Art and Democratic Hypercapitalism

Why do we need a new form of money? It is my belief that money is unnatural. It does not die and there for can lead to unfair advantage. With art we seek to naturalize money and fix a lot of issues along the way.

Where will we end up? With Art or ArtCoin as a new form of money. This kind of money is differnt for 3 core reasons:

1. It has a property of demurrage. Demurrage is controled inflation...aka, you must constantly spend money to keep your money 'current' and useable.
2. It demands that a form of artifical capital(aka prefs) be exchanged along with goods and services in exchange for money. The Demurrage from money is paid out to owners of this capital. Since no transaction can be performed without the transfer of capital we arrive at the name 'hypercapitalism'.
3. It allows tax payers the right to veto the use of state run accounts. This is a form of ongoing voting that makes the people much more powerful in their self government and why this system is at its core 'democratic'

Thus Democratic Hypercapitalism. ArtCoin is a proposed technical implementation. There maybe others that are better but I feel like I should not present a problem with out some sort of solution proposed.

Why Art? We propose that people should be 'compensated for the full out put of their labor'. Their labor is their Art. A unit of production echos into the future indefinantely and each laborer should have some right to the value produced from their own labor.

In book I take a look at the pattern language considered for this document.

In book II I take a look at democratic hypercapitalism and analyze how it corrosponds to our chosen pattern language. Here we build a form langage of items to use in the construction of our new form of money.

In book III we discuss a theoretical coin called 'art' which seeks to institutionalize hyper capitalism and bring about the simplefication of taxes, the end of deathless corporations, the end of indentured employment, provide for the education of our children, empower democratic ideals of self government, increase transparency, enrich the laboring class, return the human capital wasted in the finance industry to progressive endevours, and ensure social security and a thriving economy. We seek to form a generative language to lead to the adoption of art as the dominant form of money.

About the Author

My name is Austin Andrew Fatheree. I was born in Houston, TX in 1977. I have had a privelaged life. Two parents who loved me and were able to make a good bit of money and inherit some more. We were far from 'ultrarich' but we had enough means to borrow enough money for me to go to private school most of my years. There was a rough period around the savings and loan crisis, but over all I realize that I've had a more privelaged life than most who will read this book.

I went to The University of Texas. I started in Electrical Engineering and even qualifed to for the honors engineering program. After two years of doing electrical engeneering when I wanted to be doing computer engineering(and really not feeling like I was excelling) and doing my roommate's MIS homework, I transfered to the Managment Information Systems degree and graduated with a business degree. This is instructive to show:

1. I'm kind of smart
2. But not smart enough
3. I know a good bit about computers
4. But way less than others.

I've worked for small consulting companies (Plan III), a small business (CourthouseDirect.com), A big 5 consulting company (Accenture) doing products and oil and gas work, a hedge fund (HBK) during the 2008 debacle, and 3D visualization start up (Aqumin), and finally started my own consulting company. I've done projects in Real Estate, Insurance, Oil and Gas, Refining, Construction, Cash and Collateral, Margin, Home Food Delivery, Guest Registries, Home owners associations, Medical condition tracking, and many others. That is to say, I've done a little of a lot.

I've tried to 'start up' an education web product, a fake football league, a social networking organization platform, a competiton api, a travel tool for Walt Disney World, and a few other projects along the way. They have mostly been complete and utter faiures. Along the way I've realized that I'm never going to pull something off all by myself. So I'm publishing this because I want to fix money and I need help doing so.

I'm an 'Alexadrian Prebyterian' by religion. I'll talk more about what that is in a later section. I think I made it up.

I'm married and have two kiddos and one on the way. That is to say I've had to fit the development of these ideas in among a lot of other things. I'd love to make this my life's work, but there are mouths to feed. Please help out.

I don't know what I'm talking about. I took microeconomics at UT but took a macro course a jr. college for credit. I've tried to read a good bit and pick a few things up, but there is a high likelhood that I've gotten a number of things completely wrong. Feel free to correct me. This book is hosted on github and I take pull requests.

The thought that I might have something to say about the future of money is actually an absurd thought for me to consider, but, never the less, I've put together the because I just couldn't stop thinking about it.

I voted for Perot in '96, Bush in '00, Kerry in '04, Obama in '08 and '12. That is to say I'm delusional, easily decieved, vengful, hopeful, and easily strung along. Also my political alegience is all over the map.

I've always had a deep seeded distrust of capitalism, or at least capitalists. I've seen the ease with which 'capitalists' point to capitalism to justify self serving behavir. At the same time I see the complete failure of the centralization of power in socialism and communism. I still have nieve sense that technology can overcome some of that power struggle with a little bit of transparency.

I first started think about this money stuff in 2009 after the banks started crashing and TARP was establised. I read an article on hackernews about 'Free Money' and Silivio Gessell. I was pretty facinated with the concept and the idea that the fact that money was 'immortal' was a big problem. I wrote some sweet 'fan fiction' where 'the world entered the current golden age by eliminating capitalism but preserved Freedom, Democracy, and the Free Market.' And I guess that was the genesis of this. I figure just because someone hadn't figure out a better way than capitalism didn't mean there wasn't a better way. This anti-capitalism sentiment lingered for half a decade as my attention wandered elsewhere.

Sometime in 2014 I listened to Capital in the 21st Century by Piketty. This gave me a fresh 'big picture' perspective. It brought me back to some of the ideas I'd had about money and the thought that the true root of 'capitalism' was the tendency for capital to conentrate. What about capitalism where that wasn't possible? Was it still capitlism? I began to do some contrary thinking and think about what it would look like if 'everything' was capitalistic. With this I've ended up at 'hypercapitalism'.

Around the same time Bitcoin was taking off. I came to understand some of the underlying technology and was intregued by some of the potential applications beyond currency. I was distrustful of a currency base that had no way to 'grow' since I had some basic understanding of the pandora's box we've opened going to fractional reserve banking. There is no way to put that genie back in the bottle without bloodshed. I also had the perspective that the gold standard was as much of a ponzi scheme as the current system, just a different kind of one.

Seeing a chance to remake money I started outlining the reasons for doing so and what money was actully for. To do this I relied a good bit on the frameworks put forward by Christopher Alexander in 'A Pattern Language' and 'The Nature of Order.' I also keep in mind a good number of lessons learned from Taleb about the ideas of antifragility. Neither of these are key to the discussion, but I think it is fair to name them as influences and disscuss them more in depth later.

I'm putting this out into the world because I don't have the technical expertise to pull it off my self. I have seen the productivity that open source software can lead to and want to follow that model for developing this platform for a new kind of money. Again, this is just the seed of an idea. Some of my assumptions are certainly wrong and I'm open to correction. Please submit pull requests.

On Influences

The following influences are in no particular order. I've included them because I think it is important to understand the lense that people see thorough when they are tring to think about an issue.

Christopher Alexander

The Nature of Order: An Essay on the Art of Building and the Nature of the Universe, Book 1 - The Phenomenon of Life (Center for Environmental Structure, Vol. 9)

The Process of Creating Life: Nature of Order, Book 2: An Essay on the Art of Building and the Nature of the Universe (The Nature of Order) (Flexible)

The Nature of Order: An Essay on the Art of Building and the Nature of the Universe, Book 3 - A Vision of a Living World (Center for Environmental Structure, Vol. 11)

The Nature of Order: An Essay on the Art of Building and the Nature of the Universe, Book 4 - The Luminous Ground (Center for Environmental Structure, Vol. 12)

A Pattern Language: Towns, Buildings, Construction (Center for Environmental Structure)

The Timeless Way of Building

The Battle for the Life and Beauty of the Earth: A Struggle Between Two World-Systems (Center for Environmental Structure)

I first read Alexander's Notes on Synthasis of Form in the late 2000s. I didn't really know what I was reading at the time. I rediscoverd him later when trying to get to root of and better understand 'Patterns' in computer program with some proding from a discussion of the architecture of Disney World. His stuff made way more sense to me than anything that I had seen in computer science. His 'difference' was that he looked at multiple levels of scale. The patterns fit together way that made sense.

His epic "Nature of Order" fundamentally changed the way that I look at the world. It balanced the ideas I had about wanting to make things beautiful and worth living for with the order of systems that I was drawn to. In cannot over emphasies the imporatance of these works and encourage everyone to read them. They are about architecture but also much, much more than that. They are about a life worth living and making sense of the mess that we have to approach every day.

He has influecned the structure of this book. The Pattern Language -> Form Language -> Generative Langauge comes straight out of his work. His process for creating a system is iterative and involves the following process:

Alexander's 10 structure-enhancing actions

1. Step-by-step adaptation.
2. Each step helping to enhance the whole.
3. Always making centers.
4. Allowing steps to unfold in the most fitting order.
5. Creating uniqueness everywhere.
6. Working to understand needs of users.
7. Evoking & being guided by a deep feeling of whole.
8. Finding coherent geometric order.
9. Establishing a form language that rises from & shapes thing being made.
10. Always striving for simplicity by which thing becomes more coherent & pure.

I've tried to integrate Alexander's 15 fundamental properties of wholeness over money/marketplace and have arrived at the following:

1. Levels of Scale -> Economic Organization
2. Strong Centers -> Transactions
3. Boundaries -> Seperation of Accounts
4. Alternating Repetition -> Money Life Cycle
5. Positive Space -> Market Satisfaction
6. Good Shape -> Fairness
7. Local Symmetries -> Transparency
8. Deep Interlock and Ambiguity -> Transaction Dependency
9. Contrast -> Identity

10. Gradients -> Dispersement
11. Roughness -> User Friendliness
12. Echos -> Patterns
13. The Void -> Legal Entiteis
14. Simplicity and Inner Calm -> Reliability
15. Not Separateness -> Elegance

Much of this comes from Thriving Systems Theory and Metaphor-Driven Modeling by Lesllie Waugspeck about IT systems and I've tried to adapt it for money.

The ultimate goal here to implement a generative process to develop a new system of money by taking things one step at a time and then evaluating the resulting system for latent centers that can be streangthened to increase the wholness of the system. We've had to start somewhere so I've proposed the pattern language in Book I. It isn't and should not be set in stone. It can and should change as we all understand the moving pieces better. I've alos not included any of the scientific justification that Alexander did in his pattern language book. It is essential that we build this together.

The consuption of all that Alexander has to say can take months. I'd encourage to not delay and begin reading immediately.

Nassim Nicholas Taleb

Antifragile: Things That Gain from Disorder (Incerto)

This particular book opened me up to paying attention to things that gain from disorder. Our monetary system is not one of those things. I don't want over state this as an influence, but I saw a lot of what Alexander was talking about in this book. Whole systems are anti-fragile.

In fact I have a theory that I'll throw out there but won't discuss much more. Taleb says that in doing productive work, one should look for the 'free options.' My theory is that if you take Alexander's 15 fundamental transformations, that either one of them is always a 'free' option, or at the other end that non of the 'life giving' options are free. The first theory would lead to a science where we can exponintialy improve almost anything by following a set line of thinking. The other is more likely and would state that 'ain't nothing free' and if you find something free, someone, somewhere (possibly you) are destroying wholeness.

In our discussion of money we will keep in the back of our heads, 'how does this deal with volitility'. Our current system crashes and comes back slowly. Can we soften the blows and increase adaptability of our monetary system? That is what we will attempt to do.

Kevin Phillips

Wealth and Democracy: A Political History of the American Rich

I read this book in the early 2000s and it was probably the gensis of my political swing from conservative leaning to a more liberal stance. It is a facinating study into how weath has concentrated in America. It was also written almost a decade before Capital in the 21st century.

In my opinon this should be requried reading for every American High School student.

Howard Zinn

A People's History of the United States: 1492 to Present

I'd heard a lot about Howard Zinn for a number of years as a Pearl Jam fan. "You can't be neutral on a moving train" from Down takes up some brain space in my head. I hadn't read anything from him until I was writing the first draft of this document. I listened to his People's History of the Unitied States and it is probably the reason that the 'Democratic' part of 'Democratic Hypercapitalism' is in there. It put the plight of the disenfranchised on my mind and caused me to put in the patterns on Human Dignity. These are important things and should not be ignored when we talk about money.

This also should be required reading for High School students.

Peter L. Bernstein

A Primer on Money, Banking, and Gold (Peter L. Bernstein's Finance Classics)

I don't know much about the man himself, but if you have event the slightest interest of what money is and how it works(and you are reading this...so...), this is a great, quick read that will give you the basics. It will quickly dispel myths like 'we just keep printing money!' and 'back to the Gold standard! Listening to this lead to the patterns on issueing new money and how to manage that process.

The big take away was this: Inflation and deflation occur when there is an imbalance in the supply of money and the production of a society. In other words, we can pring as much money as we want as long as we can keep up with an equal amount of production. Not only could we....but we have to to avoid a fluctuating currency.

John Pipper

Future Grace, Revised Edition: The Purifying Power of the Promises of God

This may be better in the Religion section, but studying this book in the late 90s lead to the construction of the idea that all value is future value. Past value has little bearing on the situation. So when we talk about the 'right to the full output of labor' keep this in mind. All remaiing value is future value. You can't go back in time and reap additional value.

Mike Daisey

http://www.abc.net.au/tv/bigideas/stories/2011/11/01/3352340.htm

Mike is a bit cotroversial after drawing attention to labor conditions in China with a bit of bending of the truth. His speach here led to my including ideas trying to remake banking into something a bit less blood sucking. He is an amazing story teller and if you want some entertainment with a bit of thought envolved he can provide hours of entertainment. He is a bit crass at times if that kind of stuff bothers you.

On Religion and God

I mentioned being a 'alexandrian presbyterian' earlier and I wanted to speak a bit more about that and the religious influence on this work.

I have tried to leave religion out of this work as much as possible. At a certain base level though it is inseperable that this work has 'do unto others as you would have them do unto you' in it. It is also seeks to be redemptive in nature in that this system for money will put forward a system that connects all of us in a deeper way than we currently are connectd.

By membership I'm a member of a Presbyterian Church in Ameria (PCA) church. That is the conservative branch of the Presbyterian church. My influences from the previous chapter have had some bearing on what I believe though and, specifically Christopher Alexander, have a lot to say about what and how I think we can really affect change in the world.

I believe that the Bible is the Word of God. I also believe that it is the Word of God as is meant for a nomadic agrarian society. I tend to read the Bible for what it says about God's character and less for how to go about living our daily lives. I'm convinced that outside of basic relational directives it has very little that is relvant to modern life. I'm not sure why God chose to stop speaking 2000 years ago but I think it is likely that a good bit of politics and power struggles went into changing the way we are listening.

In general, and my thoughs on this are in their infancy, I see a strong correlation between applying Alexander's 15 properties and redemption. As I continue to study this becomes more clear to me. The parallels between creating outside the bounds of wholeness and the idea of sin and the fall of man seems straightforward.

Take the following logic. According to Alexander, the 15 properties are the way that 'nature' expands living systems. If you extend this logic backwards you come to the realization that until intelligence, everything that happened was within this sphere of things. Take as a set all things that could happen and as a sub set the things that were only done via the 15 wholeness preserving transformations. The second set is much much smaller, but until intellegence (whether that be human or pre-human) everything that had happened was in that smaller set. Since intellegence we've managed to do many things outside of that 2nd set. In occurs to me that his may be the root of sin. Making a decision and taking an action that reduces the inherant wholeness of our creation or our relationships.

The herculean effort of redeeming a system that has gone off the rails draws many parallels to the sacrifice that God demmed necessary at the Cross. From the biblical timeline, the death of Christ accomplishes the change in vector where everything moves back 'on the rails.' That is where we are now. Moving back toward the rails. We are headed in the right direction but not there yet. In Eschatology(end times) circles this is akin to the amillinial view. That is, we are already in the end times and God's grace is expanding even as evil continues to expand, but ultimately God's redemptive grace has the velocity advantage. I don't know if it ends in a flash of light with evil being eradicated in an instant at a 2nd coming or if it will continue to be gradual and God will use his people and human weakness to move things forward as he has done for the last 2000 years. I'd welcome the first but expect the second.

In our confession we say the chief end of man is to 'Glorify God and enjoy him completely.' To me, this seems to be just what Alexander is getting at with his call to pursuing wholeness and enjoying the way that that wholeness seems to complete us as human beings.

Is God more like an otherworldly substrate that Alexander talks about in the Luminous Ground? I don't know, but I suspect God is and I think he is far closer than we think. As we begin to pursue wholeness, I imagine he will make himself know more and more.

I'll leave religion to this section, but would love discussion from anyone reading on these things.

The Pattern Language

We begin with that part of the language which defines a thriving global economic system of exchange. These patterns can never be designed or built in one fell swoop--but patient piecemeal growth, designed in such a way that every individual act is always helping to create or generate these larger global patterns, will slowly, and surely , over the years, make a global economic system of exchange that has these global patterns in it.

These Patterns exist at various levels of scale and can be generally grouped at the Global Scale, the scale of the State, the scale of the Market, the scale of non-personal legal entities, and the scale of the citizen.

Ultimately a thriving global economic system of exchange is an economic piston that drives the global growth of wealth, capital, technology, and culture in a controlled and progressive manner.

EPI. Economic Piston

An economic system of exchange can be made more Anti-fragile by using:

CVX. Converse Transformation (2)

BIM. Bi Modal (3)

PEL. Predictive Elimination (4)

at the global scale, work toward as system of exchange that satisfies the following patterns...

MEX. Medium of Exchange

MOV. Measure of Value

DIV. Divisibility

DPY. Deferred Payment

POR. Portability

LIQ. Liquid

RTC. Resistant to Counterfeiting

These items are most commonly embodied in the pattern...

MNY. Money

which can be regulated via

DMR. Controlled Inflation or Demurrage

all of which must support and be congruent with at the State level...

STA. The State

LAW. Rule of law

which together can implement...

LTN. Legal Tender

ISS. Issuance

and are empowered by...

PEO. A representative Democracy and/or The People

who can be assured of proper operation by...

TRN. Public Transparency

and maintain economic equality through...

TAX. Tax

so that the state and groups of states can establish a set of Markets that have display fluid properties of

SUP. Supply

DEM. Demand

and yet still promote...

INT. Interdependence and/or nth order decision making

CAP. Capital Investment

and neutralize or negate

ECR. Neutralization of Economic Rent

NOC. Negation of opportunity costs

and make more efficient the...

PDS. Predistribution of super profits

FSP. Diminishing value of future superprofits

INS. Instant Transfer of Funds

so that legal entities can be restricted by and unto...

KIL. Corporate Death

LLR. Limited Risk instead of Limited Liability

LBR. Enrich Labor

so that the citizen is maintained as the predominate actor in the state and economy via...

FOL. The right to the full output of labor

BNK. Everyone is a bank

and are protected via...

SOS. Social Security

STH. Statutory Theft

and yet maintain their right to

PRI. Privacy and Private Dispersal

Note: A Pattern Language in and of itself is not sufficient to accomplish the task in front of us. One must move beyond the pattern language and create a form language and (re)generative processes that support the pattern language and can make the pattern language real in the living world. Thus we move beyond Book I to Book II Democratic Capitalism (The Form Language) and Book III Art (the generative prescription for implementing one instance of our goals).

Todos:

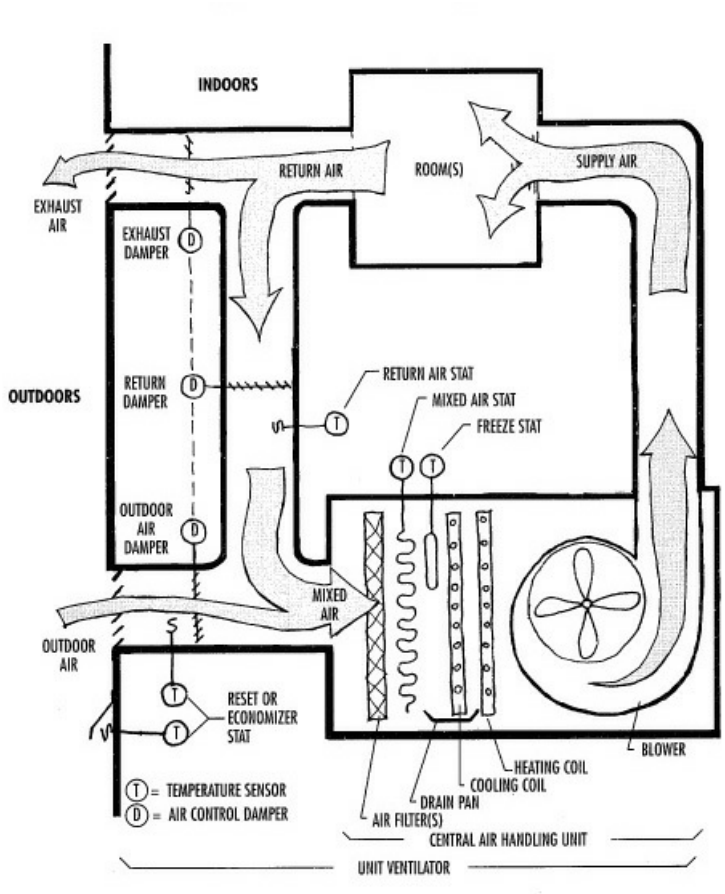
Fill in evidence for each pattern.

Rate each pattern according the properties of wholeness.

Develop generative and regenerative processes for each pattern.

Global Level

EPI. Economic Piston



An Economic system cannot function unless it is driven by a piston that maintains the velocity of money so that inflation is controlled and yet there is all ways enough money to buy the outputs of production.

If there is more money than output, prices will rise. This leads to hyperinflation.

If there is more output than money then unemployment will rise leading to a spiral of unemployment.

An economic system is subject to many outside forces that may rapidly swing the demands of a the system one way or another. (ie. War, Technology breakthrough)

A good economic system will be tolerant of these swings, a great system will thrive when they occur.

Therefore:

Whenever possible, work toward the evolution of a thriving economic system, the economic piston, that will excel in balancing money supply and demands and push the flow of money at a rate that benefits the advancements of society.

Within the economy, encourage the participants to distribute themselves into States **(STA)**, Markets **(MKT)**, Legal Entities **(LGE)**, all made up of Citizens **(CTZ)**. These actors can participate in the economy by using Money **(MNY)** and by producing Capital **(CAP)**.

MNY. Money

... how does one make account in an Economic Piston **(EPI)**?

How can we measure the effectiveness of our economic system? What is the unit of account?

Modern economies have moved on from barter of goods and/or commodity money into a barter for fiat money.

This idea of fiat money has been further augmented by a commercial banking system that has been empowered to keep money 'on the books' so that money is currently make up of the fiat money in circulation plus the values in the book ledgers of licensed banks.

There are many features of modern money that have made modern life easier. Are there down sides?

Is money natural? Current money is not natural. Natural things have a finite life and money does not. Other than burning or discarding fiat money it is very difficult to 'unmake' money. As we move to a digital age and away from fiat money and to a complete ledger system some of this drain will be removed. Can we naturalize money? This is what we will explore in this pattern language.

It is safe to say that any replacement of money will need to do at least what money does. What does money currently do? It provides:

- A medium of Exchange
- A measure of value
- A low volatility store of value*
- Divisibility
- Allows for a measure of deferred payment*
- Provides Liquidity
- It is resistant to Counterfeiting

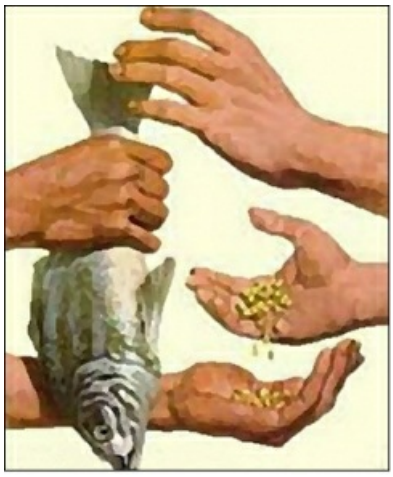
*We will debate whether this a natural function of money or an artificial function. Inflation has a lot to say about how well it is a store of value and one could argue that money does not actually store value as a dollar could buy arguably more in 1900 than the same dollar can in 2014.

Therefore:

Consider what money currently does and make sure that any new economic system does at least that.

Money must provide a Medium of Exchange **(MEX)**, a Measure of Value **(MOV)**, Divisibility **(DIV)**, Deferred Payment **(DPY)**, Liquidity **(LIQ)**, and be Resistant to Counterfeiting **(RTC)**. Money can be controlled via Demurrage and Controlled Inflation **(DMR)**. It can be used to buy existing or used to generate new Capital **(CAP)**. Money must have a method of being issued **(ISS)**. It can be declared by the State **(STA)** as Legal Tender **(LTN)** and collected as a Tax **(TAX)**. It is used by the Legal Entity **(LGE)** and Citizen **(CTZ)** to meet expenses. Money can be used to buy and/or develop Capital **(CAP)**.

MEX. Medium of Exchange



... how does one lubricate the exchange of goods with Money **(MNY)**?

Barter is inefficient. Money solves the this problem how?

Money gives us an easy medium of exchange. A person can exchange a good for money knowing that later they can use that money to purchase other goods.

In personal transactions, fiat money can trade hands for goods. This is an instant transaction.

Digital transactions are not so simple today, although the reason is based on entrenced corporations and obstructionist lobbying. Funds must be transferred from one bank account to another often with a charge to the cash receiving party.

As much as it can be, a new form of money should eliminate this fee an transfer money from one account to the other as near to instantly as possible without sacrificing security.

Therefore:

Any form of money must be a means of exchange, should be transferable without a fee, and transacted funds should be made available as soon as securely possible.

Means of exchange is supported by Liquidity **(LIQ)** an Divisibility **(DIV)** and Measure of Value **(MOV)**. Means of exchange can be strengthened by being made Legal Tender **(LTN)**.

MOV. Measure of Value

... how does one measure the exchange of goods with Money **(MNY)**? How can encourage a Medium of Exchange **(MEX)**?

Barter of goods suffers from the not needed fallacy. Money solves the this problem how?

Money is an efficient way to measure value. Since unis of money are fungible, when one person offers X units for a good and another offers 2X, the good is measurable more valuable to the second. This may seem a silly example, but 2 cows are not necessarily more valuable than 1 cow. The 2 may be unhealthy or a different breed.

As much as it can, a new form of money should maintain this property. 1 unit should always be half as valuable as 2 units of the same currency.

Note: We contend that a measure of value is different than a 'store of value'. A measure of value can be achieved without there being a 'store of value'. As we will argue later a 'store of value' is an artificial thing and not proper for the real world.

Therefore:

Any form of money must be a measure of value.

Measure of Value is supported by Divisibility **(DIV)**. Measure of Value can be strengthened by being made Legal Tender **(LTN)**.

DIV. Divisibility

... how does one divide Money **(MNY)** in order to pay for items of smaller value? How can we support a measure of value **(MOV)** when goods and services have variable values?

If one chooses almost any whole unit of value, one will be able to identify an item that is worth a fraction of that unit. How can we solve that problem?

Money usually is divisible into a sub unit. Dollars into cents, etc. This helps solve the problem of fractions.

Modern currencies usually provide a large number of small fractions. This helps with divisibility and allow users to record transactions for very small amounts of cash that hold significant meeting.

Therefore:

Any form of money must be divisible into many small fractions. Preferably 10 decimal places.

DPY. Deferred Payment

... how can one exchange a good for the deferred payment of money **(MNY)**?

Often one wants to procure goods now with a promise to pay later. Often called a loan. How can currency accomplish this?

Money is an efficient way to measure value. Since unis of money are fungible, when one person offers X units for a good and another offers 2X, the good is measurably more valuable to the second. This may seem a silly example, but 2 cows are not necessarily more valuable than 1 cow. The 2 may be unhealthy or a different breed.

As much as it can, a new form of money should maintain this property. 1 unit should always be half as valuable as 2 units of the same currency.

Therefore:

Any form of money must be good for establishing Deferred Payment and as much as it can it should hold the value of the debt to be the same at the time of initiation as at the time of pay off.

Deferred Payment is supported by Rule of Law **(LAW)** and enforced by Legal Tender **(LTN)**. It can be made even stronger when inflation and deflation are controlled by Demurrage **(DMR)**

LIQ. Liquid

... how can one ensure the availability of money **(MNY)** and strengthen the Means of Exchange **(MEX)**?

If an asset cannot be readily sold for its full value, how can it be called money?

If someone owns an apple and it is worth 10? Only if the market is liquid. If there is only one buyer he may demand a lower price if the seller is desperate.

Money must be readily available and 'liquid.'

Is our current money 'purely liquid'? First we must define 'purely liquid'. An asset is purely liquid if it can be used in exchange the instant it is received.

Under this definition our current paper money is 'purely liquid' if you ignore the time it takes to travel from the physical location of receipt to the physical location of spending.

On the other hand our 'cash deposits' are not. A check may take days to clear the system even if it is deposited as soon as received. Debit card transactions also may take time to settle.

If possible we should make the time that funds become available to spend after receipt as small as possible.

Therefore:

Money must be liquid. If it can be 'purely liquid' make it so.

Liquidity of money can be achieved with Instant Transfer **(INS)** and controlled by Controlled Inflation or Demurrage **(DMR)**.

RTC. Resistant to Counterfeiting

... how can one ensure the money **(MNY)** cannot be falsely created or duplicated?

If money is easily reproducible with no work or controls it will be come worthless?

Money must be 'scarce'. The scarceness of it, coupled with peoples trust in its value is what gives it value.

There must be a way to keep money from being 'created' in a nefarious and unofficial way.

Therefore:

Money must be resistant to Counterfeiting.

Counterfeiting can be battled with the Public Ledger **(PLG)**.

CAP. Capital

... how can one create and maintain value in an economic piston **(EPI)** what can one purchase with Money **(EPI)** that is not consumable?

If money is going to degrade as everything else in nature, how can one preserve value and grow one's position in culture?

Almost anything can be capital. An apple is capital for the time it is ripe, and then maybe in a compost heap. It is certainly not a stable piece of capital as it rots easily and can be consumed.

Capital is any asset that is expected to produce money at a point in the future. Wikipedia says: " capital consists of any produced thing that can enhance a person's power to perform economically useful work—a stone or an arrow is capital for a caveman who can use it as a hunting instrument, and roads are capital for inhabitants of a city."

So one can buy capital or produce capital via work. One form of capital is land, although it is not produced it is still a type of asset and can produce rents. We will distinguish between artificial capital and real capital later on.

Capital tends to depreciate and requires investment to maintain value.

It is also the property of capital that it tends to concentrate when not physically disrupted by war or legislation. Much of the class struggle of the last 350 years has been due to capital concentrating at the expense of labor that helped produce the capital.

Why does this happen? When a laborer exchanges his work for money, the capitalist gains the right to the product of his labor. Because money is finite and the laborer must use some of his wages for consumption, more and more value is concentrated in the capitalist's hands.

This may end up being the ultimate downfall of capitalism. If the gap between capital and labor grows too large, the labor class has typically revolted. This has been managed a bit by progressive policies on income, but ultimately income is only a piece of the equation. Capital is hard to tax because many items of capital are not liquid. If everyone agrees a tractor is worth 500 dollars but no one is willing to buy it, is it really worth that?

If we can, we must attempt to find a resolution to this issue. Capitalism has led to an immense improvement in society and massive production. It would be foolish to throw the baby out with the bathwater. The selfish motivation of capitalism can be very productive for society if we can find a way for labor to be balanced in the equation of wealth.

Therefore:

Money must be able to buy Capital. The tendency for capital to concentrated must be overcome.

Capital can be broken down into Artificial Capital **(ACP)** and Real Capital **(RCP)**. Ownership of Capital can be secured via Rule of Law **(LAW)** and the Public Ledger **(PLG)**.

RCP. Real Capital

... what kind of Capital **(CAP)** is tied to real things?

Not all capital is 'real' in that it can be touched in the physical world.

Real Capital are physical thing and/or clearly identifiable things that can be characterized as capital.

Land is the initial example. Land can be bounded in two dimensions and it can produce rents.

A tractor is another real piece of capital. It can be used to produce crops or improve land.

Patents can also be real capital.

Potentially, encrypted digital assets could be considered real capital. This is up for debate and it may depend on the type of digital asset that is produced. For example, a domain name may be real capital while a digital share of stock may not be.

The difference of real capital and artificial capital will be discussed more in the ACP artificial capital chapter.

The characteristic of real capital that we want to focus on is that all forms of real capital degrade over time. Land must be invested in and made better. Patents expire. Tractors rust.

Therefore:

Some capital must be recognized as Real Capital and treated differently than artificial capital.

Ownership of real capital can be recorded in a Public Ledger **(PLG)**.

ACP. Artificial Capital

... what kind of Capital **(CAP)** is tied to real things?

Not all capital is 'real' in that it can be touched in the physical world

Real capital degrades and requires continued investment. What about capital that does not degrade? This is artificial capital. Things like stocks and bonds are artificial capital.

Another way of saying this is that artificial capital is a 'contract' that has the potential to claim the right to the payment of cash or another asset.

Artificial capital does not need to be maintained. It can be an immortal instrument. As we have discussed with money, this is not an attractive quality for a thing to have.

Artificial capital should be limited in life as well. We will discuss multiple methods on how this can be accomplished in later articles. To summarize here they are:

1. Demurrage of Artificial Capital
2. Corporate Death
3. Taxation
4. Diminishing value of future economic rents

Therefore:

Artificial Capital must be identifiable and must be forced to degrade or expire as all natural things do.

Artificial Capital can be controlled via Demurrage **(DEM)**, Tax **(TAX)**, Diminishing value of future economic rents **(FSP)**, and Corporate Death **(KIL)**. Artificial Capital can be tracked in the Public Ledger **(PLG)**.

DMR. Controlled Inflation or Demurrage

... how can one ensure the value of money **(MNY)** does become volatile and that it maintains the measure of value **(MOV)**? How can the liquidity **(LIQ)** of money be encouraged?

If money is a perfect store of value, why would anyone part with it? If too many people have too much money and demand skyrockets, how can inflation be prevented? If salaries crash and no one has any cash, how can prices be kept from deflating?

Current money is a 'store of value'. If you have a dollar today. Bury it for 10 years. And then dig it up. You still have a dollar.

Your only enemy is inflation. Your only friend, deflation. It is very unlikely that you will be able to buy the same amount with that dollar in 10 years.

If one buried a bushel of wheat, would you expect it to be worth the same in 10 years when it is rotted?

Even gold decays on an atomic scale. And gold is worthless for all but petty or highly scientific things.

All things wither and die. And so we believe that our money must do so as well. Now the good news is that things full of life also grow and reproduce. Do not despair that our money will die. It will also thrive.

We propose to control inflation/deflation with Demurrage. Proposed by Silvio Gessel in the 19th century, Demurrage is a process by which a unit of currency 'decays.' The rate at which it decays can be manipulated as to encourage the liquidity and flow of money through the economic piston. If inflation is too high, the demurrage value can be lowered and people will be more encouraged to carry cash balances. If deflation threatens, the demurrage rate can be increased to dissuade people from holding cash. They will look to use it to buy capital and things that maintain value. This will also lead to less waste.

As a hard example, lets say that the demurrage rate is 1% per year. At the end of each month the owner of a dollar would have to purchase a .01 dollar stamp and affix it to the dollar to maintain its value. If the owner does not want to pay the tax, he should spend the dollar before the tax is due. If she is wise she will spend it on something that may return her a dollar or more's worth of value in the future. This is the idea of stamped money and it is not practical in our digital age, but the concept can be extrapolate out to digital currency.

Therefore:

Inflation and deflation must be controlled with demurrage.

Demurrage can provide solutions to taxation **(TAX)** and must be balanced with Interdependance and/or nth order decision making **(INT)**.

State Level

STA. The State

... how can an economic piston **(EPI)** organize its self at the top level?

Absolute power corrupts absolutely. How can global power be broken up to ensure a balance of power between citizens of the world.

For recent history, humans have 'chosen' to separate themselves into states. Some of these states hold massive power and some are weak.

We don't pretend to have the answer to which 'size' a state should be but we do contend that it needs to exist.

We can say that should not be one global state.

We can also say that it would be inconvenient for the laws of the land to change every time you crossed a street so a state should not be the size of a ciy block.

Somewhere in between is the answer and if take the idea of wholeness, it is likely that the answer of the size of a state is dependent on the states around it, and the geography, and the make up of the organizations of its citizens.

So if size is variable, what is constant? The state is helpful for the organizing of a people into a coherent group so that they can govern themselves. By creating a state with a constitution that protects the rights of citizens, order and human dignity can both be maintained.

The state can issue laws and help standardize society on certain protocols and language for transacting business. We will discuss these later.

On the subject of ideology, I would like to try to avoid picking a side. The citizens of the state must decide for themselves what form of government to take. History provides many lessons about the evils of Imperialism, Capitalism, Democracy, Communism, Socialism, etc. Our hope here is to create a form of money that would moderate those evils in all scenarios.

It is also worth noting that the future of the state may be multi-leveled and abstract. Today in America we have National, State, County, and City governments. All levels must currently be in agreement and the lower levels cannot override laws and rights granted at higher levels. This is currently geographically based, but that is not a requirement. We will see in our discussion of money how a citizen may elect to participate in government tied to many aspects besides geography.

Therefore:

The state will exist when a group of people organize. Create a money that helps reduce the propensity of the state to cause harm.

The State is supported by the rule of law **(LAW)**. It funds itself via tax **(TAX)** on citizens. It has the right to Issue **(ISS)** currency and declare it Legal Tender **(LTN)**. The state should be supported and run by The Citizens **(CTZ)** and it must be be forthcoming with them via public Transparency **(TRN)**. Inside of a state, and across states, Markets **(MKT)** will form.

LAW. Rule of law

... how can a state **(STA)** enforce its desires and support its citizen's rights?

A state without order is worthless and ineffective.

The rule of law is important in the state. Without it the state will not exist.

Many 'new money' schemes tend to try to create a currency outside the control of the state. This will not work and those currencies will be plagued with nefarious uses.

Without the rule of law, a citizen can refuse a form of payment for a dept or for goods and services.

In addition, theft often has no recourse in classic cryptocurrency schemes. If cash is stolen and moved from one wallet to another by unlawful means, there is no way, other than force and torture to move the money back. By integrating rule of law into our scheme for a new form of money we will allow the state to right wrongs.

What of state corruption an misuse of the rule of law? This is a hard question to answer as the threat of overwhelming force has been the cause of many unjust acts by the state. Our money must provide a way for the citizens to keep the government accountable. The citizens must be the administer of rule of law on the government. For that purpose we will later propose transparency by the government.

Therefore:

Money must be subject to the rule of law. This does not exempt the rule of law from being accountable to its citizens.

Rule of law is established by the citizens **(CTZ)** and can be held accountable by public transparency **(TRN)**. It can establish Legal Tender **(LTN)** and the public ledger **(PLG)**. Rule of Law establishes the existence and rights of a Legal Entity **(LGE)** and enforces the payment of tax**(TAX)**. Rule of law can also establish the formalness and regulatory level of Markets **(MKT)**. Rule of law can establish statutory theft **(STH)**.

LTN. Legal Tender

... how can a state **(STA)** use Rule of Law **(ROL)** to help encourage the use of a new money. How can money **(MNY)** help implement deferred payments **(DPY)**, means of exchange **(MEX)**, and measure of value **(MOV)**?

People in an economy need to know that the object they are using as money is a reliable instrument and will be accepted as payment.

The state can declare an instrument to be legal tender, good for all debts public and private. This is not necessary for a money to function, but lends credibility and increases the utility of a money

Therefore:

Encourage the adoption of a new money as legal tender.

ISS. Issuance

... how can a money **(MNY)** come into being?

Even money with no implicit value must come from somewhere.

Money must be issued. There are way of doing this:

1. A government can issue currency by printing it.
2. It can be a natural element like gold and be mined.
3. The current US fractional reserve banking system relies on commercial banks making loans to issue new currency.
4. The money can have an implicit form of issuance. ie. Bitcoin 'mining'

Do we always need new money? Not always, but in order to balance the amount of money in circulation and the production of an economy, money will need to be issued when production increases.

One issue that we currently have is that the fed tries to predict the amount of money that will be needed and adjust reserve rates and fed borrowing rates to affect the number of loans being issued. In a sense they are trying to predict what will happen. This is a foolish operation and has gotten us in trouble more than once. Can we determine a way to issue currency so that is a direct function of production instead of predictive?

What about when production falls? How is money removed. This is discussed in the chapter on Demurrage.

Therefore:

There must be a way to issue money. Try to make this method a direct function of production instead of attempting to predict production.

TRN. Public Transparency

... how can money help a state **(STA)** keep from abusing the Rule of Law **(ROL)**?

The state can covertly operate and abuse the rule of law.

A new form of money should both encourage rule of law, but also keep it in check when ever possible.

This can be accomplished by public transparency. If the government can neither take a payment or make a payment without being transparent with citizens.

If possible, our money should require state accounts to be open to scrutiny by all citizens.

Therefore:

Require public transparency in accounts of the state.

Public transparency can be overseen by the citizen **(CTZ)**. Public transparency can be implemented via the Public Ledger **(PLG)**

TAX. Tax

... how can money **(MNY)** be collected by the state **(STA)** to pay for its expenditures? How can the strength of artificial capital **(ACP)** be controlled? How can Demurrage **(DEM)** be used to support the state. How can taxation be implemented with Rule of Law **(LAW)**.

How can the state collect funds to pay for the services of maintain the right to life, liberty, pursuit of happiness, and other services for its citizens?

Methods of collecting taxes have always been controversial, and yet the state needs to collect money to run its services.

Historically, it has printed the money, leading to inflation, or taxed its citizens and participated as a market participant. The former has had devastating effects. The later has generated more hot air on cable news networks then should be legal.

Our money should make taxation as painless and transparent as possible.

Demurrage is an ideal candidate for simplifying the tax system. If we already have a method of money being taken out of circulation, it should be easy to pull more and have it make a stop in the government coffers to be spent on services. Money in government coffer that is not spent can demurrage to nothing over time. This give the government a way to permanently take money out of circulation.

This Demurrage tax would be a 'flat tax' and would not be progressive. It would hit rich and poor alike.

The taxation of artificial capital is hard. Some artificial instruments do not provide for divisibility. Rule of Law can be used to enforce the divisibility of artificial capital. In this instance, the government can easily tax it by taking a portion each year. This would be a much more progressive tax than a straight demurrage tax. We can also consider demurraging artificial capital that is divisible and recorded in the public ledger. This would allow for the flat tax of artificial capital. Because artificial capital will be divisible this will overcome the problem where an asset can not be sold because a market does not exist for it. In this case, a portion of the asset could flow through the system and the receiver could hold it until a market did exist for it.

Most real capital cannot be divided so it cannot be treated in the same way.

Therefore:

Provide for simplified taxation of money and artificial capital.

Taxation can help predistribute economic rents **(PRF)**. Contributions to the state can be tracked in the public ledger **(PLG)**. Taxation can help support government services supporting Human Dignity **(DIG)**.

Market Place Level

MKT. The Market

... How does an economic piston **(EPI)** organize itself? How can the state **(STA)** organize economic activity via the rule of law **(LAW)**.

Centers of economic activity both informal and formal emerge around specific activities. How should we discuss these?

Markets emerge around all kinds of activities. Some markets are informal like the bizarre. Others are very formal and subject to strict regulation like the New York Stock Exchange.

Money is used as the medium of exchange in all of these markets. Our money should support these markets and help the to operate more efficiently than the current system does.

Therefore:

Provide liquidity and an infrastructure for highly effective markets.

Markets determine the price for things via Supply, Demand and Price **(SDP)**. When analyzing a market we should use Interdependence and/or nth order decision making **(INT)**. An ideal market should Neutralize Economic Rent **(ECR)**, provide for the negation of opportunity costs **(NOC)**, provide for the instant transfer **(INS)** of goods and services, and be held accountable by the public ledger **(PLG)**.

SDP. Supply, Demand, Price

... How does a market **(MKT)** track what is available in a market and what to price goods and services.

Markets must understand the current supply and demand of goods and services to create a price for them.

Can we help make the supply and demand in a market more transparent? If goods and artificial capital are registered in the public ledger we could give more transparency to the supply currently in the market. Bids for assets could help show demand. This may be an over extension of our system to try to make this ubiquitous, but for some items it could be a good way to determine a price.

We will discuss this more when we talk about a market for debt.

What will be in our Public Ledger is the past supply. This can be an important input into forecasting prices and demand.

Therefore:

Support specific meta data around transactions that help track the past supply of goods and services and the prices that were paid.

Track item supply and price paid in the public ledger **(PLG)**.

INT. Interdependence and/or nth order decision making

... How does a market **(MKT)** determine the regulation that it should implement. How can one determine the rate and style of Demurrage **(DEM)** that is implemented.

Each action has multiple consequences. How can we manage these and attempt to predict consequences of our decisions.

One of our biggest issues in modern discussion of the economy and politics is the lack of nth order decision making. People readily talk about the first consequence of an action but neglect to consider what happens in the next iteration of action.

For example: A shop keeper complains that the government steals his taxes. The government does not take the mans money and bury it in a hole. It uses it to buy a warplane from a company. That company pays an engineer to design the plane. That engineer returns to the man's store and purchase a good from the man. In the real world the line can't be drawn so clearly, but many lines can be drawn from many people, through the government, through many companies and back to many stores.

Perhaps using the government is a bit inflammatory, but the story is the same in all markets. The money flows through it. It does not go from point A to B and never leave B.

Our money would be wise to institutionalize this reality in order to help us orient ourselves to its reality. When our minds get better at thinking this way we will be able to discuss it more intelligently and will be able to make better decisions.

Therefore:

Institutionalize the interdependence of our economy in the money that we create.

ECR. Neutralization of Economic Rent

... How can a market **(MKT)** neutralize its inefficiencies.

Economic rent occurs when a market is inefficient. How can they be neutralized?

First we must understand Economic Rent: (from wikipedia)

* In economics, economic rent is any payment to a factor of production in excess of the cost needed to bring that factor into production. In classical economics, Economic rent is any payment made (including imputed value) or benefit received for non-produced inputs such as location (land) and for assets formed by creating official privilege over natural opportunities (e.g., patents). In neoclassical economics, economic rent also includes income gained by beneficiaries of other contrived exclusivity, such as labor guilds and unofficial corruption.

Economic rent should not be confused with producer surplus, or normal profit, both of which involve productive human action. Economic rent is also independent of opportunity cost, unlike economic profit, where opportunity cost is an essential component. Economic rent should be viewed as unearned revenue, whereas economic profit is a narrower term describing a more theoretical concept of unearned surplus income greater than the next best risk-adjusted alternative. Unlike economic profit, economic rent cannot be eliminated by competition, since all value from natural resources and locations yield economic rent.

In regard to labor, economic rent can be created by the existence of guilds or labor unions (e.g., higher pay for workers, where political action creates a scarcity of such workers). For a produced commodity, economic rent may also be due to the legal ownership of a patent (a politically enforced right to the use of a process or ingredient). For operating licenses, it is the cost of permits and licenses that are politically controlled as to their number, regardless of the competence and willingness of those who wish to compete in the area being licensed. For most other production, including agriculture and extraction, economic rent is due to a scarcity of natural resources (e.g., land, oil, or minerals). When economic rent is privatized, the recipient of economic rent is referred to as a rentier.*

So are economic rents 'bad'? Capitalists seek every advantage to get them. Unions lobby and organize so they can collect them.

It is hard to say whether they are good are bad, but what they are is 'unearned revenue'. If they are unearned, where do they come from? Are they theft if they are unearned? This would certainly make them 'bad'.

I don't know that we can answer the question with any certainty, but what we can do is attempt to neutralize them.

Traditionally, economic rents have been taxed if they can be isolated, or fees have been charged for the rights to put oneself in the position to earn them.

We will contend there is a better way. Who is harmed in the case of an economic rent? The buyer of the good or services has to give up more than they 'should' have to if a circumstantial situation did not exist.

Our proposal is not 'refund' the economic rent, or to tax the economic rent, but to put the payer of the economic rent in a position to participate in any future gain made from the economic rent.

Our money should allow for this*.

Therefore:

Provide for the neutralization of economic rents.

The neutralization of economic rent **(ECR)** can be accomplished with the predistribution of economic rent **(PRF)**.

NOC. Negation of opportunity costs

... How does a market **(MKT)** make choices between alternatives.

Markets make decisions based on the profit of the thing they are giving up. Is this the best choice?

I am an economic novice. It seems to me that what I'm about to propose may violate some fundamental principal of economics, but I'm going to throw it out there so that others that really understand this can comment. Be forewarned. The following may be gibberish.

Opportunity costs are: (from wikipedia)

In microeconomic theory, the opportunity cost of a choice is the value of the best alternative forgone, in a situation in which a choice needs to be made between several mutually exclusive alternatives given limited resources. Assuming the best choice is made, it is the "cost" incurred by not enjoying the benefit that would be had by taking the second best choice available.

If I understand this correctly, the opportunity costs are a key driver in our decision making. It seems to me that this is generally a point A to point B decision making process and that it completely ignores the Interdependance of things.

All generated value is future generated value. An investment in one thing may lead down the line to incredible profit, but for the initial investor, all may be lost.

Can we negate this effect? What if we could invest with significantly less opportunity costs given up? Would this lead to extravagance and waste? Would it lead to poor decisions?

I'm not so sure. If the bank were to give me 10 million dollars today, I would create some economic value with it. Even if I squandered it on consumables, the producers of those consumables would thrive and go on to create economic elsewhere. What if the bank could participate in that future economic payout, even if I go bust?

To look at it another way, If Choice a Pays 20, our opportunity cost is $10. What if A produces more economic value in the reuse of the capital invested? Currently we cannot track this without significant contractual agreement(and beyond 1 or 2 iterations it would be nearly impossible). But what if our money did this for us? What if it was built into the system.

What if we drastically screwed up the idea of opportunity costs. I've used the word negation because I think it is possible that we could drastically change the conversation from opportunity costs to future economic potential.

Our money should do this.

We take pull requests.

Therefore:

Our money should change the way a market views opportunity costs.

Negation of opportunity costs can be accomplished with the predistribution of economic rents **(PRF)**

PRF. Predistribution of economic rents

... How can a market neutralize economic rent **(ECR)** and negate opportunity costs **(NOC)**.

Markets can never be perfect, how do we account for unearned income?

To overcome the effect of economic rent our money will give preferred stock in an account to anyone that transfers money into an account. We call these Prefs.

As an example, A father goes to buy a gallon of milk from the grocery store. The gallon costs 2 to the grocery store account. The grocery store give the man a gallon of milk and two shares of Prefs in the grocery store's account.

When the Grocery store's account demurrages, a portion of the demurrage will go back to the man's account. In this way, if he paid an economic rent of $.02 cents because the store was closer to home, he will make up the economic rent overtime.

The man may owe only a very small percentage of the prefs in the account, but eventually, cash will be returned to him. We will discuss and analyze the flow of cash in this way later when we prove out that this works in our financial models.

Modern digital money allows us to do this. Paper dollars would never be able to give us this functionality.

Let us look at the effect of this transfer of prefs to the man:

1. The man may eventually recoup his payment of an economic rent.
2. The man is now 'invested' in the success of the store. The better the store does, the sooner he will recover his economic rent.
3. The man has dispensed with $2 that he would have to pay demurrage on if he had not spent it. He likely would have spent it quickly anyway to avoid this charge, so he benefits from delaying his pay back of the economic rent to the future.

Let us take a look at it from the view of the store:

1. The store had to give up a piece of preferred stock. This is a piece of artificial capital and cost the store nothing to produce.
2. The store's cash was going to demurrage anyway, it is agnostic to the receivers of the demurrage.
3. The adverse effect to the store is that if it holds the man's cash forever, it will eventually all demurrage away. This is highly unlikely.

We call this a 'predistribution' because the store's account must 'demurrage' all of its holdings in the account before it can accept another payment or pay cash out of the account. We call this the 'catch up'. All accounts must 'catch up' before they:

1. Receive Pref payments from the demurrage of other accounts
2. Pay cash to another account.
3. Whenever dictated by the rule of law. We suggest at least monthly.

Therefore:

Give preferred stock to anyone who sends money to an account. Pay a portion of the demurrage of that account out to the holders of prefs in that stock on a regular basis.

The predistribution of economic rent leads to the diminishing value of future economic rent **(DER)** and is made possible with the public ledger **(PLG)**. Control the recursive nature of predistribution of economic rents using the Principal of First Pref Payment **(PFP)**. Prevent the devaluation of prefs using Statutory Theft **(STH)**.

PFP. Principal of First Pref Payment

... How do we bound the recursive nature of predistribution of economic rent **(PRF)**?

In centralized markets, pref payments could recur from one market to another participant and back again. How do we handle this?

Each catch up should be issued an ID. Pref payment from this ID can only hit an account once. The second time the account is hit in the pref distribution chain, the full amount should go to the selected taxing authorities.

Therefore:

Only allow one payment in each catch up chain.

The principal of First Pref Payment is made possible with the public ledger **(PLG)**.

DER. Diminishing value of future economic rent

... What effect will the predistribution of economic rent **(PRF)** have on the market?

Each next person to transfer cash into an account will receive a smaller percentage of future economic rent. What effect will this have?

I'm going to go off of the rails a bit here, but I promise to bring it back around to the issue at hand.

A young man's heart is filled with want and he seeks out a young woman. Do you ever see him pursue an old woman? Rarely. When we do, we see it as off putting. The same when a young woman pursues an older man. Often this is the genesis of tumult an divorce. There is something regal about a couple on their 60th wedding aniversary. There is a natural wholeness to fidelity and to the generations clinging to each other as we move through life. We are born, we grow old together, and then we die to make room for the generation behind us.

This is the effect that I expect predistribution of economic rent to have. The longer an account is around the harder it will become for it to attract new contributors. On the other hand, the contributors that have been around a while will collectively continue to support the account and look for future economic rents.

I expect many will 'date' the account, find a nice spot to settle down and then continue to live with their commitment until the end. Til death do you part.

I guess in a sense I'm speaking about the love of corporations. This is a very odd thing for me to say as I generally feel the opposite way. But this is a new kind of corporation. One that must ramp up its contribution to the relation ship with customers as the pref count goes up.

Of course the opposite will be true as well. What happens when the corporation has a significant(maybe close to 100%) stake in the account of a 30 year old worker that has been with the company for 10 years? Is it more profitable for the company to keep the worker in their job or to do everything they can to help that worker capture economic rents outside of the corporation?

I believe we will see a new dedication of the corporation to the labor where the corporation receives a significant rebate on the wages they pay labors by helping educate the laborer and push them to more profitable enterprises.

Therefore:

Expect the diminishing value of economic rent over the life of an account and provide for that life cycle.

Diminishing value of future economic rents will lead to Corporate Death **(KIL)** and to the Enrichment of Labor **(LBR)**.

INS. Instant Transfer

... How can a market **(MKT)** ensure the liquidity **(LIQ)** of money?

Money that is tied up in processing or in a bank vault can cause a liquidity crisis.

Our current cash settlement system is too slow. In our new system money will need to change hands quickly.

Bitcoin and other 'proof' systems require a settlement time. If our system can outperform that system it will have an advantage in adoption

Therefore:

Provide for the instant transfer and useability of funds.

Instant transfer can help secure the concept of Everyone is a Bank **(BNK)**.

PLG. Public Ledger

... How can a capital **(CAP)**, both artificial **(ACP)** and real **(RCP)** be tracked. How can we hold accountable those that enforce rule of law **(LAW)** and support public transparency **(TRN)**. How can we track the movement of Supply, Demand and Price **(SDP)** in a Market **(MKT)**? How can we support, enforce and celebrate the paying of taxes **(TAX)**. How can we strengthen the predistribution of economic rents **(PRF)** and money's resistance to counterfeiting **(RTC)**.

One of the critical weaknesses of our current cash is its ability to move outside of regulated channels via paper money. It is used to support black market activities and to avoid the paying of taxes.

Our system will provide for a 'public ledger' that shows all transactions from one wallet to another. This data will be mine-able and discover-able.

This will allow us to secure the rights to assets via the rule of law. Center to this is the tracking of the Prefs that have been issued to a wallet. When an account wants to spend money, accept money, or claim pref payments, they will need to 'catch up' and distribute a portion of the demurrage to pref owners in there account. Because all prefs are logged in the public ledger this is easy.

In addition to transaction fundamentals (how much, to who), parties will be able to attach meta-data to their transactions. Serial numbers of purchased goods can be tracked in a similar way to how property transactions are tracked in the county courthouses around the country. Title insurance will no longer be necessary.

What about privacy? There are certainly instance where a citizen would not want to have a transaction public due to the sensitive nature of the transaction. Later we will discuss the solution to this problem in Privacy and Private Dispersal.

Because these private transactions will be handled differently we can provide a right to use them, but also tax them if they lead to a drain on society or are suspected of leading to nefarious activity.

Because private transactions will take extra time to anonymity, we may not be able to provide instant transfer

Certain account types may be restricted from using private transactions. For example, corporations and/or the state should not be allowed to use such types of transactions. Privacy should be a right reserved for citizen type accounts only.

How can we secure the public ledger? Using cyptocurrency style security we can secure block of transactions, and distribute the keys to the public. By doing so, a nefarious entity will not be able to 'rollback' transactions or double spend. When, via the rule of law, a change to the ledger needs to be made, it must be done via a correction entry and will be subject to democratic veto.

Therefore:

Develop a public ledger system that protects the rights of citizens for privacy but also allows for the registering of ownership.

The public Ledger helps enable Everyone is a bank **(BNK)** and Human Dignity Services **(DIG)** Included in the public ledger is the fact that Privacy and Private Dispersal **(PRI)** helps secure the right to privacy for the citizen **(CTZ)**. The public ledger helps secure the right to the full output of labor for the citizen **(FOL)**. Correction records should be subject to democratic veto **(VTO)**.

Legal Entity Level

LGE. Legal Entities

... How can participants in an economic piston **(EPI)** group together to do business. How can the state establish these entities via rule of law **(LAW)** so that they can use money **(MNY)** to function.

Society has found it convenient for citizens to be able to group together to form groups that have legal rights and that can collect and distribute money. How will we handle this.

The state has allowed its citizens to group themselves into many different types of legal entities:

- Sole Proprietorship
- Partnerships
- Limited Liability Companies
- S-Corporations
- Joint Stock Companies
- C-Corporations
- etc

This trend started when investors wanted to take large amounts of risk, like sending small wooden ships halfway around the world to bring back exotic products for profit. These individual investors were not willing to take on all the risk involved in the operation. They were fine risking some of their fortune on the venture, but were not willing to risk their entire fortune and lively hood if something were to go wrong. This resulted in the forming of the first Limited Liability Charters.

We will speak to the efficacy of this choice in the chapter on Limited Risk.

The original charters were for limited lengths of time. They ended and either had to be renewed or expire. We no longer have this restriction and as we have spoken of in other chapters, 'immortality' is not a natural feature. It leads to concentrated power and abuse of that power. We must do what we can to neutralize the power of this artificial construction.

For now we will grant that our system of money should allow for legal entities. Our system will allow anyone, to create a legal entity account in the system for any reason. The underlying rules of who owns the account will be handled by rule of law.

The forming of corporations generally results in the production of artificial capital. The distribution and concentration of this artificial capital can lead to income imbalances if not controlled.

It could be possible to add a layer that allows a group of citizen accounts to submit cash to an account in exchange for common-voting stock in the account, but this system may be outside the scope of our project.

One key distinction is that although legal entity accounts will look like regular accounts, they will be different. We would like to propose that Legal Entity accounts not have the right to private payment and dispersal. We may want to support the exchange of funds that are undiscovered for a time period but then unlock in case there are sensitive issues at hand, but those should be determined by rule of law. Legal Entities that are not citizens should not be allowed to hide activity from the general public. They are give protected rights and should be held accountable.

Therefore:

Allow for the creation of legal entity accounts, but do not give them the same rights as citizen accounts.

Legal Entities can be held accountable by citizens **(CTZ)**. They should be marked for death at some time in the future **(KIL)**. They should move from concepts of limited liability to limited risk **(LMR)**. They should be encouraged to enrich labor **(LBR)**. Legal entities should be barred from Privacy and Private Dispersal **(PRI)**.

KIL. Corporate Death

... How can we neutralize the power of artificial capital **(ACP)** via the diminishing value of economic rents **(DER)** and bound the immortality of a legal entity **(LGE)**.

Corporations unnaturally live forever. What can be done about this.

Please keep in mind that we are speaking of Corporate Death and not Death TO the Corporation. Two very different things.

Corporations have clearly demonstrated their effectiveness in generating massive value for society. Our concern is their size and the length of their lives.

As we have discussed in the diminishing value of economic rents chapter, the accumulation of prefs and the predistribution of economic rents will give an advantage to areas of new business risk. New accounts will be a more attractive place to put capital.

Once a high number of prefs have been accumulated for a Legal Entity company, their future economic rents on capital will need to continually increase to keep money flowing into the corporation. If a younger corporation can produce the same widget for the same price, the money will flow more to the younger entity because it will provide a higher prefs percentage.

In this way, there will reach a point where it is wise for a corporation to sell its assets and distribute the cash to shareholders because attracting new business will be too hard. What about the prefs owned by the corporation? If the company ceases to exist, what happens to the pref payments made to the old entity? We have two options:

1. Allow the account to continue to exist and prefs just pass through to pref owners. Accounts such as this can be labeled as 'passthrough' accounts and not be taxed.

2. Distribute the owned prefs proportionally to the pref owners. This will result in heavy fracturing of prefs.

The first is probably the easiest to implement and straightforward for accounting.

What about the business owners that put up the initial capital. Doesn't this punish them and take value away from those taking the risk. It is our opinion that this should be the payment that is given for the privilege of limited liability and limited risk that they enjoy from the system. The buyers of their goods have also taken on a portion of risk in entrusting their cash to the company.

We believe that it is likely that many schemes will be figured out for the orderly transfer of assets from an old corporate structure to a new structure. We do not recommend annihilation, only the orderly transfer of power from old to young that we see in nature that allows for the general evolution of stronger and better fit to the environment corporations.

In addition, stockholders can hold on to stock and issue distributions from pref payments received from the earnings of labor at new companies.

Therefore:

Allow for and plan for the death of each corporation. Provide a long life for the corporation but not unnaturally long..

Effects of corporate death can be mitigated via the Enrichment of Labor **(LBR)**

LMR. Limited Risk instead of Limited Liability

... How can the idea of limited liability legal entity **(LGE)** be made more natural.

Limited liability is granted in our society without discretion and lead to a lack of 'skin in the game' where corporations can extract short term profits without having to be held accountable for long term effects.

While admitting that there are valid and positive reasons for some limited liability, it is our opinion that this has lead to a significant lack of 'skin in the game.' In 2014 one may need limited liability to send a private mission to mars, but one probably does not need it to produce fast food hamburgers.

Limited Liability Corporations and other limited liability entities have a positive effect on society when they allow citizens to undertake more risk that the member would be willing to take on themselves. This has led to massive amounts of good in our world. Recently we have seen a trend of bad actors taking risks inside of LLCs, reaping huge profits and bonuses, and then walking away with out a scratch.

--todo give example of Banking CEO

Is there a way that we can reduce the risk an entrepreneur takes but also require him to bear the long term risk of their decisions?

We believe that pref will help do this and that limited liability can be balanced with responsible decision making about the future.

How will this work? Lets say an investor puts money into a company to start it. He is one of a few investors and as his money goes into the account he receives some of the initial prefs as well as a portion of the common stock.

In a traditional LLC only his common stock is at risk. If the company fails, creditors can take his common stock but cannot take anything beyond that. They cannot take his personal fortune.

What about the prefs he owns in the company? According to an idea of statutory theft that we will discuss later, he cannot have his prefs taken from him. Is the trade of not having your prefs taken worth forfeiting Limited Liability? We will need to study this.

Lets say this company fails and the owner has his common stock and family fortune confiscated to pay back creditors. He will be bankrupt, but will have his prefs. The prefs he owns continue to work. When his payments of his liabilities go into the company and out to the creditors, he gains more economic pref power. His fortune is wiped out, but he will not be destitute.

We propose that new form of bankruptcy be enacted by rule of law that allows for all assets owned to be confiscated to pay off creditors but then a line is drawn at a point in time where the citizen is able to being rebuilding their wealth via the pref payments they receive.

Will this risk the public investment in common stock that has driven the rapid rise of public stock companies? Yes, most likely. One will be far less likely to buy a share of Exxon at $98 if they are actually risking significantly more than that because limited liability no longer exists.

How will companies raise money then? We will propose a new funding source that benefits society as a whole and leads to a liquid source of capital for companies to grow in our discussion of Everyone is a bank.

Therefore:

Eliminate Limited Liability and replace it with he concept of limited risk where an investors prefs are protected from bankruptcy but not his current capital assets.

The effect of limited risk on capital markets can be neutralized by Everyone is a bank **(BNK)**

LBR. Enrich Labor

... What effect does the diminishing value of economic rents **(DER)** have on labor. How can corporate death **(KIL)** be mitigated through labor? How can legal entities **(LGE)** be held accountable to labor that helps drive their profits.

Capital and labor have been at odds for hundreds of years. Can their desires be aligned and the war ended?

Capital and Labor have been at odds for centuries. The battle has spawned the failed experiment of communism and in the new century we see an increasing rift between the income of capitalists and labor.

How can we mitigate this?

We are against employment. There is little to be gained in one person doing the same 'job' for 40 years. We will contend that there is a difference between 'jobs' and 'crafts'. A job can and is increasingly being automated by technology. Crafts tend to require a human understanding of culture and problem solving that computers have yet to achieve.

Craftsmen produce their art and capitalists take the lions share of the profits. How do we mitigate this? Here again, prefs add a layer of responsibility to a relationship. We motivate the capitalist by allowing that any unit of currency paid to labor has the ability to be returned via pref payments if the employee's earning power can be increased over his life.

In this way, capital will have an new desire to enrich labor. Suddenly, capital cares about the health, education, and long term earning potential of a craftsman.

We think this will stabilized the war between labor and capital. We may even see capitalists sponsoring the unions so that they can better understand and serve the needs of labor. We will see a revival of the apprenticeship system where training is an integrated activity to work instead of a 2 week ordeal to be endured once a year.

Therefore:

Create ways for capital to enrich labor and recover their labor costs.

Enrich labor will help increase education **(EDU)** in the adult years of life.

Citizen Level

CTZ. The Citizen

... What is at the center of an economic piston **(EPI)**? Who is the ultimate user of money **(MNY)**. Who gives power to the state **(KIL)** and establishes rule of law **(LAW)**. Who is responsible for holding participants accountable in the public ledger **(PLG)** and holds the state accountable to public transparency **(TRN)**?

Who is the central actor in our society?

The citizen is the ultimate actor in our society. Without the citizen and the citizen's intrinsic, natural value, there is no need for money or an economic piston.

Who are citizens? Anyone human being that is alive and breathing natural air. This is the simplest to agree upon and most will agree that at least all that in this grouping are citizens. There are fringe areas where we can get mired in debate like the unborn and the brain dead on respirators.

The citizen is the center that we build this entire framework on. Our goal is to maintain the human dignity of all humans weather they have access to wealth or not and give all humans the right to begin, at any point, to participate in our economic piston without baggage.

We believe in a democratic system where each citizen has one vote. If a child is not of voting age yet, their parents should wield their vote. If society is concerned that some are not 'educated' enough to vote, this is a problem of society. Educate them. Do not take their vote away.

We need to establish and protect the rights of citizens above the rights of the state or the legal entity.

Let us explore the idea of a citizen a little more closely. I'm a citizen of the United States, Texas, and Houston. I have other things that I'm a member of and get a 'vote' in. Am I a citizen of those things? Should I be? If I am a citizen of the United States, can I also be a citizen of France? What if I want to be both? We will discuss this in the article on Selective Citizenship.

Therefore:

Make the citizen the central focus of our economic piston and protect the citizen's rights above all other rights.

Citizens have the right to the full output of labor **(FOL)** and the right to be a bank **(BNK)**. Citizens should have the power to select their citizenship. They are protected by statutory theft **(STH)** laws. They have the right to privacy and private dispersal **(PRI)** and human dignity frameworks **(DIG)**. They wiled the democratic veto **(VTO)** and can leave a legacy **(LEG)** in our system.

SCZ. Selective Citizenship

... How can a citizen declare his membership in a community **(CTZ)**?

How can citizens elect what they are members of?

We propose that the issuer of a currency have the ability to control the demurrage tax on the currency. This should be set at some reasonable level to bring in enough expenditures to pay for state operations and human dignity programs.

What of local governments, unions, and other organizations? The collection of dues could be handled through demurrage taxes as well. For these types of citizenship, the user would have to elect their payment of these taxes. The organization would be responsible for providing the rights and benefits of membership.

For example, say the United States nationalizes our new currency and charges and demurrage tax of 25%. In addition they cap, via rule of law, state taxes at 10%, and county taxes at 1.5% and city taxes at 1.5%.

Texas might compete with other states for business by only requiring 6%. Houston and Austin may compete for citizens by offering lower than 1.5%.

What if I want benefits of being both a citizen of Texas and New York? I could elect to have a second citizenship. I will have more of my pref payments go to taxes, but I will procure more benefits. In addition, a union could require a demurrage tax percentage of 1% to be a member of union. There could be other requirements as well so it will need to be a mutual system where both the citizen and the organization agree that the member is a citizen.

We believe that the ease of collection of funds via this manner will entice organizations and states to subject themselves to the democratic veto that will be discussed later.

We will speak more to the powers that citizenship achieves later when we talk about Democratic Veto.

What about non resident accounts? Can a foreigner hold an account on our system? Yes. These accounts will be issued by the issuer and will not have citizen rights but may establish demurrage amounts by rule of law. If the taxes are too high, foreign entities may choose to do business elsewhere.

Therefore:

Allow for multiple citizenship via demurrage tax shares and allow for non-citizen accounts.

Selective Citizenship give the citizen the rights to Democratic Veto **(VTO)**.

FOL. The right to the full output of labor

... With the power of the public ledger **(PLG)** how can a **(CTZ)** ensure he receives the full output of his labor?

Capitalism has to date allowed the capitalist to take value produced by the laborer as economic rent? Can this be neutralized?

The idea of the 'full output of labor' has traditionally been a communist and/or socialist ideal. Is it exclusive to those modes of government? Communism has failed and socialism loses many advantages of free market capitalism. Can we have both the free market and provide a laborer with the full out put of his labor?

Surely providing a laborer with his full output is an admirable thing. The 'working' class has always been one of the most disadvantaged and it would be admirable for us to lift the lower class out of poverty and give them the ability to reach their full productivity.

We believe we can do this. First we must discuss our theory of value.

What is the value of a man's labor? This is a time bound question. At the time of a person's hiring, the value is what someone is willing to pay him. After he has labored, he may have produced something of far more value, but there was risk involved so the capitalist needed to make profit on the risk taking. Surely we can allow the capitalist this right? We can pay him for his risk with the profits of the labor. We think this is optimal and drives capitalism forward.

What of the laborer? Has he lost out on value? Yes. All he has is the cash he exchanged his labor for. At a moment in time, that value is bounded by a number. If we remove the time constraint though, his cash has significant value in the future economy.

Our belief is that all value is future value. Past value cannot be retrieved. Once the labor is spent, it is gone. You cannot renegotiate the value of the past labor. What you can do is track and capture the value that the cash paid to the laborer generates, and return it to him over time.

In addition since the capitalist owns prefs in the laborer, he will contribute future value to the laborer in hopes to increase his future income and recover his capital. We assume the following equation:

Value of Labor At the time of Labor < Sum(Future value of payment received for labor) + Sum(Goodwill value given to the laborer by pref owners)

In this way, the communist and socialist thinkers were thinking TOO SMALL. The worker does not have the right to the full value of his labor, he has the right to the full future value of his past labor which is much greater.

Therefore:

Implement prefs to provide workers with the full output of their future labor over time.

The full output of labor can help contribute to a citizens Legacy **(LEG)**. It his protected by statutory theft **(STH)**.

BNK. Everyone is a bank

... How can the citizen **(CTZ)**, empowered with Instant Transfer **(INS)** and the public ledger **(PLG)** participate in issuing currency? How can the concept of limited risk **(LMR)** still provide for funding of capital ventures?

Bank bubbles and crashes have wrecked massive suffering on humans over the last hundreds of years. Can we do away with this institution?

Bankers are vampires. They take our money, risk it, and reap the profits. They are stealing our output and lining their pockets with it. We should do away with the current banking institution. The amount of human capital and productivity that is lost trying to gain a small advantage while moving money around will be looked back on in the future with disdain and horror. They are stealing from all of us.

The fractional reserve banking system does have some features that we would like to borrow, but we propose that the dividends of these advantages go to the citizens and not to the bankers.

We propose another lever available to the issuer of currency. This is the reserve requirement for lending of our money. All accounts will be able to have a portion of their cash 'protected' from demurrage. This portion will go into a pool of cash that will be made available for loans. This pool will be multiplied by another lever, called the 'Issuance Rate' which will allow the issuer to increase the money supply.

For example. Say a citizen has 12 available for loan.

What will the interest rate and terms of these loans be? We expect rates to trend toward zero for short term loans. If Silvio Gessells theory of demurrage is correct, the charging of interest for loans should be unnecessary.

If money is 'free' won't there be a run on the bank for it? Won't the market bid up the cost of this money so that interest is required?

We propose that 'Bankers' bid cash for the right to distribute the issued money. Why would they bid cash if they won't receive interest? Because they will get prefs in the account they direct the money to. In this way, bankers only make money when the economic piston is firing and new capital is being generated.

Because we have instant transfer, and the cash system is centralized, we do not need to worry about 'bank runs.' Cash going out of one account will go into another. The reserve rate will allow the amount available for lending to remain in proportion to the reserve and issuance requirements.

Issuers should use the levers of demurrage, reserve rate, and issuance rate to keep inflation flat.

Through this system, citizens and legal entities will earn a return on their borrowed out funds equal to the demurrage rate. They will have professionals managing the loaning out of the cash.

Therefore:

Remove the commercial banking system and replace it with citizens automatically funding the issuance of loans from a general pool.

STH. Statutory Theft

... How do we use rule of law **(LAW)** to protect the citizen **(CTZ)** form losing his right to the full output of their labor **(FOL)**? How can we prevent the devaluation of predistribution of economic rents **(PRF)**.

As soon as someone has collected artificial capital in the form of prefs, others will scheme to take the future value from those not wise enough to understand the value of their capital. How can we protect these people? How can we prevent accounts from exchanging value simply to devalue the prefs of other owners

Via rule of law we will need to create a crime similar to statutory rape that outlaws the setting up or taking of prefs, or the proceeds of prefs from a citizen. Should this apply to entities as well? Yes, through a chain, the prefs paid to entities have value to the citizens that have supported the entity.

How will this work? This is a complicated issue and will need to be dealt with carefully. This is what we want to avoid:

A mother spends money to raise her children. She accumulates a massive number of prefs over 20 years. A 'banker' offers to buy the output of her prefs for $100,000. All of her value is future value and the prefs are probabilistic worth more than that. This person is trying to take advantage of the mother's vulnerability.

The value of a pref is only bounded by the lifetime of an account. Therefore the theoretical value is infinite. Anyone trying to claim that value for a value less than infinite is stealing and should be held accountable by rule of law.

In addition, the exchanging of cash between accounts simply for the increase in prefs that it brings should be punishable via rule of law. This includes passing money in a circular motion among a small group inside of a market. This type of behavior reduces the value of the prefs of other owners and should be considered theft. The public ledger can be used to compare prices paid in situations where this kind of activity is suspected

Therefore:

Implement laws punishing the underpayment to accounts for the rights to their prefs and passing of money where unfair value is exchanged and reduces the value of other prefs in the account.

PRI. Privacy and Private Dispersal

... How can we balance the public ledger **(PLG)** with a citizens **(CTZ)** right to privacy and also bar a legal entity **(LGE)** from the same right?

Individuals sometimes need to make financial transactions that are private and therefore will not want the destination of the payment to be registered on the public ledger.

The ability to pay into a 'privacy' account and have the output appear in the proper receiving account should be developed.

Prefs will still be issued but they will 'pass through' the privacy account and be distributed to participants in that account. The account should be big enough so that individual payments cannot be 'found out' via inspection. Payments may split into many increments and be distributed over time. The receiver will be provided with a promise of payment.

It may be possible to tax this right to privacy if it becomes a method of activity detrimental to the general welfare.

Legal Entities should be able to receive payments from these pools, but not pay money out to them.

Citizens can send funds privately, what about receiving them? If the funds are received from another citizen they should be allowed to be private, but payments coming from legal entities should always be public.

One issue that will arise is that a citizen receiving many payments via private pools may become inherently suspect as to their activity.

Just because these items are private does not mean that they are not subject to rule of law. If evidence is provided that someone participated in illegal activities, they are still subject to the law. Regardless, the flow of the transaction should still be 'undecodeable.' The evidence will have to come from outside the money system.

Therefore:

Implement a privacy pool that allows citizens to make payments and receive payment(but only from other citizens when receiving) that are 'anonymous

DIG. Human Dignity

... How can the public ledger **(PLG)** and taxation **(TAX)** be used to help the citizen **(CTZ)** develop and maintain human dignity?

Society has an obligation to help all citizens maintain their human dignity.

In a thriving and decent society Humans have the inherent right to:

- information (the internet)
- education (life long)
- health care
- elder care
- nourishment and clean water
- shelter

If a society cannot or will not provide these, it should not be considered decent or modern. Societies that can and chose not to provide these things should be publicly shamed.

We propose tracking the provision and rights to these items in the public ledger via prefs given to those in need. There are specific challenges to each and the major issues and solutions will be addressed in later chapters.

Therefore:

The state should provide welfare in the form of cash so that the disadvantaged can begin to build up their own set of prefs.

Human Dignity should be further enhanced by Education **(EDU)**, Elder care **(ELD)**, Welfare **(WEL)**, the Home **(HOM)**.

EDU. Education

... How can we enrich labor **(LBR)** and maintain human dignity **(DIG)** through learning?

How do we educate a society and ensure that the best education possible is available.

We have already discussed that the issuing of prefs from a laborer to its employer will result in improved continuing education.

What about our children? Teachers are some of the lowest paid professionals in our society and they are in charge of ensuring our future. Can we overcome this?

We propose the public ledger be used to enrich teachers. How will this work?

As children attend school, each child will be allocated a set of prefs. This amount will be chosen by rule of law, but let us take an example. Lets suppose that a highschool education is worth about 2000 in his account for a month at a 12% demurrage rate, and the tax rate is 50% (quite high), each year of teachers will receive about about $2 to distribute among themselves. With a large number of students and a long teaching career, these dividends could become quite healthy.

We expect that many more people will want to start their careers as teachers and build up a large amount of prefs before moving on to higher careers.

In addition, the propensity to send young graduates off to war for indiscriminate reasons will be reduced if a significant portion of the population his such a substantial investment in the young people being successful.

Therefore:

In addition to paying teachers well, the state should give prefs in the citizens they teach to teachers as a dividend for teaching.

ELD. Elder care

... How can we maintain human dignity **(DIG)** for the elderly?

All citizens have the right to rest after a life of work and die with dignity.

The principal of statutory theft should provide for a large amount of prefs being built up by citizens by the time they reach the end of their lives. As a result, most should be able to provide for their own elder care. If not, the state should allow by rule of law the bequeathing of some portion of prefs to elder care workers that take care of a person in their old age.

If this person is a family member this portion should be in addition to the legacy portion that they can inherit and not included in it. It would be wonderful if we were all free to take care of our parents as they took care of us when the time comes.

Therefore:

Allow a portion of owned prefs to flow to those who provide elder care.

WEL. Welfare

... How can we maintain human dignity **(DIG)** through learning for the poor and disadvantaged?

In all societies some will be disadvantaged. How can we provide for them..

For the poor and uneducated the state should supply cash in the form of welfare. As the poor spend this cash, they will earn prefs and should, after a time be able to maintain their own care. In addition, once they educate and overcome their disadvantage, the state will recoup some of the cost by receiving pref payments from the citizens.

Therefore:

Welfare should be paid in cash so that the prefs earned by the poor eventually ween them off of the system.

HOM. The Home

... How can we maintain human dignity **(DIG)** of those that choose to stay home with their young children instead of working?

What is the nurture of a child worth to society? How can we compensate those that want to stay home with young children?

Establish a caregiver fund. That fund will get prefs in young children and the caregivers will get prefs in the fund. Pref payments made to the fund will pass through to the care givers in a proportional amount. The fund should be separated into 'cohorts' so that the funds don't begin to pay out for a number of years.

This will provide dividends later in life for parents and caregivers that choose to stay home and nurture their children.

What about lost income from not working? I have no immediate answer for this. We sacrifice a lot for our children and I'm not sure that is something to be solved. Of course the government could provide a stipend to caregivers. This would be helpful and allow them to build up prefs and pay for the daily need of their children.(this would be especially helpful in single parent homes).

Therefore:

The state should provide a stipend to parents and caregivers who take care of children. They should also be issued prefs in a caretaker fund that is separated into cohorts.

VTO. Democratic Veto

... How can the **(CTZ)**, using selective citizenship **(SCZ)** and the public ledger **(PLG)** keep the state's power in check?

Power corrupts and the citizen must have tools to regulate out of control power without the use of force..

When a citizen pays taxes they should get a vote in that 'state'. We will do this via the democratic veto.

This veto is a 3 phase vote. Citizens can vote 'abstain', 'deny', 'override' on a state account.

This gives power to small minorities to stop the payment from state accounts until their concerns are addressed or their negative vote is overridden by other citizens.

We also don't want small issues gumming up the general working of the state. As a result we should provide for agency accounts that can be selectively vetoed when particular issues arise in the running of those agencies.

Therefore:

Establish the democratic veto for state accounts and selective veto for agency accounts.

LEG. Legacy

... How can the **(CTZ)** leave a legacy after death and ensure the full output of their labor **(FOL)** is left to that legacy?

Humans have an innate desire to leave a legacy to their loved ones. How can we provide for that without centralizing capital.

We should provide for the inheritance of prefs, cash, and capital to descendants in a progressive manner.

We want productive citizens to act in their interest and the interest of their families. It is a core driver in our capitalism, but we must also provide for the fact that capital tends to concentrate.

A progressive a system of wealth tax should be implemented as an inheritance tax.

The government should not take control of inherited prefs. Prefs eventually need to degrade to nothing as well.

Therefore:

Establish a progressive inheritance tax.

Technology Level

The technology section of the pattern language needs to be fleshed out by technologists more knowlegable than me. I put it here to let us know that we need to extend the pattern language to all levels.

- BLC. The Blockchain
- NET. The Network

Democratic Hypercapitalism

We have chosen the name Democratic Hypercapitalism to speak towards our systems key concepts of the democratic veto and the issuing of capital upon each transaction.

In this book we will flesh out our form language for our new money and provide conceptual details. The following forms will be discussed in detail:

The types of accounts

1. State Accounts
2. Citizen Accounts
3. Legal Entity Accounts
4. Foreign Accounts
5. Privacy Accounts

The Key money flow concepts

1. Public Ledger
2. Demurrage
3. Catch Up
4. Tax
5. Prefs
6. Legacy
7. Pass through
8. Loan Pool
9. Loan Officers

The levers of economic manipulation controlled by the issuer of the currency

1. Demurrage Rate
2. Retaining Rate
3. Issuance Rate
4. Legacy Rate

The political objects tied to the currency

1. Required Tax
2. Elective Tax
3. Veto

We will then provide instructive scenarios about how the forms will interact to form our vision of democratic hypercaptialism.

Fundamentals of Democratic Hypercapitalism

State Accounts

There are two type of state accounts:

1. Issuing Accounts
2. Domain Accounts
3. Agency Account

There can only be one issuing account. This is the state agency(or corporation) issuing the currency. The currency's ability to function and the issuer's ability to uphold rule of law are key to an entity actually being able to support a currency.

An example of an issuing account would be The United States of America or The European Union.

A strong corporation could, for a time support a currency with the future view of nationalizing the currency when it gains enough steam to over ride the national currency.

Domain accounts are accounts that the Issuer can charter to offer public services and to operate in the public interest. These Accounts can collect Elective taxes.

Examples are a State government in the united state, a country account in the EU. There can also be much smaller agencies. A dock workers union account could be chartered and dock workers, and anyone wanting to support the dock workers could elect to pay taxes to the union and get a vote. Agency Accounts have the power to select their members.

Domain and Issuer state accounts will issue citizens the right to veto their ability to 'catch up.' If an account cannot 'catch up' then it cannot issue payment, receive payment, or claim pref payments. More will be discussed on this in the chapter on Veto.

The final type of account is an agency account. These accounts do not have taxes collected but instead have funds distributed to them by the agency or issuer accounts. The amount is dependent on the budget set forward by rule of law.

A good example of this type of account would be a city police department that is issued funds by the city domain account. It would be onerous to have to elect taxes for every city service you wanted to participate in. With agency accounts, citizens gain access to the service also get a selective veto. The selective veto allows citizens to bar payments from the domain account to one of its agency accounts. In this way, selective political action can be taken, even if only symbolic to defund one distastefully run area of government without disrupting essential services.

Another feature of state accounts is that they cannot participate in the private pool for either receiving or transmitting payments. All payments into out of the account will be free to view on the public ledger.

Citizen Accounts

Citizen accounts are issued to humans that are part of a market and can prove their membership via rule of law.

The United States may choose to limit citizen accounts to those with social security numbers.

A corporation may choose to issue citizen accounts to anyone alive. We think that geographic restrictions still make sense, but they are not a requirement.

In the most grand scheme, the citizens of the world may attempt to create a global corporation where any living person can be a citizen.

Citzen accounts have the power of veto over state accounts that they contribute taxes toward. They can also veto the issuing of funds from one domain account to its agency accounts.

Legal Entity Accounts

Legal Entity accounts are issued to corporations, partnerships, and other forms of organizations that are not 'citizens'.

The key differences between a legal entity account and a citizen account are the lack of veto power and the lack of a right to pay to privacy accounts. Legal Entities can receive payments from privacy accounts, but where there money goes from there must be part of the public ledger.

Taxation of Legal Entity accounts is the same as citizen accounts. Legal Entity accounts can have additional taxes, but cannot have less.

Foreign Accounts

Foreign accounts are accounts are issued to non-citizens and foreign legal entities. The tax structure of these accounts can be very different than citizen and legal entity accounts. This type of account is not required as all foreign entities could be issued legal entity accounts, but the option is there if it is necessary.

Privacy Accounts

Privacy accounts are issued by the issuer to protect the right to privacy of its citizens.

We recommend one general privacy account that all private payments travel through. This will maximize the privacy as the smaller number of transactions, the more likely a transaction can be deduced by process of elimination.

Legal Entities can receive payments from privacy pools, but cannot issue payments to privacy pools. This protects citizens from corporations that try to mask their financial dealings.

Payments from privacy accounts may take time to process and the system should wait for a substantial number of inputs and separate the payments into chunks that are distributed over time so that source and destination payments cannot be matched.

Privacy accounts may also have additional taxes on them. Privacy is a right of the citizen, but that does not mean it has no cost. Private transactions between citizens could lead to black market activities that are detrimental to society, so a tax may be necessary to dissuade the use of privacy accounts and provide for the enforcement of the rule of law.

Public Ledger

The public ledger is a system that holds the current balance and past transaction history of the money system.

It holds:

- The current balance of accounts
- The prefs that are owned on an account
- The transaction history between accounts

It may also hold:

- Registered forms of artificial and real capital and their ownership history.

The public ledger is secured via a form of cryptogrophy that ensures that back histories cannot be manipulated. Any transactions that need to be done via rule of law need to be new transactions at the top of the stack and registered as rule of law transactions. This will hold courts and state agencies accountable. Abuse of the system may result in veto of an agencies account.

The public ledger has a number of benefits.

Public transparency of government agencies is enforced through the public ledger.

Black market activities should be reduced because only individuals can participate in private transactions and those may incur an additional tax. The removal of other kinds of money from the system will force criminals back to other forms of value like gold or diamonds that do not have the long term benefits of prefs.

Demurrage

Demurrage is our method of controlling inflation and deflation. Our goal is for there to always be enough money to buy all the things that are being produced. As production tends to vary and sometimes degrade, it may be necessary to increase and/or remove money as needed.

Demurrage is our way to 'remove money' from the supply and to 'accelerate' the flow of money through the system.

Demurrage was initially fleshed out by Silvio Geselle in the last century. The concept was to require that a price be paid to keep money 'current'. This was called stamped money and it had some limited success in times of economic upheaval. It did not last though and it is a very cumbersome thing to implement with physical money. Demurrage 'naturalizes' money in the sense that now money can 'die'. If you hold onto it for too long, it will disappear.

Traditionally inflation does this as well, but inflation is erratic and hard to predict. Demurrge can be planned for and controlled.

The digital age gives us a chance to try demurrage again.

We have modified traditional demurrage with the idea of prefs. As a result, not all demurrage cash goes to taxes. We are going to use the public ledger to pass some cash back to the people that helped us make the cash in the first place.

Money will demurrage at a set rate. Instead of requiring everyone to 'stamp' their money once a month we will require an account that wants to spend money, receive money, or process pref payments to 'catch up' and pay the portion of the yearly percentage since the last catch up. Since money moves between accounts instantly, our money will be constantly decaying.

A high rate will lead to people looking to spend their money more quickly so that other bear the cost of demurrage.

Catch Up

Catch up occurs whenever an account wants to spend or receive cash and when it wants to claim pref payments.

By default, pref payments are not added to an account balance. The payments are added to a queue and when the credits are claimed we need to demurrage the balance at each interval for each payment in the queue.

For example:

Demurrage Rate: 12% Last Catch up: 1/1/2000 Balance $1000. Pref Payment Queue: 2/1/2000: 200 from account x 3/1/2000: 300 from account y 4/1/2000: Account wants to catch up.

We will demurrage 100 New Balance 200 pref payment New Balance 1100 for one month (2/1 to 3/1) 990 Add 1290 12.9 New Balance $1277.1 Account is caught up.

Tax

A portion of the Demurrage is allocated to tax. This amount is determined by:

1. The issuer with required tax
2. The citizen by electing tax
3. The legal entity by electing tax

Some elective taxes may be required by rule of law. For instance, the state of Texas may require an entity to elect a tax to operate in the state.

The percentages of tax are removed from the Demurrage amount before the pref payments are sent out.

For example:

US Tax: 15% Texas Tax: 8% Houston Tax: 1.5% Dock Workers Union: 0.1%

Total tax: 24.6%

Demurrage Amount: $1000

Tax: 754

These amounts are transferred to the Corporate Accounts as pref payments.

What about Tax on State Accounts? Tax on state accounts is removed from the money supply. This is how our form of money naturally degrades.

Prefs

Prefs are a form of preferred stock (thus 'prefs) that are issued to the buyer of good or service by the receiving account. The issuing of this form of artificial capital is intrinsic to the system.

The benefit of owning a pref is that the owners of a pref will receive a dividend payment whenever cash 'demurrages' in an account.

This is the method that we have chosen to distribute to a citizen the full output of their labor.

This concept is based on the pattern 'predistribution of economic rents.'

The belief here is that as one participates in the economy, one should be rewarded when that participation leads to a growth in the economy. Currently the economic rent that companies generate goes to shareholders. We are not against value added profit being distributed to shareholders, it is the economic rent, or the 'super profit' that leads to an imbalance in equality in a society.

We take economic rent as a reality. Perfect competition and perfect markets are not real. When an economic rent is paid, we want that person who paid it to gain a future advantage. This is the payment of the demurrage dividend.

Over a number of years of participating in the economy it is likely that a citizen will establish a significant flow of pref payments and will be free to pursue retirement and or a more fitting career free of the work of money.

How does this work in principal? Say an account is catching up. Its balance is 100. We will assume that taxes are 0% for this example. If an account ownes 200 out of a total 2000 prefs in the demurraging account(10%), the owning account will receive a 900 and it can send and receive payment as well as claim any pref payments that have been sent to this account.

Legacy

Legacy occurs when it is time to remove an account from the system.

For citizens this occurs at death. A portion of the persons prefs will cease to exist. This is the method by which prefs are removed from the system. The other portion will enter probate and be distributed to descendants and willed to individuals and entities. We'd like for this rate to be a progressive rate.

For individuals with a small amount of prefs, most should be passed on as a legacy. For massive stockpiles of prefs, most will need to be forfeited. This will help keep capital from accumulating and centralizing over time.

For Corporations that cease to exist, all prefs owned by the legal entity should distribute to the pref owners. The prefs will degrade when the owners pass away. Some corporation accounts can become 'pass through' accounts where taxes do not get charged to prefs passing through. This is an alternative to legacy for corporations.

Pass Through

Accounts can be elected to pass through status on their way to being closed. In a pass through account, the prefs payments pass through 100% without being taxed. These accounts can be set up to help keep regional or strategic funds separated.

Pass through accounts cannot hold a balance.

Loan Pool

The loan pool is the central pool of money that is available to be issued in the form of loans.

Loan Officers

Loan Officers bid on chunks of the loan pool. They then are issued the currency and are able to distribute it to people that they see fit to be issued a loan. They cannot change the interest rate. Instead, they compete on their ability to help the issuer turn the loaned funds into cash producing capital.

Loan officers make their money off of the prefs paid from the accounts they give loans to.

Demurrage Rate

The issuer can manipulate the demurrage rate to control inflation and deflation.

This is the rate at which money must demurrage when an account 'catches up'.

Retaining Rate

This is the amount an account can protect from Demurrage.

Protected money is put up for for loan via the money system.

As an example, if the retaining rate is 10%, an account with 100 protected from demurrage.

The sum of retained funds are made available via the loan pool.

Issuance Rate

The issuance rate is the amount that the loan pool can issue over its current balance.

For example, if there is 1,200,000 can be made available via loans.

Legacy Rate

The legacy rate is a progressive tax rate on prefs that expire when a citizen account is closed due to death.

For example:

10% First 10,000 Prefs 25% 10001-100,000 Prefs 55% 100,001 - 1,000,000 Prefs 85% Over 1,000,000 Prefs

These are per originating account. The percentages taken should be taken in proportion to the ownership before the tax is supplied.

For example, if the account owns 10,000 prefs in account X and the account prefs are split 70%/30% between two different accounts, the 10% would be taken, leaving 900 prefs to be split 70/30 between the inheritors.

Pass Through Rate

The pass through rate is the amount of the demurrage payment that passes through to the next level of pref owners on each catch up.

for example, if the pass through rate is 50%, and an account has a pref payment coming of 250 would be deposited in the account and the additional $250 would be distributed to the pref owners of the account. The pref payments are thus distributed through out the network in this way.

This rate can be manipulated to either accelerate or decelerate distribution. A higher rate leads to greater distribution of pref payments.

If an account has no pref owners the pass through portion goes to the government as tax. If the issuer gets a pref payment, the pass through part is removed from the money supply.

Loan Interest Rate

This is the rate of interest that is charged by the loan pool for short term rates. We believe that this rate will tend toward 0%. Longer terms may have a positive interest rate, but ultimately, the market will decide this. If there are few bids for long term loans, the rate can drop. If there are too many bids, we may want lower the rate.

Personal Loans

Personal loans are still possible without using the Pool Loan system. We believe they will be much less available as most people will go to the Pool Loan, but, when there is high demand for the loan pool, personal loans my be used. In a personal loan, an account holder gives a user cash in exchange for an IOU. This IOU may or may not be part of the public ledger.

Usury laws may be established to limit the abuse of tight money, but these should be enforced via rule of law. Fortunately, the public ledger will help us here. The person making the loan will risk his right to be repaid if he issues it through the private account.

Since our system is automatic and instant, we can provide for the automated repayment of loans.

Required Tax

The required tax rate is a flat tax that is paid to the issuer out of the demurraged cash.

The issuer has control over this rate, but is subject to veto so that oppressive taxes will likely result in the barring of the issuer from using collected taxes.

Elective Tax

Elective tax rates are set on domain accounts. These rates may be governed by rule of law, but are otherwise free to move at the discretion of the domain owner.

In exchange for paying the tax, citizens get veto power in the domain.

Veto

Citizens can veto the right for a issuer or domain account to 'catch up'. Until the impasse is solved the account of the state will be frozen. Citizens can vote 'abstain', 'deny', 'override'. Abstain does nothing, deny will deny the accounts operation if there are more deny votes than override votes. Enough override votes will open the account again.

In addition, citizens can block the payment of funds from agency accounts if a specific issue is under debate. Again citizens can vote 'abstain', 'deny', 'override'.

Clear Outs

What happens when a persons debts out weigh their ability to pay. We currently have a system of bankruptcy that allows people to 'reset' their credit worthiness and to allow for creditors to recoup as much capital as risked as possible.

How is a clear out different than a bankruptcy? In a clear out, or in any transaction, the right to future pref payments and the actual prefs themselves cannot be confiscated.

When an account reaches a point that it needs a clear out, the following things will happen:

1. The Existing prefs will be marked as 'pre-clearout'
2. Any payments that come in on these prefs cannot be confiscated.
3. An account holders existing assets will be liquidated and paid to the creditors.
4. Future assets cannot be confiscated.
5. A revised payment plan should be agreed upon via rule of law and clear out proceedings.
6. Only 2nd generation cash can be used to make these payments. This protects the consumer. For example, a cleared out person receives a 100 new prefs in a grocery store. Any payments form the new prefs CAN be used to pay new terms.

This plan gives the consumer a way to rebuild wealth and hopefully make the creditor whole.

What if the debtor decides to never spend money again? The pref payments will build up and then demurrage to the creditor via the prefs the creditor owns in the debtor.

Education Prefs

Allocate each child a number of prefs determined by the average prevailing wage. When a child attends a school, the prefs for all the students of a particular 'year cohort' will be pooled and distributed to the teachers, administrators, and workers involved in running the school.

Once the students move into careers, the prefs will begin earning payments for the teachers that helped teach the student.

This may imbalance education to some extent. There may be competition to teach the students that are predisposed to do well. A billionaire's son may have 6 individual instructors per year and remove the student from the general pool.

How do we combat this? Do we combat this? Teachers need to have a vested interest in their students to help assure them of success. This system may be imbalanced, but it provides for a more income and distributes economic rents more fairly among teachers than the current system.

Elder care Legacy

For elderly who have no children or children that are unable to provide for their care, the elderly may mark a portion of their prefs that would go to taxes to elder care.

Up and Out Welfare

This concept speaks to the fact that 'lifetime' welfare will no longer be necessary. Even if the citizen makes no effort, or is completely unable to pursue commerce, eventually the number of prefs the person will have from spending their welfare stipend will be equal to one years worth of stipend. Using the public ledger and rule of law, the state should manage this so that everyone is able to have their needs of human dignity met.

Democratic Capitalism Modeled

The Stakeholders

Any system has a number of stakeholders. The details of the system are all accidents of implementation. The stakeholders and how the choices made in the system are the key the success of a system.

Our aim is for this system to be more 'fair'. This is a complicated thing, but we think that the general term gets to the point. We won't discuss specifics about what absolute fairness is, but we will discuss what is 'more fair' and 'less fair.'

Our goal is to create a system that is 'more fair' than the current system for as many stakeholders as possible. When we reach a stakeholder where our system may impart some 'unfairness,' we hope to dissipate some of that with a release valve that turns that perceived unfairness into possible fairness. No system is perfect, but this is our aim.

We will address the following Stakeholders:

1. The Laborer
2. The Capitalist
3. The State
4. The Debtor
5. The Creditor
6. The Loan Officer
7. The Company
8. The Union
9. The Single Mother
10. The Child
11. The Family

The Laborer

Who: The laborer generally starts life with little to no wealth. The laborer develops a trade and seeks to apply that trade in return for cash. If the laborer thrives, she will be able to save wealth and may transition to the capitalist role. Most laborers see this as a goal in life. If not for them, at least to save enough wealth and provide enough education that their children can.

How will our system look to the laborer?

Much will not change for the laborer in her day to day life initially. She will continue to work for a wage. Only after a number of prefs have built up in the laborer's name and on the laborer's account will things begin to change.

With an increase in the prefs that a laborer owns, the laborer will begin to gain more and more, and larger and larger pref payments. These payments will help supplement the laborers income. Eventually, after years, the payments will become large enough that a bout with illness will not put the laborer in a bind.

Eventually the laborer's payments will be equal to a year's wage and allow the laborer to 'retire' to purse further education, art, a desired career, the nurturing of family, or remain working with the privilege of an elevated income.

The laborer will be able to see where the prefs are coming from, and since they are coming from entities that the laborer has paid money into, a sense of community and reliance on community will increase.

What of the prefs in the laborer's account that are owned by the wage payer? If the company is wise it will invest in the employee and help the employee improve their lifetime earnings. The more the company can increase the laborers earnings, the higher a chance that the company will reap more from the employee's prefs than were paid into the employee's wage.

We believe that it is likely that this arrangement will lead to the 'end of employment' as we know it. Employers will begin to work with Unions, funding the laborer education and improvement. Labor will begin to be hired on a contract base from a pool of labor. Methods will be developed to match the proper laborer with the proper job. When the employee rolls off a job, the employer will likely direct their training so that they either:

1. Return more skilled
2. Move on to work for another company at a higher wage.

Both of these are a positive for the laborer. It is more of a burden for the employer, but this is balanced with an opportunity to have returned wages.

The Capitalist

Who: The capitalist spends cash on assets that she thinks will either be worth the same or more when she sells them, or that produce rent payments.

What will our system look like to the capitalist? The public ledger is a place where the capitalist can record her ownership of real capital, artificial capital, and loans to debtors. This helps the capitalist secure her assets.

What about artificial capital? We discussed earlier that artificial capital is not natural. Things that do not die and fade away seem to go against natural law and lead to problems of imbalance and inequality. Our system address the idea of artificial capital in corporations by implementing to the diminishing value of economic rents. A corporation will eventually have so many prefs owned in its account that it will be unattractive for new market participants to do business with that entity. As a result corporations will eventually die. So while the artificial capital in that business may not fade, the underlying asset will.

Real capital tends to degrade on its own and require investment to maintain its value.

Ultimately, capital will continue to concentrate without some release valve. For this we propose a heavy capital tax as a part of the Legacy process. This allows a capitalist the fruits of her labor during her lifetime, but distributes the proceeds back to society at the end of her life.

Ultimately the burden on the capitalist is increased. Some of the economic rents that would be paid to the capitalist will now be distributed via demurrage. In addition the the companies that the capitalist is investing in will have a shorter shelf life and she will need to be proactive in timing the selling of an asset.

This new system is 'less fair' to the capitalist than the current system. This by design as we feel the capitalist has an unnatural advantage under non-hypercapitalism.

The upside for the capitalist is a massive reduction in risk for the capitalist. Currently, when a capitalist invests in a company 100% of the capital is at risk. Under hypercapitalism, as the invested in company spends the invested money it will begin to accumulate prefs. These prefs will find their way into profitable parts of the economy and even if the business is a complete bust, it is likely that some capital will eventually be returned to the investors in the form of predistributed economic rents from some tangential industry that they helped thrive.

We believe this trade off will increase the possibility scope of what capitalists will be willing to pursue. This will tap as of yet unaddressed human ingenuity and productivity. Net over net we believe that this will lead to increased productivity and profitability of humanity.

The State

Who: The state operates on many levels. The Nation State at the top, the regional state, county, city, district, etc. These are generally geographic distinctions. The state has the power of rule of law and a lower level entity cannot supersede the authority of a higher level entity(usually).

What will our system look like for the state? Our system will drastically reduce the headache in collecting taxes from citizens. A portion of the demurrage will be automatically collected and sent to the state accounts.

Citizen accounts will be able to elect certain taxing authorities and in some cases may be required to do so by law.

For example, the state of Texas might make registering as a Texan a requirement for getting a drivers license or state ID card.

The state can also create agency accounts in the system to distribute tax collected funds to. These agencies.

States can also continue to tax legal entities with additional taxes, but must at least tax them at the same rate of citizens.

It is not all roses for the state. The state is under a new obligation and threat of veto.

All citizen accounts wield the veto. The 'catch up' of state accounts can be blocked by negative vote of the citizens at any time. All citizens that pay taxes to a state account have a 'abstain', 'deny', 'override' vote on the operation of that account.

In order to protect the general operation of the state, the state will want to create agency accounts. Citizens can block these agency accounts individually instead of blocking the function of the entire state.

In addition to easier taxation, the state has the ability to profit from pref payments as well. As welfare payments are paid out and people climb out of poverty, the state may make back more than its investment. As the state buys services from companies and individuals it can generate revenue from there prosperity. Over time this should lead to lower tax rates on the demurrage.

The Citizen

Who: The citizen is any living human being that resides in a state. The citizen gets a 'vote' on items of public affairs and can elect representative to government.

How is a citizen affected by our system? The citizen gets the democratic veto and the selective veto. On state accounts that the citizen pays taxes to they can vote 'abstain', 'deny', 'override' to limit the function of the states account. If a state cannot pay or receive cash they will be quick to fix citizen issues.

This empowers the citizen to not just have a significant vote every four years, but every day. The citizen will now wield power over the government's ability to operate.

On specific issues the citizen might use selective veto. An example would be that if the citizens did not like the aggressiveness of the police force, they could veto payments to that particular agency account only. The rest of the government would be unaffected.

The Debtor

Who: The debtor borrows money, usually at interest, and pays the money back at a later time.

How is the debtor affected by our system? The debtor will pay much less interest in our system. Due to demurrage, the loan pools should overflow with capital. The debtor has two sources for loans.

The first is the loan pool. All accounts will be able to protect a certain amount of cash from demurrage via the retaining rate. This amount is then multiplied by 1 + the issuance rate to determine the amount of this retained amount that is available to loan out.

Loan officers bid cash to get the right to distribute the loans and for their efforts get prefs in the debtors who they give the loan to.

In the current system the bank only wants to make sure they get back out their capital + interest from the debtor. The debtor in our system will have much more help from the loan officer because the loan officers future lively hood will be based on the pref payments that the debtor pays. She is likely to receive help and support far beyond the repayment of the loan.

The second way to get a loan will be personal loans. A citizen can always transfer cash to another citizen in return for an IOU. These IOUs can even be put in the public ledger. Personal loans will need to compete with the loan pool, but thanks to the prefs system, families may choose to loan among themselves instead of passing all the future prefs to a loan officer.

What about a debtor in default? For this case we provide the clear out. Our goal here is preserve the right to the full output of the laborer. As a result, a debt collector cannot confiscate prefs that the debtor owns. They can liquidate the account and renegotiate terms. Once a clear out date is set, the debtor will have any pref payments protected that come from prefs owned before the cutoff. Thanks to prefs, it is likely that the debt collector will eventually be made whole, but in the mean time the debtor is somewhat protected.

The Creditor

Who: A creditor is someone who loans money to another person and expects to be paid back later.

How does our system affect a creditor? We provide reduced risk to a creditor. When she transfers money to a debtor, she gets prefs in that account. Her potential profits are much higher than the interest to be gained and her loss is reduced due to the recursive nature of pref payments. Even if a debtor 'clears out' and the creditor agrees to waive all outstanding debts, the creditor will continue to reap pref payments going into the future. The creditor's risk is no longer 100%.

The Loan Officer

Who: The Loan Officer doesn't really exist today. We have bankers that are supposed to look for good lending opportunities, but these relationships are often short sighted and benefits only extend to the life of a loan. Our loan officers are in charge of bidding and distributing the retained loan pool. She is also the vehicle by which our system issues currency.

How will our system affect the loan officer? First of all banks will die. They will not be needed. The wasted human capital that resides there can be returned to the labor pool for real, productive work.

The new loan officer will bid on chunks of loans from the pool. The proceeds from these bids will be distributed to the citizens and companies that are 'saving' cash in their retaining partition. The loan officers will bid because they think they can place the money in places that will return more pref payments in the future than cash they are bidding.

Most loan officers will have alternate forms of income in the short term while they build their portfolios. In the future they will be tied to the companies and individuals they loaned to and will benefit when they thrive. The relationship will be bounded by the lives of the two entities and not the length of the loan.

This new arrangement will be a hit to the commercial banking industry but a benefit to humanity. We are not sorry for ruining the banks industry.

The Company

Who: Companies are legal entities that are organized to pursue a business objective. Companies can pursue any form of business, but generally have a board elected by shareholders that selects executive officers that are responsible for producing profits and returning those profits to share holders. They typically employee labor to produce a form of capital or consumable goods that can be purchased by clients.

How does our system affect the company? Under our system the company inherits a new form of shareholders, the pref holders. The pref holders have no voting rights, but to get to benefit from the demurrage that is paid by the company in the form of pref payments.

The Company will have a new tension. If they hold cash it will demurrage, so the stock owners will want the company to put cash to work quickly, but they will also not want them to take undue risk.

In our opinion this is the price to be paid by a company for limited liability. We also believe this will lead to much more dynamic and adaptable companies. If a company must invest excess cash or risk losing it to demurrage they will be much more likely to find good, productive ways of putting the cash to work instead of letting sit in a bank vault. The work they do will much more directly impact their well being that the areas that a bank manager would have put the money to work in.

The Union

Who: The union is a group organized to represent the rights of laborers in an industry. They wield the power of negotiation and can strike to demand the satisfaction of demands.

How will our system affect unions? Unions will thrive under our system of money. Companies will need them to organize the apprenticeship and improvement of the laborer's skills. Without an increase in production the companies not see the return on their prefs that they want. They will rely on and fund the unions to move laborers to higher and higher pay tiers.

The laborer will rely more on the union as they seek to find more diverse employment opportunities.

Over all the union will see a resurgence and increase in power. If workers strike it will now be a double blow to the company due to reduced production and a lack of new pref payments.

The Single Mother

Who: The parent is the caretaker of a child. This has traditionally been the domain of the mother, but it should not be restricted as such. It can be a father or, in the lack of a biological mother and father, a legal guardian.

How will our system affect the parent?

For the parent that waits until later in life to have a child they will be able to rely on continued pref payments to take some time away from work to nurture their child.

For the young parent who has no prefs to rely on, a government pref stipend should be provided if a parent wants to 'stay home' and provide child care. These stipends can come from the Education prefs of the cohort their child belongs to.

A price cannot be put on the nurture of a child by its parents. The dividends paid by ensuring that a parent who chooses child care over work should be encouraged. Prefs paid should be equal to the previous yearly output of the parent(to a reasonable limit).

A single parent may also be offered a cash stipend. This will help further stimulate the economy and assure the nurture of the next generation. If the parent wants to continue working they can choose to spend the stipend on child care.

The Child

Who: The child is a young person below working age. The child should be engaged in whole world education including both physical education as well as mental education.

How will our system help the child? She will be much better cared for. By providing future compensation for parents that choose to stay home and by drastically increasing the earning potential of teachers, the care given to each child will be significantly increased.

In addition, upon reaching a working age, the student will have a number of people invested in their account and who will help the child succeed.

The Beggar

Who: The beggar is in poverty. The beggar cannot afford food or a roof over her head.

How will our system affect the beggar? She will benefit by just living. Even the scraps that fall off the table of society will eventually add up to a significant number of prefs.

Governments will be much more empowered to help the beggar because they will be able to limit the amount of time they help until the account has enough prefs to continue on its own.

The Teacher

Who: The teacher is entrusted with the education of our children. They are typically underpaid for the service they perform and are usually the most robbed of the full output of their labor.

How will our system affect teachers? Education prefs will be given to teachers by their students. As a result, producing productive students will lead to large pref payments later in life.

We anticipate competition for the right to be teachers as it will become one of the most sure ways to wealth.

The Warmonger

Who: The warmonger seeks profit from war and the destruction of physical and human capital.

How will our system affect the warmonger? The production of ammunition, machines of war, and war supplies produce nothing of value. They are wasted capital. Would you rather put your money into something that was then in the business of producing productive capital or into something that was going to pile your money into a pile, light it on fire, and shoot it at an enemy?

In addition if a community of teachers and business people that have invested years of wages into a people, and own a massive number of prefs in them, how likely will they be to send them off to have bullets shot at their heads?

Prefs will make the economics of war much more difficult and a much harder sell.

The Lobbyist

Who: The lobbyist is an individual that is paid by an industry to seek undue influence in government.

How will our system affect the lobbyist? Because of the public ledger, the people should be very wary of public officials that receive payments from the privacy pool. This will reduce corruption.

In addition, the veto will give much more power to citizens to fight against lobbyist. In fact, lobbyist will likely need to move much of their 'lobbying' from the public official to the actual people and tax payers who can deny the public official his pay. The people will listen with much more critical ears.

Simulations

- What happens when someone choses not use their money?
- What happens when a capitalist choses to live off their economic rent?
- What happens when a family's expenses increase from 6600 a year?
  - Explore unemplyment if the family cannot afford to increae living with prices
  - Explore living from savings

- Explore the situation where a producer of pencils tries to meet new demand for his pencils
  - Hiring new workers
  - Buying new capital - aka a new plant or machines

- Explore the selling of bonds
- Explore what would happen if we had a bank like institution that pays interest
- What happpens when the discount rate is above or below the risk free rate of return (aka US Tresury Securities)

Book III - Art

Our goal in this book is to outline a (re)genarative process that will allow our new form of money to become the dominant form of currency in the near future. Much like our desire to have a life cycle to all things there will also be some outlets for the next thing to come along. For example, our system would not work well for interplanetary or interstellar travel. These are problems to solve another day.

Art - As Desired

If we had complete power to implement a system of our choice, what would it be and how would it work?

We will define this and discuss how we can start a movement toward that end result.

We want a coin called Art or ArtCoin that has a stable value and conforms to our ideas of democratic hypercapitalism.

The State will have an issueing account and its agencies will have agency accounts. Sub governments like states and counties will have their own domain accounts and their sub agency accounts.

Citizens will have citizen accounts and Legal Entities will have Legal Entity accounts.

Accounts will have a number of ways to transfer money around. Debit cards and online payment will be availible. Transfer will be as close to instant as possible. Transaction blocks will be signed and pushed to a bitcoin like block chain that will ensure the validity of the transactions and keep the state from fuding the numbers behind the scene.

The actual accounts will be under a the central authority of the state and centralized. The blockchain will not be cetralized and will be distributed across a pier to pier network. In this way the entire transaction history will be stored off site and could be reconstructed in the event of catastrophy.

Each transaction will be accompanied by the transfer of prefs. The central system will force accounts to catch up on a monthly basis, but generally accounts will catch up more often as they engage in commerce.

The issuing state will also regulate the loan pool. Loan officers will bid for the rights to distribute the loans to the public.

A CPI authority will be incharge of regulating inflation by recommending adjustments to the Demurrage, Retaining, Issuance, and Pass Through Rates. This authority will actually go out and buy a basket of good sin a broad set of geographic locations. This will determine the inflation rate. This nuber will strive to be as close to 0 as possible.

Out side of these bounds, commerce and markets will operate much as they do now free of overregulation.

This 'dream state' is not easily achieved due to a number of assumptions that we will discuss in the next chapter.

Assumptions

Why can this system not be jump started?

I assume that citizens will be very skeptical at first. They will need to be 'trained' to understand the idea of prefs and the financial impact they can have on their life.

I assume that this system will be very disruptive to the powers that be. We anticipate the distraction of the populace via war, patriotism, and slander. We must find a way to encourage people to look at the respect for humanity our system seeks to employ.

I assume the state will not run with this from the get go. We will provide for the eventual nationalization of the system. This is not something to be feared and should be planned for from the begining. This system could lead to a nation-stateless society, but if history is any indication we are not quite ready for that.

I assume that merchents would be skeptical as well. Why would they want a money that 'dies' unspent? We will have to over come these fears by encouraging the populace to demand the acceptance of Art.

I assume the banks will fight this tooth and nail. It will be for the people to demand the reduction of the financial industry. Ultimately we don't expect this to be a hard sell, but we do expect the industry to fight with all their power to keep the status quo.

I assume 'they' will call these ideas 'communist', 'socialist', 'unrealistic', etc. Remember the mantra, 'if capitalism is so great, then I demand capital for my dollar.' Together, we need to no longer let ourselves be taken advantge of by those have the power.

I also assume that this is doable. Art has a secret weapon.

Seed to Vision

The secret weapon of Art is that with a tax rate of 0, and demurrage rate of 0, it is just money. Same as it ever was.

I want to seed the network with a standard debit card. This will necessiate the establishment of a bank. If we can convince the public that this is an endeavor worth exploring they will put their dollars with us.

When a dollar comes into us we can convert it to an Art at a 1:1 trasaction rate.

During education and prolifiration, this rate will stay 1:1.

We will begin issuing prefs as soon as accounts that are both with our bank transact. We can begin the block chain with these transactions. When someone transacts with a non-account holder we can push the Art to a 'exchange fund' and distribute dollars. The echange fund will be our responsibility. When new dollars come in we can sell them the art from the exchange fund. The goal will to expand the amount of cash that stays inside the network.

Eventually, with enough art in the system and stable expenditure patterns we can flip the demurrage switch. We can start it very small and keep the tax rate at 0. This will begin to start redistributing some cash via catch up. This will accelerate the adoption as people recieve thier statments and see the source of the increases in their accounts.

Once this proces starts we can begin to put more pressure on merchants to open an Art account.

Once the technology infrastructure is in place to accept Art as a seperate entity to dollars we can break the 1:1 dollar to Art ration and let the market take over. This poses a significan risk to the organization we have started as the dollars we hold may soon begin to degrade in value.

At this point we begin to look toward nationalization. We expect the alure of easy taxation to be too much for the state to resist. With the population clamoring to exchange their dollars for Art we expect the quick nationalization of the system. We will transfer the issuing account to the government.

Government payments will begin to go out in the form of Art instead of dollars. Once this occurs the democratic phase of our system will kick in. Once people are paying taxes to the issuing account they will have the power to lock the account. The government will need to issue citizen accounts to all citizens.

At this point we will see if this whole thing works or not. I don't always hack the economy, but when I do, I do it in America.

What is missing?

At this point Book III is extreamly short. I'm not the best with logistics and need your help to flesh out the exact generative language to make this a reality. This book is hosted on github and we accept pull request. If you have a deep knowlege of the banking system, blockchain, technology, financial transaction technology, etc, we'd love for you to help us fill in the blanks.

The steps outlined in Seed To Vision need to be ripped apart and detailed. In addtion, correction strategies need to be expolored.

We need help writing the monte carlo simulations out lined in Book II. If you are a developer and want to help us with the simulation and analysis of the results we would welcome the help.

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