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ITS MONEY-THE SUMMARY

Because most people and their countries seek wealth and power, and because money and credit are the biggest single influence on how wealth and power rise and declines, if one does not seek knowledge of how money works, one cannot understand the biggest driver of politics within and between countries; hence one cannot understand how the world order works. If one doesn't understand how the world order works, one cannot comprehend the post-pandemic debt tsunami that's coming. I believe that the times ahead will be radically different from the times we have experienced so far in our lifetimes.

Over the last two decades, working on this book, I have concluded that greed and a fear of scarcity are in fact being continuously created and amplified as a direct result of the kind of money system we are using. We can produce more than enough food to feed everybody, and there is enough work for everybody in the world, but there is clearly not enough money to pay for it all. This artificial money scarcity exists by design within our national currencies. In fact, the job of central banks is to create and maintain an artificial currency scarcity. The direct consequence is that we must fight with each other to live. The banker's monopoly money requires most people to lose, for the elite to win the money game. We shall see in coming chapters, that when local communities create their own currency, they have no need to build in a scarcity factor, as they don't need to get currency from someone else to make an exchange of goods or services with their neighbour. Currency value in circulation is limited by the currency area's economic production not the other around, as currency exist solely to mediate trade between cooperating people within an exchange, it cannot be scarce and there does not exist any need to fight for access to currency. The knowledge of money, currency, and payments, sets everyone free from the slavery of debt based, rent extraction process known as monopoly money or the "empty box[1]" syndrome.

It is indeed quite astonishing that money, ever-present in our lives, is so poorly understood; even by many economic experts themselves. This incomprehension stems from the deliberate efforts of the financial sector to "obscure its activities" to maintain its omnipotence. This book seeks to address this "crisis of ignorance" by providing an easily understood and comprehensive understanding of money in the hope of empowering people against finance's grip over their lives and those of their society.

As one reads this book, remember that which I don't understand will always remain much greater than that which I truly understand. So, whenever information I provide you with and what I think, as I'm

[1] The 'empty box" hoax was fully described by Sam Bankman Fried (his yield faming Ponzi scheme).

writing this book, please realise that I'm but one voice, doing the best I can to openly convey to you my understanding and thinking based upon 22 years of financial systems research and development[2]. At the end of the day, it's up to you to assess for yourself what I've learned and do what you like with it, it must be your individual and unique journey.

The digital revolution post-pandemic will lead to a radical departure from the traditional model of monetary exchange. The creation of a global Digital Financial Market Infrastructure will underpin the unbundling and re-bundling of the functions of money within society. Although digital money itself is not new to modern economies, digital legal tender (DLT) or Digital Coins, which exists without any **Ledger** or **Central Bank**, is unique in human history and aims to facilitate instantaneous peer-to-peer transfers of value in a way that today is impossible. The importance of digital connectedness will often supersede the importance of macroeconomic links, and lead to the establishment of "Digital Financial Markets" linking the currency to membership of a particular financial market rather than to a specific country. Capitalism underpins wealth generation and hence the existence of a free digital financial market.

Capitalism is an economic system in which private individuals or corporations own and control the flow of capital throughout society. Capitalism is built on the idea that compensation and profits derived from capital allocations reflect the relative contribution an individual or firm makes from the utilisation of capital to the total wealth of a society. The genius of capitalism lies in its ability to produce organic answers to most problems of scarcity and resource allocation. Markets tend naturally to reward the ideas that prove most useful and to penalize dysfunctional behaviour. They can bring about broad-based outcomes that states cannot, by driving vast numbers of individuals to adjust their behaviour in response to price signals. Capital is the defining feature of modern economies that transforms mere wealth into an asset that creates more wealth. Capital is the lifeblood of capitalist societies, yet capital unequal distribution throughout the community codifies the widening wealth gap between the holders of capital and everybody else.

This book seeks to transform Money via a **digital coin into a currency**, which supports more equitable access to capital and ensure its convertibility into a universal World Currency Unit as legal tender. Digital currencies without borders may also cause an upheaval of the international monetary system: countries that are socially or digitally integrated with their neighbours may face digital dollarization, and the prevalence of systemically important platforms could lead to the emergence of digital currency areas that transcend national borders. Digital legal tender, within a multiplicity of currencies, ensures that money as a public good remains a relevant medium of exchange that achieves payment finality to all transactions. Additionally, the universal supranational currency, the World Currency Unit is defined to support the global transfer of value between any two people on the planet today, without the need for any treaties, or financial service intermediaries.

Universal access to capital which is readily convertible to globally trusted units of account combined with a censorship-resistant means of payment underpins global trade, will improve market access for holders of low per-unit value, producers, and consumers in developing and developed countries.

[2] This book is a compilation of the abridged results from over 20 years of a documented research and development project, which started in 2000. Acknowledgement of any relevant extracts used as part of these research activities over this period are included inline, included within brackets, or embedded in the page footnotes.

The Vision is a Borderless Global Market, underpinning universal wealth creation, which never closes…

This book defines the Universe of Discourse [3](domain) and hence creates a shared conceptual schema (or language) within which to communicate and deploy a Digital Coin, to achieve universal legal finality to all financial transactions.

As a first step, this Forward introduces a few basic concepts which underpin the following chapters, while thy may feel like a collection of thought, they are the foundations upon which we will build. This book builds upon and extends into a new domain, all who have come before me. While I have tried to ensure they are acknowledged via extensive reference[4], I specifically acknowledge the influence and works of Karl Marx's [5](*Das Kapital. Kritik der politischen Oekonomie*, 1867) the unwilling definer of Capitalism, in the guise of Socialism.

The intended readership for this book

This is extract from the book Its Money, the purpose of this book is to allow those who do not wish to expend the energy and time reading the complete work, to access a summary of the background material.

This book enables the creation of a shared context, via a set of short topics which give an insight into the authors moral grounding and relationship to society, and hence may support an enhanced sense of the chapters of the book.

Enjoy your journey, it is yours alone to undertake.

Belonging Is Our Blessing

Humans are a social species, tribal by nature, as Humans are ill-equipped to live in isolation from other humans. We're given to gathering and communing in familiar groups. **Belonging**, our capacity and need for empathy, compassion, and communication, is in our DNA, it what makes us Human. A sense of belonging is a cornerstone of **The Four B's** (including being, believing, and benevolence), the criteria we use to evaluate the quality of our lives. Belonging is the extent to which we feel appreciated, respected, and cared for as a member of a group of close people. These groups vary widely and might comprise family, friends, colleagues, teammates, co-workers, or just like-minded people who share a common objective or vision. When we belong in these groups, we share values, rituals, and attitudes, and a communal sense of justice and morality; we experience feelings of warmth and welcome, and our lives are enriched.

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[3] Universe of discourse is the set of entities over which certain variables of interest may range. Within this book the set of variables is limited to the domain of Financial Markets.

[4] If any acknowledgement has been missed it is unintentional and will be corrected upon notice within a subsequent release. This book is a living work, which has no end, I typically have released updates each month since published, as my thoughts evolve via interaction with the concreate deployment of these thoughts and aspirations for humanity.

[5] The logical architecture of Das Kapital is derived in part from the Politics and the Nicomachean Ethics by Aristotle, including the fundamental distinction between use value and exchange value, the syllogisms (C-M-C' and M-C-M') for simple commodity circulation and the circulation of value as capital. Moreover, the description of machinery under capitalist relations of production as "self-acting automata" derives from Aristotle's speculations about inanimate instruments capable of obeying commands as the condition for the abolition of slavery.

Belonging is a boon to our existence, empowering our lives, but Tribalism can become a bane to our existence, destroying that very ennoblement, via animosity and conflict. A digital world affords the ability to escape tribalism, to a safe and secure environment for groups of like-minded people to co-exist, without the need for separatist tribalism. We humans can live together in harmony, with civility, respect for each other and social justice, in empathy (positive emotional footprint) for others.

Aristotle on Currency and Reciprocity

For Aristotle, a just political community must find similarity in difference and foster habits of reciprocity. Conventionally, speech and law have been seen to fulfill this role. Aristotle's conception of currency (nomisma) is a political institution of reciprocal justice. By placing Aristotle's treatment of reciprocity in the context of the ancient politics of money, currency emerges not merely as a medium of economic exchange but also potentially as a bond of civic reciprocity, a measure of justice, and an institution of ethical deliberation. Currency (nomisma) in analogy to law (nomos) recovers the hopes Aristotle placed in currency as a necessary institution particular to the polis as a self-governing political community striving for justice. If currency was a foundational institution, it was also always insufficient, likely imperfect, and possibly tragic. Turned into a tool for the accumulation of wealth for its own sake, currency becomes unjust and a serious threat to any political community. Aristotelian currency can fail precisely because it contains an important moment of ethical deliberation. This political significance of currency challenges accounts of the ancient world as bifurcated between oikos and polis and encourages contemporary political theorists to think of money as a constitutional element that can play an important role in improving reciprocity across society.

No society can exist without exchange, no exchange without a common measure, and no common measure without equality. Thus, all society has as its first law some conventional equality, whether of men or of things. . . Conventional equality among things prompted the invention of currency, for currency is only a form of comparison for the value of things of different kinds within a trade; and in this sense currency is the true bond of society.

According to this promise, when used correctly, currency can be the bond of society, bringing citizens together rather than dividing them, serving justice rather than corrupting it. Reconstructing the role of currency (nomisma) in analogy to law (nomos) recovers the high hopes Aristotle placed in money as a necessary but, as we will see, always insufficient, likely imperfect, and possibly tragic institution particular to the polis as a self-governing political community striving for justice.

Currency only becomes unjust when it deviates from just use by fuelling the accumulation of wealth for its own sake. Put to ill use, money can become a serious threat to any community. Employed as a tool of reciprocity, however, currency serves social justice. Reemphasizing its role in establishing equality and reciprocity through the simultaneous engagement of wealth and society is a significant challenge for our own time.

Currency is the Property of the Community

The power to coin currency[6] and regulate the value thereof has been broadly construed to authorize the regulation of every phase of the subject of currency by the state; but can such obsolete power of the prince over his people lawfully exist within any community. Such power would remove the right to possess or own currency as private property. Every contract for the payment of money and every currency mediated transaction between private individuals, via a currency (cash or coin), would become subject to the will of the prince or the constitutional power of the state, whatever that power may be, and the obligation of the parties is assumed via such power of the state.

The bedrock of the political theory that Oresme constructs in De Moneta is his claim that currency belongs to the community by natural law. Oresme opens his treatise with a brief account of the evolution of humanity from a primitive, although postlapsarian state: "When the Most High divided the nations, when he separated the sons of Adam, he fixed the boundaries of peoples." After human populations had begun to increase, Oresme continues, "possessions were divided to the best advantage." He then moves to describe a process by which a primitive barter economy was replaced by a monetary economy to facilitate trade. The impetus for the introduction of currency comes from below: "Humans were subtle enough to devise the use of currency to be the instrument of exchanging the natural riches that of themselves minister to human need." Oresme's definition of currency as "an instrument artificially invented for the easier exchange of natural riches" is a perfectly conventional scholastic construction, tied closely to Aristotle's remarks on the origin and functions of currency from the relevant sections of the Ethics and the Politics, which had been picked over by the Latin commentators for the last century. For Oresme, it follows from this definition that "coin is very useful to the civil community, and convenient, or rather necessary, to the business of the res publica."

Although natural law may grant individuals a right to possess and use things, it was human law that established property rights over them. Currency exists as private property, subject to human possession and title[7]. It is only via the acceptance and the laws of a community that currency and payments can mediate trade within a community. It is money's ability to turn non-fungible commodities into fungible currency that endows it with such conceptual power within De Moneta's theory.

"If a man gives bread or bodily labour in exchange for currency, the currency he receives is as much his as the bread or bodily labour of which he was free to dispose"[8].

What then is the proper relationship between the prince (state), the community and currency?

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[6] Article I, Section 8 of the U.S. Constitution (1789) grants Congress the power to "coin Money [and] regulate the Value thereof," as well as to "make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers." Only the Treasury (not the Fed) shall have the power to mint and issue coins described in section 5112 of Public Law 97-258.

[7] For some recent discussion of Roman legal approaches to money, see Thomas Rüfner, "Money in the Roman Law Texts," in Money in the Western Legal Tradition, ed. David Fox and Wolfgang Ernst (Oxford, 2016), 93–109.

[8] In essence currency mediates trade, it has no value which is not derived from the ability to mediate trade-based exchange of goods and services. Hence currency cannot exist outside of trade and the labour of man.

Oresme notes in chapter five that it is incumbent upon the prince to mint coins, as he is "the most public person and of the highest authority." However, the princeps does not hold the right to mint currency but is rather "deputised" (deputatas) to do so by the community. Oresme elaborates his understanding of the prince's monetary role in chapter six, stating emphatically in the first sentence that the princeps "is not the lord or owner of the currency current in his principality"[9].

Oresme does not assign the administration of the minting process to a set of legal rights held by the princeps as sovereign, but rather to the duties he bears on behalf of the community in his capacity as "the most public person." As Oresme explains later, "Anything belonging to anyone as of natural right cannot justly be transferred to another…. That is how money belongs to the free community." This being so, the prince is merely "deputised" by the community to mint coins on the community's behalf. There cannot exist the ability for a prince or state to mint currency without the acceptance of the currency as a means of deferred trade-based payment by the community.

We have arrived at the point where a state on behalf of the people mints currency on behalf of the community, but there does not exist any right in law for the state to mint currency in exclusion of the community, as this would represent the "theft" of private property from the community and hence no man could be free in such a society.

To corroborate his fundamental point that currency belongs to individuals and to the community, as currency stands in for forms of property, and as Aristotle had established citizens ought to be the owners of property, it follows that they should also be the proprietors of currency as private property used to mediate a trade payment. In essence not owning currency is reduced to not owning property, and not owning property is the station of those excluded from a community itself. In essence the prince or states powers do not extend to defrauding his subjects of their natural right to property. In modern times most states constitutions enshrine the rights of its citizens to own and possess, to the exclusion of the state, private property, which includes the commodities that represent currency in circulation within the boundaries of a sovereign state.

Currency becomes an instrument with which to discern the true nature of the relationship between the prince and the people. On several critical points, such as the community's legal ownership of currency, the authorisation of monetary policy by the people, and the popular determination of what constitutes a legitimate cause to override the individual's property right. In making his discussion of the proper limits of political authority turn so pivotally on a single question—who owns the currency and who has the lawful right to mint it?

The answer must always remain the People, as all currency is created ***by the people for the people as a public good.***

The Tale of Fiat-money

The year is 1720 and the bad boy of finance and mathematics was making off for Belgium with an enormous diamond – his last worldly possession after personally bankrupting France.

[9] The Prince and the Law, 103–4; J. P. Canning, "Law, Sovereignty and Corporation Theory, 1300–1450," in The Cambridge History of Medieval Political Thought, c. 350–c. 1450, ed. J. H. Burns (Cambridge, UK, 1988), 454–76, at 465–66; Ullmann, "The Development of the Medieval Idea of Sovereignty"; Calasso, I glossatori, 125–62. For the importance of the concept of dominium in Marino's thought, see Brett, Liberty, Right and Nature.

Five years earlier in 1715, Louis XIV, the "Sun King" ordained by God to rule the kingdom, passed away. Louis had spent lavishly on his palace at Versailles and fought numerous wars across Europe. In the process, he had racked up a tab of three billion livers. Upon Louis' death, the Duke of Orleans assumed the powers of the throne as the new king was only five. John Law proposed to expand the money supply with bank notes issued by his Banque Generale. The metal-based currency circulating in France was "restrictive", he claimed, and his new bank notes could be backed by gold coins frequently "clipped", or shaved off, by authorities.

John Law went on to assume the status of de facto ruler of France as controller of its finances. His most ambitious project, the Mississippi Company, created a total trade monopoly and eventually combined all of France's worldwide assets and sovereign debt into one entity.

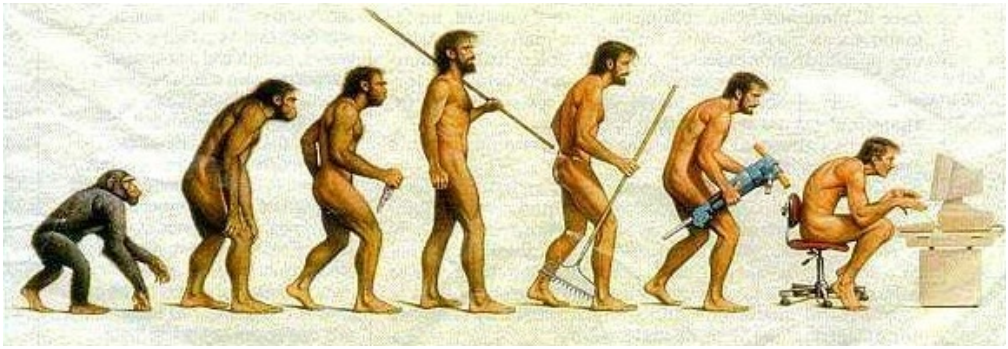
But his theory neglected the impact of continued money printing (it was a Ponzi scheme after all) had on supply and on inflation. As notes in circulation ballooned, Law began to lose control of his scheme when one prince cashed in his notes for coins. Once word got out, there was a run on the shares, the banks, and paper money. Royal edict after royal edict was issued to shut people up now that the word was out that their banknotes were a dying fiat currency.

While the smart money had already fled earlier to Holland, Belgium, and England, the masses were left with worthless means of exchange – the end of a four-year fiat money experiment.

Today, John Law is still credited as the founder of modern banking. And in his wake are many of modern history's central bankers who have yet to learn the lessons of his history. Three hundred years have passed in France and the economic manipulation and control the citizenry has not changed.

The Ascent of Man

Somewhere along the ascent of man, something went terribly wrong, and humans lost the ability to think…



The pandemic has highlighted the inability of humanity to understand both our society and its interaction with nature. Even after years of the pandemic, we are clueless about even the most basic science and hapless in the execution of the well-known, 100-year-old, pandemic quarantine procedures. The idea of progress involves the foundational concept, of continuous improvement over historical time. In the context of evolutionary medicine, one must also ask whether some of the progression is an improvement.

If humanity is to survive, we need to fundamentally change and re-focus on the advancement of thinking humans who understand the world we live in, this includes a knowledge of money.

Humanity Struggles with Itself.

The course of human history represents the epic struggle between hierarchies (central authority) and networks (local communities). Networks are the main source of innovation and economic production, but they also are inherently fragile. Hierarchies bring centralised order and economies of scale and scope. Hierarchies nurture networks for they cannot force into being all the clever things networks do. But they also fear networks for their ability to disrupt and reshape them. How economies and societies handle this tension will determine where a post-pandemic digital would take us – and where we will take our digital world.

The one thing we can all agree on, is a digital world, must be based upon providing a tangible benefit to humanity as a public good.

The Nature of Man

Altruism is not good for one's life. If accepted and practiced consistently, it leads to death. This is what Jesus did. If accepted and practiced inconsistently, it retards one's life and leads to guilt. This is what most altruists do. An altruist might not die from his morality—so long as he cheats on it—but neither will he live fully. Insofar as a person acts against the requirements of his life and happiness, he will not make the most of his life; he will not achieve the kind of happiness possible to man.

Egoism is good for one's life. If accepted and practiced consistently, it leads to a life of happiness. If accepted and practiced inconsistently—well, there is no reason to be inconsistent here. Why not live a life of happiness? Why sacrifice at all? What reason is there to do so? In the entire history of philosophy, the number of rational answers to this question is exactly zero.

There is no reason to act in a self-sacrificial manner, which is why no one has ever provided one. Nor is there any rational justification for sacrificing others, which is why no one has ever provided one of these, either.

Predation (the sacrificing of others for one's own alleged benefit) is no more in one's best interest than is altruism. Happiness, like everything in the world, is something specific; it has a nature. Happiness is the state of mind that follows from the successful pursuit of rational, life-serving values. Genuine happiness comes from achieving values, not from stealing them; from thinking rationally and being productive, not from relinquishing one's mind and becoming a parasite on the thought and effort of others; from earning romance and making passionate love, not from raping people. To wilfully become a parasite on the minds, efforts, and bodies of other people—to deliberately reduce oneself to the status of a subhuman creature—is the most selfless thing a person can do. That predators choose to ignore or deny this fact does not exempt them from it. Just as the sun does not revolve around the earth (regardless of what one believes), so too a person cannot achieve happiness by sacrificing other people (regardless of what he claims).

The assertions of predators to the effect that they can achieve happiness by sacrificing others are just that: assertions. They are not based on evidence (a criminal's makeshift smile and stolen money are not evidence of his happiness). They do not prove anything (proof is logical inference based on evidence).

Moreover, such claims flatly contradict the demonstrable fact that rational thought, productive achievement, genuine (earned) self-esteem, and certainty of one's moral worth are requirements of happiness.

Genuine happiness comes from identifying and pursuing the long-range material and spiritual requirements of one's life as set by one's nature. It all comes down to standards. The standard of value according to altruism is self-sacrifice. The standard of value according to a predator is his whim. The standard of value according to hedonism is pleasure or feelings. The standard of value according to Objectivism and rational egoism is the requirements of man's life. The principle of individual rights is the recognition of the fact that each person is morally an end in himself, not a means to the ends of others; therefore, he morally must be left free to act on his own judgment for his own sake, so long as he does not violate that same right of others. This principle is not a matter of opinion or social convention or "divine revelation"; it is a matter of the factual requirements of human life in a social context.

Human life does not require human sacrifice; people can live without giving up their minds, their values, their lives; people can live without murdering, assaulting, or defrauding one another. Nor can human sacrifice promote human life or happiness; it can lead only to suffering and death. If people want to live and be happy, they must neither sacrifice themselves nor sacrifice others; rather, they must pursue life-serving values and respect the rights of others to do the same. This is the basic principle of rational egoism—and the moral foundation for a proper social system, which underpins the concept we call the "Local Community" or "Digital Community" where likeminded people voluntarily co-exist for mutual benefit.

The Lords of Easy Money

How the Federal Reserve Broke the American Economy, via its Doomsday Machine. The Fed's decision to keep interest rates at zero for over a decade and begin a new round of buying long-term government debt, a policy known as "quantitative easing," which effectively injected trillions of new dollars into the banking system — the "easy money" ...

Between 2008 and 2014, the Federal Reserve printed more than $3.5 trillion in new bills. To put that in perspective, it's roughly triple the amount of money that the Fed created in its first 95 years of existence. Three centuries' worth of growth in the money supply was crammed into a few short years. Then yet again in 2020 the Fed printed another $13 trillion during the pandemic. The money poured through the veins of the financial system and stoked demand for assets like stocks, corporate debt, and commercial real estate bonds, driving up prices across markets.

When rates are effectively negative, that might be called a super-easy money policy. This kind of environment fuels inflation because all that easy money is looking for a place to go. Economists call this phenomenon "too many dollars chasing too few goods," meaning that everybody is spending the easy money, which drives up the prices of the things they are buying because demand is high, fuelled by the flow of free money from the worlds central banksters. This the banksters created inflation, but inflation has a lag, it takes time to appear within asset prices.

So how does this central banksters QE scam work?

Traders buy and sell assets from a select group of 24 financial firms called "primary dealers," an ultra-

exclusive club that includes the likes of JPMorgan Chase and Goldman Sachs. The primary dealers have special bank vaults at the Fed, called reserve accounts. To execute quantitative easing, a trader at the New York Fed would call up one of the primary dealers, like JPMorgan Chase, and offer to buy $8 billion worth of Treasury bonds from the bank. JPMorgan would sell the Treasury bonds to the Fed trader. Then the Fed trader would hit a few keys and tell the Morgan banker to look inside their reserve account. Voila. The Fed had instantly created $8 billion out of thin air, in the reserve account, to complete the purchase. Morgan could, in turn, use this money to buy real world assets in private sector marketplace. The perpetual motion machine powered by central bank pixie dust has been created and set in motion to consume the worlds natural resources.

There is no painless solution to central bank engineered debt and inflation...To be clear, the kind of pain involves high unemployment, social instability and potentially years of economic malaise. As all past, current, and future wealth has been consumed in just three years.

Keynesian Perpetual Debt Machine

The Central Banks perpetual debt machine powered by Keynesian economics. The deliberate creation of budget deficits — the explicit decision to spend and not to tax — was the feature of Keynesian policy that ran most squarely in the face of traditional and time-honoured norms for fiscal responsibility…

Budget balance did matter for an individual or family; budget balance did not matter for a government. Borrowing for an individual offered a means of postponing payment, of putting off the costs of current spending, which might or might not be desirable. For government, however, there was no such temporal transfer. It was held to be impossible to implement a transfer of cost or burden through time because government included all members of the community, and, so long as public debt was internally owned, “we owe it to ourselves.” Debtors and creditors were mutually cancelling; hence, in the macroeconomic context, the society could never be “in debt” in any way comparable to that situation in which a person, a family, a firm, a local government, or even a central government that had borrowed from foreigners might find itself.

The “new orthodoxy” of public debt stood almost unchallenged among economists, despite its glaring logical contradictions. The Central Banksters Keynesian advocates failed to see that, if their theory of debt burden is correct, the benefits of public spending are always available without cost merely by resort to borrowing, and without regard to the phase of the economic cycle.

This argument was deceptively attractive. It did much to remove the charge of fiscal irresponsibility from the deficit-creation position. Politicians and the public might hold fast to the classical theory, in its vulgar

or its sophisticated variant, but so long as professional economists could be found to present the plausible counterargument, this flank of the Keynesian intellectual position was amply protected, or so it seemed.

If bond purchasers voluntarily transfer funds to government in exchange for promises of future interest and amortisation payments, there is no cost to anyone in society at the time public spending is carried out. Only the benefits of such spending remain. The economic analogue to the perpetual-motion machine would have been found. Thus, was born fiat-money as a perpetual bond-based, compounding debt.

That is until the ides of march comes, which come it did on the 15th of March 2023.

The Sociology of Debt

The problem of a debt society is that it is based on depersonalisation of human relationships. Currency, which was invented to mediate a trade exchange, and hence represent real social relationships (trade itself), becomes problematic when it is disembodied from a trade-based exchange between two people, and hence rendered purely abstract. This form of money is not a currency but allows bankers to create and manipulate a new monetary universe and exert influence over all others within a society via the concept of a money which does not exist to support a payment, but a form to contain, store and circulate debt.

There is a Keynesianism economic perspective[10], which makes the argument that indebtedness is not a societal problem, according to this view, we can endlessly push repayment off into the future in the name of social development. However, the problem with Keynesianism indebtedness is that it is largely unsustainable because it is not concerned with supporting social progress or the development of societies that can support individuals, families, and communities moving into the future. Instead, the current state of indebtedness is a symptom of a global social and economic system which makes the individual the centre of everything, regards vast socio-economic inequality as the effect of a kind of economic state of nature where the only law is the law of the survival of the fittest, and ignores what we might call the proper, sociological, understanding of debt.

What is the proper, sociological understanding of debt?
Simply put, we are always indebted to those around us who make our lives possible, those who came before us who brought us into the world and owe a reciprocal debt to those who will come after us and

[10] As embodied within the Modern Monetary Theory and exercised via Central Bank Monetary Policy.

must live in the future that we leave to them. This is the sociology of debt because it emphasises the basic relationality of people, the basic truth that we rely upon each other to live and foregrounds the condition of indebtedness inherent within every society. It is this basic indebtedness that the financial idea of indebtedness forgets when it suggests that it is somehow possible to escape debt, that repayment in full is somehow possible, and that we can ever live in the black. According to the sociological understanding of debt there is no living in the black, there is no relationship between creditors who are somehow beyond debt and debtors who are up to their eyes in it, because debt is universal. Nobody now lives outside of a social relation with others.

The problem with monetary debt is that it is only productive for the predatory lenders who profit from the desperation of people who have nowhere else to turn, as they have created the artificial concept of monetary scarcity... The lenders have created an artificial scarcity of money and credit and replaced it entirely with debt-based money. By contrast to the creditor who creates money from a journal entry (out of nothing), the debtor is caught in a spiral of repayment and lending that never ends. Thus, we are back in the economic state of nature inhabited by predatory creditors and desperate borrowers (debtors) and there is little sense of the basic truth that people live and prosper in societies, rather than as free individuals.

Social debt or reciprocity in the name of collective development and the creation of a better, more productive form of society to support individuals and their society. However, this requires a new way of thinking about debt that foregrounds social responsibility, our necessary debt to each other in creating society and the space for individuals to grow and develop, rather than the fantastical idea that it is somehow possible to live outside of the debt relation where we are responsible for each other.

'Neither a borrower nor a lender be' – Shakespeare's Hamlet, Act 1 Scene 3.

The Practicality of Debt

Although the role of debt in the economy is frequently discussed, the precise meaning of the term is often far from clear. Discussions often become confused as debt is framed not only in economic but in moral terms. Debt is one of the most conflated banksters terms, who magic up private debt-based ledger money via a journal entry[11].

But the reality is debt is well defined it exist in the deferred payment space between C-M … M-C. Debt is essentially a non-simultaneous exchange between two parties, it exists when an exchange has not been brought to its completion. There exist many forms of social exchange other than payments, but the reality remains the same, since one side of the exchange (granting the loan) takes place at a different time than the other side (repaying the loan), debt always runs the risk that something happens in the

[11] The central bank Journal entry is the mechanism used to implement central bank monetary policy, even if it implemented via the left-hand right-hand fraud of a Treasury Bond, as the means to create a private sector debt by the public sector. The journal entry transfers private sector assets in exchange for public sector debt. This is the function of all central banks to crate and circulate public sector debt as debt-based money.

intervening period that prevents it from being repaid. In principle, all debts must be repaid, but there is a social limit to the repeatability of debts, as the lender accepts some degree of risk. Hence not all debt is money or defers a payment, but debit/credit can exist within the space between the settlement of a deferred payment.

All proposals that aim to do away with the consequences of perverse economic and financial policy, merely by reforming the monetary and banking system, are fundamentally misconceived. Currency is nothing but a medium of exchange and it completely fulfills its function when the exchange of goods and services is carried on more easily with its help than would be possible by means of barter. Attempts to carry out economic reforms from the monetary side can never amount to anything but an artificial stimulation of economic activity by an expansion of the debt circulation, and this, as must constantly be emphasized, must necessarily lead to crisis and depression. Recurring economic crises are nothing but the consequence of attempts, despite all the teachings of experience and all the warnings of the economists, to stimulate economic activity by means of additional circulation of debt.

The conclusion to which this book leads, is that expansion of debt cannot form a substitute for capital, may well be a conclusion that some may find uncomfortable, yet I do not believe that any logical disproof of it can be brought forward.

Debt Cannot Flow across a Border.

It remains fact that today's debt-based fiat-currencies cannot flow across any sovereign border, they are bound to circulate exclusively inside a currency area, by their very definition of a standardised unit within each unique currency area. Despite the beating of all central Bankers, this reality is not subject to any debate or discussion it remains an immutable fact.

In addition to the inability of currency to flow, the debt liabilities also are constrained to exist solely inside each currency area. The rule in Gibbs[12] dates to the 19th century and provides that a debt governed by English law cannot be discharged or altered by a foreign law[13] (including a foreign insolvency proceeding). This means that, while an English court may recognise a foreign insolvency process, a

[12] The Gibbs rule is named for the case in which it was formulated: Antony Gibbs & Sons v La Société Industrielle et Commerciale des Métaux (1890) LR 25 QBD 399). Its effect is that, unless a creditor submits to a foreign proceeding, a foreign proceeding designed to bring about the cancellation of a debtor's obligations will discharge only those liabilities governed by the law of the country in which that proceeding took place. Creditors enter English law contracts to access the impartiality, commerciality and due process the English courts are well known for. In economies which lack transparent legal systems or significant precedents, the Gibbs rule guarantees to creditors a stable, predictable, and trusted legal system which will protect their rights. By ensuring that trusted legal mechanisms underpin agreements, without which credit may be unavailable, the Gibbs rule encourages investment as it reduces counterparty risk via rule of law. If Gibbs were overturned, there is an argument that this would leave lenders across the globe in an uncertain position.

[13] Equally undermining the basis for modified universalism is the decision in Rubin. In that case, the United Kingdom Supreme Court refused to enforce an avoidance judgment concerning fraudulent conveyances entered by the United States Bankruptcy Court (the main insolvency forum). The Supreme Court held that the UNCITRAL MLCBI is limited to the procedural aspects of cross-border insolvency and does not govern choice of law rules to enable the enforcement of insolvency-related judgments. According to the Court, this leaves in place default ordinary private international law rules preventing the enforcement of in personam judgments against defendants, not present, in the foreign country where the judgment is entered and who do not submit to the jurisdiction of the court entering the judgment. Given the continuing uncertainty in relation to Brexit, the upholding of the rule in Gibbs is likely to be of critical importance when determining international restructuring strategies involving English law documentation.

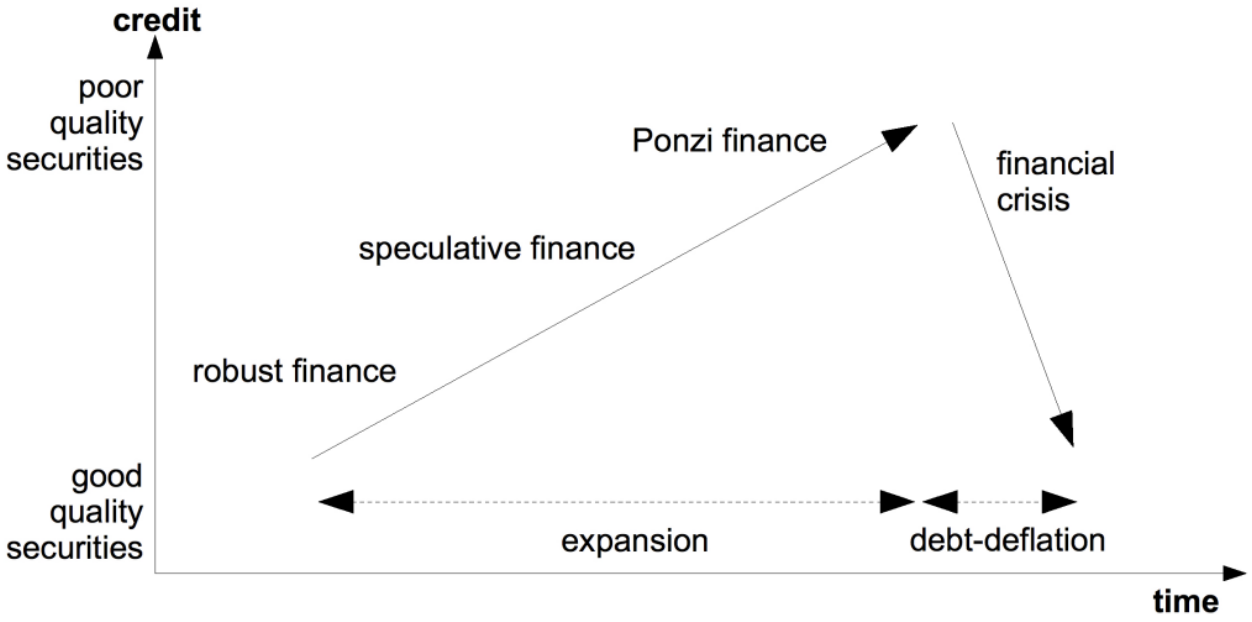
foreign insolvency process is not effective to extinguish or modify debts of creditors whose contracts with the insolvent debtor are covered by English law.

Today, the Gibbs rule remains in force – therefore, English law-governed debt can only be discharged by consent of the creditor or via an English law insolvency proceeding, which cannot flow outside of the jurisdictional borders of a currency area.

The Central Bankers peddled delusion that any fiat-currency can flow across any sovereign border is a dystopian delusion, which has no basis in fact or law, it relies solely upon the magic of "counterparties" exchanging one form of debt for another form of debt (while managing counterparty risk), but there exist no circumstances where a fiat-currency, as debt, can flow outside of the jurisdiction of its issued currency area.

Cycle of Financial Crisis

Minsky enjoys a certain posthumous renown because he emphasised that across periods of prolonged prosperity economies gradually evolve toward a financing structure that makes the system unstable. Starting from a situation where financial relations covered by incomes are predominant, they move on to a situation in which speculative financial activities, and then Ponzi systems, become increasingly important, to the point that the insolvability of a small number of agents will end up provoking a collapse in asset prices. As the Figure below shows, during periods of relative stability, the quest for profit leads to the development of financial innovations that accelerate credit circulation and reduce the quality of securities, which inevitably results in financial crisis or even a crisis in the real economy. Falling asset prices and the contraction of credit feed one another: agents in financial distress are forced to sell their holdings at whatever price they can (crystallising previously unrealised losses); companies which are no longer able to obtain credit lay of staff, cut wages and lower the prices of their products; deflation leads to a growth in the weight of debts relative to incomes. Thus, the indebtedness of the euphoric period becomes ever less sustainable and threatens agents whose economic situation had up till then seemed solid.



Central banks play in this cycle with two levers: on the one hand, the central bank acts as a lender of last resort, so as to limit chain-reaction bankruptcies and stabilise the financial markets; on the other hand, the state allows soaring public deficits and supports demand in order to offset the fall in investment and consumption – and, therefore, the fall in profits. If we look at its narrowly financial logic, the great crisis of 2007–8 can be interpreted as the outcome of a central bank financial Supercycle. The belief that the public authorities will take effective action when catastrophes occur is not mutually exclusive with the hypothesis that exaggeratedly optimistic forecasts will lead to an underestimation of risk in the real economy.

Moreover, we do not have to imagine a set of hyper-rational and opportunist economic agents taking advantage of implicit state guarantees in order to understand the cumulative effects when over-optimistic forecasts combine with the obligation on the authorities to intervene to avert systemic collapse. This was why Minsky's contribution proved fundamental to understanding the properly financial dynamic that led to the crisis of 2007/8 and the creation of fictitious capital which has no embodiment in the real world.

Fictitious Capital

The concept of fictitious capital is today largely forgotten. Removed from Palgrave – the economics reference dictionary – in the 1990s, it is nonetheless a concept associated with two major thinkers, namely Friedrich Hayek and Karl Marx. For liberal writers, the production of fictitious capital means the monetary creation of capital by way of the credit system, without any counterpart on the terrain of real resources. It is an eminently pejorative term, with a whiff of the scam of constantly using new loans to maintain a facade of being able to pay off old ones when in fact, there is a never-ending increasing debt level as a percentage of GDP. The understanding of the role of fictitious capital is essential if we are to end the continuous cycle of economic crisis in 2007/8 and yet again with the banking crisis of 2023.

Fictitious capital[14] is, in brief, 'money that is thrown into circulation as capital without any material basis in commodities or productive activity'. Thus, if a sum of money circulates as capital and is not backed by already existing commodities or commodity production, this capital is, according to this interpretation, fictitious. Fictitious Capital is value, in the form of credit, shares, debt, speculation and various forms of non-cash (often digital ledger entries) money, above and beyond what can be realised in the form of commodities. [...] Fictitious capital is that proportion of capital which cannot be simultaneously converted into existing use-values.

The formation of fictitious capital is the capitalisation of an expected flow of income at the conventionally accepted benchmark rate: 'The formation of fictitious capital is known as capitalisation' (Marx, 1864–65, p. 558). Put differently, fictitious capital corresponds to the present value of an expected future income

[14] Fictitious capital, a concept referred to by Marx in Capital Volume Three, has largely been left idle and loosely defined, it now finds itself in the centre of discussions and elaborations concerning the forms and effects of financialization. Hence, fictitious capital does not exist beyond the moment of the result of the speculative proposition that future labour will supply its repayment and so fictitious capital is always money advanced for future labour not yet secured via M-M. For Marx, anything fictitious (or speculative) will at some point return to the real and at that moment the illusion will no longer suffice as a placeholder for valorised capital. This is by Marx a major cause for cyclical crisis in the history of capitalism.

flow. As Marx argues any regular, periodic income can be capitalised by reckoning it up, based on the average rate of interest, as the amount that a capital lent out at this interest rate would yield' (1864–65, p. 558). The presence of a benchmark interest rate in the process of capitalisation shows that fictitious capital presupposes interest-bearing capital. From an ontological perspective, there is no fictitious capital without interest-bearing capital, and neither of them is intelligible without considering real capital.

The constitution of fictitious capital results from the transformation of future income flows into a commodity (Krätke, 2001). Fictitious capital, therefore, represents an additional ontological step in the process of the commodification that marks capitalism. The interest-bearing capital represents the commodification of money as capital, and the fictitious capital represents the commodification of future income flows as capital. According to Michael Hudson (2010), the flow of future income is like economic 'prey' fated to be hunted in the financial markets, the central arena for the capitalist competition. That is, every source of prospective income presents the opportunity to constitute fictitious capital and, therefore, the possibility of the formation of a market where the rights for future incomes are traded (Cooper, 2015).

The relationship between fictitious capital and real capital is complex since fictitious capital constitutes a claim not to the real capital it might represent, but to a future flow of income that might or might not be associated with real capital. Fictitious capital is a potential claim upon a potential future revenue independent of its actual existence at any future period. In essence fictitious capital is the finalisation of money, within the period represented by … within M-M ... M'-M', where no surplus value can be produced, only rent extraction via the sin of usury. This process is only posable via the replacement of commodity circulation with the finalisation of money via public sector or treasury debt-based bonds.

Fictitious capital has the tendency to create, like a spell, money that becomes more money, richness which prompts more richness in an uncontrolled spiral without the anchorage of economic production or any requirement for labour components. This severely damages the accumulation of capital and the circulation of commodities, whether by great capital outflow, or by the direct and indirect effects that the speculative market has on real world production.

Government bonds[15] are perhaps the best example of fictitious capital in a post-pandemic economy. Government bonds create liabilities for the government and, at the same time, assets for the bondholders, connecting the public and private spheres. Particularly, as with any title of fictitious capital, government bonds draw upon surplus value produced in society (via the tax system) and can move effortlessly across the credit system playing and being used in different and important roles.

In this sense, my interpretation of Marx – Capital, vol. 3 – is that bonds do not represent real capital. The advanced sum given in exchange for the titles of fictitious capital refers to the capital generating surplus value from which their claims will draw. In fact, Marx does emphasise that these titles cannot represent any capital because their capital value 'is always simply the capitalised yield, i.e. the yield as reckoned on an illusory capital at the existing rate of interest' (Marx Citation1991, p. 598) and for this reason these titles of fictitious capital (bonds) become 'nominal representatives of non-existent capital' (Marx Citation1991, p. 608), and the returns on them are not the same as for real capital.

[15] Bonds do not function as real capital; they are merely a claim on future profits, so "the capital-value of such paper is…wholly illusory".

Financial innovations such as collateralised debt obligations (CDOs), which are the claim of wealth on future payment of the debtor in the form of packaged pieces of debts sold in the financial market, have similar features to titles of fictitious capital. CDOs are a promise of a future income that is exchanged in the financial sphere. They are forms of bond, and their nominal (or notional) value is dependent on the valuation of the related or underlying bonds (yet more fictitious capital).

For investors, all that matters (and the object of their concern and evaluation) is the yield these claims will produce and how they get the principal back and the coupon payments. It can be an investment bank or a pension fund controlling huge cash reserves, and the promise form can be either debt payment or dividend; still, the essence is the same, i.e., the capitalisation of future income implies the formation of a capital that does not exist in real terms but functions as if it does.

Fictitious capital encapsulates the trade and circulation of financial instruments and exemplifies the mechanism that any regular income can be capitalised, turned into an asset, and then further exchanged in the financial markets without the need for any real; capital to exist. The detachment from the production of values and the real source of value-generating returns due to the capitalisation process and creation of fictitious capital is much more about capital trying to separate from and undermining its own material basis, i.e., the production of new use-values through labour exploitation (see Paulani Citation2014, Rotta and Teixeira Citation2016), than a complete independence from capital valorisation. That is why the expansion and development of financial securities since the 1970s have been accompanied by profound changes in the relationship between labour and capital seen in the production process and sector organisation (see Lazonick and O'Sullivan Citation2000).

The circulation of bonds or fictitious capital represents the past and the future, but never the present of productive capital.

The Power of Fictitious Capital-Post-Pandemic

The power that fictitious capital has acquired during the pandemic is embodied in the liquidity of the financial markets. Securities represent a pre-emption on future production, but they also offer their owners the possibility of converting them into real money at any given moment. Collectively speaking, this liquidity is just an illusion, for it would be impossible immediately to liquidate all these promises[16]. But it is certainly a powerful fiction. Since 2008, the absolute priority that the public authorities have given to financial stability has expressed their determination to validate fictitious capital's claim to liquidity. Yet this claim only holds true if the commitments that have already been made are respected. To put it another way: present financial profits sustain the value of accumulated fictitious capital; the promises made today can only be accepted if past ones have been kept. The great mission of governments and monetary authorities faced with each financial upheaval since the 1980s – and more so in recent years – has been to guarantee this continuity of financial profits via the facade of financial market liquidity.

[16] In the similar fashion, it is impossible for all bank depositors to withdraw their funds or in more than ~ 10% of total deposit value.

In rich countries, economic growth has been slowing for almost half a century and they are now trapped in a secular stagnation[17].

The rise in non-financial firms' financial payments and revenues signals an aversion to domestic investment, feeding these heavy tendencies toward stagnation. Nothing guarantees that accelerated technological sophistication will bring a new phase of economic expansion. As financial promises weigh ever more heavily, our societies are following a trajectory that is both politically and economically explosive. Fictitious capital's raw material is financial profits. Since finance does not itself produce anything, it must draw its fruits from elsewhere, the problem post-pandemic is there is no "elsewhere" available; the fictitious capital cannot find a home in any real-world asset.

*The entire artificial system of forced expansion of the reproduction process cannot, of course, be remedied by having some bank, like the Bank of England, give to all the swindlers the deficient capital by means of its paper and having it buy up all the depreciated commodities at their old nominal values. Marx r*eductio ad absurdum-*1857.*

Marx wrote this reductio ad absurdum not dreaming that it would come true in autumn 2008 as the US Treasury paid off all of AIG's gambles and other counterparty 'casino capitalist' losses at taxpayer expense, followed by the Federal Reserve buying junk mortgage packages at par.

Marx expected economies to act in their long-term interest to increase the means of production and avoid over-exploitation, under-consumption, and debt deflation. But as Marx predicted today's fictitious capital based upon financial engineering aims not at industrial engineering to increase output or cut the costs of production, but at the disembodied M-M…M-M' making money from money itself in a sterile 'zero-sum' transfer payment. Under such conditions fortunes are made most readily not by industrial capital formation but by indebting industry, real estate, labour, and governments, siphoning off the economic surplus in interest, other financial fees, bonuses, and 'capital' gains. Populations willingly go into debt as it appears that gains can be made most easily by buying real estate and other assets on credit if asset prices rise at a pace higher than the rate of interest.

To save society, its victims must see that asset-price inflation fuelled by debt leveraging makes them poorer, not richer, and that financialization is the destroyer and exploiter of industrial capital as well as of labour.

The Chicago Plan Revisited

The Silicon Valley Bank run was, in many ways, the first of the digital era. Few depositors lined up at a branch. Instead, they used bank apps and phone calls to access their money in minutes. Venture capitalists and business owners described the early stages of the Silicon Valley run being led by private message boards or Slack channels, where entrepreneurs were encouraged to withdraw their funds. Silicon Valley Bank also was unique in being almost entirely exposed to one community — the tech industry, venture capital and startups. When this close-knit community of depositors talked to one another — using digital channels to do so quickly — the bank likely became more vulnerable to rumours

[17] Stagnation is a prolonged period of little or no growth in an economy. A rate of growth of less than 2-3% annually as measured by gross domestic product (GDP) is considered stagnation.

and a run. This was a risk outside of the growth of a digitised world, “the speed of the world has changed. things can unwind fast, very fast, people talk fast. people move money fast.”

With the crash of Silicon Valley Bank, and Credit Swiss in March 2023, essentially caused by the reality of a digital world, where the entire capital can leave a bank[18] in a less than a day. It is obvious we need to readjust the very existence of fractional reserve[19] banking within the global banking system, before it too collapses, and the banks become ‘too big to bail out’ when their debt reaches many times the entire GDP of each nation.

Two economists at the International Monetary Fund (IMF) — published a paper entitled “The Chicago Plan Revisited” in August 2012. Benes and Kumhof not only revisited the Chicago Plan, but they also tested it with modern econometric models of the economy. Before discussing the results of their modelling, what were the asserted benefits of the original Chicago Plan as set forth by Fisher in 1936?

1. Greater control of a major source of business cycle fluctuations, including the unpredictable expansion and contraction of banks’ credit and, consequently, the supply of banks’ created money.
2. The complete elimination of bank runs.
3. A dramatic reduction — if not complete elimination — of net government debt.
4. A dramatic reduction in private debt since money creation is no longer tied to debt creation.

Certainly, these are interesting contentions, and if you know anything about the financial system, then you also know that the Chicago Plan is nothing less than a radical rethink and redo of the global financial system. But will it work? According to Benes and Kumhof, the answer is an astounding and unequivocal “Yes”:

“We find strong support for all four of Fisher’s claims, with the potential for much smoother business cycles, no possibility of bank runs, a large reduction of debt levels across the economy, and a replacement of that debt by debt-free government-issued money. Furthermore, none of these benefits come at the expense of diminishing the core useful functions of a private financial system. Under the Chicago Plan private financial institutions would continue to play a key role in providing a state-of-the-art payments system, facilitating the efficient allocation of capital to its most productive uses, facilitating intertemporal smoothing by households and firms. Credit, especially socially useful credit that supports real physical investment activity, would continue to exist. What would cease to exist however is the proliferation of credit created, at the almost exclusive initiative of private institutions, for the sole purpose of creating an adequate money supply that can easily be created debt-free.”

The fraction reserve banking has been proven a complete shame which has no basis for its ongoing existence within the digital world post-pandemic.

[18] Investors and depositors tried to pull $42 billion from Silicon Valley Bank on Thursday in one of the biggest US banks runs in more than a decade, according to a Friday regulatory filing.

[19] To be precise we live in an Endogenous Money system, rather than a fractional reserve system. Loans create deposits, and reserves are found later. No reserves are required to exist for a commercial bank to create a new deposit.

Other People's Money

Commercial banking is an enigma, as it is essentially a system built upon other people's money, as there exist no practical claim upon the commercial bank shareholder by any bank depositors; in the case of a commercial bank becoming insolvent.

President Wilson, when Governor, declared in 1911:
"The great monopoly in this country is the money monopoly. So long as that exists, our old variety and freedom and individual energy of development are out of the question. A great industrial nation is controlled by its system of credit. Our system of credit is concentrated. The growth of the nation, therefore, and all our activities are in the hands of a few men, who, even if their actions be honest and intended for the public interest, are necessarily concentrated upon the great undertakings in which their own money is involved and who, necessarily, by every reason of their own limitations, chill and check and destroy genuine economic freedom. This is the greatest question of all; and to this, statesmen must address themselves with an earnest determination to serve the long future and the true liberties of men."

Commercial bank issue pieces of paper that claimed to be good for another piece of paper upon redemption at a distant bank. Private ledger money, that is irredeemable outside of the issuing bank. Bank IOUs passed around by people who could not know the person who first issued them. Money and banking offer a glaring example of free-market capitalism run amok—unregulated, exuberant, and irredeemable other people's money heading towards the next "panic" of "burst bubble".

The power of the banker over other people's money is often more direct and effective than that exerted through controlled banks and trust companies. Banks achieve the supposedly impossible feat of having their cake and eating it too. They buy the bonds and stocks of controlled industrial concerns and pay the purchase price; and still do not part with their money. This is accomplished by the simple device of becoming the bank of deposit of the controlled corporations, instead of having the company deposit in some merely controlled bank in whose operation others have at least some shares. When the commercial bank buys an issue of securities the purchase money, instead of being paid over to the corporation, is retained by the banker for the corporation, to be drawn upon only as the funds are needed by the corporation. And as the securities are issued in large blocks, and the money raised is often not all spent until long thereafter, the aggregate of the balances remaining in the banker's hands. Hence, they hold other people's money as their own.

Other people's money powers the commercial banking system post-pandemic based exclusively upon debt and feed from the sin of usury.

Self-Custody

Custody - simply defined as holding securities or funds on behalf of third parties – is one of the key institutions that defines and distinguishes major financial institutions in the financial system. In traditional finance, the relevant regulations applicable to financial institutions shows that the custody rules and client asset (segregation) rules apply to all financial institutions, **other than commercial banks**' core business activity (i.e., deposit-taking). When a customer deposits his funds with a bank, the deposit contract transforms client's right in rem (a property right) into a right in personam (a contract right). In other words, bank deposits as contracts - to which the client's money segregation requirement does not apply - enable banks to create money. Deposits are not endowments that precede loan formation; it is loans that create deposits.

The most salient impact of exempting deposit contracts from custody and client asset rules has been the emergence of a business model for banks that treat their clients' funds as their own and use them for their own accounts. Comingling clients' funds with that of the bank is a critical defining feature of the banking industry that differentiates it from non-bank financial institutions as well as non-financial firms, and positions banks at the heart of monetary systems. The absence of custody and asset segregation in the core banking activity, which allows banks to use customer deposits for their own account, gave shape to a new product that came to be known as the demand or sight deposit). Through time due to its macroeconomic implications this product rose to such a prominence that it became the exclusive business of certain authorized, licensed, or chartered institutions. This means that commercial banks do not control the aggregate stock of reserves and central banks do not control bank deposits.

Maturity transformation happens when the bank uses short-term liabilities such as deposits to fund long-term assets such as real-estate loans. This operation creates liquidity for savers, but in the meantime exposes the intermediary to the rollover and duration risks. Liquidity transformation entails the use of liquid instruments to fund illiquid assets, which exposes the bank to liquidity risks. However, such a function is inherently fragile, and the providers of such services (i.e., banks) are subject to runs, and more so when post-pandemic the entire capital of a bank can be emptied in a matter of minutes or at the speed of electron trave.

Within a digital world the age-old requirement to provide physical safe custody of deposits has long since disappeared, As the vast majority of money post pandemic is exclusively digital money the need for any form of third-party custody self-deprecates as the liquidity risks become unmanageable, and the new world of Self Custody becomes a commercial reality. As this evolution of money essentially removes the need for the existence of an Approved Deposit Institution (bank), the world has moved on, and thus the global banking system self-deprecates its existence as a custody warehouse and maturity transformation disappears.

The only safe custody for money, is self-custody within a digital world.

Gambler's fallacy

The gambler's fallacy, also known as the Monte Carlo fallacy or the fallacy of the maturity of chances, is the incorrect belief that, if a particular event occurs more frequently than normal during the past, it is less likely to happen in the future (or vice versa), when it has otherwise been established that the probability of such events does not depend on what has happened in the past. Such events, having the quality of historical independence, are referred to as statistically independent. The fallacy is commonly associated with gambling, where it may be believed, for example, that the next dice roll is more than usually likely to be six because there have recently been fewer than the usual number of sixes. The term "Monte Carlo fallacy[20]" originates from the best-known example of the phenomenon, which occurred in the Monte Carlo Casino in 1913.

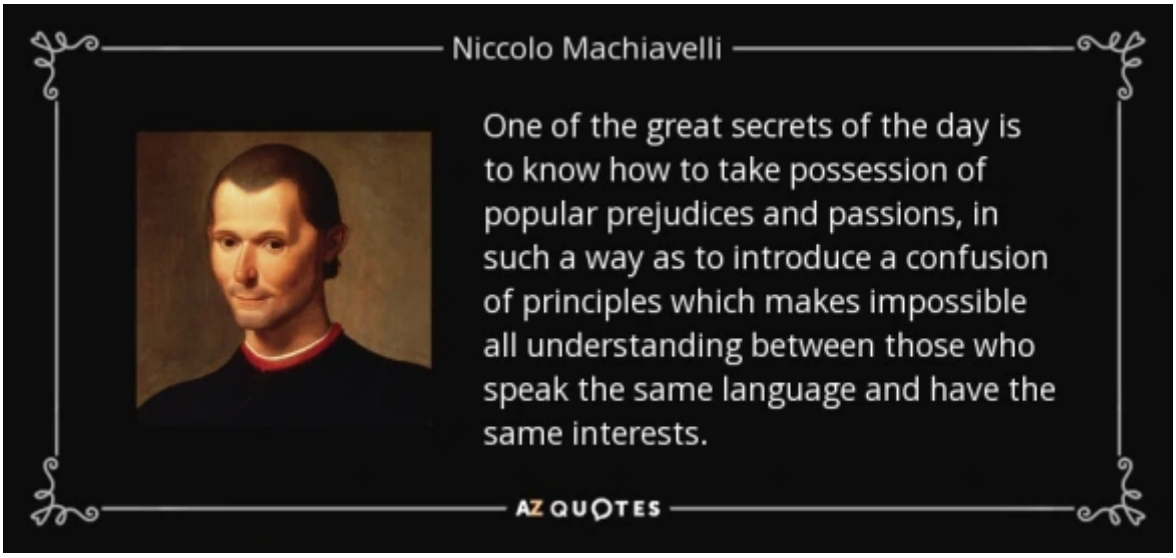
Researchers have examined whether a similar bias exists for inferences about unknown past events based upon known subsequent events, calling this the "retrospective gambler's fallacy". An example of a retrospective gambler's fallacy would be to observe multiple successive "heads" on a coin toss and conclude from this that the previously unknown flip was "tails", when in fact the probability remain 50:50 and does not change.

The relevance to this book, is the Gamblers fallacy underpins all forms of speculation about money, currency and capital which are divorced from their actual performance. Any currency subject to such speculation will ultimately destroy a currencies acceptance within a deferred payment.

Humanity exists to be exploited.

Throughout human history, the few have always controlled the many, via the control over the creation and distribution of money and currency. Fiat-money is the ultimate destination for the conflation of money, currency, payments, and capital, whereupon today we have money which is irredeemable. The banksters money is a promise to repay ‘nothing’ but the same forever, but still extracts usuary from its holders under threat of legalised state violence over its peoples.

[20] Perhaps the most famous example of the gambler's fallacy occurred in a game of roulette at the Monte Carlo Casino on August 18, 1913, when the ball fell in black 26 times in a row.



For money to support power over others, it must always remain “unknowable” to all.

Human capital has a few core tenets:

- Humanity is more important than money.
- The unit of an economy is each person’s economic production or contribution, not each dollar
- Markets and trade exist to serve our common goals and values.
- Money must remain neutral and mediate trade payments without fear, favour, or coercion.

Knowledge is Freedom

"It is paradoxical, yet true, to say, that the more we know, the more ignorant we become in the absolute sense, for it is only through enlightenment that we become conscious of our limitations. Precisely one of the most gratifying results of intellectual evolution is the continuous opening of new and greater prospects."
-- Nikola Tesla

It’s the same vain as that Socrates meant with his “All I know, is that I know nothing”. Our knowledge is like a known spot on the territory of the unknown. When you know very little, the boundaries with the unknown are small too, so it may seem that almost everything is known. However, as you expand your knowledge, the spot grows, and the boundaries with the unknown grow bigger too, and faster. Thus, you realize that the amount of unknown is vastly bigger than you expected. As your spot of knowledge grows even larger, the awareness of how much you don't know grows even quicker, so it may become overwhelming. Other people don't see what you see, because they exist on another domain, nowhere near the boundaries you stand at.

“Since the mathematicians have invaded the theory of relativity, I do not understand it myself anymore.” – Einstein.

That's why the more you know, the more you don't know at the same time, which is why Tesla’s use of the word enlightenment is odd for a scientific genius. This book is a journey, within the real world occupied by humans, it provides the foundational principles and the financial language and a domain-

context to enable financial markets to be communicated and hence comprehended by anyone and everyone on the planet.

Today's scientists have substituted mathematics for experiments, and they wander off through equation after equation, and eventually build a structure which has no relation to reality." - Nikola Tesla

One cannot comprehend everything, but one can seek, and continue to seek enlightenment on life's journey via continuous knowledge acquisition until one's life is extinguished.

The Digital Financial Market Infrastructure described within this book, has been developed via the scientific process, namely a) the establishment of financial market principles, b) the development of sound economic and engineering theory, c) the testing of both the principles and theory via an experiment using the evolutionary technologies and systems over the last 20 years of systematic Research and Development.

The Digital Financial Market Infrastructure as described in this book is backed by **science** and solid **engineering principles** and seeks to free the world's population, from pixie dust economics, and exploitation via impossible finance[21].

Anarchy is freedom.

Anarchy comes from the Medieval Latin anarchia and from the Greek anarchos ("having no ruler"). Anarchy was first used in English in 1539, meaning "an absence of government". Anarchy is represented by a society being freely constituted without authorities or a governing body. It refers to a society or group of people that entirely rejects a set hierarchy of control over others. Anarchism is a political philosophy and social movement that advocates and absence of a feudal overlord, a society based on free and voluntary associations between individuals. Anarchists seeks a system based on the abolition of all coercive hierarchy, in particular the state, and advocates for the creation of a system of direct democracy not subject to corrosive control by the few via over the many via Rule by constitutional Law, Anarchism rejects the concept that the State has a monopoly of violence over its people via **Rule by Law**. In its simplest representation, it means a society that has no "public sector" and "no ruler" and operates solely via the rule of law[22]. Proudhon[23] wrote that anarchy is "Not the daughter, But the mother of Order".

Since the 1890s, libertarianism has been used as a synonym for anarchism. The German philosopher Immanuel Kant treated anarchy in his Anthropology from a Pragmatic Point of View as consisting of "Law and Freedom without Force". Kant identified four kinds of government:

1. Law and freedom without force (anarchy)
2. Law and force without freedom (despotism)
3. Force without freedom and law (barbarism)
4. Force with freedom and law (republic)

[21] Impossible Finance, "From Ponzi to Bitcoin — the Perfection of the Scam"-Martin Walter Dec 2020.
[22] Rule of Law is the formal principles regarding the generality, clarity, publicity, stability, and prospectively of the norms that govern a society. The Rule of Law also comprises certain substantive ideals like a presumption of liberty and respect for private property rights. The Rule of Law begins with Aristotle (c. 350 BC).
[23] Pierre-Joseph Proudhon adopted anarchy and anarchist in his 1840 treatise What Is Property.

Central to anarchism is the belief that people can organize themselves to meet their individual and collective needs, without being ruled via hierarchies, coercion, or rewards and punishments. In many ways liberalism has led to “free market’s[24] a form of anarchism practiced today, often referred to as laissez-faire capitalism.

[24] In economics, a free market is a system in which the prices for goods and services are self-regulated by buyers and sellers negotiating in an open market without market coercions. In a free market, the laws and forces of supply and demand are free from any intervention by a government or other external authority.

Thou shall not think.

Dumbing-down of society varies according to subject matter, and usually involves the diminishment of critical thought by undermining standard language and learning standards, thus trivialising academic standards, culture, and meaningful information. If you want your children to grow up to be an anxious, 'dumbed down' narcissist with poor social skills and low esteem, and inability to think for themselves; then keep feeding them unlimited exposure to the rule by mob consensus or other dystopian group think memes. The inability to independently think, is the global pandemic of our time, we each need to immunize ourselves against this deadly virus, via separating facts from the fiction of the mob. The author requires each reader of this book to **critically think** about its contents.

A growing community of the informed, believes that Wikipedia, the constantly changing online public data base, created by a global free-for-all collection of anonymous users, now stands as the leading force for the dumbing down of world knowledge. If Wikipedia's almost unstoppable momentum continues, critics believe, it threatens to quickly reverse centuries of progress in the sharing of **verifiable knowledge** with its highest aspiration being **genuine fact**. In its place would be a constant cacophony of fact and falsity that Wikipedia's critics call the "law of the mob.[25]" A pillar of Wikipedia doublespeak establishes this rule: "Wikipedia has no firm rules." But there are rules—and one of the many of them is original research is forbidden.

Words such as "verify" are re-defined upside down in the Wikipedia World to mean the opposite of what the common meaning has been for millennia. In Wikispeak, verify does not mean test and check, but only to mean cite any arbitrary source published by any meme and, all too often, even the 'site' attribute is missing in action, it exists solely in the mind's eye of the anonymous Wikipedia editor. The importance of Wikipedia in relation to this book, is to demonstrate that people must reject mob consensus over facts regarding money, currency, and capital.

The process of abandoning all beliefs, principles, values, and policies in search of something in which no one believes, but to which no one objects; the process of avoiding the very issues that must be solved, merely because you cannot get agreement on the way ahead. What great cause would have been fought and won under the banner: 'I stand for consensus?'—Margret Thatcher.

Thou shall not think.... as consensus of the mob, replaces verifiable facts, and accumulated professional knowledge.

[25] The Dumbing Down of World Knowledge" (2010), journalist Edwin Black characterized the content of articles as a mixture of "truth, half-truth, and some falsehoods, articles are dominated by the loudest and most persistent editorial voices or by an interest group with an ideological "axe to grind". Wikipedia's goal is not to present correct and definitive information about a subject but to present the majority opinion of the sources cited by the loudest and most persistent voices, resulting in articles that represent an unreliable resource for correct knowledge, information, and facts about a subject. The British librarian Philip Bradley said, "the main problem with Wikipedia is the lack of any authority". Wikipedia never solved the problem of how to organize itself in a way that didn't lead to mob rule by people who refuse to think.

Figure 1 The dumbing of society, as the Thinkers, are replaced by instant experts, who are incapable of independently thought.

Say's Law

Jean-Baptise Say, in his first edition of the Traité, and of James Mill in Commerce Defended. In Say's chapter 22, 'Des Débouchés', each producer generates a surplus: 'Every producer produces a quantity of a particular good that considerably exceeds his own consumption' (Say, 1803, Vol. 1, pp. 152–155)[26]. A farmer produces more grain than required to feed his family; a hatter produces more hats than required to clothe his family. Each producer's surplus may be viewed as a market outlet for surplus goods of other producers. The farmer may, for example, trade his surplus with the surplus produced by the hatter—surplus grain creating a market outlet for hats, surplus hats creating an outlet for surplus grain.

Thus, for Say, as shown in Chapter 5 of his book, 'one can make purchases only with what one has produced' (Say, 1803, Vol. 2, pp. 175–180). The exchange of these production surpluses for commodity money takes place in two stages that make up the simple circulation of commodities in the process C-M-C. The purpose of the first stage, C-M, is through sale to transform the commodity into money. In the second stage, M-C, the money is used to purchase commodities. The problem with this exchange process is that 'the commodity must be turned into money, but the money need not be immediately turned into commodity' (Marx, 1968, p. 509).

The producer may sell his commodity, but the subsequent purchase of other commodities is not mandatory because of the separation between acts of purchase and sale. As argued in Capital, volume 1: 'But no one directly needs to purchase because he has just sold' (Marx, 1976, p. 208): the basis for Marx's 'possibility of crises' under simple commodity circulation (Marx, 1976, p. 209). This is the first pillar of Marx's possibility theory of circulation crisis via hording, the second being the possibility of financial fragility due to debt–credit relationships with the introduction of money as a means of payment, which separates a purchase from a sale. Say's Law, as applied to non-money commodities requires the establishment of monetary equilibrium between the demand and supply of currency.

Under simple commodity circulation, which Marx uses as foundational starting point for his monetary theory, 'the mass of money is always equal to the sum of money present as a hoard and as money in circulation' (Marx, 1978, p. 400). To enable circulation to take place in each production period, there is a reserve hoard of money that has built up in previous periods, which can be drawn from and replenished as the requirements of circulation fluctuate.

[26] Lange (1942) restricts Say's Law to being the refutable equality between aggregate supply and demand applying only to non-money commodities.

Metallic Currency

There is overwhelming evidence to prove that simple currency by weight is the primitive system. Before the invention of the balance, lumps and grains were no doubt exchanged according to a rude estimation of their bulk or weight; but afterwards the balance became a necessary instrument in all important transactions. In the Old Testament we find several statements clearly implying that the ancient Hebrews used to pass money by weight. In Genesis (xxiii. 16) Abraham is represented as weighing out to Ephron "four hundred shekels of silver, current money with the merchant," but the silver in question is believed to have consisted of rough lumps or rings not to be considered coin. In the Book of Job (xxviii. 15) we are told that "wisdom cannot be gotten for gold, neither shall silver be weighed for the price thereof."

Aristotle, in his Politics (Book I., chap. ix), gives an interesting account of his view of the origin of money, and distinctly tells us that the metals were first passed simply by weight or size, and Pliny makes a similar assertion. That it was so, we may infer from the remarkable fact that, even when no use was made of it, the custom of bringing a pair of scales survived as a legal formality in the sale of slaves at Rome.

There can be little doubt that every system of coinage was originally identical with a system of weights, the unit of value being the unit of weight of some selected metal. The English pound sterling was certainly the Saxon pound of standard silver, which was too large to be made into a single coin but was divided into two hundred and forty silver pennies, each equal to a pennyweight. In the English and Scotch pounds, and the French livre, we have the vestiges of a uniform international system of money and weights, the establishment of which is attributed to Charlemagne, but which unfortunately became differentiated and destroyed by the various depreciations of the coinage in one country or another. Most of the other principal units of value were originally units of weight, such as the shekel, the talent, the stater, the libra, the mark, the franc, the lira.

The simplest way for a state to manage its money might seem to be to revert to the primitive notion of a coin, and issue pieces of gold, silver, and copper, certified to be equal to units of weight, leaving all persons free to make contracts or sales in terms of any of these metals. These pieces of certified metal would then be so many commodities thrown into the markets and allowed to take their natural relative values.

Dystopian Money

The ability of totalitarian governments, central banks, and corporations to monitor every ledger-money transaction would ultimately threaten people's transactional privacy, liberties, and freedom. Many people would completely be oblivious to their transactions being monitored by centralized entities. Central banks would likely collaborate with third-party private sector financial institutions to deploy their ledger-based payment money which would give corporations easy access to the intimate details of everyone's financial life.

The power to deny access to funds could have a chilling effect on domestic political dissent and democracy. Externally, central banks' desire to do away with Cash would remove the safety net of a redundant system ledger-less and decentralised accounting system of payments. Imagine if a hostile power were to shut down a country's CBDC in the absence of available Cash, the financial system and the day to day lives of people would quickly hit an inescapable brick wall. Today there is already the power to deny access to electronic money in the form of bank accounts. The most public display of this power was

its use by the Canadian government last year when it blocked bank accounts in an effort to quell demonstrations by anti-vaccine-mandate truckers. Cash provides a redundant system when all else goes wrong. And it's extremely difficult to stop people from using cash unlike dystopian ledger money or the proposed CBDC.

Digital ledger-based payments are in complete contrast with traditional cash as the cash transactions which exists exclusively as peer-to-peer, ledger-less, permissionless and censorship-resistant. Cash transactions do not require any intermediary agents to guarantee transfer of value — you simply transfer ownership of your cash via a change in possession with other people. Within a cashless society, all transactions will be intermediated, and you need to rely on intermediary institutions, be it government or banks or other financial institutions to assure transfer of value from one person to person. It simply means transactions in a cashless society cannot be peer-to-peer, censorship-resistant and permissionless, as one requires authorization from intermediary institutions to transfer ledger money.

In a cashless society, the intermediary institutions record personal details of their users, transaction amount, time, location, and the counterparty involved to ensure accurate ledger entries. The personal transactional data coupled with social media activities of the people would create such a dystopian system where a bunch of corporations and government would have total control and power to surveil what you buy, to whom you send money, where you live, what your political inclinations are (based on your social media activities, browsing history etc.) and so on — essentially creating a global surveillance economy.

Cashless ledger money-based payments, in absence of any access to physical Cash, would be an additional tool in the hands of fascists to clamp down on critics and suppress the socio-political movement of oppressed people by having the ability to deny their participation in the financial system as is the case for banking accounts today. It would also enable them to track identities[27] and monitor the activities of the people associated with political dissenters.

The problem is exacerbated by multiple checkpoints installed by the authoritarian regimes to make funds inaccessible and expensive to aid workers. The issues regarding funding delays and other banking-related problems have severely affected many American human rights groups and in some cases, have led to the closure of their bank accounts. As cashless ledger payments would accelerate financial surveillance, the aid organizations might face even more difficulties to fund and support vulnerable communities in oppressive regimes.

[27] The Indian Government Aadhaar system, mandates that residents offer biometric data – specifically iris scans, fingerprints, and photographs – in exchange for a unique 12-digit identity number. The dystopian Aadhaar system, then mandates an Aadhaar number to participate as part of their ledger less money system known as NPI. The Indian government stores the mandated biometric information collected in a centralised database, which allows third-party services access to confirm your identity via the government Identity rail. If an Indian citizen is removed or locked out of the Aadhaar system, they cease to exist or have any access to money or many Government services including pensions and food rations and even the right to vote or enrolling in a school.

In the worst-case scenario, the governments could literally exclude individuals, aid organisations, or the entire community from participating in the financial system. This would leave them with little to no alternatives.

Therefore, in autocratic regimes or in pseudo-democratic countries like India, political dissidents, minorities belonging to marginalized castes, religion, sexuality, gender, or ethnic minorities could easily be targeted by simply revoking their access to central bank digital currency — conveniently leading to their financial exclusion.

The resulting social control and excessive concentration of power is made possible when ordinary citizens living in cashless societies do not have access to Cash and are left with no choice but to use intermediary forms of money that violates people's privacy and subject them to mass surveillance. Ultimately, such dystopian societies enabled by the Orwellian hunger for power would disproportionately affect vulnerable and marginalized communities around the world.

Within a truly cashless society, "by forcing people and companies to convert their paper money into bank deposits, they can be forced to spend that money rather than save it as bank those deposits, without any access to cash, can carry considerable costs (negative interest rates and/or fees). Potentially in a cashless society the need for bank reserves can also be deprecated, as a bank run will become impossible as bank accounts can simply be frozen or bailed in28 to cover the commercial banks debts. After all, if they all act the same, there would be no risk for a bank run anymore because there is no place to hide for savers.

Privacy is our fundamental right and notably, it underpins other human rights. The loss of privacy has always led to the persecution of political dissidents, ethnic minorities and innocent civilians and human history, if anything, proves that we cannot simply rely on governments and corporations to protect our privacy. We need to come together and assert our fundamental human right to privacy and ongoing personal-freedom based access to privacy preserving, ledger-less Cash or Coins.

The First Coin

The Mesopotamian shekel[29] – the first known form of currency (c. 3000 BCE) as representative money[30]– emerged nearly 5,000 years ago. The earliest known mints date to 650 and 600 B.C. in Asia Minor, where the elites of Lydia and Ionia used stamped silver and gold coins to pay armies.

[28] With a bail-in, a failing bank's creditors, including depositors, are forced to bear some of the burden by having a portion of their debt written off or forced conversion into bank equity shareholdings which are non-redeemable in Cash.

[29] The shekel was the unit of weight and currency, which was nominally equivalent to a specific weight of barley.

[30] Farmers would deposit their grain in the temple which recorded the deposit on clay tablets and gave the farmer a receipt in the form of a clay token which they could then use to pay fees or other debts to the temple. Since the bulk of the deposits in the temple were of the main staple, barley, a fixed quantity of barley came to be used as a unit of account. The temple (which financed and controlled most foreign trade) fixed exchange rates between barley and silver, and other important commodities, which enabled payment using any of them.

In approximately 630 BCE, the Anatolian kingdom of Lydia stamped a piece of precious metal (commodity money) with something akin to a signet ring. One outcome of this simple act was that it increased confidence in the lump's weight and purity when later used in the marketplace. According to a consensus of numismatic historians, the Lydian stater was the first coin officially issued by a government in world history and was the model for virtually all subsequent coinage. Chiefly, for a coin to be legitimately considered such, it must clearly be issued to a standard weight and measures[31] by a certifying authority. This distinguishes coins from tokens, barter items, and other limited forms of money. Rings or ingots (bars) of precious metal were used by traders across the ancient world, but they had to be weighed and verified each time a transaction took place to reckon their value in trade. Coins, with their standardized weights, eliminated this time-consuming problem, rendering them a more efficient and expedient conduit of commerce. These Lydian coins were hoarded by the king and the wealthy, issued for the collection of taxes, and used in long-distance trade between Lydia and its neighbours. They become the standard for exerting sovereign control over the people via the exclusive right to issue currency, this right remains today, even if it no longer relates to certifying the weights and measures of a coin.

Like all the ancient coins that came after it, including shekels, drachmas, and others, the coins represented units of weight rather than a specific monetary value[32] — with the word “stater” coming to mean “that which balances scales” in ancient Greece.

The Road to a Choice of Currency

Mintage has long been a prerogative of the rulers of the country. However, this government activity had originally no objective other than the stamping and certifying of weights and measures. The authority's stamp placed upon a piece of metal was supposed to certify its weight and fineness. When later princes resorted to substituting baser and cheaper metals for a part of the precious metals while retaining the customary face and name of the coins, they did it furtively and in full awareness of the fact that they were engaged in a fraudulent attempt to cheat the public. As soon as people found out these artifices, the debased coins were dealt with at a discount as against the better old ones. The governments reacted by resorting to compulsion and coercion. They made it illegal to discriminate in trade and in the settlement of deferred payments between 'good' money and 'bad' money and decreed maximum prices in terms of 'bad' money. However, the result obtained was not that which the governments aimed at. Their decrees failed to stop the process which adjusted commodity prices (in terms of the debased currency) to the actual state of the money relation.

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[31] The Lydian stater was composed of electrum, a naturally occurring gold-silver alloy; though the coins are often reported to be struck from this naturally occurring alloy, they were made from a specific and consistent mix of approximately 55% gold, 45% silver, and a small balance of copper. This the first currency was born as a “standard unit of account” to mediate payments within trade.

[32] The coins had no face value.

Everyone should be free to choose the currency or commodity (gold and silver, for example) they wish to hold and use as a medium of exchange within a deferred payment, without legal restriction, penalty, or political prejudice. Greater monetary freedom gives every citizen a legal right to protect and secure his income, wealth, and market transactions from abusive mismanagement of the government's monopoly monetary debt based, printing press. It could also serve as a check on the degree of such government abuse.

More than forty years ago, in September 1975, Austrian economist and Nobel Laureate, Friedrich A. Hayek, delivered a lecture on, Choice in Currency: A Way to Stop Inflation, in Lausanne, Switzerland, and said:

"*There could be no more effective check against the abuse of money by the government than if people were free to refuse any money they distrusted and to prefer money in which they had confidence. Nor could there be a stronger inducement to governments to ensure the stability of their money than the knowledge that, so long as they kept the supply below the demand for it, that demand would tend to grow. Therefore, let us deprive governments (or their monetary authorities) of all power to protect their money against competition: if they can no longer conceal that their money is becoming bad, they will have to restrict the issue*."

Given the freedom of choice, people will quickly refuse to use the national currency once it depreciates noticeably, and they will make their dealings in an alternative currency they trust. The upshot would be that the currencies of those countries trusted to pursue a responsible monetary policy would tend to displace gradually those of a less reliable character. The reputation of financial righteousness would become a jealously guarded asset of all issuers of money, since they would know that even the slightest deviation from the path of honesty would reduce the demand for their product.

Taking away from the government the power of compelling the citizenry to accept money that it **monopolistically controls**, and **abuses** may serve as an important legal and economic change to force a government and those who live at its spending trough to face the reality of the welfare state's ideological and fiscal bankruptcy before it is too late to avert a complete collapse of our society.

The freedom to choose the currency an individual use for payment is a valuable avenue for helping to restore, individual rights, free markets, and limit governments to operate under the rule of law. It can be an important legacy for us to leave to our children and grandchildren, so they may, hopefully, live out their lives in liberty for the remainder of the century.

One of the most effective measures for protecting the freedom of the individual might indeed be to have constitutions prohibiting all peacetime restrictions on transactions in any kind of money, commodity, or precious metals.

Arrow-Debreu world of complete markets

All attempts by the brightest humans to predict Covid spread and evolution, has failed, and the world of radical uncertainty has been exposed for all to see. Radical Uncertainty exist within the world of trade and money as well.

In economics, a complete market (aka Arrow-Debreu market or complete system of markets) is a market with two conditions:

- Negligible transaction costs and therefore also perfect information,
- there is a price for every asset in every possible state of the world.

In such a market, the complete set of possible bets on future states of the world can be constructed with existing assets without friction. Here, goods are state-contingent; that is, a good includes the time and state of the world in which it is consumed. For instance, an umbrella tomorrow if it rains is a distinct good from an umbrella tomorrow if it is clear. The study of complete markets is central to state-preference theory. The theory can be traced to the work of Kenneth Arrow (1964), Gérard Debreu (1959), Arrow & Debreu (1954) and Lionel McKenzie (1954). Arrow and Debreu were awarded the Nobel Memorial Prize in Economics (Arrow in 1972, Debreu in 1983), largely for their work in developing the theory of complete markets and applying it to the problem of general equilibrium.

In an Arrow-Debreu world neither money nor monetary policy plays any role at all. It is striking, therefore, that the richness of analyses of a monetary economy developed by Keynes, Patinkin, Tobin, Brunner, and Meltzer among others, has been replaced by models which in effect assume complete markets. It is a tribute to the technical virtuosity of their creators that models in which money is completely absent can be used to explain a fall in the value of money.

Radical uncertainty coupled with an absence of an Arrow-Debreu world economy creates: The four funerals which mean the end to
(i) forward guidance,
(ii) flexible average inflation targeting,
(iii) the pretence that money has nothing to do with inflation, and
(iv) the belief that monetary stimulus is an appropriate response to all economic problems.

The real-world economy is always changing, in ways beyond human comprehension, and hence no fixed plan, or targeted monetary policy will survive contact with the real world. The concept of forward guidance which underpins all Central Banksters monetary policy, fails the test of the Guardiola theory[33] of monetary policy, Common sense suggests, post-pandemic, that when too much money is chasing too few goods the result is always inflation.

Dilemmas of money as debt

Basing a money supply on debt is ecologically, socially, and economically problematic. Ecologically, there is a problem because the need to pay off debt could drive potentially damaging growth: money creation based on repaying debt with interest must imply constant growth in the money supply. If this is achieved through increasing productive capacity, there will inevitably be pressure on natural resources.

[33] No plan of operations reaches with any certainty beyond the first encounter with the enemy's main force".

Basing the money supply on debt is also socially discriminatory because not all citizens are able to take on debt. The pattern of the money supply will tend to favour the already rich or the most speculative risk-taker. Recent decades, for example, have seen a huge amount of borrowing by the financial sector to enhance their investments.

The economic problem is that the money supply depends on the capacity of the various elements of the economy (public and private) to take on more debt. And so, as countries have become more dependent upon bank-created money, debt bubbles and credit crunches have become more frequent. This is because handbag economics creates an impossible task for the private sector. It must create all new money through bank-issued debt and repay it all with interest. It must completely fund the public sector and generate a profit for investors.

Deeming public spending as being equivalent to bank borrowing denies the public, the sovereign people in a democracy, the right to access its own money free of debt. The answer must be to subject both forms of money creation – bank and state – to democratic accountability. Far from being a technical, commercial instrument, money can be seen as a social and political construct that has immense radical potential. Our ability to harness this is hampered if we do not understand what money is and how it works. Money must become our servant, rather than our master. In the coming chapters we will seek to understand money, currency, capital, and wealth accumulation free from all forms of state-based debt.

The World of Fiat-Money

Let's start our journey, with the reality of the central bankster's, debt-based fiat-money during the global covid-19 pandemic.

In essence, after 4000 years of money existing as a form of commodity, we have created money as the burbles on a Christmas tree, that requires no actual Christmas tree for its exitance. We shall see as we take the journey to understand money, currency, capital, and wealth described within this book, that society must suspend reality for the world's fiat-money to be accepted as payment. This book has the objective to allow people through the acquisition of knowledge to see through the swindle known as central banks fiat-money. And to return to a world where money is created not via a journal entry in a ledger but rather by the economic production and trade between peoples within their commodity of the currency area. Fiat money is the underlying cause of the repeating economic crisis, which always results in an ongoing debasement of societies wealth and reenforces the manacles of debt-based enslavement of the sheeple.

No economic crisis or political revolution is likely to change central banksters' inherent proclivity to think that they know better than the sheeple, who they control via the manacles of global debt…

Money is Trust

Money is a system of mutual trust between humans, which evolved from a historical social and economic network of trade and exchange. Money is not a material reality, it is a psychological idea that works by converting matter into mental concepts, money exists, because humans are willing to believe in the inventions of our collective imagination, to enable human-based exchanges of commodities we desire or require to live.

Catallactics

Catallactics[34] or world economy is a theory of the way the free-market system reaches exchange ratios and prices. It aims to analyse all actions based on monetary calculation and trace the formation of prices back to the point where an agent makes his or her choices. It explains prices as they are, rather than as they "should" be. The laws of catallactics are not value judgments but aim to be exact, objective and of universal validity. It was used extensively by the Austrian School economist Ludwig von Mises. The subject matter of catallactics is all market phenomena with all their roots, ramifications, and consequences.

[34] Catallactics or Economics of the Market Society. Chapter 14, part 4 of 'Human Action'

The imaginary construction of a pure or unhampered market economy assumes that there is a division of labour and private ownership (control) of the means of production and that consequently there is the market exchange of goods and services. It assumes that the operation of the market is not obstructed by institutional factors. It assumes that the government, the social apparatus of compulsion and coercion, is intent upon preserving the operation of the market system, abstains from hindering its functioning, and protects it against encroachments on the part of other people. The market is free; there is no interference of factors foreign to the market with prices, wage rates, and interest rates.

The market price is a real phenomenon; it is the exchange ratio which was factual in trade transacted.

The Money Laws

These monetary laws have evolved over millennia, based upon values intrinsic to humanity and societies social interactions via trade-based exchanges, which can be deduced and applied independent of any external party, all people have inherent rights according to these monitory laws. Some of the implications of these laws, involve accidental truths, false existential, the correspondence theory of truth, and the concept of free will. In social psychology, reciprocity is a social norm of responding to a positive action with another positive action, rewarding kind actions and increasing social cohesion. Thus, the laws support the freedom to trade, that which one has in surplus, for that which one desires, for the mutual gain of both parties and their society.

As this book represents a journey of knowledge acquisition, for those who are not inclined to take the journey, here is the summary of the book via the laws of money, represented as a set of self-evident truths underpinning humanities relationship with money:

1. Barter is to exchange, that which one has in surplus, for that which one desires, for the net mutual gain of both parties and their society without the use of a medium of exchange, such as a currency.
2. Barter transactions “moves objects between the regimes of value", meaning that a good or service that is being traded may take up a new meaning or value under its recipient than that of its original owner.
3. Barter has no real way to value each side of the exchange. Bargaining taking place, not relating to the value of each party's good or service, but because each party to the transaction wants what is offered by the other.
4. Barter exchanges are predicated upon neither party having an advantage over the other, and both are free to leave the exchange at any point in time, until the exchange has become unconditional, which is the point at which change in possession of both exchange objects occurs.
5. Barter based transitions only clear, if both parties have that which the other desires and each has in surplus to their individual needs.
6. Barter based exchanges clear, without the need for any dependency upon money, or currency.
7. Barter exists without the need for money, or currency, but has the inherent friction of not being guaranteed to always clear a trade-based exchange of commodities.
8. Money is born from trade (C-M-C) as subjective exchange value. Without trade, money cannot exist.
9. Money is not a commodity since it has neither value nor use-value.
10. Money cannot be created from money as M'-M must always equal Zero.
11. Money neither a Production Good nor a Consumption Good.

12. Money is a part of Private Capital[35]

13. The Sin of Usury is defined when M'-M > 0, as this represents the injustice of selling money (M) twice or selling the non-existent.

14. As every trade involves money, which has a money price. Therefore, whoever by agreement, tacit or express, takes for a loan of money anything else that has a money price, the taker sins against justice as if he had taken money.

15. Money cannot be store of value, as no excess **objective value**, can be created from **subjective exchange value**.

16. Money cannot be scarce, as it **originates** and **terminates** with people-based trade, hence money cannot exist as debt detached from an instance of trade.

17. Money has no use-value at all, but only subjective exchange value. In contrast to commodities, money would never be used unless it had an objective exchange-value or purchasing power.

18. The subjective value of money always depends on the subjective value of the other economic goods that can be obtained in exchange for it. Its subjective value is in fact a derived concept.

19. Money exists, exclusively as a numeraire, which compares via monetary value, non-monetary items within a trade.
20. Money represents 'subjective exchange value'(C-M-C), while currency represents an 'objective exchange value' (C-M => M-C); the intersection being the currency area, standard currency unit of account or face value (Money ∩ Currency).

21. Market "price" represents a relative measurement of market value (objective exchange value). The price of one good ("the primary good") in terms of another good ("the measurement good") is determined by the market equilibrium of value of the primary good relative to the market value of the measurement good. According to the law of value, the trading ratios of different types of goods reflect a cost structure of production (M-C-M'), and this cost structure ultimately reduces to the socially average amount (M' - M) as surplus value required to produce different goods in trade exchanges.

22. Currency provides a solution to the case where a barter-based exchange cannot clear, by deferring payments between trading parties across space and time, via a neutral numeraire with face value or medium-of-exchange. Hence the non-fungible commodity exchange C-C, becomes a fungible deferred currency exchange C-M=>M-C at a mutually agreed exchange value determined in the face value of the fungible currency. The numeraire does not affect the exchange value of the deferred exchange.

23. Currency is special because its 'face value' is not subject to to change, it is information insensitive.

24. Currency face value is constant, its volume in circulation, varies with the economic production surplus value, of the currency area.

25. Currency circulates with constant face value, such that no one finds it profitable to produce (private) information about the face value, and everyone knows that this is the case. Should the intrinsic value of currency exceed its face value, then the currency reverts to the use value of a commodity and becomes information and market price sensitive.

26. Currency is the accepted objective measurement good, or "standard invariant" unit of market value, within a currency area. Hence a currency cannot be used outside of the defined currency area as a deferred payment.

27. Commodities have use-value (as they satisfy some form of human wants, whether 'natural' or socially constructed) as well as exchange-value and are produced for exchange rather than self-consumption. The condition, that they must be produced, means that they must embody, and hence be the container of economic production or the surplus value (M-M'). The value of commodities does not rise through storage, but rather the diminution of their value is less when they are stored than would otherwise be the case. Hence the value of a commodity is maintained via circulation of its exchange value.

28. The objective exchange value or market price of any commodity (including currency) is determined exclusively via supply vs demand.

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[35] Böhm-Bawerk defines private capital as the aggregate of the products that serve as a means to the acquisition of goods.

29. The objective exchange-value of currency must always be linked via the Regression Theorem, with a pre-existing market exchange-ratio between money and other economic goods (since otherwise individuals would not be in a position to estimate the object exchange value of the money, which has a face value), it follows that an object cannot be used as money unless, at the moment when its use as money begins, it already possesses an objective exchange-value based on some other previous use.

30. The Regression theorem is how the subjective theory of value (money) is transformed across time, to become the accepted 'standard unit' for objective-exchange value (currency), within a deferred payment.

31. Currency must have intrinsic value, stability, and elasticity, to render to man, the highest service of which it is capable. If a currency exists as a commodity within a previous trade, and if its free circulation be not thereafter interfered with, it will have intrinsic value, which, combined with freedom of circulation, will give it stability and elasticity. The stability of currency must rest upon the value of the economic production it represents, as then it will fluctuate only with the fluctuations of the currency area GDP, which is the highest degree of stability it can possibly acquire. The wide range of trades it mediates enhances its "elasticity," which term is used to express the readiness with which currency responds to the liquidity exchange demands upon it.

32. Currency is, a collective good, because it is accepted within a deferred payment by a social convention, but it is also an item of **individual private property**, because with respect the original title of **ownership**, it is attributed to the **bearer** by "legal induction".

33. Currency is considered economically fungible if a $1 is easily converted at parity of face value units into 5 x 20 cents or 10 x 10 cent coins. Even if the commodity that constitutes a currency is non-fungible i.e., copper cannot be interchanged with silver at parity (1 face value unit = 1 face value unit).

34. A commodity cannot circulate as a currency without a face-value, The addition of face value, to a commodity, enables parity of currency unit exchanges, which makes a non-fungible commodity, a fungible currency unit.

35. Currency must be 'neutral' within all exchanges, as currency mediates trade, and hence cannot affect the objective exchange value of the two commodities subject to exchange within a trade (C-M-C equals C-M => M-C equals C-C).

36. All deferred payment currency must exist as a tangible commodity/object, to achieve universal payment finality via 'chose in possession' and hence clear without the need for any associated clearing or settlement system introduced counter party risk.
37. Currency will only be accepted as a means of payment, when the sum of the opportunity cost and the transactional cost of using it in exchange, drops below the cost of completing a trade without it.

38. No currency area can have more currency supply, than that which it can create through economic production (C-M-C always represents net zero surplus value).
39. Currency is in its most perfect state when it consists of an equal value of capita (economic production) which it processes to re-present.

40. Currency supply reflects the level of economic production, which mediates deferred payments; as defined within the equation of capital: M-C-M'.

41. Any commodity in circulation within a currency area has the potential to become a currency. Currency mediates a deferred exchange value payment, across space and time, within a currency area, as the most liquid of all commodities within circulation.

42. Currency payments are predicated upon acceptance by its users as represented by C-M-C => 'C-M =>Time=> M-C'.

43. Without the ability to achieve, unconditional payment finality, no currency can support a deferred payment, as the trade will never determinately clear.
44. If currency does not possess the property of market value, then one will not accept its face value as payment for one's services, and others will not accept it in payment for their goods and services.

45. Humans measure the market value of a currency in terms of either, (a) another currency exchange rate, or (b) a basket of goods and services in demand within a currency area.

46. Within a currency area, the market value which a currency can mediate, is determined by the currency area economic production, representing the future benefits within trade, someone in possession of currency expects to receive upon disposal within a deferred duration payment (in the future).

47. A deferred currency payment does not represent a **store of value**, rather it reflects a human perception of **future value;** based upon a previous positive experience of **value transfer,** across the '**time duration**' which separates deferred payments.

48. A Digital Currency or Digital Coin supply must exist as a t**angible object**, with use value, via **redeemability** and **liquidity** as a commodity with a previous, currency area accepted market value, to circulate, as a Digital Currency.

49. If the currency unit is divisible, any supply is sufficient to meet all currency mediated payments within a currency area.

50. Currency supply has no economic correlation to currency area asset or capital value, its supply is directly correlatable to currency area gross economic production, to guarantee currency area payment liquidity, and hence clear.

51. No concept of a stable coin can exist under any economic conditions, outside of face value; as currency must remain neutral, to guarantee all mediated payments are subject to the laws of supply vs demand about the deferred exchange of market value.

52. All currencies exist solely as a closed system; hence no currency can **flow across** a currency area boundary. All currency base payments **must stop** at the currency area boundary.

53. The trade equilibrium of each currency area is maintained, via and equal and opposite value flow of capital, to offset the aggregate flow of goods and services. Trade imbalances are offset via the adjustment of the trade weighted currency exchange rates to maintain a currency area equilibrium.

54. Legal Tender, based deferred payments, always results in a state of **payment finality**, via a human observable **change of possession**, and hence the payment unconditionally clears.

55. Legal tender is not an English noun, it exists solely as an adjective (payment is the noun), and hence cannot be assigned by statue and or be subject to or subordinate of any currency area court.

56. A legal tender payment relies **not upon the issuer** of a currency, but upon the **acceptance** of the tendered currency within a deferred payment by the **recipient**.

57. Legal Tender deferred payments do not require any **clearing** or **settlement** function, as the 'observable change of possession' represents unconditional payment finality.

58. Legal Tender payments are not subject to any future, or post trade appeal, as the payment represents unconditional legal finality.

59. A Coin is defined as a bearer tangible object, with face value, which relate a Coin to the currency area monetary units [‘currency’] named in verbal or written transactions, so that they represent these for all legal payment purposes.

60. The principal virtue of a Coin is that it is accepted for settlement of any kind of monetary obligation, within a deferred currency-based payment, in preference to all other monetary instruments in circulation within a currency area.

61. A Coin as legal tender is accepted by all payment parties at full face value, if it is tendered as payment, via chose in possession based deferred payments within a currency area.

62. A Coin must have a non-zero intrinsic (positive exchange value) and hence cannot exist as debt in any currency area.

63. A Coins’ face value imposition transforms a non-fungible tangible commodity or object, into a fungible unit of currency.

64. A Coin has a universal trait that can be 'freely exchanged" into any goods or services, as such it has the specific protection and legitimate expectation, which is derived from the protection of property by civil rights within a currency area.

65. A Coin is not Money, rather a Coin exists as a payment neutral, tangible object (bearer private property), which moves solely via possession; to enable universal payment finality of a deferred trade or exchange, without the need for any contract (via chose in possession).

66. A Coin has no legally defined form, and hence can exist in both the physical and digital worlds concurrently, without the need for any supporting digital payment network. Any form of a Coin must always represent tangible property, and hence move via possession by legal induction.

67. A Coin movement between people, via a currency based deferred payment, represents a censorship free, movement of 'Capital Value' between the wo parties to a trade or exchange.

68. A Coin cannot be spent; hence it cannot be double spent.

69. Capital is the means to store 'exchange value', across time, via the equation of capital M-C-M'. The final goal of M-C-M' is the circulation of capital via M' - M as surplus value (economic production).

70. Capital represents value in circulation, the pattern of value moving to create more value, which Marx calls a valorization process. It's a limitless process: capital tries to expand to create more surplus value forever; within the sphere of circulation, that is, in a market where value-based exchanges take place.

71. Capital cannot be scarce, as it is born from the continuous cycle of the economic production of people (M-C-M' => M'-C-M").

72. The distinction between money and capital becomes clearer when expressed in symbols:
"M" represents money,
"M - C(MP+LP) ... P ... C' - M'" represents capital (value in continual motion of expansion),
while M-M ... M'-M' represents financialisation of money outside of payments within exchange or trade.

73. Capital does not extinguish money, but rather absorbs it as one of its moments and forms of its cycle.

74. Bullion is commodity-based store of value, it is not Money, or a Currency as its non-fungible.

75. A flight into bullion, is a flight from a debased Currency, as part of a flight from Capital.

76. Wealth is represented via an accumulation of real-world tangible assets or property, which has universal intrinsic value to others in their society, and which can be subjected to the equation of capital M-M' to create excess value; and which is readily converted into a capital form, that circulates within a society to support trade-based transactions.

77. Financial Wealth cannot exist, as financial wealth is derived solely from a contractual right. In contrast, real wealth is derived from a real asset which has a tangible form, and its value derives from its physical qualities (intrinsic value). All Financial Wealth can self-deprecate at any point in time, and no value within the real world can be affected by its existence or otherwise.

78. Inflation is the result of a manipulated economy, which is unable to achieve an equilibrium between supply and demand for goods and services within its currency area. This disequilibrium is caused by currency flows being unmatched to the flows of consumer goods and services, via the creation currency via debt without the need for any surplus value creation. Prices are the messengers within a market economy they convey information regarding any mismatch of supply vs demand within an economy. Inflation does not exist in a non-manipulated market economy, which always seek to optimize supply vs demand via a free-market equilibrium price. Inflation mismatch causes unintended redistributions of purchasing power, and blurred price signals until equilibrium is restored.

79. Inflation cannot (by definition) affect the capital stock, circulating within an economy, in the long term.

80. Free-market equilibrium price: The price established through free market competition, such that the amount of goods or services sought by buyers is equal to the amount of goods or services produced by sellers.

It is worthy to mention that barter cannot exist without the spontaneous 'emission' of money, it us always emitted as a relative measure of the two commodities being traded and its existence is ephemeral. C-M-C without a currency payment appears to the exchanging parties as C-C, but it remains always a C-M-C exchange.

Property

The word 'property' is often used to refer to something that belongs to another. But … 'property' does not refer to a thing; it is a description of a legal relationship with a thing. It refers to a degree of power that is recognised in law as power permissibly exercised over the thing. The concept of 'property' may be elusive. Usually it is treated as a 'bundle of rights'[36]. Hence Property is a creature of Law; it is the law that prescribes the jural relationships between and among persons with respect to things. Property is the **legal right to exclude** others from interfering with that which you own, with your resources. One owns something if that ownership confers upon one the right to exclude all others. There is no natural concept[37] of private property, it exacts exclusively via the legal enforcement of property rights by the State though an act of law. In the absence of rule of law, property rights[38] are enforced by **the rule of the sword**, he who holds the sword has all property rights. Property rights only exists where a legal framework exists to support it, take away the laws and property ceases'(Bentham).

The owner is legally empowered to transfer the whole bundle of rights to the object one owns to somebody else, even after death. With this power, a private property system becomes self-perpetuating. After an initial assignment of objects to owners, there is no further need for the community or the state to concern itself with distributive questions. Objects will circulate as the whims and decisions of individual owners and their successive transferees dictate. Society simply pledges itself to enforce the rights of exclusion that ownership involves wherever those rights happen to be.

As we consider the movement of currency, (all currency exists via private property[39] rights), to a fully digital existence, we will need to rekindle the age-old debate that intangible property cannot exist as property, as its intangibility limits its existence to the domain of legal intellectual rights. Some fear that the traditional ontological categories of property in English common law are simply inapplicable to intangible digital things be they digital objects or digital financial assets[40], as "intangible object[s] capable of physical possession" would form an "unstable category" of property. Such rivalrous intangible property has not previously been considered at law or in legal theory anytime in human history[41]. The right to exclude others is more than just 'one of the most essential' constituents of property—it is the sine qua

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[36] Yanner v Eaton (1999) 201 CLR 351, 365–6 (Gleeson CJ, Gaudron, Kirby and Hayne JJ). Citations omitted. 'Property, in relation to land, is a bundle of rights exercisable with respect to the land. The tenant of an unencumbered estate in fee simple in possession has the largest possible bundle': Minister of State for the Army v Dalziel (1944) 68 CLR 261, 284 (Rich J). O'Connor traces the theoretical development of the 'bundle of rights' approach: Pamela O'Connor, 'The Changing Paradigm of Property and the Framing of Regulation as a Taking' (2011) 36 Monash University Law Review 50, 54–6.

[37] Supreme Court of Texas has held "that strong judicial protection for individual property rights is essential to 'freedom itself,'" noting that property rights are "'fundamental, natural, inherent, inalienable, and not derived from the legislature,' and 'pre-exist even constitutions.

[38] Availing oneself of a property right, however, first requires defining the very object of property law: the legal thing itself.

[39] Tangibility is a statutory requirement for personal property (the law of Sache, in German, i.e., res) -- A Comparison of German Moveable Property Law and English Personal Property Law, 3 J. COMP. L. 197, 201 (2010).

[40] Certain theorists, such as J.G. Allen, claim that digital objects simply cannot be classified into any existing category of property, whether as choses in possession, choses in in action, or even incorporeal hereditaments.

[41] The ability to exclude would fulfill James Penner's "exclusion thesis" that "the right to property is a right to exclude others from things which is grounded by the interest we have in the use of things". The right to property itself is the right that correlates to a general duty that all others must exclude themselves from the property of others.

non. Essentially if the right to exclude others cannot be enforced, then no property rights can exist. This single right forms the basis of tangible property today and thought-out human history and the associated enforcement of this right via law.

“Property and law are born together and die together. Before laws were made there was no property; take away laws, and property ceases.” --Jeremy Bentham in Theory of Legislation (1802).

Lockean Property Rights

When a person goes out into the common and labours upon some part of it, says Locke, that part rightly becomes his or her own. This theory is well known and is consonant with the intuition, found in theorists as diverse as Milton Friedman and Karl Marx, that one has a right to the fruits of one’s own labour. As Locke points out, the natural-normative limits of the state of nature are superseded in society using money, which makes possible, and, conditionally, right, an acquisition of property far exceeding natural bounds.

With the use of money natural limits are overcome. It is now possible to make productive use of property far more than the limits set by nature, by exchanging one’s excess property for currency that does not spoil and that can itself be exchanged, at some future convenient date, for someone else’s excess property. Thus, private property rights are the foundation upon which currency circulates, via trade, within a currency area economy.

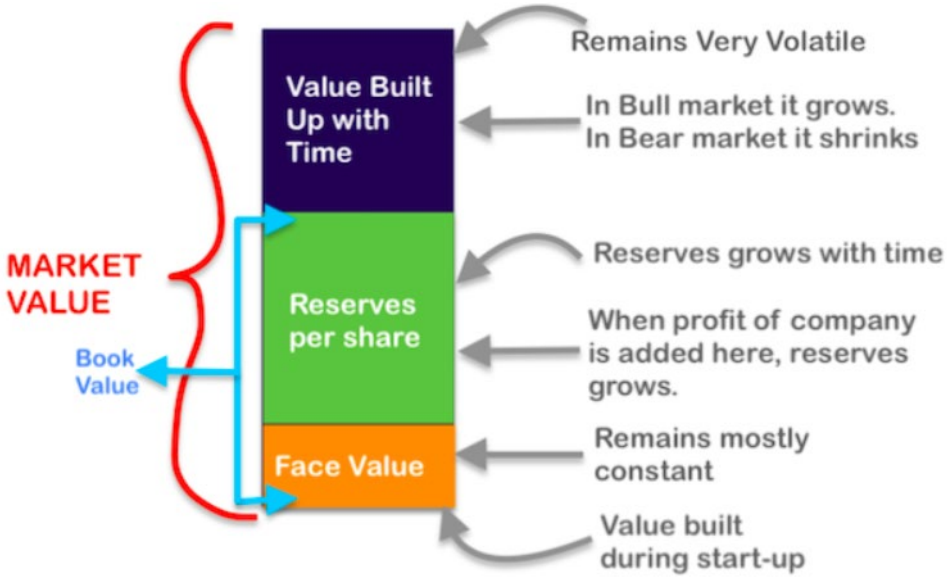
We are all born propertyless and would remain so if we did not somehow acquire property from without. It follows that the right to possess and/or dispose of ‘private’ property must be based in a prior right to acquire such property, i.e., a right to appropriate to ourselves what does not originally belong to us. Only property justly acquired can be justly possessed. It follows that one cannot dispose of that property, that one does not possess, as this represents criminal theft or fraud by society.

John Locke proposes his theory of property rights in The Second Treatise of Government (1690). The theory is rooted in laws of nature that Locke identifies, which permit individuals to appropriate, and exercise control rights over, things in the world, like land and other material resources. In other words, Locke’s theory is a justificatory account about the legitimacy of private property rights. Locke’s natural law justification is distinct from other accounts circulating in the 17th and early 18th centuries. For example, Thomas Hobbes argued that rules protecting private property must be the design of the political authority. To properly grasp Locke’s theory of property rights it is first necessary to make a distinction between the natural right to property as it exists in the Lockean ‘state of nature’ and the societal right to property as it may be established by consent in a socio-economic political system.

Locke put two limits on property rights: I can acquire a property right in a thing only if “enough and as good” are left for others and I cannot allow anything I take as my property to spoil. The first limit is sometimes referred to as the “Lockean proviso.”

Face Value

The face value of a share is the value assigned to it when it was issued, it represents proportional equity claim upon companies ‘equity. The market value varies from the face value as shown below.



As we progress on the journey of Money, Currency, and Capital we shall observe that currency like a share represents a proportional equity claim upon a currency area economic production or "surplus value"[42]; via the "Equity Theory of Money". We will also come to the realisation that a Currency must always be neutral and hence unlike all other commodities in circulation have only a face value and hence be fungible within all trades it mediates via circulation as currency.

This knowledge will allow the reader to separate currency from money which has only a "market value" or last price; when its 'book' value goes to zero, when its equity goes to zero, as its reserve value is always zero; at this point it ceases to circulate as currency via the regression theorem.

Intrinsic Value

Within the context of currency, a coin is the sole form of currency, which has intrinsic value, and hence cannot exist as debt, and cannot deprecate to zero value within any deferred payment. This innate understanding of intrinsic value,[43] is what makes us human, and makes a commodity the sole form of currency.

Intrinsic value has traditionally been thought to lie at the heart of ethics. The intrinsic value of something is said to be the value that that thing has "in itself," or "for its own sake," or "as such," or "in its own right." Hence no human needs to ask what intrinsic value is as it is self-evident within any trade or exchange.

According to a fundamental form of consequentialism, whether an action is morally right or wrong has exclusively to do with whether its consequences are intrinsically better than those of any other action one can perform under the circumstances. Many other theories also hold that what it is right or wrong to do has at least in part to do with the intrinsic value of the consequences of the actions one can perform. Moreover, if, as is commonly believed, what one is morally responsible for doing is some function of the rightness or wrongness of what one does, then intrinsic value would seem relevant to judgments about

[42] Surplus value is defined by Marx "Equation of Capital".
[43] Intrinsic vs. Extrinsic Value, Stanford Encyclopaedia of Philosophy, Edward N. Zalta, 2002.

responsibility, too. Intrinsic value is also often taken to be pertinent to judgments about moral justice (whether having to do with moral rights or moral desert), insofar as it is good that justice is done and bad that justice is denied, in ways that appear intimately tied to intrinsic value.

Finally, it is typically thought that judgments about moral virtue and vice also turn on questions of intrinsic value, since virtues are good, and vices bad, again in ways that appear closely connected to such value. Moral philosophers since ancient times have been concerned with the distinction between the value that something has for its own sake (the sort of non-derivative value that Korsgaard calls “final value”) and the value that something has for the sake of something else to which it is related in some way. Hence within the domain of currency we shall consider that which is intrinsically good is that which is non-derivatively good, and that which is derivatively good as use value. These two concepts will merge into a single form within a deferred payment.

Within any currency area, the currency in circulation is the preferred means to defer payments across space and time, and hence must have intrinsic value, to gain human acceptance, as a legal tender payment, which unconditionally cancels any temporal liability associated with the deferred payment. All deferred currency mediated payments exist as C-M-C => C-M => M-C, hence M has only temporal existence, bounded solely by the period of the deferred payments.

The Paradox of Value

Water is a commodity that is **essential** to life. In the paradox of value, it is a contradiction that it is cheaper than diamonds, despite diamonds not having such importance to sustaining life., this contradiction is known as diamond-water paradox. Water is overall more useful, in terms of survival, than diamonds, diamonds command a higher price in the market. The philosopher Adam Smith is often considered to be the classic presenter of this paradox, although it had already appeared as early as Plato's Euthydemus. Nicolaus Copernicus, John Locke, John Law, and others had previously tried to explain the disparity. We shall consider the apparent contradiction in this book, within the framework of *use-value* vs *exchange value*. We will also demonstrate the money represents ‘subjective exchange value’(C-M-C), while currency represents an ‘objective exchange value’ (C-M => M-C); the intersection being the currency area, standard currency unit of account (Money ∩ Currency).

Value

Before digging deep, it is worth spending time on the fundamentals of value with a society of humans. Value is a relationship between the **moment of anticipation** and the **anticipated moment**; hence value is a relationship between phases of time. Currency value is created by a social convention, as an item of individual private property, because with respect the original title of ownership, it is attributed to the bearer of the symbol by "legal induction".

Every consideration about value is based on a forecast which **anticipates** the future moment of satisfaction. This is the reason why in anticipation of the possibility of purchasing, the initial bearer of the commodity with a face value creates a future "purchasing power" across space-time via a deferred

currency payment or a future **value-in-exchange**. Objects can also have a **value-in-use** which expresses the utility of an object.

A use-value corresponds to the usefulness of an object and is internal to that object. Use-value is the purpose of C-M-C, while exchange-value is the purpose of M-C-M. Money is indistinguishable, and it is absurd to exchange it for itself. It is distinguishable only in face value (amount). Thus, in M-C-M what really occurs is M-C-M', where M' = M + excess. The original value adds to itself and converts the surplus value to capital. Value thus undergoes a “metempsychosis” or transmigration that deserts the consumed body of production to occupy the newly created one of capital in the form of surplus-value.

For example, a hammer has a use-value because of its contributions to building. Its use-value comes from its usefulness. In contrast, a hammer's exchange-value comes from its value relative to other objects. For example, a hammer might be worth two screwdrivers. An object has an exchange value, only in its **relationship** with other objects.

Thus, for Marx, the value of a commodity is determined by necessary production (labour time), or the amount of time "required to produce an article under the normal conditions of production, and with the average degree of skill and intensity, hence value:

X quantity of product ≈ Y quantity of economic production[44] ≈ Z quantity of gold-money[45]

All currency must have a face-value, as all commodities used as a currency are non-fungible by nature; it is the addition of face-value to a commodity that makes currency fungible in trade via a deferred payment of a nonspecific coin. Hence face-value is the means to facilitate trade exchanges.

However, the fact that the hammer and screwdriver can be exchanged at all suggests that there must be something common between them, some means of comparison. Marx says that this is the object's value. Value in Marx time means the amount of labour it takes to make the commodities. This labour theory of value is very important to Marx's theory. It implies that the price of commodities comes from how much labour was put into them. One implication of this is that objects with natural use-value, such as forests and other natural resources, do not have value because no labour went into them. One problematic question, then, is how such natural resources can have exchange-value (people do spend money on them) without benefiting from labour. It is also important to consider how Marx's conception of the roots of exchange value differs from modern economic theory. In modern theory, something's exchange value is rooted in people's subjective preferences. While the amount of labour required would

[44] The importance of economic production is its ability to preserve capital value, increase already existing value, and create wholly new value.

[45] Marx realized very well that the assumption of gold-money was a simplification—there might not be such a stable relationship between price-levels, average commodity values, and gold quantities — but he regarded the assumption as helpful, in explaining the basic laws of motion of the capitalist mode of production "in its ideal average". Excess demand can raise the prices of products traded, and excess supply can lower them; but if supply and demand are relatively balanced, the question arises of what regulates the settled exchange-ratios (or average price-levels) of products traded in that case, and this is what the law of value is intended to explain. According to the law of value, the trading ratios of different types of products reflect a real cost structure of production, and this cost structure ultimately reduces to the socially average amounts of human labour-time required to produce different goods and services.

be linked to the supply curve of a commodity, its exchange value is also determined by the demand curve. Marx focuses exclusively on labour.

Within this book we extend the original thoughts of Marx from his focus on Labour to currency areas net economic production, this represents a modern-day view of production which is not exclusively labour but can accommodate technology and innovation as drivers of capital production. We shall see these concepts crystallised within the Equity Theory of Money where currency exchange value is determined via unitised claims upon currency area GDP. Hence the amount of economic production (GDP) is linked to the supply curve of a commodities, while a commodities exchange value is determined by the equilibrium of the commodity supply vs demand with the supply vs demand curve for currency. The objective of any currency is hence to maintain a stable or predictable supply vs demand for currency across a deferred payment, this can only be achieved if the change is currency supply is less than any other commodity aggregates.

World Value

Different levels of the intensity and productivity of labour in different countries, create very different cost structure in different countries for all kinds of products. Products that took 1 hour of labour to make in country A might take 10 hours to make in country B, a difference in production costs which could strongly influence the exchange values realised in the trade between A and B. More labour could, in effect, exchange for less labour internationally (an "unequal exchange" in value terms) for a prolonged time. In addition, the normal rate of surplus value could be different in different countries. That makes a difference not only to profitability, but to the ability to sell products at competitive prices. Hence traders try to use this differential to their advantage, with the usual motto "buy cheap, sell dear". This promotes the internationalization of business. The result, some Marxists argue, is an international transfer of value, from countries with a weaker bargaining position to those with a stronger one. The differential in labour valuations becomes a source of profit (also global labour arbitrage).

The operation of the law of value in the world market might however seem rather abstract, in view of the phenomena of unequal exchange, differences in accounting norms, protectionism, debt-driven capital accumulation and gigantic differences in currency exchange rates between rich and poor countries. These phenomena can create very a significant distortion in world trade between final market prices for goods, and the real production costs for those goods, resulting in super profit for the beneficiaries of the trade. The value and physical volume of manufactured exports by developing countries increased gigantically more than the actual income obtained by the producers. Third world nations relatively speaking received less and less for what they produced for sale in the world market, even as they produced more and more; this is also reflected in the international terms of trade for manufactured products.

The postulate of the law of value does however lead to the Marxian historical prediction that global prices of production will be formed by world competition among producers in the long term.

Why the 1% will always be the 1%

There's that line in George Orwell's Animal Farm:
All animals are equal, but some animals are more equal than others… It always makes me feel slightly uncomfortable, as it would be nice if we had an egalitarian world where everyone was equal … but it's never going to happen. The super-rich rule the super-poor.

Why?
Because it typifies the nature of humanity where the 1% rule the 99%. We may not like it but, just as cream rises to the top, there are always going to be the ultra-rich and the ultra-poor. Right now, with 8 billion people on Earth, that means around 80 million people are living overground, whilst 5 billion or more are fuelling the engines for a few cents a day. Why are we all thinking this way? I guess because the fact is that if this has not changed in 2,000 or more years, will it ever change?

Today, we talk about the 1%. When eight billionaires own more than half the world has the world changed? No. And even with all the discussions of democratisation and decentralisation, I don't see it changing tomorrow either. It's over a decade since Occupy Wall Street started a major global movement to rebel against the 1%, but nothing changes. It is because the concentration of wealth is a natural, biological feature of humanity. Cream rises to the top. The more wealth you have, the more wealth you have.

In essence the 1% ensure money is always scarce and that the supply of money is in the hands of the 1%, herein lies the lesson for humanity, its always about Money, and the control over money is power. If humanity wishes to rebalance the world wealth, then they must start by removing the monopoly over money, and realise that money can never be scarce!

Wealth

Adam Smith, in his seminal work The Wealth of Nations, described wealth as "the annual produce of the land and labour of the society". This "produce" is, at its simplest, that which satisfies human needs and wants of utility. In popular usage, wealth can be described as an abundance of items of economic value, or the state of controlling or possessing such items. An individual who is considered wealthy, is someone who has accumulated substantial wealth relative to others in their society or reference group.

Wealth is hence represented via an accumulation of real-world assets or property, which has universal intrinsic value to others in their society, and which can be subjected to the equation of capital M-M' to create excess value and readily convertible into a form, that can be used within deferred trade or exchange transactions. In Marxian economics, the rate of accumulation is defined as (1) the value of the real net increase in the stock of capital in an accounting period, (2) the proportion of realized surplus-value or profit-income, which is reinvested, rather than consumed. Hence wealth accumulation can be measured as the monetary value of tangible assets that can be readily converted to a currency within a deferred trade payment. Wealth accumulation is predicated upon property relations which enable objects of value to be appropriated and owned, and trading rights to be established.

The United Nations definition of inclusive wealth is a monetary measure which includes the sum of natural, human, and physical assets. Natural capital includes land, forests, energy resources, and minerals. Human capital is the population's education and skills. Physical (or "manufactured") capital includes such things as machinery, buildings, and infrastructure. The aim of capital accumulation is to create new fixed and working capital, broaden and modernise the existing ones, grow the material basis of social-cultural activities, as well as constituting the necessary resource for reserves and enhancing economic activity within a society.

If more wealth is produced than there was before, a society becomes richer, as the total stock of wealth increases. But if some accumulate capital only at the expense of others, wealth is merely shifted from A to B. The last century has overseen wealth inequity widen as wealth has been shifted from the many to the few, by financial engineering which has no basis in economic production.

Wealth can only exist outside of all financial instruments or assets, and the zero-sum game, via a trade (C-C) of commodities. All real-world wealth is born from the continuous cycle of the economic production of people (M-C-M' => M'-C-M") via the creation of surplus value (M’-M).

Currency is the Property of the People

The bedrock of the political theory that Oresme constructs in De Moneta is his claim that money belongs to the community **by natural law**. We need to see how Oresme establishes this foundational point considering the numerous debates about property. Oresme opens his treatise with a brief account of the evolution of humanity from a primitive, although—as indicated by his citation of a passage from Deuteronomy—postlapsarian state: “When the Most High divided the nations, when he separated the sons of Adam, he fixed the boundaries of peoples.” After human populations had begun to increase, Oresme continues, “possessions were divided to the best advantage.” He then moves to describe a process by which a primitive barter economy was replaced by a monetary economy to facilitate trade. The impetus for the introduction of money comes from below: “Humans were subtle enough to devise the use of money to be the instrument of exchanging the natural riches that of themselves minister to

human need." Oresme's definition of money as "an instrument artificially invented for the easier exchange of natural riches" is a perfectly conventional scholastic construction, tied closely to Aristotle's remarks on the origin and functions of money from the relevant sections of the Ethics and the Politics, which had been picked over by the Latin commentators for the last century. For Oresme, it follows from this definition that "coin is very useful to the civil community, and convenient, or rather necessary, to the business of the res publica.

Oresme is careful to confirm at the end of the chapter that "money belongs to the community and to individuals".

It is money's "face value" and hence fungible nature that endows it with such conceptual power within De Moneta's theory. Oresme will later claim that human's own money by a natural and inalienable right, and as money's function is to represent all forms of property, including an individual's labour time, it can be inferred that he also considers humans to hold a natural and inalienable right to own property. Hence any an abuse of the currency represents not only an attack on its rightful owners' property, but also on their freedom. What, then, is the proper relationship between the prince, the community, and the currency? As Oresme explains later, "Anything belonging to anyone as of natural right cannot justly be transferred to another. . . That is how money belongs to a free community.

Oresme argues that money stands in for forms of property, and as Aristotle had established that citizens ought to be the owners of property, it follows that they should also be the proprietors of money and currency as not owning property is to be reduced to the station of those excluded from public life.

Oresme advises that, in kingdoms where princes mint coins containing a mixture of metals, communities keep in a public place a sample of the alloy, against which to test the coinage. Such precautions are designed to protect the community from being ideologically manipulated by its prince: "If he should tell the tyrant's usual lie, that he applies that profit [from debasement] to the public utility, he must not be believed, because he might as well take my coat and say he needed it for the public service. Th conclusion that an alteration of the coinage for the private good of the prince, rather than the common good of his subjects, constitutes an act of tyranny. By conferring upon the community, the sole and exclusive right to alter the coinage, Oresme opens the determination of monetary policy to public debate.

Which brings us to the post-pandemic reality, there exists no basis for any Central Bank (the medieval prince revisited) monopoly control, over the minting of currency supply, for the exclusive benefit of the banking elite, which cannot be in the public good. Oresme[46] concludes ominously that "the free hearts of the French" (Francigenarum libera corda) will not tolerate the imposition of servitude. "

[46] *Speculum* 92/1 (January 2017).

Central Banking, built upon Debt and Rent extortion!

In essence all central banking functions via the simple concept exchange of public sector **debt**, for private sector **assets**. It exists to circumvent political accountability for direct taxation as the sole means to fund public sector growth and expenditure. Unlike representative governments, central bankers represent the reintroduction of totalitarianism, they are not elected, they exist detached from any form of accountability to parliament or the people via the concept labelled as "**independent** central banks".

This section looks at how central bankster gained a monopoly over debt creation via the creation of a monopoly over currency. This monopoly is the basis for the creation of public sector debt, and the extraction of private sector assets from the population via the removal of any freedom to choose the form of currency used to defer a payment in trade. Central banking represents a form of enslavement and tidings payment via the sun of Usury.

How did we become enslaved to the Central Bankers?

The Bank of England was established by King William III in 1694. It was designed to secure "certain recompenses and advantages . . . to such persons as shall voluntarily advance the sum of fifteen hundred thousand pounds towards carrying on the war with France. In 1697, in exchange for a loan of £ 1,001,071, it was given a monopoly of chartered banking, limiting competition to private bankers. In 1708, in return for a loan of £ 2,500,000, the Bank's owners were rewarded by an act prohibiting joint-stock banks (private banks of six partners or more) from issuing notes. To extend its privileges through the remainder of the century the Bank made further, large loans to the government in 1742, 1781, and 1799.

The Bank Act eventually gave the Bank of England a monopoly of note issue, as the Bank assumed the authorized circulation of country banks when they closed. he Bank Act had to be repeatedly suspended until the desirability of having the Bank of England free to function as a "lender of last resort" during "internal drains" of currency was made conspicuous in Bagehot's Lombard Street (1874). When it formally acknowledged its special responsibilities the Bank of England became the first true central bank, the prototype for other central banks that would be established in nearly every nation on the globe.

Central banks worldwide can only issue **public debt**, which must be forced onto the private sector via commercial banks; the old boys "banksters Club" (typically for a payment of ~10% of the Central Banksters Debt). The end game is to convert Government debt into private debt via exchange of commercial bank deposits (people's assets). The means to achieve this swindle is the state's historical monopoly over "violence" and the unique ability to create debt via decree for all people.

In essence the central banksters shell game swaps public debt for private sector assets and extorts rent, payable to the "Banksters Club"...

The swindle is complete, via magic of bonds, as the shell game mechanism, played between the Left Hand (Central bankster) and Right Hand (Treasury), the commercial elite banksters, are the middlemen taking their cut for removing the friction on the money flows. The key realisation is this central bank shell game or swindle does not produce a single cent of value, it is a pure parasitic process, that extracts value from the labour and economic production of the population.

Free Banking

Free banking is the system of money and credit that arises when government protects property rights and contract rights. Privately owned and operated financial institutions collect deposits from customers and issue currency, checking accounts or other media of exchange, and make loans—all guided by the capitalist market model. Banks in such a system are subject to the same laws—including client money laws, antifraud provisions and bankruptcy codes—as any other businesses.

Free banks make money by charging fees for financial services and charging interest on loans. Although a small share of depositors will be so risk averse as to prefer their bank serve as a mere money warehouse, providing safe-deposit boxes (capital), most depositors will want to forgo the storage charges associated with warehousing and instead receive interest on their capital deposits—payments that banks can make only if they are not solely warehouses but also specialists earning interest by lending out deposits[47]. Free banking is not dependent upon fractional reserve banking.

Because free banks must earn the trust of depositors, they not only aim to retain adequate reserves, but they also operate on a redeemable standard. The reserves are not centralized or prone to government manipulation, as they are under central banking; rather, individual private banks control their own capital reserves and issue both banknotes (currency) and checking accounts convertible, uniformly across the system, into a fixed value of reserves. Such banks cannot with legal impunity renege on their commitments and cannot expect bailouts from either central banks or taxpayers. The transformation of claims over fundamentally illiquid assets into claims that are highly liquid is one of the critical functions that the financial sector provides for the community. Without such transformation, it is difficult to see how modern economies would work. This transformation has been critical to the accumulation of physical capital in our societies as well as the operation of our modern financial systems.

[47] Economic agent-based loans are essentially, shared risk, maturity transformation of monetary value across time. Whenever the volume of loans does not match the volume of deposits, the economic agent resorts to the short-term money market to close the gap in long term asset returns.

The only role of government in a free banking system is to protect property rights, enforce financial contracts (for deposits, loans, collateral, etc.), uphold an objective system of standardised units of account, and adjudicate the occasional dispute or bankruptcy. In such a system the government still conducts its valid fiscal affairs—raising its necessary revenues, spending on legitimate programs, and borrowing when necessary—but it does so use the voluntarily accepted money of the realm. Government does not grant special privileges to banks, not even to those that falter or fail, whether by subsidies, deposit insurance, bailouts, or exemptions from bankruptcy codes; nor does government regulate, prescribe, or proscribe any non-fraudulent practices in a free banking system.

For the sake of legal clarity and objectivity, government may properly designate gold, silver, or any commodity as monetary "legal tender" for its fiscal dealings or for court-mandated payments of debt; but it does not, thereby, establish a money monopoly. Moreover, government may not declare any medium of exchange to be the sole means of payment in the marketplace, nor may it issue inconvertible paper money itself, nor mandate its use. A proper government leaves markets free to choose the money they use, and itself issues no money. Under free banking, government does not interfere with or regulate any aspect of money or credit. It simply protects everyone's rights by prohibiting fraud, breach of contract, and the like. Even a constitutionally limited, rights-respecting government must touch money and credit to conduct its fiscal duties, but this never justifies even a partial political co-opting of the system.

Historically one commodity, Gold, was the freely chosen medium of exchange and the basis of an objective monetary system, largely devoid of politics, in the 1700s and 1800s, not only in the United States and Britain, but in most developed nations. Prominent private banks issued their own currency, as well as checks, but these derived their value from being reliably redeemable in a fixed weight of gold. No inherent confusion arose from the fact that free banks issued "private label" currency or checks. Despite a robust "competition in currency," commodity money (gold and silver) was the uniform, base money that held its value, principle due to the inability of any party to manipulate its free market price within an exchange. The profit motive ensured that bank liabilities (currency and checks, comprising the bulk of the money supply) were not unduly expanded. Gold served as the solid foundation of rational pricing, sound lending, and robust but sustainable prosperity. If we want to fix our money and our banking system—if we want to cut off the funding spigot to illegitimate government spending and regain fiscal responsibility—we must call for a return to free banking and the end of Central Banks. The proposal seeks to enhance liberty, rights, and the rule of law in money and banking by an equitable, simple, and practical transition from central banking to universal free banking and sound money.

This book does not suggest a return to a gold standard, only the adoption of "Sound Money" based upon a free banking system of independent economic agents.

Backstop Banking

In early March 2023, people realised it was a digital world, as Depositors at extraordinary speed and scale tried to pull more than $42 billion in a single day from Silicon Valley Bank!

When the banking system is not allowed to fail via free market forces and fractional reserve banking, one has accumulation of systemic risk in society. A fractional reserve bank cannot meet its deposit withdrawal requests during a market correction event, such as a bank run this is by design, the difference is in the

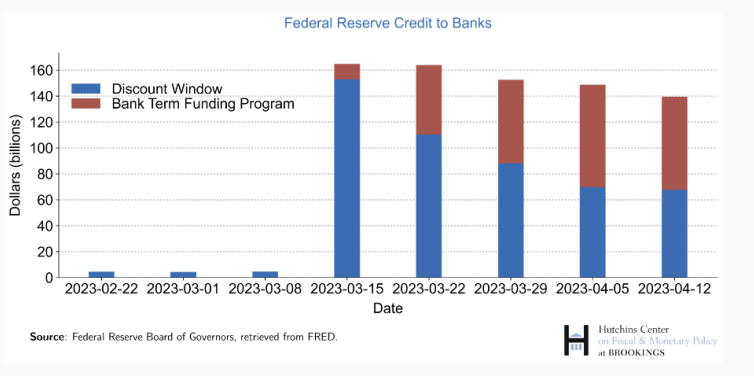
digital world of 2023 a bank run can empty a bank in less than a day, there are no queues outside of a bank branch anymore.

Banks, in general, take deposits from their customers (who often can take their money out whenever they want) and put the money into loans or securities (often longer-term commitments that sometimes cannot be easily sold). In normal times, when most depositors are content to leave their money in the bank, this works well. Banks are required by law to maintain ~ 7% of deposits in liquid assets so that they can meet customer demands for withdrawal. But any blind Freddy can see that ~ 7% of deposits in liquid assets cannot meet any bank run by the very design of a fractional reserve banking system. The current global banking system is backed by blind faith and pixie dust economics as the moral hazard is clearly exposed for all to see. No lessons have been learnt from the 2007/8 financial crisis as the cycle repeats yet again in 2023.

The definition of insanity is doing the same thing over and over and expecting different results. -Albert Einstein.

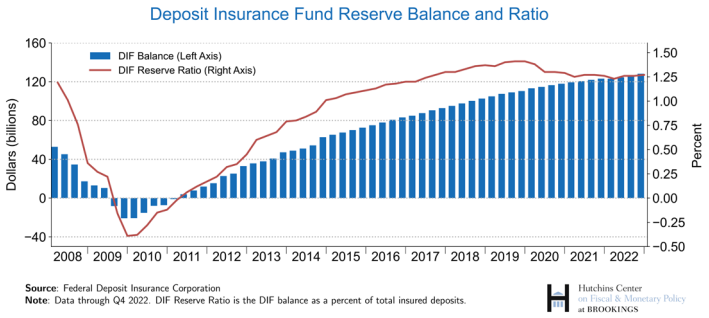
However, if depositors attempt to withdraw their money at once, the bank will never have enough **cash** on hand to satisfy them. This can happen if depositors lose confidence in the bank's ability to meet all withdrawal demands so every depositor tries to be at the head of the **digital withdrawal queue** – a run on the bank, a phenomenon explained by economists Douglas Diamond and Philip Dybvig for which they shared a Nobel Prize in 2022. If the bank cannot borrow money in real-time, it may be forced to call its loans or sell other assets quickly, sometimes at a loss, to meet the cash withdrawal demands. A lender of last resort – a central bank like the Federal Reserve – provides loans to banks so they can meet depositor demands but these all operate in the **time of physical world** while the modern-day bank run operates **at the speed of light**.

To prevent the free market operating and allowing "bad" banks to close, while "good" banks remain open, the central banks make use of a backstop or lender of last resort facility. In March 2023, after the failures of Silicon Valley Bank and Signature Bank, to lend to other banks that had big unrealized losses on their holdings of government bonds and were, therefore, at risk of large-scale withdrawals of deposits. The facility allows banks to exchange assets such as U.S. Treasuries for cash at their full-face amount, regardless of the current market value. These central bank loans are for up to one year at an interest rate equal to the one-year overnight index swap rate, plus 0.10 percentage points. This rate varies daily. As of April 17, the BTFP rate was 4.93%. As of April 12, banks borrowed $71.8 billion through the Bank Term Funding Program. As of April 12, the Fed lent $172.6 billion to the banks.



And then there is more…

Deposit insurance is the government's guarantee that an account holder's money at an insured bank is safe up to a certain amount, currently $250,000 per account. Deposit insurance is provided by the Federal Deposit Insurance Corporation (FDIC), a government agency. Deposit insurance, created during the Great Depression in 1933, has sharply reduced the frequency of bank runs that once were common in the U.S., when about 40% of all U.S. banks disappeared between 1929 and 1933: They failed, closed, or were absorbed by other banks. That happened because there were massive runs, bank runs, where people lost confidence in the banks and pulled out their money. The result is by law, up to $250,000 is insured for each depositor's account in each bank. As of Dec. 31, 2022, the Deposit Insurance Fund had $128.2 billion, or about 1.27% of all insured deposits.



Silicon Valley Bank (SVB), the 16th largest bank in the US, had an exceptionally high number of uninsured deposits—about 89%, or $155 billion. So, when it went into receivership on Friday, March 10, on the heels of a massive, $42-billion bank run. The Treasury Department and Federal Reserve decided to guarantee all deposits at SVB, even those above $250,000. In addition, the Treasury bonds were valued not at the "to-market"[48] discount but at face value in the following take overs. This meant the Central Bank was also backstopping all SVB losses caused by malinvestments and market forces. The bank replaced depositors' funds with central bank funds, without having to sell government bonds that have fallen in value over the last year, as the central bank increased interest rates.

Hence the moral hazard is now baked in via a permanent Central Bank bailout system that protects bad banks from the operation of a free-market economy and an implicit guarantee that all failed banks will have unlimited (unfunded) insurance protection. Treasury's actions of baling out Venture capital investments will have "tremendous long-term implications" on the US economy, as those funds will have to be replenished from somewhere, "Where's the somewhere?"

"The Bank knowingly took an investment risk and, when the risk didn't pay off, investors lose their money. That's how capitalism works". Banks need to fail to remove the accumulation of moral hazard within the banking system.

Postscript

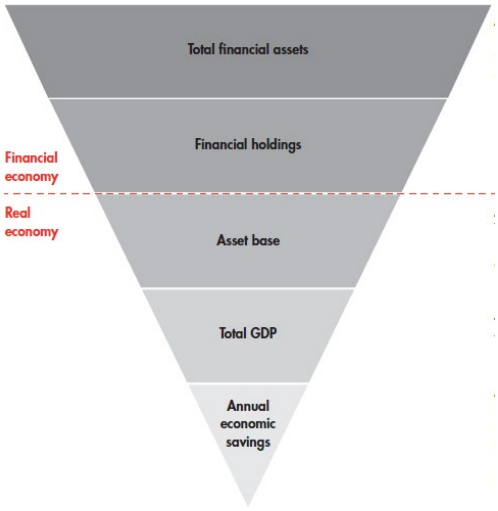
In March 2023, the Swiss National Bank, bailed out Credit Swiss and backstopped UBS to the tune of ~

[48] To prevent a repeat at another bank, the Fed said it will offer banks loans for up to a year in exchange for US Treasury bonds and mortgage-backed securities that have tumbled in value. The Fed will honour the debt's original value for the banks that take the loans. The Fed is bailing out its own rate decisions effect?

CHF 256 billion, there are numerous issues associated with this backstop that we will not go into within this section. It is sufficient to observe, the result is a merged UBS bank which is ~ twice the size of the Swiss economy, the Swiss National Bank has engineered a new UBS bank that is **Too Big to bail out!**

Real Economy

Over the last two decades the financial economy has gradually consumed the real economy. To the extent that over the period 2010 to 2020 the real economy achieved a $27 Trillion in global GDP growth, while there was a $300 trillion increase in total financial assets[49]. Thus, we have engineered an economy, which has a total capital 10 times larger than the total global output of goods and services, and three times bigger than the base of non-financial assets which generates the global increase in GDP.



Analysis of the real economy proceeds from the principle that all the essential phenomena of economic life are capable of being described in terms of goods and services, of decisions about them, and of relations between them. Money enters the picture only in the modest role of a technical device that has been adopted to facilitate trade between parties . . . so long as it functions normally, it does not affect the economic process, which behaves in the same way as it would in a barter economy: this is essentially what the concept of Neutral Money implies. Thus, money has been called a 'garb' or 'veil' of the things that really matter. . . Not only can it be discarded whenever we are analysing the fundamental features of the economic process, but it must be discarded just as a veil must be drawn aside if we are to see the face behind it. Accordingly, money prices must give way to the exchange ratios between the commodities that are the important thing 'behind' money prices. (Schumpeter 1994 [1954]: 277). Other than the 'higgling' to arrive at a mutually agreed exchange, agent–agent, or social, relations form no part of the model (Ganssmann 1988). It is assumed that a continuous process of 'higgling' can transform the myriad bilateral exchange ratios between all the different commodities, based on individual preferences, into a single market price for any uniform good. Money, in the form of the most liquid of all commodities in circulation, may be introduced into the model to 'lubricate' the process of exchange. As a commodity, the medium of exchange can have an exchange ratio with other commodities. It is in this sense that currency based deferred payments is a 'neutral veil' that has no efficacy other than to lubricate the 'inconveniences and frictions of barter'. The friction of trade is removed via the face value of a currency, which makes a normally non-fungible commodity (currency) fungible.

Despite money's status as a 'neutral veil', the fact that it is perceived as a commodity by the trading parties enabled the new economic methodology to provide a theory of its origins as a medium of exchange. Money is the unintended consequence of individual economic rationality. To maximize their barter options, traders exchange stocks of the most liquid and tradable commodities, which, consequently, become the preferred media of exchange. In short, all orthodox economic accounts of currency-based payments are commodity exchange theories. Both money's historical origins and logical

[49] Source: National statistics; International Monitory Fund, OECD; Brain Macro Trends Group analysis, 2012.

conditions of existence are explained as the outcome of economic exchange via currency payments in the market that evolves because of individual utility maximization. Hence, a currency's existence 'does not interfere with the operation of any laws of value' and has no effect on the real-world economy which is based upon trade and economic production. In essence the real world depends upon Aristotles four functions of currency to mediate payments, Durable, Portable, Divisible, and have Intrinsic Value.

The financial world reflects the effects of lying and how as one lie leads to more, the lies multiply, and we become trapped in the dishonesty of a world without assets and based solely upon monopoly over the issuance of debt outside the real economy. This deceit is best illustrated by the three witches, in Shakespeare's Macbeth.

Reciprocity and Exchange

In cultural anthropology, reciprocity[50] refers to the non-market exchange of goods or labour ranging from direct barter (immediate exchange) to forms of gift exchange where a return is eventually expected (delayed exchange) as in the exchange of birthday gifts. It is thus distinct from the true gift, where no return is expected. When the exchange is immediate, as in barter, it does not create a social relationship. When the exchange is delayed, it creates both a relationship as well as an obligation for a return (i.e., debt). Hence, some forms of reciprocity can establish hierarchy if the debt is not repaid. The failure to make a return may end a relationship between equals. Reciprocal exchanges can also have a political effect through the creation of multiple obligations and the establishment of leadership. Some forms of reciprocity are thus closely related to redistribution, where goods and services are collected by a central figure for eventual distribution to followers of the Central Figure.

Mauss, a French anthropologist, was one of the first scholars to provide an in-depth exploration of reciprocity and the role that gifts play in cultural systems around the world. Mauss asked why humans feel obliged to reciprocate when they receive a gift. His answer was that giving and reciprocating gifts, whether these are material objects or our time, creates links between the people involved, and this

[50] Both John Locke and Adam Smith used the idea of reciprocity to justify a free market without state intervention. Reciprocity was used, on the one hand, to legitimise the idea of a self-regulating market; and to argue how individual vice was transformed into social good on the other. Reciprocity reflects the moral nature of the social relationship; hence morality is not universal, but dependent on social distance. Thus, one views reciprocity as socially, morally and economically structured and "the structure is that of kinship-tribal groups" not a universalizing moral ethic.

creates community. Giving are about social relations, not just about the gifts themselves; as we will see, giving a gift that contains a bit of oneself builds a social relationship with the person who receives it.

Studying reciprocity gives a unique insight into the moral economy, or the processes through which customs, cultural values, beliefs, and social coercion influence our economic behavior. The economy can be understood as a symbolic reflection of the cultural order and the sense of right and wrong that people adhere to within that cultural order

In Stone Age Economics (1972), anthropologist Marshall Sahlins identified three modes of reciprocity:

1. Generalized Reciprocity
2. Balanced Reciprocity
3. Negative Reciprocity

Generalized Reciprocity

Generalized reciprocity refers to a type of exchange of goods and/or services where the giver and the recipient do not keep an exact ledger of value or stipulate the amount or duration of return. It is expected that the exchange will balance itself over time. Examples of this include kinship, friendship, and close neighbourly relationships where tokens, hospitality, or other helpful actions are exchanged back and forth over time when desired or necessary. For example, you may buy a coffee for a friend one day, with the expectation that at some point in the future, they will do the same for you. Or perhaps instead they decide to buy you dinner or help you move into your new home. These small tokens are indicators that you wish to have a prolonged relationship and are not systematically tallied. Similarly, sharing a tray of freshly baked cookies in a communal area at school or work for anyone to enjoy would constitute this type of reciprocity, as would a hunter-gatherer sharing their meat with the entire camp.

A “pure gift”, to quote anthropologist Malinowski, would be one where the giver expects nothing in return and to request it would be considered socially unacceptable, for example, charitable donations.

Balanced Reciprocity

Balanced reciprocity obligates the recipient to return, within a specific time limit, items understood to be of equal value. When we expect that we will receive a gift of equal value from someone that we have given a gift to, that is an example of balanced reciprocity. To illustrate, if you purchased a carefully selected Christmas present for a friend but received nothing or an object of much lesser value in return, this would likely result in hurt feelings. Additional examples of balanced reciprocity include trading goods at “swap meets”, working as a crew member to cover the cost of one’s passage on a ship, or when a group of parents take turns carpooling the kids to school.

The difference between balanced reciprocity in non-market vs. market economies – i.e., using currency instead of bartering with goods or services – comes largely down to intent rather than the medium of exchange. In other words, in market economies, regular shopping transactions like buying clothes result in a material profit for the seller, and the relationship between buyer and seller is short-lived. Conversely, balanced reciprocity in non-market (gift) economies is about exchanging goods or services of an equal value to reinforce or solidify social bonds.

Negative Reciprocity

Negative reciprocity refers to exchanges where one party attempts to act entirely in their own self-interest in pursuit of material advantage or profit. If generalized reciprocity tips the balance in favour of selfless giving without expectation of immediate receipt, then negative reciprocity does the opposite. It is an attempt to "get something for nothing", or to obtain something of greater value than you are willing to give in return. Sahlins refers to this as the "unsociable extreme", because it is a type of exchange mostly conducted between strangers rather than friends or kin. Instances of this include barter, haggling, stealing, looting, raiding, or price-gouging. One example would be a banker who promises to invest your money but steals it instead. A more innocuous example might be a student helping their teacher in the classroom in the hope of receiving a better grade.

Reciprocity and marital alliance

The alliance theory is the name given to the structural method of studying kinship relations. It finds its origins in Claude Lévi-Strauss's Elementary Structures of Kinship (1949). According to Levi-Strauss, the universal prohibition of incest pushes human groups towards exogamy where certain categories of kin are forbidden to marry. The incest taboo is thus a negative prescription; without it, nothing would push men to go searching for women outside of their inner kinship circle, or vice versa. In a process akin to the division of labour which makes exchange necessary, one's daughter or sister is offered to someone outside a family circle and starts a circle of **exchange of women**: in return, the giver is entitled to a woman from the other's intimate kinship group.

Thus, the negative prescriptions of the prohibition have positive counterparts. The idea of the alliance theory is thus of a reciprocal or a generalized exchange which founds affinity, just as economic exchange due to the division of labour resulted in organic solidarity. This global phenomenon takes the form of a "circulation of women" which links together the various social groups in one whole: society. Lévi-Strauss emphasizes this a system of generalized exchange based on indirect reciprocity. A generalized system does not involve a direct or balanced dyadic exchange and hence presupposes an expansion of trust via kinship or marital alliance.

Barter

If we turn to the questions "what is money and what not money is?" and "what is barter and what is not barter?" economists lead us down a path to incoherence and useless definitions. Barter is probably the most misunderstood economic function on the planet. The outcome is that economists have a broad definition of money and a narrow definition of barter, so broad and so narrow, respectively, that they are useless. They also lead to incoherent and inconsistent outcomes. Hence the analysis of money, proceeds from the principle that all essential phenomena of economic life are capable of being described in terms of goods and services, of decisions about them and of relations between them. Money spontaneously enters the picture to mediate transactions via its existence as a numeraire of exchange value, it does not affect the economic process of trade.

The direct form of barter is x Commodity A = y Commodity B. The form of direct barter is x use-value A = y use-value B. The articles A and B in this case are the relative monetary unit value AB of the two commodities. The monetary unit AB comes into existence only by the act of barter. The first step made by

an object of utility towards acquiring exchange-value is when it forms a non-use-value for its owner, and that happens when it forms a superfluous portion of some article required for his immediate wants. In the direct barter of products, each commodity is directly a means of exchange to its owner, and to all other persons an equivalent, but that only in so far as it has use-value for them. Hence money spontaneously exists within all direct barter exchanges, and hence no barter-based exchange can exist without the existence of money.

We shall see in latter chapters how currency makes possible a deferred payment across space and time using a standardised unit within a currency area), rather than a relative unit of money as shown above. This creates a uniform framework for barter, money, currency, and deferred payments. Hence all exchanges of commodities including direct barter exchanges must exist in the form of Commodity — Money — Commodity (C-M-C), the net result is always of the form C-C, the exchange of one commodity for another, the difference to a direct barter trade is only a temporal displacement of M-C, a purchase, is, and C—M, a sale; the concluding metamorphosis of one commodity is the first metamorphosis of another. The introduction of money or currency based deferred payment does not affect the resultant C-C exchange in any way other than a temporal displacement. The existence of money vanishes upon dropping out of the circuit of the metamorphosis of a given commodity barter trade.

It is man's varying skills and different needs that prompted the exchange of goods and services. Thus came the need for a form of valuation that would determine how much or how many one kind of commodity should be exchanged with another good of a different quantity (or mass and volume). This ancient predicament of setting fair trade values gave birth to crude valuation tools and solutions, like counting and weighing. Thus, the spontaneous emission of a numeraire to mediate barter based instantaneous exchanges of goods and services was observed. Its existence is a natural by-product of trade, it is not the creation of man or law, money is born solely from trade, and hence without trade money cannot exist. All instantaneous barter-based exchanges, emit monetary exchange value. This foundational understanding addresses the centauries of incoherent inconsistencies of economics.

Each barter or trade represents the circulation of commodities as a source of surplus-value. It is not true that on an exchange of commodities we give value for value. On the contrary, each of the two contracting parties in every case, gives a less for a greater value. ... If we really exchanged equal values, neither party would gain, it's only when we exchange something in surplus for some, we desire that both parties gain from the exchange. It is not to be assumed that we offer for sale articles required for our own consumption. Each party to the exchange wishes to part with a useless thing, to get one that they want; we want to give less for more, which is essentially capitalism in action. The use-value of a commodity is more serviceable to the buyer than to the seller, hence we shall see, it's the money-form of a commodity that is more serviceable to the seller, as it supports a deferral of a future purchase. All barter-based trades cannot defer future wants for a seller. Hence it is understood surplus value cannot be created by circulation.

The Walrasian-Arrow-Debreu general equilibrium model[51], is the starting point for both money and barter. In that model real goods trade for real goods without the need to instantiate money, and there is nothing in the model that says goods cannot transit across people before all markets clear.

In trying to insert money into a Walrasian-Arrow-Debreu general equilibrium economy, economists are focused on a common medium of exchange—a common carrier of value from individual to individual through time. In the process of trying to explain why a particular carrier of value becomes common, economist falls back into using an eighteenth-century methodology, namely using unweighted categorization by characteristics, e.g., portability, divisibility, count-ability, durability, and so on, to explain the carrier chosen, and then call that carrier "money." The tools of economics are not used to define what money is and conflate the idea of money. Money does not exist as a carrier for it to be money, it simply **mediates all forms of trade** or exchange including barter.

We will address this enigma by defining money as part of the general equilibrium, being the spontaneous value between two supply and demand curves, thus money **must** always exist, but need not be tangible and may not require a standardised unit of account or require a subsequent payment via a tangible currency. Hence one can comprehend barter is entirely possible, as money spontaneously exists within all barter exchanges. We now have an entirely consistent framework for all forms of trade or exchange, independent of a standardised unit of account or means of payment, money spontaneously exists and mediates all exchanges.

The transaction-cost economizing evolution within barter structures, however, creates the conditions for the rise of a transaction premium appended to barter good exchanges over those involving a standardised unit of account. The double coincidence of wants dilemma is trivially solved via an absolute unit of account rather than a relative one spontaneously created in all trade, additionally "credit" and fractionalisation provides the means to transfer or adjust for any double coincidence of wants. We shall see that within a Decentralised Asset Market one can in fact exchange assets for Assets without the need for any currency or payment this is the Asset vs Asset (AVA) atomic swap.

Economics now universally works, without the need to create asset-specific exchange rules.

Credit as the basis for Money

If all agents in the economy could be trusted to honour all their promises, then there would be no need for money. It would be sufficient to have a common accounting system. However, people cannot always be trusted to honour their promises, and accounting is difficult when there are many agents.

To explain how credit can work as money or can form the basis for money, we use the 'Wicksell's Triangle', named after the Swedish economist Knut Wicksell (Andolfatto, 2009). Suppose that an apple producer wants to consume wheat, a wheat producer wants to consume books and a book producer wants to consume apples (see Figure 3). Obviously, if there is no money and none of them can be trusted to keep their promises, trades will be hard to achieve unless all of them can meet in the same place at the

[51] The Arrow–Debreu model suggests that under certain economic assumptions, there must be a set of prices, such that aggregate supplies will equal aggregate demands for every commodity in the economy. The model is central to the theory of general (economic) equilibrium. The Arrow–Debreu model specifies the conditions of perfectly competitive markets.

same time. Do we need central bank money (or some other form of outside money) for trades to take place?

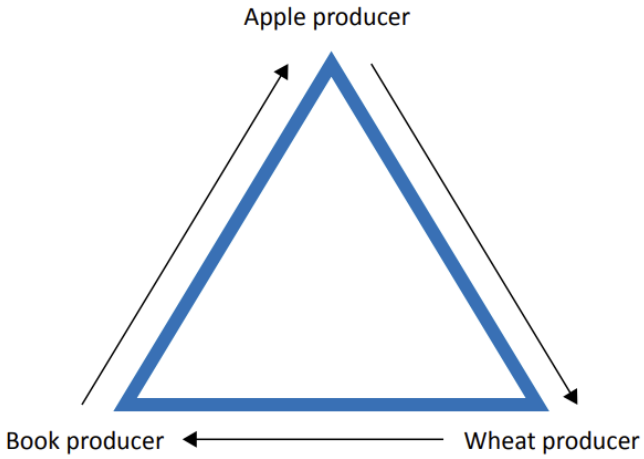


Figure 2 Wicksell's Triangle

First, suppose that one of the agents, for instance the wheat producer, issues a credible IOU stating, 'I owe you one kilo of wheat.' The book producer then accepts this IOU as payment for a book, knowing he/she can hand it to the apple producer in exchange for apples. The apple producer wants the IOU because it can be exchanged for a kilo of wheat. In this case, the IOU – which is in fact a credit given to the wheat producer – serves as money. Thus, in this situation there is no need for outside money. All welfare-enhancing trades take place using the IOU, and central bank money is not necessary. This simple example illustrates that measures that render the IOU trustworthy are sufficient and eliminate the need for cash.

An alternative to the IOU is to introduce a bank (see, e.g., Cavalcanti and Wallace 1999). The bank could issue a loan denominated in some unit of account to the wheat producer. The wheat producer could then use the borrowed money to buy books. The book producer accepts the money because it can be used to pay for apples. This is because the apple producer knows the wheat producer will accept the money, since the wheat producer needs it to pay back the loan. Thus, in this case all welfare-enhancing trades also take place using the money issued by the bank based on the credit. Therefore, central bank money is not necessary. This simple example illustrates that measures that safeguard credit repayment render bank credit trustworthy and useful, the enigma is that it takes just one person in the chain to not accept the IOU as payment and the system stalls[52], and cannot be restarted.

In the examples above, agents trade only once. If agents make trades more than once and their previous behaviour (histories) can be observed, then trust in private money may arise endogenously. If agents want to trade repeatedly, they might prefer not to default to be able to trade in the future. The reason is

[52] The system fails if trust in individual agents or commercial banks meeting their future redemption is not guaranteed as banks do not have the capital to meet withdrawals due to fractional reserve banking. Commercial banks simply do not trust other commercial banks to have the capital required to guarantee any payment will clear.

that a previous default on an IOU or a credit can destroy future IOUs or credits. This illustrates that when people want to trade repeatedly, they – and thereby the money created inside the system – endogenously become trustworthy. However, the literature also shows that this mechanism is weakened in the presence of other frictions, for instance, the time it takes to verify whether an agent has honoured previous promises. Kocherlakota and Wallace (1998) and Mills (2007), for example, show that if there are lags in updating histories, contracts cannot be enforced. Their models reveal a need for outside money such as central bank money. However, and similarly to other models, an alternative would be for the government to put measures in place that enforce contracts.

Sanches (2016) analyses a model where banks themselves find it optimal to set up measures that protect deposits. In his model, there is no role for outside money at all. Thus, the private sector finds a solution that does not involve central bank money. Again, theory suggests that it is not essential that the public has access to central bank money. The examples above revolve around the need for money when people cannot meet in the same place: what the literature sometimes calls 'separation in space.' Other theories explain the need for money when there is 'separation in time.' Samuelson (1958) is a prominent example. These studies, like those on separation in space, also show that public central bank money is not needed if instituted measures can provide sufficient trust in private money. Examples include measures that keep inflation in check and ensure sufficient enforcement or commitment to honour debt obligations.

A key feature of the current monetary system is that funds deposited in different banks exchange at par. This makes money issued by different banks uniform and is sometimes referred to as the 'uniformity of money.' All commercial banks (and other money issuers) require access to central bank reserves, and all electronic payments are ultimately settled. with central bank reserves. These facts are important parts of the mechanism to ensure the uniformity of money because private money cannot be trusted to clear any payment.

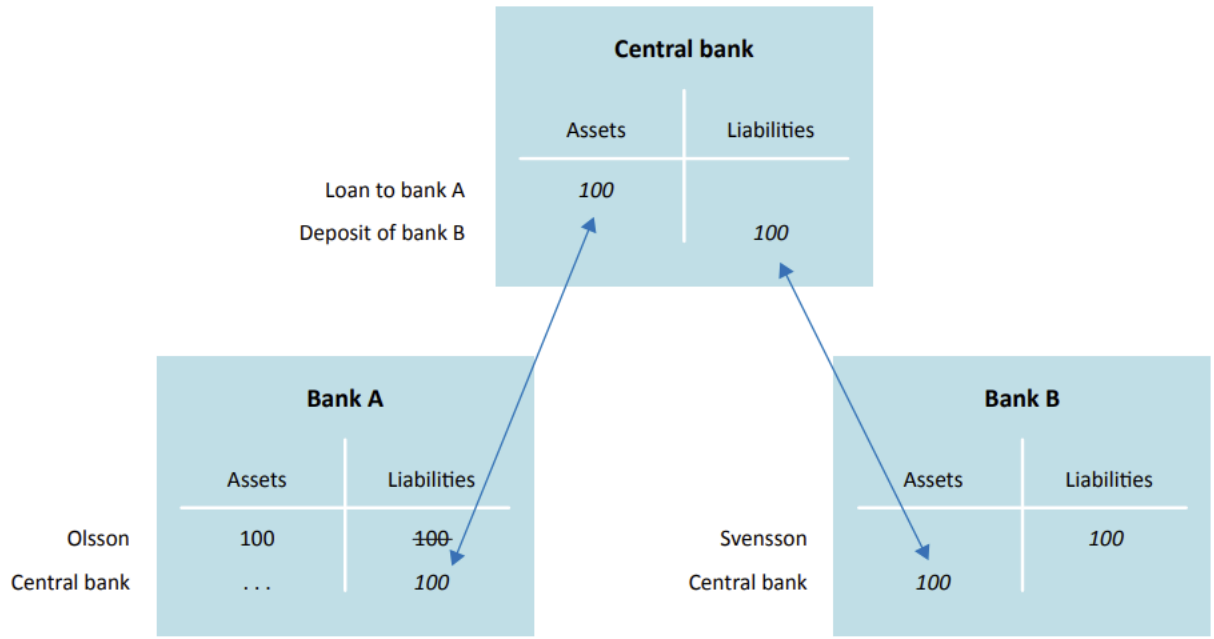


Figure 3 Settlement of Private money via Central Bank

The mechanisms explained above tend to suggest an ‘all-or-nothing’ solution. Either central bank money is not needed and not used at all, or it is needed, and agents use only central bank money. Central bank money and commercial bank money co-exist and are in use simultaneously. In other theories and models in the monetarist literature, inside and outside money do co-exist. However, these theories are not relevant, since they explain either why private money provides more flexibility than central bank money or why two types of money denominated in different currencies can co-exist and circulate in an economy.

For example, Bullard and Smith (2003) provide a model in which it can be welfare enhancing if private agents issue money in addition to the already-existing central bank money. This is because the amount of central bank money is fixed and independent of the needs of the economy. The model does not suggest that we need central bank money for private money to exist.

One of the most influential models of banking is developed by Diamond and Dybvig (1983). The model explains how banks can help the economy reach a first-best solution through their ability to create short-term liquidity. This model is not about money per se, but rather about the consequences of mismatching maturities in the banks’ assets and liabilities. Nevertheless, an important conclusion from the model is that securing bank deposits through deposit insurance, or some other means, is crucial for the stability of the financial system.

In fact, these theories and mechanisms are way too complex, the Credit/Debit Theory is simply this: that a sale and purchase is the exchange of a commodity for credit. From this main theory springs the sub-theory that the value of credit or money does not depend on the value of any metal or metals, but on the right which the creditor acquires to "payment," that is to say, to satisfaction for the credit, and on the obligation of the debtor to "pay" his debt and conversely on the right of the debtor to release himself from his debt by the tender of an equivalent debt owed by the creditor, and the obligation of the creditor to accept this tender in satisfaction of his credit. Since the late 20th century, Innes' credit theory of money has been integrated into Modern Monetary Theory, and therefore, "all 'state money' is ‘debt money'. The state ensures there is demand for its debt-based money by accepting them as payment for taxes, fees, fines, tithes, and tribute.

Economics commentator Philip Coggan holds that the world's current monetary system became solely debt-based after the Nixon shock, in which President Nixon suspended the link between money and gold in 1971. He writes that "Modern money is debt and debt is money". Since the 1971 Nixon Shock, debt creation and the creation of money increasingly took place at once. This simultaneous creation of money and debt occurs as a feature of fractional-reserve banking. After a commercial bank approves a loan, it can create the corresponding amount of money, which is then acquired by the borrower along with a similar amount of debt.

Circulation vs Hording

The idea that currency devaluation is caused by over-issue – the state's action – comes from the quantity theory[53].

Hoarding in Marx has two key aspects, and, correspondingly, takes two forms.
First, hoarding regulates the quantity of money in circulation: when that quantity exceeds the sum of prices times the average velocity of circulation, the superfluous means of circulation are absorbed through hoarding into the formation of coin reserves. Hence, the means of circulation becomes "money" when it separates itself from the process of circulation whenever the two phases of the metamorphosis of the commodity—sale (C–M) and purchase (M–C)—are interrupted. The independent existence of money is thus a "material expression of the disintegration of the process of circulation" (Marx 2010 [1859]: 166).
Second, the magnitude and intensity of hoarding change dramatically during monetary and commercial crises. Since in crisis circulation disintegrates and exchange breaks down, the demand for the means of circulation correspondingly dries up. Hoarding then is driven by a seemingly insatiable "monetary famine," the demand for money not as a medium of circulation but as "money," that is, as value for-itself, as the universal equivalent. Under the gold-backed monetary regime, the phenomenon of hoarding asserted itself through the increased demand for gold. Under contemporary non-commodity monetary systems, hoarding manifests itself in the increased demand for government securities and the accumulation of excess reserves before, during, and after financial crises.

Marx's theory implies that the cause lies with the reason for refusing to hoard it. Marx hints this: it is the unique feature of state-issued paper that it acquires its "objective social validity" from the state. It loses this if the state's authority is called into question and, having lost it, the state's money is in "danger of being universally discredited" – of ceasing to circulate as currency. On such occasions, state-issued

[53] In contradistinction to the quantity theory of money (QTM), which was influential in his time and still determines much of the neoclassical textbook thinking on the matter, Marx treats the quantity of money as endogenous and prices as exogenous. Commodities enter circulation with a price and money with a value (money has no price). Both prices and value are determined outside circulation. One of Marx's key criticisms of the QTM is that it conflates the different functions of money to the point of failing to recognize that these different functions exist. Thus, the QTM considers only the second function of money as a means of circulation and completely ignores its first function as a measure of value, and its third function as "money" (i.e., as an instrument of hoarding, and a means of payment). Therefore, the QTM fails to recognize the difference between money as a means of circulation/purchase and money as a means of payment/credit money along with the different conditions that govern their respective circulations.

currency wouldn't be hoarded. But this is because its validity is questionable or, in other words, it isn't clear that it is accepted as a currency within a payment. It is not because the state printed more than the 'proper limit'. If the state's authority is certain, its paper should move between circulation and hoards and maintain the standard of prices as a result.

Established as the result of the interaction between the circulation medium and hoarding, this third aspect, measure, has evolved from its initial character as a commodity with intrinsic value into a ratio that is a value form (the expanded relative form). This could be expression of an intrinsic[54] value, but it does not have to be. Currency "could acquire the form of" a commodity through this expression, "without having an intrinsic value itself."

In Part I of Capital, Marx is considering simple commodity circulation by itself. He sticks to state issued paper because it is "the only kind of paper money which emerges directly from metallic currency or from simple commodity circulation itself." Paper money[55] exists because it is convertible into metallic coins, i.e., a $1 note can be redeemed in 4 x 25 cent metallic coins. In his oblique way, Marx lets us know that credit money is capitalism's money: the money capital creates for itself. He tells us also that it "implies relations that are as yet totally unknown from the standpoint of simple commodity circulation."

In other words, it implies capital, its circulation, and its differentiation into its forms, industrial, commercial, and financial capital. Until Marx has accounted for these, credit money cannot be explained. On the other hand, gold money is adequate for these 'yet unknown relations'—the presuppositions of credit money – to be developed. What Marx has established so far is, in de Brunhoff's words, the "unity of the functional aspects of money," and derived from that, money's detachment from intrinsic value. A Currency face value is not dependent upon its intrinsic value or its volume of supply.

We can figure out that the interaction between hoarding and circulation causes money's value expression to conform to gold's intrinsic value. In this context, however, there is little incentive to consider the expression of money's value, because the intrinsic value of gold[56] is just presupposed. Money's detachment from intrinsic value really occurs when the focus shifts to hoarding. This is because the reasons for hoarding have nothing to do with money's intrinsic value. Money is hoarded because of its two other aspects: that it is the denominating unit of prices and the circulation medium (these are the source of its liquidity). With this, we can see that the quantity of circulating medium adjusts in the same way, whether money is gold or paper if it is accepted with a deferred payment as currency.

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[54] Precious metals serve a currency needs: a stable deferred payment unit of account, a durable store of exchange value, and a convenient and accepted medium of exchange. They are hard to obtain. There is a finite supply of them in the world. They stand up to time well. They are easily divisible into standardized coins and do not lose value when made into smaller units. In short, their durability, limited supply, high economic replacement cost, portability makes precious metals, when coupled with liquidity, more attractive as currency than other commodities.

[55] It could be argued, via the regression theorem of money, that paper money could not exist without the pre-existence of metallic coins. The regression theorem refers to a theory of the origin of money that states that money must have originated as a commodity with intrinsic value in the marketplace, as this allows a currency to price exchange value via face value alone.

[56] Marx does not imply that currency must be gold, just as he does not argue the simple form of value is all that there is to money. Ganssmann makes the same point in another way: "a money of account is useless without a complementary socially accepted mechanism for evaluating goods in some way…Market exchange is such a mechanism." (2012, p.81).

Currency does not bear a label announcing it as capital. What makes it capital is the fact that it is intended for conversion into the elements of economic production. Otherwise it is only currency and can only fulfil currency functions, as a means of circulation via a deferred payment. Neither credit nor debit plays any role here. Capital must have the form of currency to be able to buy commodities to produce surplus capital, this is the only means to store exchange value.

The movement of capital through the sphere of production and the two phases of circulation takes place in a sequence of time. The duration of its sojourn in the sphere of production constitutes its production time, that of its stay in the sphere of circulation its time of circulation. The entire time of rotation is therefore equal to the time of production plus time of circulation. Since profit originates in production and is only realized in circulation, there is a never-ending search for ways and means of converting the greatest possible amount of capital into production capital.

The quantity of currency depends, *ceteris paribus*, on the aggregate price of commodities in circulation. Any changes in value which occur while capital is going through its cycle will therefore affect the quantity of currency capital. If prices rise, the additional currency capital is tied up; if they fall, currency capital is released into circulation.

Money and cycle of financial Crisis

For Marx, the possibility of crisis is inherent in the dual nature of the commodity, which exists simultaneously as use value (i.e., as a particular commodity) and as exchange value (i.e., as money). This double existence of the commodity underlies the split of the act of exchange into the acts of sale (C–M) and purchase (M–C), which may be temporally and spatially separated. In exchange, the products of privately undertaken production are socially validated by being sold; that is, transformed into money. Producers possess neither ex ante knowledge nor guarantees as to whether their products might be deemed socially useful. Thus, the separation of purchase and sale in the process of exchange.

As a means of payment, money unites the first two functions of money. On the one hand, it serves as a measure of value/unit of account expressing the price of commodities in a way that is no longer purely ideal, but established by contract, thereby forming an obligation on the part of the buyer/debtor. When a contract is initiated, money sanctions the transaction, but the actual social validation is only anticipated. On the other hand, money acts as a future means of purchase since the contract entails the obligation to deliver the final settlement at a predetermined date. Money here “does not buy the commodity but realizes the price of the commodity purchased before” (Marx 2010 [1859]: 192). This settlement of the outstanding balance represents the real social validation of private production. The precondition for the final settlement, however, is the actual realization of production (i.e., the actual sale of commodities for money). But if, for some reason, the flow of payments and the “artificial” system for their settlement is disrupted, the mechanism of exchange breaks down and debts have to be settled immediately in hard cash.

But money (income) and credit (money) remain fundamentally different. Banks cannot create “money”. The private banking system creates credit (money) which becomes money (income) only if it enters the domain of social production as an embodiment of the value of social labour or social purchasing power (Aglietta 2000). That is, only in social production can money acquire the attributes of the universal equivalent.

Under the commodity-money regime, the mass of the means of payment created by the credit system tended to periodically collapse into the monetary base. This collapse manifested itself as a monetary panic or financial crisis (the more recent term). Under the regime of credit money, where the universal equivalent has lost the link to a money commodity, a similar collapse still occurs frequently during financial crises. However, it manifests itself no longer as a rush to gold, but as a rush to "liquidity."

For Marx, the fictitious character of interest-bearing securities, created through the capitalization of physical assets, derives from the fact that these securities duplicate the originally invested capital. Capital, however, cannot and does not exist twice; thus, securities are not real, but fictitious capital as they represent merely claims on future income associated with the underlying asset. The link to "real" capital is weak to non-existent, and the capital value of such instruments is often purely fictitious. Marx argues that fictitious capital reaches its ultimate form in the securitization of government debt where the actual "capital" has long been spent. The capital value of government securities is purely fictitious as they represent merely claims on a portion of the proceeds of future taxation; that is, on future money income. When this artificial system of financial claims-on-claims starts to crumble, market liquidity seems to evaporate, and transactions have to be settled immediately in "hard cash." This means that economic agents will have to sell assets to meet margin calls and make payments. Correspondingly, asset values collapse along with profits.

In a system of production where the entire interconnection of the reproduction process rests on credit, a crisis must evidently break out if credit is suddenly withdrawn and only cash payment is accepted, in the form of a violent scramble for means of payment. At first glance, therefore, the entire crisis presents itself as simply a credit and monetary crisis. (Marx 1991 [1894]: 621).

The collapse of the means of payments into the monetary base during crisis is driven by the sudden recognition that the means of payments are merely representing money rather than being money themselves. The means of payments in that case were represented by various forms of fictitious capital including the "toxic" mortgage-backed securities in 2007/8 or the negative yielding bonds of 2023, that had become impossible to value and unmarketable. The world's central banksters primary purpose since its inception and in the early days of each crisis is to prevent those dubious means of payment from becoming completely worthless.

The only clear and undisputed achievement of the decade-long period of monetary policy at the zero lower bound and quantitative easing is an unprecedented degree of distortion in asset prices and markets domestically and globally. Among other things, the low-interest rate policy of the central banks has encouraged and sustained dubious corporate practices with potentially destabilizing effects, which are the root economic cause of these ongoing cycle of financial crisis.

Central banks attempt during the pandemic to overcome the zero lower bound is bound to remain a fantasy, which is trumped only by a bigger fantasy: that the abolition of money in the form of currency would solve the banking system problem. The abolition of currency cannot remove the monetary constraint on the credit system, which manifests itself in recurrent crises, more than the abolition of gold-based money and the transition to fiat currency had done before. As Marx reminds us, we cannot get rid of money even by abolishing gold and silver and legal tender instruments.

Circulation of Currency

Circulation is a perpetual movement of commodities, though always of different commodities, and each commodity makes but one move. Each commodity begins the second phase of its circuit not as the same commodity, but as a different commodity, i.e., gold. The movement of the metamorphosed commodity is thus the movement of gold. The same coin or the identical bit of gold which in the transaction C—M changed places with a commodity becomes in turn the starting point of M—C, and thus for the second time changes places with another commodity. Just as it passed from the hands of B, the buyer, into those of A, the seller, so now it passes from the hands of A, who has become a buyer, into those of C. The changes in the form of a commodity, its transformation into money and its retransformation from money, in other words the movement of the total metamorphosis of a commodity, accordingly, appear as the extrinsic movement of a single coin which changes places twice, with two different commodities. However scattered and fortuitous the simultaneous purchases and sales may be, a buyer is always confronted by a seller in actual circulation, and the money which takes the place of the commodity sold must already have changed places once with another commodity before reaching the hands of the buyer.

On the other hand, sooner or later the money will pass again from the hands of the seller who has become a buyer into those of a new seller, and its repeated changes of place express the interlocking of the metamorphoses of commodities. The same coins therefore proceed – always in the opposite direction to the commodities moved – from one point of the circuit to another; some coins move more frequently, others less frequently, thus describing a longer or shorter curve. The different movements of one and the same coin can follow one another only temporally, just as conversely the multiplicity and fragmentation of the purchases and sales are reflected in the simultaneous and spatially concurrent changes of place of commodity and currency.

The simple form of commodity circulation, C—M—C, takes place when currency via payment passes from the hands of the buyer into those of the seller and from the seller who has become a buyer into the hands of a new seller. This concludes the metamorphosis of the commodity and hence the movement of currency in so far as it is the expression of this metamorphosis. But since there are new use-values produced continuously in the form of commodities, which must therefore be thrown continuously afresh into the sphere of circulation, the circuit C—M—C is renewed and repeated by the same commodity-owners. The currency they have paid as buyers returns to them when they once more become sellers of commodities. The perpetual renewal of commodity circulation is reflected in the fact that over the entire surface of bourgeois society currency not only circulates from one person to another but that at the same time it describes several distinct small circuits, starting from an infinite variety of points and returning to the same points, to repeat the movement afresh.

As the change of form of the commodity appears as a mere change in place of currency, and the continuity of the movement of circulation belongs entirely to the monetary side – because the commodity always makes only one step in the direction opposite to that of currency, currency however invariably making the second step for the commodity to complete the motion begun by the commodity – so the entire movement appears to be initiated by currency, although during the sale the commodity causes the currency to move, thus bringing about the circulation of the currency in the same way as during the purchase the currency brings about the circulation of the commodity. Since moreover currency always confronts commodities as a means of purchase and as such causes commodities to move

merely by realising their prices, the entire movement of circulation appears to consist of currency changing places with commodities by realising their prices either in separate transactions which occur simultaneously, side by side, or successively when the same coin realises the prices of different commodities one after another.

The movement of the circulation process of commodities is therefore represented by the movement of currency via payments as the medium of circulation, i.e., by the circulation of currency. As currency is circulated via payments it is never consumed and has no exchange value if horded and removed from circulation via payments. The circulation of a currency **always begins** with the exchange of a commodity for currency via a payment of coins (C-M), hence coins are spent into circulation via acceptance as a payment for Goods and Services within a economy with a common unit of account via a Coin's face value.

The amount of currency in circulation is a matter of indifference "provided there is enough of it to maintain the prices determined by the commodities." Boisguillebert, Le detail de la France, p. 209.

Market Equilibria

The main body of academic economists pretended, and some of them believed, that they understood a complex system that they did not (and still do not) understand. Therefore, they failed to express their ideas and arguments with the appropriate humility. The real story involves a systemic problem with almost all groups of economists, which led to their unwillingness to accept the reality that the economy is complex – far too complex to fully understand with the analytical tools that have been, and currently are, available.

The market economy is conceived as a coordination mechanism that enables individuals to make use of information to plan their economic activity in such a way that ultimately will be consistent with the plans of all other economic actors. This section is concerned with understanding the processes related to the allocation of resources, and the coordination of plans for demand and supply (Holcombe 2014, 5).

A central assumption is that coordination of individual plans for supply and demand never works perfectly because plans concern the future and are hence subject to fundamental uncertainty (Holcombe 2014, 1). Therefore, an equilibrium of prices and quantities of goods and services can never be reached. So, while there are tendencies that pull markets towards an equilibrium state, Austrians argue that the market environment is subject to continuous changes in preferences, technology, and knowledge. Furthermore, the information that is necessary to arrive at an equilibrium is dispersed throughout all the participants in the market, which makes an aggregation that will result in an equilibrium state impossible. Thus, market equilibrium is only a hypothetical concept, which has nevertheless been used by some of their representatives for analytical purposes (e.g., Hayek 1976, in Quaas und Quaas 2013, 142). Market equilibrium is conceptualized as a continually moving target. Markets tend to clear, but once the existing configurations of prices and quantities are disrupted, these disruptions lead to a wholesale change in economic circumstances, which impedes the economy from returning to the state it found itself in prior to the disruption (Holcombe, 2014, 11).

Another analytical element is the concept of spontaneous order, which denotes the orderly state that arises from the decentralized plans of individuals and was coined by Hayek (1960, 38). The results of the market process are accordingly interpreted as the 'results of human action, but not of human design' (Hayek 1969, 97–107). This assessment illustrates that, central planning or designs and predictions that

are carried out by governments are considered to deliver no or very limited economic performance. Instead, the market perspective concludes that central authorities can neither predict nor control the behaviour of individuals (Holcombe 2014, 4).

This function of the market is illustrated by the conception of the market as a discovery procedure. Accordingly, the market generates information about the continually changing relations of scarcity, which in turn, enables individuals to adjust their future to the changing conditions and deal with contingencies (Holcombe 2014, 10). Referring to the work of Hayek, it is important to note that in this context, markets are understood as competitive markets, since said information can only be generated in a situation of competition. Only by means of the process of market exchange is it possible to discover the necessary information about the prices of the factors of production; as a result, the producers are then enabled to decide which combination of materials they will use in the production process. The market, thus, discovers the value of the factors of productions as well as the value of the subsequently produced goods and services. Meanwhile, the market prices aggregate the information from different market participants. Therefore, the product producer does not have to know how to mine raw materials to be able to use the knowledge of those who do know about the mining process. The knowledge stays decentralized and yet the activities of the economic actors are coordinated in such a way that in the end a fully functional product is brought into existence. In the absence of market prices, economic actors would only have a very limited capacity to coordinate their economic activities, because knowledge is characterized by its decentralized and tacit character (Holcombe 2014, 14).

Price equilibria[57] within an exchange economy, even though they are guaranteed to exist, are inaccessible within a reasonable time (polynomial in the number of goods and the inverse of the desired accuracy) by price-adjustment mechanisms, in that for any such mechanism there will be markets for which price adjustment will converge exponentially slowly to a near equilibrium, and in fact it will converge to the actual equilibrium arbitrarily slowly. We note that our lower bound is reasonably tight, in that an ϵ-equilibrium can be found exhaustively within steps of the form $(\frac{1}{c \cdot \epsilon})^{n-1}$.

The theoretical justification of laissez-faire and pro-market policies that are associated market equilibria stems from the conclusion that the market allocates resources efficiently and solves the coordination problem between the various actors in the economy. Thus, any external manipulation of the economy via external forces, will always result in a disequilibrium within an economy, and inflation/deflation reflects the result of this inability to achieve Market Equilibria.

Variations in the Exchange-Ratio between Two Kinds of Money

Among the consequences of variations in the value of money it is those of variations in the exchange ratio between two different kinds of money. In the nineteenth century international trade developed in a hitherto undreamed-of manner, and the economic connections between countries became extraordinarily close. With commercial relations beginning to grow more active, the monetary standards

[57] The poofs work essentially by constructing markets that “fool” the hypothetical price-adjustment mechanism. As is common with such constructions, these markets may seem quite unnatural. One objection may be that their description complexity (the amount of information needed to specify them) seems very large. One observation pertinent to this last point is that the descriptive complexity of the constructed market is precisely the descriptive complexity of the hypothetical price-adjustment mechanism it was designed to defeat.

of the individual states were becoming more diverse. Several countries went over for a shorter or longer period to credit money and the others, which were partly on gold and partly on silver, were soon in difficulties, because the ratio between the values of these two precious metals, which had changed but slowly during centuries, suddenly began to exhibit sharp variations. And in recent years this problem has been given a much greater practical significance still by monetary happenings in the war and post-war periods.

Let us suppose that one kilogram of silver had been exchangeable for ten quintals of wheat, and that upon the objective exchange value of silver being halved, owing, say, to the discovery of new and prolific mines, one kilogram of it was no longer able to purchase more than five bushels of wheat. From what has been said on the natural exchange ratio of different kinds of money, it follows that the objective exchange value of silver in terms of other kinds of money would now also be halved. If it had previously been possible to purchase one kilogram of gold with fifteen kilograms of silver, thirty kilograms would now be needed to make the same purchase; for the objective exchange value of gold in relation to commodities would have remained unchanged, while that of silver had been halved. Now this change in the purchasing power of silver over commodities will not occur all at once, but gradually. A full account has been given of the way in which it will start from a certain point and gradually spread outward, and of the consequences of this process. Until now we have investigated these consequences only so far as they occur within an area with a uniform monetary standard; but now we must trace up the further consequences involved in commercial relations with areas in which other sorts of money are employed. One thing that was found to be true of the former case can be predicated of this also: if the variations in the objective exchange value of the money occurred uniformly and simultaneously throughout the whole community then such social consequences could not appear at all. The fact that these variations always occur one after another is the sole reason for their remarkable economic effects.

Variations in the objective exchange value of a given kind of money do not affect the determination of the exchange ratio between this and other kinds of money until they begin to affect commodities that either are already objects of commercial relations between the two areas or at least are able to become such upon a moderate change in prices. The point of time at which this situation arises determines the effects upon the commercial relations of the two areas that will result from variations in the objective exchange value of money. These vary according as the prices of the commodities concerned in international trade are adjusted to the new value of money before or after those of other commodities. Under the modern organization of the monetary system this adjustment is usually first made on the stock exchanges. Speculation on the foreign-exchange and security markets anticipates coming variations in the exchange ratios between the different kinds of money at a time when the variations in the value of money have by no means completed their course through the community, perhaps when they have only just begun it, but in any case, before they have reached the commodities that play a decisive part in foreign trade. He would be a poor speculator who did not grasp the course of events in time and act accordingly. But as soon as the variation in the foreign-exchange rate has been brought about, it reacts upon foreign trade in a peculiar manner until the prices of all goods and services have been adjusted to the new objective exchange value of money. During this interval the margins between the different prices and wages constitute a fund that somebody must receive, and somebody surrender. In a word, we are here again confronted with a redistribution, which is noteworthy in that its influence extends beyond the area where the good whose objective exchange value is changing is employed as domestic money. This is

the only sort of consequence that can follow from variations in the value of money. The social stock of goods has in no way been increased; the total quantity that can be distributed has remained the same.

As soon as an uncompleted change in the objective exchange value of any kind of money becomes expressed in the foreign-exchange rates, a new opportunity of making a profit is opened, either for exporters or for importers according as the purchasing power of money is decreasing or increasing. Let us take the former case, that of the diminution in the value of money. Since, according to our assumptions, the changes in domestic prices are not yet finished, exporters derive an advantage from the circumstance that the commodities that they market already fetch the new higher prices whereas the commodities and services that they want themselves and, what is of particular importance, the material and personal factors of production that they employ, are still obtainable at the old lower prices. Who the "exporter" is who pockets this gain, whether it is the producer or the dealer, is impertinent to our present inquiry; all that we need to know is that in the given circumstances transactions will result in profit for some and loss for others.

The result is always that the gains of foreign buyers, which in certain cases are shared with home exporters, are counterbalanced by losses that are borne entirely at home. What was said of the promotion of exportation by the falsification of monetary accounting applies also to the "export premium" arising from a diminution of the value of money.

The Tale of the Baker

We all know the tale of the goldsmith who became the bankster[58] via the invention of fractional reserve banking...

In this section we will consider the tale of the baker...

Anton, a baker in a medieval town, writes a promissory note for the exchange value of 4 loafs of his bread, which he has baked before the village had awoken. He offers this note as payment for goods he needs to acquire in the market. Since he is known in the town and is reputable, people take his note in exchange for goods they offer for sale. They redeem it later for Anton's bread, and Anton takes the note out of circulation. This is an obvious solution to the temporal friction of barter, based upon the credit for the baker's economic production as the means of deferring payment. The baker effectively created money as capital from his production C-M and then differed payment via M-C. The capital as credit was created by and consumed by trade and hence deprecated to C-C or a deferred barter trade.

Anton issues his own credit, which is accepted in trade based on his production, not on debt some fraudster promises to pay him at some point in the future and knowing full well the issuer of debt has no capability to create any economic production. The credit Anton issues is not anonymous and were Anton to issue certificates for production he does not have, the losses would not be socialized, and it would be limited to those who hold his note and himself.

This is the tale of why no form of money can exist or circulate as anonymous debt, as debt assumes that nothing was originally produced or will be produced and hence nothing exists to trade, even barter would be impossible with debt, as debt without any intrinsic value cannot be valued within a trade, as it exists

[58] The Goldsmith Who Became a Banker — A True Story
Written by Louis Even on the 1st of October 1936, issue of the "Cahiers du Crédit Social."

outside of human comprehension of its value? Debt exists to socialise trade losses to the community, rather than the issuer of the debt.

The service offered by the Anton credit mechanism, in allowing changes in the volume of exchanges, within limits, without occasioning or making necessary, any change in the supply of currency used in affecting them; in so adjusting itself to new demand for it, as to cause the minimum disturbance of market prices. Society has a choice of means of exchange and payment either by barter, by currency mediated deferred payment exchange, or by credit exchange, at different costs and frictions.

We must remember that an increased volume of commodities offered for sale is not necessarily a demand for more currency. It is a demand for more **liquidity in payment currency** as the means of exchange. When the demand for more means of exchange arises, a credit system may, or may not, be in use to the limit of its capacity, as conditioned by the existing currency reserve and the degree of refinement of the credit mechanism. Today the Local Currency Unit can inject currency reserves as a payment currency, at the point at which “exchange value” is created. The allocation of currency held within the reserves, will vary dependent upon credit demand in comparison to direct currency-based payments. Hence the marginal utility of the currency commodity will rise; the value of currency will settle at the point where the new apportionment to reserve use will be sufficient to carry the new volume of credit; and the new amount of direct exchange currency will just suffice for the exchanges to be made by a currency payment. Part of the currency used in direct payments will be drawn off, for reserve, while the remainder will perform the volume of direct exchanges at the different price level; the amount drawn off being such that, with what is left for direct payments and with the volume of exchanges that can be affected through credit, the total volume of exchanges to be affected will be performed. Anton’s credit mechanism does not change the amount of currency in circulation within a currency area and is powered solely via the volume of economic production underpinning market value based deferred payments.

The moral of the tale of the banker, is money cannot be scarce, if economic production exits.

The Curious Case of Yap Stones

Let's consider a very curious Yap stones. They exist on the island of Yap, which is in the Western Pacific. Yap is a closely clustered group of about four islands, with a bunch of outer islands. There are about 6,000 people who live on the four main islands. And the people of Yap for centuries have used a very strange form of money: these giant stone wheels called rai. The rai stones as obligations, evoke curiosity.

Here are a few things about this stone money. First, there is no stone on the island of Yap. The Yapese must travel about 150 nautical miles to a place called Palau. It's another island that has limestone. And they carve out of the mountains of Palau these big stone wheels and put them in the canoes and bring them all the way back to Yap.

The second thing to understand about Yap stones is that the Yapese don't have any practical need for these stones. So, for example, they don't consider the stones especially beautiful; they don't have any religious significance. They have very little that one would call intrinsic value. They can't really do anything except be a means to store oral obligations between people.

Another curious feature about the stone money of Yap is that while some of the stones can be gigantic—12 feet across, weighing almost as much as a car—the biggest stones are not necessarily the most valuable stones. The Yapese value their stones on the basis not of their size necessarily, but on how difficult it was to achieve the stone. So, for example, if one of the stones was brought over from Palau at great cost to the people who went to get it, that would be a very valuable stone.

The value of each stone has always been fluid, challenging the Western concept that currency value is pre-determined and fixed. How much a stone is worth also depends on who you give it to, and what for. In addition, Yapese factor oral history into each stone’s value, as there’s no written record of what belongs to who.

Now if you think about what the qualities of our currency are, what are the characteristics of our money, let's think about the Yap stones. For one thing, it must be recognizable. Well, with Yapese, because they have chosen to use these giant wheels as money, [they] can recognize easily what it is that they're dealing with. And because it's a relatively small island, people understand what the value is that has been attached to these various stones. The second thing is durability. These are big stones, so in a physical sense, they're not going anywhere anytime soon. You might worry a little bit about the value of the stones deteriorating, but that wasn't the case, and the reason it wasn't the case is because the number of stones coming in was naturally regulated. Palau was a long way from Yap. Moreover, how much effort you used to bring the stone over determined its value. There was no free lunch here. This was not fiat in the sense that you could just easily produce more of these stones. There is no incentive to add more stones, as each stone could record a practically infinite number of oral obligations, no stone was consumed by the process of recording each oral ledger entry.

One of the common problems that people say Yap stones had been they weren't very portable and so consequently they probably were somewhat of an inefficient currency. But that's not right. It's not right because in practice these stones rarely got physically moved from place to place, there is no concept of ownership of any stone, it is simply a means to record obligations between people via an oral ledger of account. Once put in place in front of a meeting house or along a road, the stone tended to stay there. It never changes owners, and never needed to change location. So, the only thing that needed to change was everybody's understanding of who the obligations represented by the stone were, and that was virtually costless. The stones where not divisible, they were not a medium of exchange, and had no common unit of account. These stones were static things upon which one could record various oral obligations between peoples. Yap stones recorded the exchanged for something valuable, even if they had no exchange value themselves. Everyday exchanges probably would not have occurred with these stones to record the oral obligations of the trade.

So, were these stones currency? That's a complicated question. It depends upon what we think the problem is that currency was solving. So, for example, one of the reasons you might not think this is currency is that these stones did not circulate from person to person to person to person or change ownership. So, its sole purpose is a marker, a marker of a debt obligation. Some people would call this a reciprocity economy, where you give some of your work to your neighbours with the expectation that they will do the same for you in kind. There are some economists who think that's a pretty good definition of a currency.

Economist Narayana Kocherlakota, for example, said that he thinks currency is a memory. And so, you can think of currency in this way, as a giant spreadsheet, where everybody makes contributions to society, which get added up and give them a claim to the contributions of the rest of society, like giant gifts. So, while the stones may not necessarily fit everybody's definition of currency, if your concept of currency is currency as memory, then I think the Yap stones are a pretty good example.

We can learn a lot from Yap stones as a lesson in currency. It's much more than just, isn't this a curious thing that these people on Yap do? I think it teaches us something about our own currency and what's important. What's important is that it maintains a constant record of obligations between people over time. It records obligations that you have with somebody else, that it keeps a careful record of what your contributions are and therefore what your claims are on the contributions of others. One might consider

the Yap stones as the first distributed ledger of accounts, without the need for a common unit of account. Those involved in the exchange need only communicate that purchasing power has been recorded, as Yap stones serve as a memory of one's contributions…

Lately when a stone was lost overboard, the value of the stone memory did not disappear, it continued to be the names subject of memory even if it was lost on the bottom of the ocean, something no currency since has managed. Yap stones are also never stolen as they have no monetary value to anyone, they are neutral in all exchanges as money today.

It kind of reminds us of the very essence of a currency and its value as means to be a record of obligations between people.

The Digital Coin

The tail of the baker, and the yap stones as currency, leads us to the concept of the digital coin, as a means of capital flow within a currency deferred payment solution. In essence this concept will become the subject of two latter chapters, The World Currency Unit, and the Local Currency Area. But let's develop the basics in this introductory section.

The first is that the money put in circulation must be extinguished so it can be re-issued as to represent capital for the new production or goods. To be extinguished it must be extinguished by trade (M-C-M => M-C => C-M). Since no one could issue capital or coin without offering products in services in proven demand, there can exist no counterfeiting or debt-based money in circulation within the currency area. Since supply and demand fluctuate, the value of a coin (exchange value) will vary with the tradeable item or commodity (M). Hence this means capital formation cannot be limited by monetary value or currency within payments, the only limit is the economic production of the currency area.

Thus, the theory of two coins is born; a "perpetual coin" (the World Currency Unit), which will be fixed in supply and convertible on demand to a fixed supply of intrinsic value (capital), and the "digital coin" issued by each local currency area, which is issued via the production of each currency area peoples or GDP. The conversion between each of these is via a free market exchange.

At any given moment, a given local currency area coin would be worth its buy/sell ratio time's one perpetual coin. Expressed as a formula, c=(b/s)1, if the buy orders exceeded sell orders, it would be worth more than the perpetual coin, if the sell order exceeded buy orders, it would be worth less than the perpetual coin. This way an excess one way or another can be planned by the business and corrected, pushing it back to exchange rate equilibrium with perpetual coin. Since the local coin will not be abstract or increase by scarcity, it will always be, backed by real goods and services, or put another way, earning power will be tied directly to local area economic production, not speculation or creating money from money and hence extracting rent from the system. This is a blend of sound economic philosophy with simple arithmetic which could indeed liberate us from the debt servitude imposed on us by governments and banks.

The world's people's ability to switch to such a system, has a precedent in modern history; as represented by the European Monetary Union, the perpetual coin is the Euro, and the local coins were the 19 sovereign nation's currencies. Two prices were posted for some time after the Euro went into effect, the price for given goods in Euro, and in Lira, or whatever currency was in use in each country, and

people reckoned the value of 1 euro to 5,000 Lira etc. Each digital coin could first be priced in the current currency of whatever country or currency area, as the price of a Euro to Lira was accepted by its people, the difference to the EMU is that the within the Two Coin model, the Lira currency continues to exist and circulate within the Italian currency area, the Italian people do not need to cede monetary control to the ECB. Each local coin will find is natural equilibrium exchange value based upon inter-currency area trade and the ratio of currency area gross economic production via the perpetual coin.

A currency is in its most perfect state when it consists wholly of digital Coins, but digital Coins of an equal value with the dematerialised gold bars[59] which it professes to redeem. The use of digital instead of physical gold, substitutes the cheapest in place of the most expensive medium of exchange, and both makes gold fungible via face value and enables the currency area, without loss to any individual, to exchange all the gold which it before used for this purpose, for raw materials, utensils, and food; by the use of which, both its wealth and its enjoyments are increased.

Trade under frictions

Even the simplest of human structures are built around the division of labour and, with it, of exchange. The division of labour is a direct consequence of comparative advantage (i.e., our productivities while undertaking different tasks are different). The existence of exchange follows nearly directly from the division of labour. A human society based on the division of labour requires allocating the output produced by the effort of its members. If agent A specializes in hunting and agent B in cooking, agents A and B must divide the final output, the meal, between them.

The difficulty with non-temporal or immediate exchange, is that completing it through barter is rarely feasible. This is particularly true of deferred trade: even if two agents are fortunate enough to satisfy the double coincidence of wants, each product may be completed at different times (or, equivalently, in different quantities). A possibility to implement exchange is to use a ledger system within the society: the hunter gets a debit every time he gets an arrowhead (or some other items) from someone and a credit when he delivers meat to another party. However, keeping a ledger system is costly, prone to errors, and informationally inefficient.

The first solution to reduce the frictions of barter-based trade and to implement a fully decentralised accounting system was the invention of currency as manifested in a metallic coin. It exists as a bearer currency which is passed, via possession, as payment between trading parties. A coin has no need for any centralised accounting ledger, it is fully autonomous and instant and has human based intrinsic value within a differed payment. The coin is tendered for payment and upon acceptance affords legal finality of payment and full cancelation of the debt, via the process known as legal tender[60]. The issuance of coins-based currency has never required the pre-existence of a central bank, and even today no central bank

[59] As suggested by Friedman (1960), the money stock would have to grow by about 4% annually to ensure price stability, and hence, ΔM/M was set equal to 0.04. Friedman thus estimated that a 100%-gold reserve standard on the M2 money stock with an annual expansion of the money stock that ensures price stability (zero price inflation) would lead to resource costs of ~ 0.005% to 0.025% of GDP each year for acquiring, refining, and transporting the necessary amount of gold required to expand the World Currency Unit reserves backing a currency area unit. These estimates could be considered arbitrary and could be tweaked in either direction, but in all cases the costs would remain negligible over time.

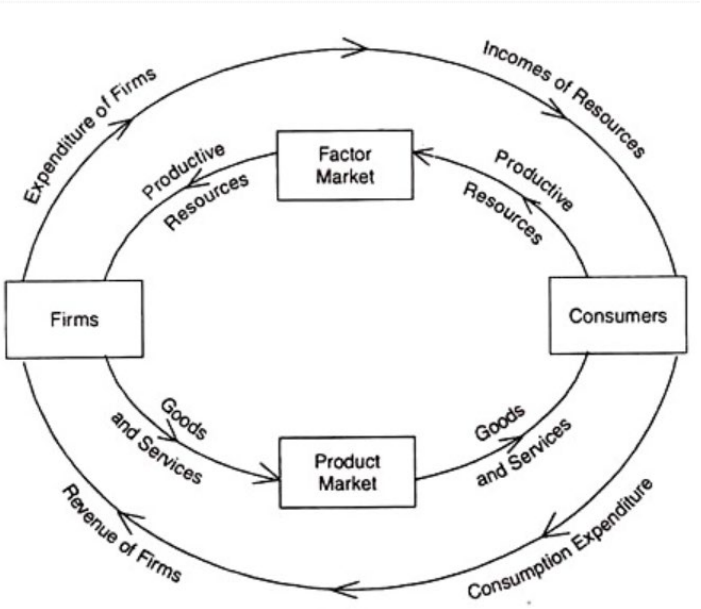
[60] Chose in Possession under common law, refers to a bundle of rights and remedies, of an object of tangible personal property that can be physically possessed by the owner and can be transferred by delivery.

has the authority to mint currency as a coin. Currency exists today as a medium of exchange and unit of account to reduce the frictions associated with barter-based trade, and support a temporal based deferred payment.

It should be noted that as no currency has an intrinsic value equal to or greater than its face value, Gresham's law does not apply to coins or any currency, as currency does have a store of value capability; only capital can be a store of value. The intrinsic value embedded in coins has the sole purpose to support the regression theorem of money as applied to the deferred payment via currency (the coin).

Circular flow of Currency

A functional economy is a balance of currency flows and opposing goods and services flow via trade.



As currency circulates through the economy, via trade based deferred payments, it flows in a circular fashion; it is created, circulated, and then extinguished. In an ideal money circuit, the medium of currency should function in a similar fashion, as everyone who generates capital can exchange its 'exchange value' at the point of a transaction for negative equity-based currency which can subsequently be used to pay the seller for goods and services. The currency would circulate in possession via payment from trade to trade as each recipient utilises it to make his or her own purchases. Currency is created when a producer of goods and services accepts a currency in exchange via a currency payment (C-M). The currency is extinguished when holder accepts a currency-based payment from a buyer in exchange for goods or services (M-C). This means that, in an ideal currency payment circuit, the right to issue currency carries with it an obligation to **redeem** the currency created exchange value by providing the market with goods or services of equal exchange value, at which point currency exchange value is extinguished. This is in essence the tale of the baker and is represented within the C-M-C => C-M => M-C circular value flow via trade mediated via deferred payments. Hence, an individual's right to create monetary value should only be limited by their ability to redeem its value in the currency area via a marketplace for the exchange of goods and services (C-C), as currency mediated payments must be neutral and not affect the exchange value of goods and services in trade via the circular flow of currency (C-M => M-C).

In this ideal circuit, currency is always created usury-free, and in the exact amount needed to meet payment demand. A mutual accepted currency system, or currency area, based solely upon conversion of economic production (capital) into a currency to support a deferred payment between trading parties. Sometime a generalised barter-based version without the need for a currency deferred payment, is referred as a mutual credit system, but in essence it must always have a standardised unit of account and hence self-deprecates to a coin-based currency payment. As a coin-based payment system meets the regression theorem of money and is the most liquid of all commodities in circulation within a currency area.

Circuit of money capital

Marx's theory was not simply a commodity-money theory, as volumes two and three of Capital and the Grundrisse explore other previously uncharted areas within the spheres of production and circulation (including money and credit) from an analytical point of view. To illustrate this, it is helpful to examine the circuit of money capital in an expanded form to include interest, borrowing and lending (see Foley 1986):

M*-M-C…P…C'-M'M*'

Being derived from Marx's work, M* is the money capital of financial capitalists lending to industrial capitalists. M-C is the exchange of money (M) for commodities (C) such as labour power and materials by industrial capitalists. This then leads to the production process (P) being activated such that valorisation (production of surplus value) may occur. C' is the value of the commodities produced within the sphere of production, a value greater than the value of the inputs (C' minus C). M' is the realisation of value by sale on the market, including surplus value (M' minus M). And M*' is the payment of interest[61] and principal to financial capitalists. This extended circuit provides a basis for examining the role of money and finance within the circuit of capital (see Campbell 1998).

First, surplus value does not emanate from the operation of money as capital, but rather originates from exploitation in the sphere of production. And second, a critical conflict in capitalism is that between the industrial and financial capitalists, which impacts on business cycles, financial crises, and competition. Nevertheless, the sphere of circulation can in some instances, on balance, promote the turnover of capital and thereby increase the rate of surplus value. Thus, production and circulation can contribute both positively and negatively to economic performance; a study of the specific dynamics of capitalism requires one to understand the workings of capitalism in a particular historical ('empirical') juncture.

From Marxist scheme of reproduction, it becomes clear that the realization of profits for the capitalist class requires money capital advances, which must increase in a growing economy. Rising real savings **cannot** be considered a precondition for growth but are rather a **result** of increasing monetary expenditures of capitalists. The independence of capitalist's expenditures from savings or hoardings requires the existence of a capital investment system to finance capitalist money capital advances.

We will show that the price of credit, the rate of interest, in Marx's economics is conceived of as a monetary category determined by relative powers of financial and functioning capitalists. There is no

[61] Interest in this context is not usury, but rather allows holders of monetary capital to 'share' in the surplus value outputs from the production process. Interest is essentially a return on monetary capital, on a shared risk basis between the production capability and the investor of monetary capital.

natural rate of return on capital determined by productivity and thrift as in Classical or Neoclassical economics. Capital accumulation requires rising money capital investments. The quantity of capital, investments is therefore an endogenous variable, whereas the rate of return on capitalism exogenous for investment and accumulation.

The rate of capital accumulation is determined by the expected rate of surplus value and the exogenous rate of return on capital. Monetary returns and effective demand exert a major influence on the accumulation path. From this it follows, that any real theory of crisis and stagnation, as the falling rate of surplus production theory of crisis, cannot be sustained within Marx's monetary analysis. A monetary interpretation of Marx's theory of accumulation and crisis rather reveals broad similarities to monetary extensions of post-Keynesian theories of capital circulation and allocation to the most efficient production process and growth in surplus value within the entire capital circuit.

Marx's theory of value cannot be seen as an exclusive labour embodied theory of value and his theory of money need not be interpreted as an exclusive commodity theory of money. Instead, Marx's theory of value has to be interpreted as a monetary theory of value and his theory of money as a capital circuit theory of money.

In the development of the money form from the succession of the elementary or accidental form of value, the total or expanded form of value and the general form of value in Capital, vol. I, Marx (1867, pp. 54-75) demonstrates the necessity of a universal equivalent for capitalist reproduction. Money as the result of the development of the value form is not considered to be a limited to a device facilitating the exchange of commodities in a barter economy, as in classical economics, but is an indispensable condition for commodity production and exchange in capitalist economies (Williams, 2000). This should be seen as a logical development of the necessity of a universal equivalent in capitalist commodity production. As the universal equivalent is a social construction, there is no need for currency within a payment to be a commodity[62], what is needed is a socially accepted representative of monetary capital.

Deferred payment between two parties takes place by means of a mutual acceptance to pay a future third party with invariant exchange value equivalent monetary capital value with liquidity.

Endogenous credit of currency

Does money have an endogenous credit mechanism? This is a major theoretical problem that has not been resolved so far in the monetary and financial theory. Among the economic functions of money, there is no function of "lending money" or obtaining "interest return.". In the same way, money has been used for lending and borrowing for thousands of years, but theory fails to explain adequately the mechanism of "debt and credit" of money. In fact, in the process of analysing the value form and exchange of money, is reflected in the endogenous credit mechanism of money.

In terms of quality, or the form, money is infinite it is the general representative of material wealth, because it can directly transfer into any commodity. In terms of quantity, however, each actual amount

[62] The regression theorem simply states that commodities have a social acceptance advantage over non commodities, due to their socially acceptance before they were a currency in payments. If a currency is accepted within a payment as the most liquid form of monetary capital it will circulate as currency within payments.

of money is finite and therefore can only function as a means of purchase of limited effect. The contradiction between the finite quantity and the infinite quality of money compels the hoarder of money to engage in the accumulated labour in a Sisyphus style. The hoarding of money is a demand for money-by-money hoarders.

Marx has pointed out that after the separation of money from the commodity world, the "unitary behavior of buying and selling" in barter is split into two independent behaviours of "selling" and "buying," which not only leads to the separation of "selling" and "buying" in terms of time, space and subject, breaking the "constraints of time, space, and individual in product exchange," but also leads to the development of a whole series of natural social connections that are out of the control of parties concerned. Therefore, when Marx pointed out the capability of money to transact across time and space, he pointed out the financial function of money.

The relation between the seller and buyer here is transformed into that of creditor and debtor. The separation of purchase and sale, inherent in the metamorphoses of commodities, becomes a real separation in the form of claims to payment. The borrower is compelled to sell in order to repay her debt. Money from being a means of circulation now develops into its end or final result (Marx 1973: 190).

These endogenous functions of money exist within this "deferred" period of a payment M-C….C-M. In other words, the function of payment and liquidation of money is a financial function with this period. The purchasing power of money within this period determines that it can be exchanged[63] with both consumer goods and capital goods, which leads to the circulation of money and capital (i.e., G-W…P…W-G'). Without this kind of function of money, financial mechanism cannot play a role in economic operation and development.

Marx shows, money contains a new contradiction. If payments balance, the process of circulation can be mediated by money in its transient "chimerical" form as a medium of circulation, but when payments do not balance[64] and actual payments must be made, money enters as "the universal equivalent" or as "money proper." Marx highlights how with the spread of such chains of payments any interruption in the flow of payments at any point in the chain of payments leads to ripple effects, as failures to fulfil obligations spread through the chain. The mechanism for balancing payments reciprocally is upset and money is demanded as the absolute material embodiment of wealth. This is the root of monetary crises, which erupt whenever this chain of payments is disturbed (Marx 1972: 145–46, 1976: 235–36).

This foreshadows Keynes's postulation of a "liquidity trap" when the demand for money becomes insatiable, from a distinctively different perspective. Keynes's argument was based on the conception of a demand for money for its own sake for speculative purposes. For Marx this crisis expresses the antithesis between commodities and money.

[63] During this period, it can also be horded, in the case of the Coin, this means WCU-Legal tender can exchange with WC-Capital. Thus, the demand for money can be defined in the order of means of circulation, means of circulation + means of payment, means of circulation + means of payment + means of hoarding, means of circulation + means of payment + means of hoarding + universal currency.

[64] The credit system spring directly out of the function of money as means of payment, and monetary mechanisms that save on the use of commodity-money and cash reserves, are founded on credit. Credit-money, while different from commodity money, acquires the characteristics of money.

Weaponized Money

In 2022, the world entered previously unknown territory, a Sanctimonious Word for Economic Warfare and Outright Theft. The U.S. claims the right to sanction, to steal from other nations, with one-third of humanity suffering from these crimes. Sanctions are war by other means and cause great suffering around the world.

The word "sanctions" emerged in the Middle Ages, meaning ecclesiastical decrees. Today it's a sanctimonious word for economic warfare, including even outright theft. Despite all the terror about what could happen in Ukraine next, Afghans are still facing freezing cold, and starvation and the US has seized—not just frozen but seized—their $7 billion in assets on deposit at the Federal Reserve.

An estimated two billion to three billion dollars more of Afghanistan's cash reserves are now frozen in central banks in Germany, Switzerland, the UK, and the United Arab Emirates, and the US may have set a precedent that those nations' governments will follow. Of the $12tn worth of foreign currency reserves held by central banks around the world at the end of 2021, the dollar accounts for about 59 per cent, according to the latest IMF data.

The victims of economic sanctions[65] are easy to identify because they are visible—there are dead bodies and malnourished children, with stunted growth and development, in once-thriving communities. Whereas the victors are concealed. They hide behind banks, leveraged financial institutions (hedge funds) they constitute the world's elite. Within this context, economic sanctions are shown as class warfare cleverly and conveniently disguised as a "more friendly" way to "make the world safe for democracy." Economic sanctions violate international law and the fundamental principles that govern diplomacy and multilateralism under Chapter VII of the United Nations Charter.

For the first time in human history, the Russian sanctions have destroyed the very concept of both public and private property and international law. The unprecedented Western sanctions have frozen or transferred the ownership of around half of Moscow's $640 billion worth of gold and foreign exchange reserves.

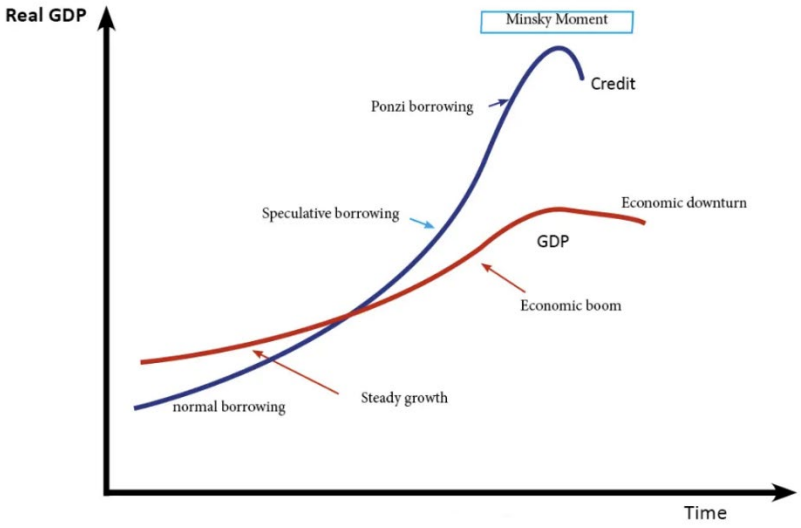
If you change the rules for Russia, you're changing the rules for the whole world, once these rules change, they change international finance, and the foundation of property rights forever. Anyone who keeps money in dollars today can no longer be sure that the US will not steal or sanction their money from afar with the stroke of a pen.

The Minsky Moment

The work of Hyman Minsky was largely ignored by mainstream economics in the 1970s and 1980s. Instead, there was widespread support for financial deregulation. The credit crisis of 2007 (GFC 1.0) and the 2023 (GFC 2,0) understandably created renewed interest in his work. The model offers a considerable explanation for elements of the cyclic credit crisis. The key insight of Minsky's model is that stability itself is destabilizing because during times of economic stability, healthy investments lead to speculative

[65] According to the Centre for Economic and Policy Research's 2019 report, 40,000 people have died in Venezuela since 2017 due to U.S. sanctions. According to a new report, sanctions against North Korea found that 3,968 North Koreans died due to sanctions-related delays and funding deficits in 2018, including 3,193 children under the age of 5 and 72 pregnant women. A report on Iraq from 1995 attributes the death of 576,000 children to U.S. sanctions.

euphoria, increasing financial leverage, and over-extending debt, eventually resulting in a Minsky Moment, which leads to a recession or a financial crisis.



The Minsky moment refers to the point where the financial system moves from stability to instability. It is that point where over-indebted borrowers start to sell off their assets to meet other repayment demands. This causes a fall in asset prices and a loss of confidence. It can cause financial institutions to become illiquid – they can't meet the demand for cash. It may cause a run on the banks as people seek to withdraw their money. Usually, the Minsky moment comes when lending and debt levels have built up to unsustainable levels. It can lead to a balance sheet recession.
Minsky's financial instability hypothesis is an essential mental model for us to have in our toolkit. Each cycle has its own characteristics and length. Euphoria and panic can both last longer than we might expect. And outside shocks such as a global pandemic or geopolitical events can have significant effects on global stability. Hence, we can't predict with precision when the economy will transition from one part of the cycle to the next, but we can observe, if we look, the transitions which eventually lead to a Minsky Moment.

The logical fallacy with Minsky's hypothesis was that regulation was the means to supress these events, when in fact regulation of a free market is the root cause of a Minsky moment[66]. This was the case when the FED reduced the Fractional Reserve of the entire banking system to Zero during 2020, at the height of the global pandemic, and fuelled inflation via Quantitative Easing and effectively negative rates, which caused the "everything bubble" during 2020-2022. It was in fact central bank control and manipulation of the real economy which created GFC 1.0 and its repeat in 2023 as GFC 2.0 Minsky moments, as asset bubble and speculative lending cannot be maintained forever. Such a central bank belief system is based on the unreasonable expectation that asset prices keep rising beyond their real value, and leveraged

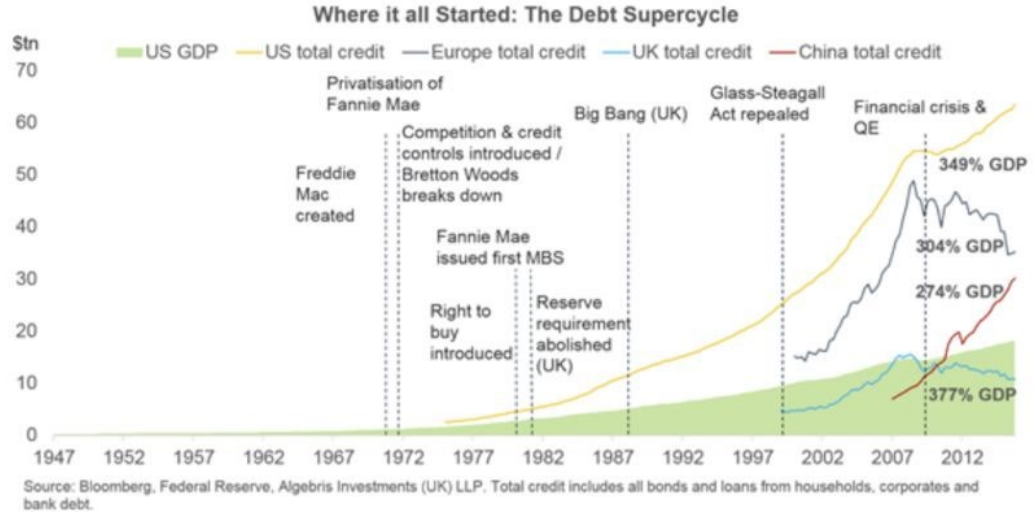
[66] The story is simple: in 2023, SVB and Credit Swiss both took long-term risk on deposit money available on demand. Then depositors wanted their money back. Oops. Two people wanted the same money at the same time.

bank credit has no physical limit in the real world. The banking system with zero fractional reserve and its only assets being derivatives[67] is an economic receipt for a global Minsky moment.

The Demise of Fiat money

There is no economic basis for the ongoing existence of fiat-money, in fact many national fiat-money systems have simply disappeared in my lifetime. So how did the worlds central banksters get the world to this situation post-pandemic?

It all started... With Let them eat debt...



The debt Supercycle was born between the 1960s and up to the 2008 crisis, total private debt outgrew GDP by four. Other countries mirrored the same subsidies and financial deregulation measures that supported credit growth in the US. The United Kingdom abolished bank reserve requirements in 1981, and in 1986 the City of London launched its Big Bang expansion plan. Others followed, and private debt caught up with US levels in Europe and most recently in China, where a government-led stimulus plan has doubled credit since 2008. Let them eat debt policies remain popular today, as the 2007/8 GFC central bank induced crisis repeats yet one more time post-pandemic.

A decade of persistently low interest rates leads to misallocation of resources towards debt-dependent industries, as pointed out in several papers by Claudio Borio of the Bank of International Settlements. Cheap funding fuelled a build-up of industrial over-capacity in energy, mining, shipping, banking, and a range of other sectors. Keeping interest rates low artificially slows a reduction in capacity – delaying the pain via QE kept zombie firms alive. In turn, this makes economies more sensitive to increases in interest rates and reduces central banks' degrees of freedom. In other words, too low for too long interest rates become self-validating, bringing low interest rates tomorrow, and reducing productivity as resources remain allocated to the wrong sectors, as demonstrated by Japan's "lost decades". Japan's, banking system kept lending to zombie firms for over 15 years before starting a restructuring. The result has been a prolonged stagnation which persists today, despite the Bank of Japan's efforts to implement aggressive

[67] The financial pixie dust economics, peddled by central banks, allowed derivatives which are not assets but rather "point to something else" to be accounted for on banks' balance sheet as assets is an accounting fraud.

policy actions, no one is listening in the real world as Japan moved from net exporter to net importer in less than a decade..

Put simply, corporates, households, banks and governments remain overburdened by the existing stock of debt, the engine of credit creation has broken beyond repair, we need to change our thinking of how the real world works and its relationship to central banking fiat-money as "ever increasing" debt.

Only an economic simpleton could believe that Japan total debt to GDP% of 1325.8%, UK total debt % to GDP of 1069.7%, and US total debt % to GDP 765% and EU 807% of GDP, is anything other than central banksters engineered pixie dust economics.

It's not too late to move, to a debt-free sound money system, based upon surplus production in the real world as outline within this book…

Let them each US dollars.

The Chinese and Japanese authorities are in the market buying billions of dollars' worth of U.S. Treasury debt. While there are many reasons a main one is to keep their own currency undervalued as a kind of export subsidy. By buying U.S. Treasuries, China's and Japan's leaders are pushing up the value of the dollar versus the yuan and thereby making U.S. exports more costly and U.S. imports of Chinese and Japanese goods and services less expensive. In effect, they are devaluing their own currencies. China's capital controls remove the ability to equalise China's surplus trade via an equal and opposite flow of capital from China to the US, the US dollars are held captive within China.

China's dollars wind up being held by the government because Beijing does not allow private citizens and corporations to hold the dollars they earn. Rather they must turn them over to the government in return for yuan. China is suppressing consumption which is transformed into dollar holdings in the hands of the Chinese government. Effectively, this intervention by the PBOC creates a scarcity of U.S. dollars, which keeps the USD rates higher. China hence accumulates USD as forex reserves. Beijing is transferring funds from the household sector to the investment and government sectors. U.S. debt offers the safest heaven for Chinese forex reserves, which effectively means that China offers loans to the U.S. so that the U.S. can keep buying the goods China produces.

Thus, just as the United States, over-consumes, China chronically under-consumes as an essential element of its long term, export led economic growth strategy. This behavior has tended to depress U.S. interest rates, subsidize U.S. consumption, and remove any disadvantage to the United States of its over-consumption as US manufacturing and jobs are exported to China. Indeed, China's external consumption is not only abnormally low as a percent of GDP, but the rate has been falling as China rushes to invest ever more as the tried-and-true way of maintaining economic growth rates.

Thus, if China really wants to assure the value of its dollar holdings, it should let the people eat some of its accumulated dollars.

Central banks post-pandemic will be forced to quickly re-learn the lessons of the Great Depression, as fiat-money as all-consuming debt coupled with the fact people are irrational, and economies are

imperfect, and nature and crisis are unknowable. The impossible trinity[68], requires that central banks must select free flows of capital and independent monetary policy ensuring the exchange rates of each nations currency is set by free market trade, and hence to ensure everyone does not eat US dollars.

We the Sheeple

Human beings are a social species. We are not the strongest or fastest creatures in the animal kingdom. What puts us at the top of the food chain is our ability to band together and our ability to specialize. The human survival strategy in part comes from our ability to find enough similarity so that we can connect and create groups. We have entire regions of our brains dedicated to language acquisition and empathy. When we are prosocial, our body releases the hormone oxytocin, which reinforces ingroup bonding (Sapolsky, 2017). Ingroup bonding is associated with survival in a social species. When we engage in an activity that has been conditioned to be associated with survival, our internal reward system rewards us by releasing a hormone referred to as dopamine (Sapolsky, 2017). Human beings find pleasure and meaning through relationships. We are geared for connection. In the Mandt System, our primary focus is on the creation, maintenance, and growth of healthy relationships.

The other major survival strategy of human beings is our ability as tool users and problem solvers. To develop the vast technology that we rely on today, we have had to tap into the unique strengths and talents of individuals. We have entire regions of our brain dedicated to logical thought and long-term memory, which enhance our ability to specialize as tool builders. In short, human survival is a balancing act between solidarity and autonomy.

Human society has grown to such an extent that in our specialization, we often create or are forced into ingroups that echo our own thoughts and beliefs back to us. In other words, we do not just specialize in occupations, we also specialize in worldviews or perceptions. Basically, people sometimes bond with their ingroup by diminishing the outgroup. This is an unhealthy coping strategy that uses the outgroup as a scapegoat for stress felt by members of the ingroup. One of the primary tools used to do this is language. Language is powerful. People have created entire systems of jargon based on “othering” people. The sheeple group is created via ensuring the other groups are not visible to its members and hence the group think is reality as documented within 1984, cause these Machiavellian induced group beliefs to become the official motto of the nation of Oceania.

War is Peace

Freedom is Slavery

Ignorance is Strength— George Orwell, 1984.

Oppressive regimes and other Machiavellians throughout history have used techniques to move or manipulate people into a specific subgroup, and then slowly over time, sometimes over generations, move this subgroup into the socially acceptable norm. The Machiavellian forms the group, by undermining their individuality, independence, liberty, and autonomy to operate outside of the group, via the creation of an environment of constant tension and fear via the mantles of debt over the

[68] The theory of the policy trilemma is frequently credited to the economists Robert Mundell and Marcus Fleming, who independently described the relationships among exchange rates, capital flows, and monetary policy in the 1960s. Maurice Obstfeld, who became chief economist at the International Monetary Fund (IMF) in 2015, presented the model they developed as a "trilemma" in a 1997 paper.

members or the sheeple. In this way the group breaks down any individual's ability for independent thought and makes citizens accept things that they individually know is entirely illogical (such as currency can be scarce). Historically this has been the tool or one of the means to hide or normalise the worst atrocities in human history (Zimbardo, 2007).

In essence the sheeple exist, as they do not question their subgroup membership or think about their subgroup existence (they many not even understand their own subgroup membership), they have lost their liberty, freedom to escape from the subgroup and remain enslaved by the group think of the subgroup overwhelming Machiavellian force.
In the case of 1984 the book is filled with similar contradictions:

The Ministry of Peace oversees war
The Ministry of Love carries out the torture of political prisoners and serve as the police of Oceania
The Ministry of Truth oversees changing the content in history books and in the news to agree with the Party's beliefs. — George Orwell, 1984.

These contradictions keep the sheeple constantly off balance, so they are never sure of themselves or each other and must rely on the Group for guidance as to how to live their lives. Thus, the people are enslaved.

The only escape from the sheeple dominated sub-group it to independently think.

Flogging the dead horse -Fiat Money

The last meme in this forward is how society continues to flog a dead horse namely fiat-money. Flogging a dead horse (or beating a dead horse) means that a particular effort is futile, being a waste of time without a positive outcome, e.g., such as flogging a dead horse, which will not compel it to useful work.

In a post-pandemic world, the fiat dead horse has foaled inflation the latest dead horse. Every year for the past 3 pandemic years, one of the world's central bankers dresses up as a jockey. They mount the horse and flog it with the whip marked 'lower interest rates'. The inflation horse is supposed to respond to these whippings by suddenly springing to life and galloping towards the furlong marked '2-3% inflation'.

No one seems to have told these jockeys they're flogging a dead horse.

If you're a jockey, and all you have is a horse, albeit a dead one, you've got very little choice. You put on your pretty colours, grab the whip, jump on, and pretend you're riding a winner. The economic academics cheer you on and say, 'all it needs is another good thrashing'.

The inability for any central bankster to look past their computer models and textbooks, understanding the workings of the real world, is what makes central bankers so predictable and thus the dead horse gets perpetually flogged, even if the economy is now dead…

The next time there's some flat economic news in Australia, expect the RBA governor to dust off the silks, swish the whip, and stride to the same spot where the horse was when they last conducted this pantomime. TallyHo… old boy!

A Dystopian CBDC Future

Governments, in contrast to all other organisations within society, do not obtain their revenue as payment for their services. Consequently, governments face an economic problem different from that of everyone else. Private individuals who want to acquire more goods and services from others must produce and sell more of what others want. Governments need only find some method of expropriating more goods without the owner's consent. Such seizure is called taxation. Taxation, however, is often unpopular, and, in less temperate days, frequently precipitated revolutions. CBDC is the ultimate result of the creation of new CBDC money out of thin air—it can quickly produce its own money without taking the trouble to sell services or mine gold. This with CDBD as the sole form of money, a central bank can then appropriate resources slyly and almost unnoticed, and without any form of legal competition, without rousing the hostility touched off by taxation. In fact, the central bank counterfeiting can create in its very victims the blissful illusion of unparalleled prosperity.

A Government CBDC could not simply invade a functioning free market and print its own digital tokens. Done so abruptly, few people would accept the government's CBDC money. Even in modern times, many people in "backward countries" have simply refused to accept digital money and insist on trading only in gold. Governmental incursion, therefore, must be far more subtle and gradual. How is the government able to enforce its price controls on monetary exchange rates via a CBDC, via a device known as legal tender laws. Legal tender laws dictated that a CBDC is "money" and the only form of money shall be a CBDC, within a dystopian monetary future for mankind.

Central Bank Digital Currency (CBDC) is issued by the central bank (government), which mandates its use within each country. No real goods and services back these digital tokens of money. Under a CBDC monetary system wealth is transferred to the token creators a central bank, resulting in socio-economic problems including inflation, fall in real incomes, increased asset bubbles like property prices and inequitable distribution of wealth, amongst others. A CBDC cannot make the global appeal of acceptability as it is not backed by real world assets and is exists as intangible digital tokens. A CBDC forces a single central to hold an exclusive public sector power to create all forms of money (backed by nothing, through the mere application of accounting entries) which is being used to buy goods and services from the private sector, leading to the enrichment of people attached to the money creation sector. This results in the unequal distribution of wealth amongst the various agents of the economy. This arises the issue of seigniorage with regards to CBDC, namely the creation of purchasing power without exchanging equivalent labour or real-world assets.

Imagine if a central bank bureaucrat had the power to limit your savings or place a "shelf-life" on money you earn. Sound farfetched? Ideas like this are already being floated in the United Kingdom as the Bank

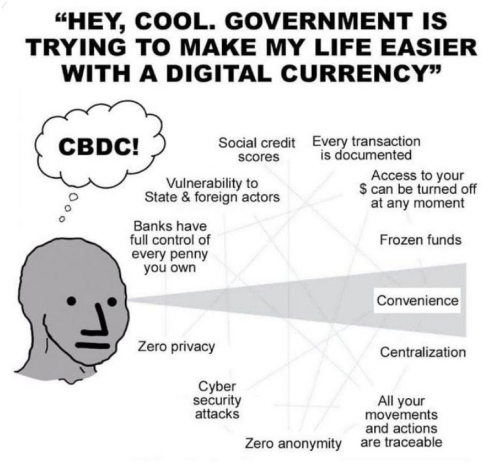
of England as it barrels headlong towards a digital currency, while the dystopian future outlined in this section is a reality today within China and the PBOC issued version of CBDC know as DC/EP, this is not a guess of a dystopian future it is an observable fact. CBDCs are entirely under bureaucratic control because every digital dollar has a unique fingerprint. Literally all transactions can be surveilled, recorded, or even reversed by a bureaucrat's push of a button. Not only can the government tell how much you're spending or saving, but what you're spending those dollars on and where you're parking your savings. CBDC's can be earmarked for certain purchases and forbidden from others. The government can easily dictate which dollars of your income go to buying food (and what kind of food), for instance. That's particularly alarming in an era when the elites lecture about climate change and push for people to eat less beef.

With the BIS is Basel Switzerland as the conductor and orchestrator, it's not surprising that central bank governors and country heads are now singing from the same song sheet, the song being 'private digital currencies bad, central bank digital currencies good'. The accelerated emergence of CBDCs also conveniently acts as a way for central banks to attempt to outflank the numerous private cryptocurrencies, tokens and decentralized finance ecosystems that have emerged and that are a threat to the power of the centralized banking system at whose apex sits the BIS.

With a CBDC, the central bank can also effectively force spending and prevent saving by imposing maximum savings levels and preventing "hoarding" by confiscating unspent digital dollars; people with no savings are more reliant on government in "emergencies." If you're unable to save for a rainy day, you're at the whim of a bureaucrat holding the purse strings of your life. There is another scary proposition, since bureaucrats could turn down people for loans based upon things other than their likelihood of repaying. Are you not woke enough? Then no mortgage for you. A CBDC makes such dystopian scenarios possible, and perhaps inevitable. A CBDC would give the central bank and future administrations a level of power so unprecedented that Orwell could not have envisioned it.

What does a CBDC represent? In a word, control over people and their money.

The most significant concerns with CBDCs is the death of anonymity. Currently, cash transactions offer the secrecy and anonymity needed for financial freedom. People can use cash to make transactions without leaving a paper trail, which is a fundamental right in a democratic society. However, the introduction of CBDCs could change this.



CBDCs would be fully traceable, and programable, meaning that every transaction would be recorded monitored. And groups within society excluded from the banking system by a central bank, even to then point of what goods can be purchased or prohibited within consumption. This would allow central banks to surveil and control financial transactions in ways that were previously impossible. While this may sound like a positive development, it raises serious concerns about privacy and civil liberties.

The ability to impose limits on people's daily financial holdings and expenditures could serve to significantly erode privacy and freedom and have a chilling effect on free speech and political dissent. Moreover, central banks could use CBDCs to implement negative interest rates, which would incentivize people to spend their money rather than save it. This could lead to a surge in consumption and inflation, which could destabilize the economy. This would also lead to a number of technical challenges. For instance, a cap on individual CBDC holdings could restrict the number or quantity of payments because it would be necessary to know the recipients' CBDC holdings to complete the payment.

In addition to these concerns, CBDCs could also exacerbate existing inequalities. For instance, those without access to the internet or digital gadgets would be shut out of the financial system. This could apply to underrepresented groups like the elderly, the poor and residents of rural areas. CBDCs may potentially lead to new types of financial exclusion since central banks may decline to do business with those regarded as high-risk.

The goal of financial stability could come at a significant cost in terms of personal freedom and privacy, as we saw in the global financial crisis. The defence of individual liberties and rights should be a top priority for any just society.

Those who would give up essential liberty, to purchase a little temporary fincial stability, deserve neither liberty nor financial stability.

The steps to take to opt out of CBDC form of fincial lockdown:

1. Use Physical Gold redeemable money: anyone can opt out CBDCs by using physical gold and silver to store and exchange value.
2. Get Organized Locally: You will have to become self-sufficient and rely on your local community to obtain what you need. A local community-based currency in circulation, isolates each community from the contagion flows of a CBDC. And that starts with each member of the community knowing who can provide you with the things you want and need.
3. Exchange Value for Value: The key is understanding what value you can provide to others in your local community and how you can exchange that for something you want, via the local currency unit.
4. Ensure equal opportunity access to Cash: cash payments flow independent from any central or commercial bank involvement and require no centralised ledger of accounts; cash represents personal freedom.
5. Do no use CBCD: for money to flow within an economy people must explicitly accept CBDC as payment, if people do not accept CBDC then it will, never exist as a currency in circulation.

CBDCs are, without a doubt, an instrument of enslavement. They represent a quantum leap backward in human freedom, and a world without any private banks.

Self-ownership

Self-ownership is a key concept in libertarian ideology. Self-ownership is the idea that every person owns themselves. This sounds like common sense, but it presents some semantic challenges. Most people know they own themselves in the sense they have autonomy, they are not a slave. But on the other hand, most people do not consider the idea that they own themselves like they would own an object. To really understand what self-ownership means, we must first truly understand what ownership is.

To most people, to own something means to have something. Most people can basically agree on who owns what and why. For example, most people would agree that a person owns a car if they have the car's title, or that they own the sofa in their house. However, when asked to elaborate on the specifics of ownership, most people do not consciously understand the deeper details of what it means to own something. Everybody knows enough about ownership to get by in everyday life, but most people fall short in knowing how the idea of ownership can empower their own lives and how it can drastically improve the human condition.

What is ownership?

To own something is to have the right to control it. If you buy a sofa, then you own that sofa and can decide what you want to do with it. You can then sell it to someone else, give it to someone as a gift, lease it to someone, or you can sit in it, destroy it, or throw it in your dumpster. In fact, you can do whatever you want with it if you don't harm others in the process. To own the sofa also means that nobody else is allowed to do anything to it without your permission; if they do then it's called theft or

vandalism. Even if a person “borrows” something that they do not own, it is still stealing if the actual owner doesn’t consent.

Ownership means you cannot suspend control based on a situation. Think of situations where someone says, “Oh I’ll just use it for a few days and then bring it right back before he even comes home,” or “He doesn’t deserve to have it because he is a millionaire and I need it more than him.”

Fairness is determined by who rightfully owns something, not how much someone needs something. Owners are entitled to the full control of the things they own, and nobody is entitled to another person’s stuff whether they need it or just want it.

We shall see that the concepts of possession and legal title underpin all forms of currency, as one must first own something to trade with others: as one cannot sell more rights to an object that one possesses. Thus, the concept of ownership underpins all deferred currency-based payments within trade.

How do you own something?

There are two fundamental ways of owning something: Being the first person to use an unused resource or receiving something from someone else with their consent. In the case of owning yourself, you are the first user of your life and of your body, so you own yourself. This is expressed through self-control and free will. Only you can think your thoughts, say words from your mouth, move your limbs, or make your choices. Nobody else is responsible for what you think, feel, say, or do.

Ownership is not a social construct that humans invented. It is a natural phenomenon that even non-human animals exercise, such as ravens that hide their resources and trick would-be thieves into thinking their food storage is somewhere else.

Do you own anything?

If owning something means having the absolute right to control it, then do you really own things such as your land if you must pay a property tax on it, your business if you must obey regulations on how to run your business, or do you even own yourself if you can’t choose to work somewhere for less than a minimum wage?

The answer is yes, in part: you still own yourself and those things, but your right to have absolute control over yourself and your property is being violated. In the current state of human society, nobody is free to express their right of ownership in full.

Anytime the right of ownership is violated, a crime is being committed against the true owner. If a car is stolen, the true owner misses out on their right to use their car until it is returned. If the car is damaged, the true owner misses out on enjoying the good condition their car was in before it was stolen.

A better way: true self-ownership

Thus comes the inevitable retort: “Okay, but we need regulations, taxes, and laws. Even though self-ownership sounds good, it isn’t practical.”

Respecting self-ownership is more practical than whatever we do now. Since you have the final say over what you think, say, do, or feel, you are closer to knowing what is best for you and to achieving what you want out of life; others can only guess. If you are a fully functioning adult, then your well-being is not anyone else’s responsibility. Instead, they should worry about their own well-being. This is the most

effective way to organize society and it is the most effective way to allow the greatest number of people to be the happiest they can be.

To that end, every human interaction should be consensual, and all property rights should be respected. We tolerate necessary evils in society, but some necessary evils are in fact quite unnecessary and are simply a result of a lack of humans thinking.

Epilogue

In this chapter we will attempt to crystal ball gaze into a future world and see how the contents of this book can make a practical difference to the world's peoples.

For these savers, financial asset values will no longer be driven by excessive quantities of fiat currency. With the infinite feed of fiat currency removed, outright speculation will become a thing of the past, replaced by genuine risk assessments of individual bond issuers and of equity participations. The expansion of fiat currency will no longer be available as the principal fuel driving financial asset values.

It will be a different monetary environment, where capital will be scarce and therefore valued. The free flow of Capital means capital will be less wasted on spurious or inflationary projects. It will be the basis for recovering economic progress, so sadly lost at an increasing pace since the dollar became purely an irredeemable fiat currency based solely upon unrepayable commercial bank debt.

Collectively with the knowledge of money, currency, and capital free from all forms of extortion and violence, we can change our future, this book has provided the knowledge and tools to create a better world for ourselves, our family and our society though the following:

DIALOGUE, UNDERSTANDING AND THE WIDESPREAD PROMOTION OF A CULTURE OF TOLERANCE, ACCEPTANCE OF OTHERS AND OF LIVING TOGETHER PEACEFULLY WOULD CONTRIBUTE SIGNIFICANTLY TO REDUCING MANY ECONOMIC, SOCIAL, POLITICAL AND ENVIRONMENTAL PROBLEMS THAT WEIGH SO HEAVILY ON A LARGE PART OF HUMANITY

Religion and Marx's Alienation

Marx explained that "religion is the sigh of the oppressed creature, the heart of a heartless world, and the soul of soulless conditions. It is the opium of the people." To rid society of religion, the material conditions for religion must be removed, and people will decide for themselves to abandon religion within the resulting free society.

While traditional Christian theology asserts that God created man in God's own image, Marx fully accepted Feuerbach's inversion of this picture, proposing that human beings had invented God in their own image, indeed a view that long pre-dated Feuerbach. Feuerbach's distinctive contribution was to argue that worshipping God diverted human beings from enjoying their own human powers.

In their imagination humans raise their own powers to an infinite level and project them on to an abstract object or deity. Hence religion is a form of alienation, for it separates human beings from their "species essence." Marx accepted much of Feuerbach's account but argues that Feuerbach failed to understand why people fall into religious alienation, and so is unable to explain how it can be transcended. Feuerbach's view is that a belief in religion is purely an intellectual error and can be corrected by persuasion. Marx's explanation is that religion is a response to alienation in material life, and therefore

cannot be removed until human material life is emancipated, at which point religion will wither away. Marx's contention that the gods are personifications of the powers that dominate human life. When such powers no longer dominate man, there will no longer be gods.

Marx is offering an outline of an ordered society in which the relations of human beings to one another and to nature are both clearly recognisable and rationally acceptable. This ordered society can be attained, according to Marx, only by individuals voluntarily forming themselves into associations to take over production and distribution. Then the religious reflex of the real world will finally vanish. The task therefore is not to fight religion but more clearly stated here than before, to set up a society in which religious consciousness will die out. Suffering and mystery, to which Feuerbach attributed the existence of religion, are now seen more precisely as the sorrows brought about by enforced, unreasonable, incomprehensible, and alien conditions of life (social structure). Marx believes that a full reappropriation of what human being has lost in alienation cannot be achieved by a mere annulment of God, but only by an annulment of the social structures which produces the need for God. Thus, for Marx to be human is not to be something, but to do something[69].

Whether or not we explicitly recognise it, human beings exist as a community, and what makes human life possible is our mutual dependence on the vast network of social and economic relations which engulf us all, even though this is rarely acknowledged in our day-to-day life. This it is "deviously acknowledged" by religion, which creates a false idea of a community in which we are all equal in the eyes of God. After the post-Reformation fragmentation of religion, where religion is no longer able to play the role even of a fake community of equals, the modern state fills this need by offering us the illusion of a community of citizens, all equal in the eyes of the law. Interestingly, the political or liberal state, which is needed to manage the politics of religious diversity, takes on the role offered by religion in earlier times of providing a form of illusory community. But the political state and religion will both be transcended when a genuine community of social and economic equals is created.

Marx identifies four dimensions of alienated labour in contemporary capitalist society (MECW 3: 270–282). First, immediate producers are separated from the product of their labour; they create a product that they neither own nor control, indeed, which comes to dominate them. (Note that this idea of "fetishism"—where human creations escape our control, achieve the appearance of independence, and come to oppress us—is not to be equated with alienation as such, but is rather one form that it can take.) Second, immediate producers are separated from their productive activity; in particular, they are forced to work in ways which are mentally and/or physically debilitating. Third, immediate producers are separated from other individuals; contemporary economic relations socialise individuals to view others as merely means to their own ends. Fourth, and finally, immediate producers are separated from their own human nature; for instance, the human capacities for community and for free, conscious, and creative, work, are both frustrated by contemporary capitalist relations.

[69] Marx's criticism of Christianity can be summed up in the declaration that Christianity is the transcendent justification of social injustice. He condemns the Christian substitution of charity for justice. The real Christian task should not be that of just helping the poor with charity; rather it is to ensure for the poor the exercise of those rights whereby they can cease to be poor. Marx believed that if the human being remains under the control of alien forces, let it be the power of nature or the various forces of society, religion will persist. What is needed is that human beings must redeem themselves from the bondage of external forces, via their actions and their alienation with their community.

It was suggested above that alienation consists of dysfunctional separations—separations between entities that properly belong together—and that theories of alienation typically presuppose some baseline condition whose frustration or violation by the relevant separation identifies the latter as dysfunctional. For Marx, that baseline seems to be provided by an account of human flourishing, which he conceptualises in terms of self-realisation (understood here as the development and deployment of our essential human capacities). Labour in capitalism, we can say, is alienated because it embodies separations preventing the self-realisation of producers; because it is organised in a way that frustrates the human need for free, conscious, and creative work.

Fiat Money

Since the Global financial crisis in 2007 and one more time during the pandemic the central banks have "over printed" fiat money to the tune of greater than USD 100 Trillion. During the pandemic like Australia the fiscal policy inflated bank balance sheets with billions of ledger money typically with a fixed rate and terms of 0.2% interest and 5 years duration, at the same time trillions of debts was created within all the world's economies. In many cases this debt cannot be repaid at the average inflation rate of ~ 6% in 2022 as this would exceed 100% of many nations GDP.

The relationship between monetary reserves and various monetary aggregates has broken down[70]. Hence, with this reality as a backdrop, we will look at how this book provides a practical solution to what is essentially a debt and leverage-based world.

Firstly, it must be accepted as a fact that the world will never return to a pre-covid reality, these days are gone forever, if fiat-currency is to survive we must have a practical way to address the ~ 100 trillion of sovereign based debt. In the next section we will look at foreign debt.

Problem

The underlying problem with all fiats is that it is backed via leveraged bonds, or monetary policy. The Central bank uses monetary policy to manipulate the bond rate and then via its payment system monopoly leverages this collateral typically by over 96% to crate fiat money. In essence the only currency in circulation within any fiat-money system is cash and then only Coins as defined by the M0[71] supply. The central bank reserves are no currency, or cash and are not part of M0 supply as reserves do not circulate as currency in any currency area.

Thus, the scope of the problem is what to do with ~ USD 96 trillion of unbacked and irredeemable fiat money.

Solution

There is only one solution and that requires that all non M0 money must self-deprecate, as the artificial created money party via a central Bank self-deprecates and the value of non M0 money goes to zero as

[70] One must question whether there ever existed a practical theory of how to manage monetary value in a fiat money world. The proponents of fiat monetary rules believe they have such a theory within the Taylor Rule, which all central banks universally jettisoned with the reality of inflation post overprinting of fiat money during the pandemic.

[71] The M0 supply is essentially money which has a use-value or that is redeemable in a commodity that has use-value. The argument for sound money is not merely a technical economic argument, but a political and even constitutional argument.

its circulation ceases and it is no longer accepted as a currency with any trade based p[payments, this is the well know and historically proven fate for all debased currency and is inescapable fate for all fiat currencies. Hence the issue is how to manage this result without causing the economic flows to cease as was the case when Lehman Brothers value went to zero in 2007.

In essence the solution is based upon the well-established reality for over 4000 years of humanity, namely a Coin based currency which has no capacity to exist as debt. One can think of this as a Cash based economy or the M0 supply.

Thus, the solution to the ~ 96 trillion of M3-M0 debt is to create two separate systems of currency, one that is base d upon sound M0 supply and the existing one leveraged with ~96% of irredeemable debt. In order to prevent the leverage contagious ledger money flowing between the existing and the sound money system, all non M0 and perhaps CB reserves cannot flow to the new Coin based economy, the leveraged debt must be ring fenced.

Over a period of time (most likely at least a decade) the economy will transition from a unsound money to sound money supplies. The unsound money will remain trapped inside the existing fiat monetary system and will eventually self-deprecate to zero value, and hence at this point the holders of fiat-money will take the haircut.
This strategy assumes that at his point the economy has fully transitions to a sound money system, and hence the collapse of the fiat-money system will have no economic effect as the value of zero ahs been factored into the economy.

The Banksters Ponzi Scheme

“All the king’s horses and all the king’s men cannot put the private banking system together again", for the simple reason that it in 2023 the Ponzi scheme has reached its mathematical limits. The banksters Ponzi scheme is a form of pyramid scheme in which new investors must continually be sucked in at the bottom to support the investors at the top. In the banksters case, new borrowers must continually be sucked in to support the creditors at the top.

The Wall Street Ponzi scheme is built on "fractional reserve" lending, which allows banks to create "credit" (debt") with accounting ledger entries, essentially fictitious capital. Commercial Banks are now allowed to lend from 10 to 30 times their "fictitious reserves," essentially counterfeiting the money they lend. The central banksters make use of the "magic" or parity to pretend that any private bank debt can clear when this fictious ledger entry money flows between commercial banks. The Ponzi scheme fraud is papered over via "the central banksters lender of last report" and an unfunded deposit insurance scheme.

But the fact remains it is just a giant global Ponzi scheme, with over 97 percent of the entire global money supply (M3) been created by private banks in this way. Fiat money, by definition of fiat, is not actually there, it is simply a promise for something ‘in the future’ this may be a future taxation based promise of just ‘magic’, but fiat money t does not exist in the real world, at best one could perhaps expect the "coupon rate" income stream but that is also just ledger entries or more fictitious capital; no real world surplus value exists in the entire global banksters system in 2023.

The fiat money ponzi scheme basics:
First, it is impossible to create fiat-money without simultaneously creating an equal amount of debt. The current system is hence forced to increase debt continuously to enable the economy to grow. Given positive interest rates, debt with interest owed is an exponential function (interest on interest in subsequent periods), which is a problem in a world of finite resources.
Second, the marginal utility of debt has decreased as debt levels increased. Since 2007, US GDP increased by $11 trillion, while the amount of debt outstanding grew by $40 trillion.
Third, the amount of interest due on compounding debt levels is reaching dangerous levels in relation to nations GDP. If we (generously) assume an interest rate of three percent, more than 10% of GDP is siphoned off the economy for interest payments – each year. This does not even include repayment of principal.

The maths underpinning this banksters Ponzi scheme as above, is the magic of "compound interest", it guarantees that "debt eats the world" as each year the level of debt increases until in 2023, it has reached the point that it is more than 1000% of GDP in many nations and is greater than 860% for the USA today. "Exponential economic growth required by the mathematics of compound interest on a money supply based on money as debt must always run up eventually against the finite nature of Earth's resources".

The penny invested by Augustus Caesar in 8 BC would be worth 3 trillion, trillion, trillion, trillion dollars today at 6 percent compound interest. The world only has around 100 trillion dollars in total real-world assets today. Hence the banksters and their payment systems exist within a perpetual motion machine based upon the maths of impossible finance.

The current banking crisis is the crisis we had to have because in 2007/8 we kicked the can down the road to 2023, this crisis is in the banking system itself, which can no longer cover up the shell game it has played for centuries with other people's money. The parasite which is the global banking system has finally run out of its food source. But the crisis is not in the real economy itself, which is fundamentally sound – or would be with a proper credit system to oil the wheels of production. The crisis is in the banking system, which can no longer cover up the shell game it has played for three centuries.

While $80 in capital can magic up $1,000 in loans, an $80 bond to market value **loss** wipes out $80 in capital, reducing the sum that can be lent by $1,000, but the $1000 has already 'left the bank'. Since late 2022, all banks have been experiencing widespread bond negative yields as central banks pump rates to fight inflation from the 2020/21 pandemic, their 'to market"; capital base has shrunk proportionately, to the point in 2023, they cannot even manage the minimal 7% capital requirements, a fact recently demonstrated by SVB, Signature and Credit Swiss[72] etc. collapses.

[72] In March 2023, CHF 6 billion of Contingent Convertible or CoCo bonds went to zero over one weekend, and the Credit Swiss tier 1 capital went from ~ 14.1% to less than 8%, and hence breached its capital requirements. As all bonds, by definition, within the secondary market (caused by deposit withdrawal stress) can go to zero, the fractional reserve system is designed to fail, and fail it did for Silicon Valley Bank, and the CoCo bonds were not the backstop (bail-in) that they were designed to perform post 2007 financial crisis, as they went to zero before they converted into bank equity.

The reality remains that human economic activities cannot keep pace with such degree of compounding even with a meagre 6% compound interest rate. All systems that indulge in significant interest-based loans be they countries, companies or individuals are bound to fail. But before, their eventual demise the struggle created by this compounding leads to immorality, exploitation, loot and plunder and cyclic global wars since 1914.

The moral of ancient and modern history alike is that a critical point inevitably arrives at which economies either adopt hard creditor-oriented laws that impoverish the population and plunge downward socially and militarily or save themselves by alleviating the debt burden. This attempt is necessarily in vain. No amount of money can sustain the exponential growth of debt, not to mention the freely created credit and mutual gambles on derivatives and other financial claims whose volume has exploded within the global banking system since the last crisis in 2007/8. The governments of the world are committed to "bailing out" banks and other creditors whose loans and swaps have gone bad. It remains in denial about the debt deflation that must be imposed on the rest of the economy to "make good" on these financial trends by our children's, children.

Global debt has hit a record $300 trillion, or 349% leverage on gross domestic product. This translates to $37,500 of average debt for each person in the world versus GDP per capita of just $12,000. Government debt-to-GDP leverage grew aggressively, by 76%, to a total of 102%, from 2007 to 2022. Assuming 35% of debt is floating rate, this means $3 trillion more in interest expenses, or $380 per capita.

"Maybe the party is finally over. Maybe this is the end of the banksters 300-year reign, starting roughly with the creation of the Bank of England in 1694, the world's banksters have finally succeeded in doing enough damage to the world economy that the rest of us are willing to act. When the embattled banks demand another round bailout the taxpayers must respond, it is time for a change, it is time to try "sound money" grounded in the real world, based upon economic production and surplus value, not exponential debt growth. The global banking system is "Dead Men Walking, and dead men tell no tales" ...

Only time will tell. But however, the change may happen, it remains the author's conviction that, one way or the other, a fair and intelligent monetary system will someday exist on the planet earth, and this book is a means to that end.

"If the American people ever allow private banks to control the issue of their currency, first by inflation, then by deflation, the banks and corporations that will grow up around them will deprive the people of all property until their children wake up homeless on the continent their fathers conquered. The issuing power should be taken from the banks and restored to the people, to whom it properly belongs." -- Thomas Jefferson.

The Silicon Valley Bank- Bond Enigma

Bank rates affect bonds prises as this is the math underpinning all Bonds, we will look at how SVB ran into trouble when the FED increased rates and the effect it has on SVB AT1 capital value (also affected its securities as well, but via a contagion flow from bonds).

Bond interest rates are the result of supply and demand for each bond on the market. That means each bond has its own interest rate (yield) which fluctuates constantly as the market changes its view in response to inflation prospects, the economic outlook, credit risk and the animal spirits of investors. When interest rates rise, bond prices fall, this relationship is a mathematical certainty because otherwise the bond market would freeze.

For example, a freshly minted 5-year government bond is offered to investors with a 3% coupon.
The bond pays out 3% on its face value of $100 for every year of its existence. In other words, annual interest of $3 is due until the bond matures in 5 years' time – whereupon the government pays back the $100 face value on the maturity date.

But what if you own an older government bond that was issued when interest rates were lower (say during the pandemic)? Your bond only pays 2% coupon annually and still has 5 years left until maturity. Aside from its lower interest rate payment, your older bond is pretty much identical to the new 3% bonds. But you are not a winner.

In a world of 3% bonds, who would be mad enough to pay $100 for your 2% bond? No-one, that's who. So, if you are forces sell your 2% bond (let's say a bank run), you will have to drop its price (discount) to the point where it can compete with new bonds and buyers for your old bond exist.

Using the formula Bond Price = $\sum$ I =1n C/(1+r) n + F/(1+r) n, that price is $95.24. You take a capital loss of $4.76 on the original $100 you invested in the bond. You're not happy but your buyer will at least make the trade, because your discount bond gives them a yield to maturity of 3% over 5 years. That's because your bond's 2% payments plus the capital gain (100-95.34=4.76) they make when the government pays them the bond's $100 face value in 5 years, matches the 3% they can earn buying a new bond for $100 and holding that for 5 years.

Just as the market value fell from $100 to $95.2, SVB AT1[73] capital value fell by billions when SVB needed to liquidate and hence crystalised its unrealised "to market" bond losses when 2021 @1.5% bonds went to 4% in March 2023, to meet depositors withdrawals during the march bank runs.
It's just Maths Folks..

[73] Common Equity Tier 1 capital (CET1) is the highest quality of regulatory capital, as it absorbs losses immediately when they occur. Additional Tier 1 capital (AT1) also provides loss absorption on a going-concern basis, although AT1 instruments do not meet all the criteria for CET1. Additional Tier 1 capital is defined as instruments that are not common equity but are eligible for inclusion in this tier. An example of AT1 capital is a contingent convertible or hybrid bond, which has a perpetual term and can be converted into equity when a trigger event occurs. As Credit Swiss found out the hard way CoCo bonds can go to zero over a single weekend in March 2023.

Prologue

Because Treasuries are "risk-free" and therefore carry lower capital requirements for banks to hold against them, banks allocate more of their funds to them. This concentrates banking system risk in a single interest-sensitive security of treasury bonds. SVB is just the most extreme and reckless version of a risk present in all banks. For reference, the rest of the U.S. banking system has unrealized losses amounting to more than $600 billion, some 25 times more than the losses that just brought down SVB.

There's no shortage of blame to place on central banks for having engineered such an unnatural banking market. Far from making banks "safe," the regulatory system concentrates risks, with the alphabet soup of Fed liquidity facilities standing ready to money-print their way out of any trouble, but this just add more debt to the system which is already drawing in debt.

The Basel III- Regularity Capital Hoax

The 2007–09 Great Financial Crisis (GFC) revealed several weaknesses in the capital bases of internationally active banks: definitions of capital varied widely between jurisdictions, regulatory adjustments were generally not applied to the appropriate level of capital and disclosures were either deficient or non-comparable. These factors contributed to the lack of public confidence in capital ratios during the GFC. To address these weaknesses, the Basel Committee on Banking Supervision (BCBS) published the Basel III reforms in December 2010 with the aim of strengthening the quality of banks' capital bases and increasing the required level of regulatory capital.

Common Equity Tier 1 capital (CET1) is the highest quality of regulatory capital, as it absorbs losses immediately when they occur. Additional Tier 1 capital (AT1) also provides loss absorption on a going-concern basis, although AT1 instruments do not meet all the criteria for CET1. For example, some debt instruments, such as perpetual contingent convertible capital instruments, may be included in AT1 but not in CET1. In contrast, Tier 2 capital is gone-concern capital. That is, when a bank fails, Tier 2 instruments must absorb losses before depositors and general creditors do. The criteria for Tier 2 inclusion are less strict than for AT1, allowing instruments with a maturity date to be eligible for Tier 2, while only perpetual instruments are eligible for AT1.

Total available regulatory capital is the sum of these two elements – Tier 1 capital, comprising CET1 and AT1, and Tier 2 capital. Each of the categories has a specific set of criteria that capital instruments are required to meet before their inclusion in the respective category. Banks are required to maintain specified minimum levels of CET1, Tier 1 and total capital, with each level set as a percentage of risk-weighted assets.

Tier 1 (going concern)	Common Equity Tier 1 (CET1)	Sum of common shares (equivalent for non-joint stock companies*) and stock surplus, retained earnings, other comprehensive income, qualifying minority interest and regulatory adjustments	CET1 >4.5%
	Additional Tier 1 (AT1)	Sum of capital instruments meeting the criteria for AT1 and related surplus, additional qualifying minority interest and regulatory adjustments	CET1 + AT1 >6%
Tier 2 (gone concern)		Sum of capital instruments meeting the criteria for Tier 2 and related surplus, additional qualifying minority interest, qualifying loan loss provisions and regulatory adjustments	CET1 + AT1 + Tier 2 >8%

* The standard requires instruments issued by non-joint stock companies to meet a set of criteria to be deemed equivalent to common shares and included in CET1.

Summary, the totality of the regulatory capital is set to a minimum of 8% with Common equity set to a minimum of 4% as AT1 to market price can go and has gone to zero via CoCo and the normal operation of Bonds are future claim upon treasury debt.

Hence Basel III re-enforces the Fractional Reserve Banking system, which in a crisis like 2007/8 and 2023 can only manage to repay around 4% of all depositors funds during a bank run on the banking system..

Sovereign Debt

It is estimated that at the end of 2021 there existed greater than USD 300 trillion of foreign sovereign debt[74], this is debt that is owed to an entity which exists outside of the jurisdiction of the sovereign debtor. There are many routes for this debt to exist, most are via the IMF[75] and hence are USD denominated debt, some while USD denominated are carried as local currency-based debt, but in all cases the debt issuer is not a resident of the sovereign nation.

The Problem

In essence the IMF peddled concept of "debt restructuring is a fraud" it only works because of the fraud that somehow the debtor must bear all risk and that the lender is not a party to default risk. In the case of the IMF the corrosion peddled is if a sovereign nation defaults or debt is not restructured then the IMF will not allow the sovereign nation to assume yet more debt, this is essentially a hollow threat as one cannot repay debt with yet more debt. Debut which violates the law of debt and defaults is a crime against humanity and represents a form of economic slavey.

Additionally the concept of "debt restructuring" is mostly a means to increase the level of debt, or a debt-for-asset-swap which forces the debtor to transfer ownership of sovereign assets to the foreign lender, which is also a legal impossibility as there exist no concept of a supra sovereign jurisdiction to enforce such ownership transfers outside of the ability of a sovereign to simply nationalise[76] all foreign ownership at the stroke of a sovereigns' pen.

[74] It is a legal reality, there is no bankruptcy court for sovereigns that can compel the debtor and its creditors to resolve a default. The risks—overborrowing and potential default—remain with the lender to this day.

[75] In some cases, the debt is in IMF Special Drawing Rights, but SDR is essentially a simile for USD debt, as an SDR is effectively drawn against and pegged to US Dollar peg.

[76] Reassert sovereignty over all Sovereign or jurisdictional based assets.

The Solution

Hence there exist a single legal solution to the any default by a sovereign nation and the 300 trillion of foreign debt, the lender has been compensated for his risk, and the default is hence born solely by the lender who can assert his legal rights in the absence of any supra national jurisdiction upon any collateral claims if they exist.

The concept that posts-a-default there exist, and further lender claims which are not explicit in the loan agreement are self-deprecated, and the lender must legally bear its own risk and take the haircut or loss associated with its own calculated risk.

The Law of Debt and Defaults

Somewhere in the history of the world, common sense has been left behind, in this section we restate the laws of debt as it applies to all debt and the contractual relationships and obligations of the parties to debt itself.

Default risk is the possibility that a debtor will be unable to pay its obligations in a timely manner if at all. If the debtor defaults, the issuer of the loan can lose part or all the original investment and any interest that was owed. The issuer of any loan adjusts the interest rate to match its calculated default risk for each individual debtor, hence the combination of interest paid and or collateral is the sole basis for the issuance of the loan to the debtor, as all loans are 'chose in action" based upon the jurisdiction of the debtor.

In the event of a debtor default, the risk is born solely by the issuer of the loan.

In the case of sovereign loans there additionally exists "Sovereign Risk", namely a foreign debt issuer has no legal recourse to any sovereign asset upon default, this is by definition of Sovereign Risk. No Sovereign nation can cause any foreign debt issuer to issue any debt in their sovereign nation, it is a purely voluntary action of the foreign debt issuer.

Sovereign risk-based debt cannot be restructured, it must always default, this is how a free-market works...any alternative represents moral hazard to its community and humanity as a whole...

It's Money

"To trade by means of money is the code of the men of good will. Money rests on the axiom that every man is the owner of his mind and his effort. Money allows no power to prescribe the value of your effort except the voluntary choice of the man who is willing to trade you his effort in return. Money permits you to obtain for your goods and your labour that which they are worth to the men who buy them, but no more. Money permits no deals except those to mutual benefit by the unforced judgment of the traders. Money demands of you the recognition that men must work for their own benefit, not for their own injury, for their gain, not their loss–the recognition that they are not beasts of burden, born to carry the weight of your misery–that you must offer them values, not wounds–that the common bond among men is not the exchange of suffering, but the exchange of goods. Money demands that you sell, not your weakness to men's stupidity, but your talent to their reason; it demands that you buy, not the shoddiest they offer, but the best that your money can find. And when men live by trade–with reason, not force, as their final arbiter–it is the best product that wins, the best performance, the man of best judgment and highest ability–and the degree of a man's productiveness is the degree of his reward. This is the code of existence whose tool and symbol is money." -- Francisco d'Anconia, in Atlas Shrugged.

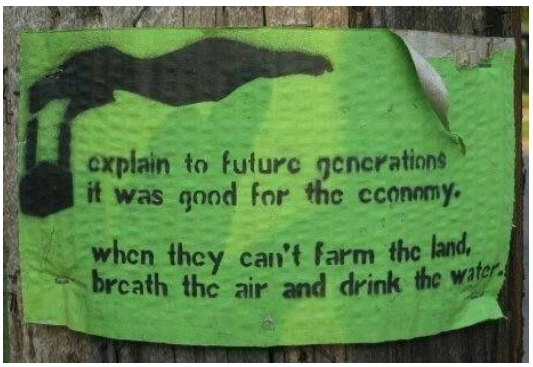
Money is a medium of exchange, how people trade value for value. And it represents the fact that wealth must be created by production. There is a fundamental difference between the producers who create wealth and those in society who become rich through wealth extraction without any production function.

"All nations are seized periodically by a feverish attempt to make money without the mediation of the process of production." - Karl Marx.

Postscript

Economics, and indeed human civilisation, can only be measured and calibrated in terms of human beings. Everything in economics must be adjusted for people, first, and abandoning the illusory numerical analyses that inevitably put numbers and things ahead of people, enslavement ahead of freedom, the state ahead of the individual, totalitarianism ahead of democracy, and degradation ahead of fraternity and compassion.

A free-market economy will correctly value non-renewable resources, to prevent their consumption or extinction.



Each of us who has a choice, must choose to change or not. It is free-will, our choice, as human beings.