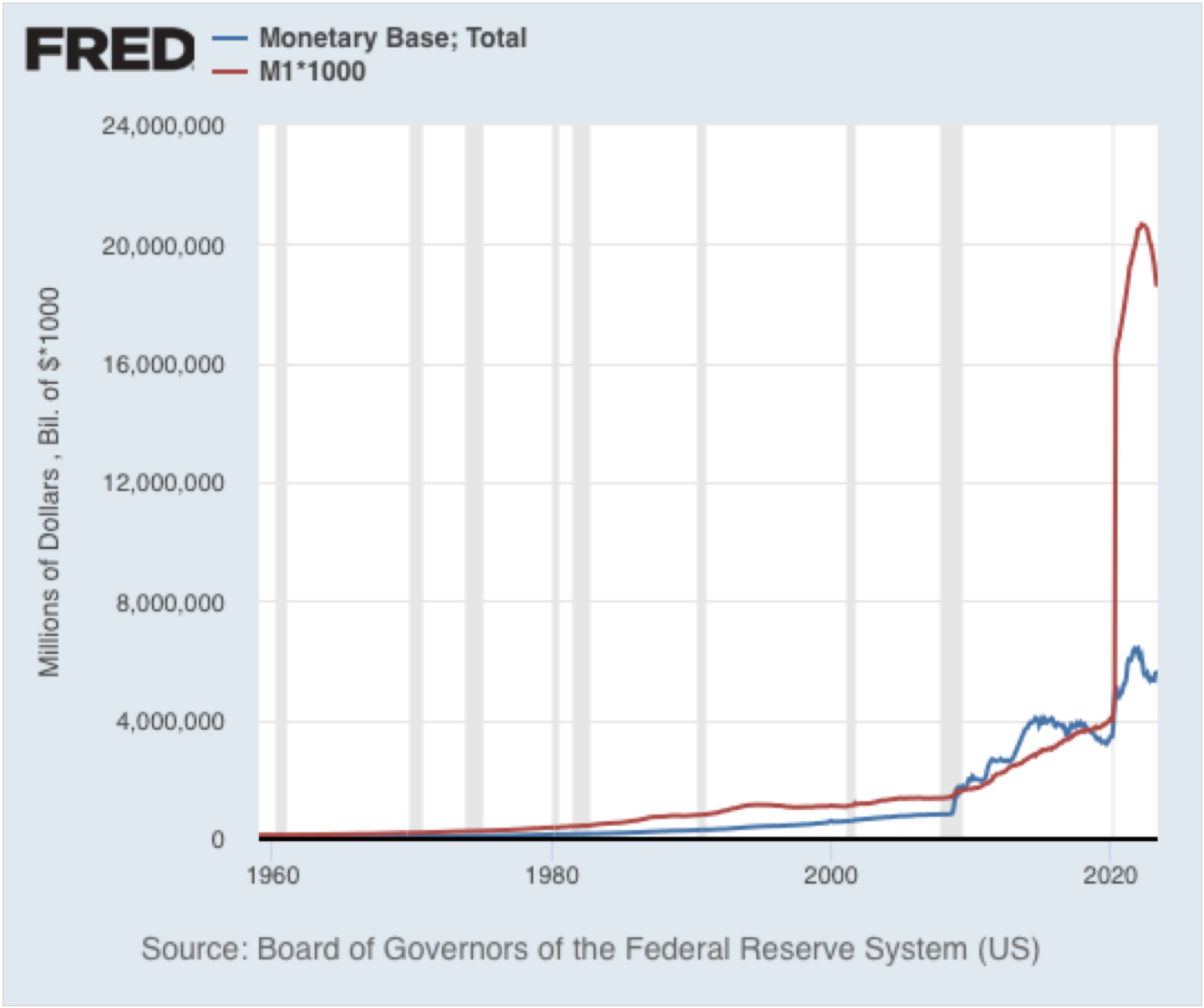


Graph 1: Mirroring Evolution of the Monetary Base versus Excess Reserves in the Aftermath of the Great Financial Crisis

However, both theoretically and empirically speaking, such a frozen state of affairs regarding this type of unsustainable fractional reserve commercial bank credit expansion often tends to be merely temporary, since once the point is reached at which the opportunity cost of holding excess reserves actually exceeds the potential market risks derived from business lending, this should inevitably unveil a cyclical pattern leading back to another subsequent process of secondary monetary expansion.

This is clearly denoted by the ulterior evolution of the monetary base and M1 throughout the following years after the Great Financial Crisis and even further into the Great Recession as a period plagued by unconventional monetary policies such as the formerly referred to quantitative easing and bond purchases through open market transactions performed on an unprecedented scale by the US Federal Reserve (Fed).

Which would end up portraying a shift in booming trends shown by a skyrocketing increase in M1 by outpacing that undergone by the Monetary Base throughout the same period, as seen in the following graph:



Graph 2: Evolution of the Monetary Base and M1 in the Aftermath of the Great Financial Crisis and throughout the Great Recession

This would eventually end up exposing the formerly analyzed recurring nature emerging from the backstage of the monetary determinants of business cycles from an Austrian perspective, aprioristically focusing on their causes rather than merely on their effects as it usually happens with the mainstream approach on this subject matter.

A Closer Look into the Keynesian Misconceptions on Business Cycles

Perhaps one of the most evident and deeply flawed misconceptions from the mainstream approach on money and business cycles stems from some of the Keynesian critiques to Austrian Business Cycle Theory (ABCT), which clearly denotes a lack of understanding from the Keynesian approach regarding the concepts of saving and investment, and by extension its lack of a solid understanding of the cyclical nature of time preferences as the essence of interest rates on an intertemporal basis.

In this sense, Rothbard (4) highlights that the concepts of saving and investment are equivalent and depend on individual time preferences, that is to say, the degree and extent to which present consumption is preferred over future consumption.

Hence, on an intertemporal basis, a high level of time preferences denotes higher levels of present consumption over future consumption and by definition higher interest rates.

Conversely, a low level of time preferences denotes higher levels of savings available to be channeled into investment or alternatively to be deferred towards future consumption, thereby implying lower interest rates.

This concept of time preferences must therefore not be confused with the concept of utility of money, upon which thereby depends any individual's demand for money, rather than on time preferences.

That is to say, a higher utility of money tends to lead to an increase in the demand for money to be often held in the form of cash balances, whereas a lower utility of money usually implies a decrease in the demand for money tending to subsequently result in decreasing cash balances.

The formerly explained misconception between time preferences and utility of money has often led Keynesians to ascribe decreases in the demand for money to increases in savings, when clearly such decreases in the demand for money are simply the result of a lower utility of money and are therefore unrelated to the concept of time preference, whereas increases in savings are indeed explained by lower time preferences intertemporally reflecting in terms of lower interest rates.

This clearly denotes that the demand for money could actually increase even with an increase in savings, just as long as there is also an underlying increase in the utility of money that individuals actually derive from adding to their cash balances, because then again, and just as Rothbard highlights and asserts, the money that flows into savings does not necessarily need to have been taken away from present consumption but might just as easily have been set aside from cash balances originally allocated to investment.

Such kind of misunderstanding regarding the difference between time preferences and utility of

money most likely explains why Keynesian proposals aimed at boosting the demand for money usually involve the artificially distorting type of manipulation of time preferences formerly analyzed when explaining the core essence of the Austrian Business Cycle Theory (ABCT), therefore explaining the underlying drivers of unsustainable booms caused by artificially lower interest rates and inevitably leading to subsequent busts followed by recessions.

From this it then follows that it is in fact this formerly analyzed deeply flawed Keynesian misconception on the causal link between time preferences and interest rates on the one hand, and on the causal link between utility of money and demand for money on the other hand, which ultimately ends up explaining their lack of a sound approach to the intertemporal nature and essence of business cycles.

Besides, in this sense the Keynesian approach also appears to outright disregard the application of the natural law of diminishing marginal utility, pertaining by definition to all kinds of assets, to money itself.

Notwithstanding its nature as a generally accepted medium of exchange, money ultimately constitutes indeed an asset, hence the marginal utility susceptible to being derived from it as such is inversely proportional to the degree and extent to which its supply exceeds its demand, thereby resulting in a consistent fall in the marginal utility that individuals can ultimately ascribe to as well as derive from it in terms of its purchasing power against other assets, the marketability of which money as the generally accepted medium of exchange is by definition expected to outperform.

Which at the same time also denotes why, to top it all off, the "Keynesian solution" to depressions merely entails continuously boosting monetary inflation, thus even further aggravating the causes that first sow the seeds of their occurrence and recurrence, hence clearly exposing its self-destructing contradictions from a theoretical and empirical perspective.

Implications of the Austrian Perspective on Inflation and Business Cycles

This formerly detailed analytical perspective empirically reflects the Austrian framework on core theoretical issues regarding the connection between money and business cycles, by consistently exposing the degree and extent to which the artificially distorting evolution of monetary aggregates ends up causing the cyclical fluctuations most widely perceived on a macro level from the mainstream viewpoint, yet specifically focusing on the underlying micro level determinants leading to such arising effects in the first place, thus looking even further beyond the tip of the iceberg through the discerning lens of a causal approach.

In this sense, the enlightening Rothbardian perspective, in line with the Misesian approach, by analytically elaborating on Carl Menger's view (5) on the origins and social dimensions of money

as an evolutionary landmark of transactions within advanced civilizations, clearly denotes that no monopolistic power on the issue of so-called legal tender currencies is actually capable of imposing a medium of exchange that is not generally accepted in practice.

Hence, it is precisely such level of acceptability that continuously refers us back to the way in which Menger describes this evolutionary process through which just as indirect exchange ultimately derives from the outperforming marketability of a commodity throughout a previous stage of direct exchange, following the monetary regression theorem elaborated by Mises we may then move on to assert that paper currencies ultimately derive their exchange value from their initial link to gold as reference standard for monetary assets within the context of a free market framework, and as a weight in terms of which they were originally defined as money from an Austrian perspective, that is to say, as the generally accepted medium of exchange.

Theoretical and empirical evidence is therefore pretty clear that cyclical fluctuations in fact end up ultimately stemmming from the systematic manipulation of such an evolutionary process, given the fact that acceptability is the reflection of subjective valuation and is thus not susceptible to being artificially enforced overnight by nonsensical decree.

This is precisely the core essence of the Mengerian evolutionary approach on the origins of money as a spontaneous product of the free market, thereby obviating the need for any further consideration regarding fallacious approaches based on government imposition, since empirical evidence shows and proves otherwise.

It is therefore utterly clear that money is a product of the inner workings of the free market only, thus making any kind of monopoly on its issuance into an intertemporally distorting feature leading to the occurrence and recurrence of business cycles in the first place, just as theoretically and empirically outlined throughout this first chapter here.

In this sense and to sum up this enlightening analytical framework, it is also highly relevant to highlight that money is not in fact something that could ever have been susceptible to just being "invented" or created overnight, let alone arbitrarily imposed just out of the blue, but in fact rather the core essence of an intertemporally dynamic evolution from direct exchange (barter) into indirect exchange.

Chapter 2: Fractional Reserve Banking as the Cause and Essence of Unsustainable Booms

The Debate on Fractional Reserve Banking versus 100%-Reserve Banking

Building up on the debate of Fractional Reserve Banking (FRB) versus 100-Percent Reserve Banking, there arises the key role of maturity mismatching as the underlying cause of unsustainable booms leading to subsequent busts, within the classical framework of the Austrian

Business Cycle Theory (ABCT).

Therefore, fractional reserve commercial banking emerges as the key underlying inflationary driver of unsustainable bank credit expansions in the first place.

Behind the veils of such type of banking system, an inherent accounting insolvency is therefore bound to be unmasked, once actual time preferences become evident at the onset of the inevitable bust.

In this sense, it is often contended that, even under a banking system with 100-Percent reserves, maturity mismatching between the time structure of bank assets and that of bank liabilities would still lead to cyclical fluctuations, as long as there were a central bank acting as a lender of last resort.

Following such train of thought, we hereby intend to flip such argument by asserting that fractional reserve commercial banking itself is in fact the key distorting feature leading to business cycles from a financial and accounting perspective, even without a central bank in the picture acting as a lender of last resort.

Therefore, we will hereby be focusing on the cause-effect relationship between fractional reserve commercial banking itself and the maturity mismatching leading to intertemporal distortions in the time structure of commercial bank assets regarding that of commercial bank liabilities, thus arising as the ultimate cause of asset misallocations when assessing the financial viability of long-term investment projects.

Fractional reserve commercial banking therefore always causes the unsustainable booms leading to inevitable busts, within the framework of the Austrian Business Cycle Theory (ABCT), obviously with and yet even without a central bank acting as a lender of last resort and thus allowing commercial banks to inflate in unison.

The Cyclical Perspective on Fractional Reserve Banking

Just the mere fact that the Austrian Business Cycle Theory (ABCT) can theoretically and empirically explain how business cycles can and do occur even without central banks in the picture clearly denotes that the issuance of fiduciary media itself, fueled even further by commercial banks through fractional reserve banking, sets in motion the type of commercial bank credit expansions leading to subsequent inevitable busts.

For instance, in the United States, mostly throughout the 19th century, among other examples there´s the panic of 1819, brilliantly explained by the great Murray N. Rothbard in his doctoral dissertation made into an amazing book, precisely entitled *The Panic of 1819: Reactions and*

Policies (6), and all of this happened way before the US Federal Reserve (Fed) was even first established back in 1913.

This is something that most critics of the Austrian Business Cycle Theory (ABCT) appear to overlook pretty much all the time.

In this sense, the Misesian approach on fiduciary media is also pretty clear regarding this particular subject matter.

According to the Misesian typology of money, fiduciary media constitute money substitutes unbacked by money in the narrower sense, which might be assimilated to the contemporary concept of monetary base or hard cash in classical financial jargon.

This leads Mises to elaborate on his *Circulation Credit Theory of the Trade Cycle* (which would later on evolve into and is therefore most widely labeled nowadays as Austrian Business Cycle Theory), through which he theoretically and empirically shows that both deposits and money outstanding are actually present and not future goods, hence there is no credit transaction since no future goods are involved here whatsoever. (7)

The underlying cyclical effects of this process consistently entail a manipulation of time preferences for present over future goods, essentially by pushing interest rates below their natural levels showing the actual degree and extent to which present goods are in fact preferred over future goods, thus making it seem as if time preferences were lower when they actually remain unchanged or might be even higher and/or on the brink of embarking on an upward trend, thereby also denoting that there is just not as much real savings and resources available to be allocated into long-term investment projects.

From this it then follows that an increase in the stock of such fiduciary media over and above the stock of the commodity specie backing it up (namely gold), as Rothbard would conceptually define inflation, inevitably leads to a systematic manipulation of people´s individual time preferences for present over future goods. (8)

In Rothbard´s own words:

"*Inflation* may be defined as *any increase in the economy´s supply of money not consisting of an increase in the stock of the money metal.* Fractional reserve banks, therefore, are inherently inflationary institutions." (italics in original) (9)

We may thus contend that, just as Rothbard clearly implies here, fractional reserve commercial banking indeed constitutes an inherently inflationary practice and therefore inevitably ends up distorting intertemporal projections based precisely on such individual time preferences.

This eventually pushes market interest rates below their natural levels, which ends up leading to the artificially unsustainable booming stage that causes the subsequent bust, often followed by a recession and an even deeper depression.

Furthermore, during the booming stage of the business cycle, the manipulation of market interest rates stemming from commercial bank credit expansion consequently exerts a distorting effect on key financial indicators regarding the profitability of investment projects, such as the Net Present Value (NPV) and the Internal Rate of Return (IRR).

Such an intertemporal inconsistency reveals itself when interest rates shoot back up to their natural levels, obviously pushed by the underlying higher actual time preferences, and then cyclical effects come to light when those investment projects whose profitability benchmarks had been inflated by virtue of artificially lower interest rates turn out to be unsustainable through completion, and therefore must inevitably be liquidated because it then becomes evident that there are indeed not enough real savings available to keep them going throughout their initially projected life cycle and their originally outlined time horizon.

At this point, there eventually emerges what is often labeled as a cluster of entrepreneurial errors, clearly induced by interest rates falling below the actual rate reflecting the underlying real degree and extent by which present goods are in fact preferred over future goods.

This leads entrepreneurs to mistakenly anticipate a higher present discounted value (Net Present Value: NPV) of future cash flows than would otherwise be the case, namely when taking into account the higher interest rates reflecting the real opportunity cost of present goods in terms of future goods.

In this sense, the only viable way of reversing such an asset misallocation is to liquidate those projects turning out to be financially unprofitable before completion.

From a financial viewpoint, this becomes inevitable once evidence is clear that real resources available are not actually enough for such projects to be successfully and effectively conducted throughout their initially expected time horizon.

This is why Austrian economists often claim that this inevitable bust is actually healthy and cleansing, since it winds up wiping out all the malinvestment fueled during the unsustainable bank credit expansion conducted by fractional reserve commercial banks, which central banks tend to keep pushing and prolonging over time by pumping in more money issued out of thin air, thus even further enhancing such an asset misallocation. (10)

The Gold Standard's Natural Cyclical Checks upon Monetary Inflation

From an analytical perspective, Scottish economist and philosopher David Hume, through his price-flow specie mechanism, described the way in which, under a commodity standard based on gold, any increase in the issuance of unbacked fiduciary media ends up cyclically triggering an outflow of gold from any country's banks when such unbacked claims to gold are redeemed in the precious metal, in particular by foreign holders of such.

This leads to higher prices in the inflating country, thereby implying a fall in the demand for its goods and services which are then highly overpriced, hence losing competitiveness against those produced and exported by other countries, which might also be inflating but only to a lesser degree or even not inflating at all, and this eventually ends up reflecting in a deficit in the balance of payments in the inflating country.

At some point, in order to avoid bringing themselves to the brink of bankruptcy, commercial banks would inevitably start to contract their issuance of unbacked fiduciary media, therefore bringing the fractional reserve bank credit expansion that had initially driven up domestic prices into a halt, up until the outstanding stock of circulating fiduciary media indeed matches the actual underlying amount of gold reserves to which they constitute on-demand claims redeemable in such specie, that is to say, gold.

Such a credit contraction then eventually gives rise to a bust resulting from the previous unsustainable boom, which at the same time subsequently leads to a deflationary trend in domestic prices that ends up reversing the previously undertaken inflationary trend, thus leading the formerly inflating country's goods and services to regain competitiveness, thereby eventually reversing the deficit into a superavit in its balance of payments.

Let us say, for instance, that commercial banks from an inflating country were holding a total combined amount of 10,000 troy ounces of gold in reserves, but nervertheless, by engaging in the inflationary practice of fractional reserve banking, were to issue fiduciary media against such holdings for a total of claims amounting to 14,000 troy ounces.

This would eventually tend to drive up prices of domestic goods and services, stemming from the subsequently inflationary boost in the money supply chasing an amount of goods and services that has naturally not nearly increased at the same pace in real terms.

Eventually, even sooner rather than later, when holders of such fiduciary media wind up redeeming such claims into gold and it then becomes evident that, for the sake of argument regarding this particular example, around 28.6% (4,000 out of 14,000) of such fiduciary media are indeed unbacked by a matching amount of specie in terms of gold reserves, this inevitably tends to speed up a credit contraction brought about by the previously fueled unsustainable bank credit expansion exerted through the practice of fractional reserve commercial banking

itself.

Once the relative proportion has finally been restored between those outstanding claims to gold and the actual stock of this precious metal being held as reserves in the vaults of those formerly inflating commercial banks, along such process domestic prices tend to accordingly go down after the process of monetary inflation has been brought to halt.

In short, under a commodity standard, such a cyclical mechanism indeed constituted a natural check upon monetary and price inflation by effectively limiting the inflationary potential of fractional reserve commercial banks, thus preventing them from inflating in unison and therefore relentlessly distorting the real commodity-backing of the outstanding paper currency by issuing unbacked claims leading those outstanding quantities to climb over and above the amount of gold reserves actually being held in their vaults.

Unmasking the Inconsistencies of Fractional Reserve Banking

Even in the days before Mises, Frédéric Bastiat and Victor Modeste had referred to this type of money labeled as fiduciary media, unbacked in real terms by commodity specie, as false and fraudulent, while also highlighting its cyclical effects and somehow anticipating the Rothbardian argument for 100-percent reserve banking.

In fact, when approaching the end of a footnote, Rothbard even goes as far as to point out that:

"Similarly, the issue of warehouse receipts for nonexistent goods, identical with genuine receipts, is fraud upon those who possess claims to nonexistent property." (11)

This is perfectly consistent with the formerly analyzed Misesian monetary framework, given the fact that fiduciary media are by definition unbacked by gold (under a commodity standard) or even by hard cash or base money (under a paper fiat currency standard), in such a way that they inherently constitute claims to nonexistent reserves, even to the extent that the latter are indeed significantly lower than 100-percent.

And this even becomes mathematically evident when taking into account that the money multiplier of bank deposits is precisely the inverse of the reserve ratio, from which it then follows that when this reserve ratio is 100% such multiplier logically amounts to 1, hence the lower such reserve ratio goes and the closer it gets to zero, the closer the multiplier would be to tending to infinity, which would conceptually entail outright monetary hyperinflation by fueling an unlimited pyramiding process on top of then literally and by definition unbacked deposits.

It is precisely from this formerly analyzed theoretical and empirical framework that we can therefore infer that supporters of fractional reserve commercial banking seem to constantly

overlook the nature of fiduciary media as money substitutes in the Misesian typology of money.

This denotes that Free Bankers appear to neglect the Misesian Monetary Framework, by overlooking the fact that deposits are not actually loans, but merely present goods regarding which bank customers do not actually postpone their legitimate redeemability rights towards the future.

In this sense, when analyzing a paper by Dr. Philip Bagus (2010) on the enlightening debate between supporters of 100-percent reserves (such as Rothbard, Hülsmann, Howden, Block and Huerta de Soto among others) versus modern free bankers (such as Selgin, Dowd and White among others), at some point it is implied that maturity mismatching between the time structure of commercial bank assets and that of commercial bank liabilities could also lead to a boom-bust cycle in the Austrian sense, even under a system with 100-percent reserves on banknotes and demand deposits, in particular on the latter. (12)

However, it is also implied that such kind of maturity mismatching would be based upon the existence of a central bank acting as a lender of last resort.

That is to say, a central bank coming to the rescue of inflating fractional reserve commercial banks by bailing them out of any potential risk of insolvency leading to their inevitable bankruptcy, even when their liabilities are indeed by far greater than their assets.

In this sense, we may then aprioristically flip such argument by asserting that even without a central bank acting as a lender of last resort and thus allowing commercial banks to inflate in unison avoiding any inherent risk of bankruptcy, the 100-percent reserve requirement would actually be enough to avoid any kind of maturity mismatching leading to boom-bust cycles in the first place.

This clearly shows that fractional reserve commercial banking causes a maturity mismatching between commercial bank assets (mostly loans) with a longer time structure than their liabilities, namely deposits for instance, since those assets are only meant to become liquid after a certain period of time depending on their maturity, whereas savings/checking deposits (unlike time deposits) are actually redeemable on demand, that is to say, at any point in time.

Such an accounting insolvency pretty much ends up unmasking an unsustainable financial structure and the huge risk of bank runs, fueled precisely by the fraudulent nature and essence of fractional reserve commercial banking itself.

And clearly the ultimate cause of this is no other than the on-demand redeemability of fiduciary media, which pretty much stems from their nature as money substitutes and present goods, since no time element is involved and bank customers do not actually give up their redeemability

rights when they deposit them in either savings or checking accounts at commercial banks.

Such formerly described analysis theoretically and empirically denotes that the ultimate cause underlying such formerly analyzed boom-bust cycles is fractional reserve commercial banking itself, along with the underlying maturity mismatching that constitutes its most characteristic defining feature.

This clearly shows that critics of Austrian Economics often seem to overlook the fact that the Austrian Business Cycle Theory (ABCT) empirically proves that the ultimate cause of such cyclical fluctuations is indeed fractional reserve commercial banking, obviously with yet even without a central bank in the picture.

Therefore such theory still holds, for instance, when looking into the causes of business cycles occurred even before the establishment of the US Federal Reserve (Fed), back in 1913.

Actually, the first edition of Mises´s great book on money and fiduciary media, where he develops his circulation credit theory of the trade cycle, most widely known today as Austrian Business Cycle Theory (ABCT), was published in 1912, that is to say, one year before the establishment of the US Federal Reserve (Fed) as the central bank in the United States.

As a matter of fact, when correctly translated from its original first edition published in German, the title of this masterpiece is actually *The Theory of Money and Fiduciary Media*, and not *The Theory of Money and Credit* as usually translated in its first English editions.

This most likely denotes that Mises indeed aimed at highlighting and emphasizing the distorting cyclical consequences stemming from the relentless issuance of fiduciary media as money substitutes unbacked by actual hard cash reserves, just as previously analyzed in even further detail throughout this chapter.

Beyond the Tip of the Iceberg

From a financial and accounting perspective, whenever the time structure of bank assets is longer than that of bank liabilities, it then becomes evident that such a financial structure is unsustainable towards a medium and long-run time horizon.

This is essentially due to the on-demand redeemability of money substitutes, which enhances the pyramiding process of unbacked fiduciary media while building up on the vicious circle of *circulation credit* in the Misesian terminology, by contrast to *commodity credit*.

In this sense, it is precisely this Misesian concept of *circulation credit* that can be related directly to what Rothbard even further describes as *deposit banking*, whereas the Misesian concept of

commodity credit is closely linked to what Rothbard labels as *loan banking*. (13)

In the case of commodity credit, there actually exists an exchange of present for future goods, in light of the underlying time element pertaining by definition to the nature of credit transactions.

In contrast, in the case of circulation credit neither depositors (bank customers) nor depository institutions (commercial banks engaging in the inherently inflationary practice of fractional reserve banking) are in fact giving up present goods by postponing their redemption (in hard cash reserves) or exchange (for goods or services) towards the future.

Because of this, in his first
most widely renowned book on money and fiduciary media Mises first refers to his business cycle approach precisely as *circulation credit theory of the trade cycle*, thus explicitly ascribing the causes of the latter precisely to such type of credit transactions, only susceptible to being conducted by inflating fractional reserve commercial banks.

This clearly shows how fractional reserve commercial banking indeed ultimately fuels and even speeds up the formerly referred to maturity mismatching between a bank's assets and its liabilities by disregarding the time element essential by nature to credit transactions.

It then follows that the contractual on-demand redeemability ascribed by definition to checking account deposits thereby exposes their condition of money substitutes, that is to say, present goods rather than future goods.

Consistently, this also denotes that in this case what is in fact being performed is merely an exchange between present goods (i.e. hard cash deposited by commercial bank customers in checking accounts on the one hand and IOUs mostly issued in the form of checks redeemable at any time on-demand for the deposited cash) with no future goods involved here whatsoever.

It is thus precisely such an absence of future goods in the formerly analyzed equation that ultimately leads to the inherent maturity mismatching between the term structure of commercial bank assets (e.g. loans of different maturities but to become liquid only after the passage of time, either on a short, medium or long term basis) and that of commercial bank liabilities (e.g. deposits redeemable on demand, i.e. immediately at any time as requested by the legitimate holders of such money substitutes issued precisely against such deposits in the first place).

Having thoroughly performed such a theoretical and empirical analysis, we may therefore assert that fractional reserve commercial banking inevitably leads to cyclical fluctuations, by fueling the pyramiding process of money substitutes on hard cash reserves or base money.

Within the framework of the current fiat currency exchange standard monetary system, this

pretty much tends to ultimately increase the gap between the time structure of commercial bank assets of varying scales of liquidity over time and that of its on-demand liabilities, which just as formerly explained are susceptible to being redeemed immediately by holders of money substitutes.

Future goods, as derived from the time element defining credit transactions, cannot be left out of such financial equation without subsequently causing an intertemporal inconsistency which ends up exposing the financial and accounting insolvency of fractional reserve commercial banks.

Hence, even in the absence of a central bank, such fractional reserve commercial banking systems would still inevitably lead to cyclical fluctuations on a recurring basis, due to the formerly analyzed inherent maturity mismatching between the time structure of commercial bank assets and that of commercial bank liabilities.

The ultimate cause of this is no other than the systematic pyramiding of unbacked fiduciary media (essentially deposits redeemable at any time on demand as money substitutes) on hard cash reserves kept in the form of base money as merely a fraction of those outstanding loans contractually bound to become liquid assets only after the passage of time.

Aprioristically, it is thus fairly obvious that no such assets are meant to become liquid on demand, which makes their maturity inevitably longer than that of liabilities, regardless of the extent of such term gap over time, either on a short, medium or long-term basis.

Empirically speaking, in order to avoid the occurrence and recurrence of business cycles fueled by fractional reserve commercial banking, with or even without a central bank, the Rothbardian proposal for 100-percent reserve banking would therefore definitely reflect in practice a pure free market applied to the fields of money and banking, thereby obviating the pitfalls and constraints derived from central banks acting as lenders of last resort and therefore allowing fractional reserve commercial banks to inflate in unison, ultimately leading to the kind of recurrent maturity mismatching and unsustainable booms sowing the seeds of inevitable busts as a result of such inherently inflationary bank credit expansions in the first place.

Chapter 3: Approaching a Rothbardian Monetary Proposal for Competing Currencies

The Shadow Gold Standard

Empirical evidence is pretty clear that the current floating fiat currency exchange standard at some point must have inevitably first implied an intermediate stage of credit money, given the fact that the redeemability of paper currencies into gold was "temporarily" suspended in the aftermath of the Interwar Period (1919-1939) in particular, only to never be reestablished so far ever since.

In order to restore a sound commodity standard within a free market framework, the Rothbardian approach involves linking the US Dollar (USD), along with all other paper fiat currencies worldwide, back to gold on the basis of the market price of such monetary commodity.

Aprioristically speaking, the Misesian essence of such proposal is the monetary regression theorem through which the origin of the exchange value of fiat currencies should be ultimately traced back in time on the basis of its original link to gold as classical monetary asset in real terms.

In this section, we will first start by analyzing the different inflationary phases of the unsustainable booming stages leading to inevitable busts and the subsequent following recessions.

When assessing the issue of evolving into a 100-percent gold-backed currency, taking the US Dollar (USD) as main reference, the Rothbardian proposal focuses on the ratio between the amount of currency units in terms of dollars outstanding and the amount of gold reserves being held as the commodity-backing for the former.

This is often referred to as the shadow gold price, and it essentially shows how many units of currency, quoted for instance in terms of outstanding dollars as denominated in terms of the Monetary
Base, as well as alternatively in terms of M1 and other monetary agregates, are actually being backed up by every single troy ounce of gold reserves:

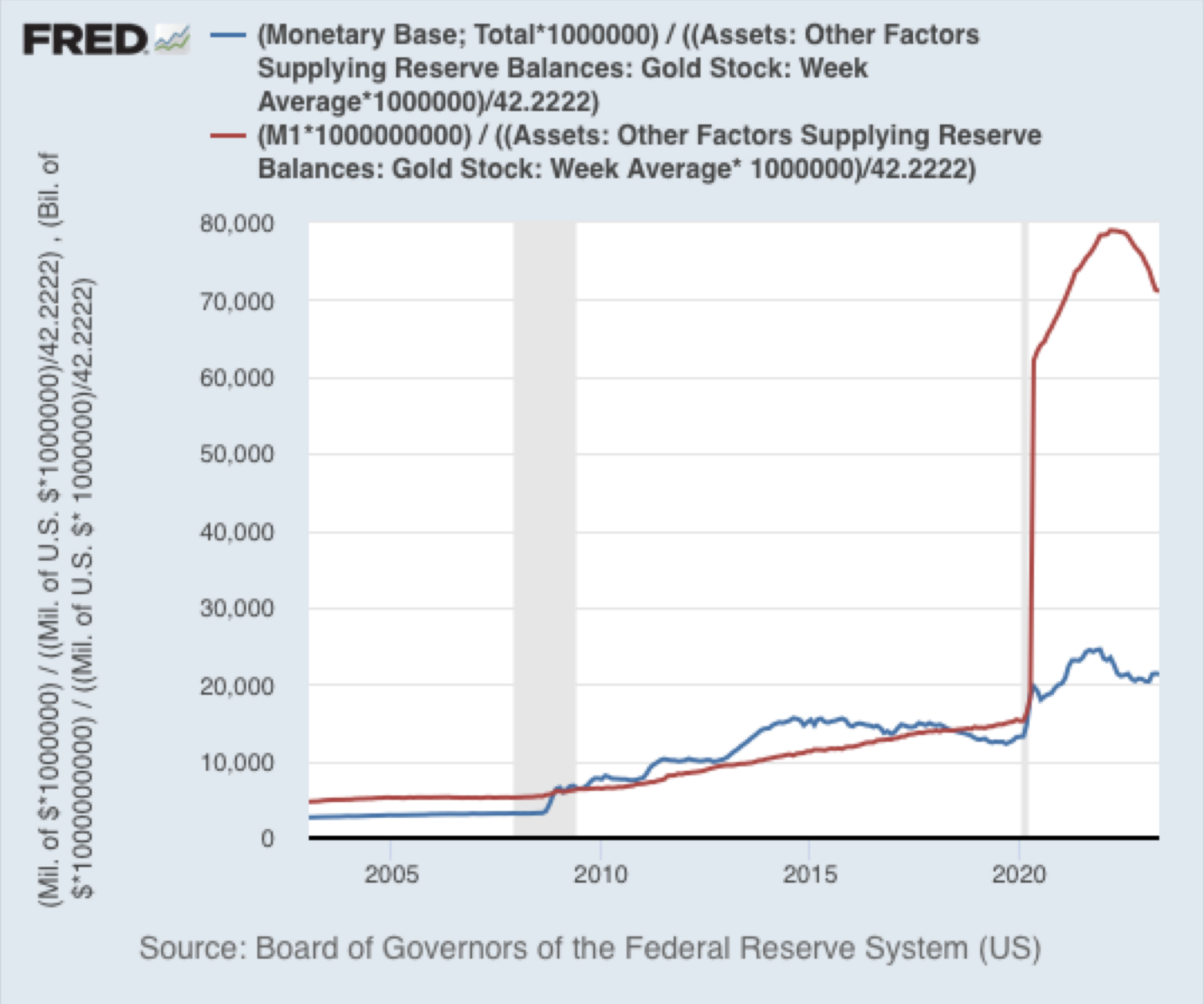
Shadow Gold Price (USD per troy ounce of gold) = Monetary Aggregate (USD) / Total Gold Reserves (Troy ounces of gold)

And this is precisely why the Rothbardian proposal aimed at returning to a sound commodity standard might as well be labeled as some kind of shadow gold standard, since it indeed targets the shadow gold price as key reference in terms of the commodity-backing of the US Dollar (USD) as worldwide reserve currency.

In this sense, we may therefore assert that the shadow gold price pretty much accurately denotes the degree and extent to which the market price of gold is in fact undervalued with respect to the amount of paper currency that is actually being backed up by each and every single troy ounce of gold being held as reserve, thus denoting the underlying upside potential for a skyrocketing evolution to be consistently expected in the market price of gold if a trend were to unravel by virtue of which the latter would eventually end up matching the former.

An example of the key driver behind this proposal would therefore be portrayed by the evolution

of such shadow gold price over the past couple of decades in general, and in particular throughout the aftermath of the Great Recession brought about by the Great Financial Crisis:



Graph 3: Evolution of the Shadow Gold Price in terms of the Monetary Base and M1 in the Aftermath of the Great Recession: US Dollars/Troy Ounce of Gold

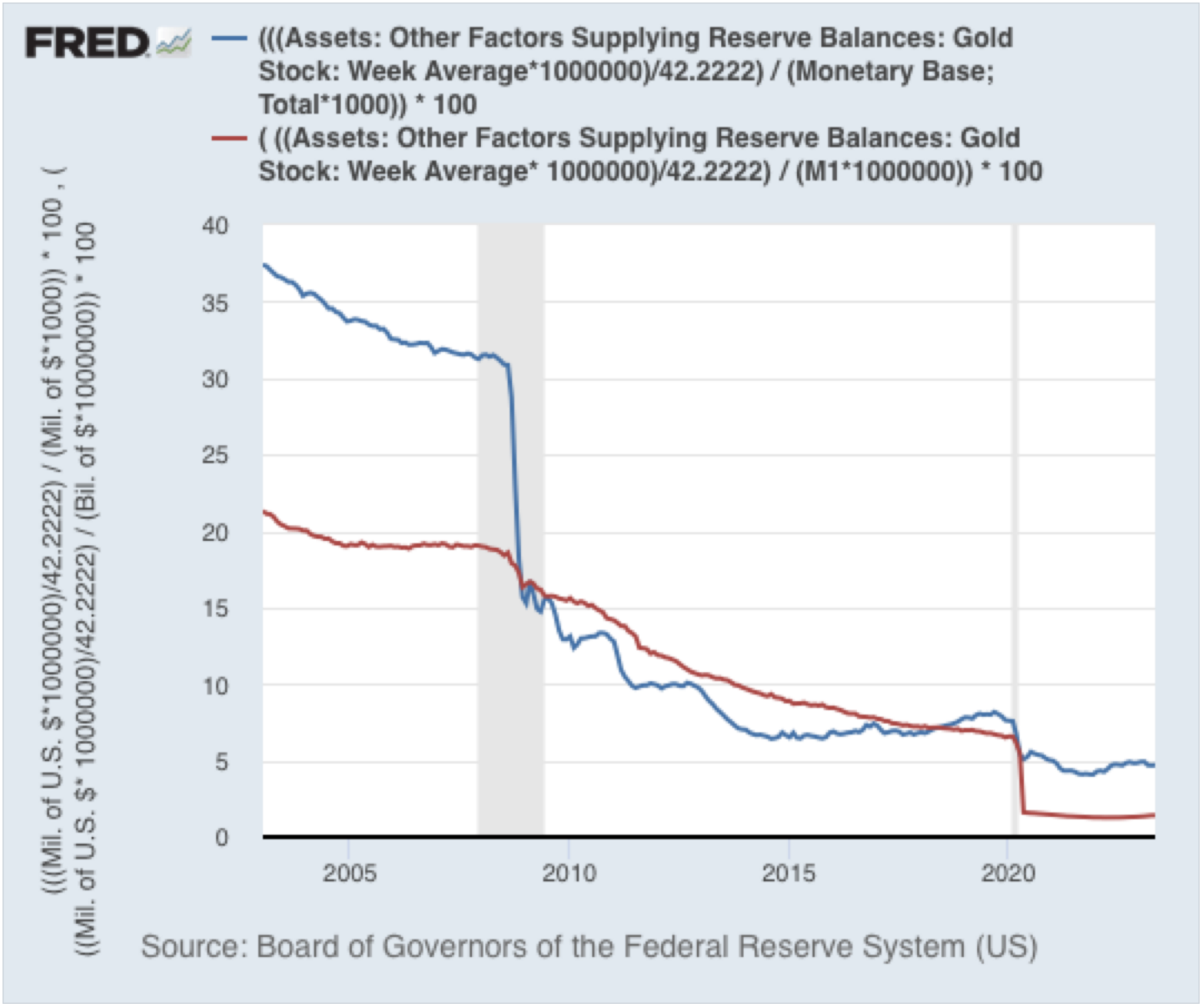
The transformation formulas hereby applied are aimed at adjusting the gold stock at $42.2222 per troy ounce so as to derive the actual stock in terms of troy ounces of gold, given the fact that such price is the benchmark reference used for monetized gold held as reserve by the US Treasury:

*-Monetary Base (Millions of USD): (Monetary Base * 1000000) / ((Gold Stock in Millions of USD * 1000000)/ 42.2222)*

-M1 (Billions of USD):
*(M1 * 1000000000) / ((Gold Stock in Millions of USD * 1000000)/42.2222)*

Such an evolution clearly shows how, right after the credit crunch and the subsequent initial contraction seen in fractional reserve commercial bank credit expansion, back when just as analyzed in the first chapter of this research the evolution of excess reserves perfecly mirrored that of the monetary base, also just as anticipated back then it was pretty much inevitable within such context that this fractional reserve commercial bank credit expansion would ever since have been set back into motion, as denoted by the significant outperformance seen in the growth of the shadow gold price in terms of M1 as compared to the shadow gold price in terms of the monetary base, with the former tending to more than triple the latter on average when quoted in terms of US Dollars (USD).

Closely linked to the formerly depicted evolution seen in the shadow gold price is the significant degree and extent to which the US Dollar (USD) as reference fiat currency has continued to lose a great deal of its gold-backing in terms of its reserves in such precious metal, which have consistently been dwindling even further until breaking below the 5% level, as depicted right here in the following graph:



Graph 4: Dwindling Evolution in the Gold-Backing (%) of the US Dollar (USD) in terms of the Monetary Base and M1 throughout the periods shortly Before and After the Great Financial Crisis along with the Great Recession

The transformation formulas hereby depicted are aimed at displaying in relative terms (%) the dwindling degree and extent to which the stock of gold held in the US Treasury, valued at the benchmark reference price of $42.2222 per troy ounce, has been backing the monetary supply in terms of the Monetary Base and M1 for the analytical purpose of this research:

*-Gold-Backing of the Monetary Base (%):[((Gold Stock in Millions of USD/ 42.2222)*1000000) / Monetary Base in Millions of USD] * 100*

*-Gold-Backing of M1 (%): [((Gold Stock in Millions of USD/42.2222)*1000000) / M1 in Billions of USD] * 100*

Within a span of less than two decades, the gold-backing of the US Dollar (USD) has plummeted from around 40% all the way down to merely 5% in terms of the Monetary Base (M0), and from slightly over 20% to below 3% in terms of M1, in a depreciating process which has been speeding up in particular since the aftermath of the Great Financial Crisis and even more so throughout the Great Recession, essentially as a result of a continuing unsustainable booming monetary expansion fueled through Quantitative Easing (QE) programs and zero-interest rate policies artificially distorting individual time preferences on an intertemporal basis.

This clearly denotes and by definition is closely linked to the cyclical implications of fractional reserve commercial bank credit expansions, mostly reflected by those skyrocketing levels thereby seen in the evolution of M1 and other monetary aggregates, essentially by pyramiding on top of the monetary base and therefore significantly outperforming the rate at which the latter has on average continued to expand, in particular throughout the unsustainable booming stage of the business cycle, thus inevitably leading to a subsequent bust usually taking the form of a credit crunch ultimately followed by an even deeper recession.

Hence, this is precisely why the evolution of this shadow gold price would therefore imply a key reference for the proposal aimed at putting the US Dollar (USD) on some kind of shadow gold standard on a sound commodity basis.

We will therefore be analyzing the relevance of the shadow gold price and its cyclical trends when approaching a target towards the redefinition of the US Dollar (USD) as a gold-backed commodity currency, that is to say, on the basis of a weight in terms of gold as the ultimate monetary commodity.

In doing so and from a Rothbardian perspective, we will also aim at aprioristically showing how the Hayekian monetary proposal on private competing currencies theoretically contradicts the quintessence of the Misesian monetary theory, while also outlining and assessing the viability of a prospective application of the Rothbardian monetary proposal through an alternative cryptoasset standard based on currencies running within a blockchain universe.

Historical and Empirical Background

On the basis of the Misesian monetary framework, there is a phase in recent economic history that Rothbard labels as *The Monetary Breakdown of the West*, undergone mostly throughout the twentieth century, which might be described as a process through which a commodity currency (namely gold) was discretionally outlawed after an intermediate period during which it had become in practice credit money, since its redeemability in specie was expected to be restablished at some point during the Interwar Period (1919-1939) in particular. (14)

Throughout such period, at first and right at the onset of and in particular through the aftermath of World War I, the Classical Gold Standard (1815-1914) was replaced by the Gold-Exchange Standard, established at the Genoa Conference in 1922, and which consisted of some kind of triple inverted pyramid, within the context of which only the US Dollar (USD) would be directly redeemable in terms of gold at an exchange rate of $20.67 per troy ounce, as established by the Gold Standard Act of 1900, thus constituiting the lower-level pyramid in this metaphorical structure.

At the mid-level pyramid was the British Pound Sterling (GBP), which would be redeemable directly in US Dollars (USD), whereas at the top-level pyramid were placed all remaining currencies worldwide, which would only be redeemable in pounds.

Approaching the final stage of World War II, on June 6th of 1944 to be more accurate, the Bretton Woods Conference held in New Hampshire would give rise to a new monetary order through which the US Dollar (USD) would enhance its position as world reference currency, by continuing to be the only currency directly redeemable in gold, but at an updated exchange rate of $35 per troy ounce as established since 1933, since it had undergone a significant depreciation (by around 69.33%, from $20.67 all the way up through $35) against such precious metal throughout the Credit Crunch of 1929 and the subsequent period leading to the Great Depression back in the 1930s.

In short, metaphorically speaking the Bretton Woods order consisted of some sort of double inverted pyramid through which all worldwide currencies, thereby including the British Pound Sterling (GBP), were actually inflating on top of the US Dollar (USD).

But at the same time the US Federal Reserve (Fed) was pyramiding on top of its own gold reserves in order to accordingly keep up with such an increasingly skyrocketing worldwide demand for dollars, which would eventually lead to a significant outflow of gold from the US into other countries, resulting in such gold reserves significantly dwindling between 1944 and 1971, thus denoting that the US Dollar (USD) was at that point highly overvalued in terms of such precious metal.

And this would eventually lead US President Richard Nixon to officially end the link between the US Dollar (USD) and gold, on August 15th of 1971, given the fact that the market price of gold was in fact much higher than the up until then fixed exchange rate still holding at merely $35 per troy ounce, thus leading to the unraveling of a significant upside potential for the market price of such precious metal from then onwards, thereby reflecting its underlying quality as the ultimate monetary asset emerging from the inner workings of the free market itself.

However, once it became pretty clear that in practice the redeemability of pretty much any form of paper currency for gold had been dismissed as just a distant memory, this would end up giving

rise to an era of unbacked floating fiat currencies as still seen to this day, within the context of a system essentially entailing a pyramiding framework of skyrocketing monetary supply in terms of different aggregates on top of dwindling reserves in terms of hard cash when taking into account the monetary base and even more so in terms of gold reserves.

Aprioristically Prospective Cyclical Evolution of the Rothbardian Approach

Given such empirical evidence formerly analyzed in even further detail, aprioristically speaking the applied Rothbardian proposal would therefore imply a reversion of such process leading from the Classical Gold Standard (1815-1914) all the way through the floating exchange fiat currency standard, which might actually involve going through another intermediate stage in which the US Dollar (USD) would again be linked to gold on the basis of the expectations regarding its redeemability in terms of gold by taking the evolution of the shadow gold price as main key reference.

That is to say, going back from a fiat into a commodity currency standard might actually imply going through an intermediate stage in which the US Dollar (USD) as worldwide reference currency would first be restored as a credit currency on the basis of its actual market value as a weight in terms of gold, from which it originally derives its exchange value in the first place.

When linking such monetary framework to its cyclical implications from a Rothbardian perspective, the unsustainable booming stage of the boom- bust cycle may then be broken down into three types of inflationary phases: monetary inflation, asset inflation and price inflation.

Monetary inflation, as defined by the increase in the money supply through the expansion of core reference monetary aggregates such as the monetary base and other monetary aggregates, first tends to spillover into asset inflation, as such liquidity is initially mostly channeled into financial assets, which is often denoted by the boost in reference stock indexes, usually even skyrocketing all the way up to all-time record levels, until ultimately leading to price inflation as usually measured by the Consumer Price Index (CPI) as core reference, along with similar benchmarks such as for instance the Personal Consumption Expenditure (PCE), the latter being the US Federal Reserve's most widely preferred gauge regarding the evolution of both headline and core price inflation.

In line with this, it is always highly relevant to point out that the market price of gold as denominated in terms of the US Dollar (USD) as worldwide reference fiat currency, has been on a long-term upward trend in terms of purchasing power since the very end of the formerly referred to Classical Gold Standard period (1815-1914), accelerating particularly after the world went entirely off the different subsequent versions of such gold standard as of 1971, before ultimately embarking upon a floating exchange fiat currency standard from 1973 forward.

Hence, such empirical evidence clearly proves both Monetarists and Keynesians wrong, since this long-term upward trend in the market price of gold (and by extension also in its underlying shadow price) would end up showing that it is actually the exchange value of gold that had been backing up the US Dollar (USD), and by extension all other paper fiat currencies pyramiding on top of it worldwide, over the entire Classical Gold Standard period (1815-1914) as well as in particular throughout the Bretton Woods period (1944-1971), and not precisely the other way round as Monetarists and Keynesians claimed to be the case there.

In short, up until then the US Dollar (USD), and by extension all other currencies pyramiding on top of it worldwide, had been significantly overvalued in terms of gold through a fixed parity that did not quite accurately reflect the actual relative scarcity of this monetary precious metal with respect to inflating paper currencies being pyramided on top of such.

That is to say, the US Dollar (USD) derived its purchasing power from its original link to gold through its equivalence as a weight in terms of such precious metal, initially set at $20.67 per troy ounce by the Gold Standard Act of 1900, then at $35 per troy ounce from the Great Depression onwards and throughout Bretton Woods, before being updated to $38 and finally $42.2222 as benchmark price for accounting purposes regarding monetized gold being held in the vaults of the US Treasury.

However, in terms of actual purchasing power, empirical evidence is clear that the market price of gold of gold has skyrocketed from those reference prices all the way up to four-figure numbers from 1971 onwards.

When projecting the shadow gold price, even in terms of the Monetary Base (M0), as compared to the market price of gold, evidence is then also pretty clear that this monetary commodity remains significantly undervalued, which clearly denotes its significantly high upside potential in terms of paper fiat currencies in general and the US Dollar (USD) as reference fiat currency in particular, as the formerly analyzed monetary breakdown continues to unravel.

In the aftermath of the confirmation of such trend, by virtue of Gresham's Law, a flight to quality into previously undervalued gold should then be reflected in relative terms by the amount of outstanding, formerly overvalued, fiat paper currency units chasing every single troy ounce of such safe haven monetary asset.

This means that the market price of gold in terms of such reference currency should therefore continue to flow upwards until reaching the level at which the total amount of dollars in terms of, for instance, the monetary base, were backed up in its entirety by the total amount of gold reserves.

At such level, every single troy ounce of gold in reserves should then be backing up as many

outstanding dollars as might be required by the amount of the different monetary aggregates denominated in terms of such currency taken as main worldwide reference, thereby accurately reflecting the underlying real level of scarcity of gold with respect to paper currency.

Rothbard versus Hayek on Monetary Proposals Involving Competing Currencies: The Debate Revisited

The Rothbardian monetary proposal hereby outlined is often compared to Friedrich Hayek's proposal for competing private currencies (15), issued by individuals in a similar fashion, yet entailing some theoretical and empirical inconsistencies worth being highlighted here.

In this sense, Hayek´s proposal on competing private currencies appears to overlook Mises´s monetary regression theorem, by neglecting the fact that money´s exchange value should be susceptible to being ultimately traced back to a stage in which it actually had some kind of use value.

It is precisely such use value from which any subsequent exchange value is ultimately derived, since, as Rothbard clearly shows, acceptability obviously does not come out of the blue or by either private or government imposition. (16)

Hence, any system based on competing fiat currencies, either private or imposed by legal tender laws, is inherently both inflationary and unsustainable on an empirical basis.

Furthermore, despite originally being intended as such on paper, in practice none of such private competing fiat currencies from Hayek's proposal could in fact be considered money in a real Austrian sense, since they would lack the defining feature of general acceptability as media of exchange.

And such feature is ultimately derived from any currency’s original link to a commodity with a use value in itself and as a unit of weight in terms of which it was initially defined, without which it could not actually ever be considered a medium of exchange in the first place.

This is mostly and essentially because without such formerly referred to feature of general acceptability such currencies would be private yet still fiat, hence other currencies such as the US Dollar (USD), the British Pound Sterling (GBP) and the like would still be preferred over the former since they empirically have a history of being generally accepted as media of exchange, stemming from their original link to a commodity currency, namely gold, as a weight in terms of which they were originally defined when tracking them back in time in light of Mises's monetary regression theorem.

For example: if this author himself decided to issue his own private currency and labeled it for

instance “Luis”, even if he were to go as far as to claim that each and every single unit of such private currency were backed up by one troy ounce of gold and consistently he were even able to successfully prove to anyone that he did in fact have his own private vault with for instance a thousand troy ounces of gold backing up a stock of 1,000 “Luises”, surely however even then anyone would most certainly still prefer to continue performing transactions in terms of US Dollars (USD) along with any of the other already similarly established fiat currencies worldwide, since clearly this newly issued private currency, despite its 100-percent gold-backing, would still have pretty much no history or track record of having ever been used and generally accepted as a medium of exchange up until then, if ever.

Hence, when revisiting the debate between the Rothbardian monetary proposal on a theoretical and empirical basis, and the Hayekian proposal for private competing currencies, Rothbard successfully dismisses the viability of the latter as highly unlikely by pointing out that it does not take into account Mises's monetary regression theorem, since issuance is clearly not enough for a currency to be considered money, but it also and essentially requires acceptability.

In this sense, Mises's monetary regression theorem explains that a medium of exchange is to be labeled as money only when it is susceptible to being empirically traced back in time until the point at which it only had use value, all the way through to that point in time from which it started being generally accepted as a medium of exchange as a result of its superior marketability as compared to other commodities.

This would certainly not be the case for currencies issued just out of the blue and therefore lacking such kind of track record, both from a theoretical and empirical perspective.

Because of this, it then becomes highly relevant to emphasize the intertemporal dimension of the formerly referred to monetary regression theorem.

As a matter of fact, it implies an evolution from the Mengerian approach by applying the theory of marginal utility to money as a generally accepted medium of exchange, in doing so highlighting its intertemporal dimension by introducing the time element that links such marginal utility of money with the evolution of its purchasing power, thus overcoming the circular argument revolving around precisely both concepts by reference to each other.

That is to say, up until the formulation of this monetary regression theorem, the approach on this subject matter regarding the purchasing power of money remained somehow stuck by explaining it as a result of its marginal utility, and consistently, at the same time, when explaining the marginal utility of money it was thought as being the result of its purchasing power.

Which clearly denotes that within the context of such a confusing circular argument, the purchasing power of money and its marginal utility appeared to be simultaneously conceived as

the cause and effect of one another in some kind of interchangeable fashion.

One might then have wondered what may have been missing there: that is indeed where the monetary regression theorem then introduces the time element by theoretically and empirically explaining that the purchasing power of money yesterday is explained by the purchasing power it already had the day before yesterday and so on up until a point back in time when it only had use value right before it started being generally accepted as a medium of exchange and therefore also acquired exchange value, while at the same time the purchasing power of money today is the result of the purchasing power of money yesterday, then following such train of thought from a forward-looking perspective the purchasing power of money tomorrow will then be explained by the purchasing power of money today and so on into the future.

From this it then follows the relevance of a history and track record of general acceptability pertaining by definition to any medium of exchange susceptible to being considered as money in its nature and essence.

This also explains why, even despite the fact that the followers of Hayek might even contend that he actually did too have a proposal for a commodity currency, other than the one on competing private fiat currencies, even such an alternative proposal would also entail the crucial flaw of not properly considering the difference between issuance and acceptability.

Individuals would therefore continue to consistently demand the currency, either fiat or commodity based, which they empirically knew for sure would be generally accepted, as Rothbard further explains.

That is to say, they would still tend to stick to even a depreciating currency as long as it had a history of having successfully performed as a generally accepted medium of exchange in its nature as money throughout history.

Hence, even if currencies were to be privately issued, under either a fiat or a commodity standard as might well be the case if individuals were to actually issue for instance their own privately minted gold coins, this would still not change the fact that the lack of a history and track record of being generally accepted as media of exchange would therefore significantly limit their demand as actual currencies from an Austrian perspective.

This is exactly why Rothbard actually suggests that, instead of issuing private currencies with no history or track record of having ever been accepted as media of exchange in the first place, it is in fact currently unbacked fiat currencies yet with an underlying track record in terms of general acceptability, such as for instance the US Dollar (USD) as worldwide reference, that should indeed be privatized by having their link restablished to a real monetary commodity like gold.

Furthermore, empirically speaking the best and surely by far the most practical way to achieve this goal would be by redefining the US Dollar (USD), and by extension all other fiat currencies, as a weight in terms of gold as the ultimate reference, that is to say, the underlying unique monetary commodity backing up those currency units with different labels already entailing a track record of general acceptability as media of exchange in every single country or currency block, as would for instance be the case nowadays with the Euro within the Eurozone.

This would also alternatively apply to even cryptoassets running on certain blockchains as long as they were to ultimately evolve into cryptocurrencies at an ulterior stage, as will be further analyzed here by outlining an alternative approach towards a sound currency standard.

The Alternative Cryptoasset Standard Monetary Proposal

When using the nowadays most widely known term "cryptocurrencies" to label different types of financial assets represented by tokens linked to projects running within the blockchain universe, there arises a clear inconsistency between the nature of such type of assets and the defining feature of a currency as money itself.

From this it then follows that, since money is the generally accepted medium of exchange, and such tokens in fact constitute financial assets the market value of which is determined by the free interplay between supply and demand, thereby fluctuating as a result of such yet still lacking the defining feature of general acceptability, they are indeed not money and hence should not be labeled as "cryptocurrencies" but instead as "cryptoassets", in pretty much a similar fashion as for instance stocks, bonds and the like.

This is because the evolution that should be undergone by cryptoassets in order to actually become cryptocurrencies is essentially linked to the defining feature of general acceptability that any medium of exchange should inevitably fulfill to be considered money.

It is therefore pretty clear that for digital assets running within the blockchain universe, which for the sake of this analytical perspective we hereby label as cryptoassets, to actually evolve into cryptocurrencies they should first be susceptible to being initially defined at their beginning stage as currencies as a weight in terms of an underlying monetary asset entailing a history and track record of being generally accepted as a medium of exchange, that is to say, money by theoretical and empirical nature.

In this sense, for instance, a parallelism might then be drawn between this prospective evolution of cryptoassets into cryptocurrencies and that already undergone by fiat currencies such as the US Dollar (USD) itself, which originally derives its feature of general acceptability from its initial definition as a weight in terms of gold, which in fact historically constitutes the ultimate monetary asset in its own nature as such, given the fact that it perfectly matches the conditions

defined by Mises's monetary regression theorem regarding its traceability towards a point in time at which it in fact had some kind of use value before its advent as a medium of exchange ultimately outperforming others in fulfilling such function until reaching the pinnacle of its general acceptability, thereby becoming money.

Hence, for any asset performing as a medium of exchange to evolve into money it should most likely derive the feature of general acceptability from its link to an underlying monetary asset with a history and reputation for successfully performing as such, just like for example is the empirically proven track record of gold as the cornerstone of the advent and evolution of indirect exchange.

The Evolution from Cryptoassets into Cryptocurrencies

In light of the defining feature of general acceptability as the most highly relevant condition for any asset performing as a medium of exchange to be actually regarded as money, this is precisely why the term cryptoasset is hereby preferred
over the most widely used term cryptocurrency, given the fact that, theoretically and empirically speaking, and by extension in consistency with the analytical framework thoroughly explored within the context of this research, a currency should be labeled as such only when it is susceptible to being considered as money, that is to say, a generally accepted medium of exchange.

And in this sense it is perfectly clear that the market value of such cryptoassets, as denominated in terms of worldwide reference currencies such as the US Dollar (USD), fluctuates as a result of the natural interplay between their supply and demand, as is the case with that of commodities, equities and similar financial assets.

This is why, and precisely considering that cryptoassets are most widely denominated in terms of the US Dollar (USD) as worldwide reference fiat currency, which at the same time initially derived such quality from its formerly underlying link to gold, their ultimate evolution as currencies in their own right would therefore also involve eventually decoupling from such definition in terms of dollars, essentially because under this state of affairs their demand is mostly driven by virtue of such link and only to a lesser extent by their own prospetive value and utility.

That is to say, the driving force behind trading and even holding cryptoassets tends to be mostly focused on their prospective profitability in terms of the most widely used fiat currency as key reference, namely the US Dollar (USD), and only to a lesser extent, if any at all, for the sake of an interest solely focused on that particular cryptoasset that is in fact being traded or even held throughout a higher timeframe.

It is nevertheless highly relevant to point out that a monetary proposal aimed at establishing a

cryptoasset as reference currency, and in such nature as money, should therefore entail a link between such cryptoasset and a medium of exchange with a history and track record of having already been generally accepted as such, for instance the USD Dollar (USD) itself by virtue of its original defining feature as a weight in terms of the ultimate commodity currency, that is to say, gold.

However, this should only be limited to the initial stage of the ultimate evolution of any cryptoasset into a cryptocurrency, as is empirically denoted by the fact that such assets are mostly traded in terms of a market value denominated precisely in US Dollars (USD) as reference currency.

Empirically speaking, this is also clearly denoted by the fact that stablecoins, which are by definition cryptoassets pegged to reference currencies, are essentially and most widely linked to the USD Dollar (USD) as worldwide reference fiat currency and even to gold itself as the ultimate commodity currency.

From this it then follows that the evolution towards a cryptocurrency standard would therefore ultimately require and imply reaching an ulterior stage at which such link is no longer needed, that is to say, once a future evolutionary stage is reached at which the market value of such reference cryptoasset no longer requires to be denominated in terms of the former reference currency, and hence becomes a standard in itself.

As long as any cryptoasset continues to be defined by reference to an underlying fiat currency such as the US Dollar (USD), they will remain to be cryptoassets rather than cryptocurrencies.

Which is pretty much why this current stage through which the market value of such cryptoassets is defined by virtue of its denomination in terms of the US Dollar (USD) as worldwide reference fiat currency could indeed be compared to the formerly analyzed intermediate credit currency evolutionary stage regarding the ultimate restoration of the link between fiat currencies and their weight in terms of gold, which would therefore imply their evolution from fiat into commodity currencies, the market value of which would then purely stem from their purchasing power against other goods and services by virtue of the natural law of supply and demand within the context of a truly free market in itself.

From this analytical framework hereby outlined, we may therefore conclude that the evolution of a cryptoasset into a cryptocurrency in its own right should involve an intermediate stage through which such a financial asset would be defined as a weight in terms of a monetary asset with an empirically proven history and track record of general acceptability, such as for instance gold, so as to ultimately transition into becoming a cryptocurrency in itself.

Once successfully completed, this evolutionary process should therefore ultimately reflect the

intertemporal evolution of the purchasing power of cryptocurrencies against a wide array of other assets within a context in which the former would then be widely used to properly enhance the evolution of a system of indirect exchange against the latter, hence becoming the reference media of exchange in terms of which their market value would therefore be denominated and quoted.

And by virtue of this evolution the purchasing power of such cryptocurrencies would then also be intertemporally traceable through time just like Mises's monetary regression theorem describes and specifically implies that it ultimately should, all the way up until that point in time at which such assets used to be valued solely because of their use value, or alternatively for the sake of argument in this practical example portraying cryptoassets evolving into cryptocurrencies it would in fact be up until that point in time at which such cryptoassets would have been originally defined as a weight in terms of the monetary asset entailing such use value in itself, from which they would then eventually have successfully evolved as media of exchange and ultimately gained their reputation and history of general acceptability as money in their own right.

Otherwise, the lack of such a defining feature of general acceptability would therefore inevitably land an asset, even when occasionally used as a medium of exchange, into the same conceptual mistake ascribed to Friedrich Hayek's proposal for private competing currencies not linked by definition to an underlying monetary asset ultimately entailing a history and track record of having been generally accepted as a medium of exchange by virtue of the empirical traceability of its purchasing power through time.

It is precisely this purchasing power which would in fact intertemporally constitute the key essence of its defining nature as money and not merely just any other kind of asset lacking this highly relevant defining feature of general acceptability, thereby intertemporally representing the cornerstone of its evolution from a cryptoasset into a cryptocurrency and hence finally entailing a theoretical and empirical background for its definition as such in its own nature.

Hence, the viability of competing cryptocurrencies is by nature and essence inevitably and intertemporally linked to their underlying defining feature of general acceptability as media of exchange, which at the same time is successfully achieved solely through their prospective definition as a weight in terms of gold as the ultimate monetary asset, therefore entailing a unique reputation as having being generally accepted as a medium of exchange through time, even way before and beyond the existence of fiat currencies, which at the same time originally derive their purchasing power from their initial defining link precisely as a weight in terms of such monetary asset to begin with.

Debunking Mainstream Critiques and Misconceptions Regarding a Commodity Standard

From this theoretical and empirical framework hereby analyzed in further detail, it then follows

that it is perfectly clear that the application of this Rothbardian monetary proposal would therefore imply redefining the US Dollar (USD) as a commodity currency by updating its parity to gold on the basis of the shadow gold price reflecting the actual relative scarcity of every single troy ounce of such monetary commodity being held as reserve as quoted in terms of the different monetary aggregates taken as reference for the purpose of such a newly defined commodity standard.

That is to say, this would ultimately lead to restablishing a commodity standard at an updated parity, which would in fact reflect the real market value thereby denoting the purchasing power of the dollar in terms of gold, thus evolving from its current status as an unbacked fiat currency into a gold-backed commodity currency.

In this sense, following the Rothbardian rationale, Joseph T. Salerno (2010) further elaborates on some classical objections usually arising against an entirely gold-backed commodity standard, among which we will hereby be focusing on two in particular. (17)

The first objection is focused on the allegedly high resource cost of a gold standard.

Such a critique is flawed in its own essence, since it clearly neglects the time element pertaining to money as a generally accepted medium of exchange within the framework of its intertemporal evolution as a commodity emerging from the free market by outperforming other commodities in terms of its superior marketability, as wisely explained by Carl Menger.

Hence, since gold has empirically outperformed other commodities such as silver by virtue of its superior marketability among other features, its cost-effectiveness as a medium of exchange within the framework of a commodity standard would be, as has been clearly seen throughout history, by far more relevant when compared to its negligible resource costs when it comes to gold mining extraction and the evolution of its supply as key aspects regarding this particular subject matter.

Abstracting away from this essential feature regarding the nature of money, by merely conceptualizing it as a vaguely conceived accounting fiction, therefore implies dismissing the real evolutionary aspects of money within the free market.

The second objection, mostly fueled by mainstream theorists in favor of an international floating fiat currency exchange standard, mistakenly contends that the gold standard somehow entails a price control system, when indeed it rather constitutes a fixed-exchange system based upon the link between a reference paper currency such as the US Dollar (USD) and an underlying monetary asset such as gold.

Here again, as clearly is the case with the previous objection, such a misconception stems from a

conceptual confusion regarding the nature and essence of money itself.

Since such mainstream theorists usually tend to conceive of money from quite an abstract perspective in nominal terms as merely a unit of account rather than in real terms as a generally accepted medium of exchange, they also tend to neglect the fact that under a gold standard the underlying unique currency would in fact be gold itself.

This implies that those different so-called national currencies, such as the US Dollar (USD) and the British Pound Sterling (GBP) for instance, would actually just constitute different names or labels for the same underlying asset, namely just different amounts of weight in terms of gold as the ultimate real commodity currency.

Hence, following this example, the allegedly "price control system" linking for instance the US Dollar (USD) and the British Pound Sterling (GBP) at a nearly 5 to 1 parity under the Classical Gold Standard (1815-1914), was in fact derived from the definition of both such currencies as different amounts of weight in terms of gold.

Since back then the pound used to be defined as roughly 1/4th of a troy ounce of gold while the dollar was defined as 1/20.67th of a troy ounce of gold by virtue of the Gold Standard Act of 1900, the formerly described "price control system" linking those two different so-called currencies actually reflected a fixed-exchange rate stemming from the mathematical equivalence between just two different amounts of weight in terms of the same underlying monetary asset, namely gold.

In line with this, if on the other hand, for instance, certain cryptoasset, after having successfully evolved into a cryptocurrency by virtue of its superior marketability as a generally accepted medium of exchange with respect to other similar tokens oustanding, instead of being merely pegged to the US Dollar (USD) on a 1 to 1 basis as is the case for most reference stablecoins, it were actually to be linked to the underlying evolution of the shadow gold price in terms of the US Monetary Base and hence the market exchange value of this token were to mirror the real upside potential stemming from the purchasing power of gold by virtue of its underlying evolution with respect to that reflected in the market price of gold, this would in fact not constitute a price control system either but indeed just another mathematical equivalence, pretty much just like the one formerly described in even further detail through the previous example outlined for fiat currencies originally defined as a weight in terms of gold as ultimate monetary asset.

Aside from such usual objections to the gold standard, Salerno even goes on to analyze in particular some Keynesian and Monetarist misconceptions targeting the role of the gold standard during the Great Depression. (18)

In this sense, he refers to Keynesian economic historian Barry Eichengreen (1992), who on top of

outright ascribing to the gold standard the causes of the downturn leading to the Great Depression, even goes on to assert that it was also the ultimate reason for the subsequent recovery to have taken so long. (19)

In fact, despite the fact that such recovery was indeed achieved after governments decided to entirely go off the gold standard, this was merely because in doing so they had ended up entirely removing the natural free market checks upon even further fueling the inflationary practice of fractional reserve commercial bank credit expansions and hence running practically limitless budget deficits to literally be able to inflate their way out of depressions, which is in fact all that the so-called "Keynesian solution" eventually comes down to, thus denoting an astonishing lack of a solid understanding of the intertemporally distorting effects stemming from the monetary determinants of business cycles.

In line with this, another deeply flawed critique targeting the role of the gold standard during the Great Depression can be found in a book by Monetarist authors Thomas E. Hall and J. David Ferguson (1998), who criticize the US Federal Reserve (Fed) for having abstained from pyramiding on top of incoming gold reserves from Great Britain into the United States back throughout that period, that is to say, for sterilizing such inflows of gold instead of merely inflating at levels similar to Britain by just flooding the market with newly issued dollars as a way to somehow offset those gold outflows subsequently resulting in deficits in the British balance of payments. (20)

However, what Hall and Ferguson appear to be overlooking there is that in fact such deficits could have been avoided if Britain had returned to the gold standard at an updated parity reflecting the actual underlying relative scarcity of its dwindling gold reserves with respect to the significantly inflated stock of pounds, instead of rather insisting on doing so at the pre-World War I parity dating back to the Classical Gold Standard Period (1815-1914), therefore somehow suggesting or even outright assuming that under a gold standard system when any central bank irresponsibly engaged in monetary inflation, such as in this particular example would be the Bank of England, in order to keep an overvalued exchange rate, then other less inflationary central banks, like in this example the Fed, were supposed to inflate accordingly so as to prevent it from even further losing their gold reserves.

Such a misconception pretty much shows their lack of understanding regarding the fact that a gold standard system in fact tends to work even better without a central bank allowing commercial banks to inflate in unison by engaging in the inherently inflationary practice of fractional reserve banking.

Hence, as long as they do remain a part of the picture even under a gold standard, central banks should therefore avoid issuing unbacked fiduciary media over and above their actual stock of specie, that is to say, gold reserves actually being held in their vaults, essentially in order to

avoid setting in motion unsustainable inflationary booms and thereby sowing the seeds of inevitable busts often followed by subsequent recessions and even deeper depressions.

That is to say, in line with our detailed analysis from the previous chapter, regarding the inconsistencies and cyclically distorting effects stemming from fractional reserve commercial banking itself, such practice has theoretically and empirically proven to be inherently inflationary, just as much as central banks enhancing it by ultimately acting as lenders of last resort.

This is because fractional reserve commercial banks are by the same token inherently insolvent, due to the underlying maturity mismatching between the time structure of their assets and liabilities, the latter consisting mostly of deposits contractually susceptible to being redeemable at any time on demand, yet only a fraction of which are in fact being held as hard cash reserves.

From this it then follows that any objection to the gold standard based on the fact that it naturally limited the inflationary potential of central banks and commercial banks through what David Hume labeled as price-specie flow mechanism, by virtue of which any issuance of unbacked fiduciary media beyond the actual stock of gold reserves would fuel unsustainable inflationary booms inevitably resulting in specie outflaws, clearly reveals the lack of a thorough understanding on the monetary determinants of business cycles.

These formerly detailed responses to such deeply flawed objections have therefore shed light on some of the usual misconceptions stemming from mainstream approaches, often limited by the constraints of senseless assumptions, both theoretically and empirically susceptible to being categorically debunked from an aprioristical perspective.

In doing so, we have therefore seen that both Monetarists and Keynesians tend to disregard the nature and essence of money as a generally accepted medium of exchange arising from the inner workings of a free market, which leads them to consistently emphasize the role of central banks in the management of the monetary supply, event to the point of justifying their distorting interference and consistently advocating for the enhancement of inflating mechanisms during the Great Depression, going as far as to ascribe to the gold standard not only the causes but even also the delays in finally overcoming the latter.

Unlike the Austrian approach, which aprioristically analyzes the way in which empirical evidence clearly shows that the downturn leading to the Great Depression was in fact the result of the distorting cyclical effects stemming from central bank action through the enhancement of unsustainable fractional reserve commercial bank credit expansions, essentially by fueling the pyramiding of unbacked currency on top of dwindling gold reserves, within the context of the unraveling of an inflationary process aimed at decoupling currencies from gold and therefore bestowing on central banks the power to inflate at will.

This is why, through the detailed outline of this adapted version of an analytical perspective on the viability of returning to a sound commodity currency standard, we have hereby highlighted the relevance of the shadow gold price as key reference to succeed in doing so by updating the parity at which this would most likely be achieved, that is to say, by reflecting the actual purchasing power of the reference currency, which for the practical purpose of our proposal is the US Dollar (USD), on account of its reigning position as reference currency entailing a solid track record in terms of its intertemporal general acceptability worldwide.

Final Thoughts and Implications of the Rothbardian Monetary Proposal

From the analysis performed throughout this final chapter of this research, it then follows that the ongoing evolutionary cyclical trends ultimately leading to the redefinition of the US Dollar (USD) on the basis of its current market value as a weight in terms of gold are bound to set in motion a process of reversion from the current fiat currency exchange standard back into a commodity standard based on 100-pecent gold-backed currencies, starting with the US Dollar (USD) as main reference.

This would therefore imply leaving behind the monetary breakdown caused precisely by the floating fiat currency exchange standard, essentially through the restoration of the link between paper fiat currencies and gold, yet obviously at a higher parity based upon the syrocketing evolution undergone by the market price of the latter in terms of the former, and ultimately tend to end up reflecting the underlying evolution of the shadow gold price.

Such trend consistently stems from the increasing purchasing power of gold as a sound commodity currency over time.

Once this intermediate credit money stage is through, such currencies would then be no longer fiat but commodity currencies redeemable in gold as the one underlying real monetary asset, since the former would then merely be performing a function of different labels for money substitutes similar to warehouse receipts being ultimately backed up by the latter.

Following the Mengerian approach on the origins of money, we have thus theoretically and empirically shown that the purchasing power of any currency is always ultimately linked to a commodity spontaneously emerging from the inner workings of the free market itself on an evolutionary basis.

In this sense, and by virtue of its superior marketability, such monetary commodity has mostly been gold, essentially since it has clearly outperformed all other commodities (including for instance silver) in performing effectively as the ultimate generally accepted medium of exchange.

When combining such framework with the Misesian and Rothbardian evolutionary views on monetary restoration on the basis of a commodity currency, there arises the US Dollar (USD) as worldwide reference currency to be redefined in terms of gold as the essence of an optimal monetary proposal aimed at combining its superior marketability against other fiat currencies with a sound gold-backing in order to enhance the sustainability of its purchasing power towards the foreseeable future from an evolutionary perspective.

Conclusions

Having thoroughly outlined the formerly detailed theoretical and empirical causal approach from an Austrian perspective, we have therefore seen how, unlike paper fiat currencies issued as legal tender and imposed through central banks, a commodity currency emerges spontaneously from the inner workings of the free market, just as Carl Menger aprioristically shows in his detailed evolutionary analysis on the origins of money.

Money is by definition the reflection of the evolution empirically undergone by assets outperforming others as media of exchange, by virtue of their superior marketability within the inner workings of free markets in their purest and deepest essence.

And it is precisely because of this that the function of a generally accepted medium of exchange can therefore only be the result of the superior marketability of an asset successfully performing as such, the exchange value of which is therefore intertemporally linked to its own use value or that of an underlying asset as a weight in terms of which it has been originally defined, as also formerly analyzed in even further detail in light of Mises's monetary regression theorem.

Hence, the Rothbardian monetary proposal hereby outlined through this research clearly outperforms the Hayekian one by successfully linking the currently existing legal tender paper fiat currencies back to gold as a monetary commodity with an already proven and effective history as reflected by its track record as a generally accepted medium of exchange, that is to say, money in a real sense from an Austrian perspective.

Such a defining feature of general acceptability would therefore lead to a monetary restoration through commodity currencies being defined as different weights in terms of gold as the underlying unique commodity currency itself.

In line with this and from a cyclical perspective, having thoroughly analyzed the causes of unsustainable booms leading to inevitable busts from an Austrian perspective, we can both theoretically and empirically assert that fractional reserve commercial banking is in fact the key monetary determinant of business cycles, given the fact that it sets in motion unsustainable bank credit expansions within the framework of both fiat and commodity monetary standards, obviously with yet even without a central bank allowing fractional reserve commercial banks to

inflate in unison.

This is clearly shown by the occurrence and recurrence of boom-bust cycles before and after the establishment of the Federal Reserve as a central bank in the United States in 1913 as reference empirical example, the common feature of both periods being precisely a fractional reserve commercial banking system.

Empirical evidence of this is the fact that, even after going off the classical gold standard and moving further along the monetary breakdown process into the floating exchange fiat currency standard, the pyramiding cycle has nevertheless continued to be fueled through unsustainable fractional commercial bank credit expansions mostly performed on top of reference fiat currencies such as the US Dollar (USD) as worldwide reference reserve currency.

Evolving from such a fractional reserve floating fiat currency exchange system into a sound commodity standard would therefore imply leaving behind all kind of state interference regarding the fields of money and banking, thus also leaving behind its cyclical effects in terms of the formerly analyzed intertemporal distortions from an aprioristically cyclical perspective.

We have therefore hereby succeeded in clearly proving our thesis, both theoretically and empirically, by showing that fractional reserve commercial banking systems actually do tend to set in motion boom-bust cycles through unsustainable bank credit expansions leading to downturns oftenfollowed by recessions, as seen through the spillover of monetary inflation into asset inflation and ultimately into price inflation on a cyclical recurring basis.

In so doing, we have also successfully managed to analyze how theoretically and empirically speaking this is inevitably linked to the apparent ignorance shown by the supporters of fractional reserve commercial banking regarding the link between the issuance of unbacked fiduciary media and bank credit expansions ultimately fueling the unsustainable booming stages leading to inevitable busts and the subsequent recessions as key essential consequences of such formerly analyzed unsustainable booms.

From this it then follows that fractional reserve commercial banking indeed constitutes the key distorting feature arising as the main cause of business cycles in the first place, being even further magnified by central banks allowing commercial banks engaging in such practice to inflate in unison by pyramiding on top of dwindling hard cash reserves.

Such type of intertemporal distortions would therefore be unviable under a 100-percent reserve banking system, thus leaving no room for this kind of maturity mismatching derived from the manipulation of individual time preferences.

Within the context of such a theoretical and empirical framework hereby successfully outlined in

even further detail, we may therefore assert that the evolution from a paper fiat currency exchange standard into a commodity standard linked to gold as the underlying unique currency in terms of which those paper currencies were ultimately defined, would therefore lead to eventually outright eliminating the underlying cause of business cycles in the first place, even disregarding whether such an evolution into generally accepted media of exchange were to be performed by a paper currency or by a cryptoasset having successfully evolved into a cryptocurrency in itself.

The key to such an evolutionary process would definitely entail leaving behind any type of monopoly on the issuance of money, in particular that taken over through the distorting interference of the state in monetary and banking affairs.

Because having originally emerged from the free market, money is
the key asset in the formerly analyzed evolution from direct exchange into indirect exchange, and such an evolution has empirically proven to have been a spontaneous product of a process naturally and inevitably linked to freedom in its purest version.

Footnotes

(1) For further details on the first original version of the Austrian Business Cycle Theory, see Mises, Ludwig von. (2009) [1953] [1912]. The Theory of Money and Credit. New Haven: Yale University Press

(2) See Rothbard, Murray N. (2009) [1969]. Economic Depressions: Their Cause and Cure. Auburn, Alabama: Ludwig von Mises Institute

(3) For further details on this analytical perspective, see: Mises, Ludwig von. (2007) [1990]. Economic Freedom and Interventionism: An Anthology of Articles and Essays, selected and edited by Betina Bien Greaves. Indianapolis: Liberty Fund, p. 89

(4) See Rothbard, Murray N. (2000) [1963]. America´s Great Depression (Fifth Edition). Auburn, Alabama: Ludwig von Mises Institute, Part I: pp. 37-39

(5) For further details on the Austrian evolutionary view on the origins of money, see Menger, Carl. (2009) [1892]. On the Origins of Money. Auburn, Alabama: Ludwig von Mises Institute

(6) See Rothbard, Murray N. (1962). The Panic of 1819: Reactions and Policies. Auburn, Alabama: Ludwig von Mises Institute

(7) For further details on the Misesian monetary framework, see Mises, Ludwig von. (2009) [1953] [1912]. The Theory of Money and Credit. New Haven: Yale University Press

(8) For further details on the Rotbhardian analysis of the links between Fractional Reserve Banking (FRB) and Inflation, see: Rothbard, Murray N. (2010) [1963]. What Has Government Done to Our Money? Auburn, Alabama: Ludwig von Mises Institute, Part II: pp. 36-48

(9) Rothbard, What Has Government Done to Our Money?, Part II: p. 41

(10) For further details on the theoretical and empirical framework of Austrian Business Cycle Theory (ABCT), see Rothbard, Murray N. (2000) [1963]. America´s Great Depression (Fifth Edition). Auburn, Alabama: Ludwig von Mises Institute, Part I: pp. 3-81

(11) Rothbard, What Has Government Done to Our Money?, Part II: p. 44, n17

(12) For further details on this debate and its implications, see Bagus, Philipp. "Austrian Business Cycle Theory: Are 100 Percent Reserves Sufficient to Prevent a Business Cycle?", Libertarian Papers 2, 2 (2010)

(13) See Rothbard, Murray N. (2008) [1983]. The Mystery of Banking. Auburn, Alabama: Ludwig von Mises Institute

(14) For further details on what Rothbard labels as The Monetary Breakdown of the West, see Rothbard, Murray N. (2010) [1963]. What Has Government Done to Our Money? Auburn, Alabama: Ludwig von Mises Institute, Part IV: pp. 88-112

(15) Hayek, Friedrich A. (1990). Denationalization of Money: The Argument Refined, Westminster, London: The Institute of Economic Affairs

(16) Rothbard, Murray N. (2016) [1992]. A Genuine Gold Dollar vs the Federal Reserve. Auburn, Alabama: Ludwig von Mises Institute

(17) For further details on this view of a pure commodity standard and responses to different objections to it, see Salerno, Joseph T. (2010). Money: Sound and Unsound. Auburn, Alabama: Ludwig von Mises Institute, pp. 330-351

(18) See Salerno, Joseph T. (2010). Money: Sound and Unsound. Auburn, Alabama: Ludwig von Mises Institute, pp. 571-580

(19) *See Eichengreen, Barry (1992). Golden Fetters: The Gold Standard and the Great Depression, 1919–1939*

(20) *See Hall, Thomas E. and Ferguson, J. David (1998). The Great Depression: An International*

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