

1. Debt Is Money We Owe To Ourselves?

The main questions – almost nobody seems to ask – are these:

To who do we owe the \$250 Trillion global debt?

Because if the governments of the people of the world would really own their central banks (if the American people would own the FED, the European people the ECB, the Chinese people the Bank of China, the Japanese people the Bank of Japan, the English people the Bank of England) the people could ask:

If our governments own the central banks, why don't we forgive ourselves our own debt?

and

Why would we charge ourselves interest on our governments loans or even private loans?

Because, if we wouldn't charge interest on ourselves, we wouldn't need to borrow more money from ourselves to payback that interest to ourselves.

And the related questions are:

Who is it – if not us – that owns each Dollar, Euro, Yen, Renminbi, Roebel, Naira and so on, that is printed out of thin air each day and then borrowed to the people with interest?

and

Who is it – if not us – that owns the new money that inflates the money supply (and therefore devalues the value of all the other money that is in our economy) when extra money is printed out of thin air?

and

Why do central banks have a goal to “give us” 2% inflation?

and

Why do we need economic growth, when the portion of wealth (the part of the total global wealth) that the bottom 99% owns has shrunk to HALF in the same time-frame where our productivity increased with 500%?

and

How do you avoid hyperinflation when central banks – that can't lower interest rates any further – can only print more money to keep the economy going?

The fact that these questions are not part of any primary school program, high-school program and are apparently never openly discussed in economic university programs is telling. Everyone that dares to pose these questions will – by default – be riddled with economic abracadabra. When you don't understand the abracadabra and you keep asking better explanations for those same questions, then you will inevitably be called out as a conspiracy theorist. And when you entertain the only answer that is provided when you do your research, you will – by default – be called out to be an anti-Semite. You will also notice that when you ask your family and friends these questions, that nobody knows the answers. And then you know FOR SURE that things are not the way the system wants you to believe it is. You understand that there is NO DOUBT that the monetary system is a massive scam from bankers to extract as much wealth from the people as possible. Once hyperinflation strikes people will really understand that all their wealth is finally gone.

Smearing information as conspiracy theories, is very effective and makes it quite impossible to have proper discussions on how the world actually works. To avoid any useless discussion, we just ask you to do your own research on the questions above. In this document, we will only focus on improving the way money works. We want to find out how to realize possible improvements in money when the unprecedented global depression takes place, that seems to be on our doorstep.

2. The Three Hidden Problems of Money

The 3 most important problems with money are in plain sight.

The first problem is the **Wasteful Behaviour Incentive**:

A product that is produced in a fair way (with fair salaries, with sustainable products and methods, with a high quality, proper design that makes recycling easy) will always be more expensive than a similar product that didn't take care of those features. Any government program that tries to force or incentivise producers to adjust their products and production methods has failed to really change this, because producers will do almost anything to find ways around these kind of regulations: Producers take production abroad where wages are low, waste disposal is unregulated and so on. And many politicians are paid to enable and maintain those possibilities.

Economics On Product Level

Let's look at "costs" of a product per minute that it is used: When cheap stuff breaks down very fast, the costs per used minute goes up. This means also that the used resources per used minute are more, the produced waste per used minute is higher, the necessary labour to produce the item per used minute is higher, the costs of distribution per used minute is higher and so on. The focus should not be on the lowest product price, but on the most economic product.

The second problem is the **Money Owners Priority**:

People that have most of the money, set the priority for what should be produced. This means that the less money people have, the less producers will look out to service them. If a producer can sell faster, more and at a higher profit to wealthy people, it is clear where he will bring his products. When providing basic necessities for all humans is not a priority for the main money owners (and history proves over and over again that it isn't) than people that are moneyless and have serious issues in providing basic necessities (like getting medicine for a sick child) will do anything to arrange it with all "criminal" issues attached to it. Money incentivizes creating protection systems (police, jails) to protect the wealthy, but is apparently not able to incentivize providing people their basic needs. Even when we can prove that the costs of our police and military systems are several times more expensive than providing everyone basic necessities. It is obvious that fear sells better than compassion.

Economics On Society Level

On a macro level, money owners don't choosing the most economic solution for creating a secure world, which would be providing basic necessities for everyone. Instead money owners just fight the symptoms of inequality. And to make the public pay for it, they need to create fear and division in the world. It is very obvious that fighting symptoms has never been an economic solution. The focus should not be on the best security, but on the least amount of poverty.

The third problem is the **Wealth Transformation Structure**:

All money is printed by central banks and then borrowed to governments with interest. Assume you had no money and a central bank borrowed you \$100 and asks you to pay it back in a year with 5% interest. Now assume you are the only person in the world. You have \$100, but where would you get the \$5 interest? YOU CAN'T! You need to go back to the central bank to borrow another \$5 that you will get with interest. This means that when you pay back the \$100 after 1 year, you still owe the bank \$5,25 at the end of year 2. So at the end of year 2 you pay back your \$5 and you are forced again to borrow at least \$0,25. This process never stops, but the amount you need to borrow gets smaller quite fast. But whatever you produce, how hard everybody in an economy works, the entire economy will never be able to pay for all it's debt. It is mathematically impossible. This is why governments must always borrow a bit more.

Now what happens when you borrow money and you waste that money – let's say – in a war. In that case you can't repay your principal because you just destroyed \$50 of your loan: half of the infrastructure and weapons of your country. That is why the owners of banks love war! And because you collateralized your stuff when you applied for your loan, chances are big that the bank will take possession of your properties when you can't pay the interest. When stuff deteriorates, breaks down or is consumed, created value disappears. So you also need to borrow more money to maintain, repair or replace your stuff. This is why borrowing money will always increase in amount and also in speed. And this is why the valuable stuff will always end up in the hands of the banks and the elite that surrounds these bankers.

As civilians we feel this increase of transfer of money to the wealthy elite. We see rich people increasing their wealth at record speeds and at the same time we experience increasing taxes because our governments need to borrow more and needs to pay more and at a higher speed. This money transfer to the banks and their befriended elite goes faster than our productivity growth. So even when we now produce more than 5 times of what we did 40 years ago, the portion of wealth of the bottom 99% keeps decreasing every day. And the only way individual people can survive, is when they outperform the other individuals, like working 3 jobs and working 70-80 hours a week. Even when both parents work nowadays, it is more than often not enough.

Economics On Individual Level

For individuals, productivity needs to be increased every day to keep up with our taxes and private debt on tuition, cars, houses, medical bills and so on. And by postponing our pension age, we increase our productivity again. On average it is clear that it is impossible to create a better economic outlook for our kids. This means that the current economic system is NOT WORKING for the bottom 99% on the average individual level.

Economics on the combined levels

Because of the Money Owners Priority principle, we accelerate producing the products that especially the money owners require, like expensive cars, yachts, air-planes, villas, fashion, luxury food and so on. Next to that, there is also a massive increase of producing "security" – like the police, private security, surveillance, prisons, the army, weapon industry and border control – required by the elite. And because of the Wasteful Behaviour Incentive, the deterioration of these luxury goods accelerate the economic waste that is connected to these goods (that were of little real value to begin with). And because of the Wealth Transformation Structure, the bottom 99% of the people are forced to keep pushing to be more productive to survive. This means that – instead of creating things of real value in an economic way – we increasingly produce more things of no real value in an increasingly wasteful way. This is just because of the way money works. It is exactly why we have a climate crisis and environmental crisis at this moment. And that is why we really need to rethink how money actually should work for us, instead only for the elite. It is CERTAIN that the system we currently have will crush us and especially our children. It is also CERTAIN that when we don't find a better alternative to money as we know it, the elite will replace it at the next depression with a surrogate, where all three issues will remain. And that conclusion makes it clear that we have NO CHOICE to start focussing on a system to really improve money.

Improved Money

If we want create a much more economic society with less violence, less waste, less inequality and a better environment, it is clear and essential that the way our money works, is improved on all 3 issues that are mentioned above. In this context we must emphasize that also cryptocurrency does not solve these three major problems. Cryptocurrency can – in theory – solve the Wealth Transformation Structure, but it will not solve the Wasteful Behaviour Incentive nor the Money Owners Priority issues. Other problems with cryptocurrencies are that the wealth gap will be instantly bigger than it is already in Fiat money and that governments and social programs are not possible in cryptocurrencies, because no tax can be collected. It seems logical that – when we want to improve money – blockchain technology will be part of the solution, but

that we must do better than just hope that cryptocurrencies will solve all money related problems. They won't.

3. Transactions

When you have something of value, and you consider it yours – whether it is a product or a talent – you normally don't want to provide it to somebody you don't know for free. Even when you live in a commune, you don't want outsiders to take possession of your land, take your clothes or use your bed without asking. Everybody has a quite good intuition what is yours and what not. This means that if you want to improve the way money works, the moment of a transaction – when your product or service – is provided to another person, is the right moment to settle for a compensation, also because at that moment you have the best understanding of the details of the product or service, like the quality, the amount and the uniqueness of it at that moment. It would be very difficult to remember all these details a year later. It is also important that both parties recognise the same details of the product or service you own and provide the other person. The two people sort of certify that they both think the used compensation in the transaction is fair. This means again that the moment of the transaction is the best moment to arrange the compensation.

What Is A Transaction Anyway?

It is deliberate that we don't use the word "exchange" here. With the "exchange of goods" (barter), two of the three money issues - "Wasteful Behaviour Incentive" and even the "Money Owners Priority" (when we assume for example situations where barter monopolists own almost 100% of certain basic necessities) – can't be resolved. Exchange means that the receiver of what is been provided, needs to compensate for what is provided to him with something that has a value that can be considered about equal (by the standards and notions of society). A small amount of variation in price is acceptable by society, which is called profit or loss for one, or is called a bargain (when it's cheap) or wasting money (when you clearly pay too much) for the other. The price is almost totally indifferent on how the transaction affects the resilience of society.

Dual Rewarded Transactions

When you however want to make the compensation in a transaction fully conscientious on how the transaction affects the resilience of society, you need to abandon the idea of doing a traditional transfer when a transaction takes place. Instead you focus on how the transaction is rewarded for both parties. To get rid of the "Money Owners Priority", you need to fully abandon the idea of a traditional exchange. You need to replace it by a reward system where both parties are separately rewarded or "charged" where the reward of one party isn't necessary equal to the "charge" of the other person. This means that when you provide let's say a bread to somebody that couldn't get a basic meal that day, that your reward is different to if you would have provided that same bread to somebody that already has his basic needs fulfilled. This way the "Money Owners Priority" can be eliminated. A transaction like that can be named: "A Dual Rewarded Transaction (DRT)". The term "Dual" is used because both participants of the transaction are assessed differently. The Economic system of which DRT's are part of, can be regarded as a Resource Based Economy, because the system will be designed to protect our resources against wasteful usage.

Multiple Reward Types

Once you understand that the provider and receiver must be rewarded independent from each other and that you need to reward different aspects related to a transaction, another choice for rewarding emerges. When we define the different aspects, do we need to combine the aspects into one combined value using a sort of formula, or is it better to just keep score of the different aspects separately? Combining the aspects in a formula that leads to one value will make the system look closer to money and could look easier, because you can talk about one value, like a

coin. But when you look closely to the complications this formula itself would generate. For example: how do you process the enjoyment of a hiking trip with the preparation effort of the organizers and the misery that a persons broken leg at that trip produces in one single formula. That you will get a result from that formula, is easy to imagine, but that the same formula can will lead to a value of let's say a purchase of an enjoyable banana in a way that those formula values make sense when they are compared to each other is quite unlikely, and – more important – quite unnecessary and probably quite unproductive. A much easier system is a system that we know from various computer games where your “aspects” like health, wealth, reputation, strength and fame are scored next to each other, giving you a clear indication on which aspect you should do some more effort. Anyone that played those games will understand that multiple aspect scoring is very easy to understand and provide much clearer information on what you should do be a more balanced person.

Do We Need Overlords To Oversee Transactions?

Currently we have our banks and governments overlooking about everything we do. If we want to be sure nobody sees a transaction we do, we move to cash and cryptocurrency. It is quite certain that cryptocurrency wouldn't have been what it is today if it wasn't for the many very illegal transactions that were (and are still) being done with it. It is also very clear that – whatever system you will create – there will always be luxuries that are owned by certain people that are coveted by other people. There will always be items like diamonds that will be used to do transactions that some people want to be secret and that are impossible to prevent. Most transactions however are done by people that don't really care that their bank and their government sees in full detail. Some people (especially the ones that push cryptocurrencies) see this indifference of the public as a result of well planned indoctrination. It is however more likely that most people just don't care and really have nothing real to hide.

Putting a single central global organization in charge that controls the entire valuation system of a global economic system is however a pretext for serious problems. For many thousands of years people have bartered and were very capable to set their own prices without overlords. Mostly there were some elderly people in a village that intervened when issues occurred. Blockchain technology is also helping society to become more peer-to-peer, which shows that people increasingly want to escape the overlords in the governments, banks and tech-multinationals. The reason for this seems not to be that these organizations have insight what you are doing. The biggest issue that people are increasingly recognizing, is that these overlords are using the insight – that you granted them – to ban you, extort you and to change your behaviour in a way that only enables the overlords to secure their position more. Using social media in combination with a cashless society is the ultimate goal of the overlords. A system like Libra in combination with hoarded gold and silver could give the overlords that position.

It is very clear that we never should again should enter a system that could be managed by a small group of people. This means that a new economy all transactions **MUST** be peer-to-peer. It is quite clear that you need blockchain technology to enable peer-to-peer transactions. Cryptocurrency is such a system. It would be quite easy to create a “Multiple Reward” system using cryptocurrency technology except for one issue that makes full encryption a dead end, and that is the issue of multiple identities. In cryptocurrencies it is very easy to create more than one identities and next to that, you can fully hide which transaction is connected to the payment. When you are able to hide which person is transferring what other person and why, it is not possible to create a relation between a transaction of a product or service and its reward. This means you have only two choices left if you want to reward sustainable behaviour: You centralize and use overlords, or you don't use encryption in your decentralized peer-to-peer transaction system. Because it is clear that most people don't mind other people being able to check most of their transactions and there are always possibilities to hide transactions using items like diamonds or even cryptocurrencies, that using blockchain-technology (do called hashing) without encryption is the only real option for a Resource Based Economy without overlords.

Cascading?

An issue that plays a role in many transactions is copyright and patents. Practice however tells us that proving that things fail is as important as proving that things work. Some inventions are based on a little insight and a lot of luck. Many inventions however are based on massive amounts of training, trying and research, whether it is science, art or even sports. Now let's assume you do a very important invention to double the efficiency of solar panels. You can file that securely in the blockchain, but how are you rewarded? Was it only you that invented it? Did you have a team? Did you work for a company when you discovered it? And how are all the people – that did the research that you used or described what not worked – compensated? If a musician writes a great song and tells people he was inspired by the Beatles, are the Beatles compensated? You can see that copyrights and patents are very difficult to quantify and reality shows that great legal battles for money just frustrate progress of the human project.

Another parallel is the robot soccer world championship. After each world-tournament, the teams are obliged to provide all other teams their used technologies. That way they can improve their technology much faster. When we want to use our resources the most effective way, NOT rewarding hoarding technology is much better. Even rewarding the winner and forcing the winner to share the technology can be considered as counterproductive, because it can result in competitors not willing to participate in the development because if their technology is not chosen, their efforts are not compensated. It is also known that almost all legendary inventions are never made because of the money that could be made of it. Most scientific progression is just made because smart people were nothing more than curious.

This means that we should abandon all copyrights and patents. Especially in a future where people's basic needs will be provided freely – which we can expect because there won't be enough jobs to serve everybody (and why would we want that anyway if it is not necessary when technology helps us out there) – creators will be rewarded by getting attention in live events anyway. The conclusion is that rewarding cascading achievements in transaction is not helpful. It is better to share all knowledge and let everyone decide what to do with it, freely.

4. Working Towards A Goal

Now we identified probably the largest problem humanity is dealing with (the failing monetary system) and we pointed out how the monetary system causes our problems by using the wrong incentives, we now also know where our focus should be and which tools we have to fix it. The next thing we need to make the solution tangible is defining a clear and realistic goal. After we define a clear goal we can do a better assessment of which types of rewards need to be used in a Multiple Reward System and how each type should be valued for the provider of a product or service and for the receiver of it.

The goal of a sustainable economy should be: To use all resources as economically as possible to sustain human life as good as possible. This means working towards an equilibrium where there is a full circular economy where no virgin materials need to be mined and the regeneration of "growing" resources like trees, plants and animals are stable as part of a natural balance.

2100 Equilibrium

Now when we are optimistic and also realistic, then it is estimated that the human race will grow until the year 2100 to about 11 billion people when it is expected that know-how and survival prospects are evolved in a way that an average birth-rate of 2 children per woman is reached in a natural way (as it is today in most western countries). When we set reaching a stable population induced by global prosperity and education as a goal, we can then design a balanced economic system that creates this prosperity towards the moment that equilibrium is reached.

To realize this we need to design rewards in transactions in a way that – when this population growth equilibrium is reached (probably in the year 2100) – also the living standards of every person has reached a state that they are not depending on their children to live a humane elderly life. In that same time frame the reward system must push and realize a proper balance between humans and nature that is sustainable for many centuries after us.

History has proven that governments and leaders are not fit to take on such massive tasks. This means that only the people themselves can realize this, by abandoning their governmental structures and start using a full peer-to-peer system that works intelligently towards that equilibrium.

Calculate Back

When we say the equilibrium is 11 billion people, then we can calculate how much houses we need to build, how many acres of arable land we need, how many solar panels, windmills, we need, and how many schools, hospitals, roads and other stuff we need. We will have a quite good indication where we need to build that stuff and where to get the resources. We will be able to estimate how many people need to work in agriculture, construction, solar, hospitals and so on.

Some Rough Financial Estimates

For example, to house the extra 3.5 billion people that will be added to the living population in this century (of which over 3 billion extra people will live in Africa growing the population in Africa from 1.2 billion to 4.4 billion), we need to produce about 20 million houses each year starting 2020 until 2100. To realise this you need about 10.000 factories where about 4 million people work. At suppliers for mainly steel, cement, aggregate, glass and machines, like trucks, cranes and concrete mixing machines you will need probably another 3 million people. This means that with a workforce of 7 million people it is possible to create the houses for almost 6 billion people in this century. Housing provides about 70% of the costs of basic necessities. The price for that operation will be less than \$250 billion per year if you count it in today's money, which is less than 15% of the current yearly global military budget.

City Area

When you have an apartment building of 4 stories, each 2-bedroom apartment uses an average of 60 m². You don't need more electricity than that to have light, ventilation and water-purification systems. Normally the number of people living in a house in Africa is much bigger, but when prosperity increases the average amount of people per apartment will go down. Lets assume it goes down to 4 people in each apartment. Then let's assume 5 billion people on this earth currently have adequate housing. This means we need to add apartments for 6 billion more people. 6 billion divided by 4 means that you need to build 1,5 billion homes (this is close to 80 years of building 20 million apartments per year). The land you need to use for this is almost 100 billion m². This is 100,000 km² which seems quite a lot, but is in fact a plot of 316x316 km that is needed to house all people that will be added to the world population. It is a plot that is about 10% the size of Nigeria, or about 0,33% of Africa. You don't want to use more stories, because you need the roof-space to generate solar energy for these people. To compare, the metro area of the city of Lagos is already 2,700 km². This means that 40 of those cities could house all people that will be added to the population this century. When you look at Nigeria where they estimate 750 million people living there in 2100, it means that 45,000 km² of city is needed, which is about 5% of the area of the country.

Other Basic Necessities

When you look at providing basic necessities (the absolute minimum to survive) this is about \$100 per person per year, assuming you have a house that provides you water and electricity (see above). Once 4.4 billion people would live in Africa, this would cost \$440 billion per year in 2100. When you would add the other impoverished continents, it could double, but then it would still be half of the current yearly global military budget. Currently, the amount we would need to spend to provide all impoverished people their basic needs, is not more than about \$250 billion.

Agriculture

Soil in the Netherlands is not very fertile and the climate for plants to grow is quite harsh compared to Sub Saharan Africa. In the Netherlands we use about 1.000 m² per person for agriculture which is about half our landmass. Only 4% of the Dutch people work in agriculture and about 70% (estimate) is produced for export. So roughly per person about 300 m² agricultural land and 0,02 farmers are needed to farm for our own use, when this is done in an efficient way. On a global scale this would be 7.6 billion x 2% = 152 million people. For a country like Nigeria that is expecting to grow to 750 million people this means that 225,000 km² is needed to feed everyone which is about 25% of it's surface if it is done effectively. It is obvious that a much higher percentage of people work in agriculture and that the use of land probably must become much more efficient, to keep up with demands. It is however clear that especially irrigation will be a bigger issue than finding arable land in Sub Saharan Africa. Glass and Solar Energy will be vital to make agriculture efficient in Africa.

What Do The Numbers Tell Us?

When you look at money that is being spent on a global level and compare that to what should be spent on basic necessities, than you can see that providing basic necessities to everybody is a real small portion of the current economy. We could do this with \$500 billion which is about 0.5% of the global GDP (!) to house everybody and provide water, sanitation, electricity, food, clothes, soap, information, education and even basic medical care. When we see that we need 7 million people in construction plus about 152 million in agriculture when we organize better, it is clear that with only 2,5% of all people we could be able to provide everybody all their basic necessities at the current level of technology. It is proof of what everybody knows in the back of their minds. Money provides the wrong incentive because we are not only spending over 99,5% of our resources on what can be considered as luxuries for the rich, we also refuse to use the remaining 0.5% to provide other people their basic necessities. The main reason: There is more profit in war. We rather spend 2% of global GDP on the military plus 2% on police, security and prisons than to use 0.5% of GDP to really solve problems and save the environment in the process. We obviously need people in dire situations to have a breeding ground for enemies we can fight. That way we can keep our military industrial complex working.

An Economic Reset

What if tomorrow you wake up and there are no banks and there is no money. It's gone. And everything you used to use, rent, borrow, lease or pay a mortgage for becomes – as by magic – yours. And you walk around your neighbourhood and the same thing happened to everybody. What would you do? You should celebrate because you just received a very big gift. It is more likely that you will start to fear, because you also lost your job. Will there be people that go to their work to keep your electricity and Internet going? Will the owners of fresh water still allow their water to be distributed without forcing me to pay them all my possessions? Will the farmers keep working to provide fresh food to everyone without taking more of my possessions? Are the people from countries without houses, water and food, invading us to steal our possessions? How do we pay the people that should stop these robbers?

These are the questions that matter when our financial system breaks down. Basically there are only two choices: try to protect yourself against the others or try to start cooperating to help the other people so they also don't need to steal anything. It is clear that the first path will lead everyone into misery and the second one will not. As F.D. Roosevelt said: "The only thing we have to fear is fear itself.". We should not let fear win, but start directly on working towards our goals.

When you choose the second option, the question remains how to reward the minority of people that work towards our goal to first create a world where everyone's basic needs are taken care of? And how do you reward the majority that are just entertaining themselves and enjoying the luxuries of life? Especially after the economic meltdown that seems to be very close now. The next thing we need to do is to choose the reward types that will push to our defined goal.

5. Defining the Multiple Reward Types

When we assume a total financial meltdown where everything that you use becomes yours, because all banks has imploded and people understand that the central banks and fractional banking system is nothing more than a scheme to transfer wealth to the elite. A scheme that would be made illegal if people would understand how it works. A scheme of which it is very obvious that we should never ever want to go back to. That is why keeping your houses and cars – that you pay a loan for – can be simply considered yours once the system implodes. If most people simply would decide to do this, this new situation with all kinds of new ownership positions, can be put on the blockchain as the new situation. Resources within countries can be nationalized because all companies will be bankrupt anyway in the next crisis and all shareholders should simply be ignored because they got their position by using a rigged system. Off shore resources can be “internationalized” and become owned by every person, also being stored in the blockchain. Eventually all resources should be “internationalized”, but you could also reason that it really doesn't matter, because a proper new monetary system must be global, because our sustainability problems are also global. What will also (need to) happen is that we work towards a real circular economy. Which means that at a certain stage we don't need virgin resources at all.

When you reason from the disrupted situation that will occur directly after the financial breakdown, it is quite clear what steps need to be taken and need to be pushed and rewarded by the new financial system itself: The first step is to secure our basic needs like food, water, shelter, electricity, clothing, medicine and information. The second step is to work towards a full circular economy to make sure no unnecessary virgin materials are mined and that no materials are being wasted. The third step is that all work get robotized if possible, leaving only work that people voluntary want to do.

Three Recovery Steps #1 – Secure Basic Needs

To secure basic needs (like food, water, shelter and so on) we can use a pyramid scheme. Everybody needs to help at least 3 people to get their basic needs. Only then can you start increasing your luxuries. People that have difficulties to reach their basic needs must advertise this on the internet. Once less than 5% of the known users advertise their shortage in basic needs, luxury is “released” meaning that luxury items will be severely suppressed by the money system until basic needs are properly distributed to more that 95% of the people. Helping the last 5% and helping more than 3 persons will give you extended luxury.

Three Recovery Steps #2 – Circular Economy

Once the basic needs threshold of 5% is reached, the circular threshold is set at 0% and will be increased with 0.25% per week, this means that it will take about 8 years to become full circular. Every person needs to do the threshold amount of volume of his transactions in a circular way, or he loses the capability to increase his luxuries substantially. The only exemption for this are resources that we need to produce our basic needs like steel, cement, glass, aggregate, lithium, uranium (to build proper houses and produce a proper amount of electricity) of which it is not possible to replace in a sustainable way in the entire production chain of those basic necessities. Only when it is scientifically clear that the production chain can be realized without a certain virgin mined material, this virgin material will be added to the list of banned materials.

Three Recovery Steps #3 – Full Robotization

After circularity is reached, the next step is robotization. Work at that moment should become a choice. People that are satisfied with the amount of luxury they have gained can stop working because their basic needs will always been taking care of. The level of basic needs can however been changed by voting. These levels are just definitions that are stored in the blockchain. When a proposal reaches a certain percentage of endorsements (let's say 5%) then it will be voted on.

Companies

This system also means that companies like we know them will cease to exist. A company will be more like meritocracy. People that work in the production chain on a farm or in a factory will choose their director and will vote their colleagues in or out. The owner of the land or factory building will probably want people to use it because in the end everybody wants their basic needs taken care of.

Police

Because governments are also bankrupt, policing production and distribution will be a challenge, especially direct after the financial collapse. The combination of a self-sovereign identity and a new legal system that is truly based on Universal Human Rights, should be created in a decentralized way. It seems however logic to use the existing infrastructure of courts and police stations. It is to be expected that – when we succeed to guarantee basic needs to all people – the need for policing will become much smaller than it currently is.

Transaction Types

To create order in a reward system, a distinction need to be made between goods and services that are necessary for people (all of them) to survive which we can label "Necessities". It is obvious that people will turn to stealing and likely even killing to get to their necessities, which is to make clear that these goods MUST be made available in any new (transition) system. All the other products and services that are consumed can therefore be considered as "Luxury". Next to that, there are also goods and services that are not for consumption, but are needed for the sole purpose of production. This can be the production of goods and services for consumption, or for another production round in the production chain. We call these goods and services "Capital Goods and Services". It is noteworthy to mention that in a full circular system, all waste in the system would become a Capital Good, once it is discarded.

Summarizing we have 3 Transaction Types of Goods and Services:

TRANSACTION TYPES:

- I. Necessary Goods and Services,
- II. Capital Goods and Services,
- III. Luxury Goods and Services.

Rewarding Goods And Services

The most difficult step in defining how this alternative monetary system works is defining which types of rewards should be used. The clearest division is determining if a good or service must be considered a "basic necessity" or is a "luxury". The peculiar situation is that this will be decided by the end-consumer. When you produce a jacket it is always luxury for people that have plenty of jackets. But if you don't have jackets, or your jacket can be considered as written off, than this jacket becomes a basic necessity. It is probably difficult for the person that provides the jacket if it should be considered a basic necessity or luxury. People can have plenty of jackets from before the financial crash. Especially in the months after the financial crash it is important that all transactions regarding basic necessities are stored on the blockchain in an open (not-encrypted) way. This way it is possible to check if people that claim to need certain basic necessities, really need them. If it is clear that the person had a jacket provided 2 weeks earlier and wants another one and didn't report a theft, this jacket should probably be provided to another person.

The previous example tells us several things regarding basic necessity transactions:

- Can not be done in an encrypted way;
- All transactions must be stored publicly;
- The amounts and composition must be described in detail;
- Basic needs will vary from person to person (in Ghana you don't need winter-gloves).

In a similar way we can draw conclusions for luxury transactions:

- Can not be done in an encrypted way because of circular checks of the transaction;
- The amounts and composition must be described in detail because of the circular check;

Self-Sovereign Identity And Necessary Goods And Services

Another conclusion you can draw at this position is that – when it becomes clear that the economy is collapsing – you first need to establish your self-sovereign identity. This is a system where you basically make a document with your specifications that you secure by hashing it and distributing it under as many people you can. This distribution makes sure nobody will be able to copy your identity and do transactions from your name. Once you have created your self-sovereign identity, you need to create a basic-necessities profile for yourself. This profile will keep track of several basic needs like:

- Housing (heating when necessary)
- Food (based on your size)
- Drinks (based on your size)
- Cloths (based on your sizes, location, detailed per type clothes)
- Electricity (a basic amount of kWh)
- Sanitation (availability, toilet-paper)
- Soap (for washing, washing clothes and cleaning house)
- Medicine (incidental / when needed)
- Personal Care (when you are disabled or sick)
- Information (smartphone or tablet / Wi-Fi accessibility)

Your profile is stored on the blockchain and is accessible for the people you do transactions with. You can change your basic needs but the system will keep this between margins. The margins of this system can be changed by a voting system by the people that participate and have self-sovereign identities. In reality these exact boundaries are not too important. It will provide a much better insight if basic necessities are distributed in a way that is already much better then in the traditional monetary system where nobody really cares when you are out of money and can't provide your basic necessities.

Once you have created your basic necessities profile, you can advertise which necessities you are lacking so others can start providing those (and are rewarded for that). How the transactions of these Necessary Goods and Service could work will be detailed later. First we need to focus on Capital Goods and Services and Luxury Goods and Services. We start with the latter.

Luxury Goods and Services

When you provide somebody basic necessities, you will receive luxury points that you can spend on luxury things, but also on your own basic needs. If you buy a beer, a portion of it will be regarded as your "basic necessity – drinks". If you do groceries, you do an estimate who will use them roughly, and your basic necessities for that day and the next ones are covered. As long as you don't advertise you need someone to take care of your basic needs, you are fully free to do this your way. It is also quite likely you will take care of the basic needs of your partner and your kids or even parents.

Things get a bit more complicated when you take care of the basic necessities of another person. You can provide basically all needs for a particular day, but it is far more realistic that you take care of parts of the basic necessities, for example give a used jacket. It is clear that this jacket can be used many days. At such a transaction, both parties need to do an estimate of how long this jacket can serve the person that will use it. Then this transaction will be weighted with the other basic needs. Giving a jacket can for example be equal to providing 10 days of basic necessities. It is also to be expected that providing urgent needs – like medicine or instant care –

will be valued at a case to case basis and will be valued relatively high. Also providing basic needs that are partly (or for a large part) luxury, like rare fish as food, or expensive whiskey as drinks, will also result in a reduction of luxury points for the receiver that could be larger than the number of luxury points the provider gets, perhaps because the provider didn't fully help 3 people with their basic needs.

For all 3 transaction types it is clear that also points are counted for not using virgin materials, using fully circular products, for user-satisfaction and scarcity. It seems logical that these points can also be transferred into luxury points, at the owners will. For now we define 4 types of points that are being administered besides how far your basic necessities are satisfied:

- Luxury Points
- Non-Mined Points
- Circular Points
- User Satisfaction Points

Services that are provided are actually always "work". Work can also be fully for basic needs or be partly or fully be luxurious.

Capital Goods and Services

The Capital Goods and Services type of transactions are probably the most difficult ones, because at the moment of production, it won't be clear if the products are used as basic necessities or as luxuries. Because there doesn't need to be a balance of points it is however possible to value all products as if they are all luxury (to be able to reward the workers before the end-product is sold) and correct the payments for the workers once it becomes clear that the product is sold as a basic necessity. This "backward-cascading" needs to be administered throughout the production process.

Building Blocks For The Next Steps

This method – that is presented so far – shows the building blocks of a new financial system that will ultimately lead to a full Resource Based Economy. The thinking steps to get to this solution seem to be logical and the solution seems to be the best alternative currently available to the current monetary system. The next steps should be to improve the used logic (where possible) to get to a Resource Based Economy (basically to improve the story presented above) and parallel to build a demo model to see how it works, which parameters should be used, to design the database of products, to design the voting systems of this decentralised system and to design the user interface to do transactions. Gaming the demo-system will make the system obviously much easier to understand.