

*The economic unit of account for "Money" has been gold, silver, oil and computing power.
The economic unit of account for "Value" is however human labour.
Here is why and how "Value" can and must replace "Money".*

1. Debt Is Money We Owe To Ourselves?

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

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

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.

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. And 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 our economy. We want to find a better way to design our economy. Especially now an unprecedented global depression has started.

2. The 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 acquiring basic necessities (like getting medicine for a sick child) will do anything to get it. Even if they need to break the law. 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 their basic necessities. It is obvious that fear sells better than compassion.

Economics On Society Level

On a macro level, money owners don't choose 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 process never stops. 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 might have destroyed \$50 of your loan: half of the infrastructure and weapons of your country. That is why the owners of banks love war! It forces governments to get massive loans and the public knows they need to allow their government to do so if they want to win that war.

“Human Labour”: the new economic unit of account for “Value”

Because you collateralize your properties 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 properties deteriorate, break down or are consumed, created value disappears. That means that you need to borrow more money again to maintain, repair or replace your collateralized properties. This is why borrowing money will always increase in amount and also in speed. And this is why the valuable properties will always end up in the hands of the banks and the elite that surrounds these bankers.

We all see rich people increasing their wealth at record speeds and at the same time we experience increasing taxes for ourselves because our governments need to borrow more and need to pay more principle and interest payments at a higher speed. This money transfer to the banks and their befriended elite goes faster than our productivity growth. Currently we produce 5 times more than what we did 40 years ago. The portion of wealth of the bottom 99% keeps however 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 to get by.

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. There are very few exemptions, but people were just lucky. For the average person it is impossible to share in the wealth that is created.

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. There is also a massive increase of “security” – like the police, private security, surveillance, prisons, the army, weapon industry and border control – mainly for the elite. The elite also spends their freshly and freely printed money on the stock exchanges that keep going up. 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). 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 now. That is why we really need to rethink how money actually should work for us, instead of just 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 these three devastating issues will remain. It should be clear that we have NO CHOICE to start focussing on a system that really improves the way money works.

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. We must however 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. Beside the technical problems with cryptocurrencies that are described below, it is also important to know that governments and social programs are not possible in cryptocurrencies. This is because no tax can be collected and because criminals and also governments (with the help of companies like Microsoft and Google) will likely install key-loggers on your phones and computers to be able to confiscate your crypto-coins.

Quantum Computing

The new type of computing that is currently being developed by Google and IBM is called Quantum Computing (QC) and is able to process complex calculations millions of times faster than the fastest super computers we have now. This technology will be able to crack hashing and encryption algorithms. So the important question is: What will happen (for example to Self-Sovereign Identities that use hashing on a blockchain), when QC is able to manipulate the hashed data? The answer is that QC is not a big threat to hashed blockchains, because entire blockchains can be hashed again with millions of bits instead of the 256 bits used by SHA256 before QC arrives. Because cracking hashed data is also much more difficult than cracking encryption (even with QC) it won't be feasible to try to do this. This means our blockchains will be quite safe in the future when we start using improved hashing soon.

What however WILL happen is that QC will be able to crack the private keys that are used in blockchain transactions. For example: the blockchain of Bitcoin reveals public keys and a blob of encrypted coins and transactions. QC will be able to use that data and derive the used private keys. When that happens, no user will be able to prevent the QC-owner of taking all their Bitcoins. Several experts however expect that this situation (where people can crack your private keys) is already here. There is a well founded suspicion that the NSA already has a backdoor in the RSA-key-pair protocol that is used to generate private and public keys for cryptocurrencies.

The rise of QC means that others will eventually be able to compute your private key (which the NSA probably already can), which means that eventually all currently existing encrypted data will be decrypted if there is any expected benefit for anybody to do so. Once they have your private key, they can just take all your cryptocurrencies and make them disappear. That means that all existing cryptocurrencies will have massive problems and probably won't have full blockchain resets before keys are stolen. That means basically that all the cryptocurrencies we use today are doomed and are already a poor choice. At this moment, people in power have too many tools to manipulate and destroy cryptocurrencies.

But there are more issues with cryptocurrencies: All important cryptocurrencies are currently being manipulated by whales. Also the present wealth gap in cryptocurrencies is already worse than the wealth gap in fiat money. To use encryption in a new monetary system is therefore just as dangerous as the cashless society the bankers are working on. Cryptocurrencies might even be more dangerous, because the public will not know when their private keys are broken. In a cashless society people will at least fully understand that the government can abuse them at their will. With cryptocurrencies the people won't see it coming.

It seems logical that – when we want to improve money – blockchain technology (which is only based on hashing and not on encryption) is very likely part of the solution. The solution must however solve much more issues that cryptocurrency could do if it would be safe.

Open Ledger

When we can't use encryption and we still want to create a decentralized monetary system, a fully open, public ledger with much stronger hashing is probably the only way to go. Mainly because you will get rid of all the very dangerous pitfalls of encryption, but also because you don't need the energy engorging proof of work system. You just need to be able to prove you are the one responsible for your Self-Sovereign Identity and keep hashing the transactions properly. Keeping track of the value that you have created will have to be open for everyone to see, which is a massive cultural shift. But after thousands of years there is enough proof that every centralized system will lead to corruption. And the only way to check if a counterparty is able to do a transaction, is by checking their wealth. This can only be achieved with an open ledger so individual people can check each others transaction chains.

3. THE END OF ENSLAVEMENT

What Is Value?

When you look at value, there are basically two aspects that always play a major role: The creation of value and the transaction of it. Value must be created, and it needs to be quantified once a transfer of something valuable takes place. Quantifying value you create for yourself or for your children, family or even friends is unnecessary and even awkward. Only once strangers benefit from your efforts, you feel like a quantified compensation should be in place. Unless you have plenty to spare and you see your fellow people dying because they lack some of their basic necessities, you might be feeling obliged to give something of value to strangers as charity.

What Has Value?

We know 2 types of "Value-holders": (1) Services and (2) Products.

A service is mostly just "labour" which often involves some additional products (like the ladder of a window cleaner). Next to that, "products" are objects that are created using services and materials, which can be virgin materials that are taken directly from nature or products that already have been processed. Before there was money or even barter, humans "worked" to harvest or hunt the virgin materials themselves and processed these virgin materials themselves to be used by themselves, their children, family or friends. The virgin materials were always free. You only needed physical labour to obtain the materials and process them (when necessary) in usable or consumable products.

Enslavement existed probably even before barter. From the early beginning of humanity, it was clear that forcing other people to provide you services and products – that had value for you – was attractive, as long as you kept in charge of the situation. With barter and later with money, this situation hardly changed. The people that control the military power, don't need to do any work – other than to give direction to the soldiers that keep them safe – to receive the services and products they want. The only "work" this elite knows (next to addressing their soldiers and aids) is to purchase services and goods, to use them and to dispose of them. When the monetary system forces you to work with no prospect of leaving that system, you can call it slavery.

Indoctrination

Our current monetary system is collapsing at this moment. Therefore it could be a good moment to assess if humanity should enter a next system of enslavement or should try to do something else. Just talking about this, is however quite a task, because almost all people are indoctrinated on the subject of work, economy and especially prosperity. People are told that they need to participate as obedient little slaves in the economy or chaos, hunger, war and misery will kill most of what humanity has achieved and possibly will kill humanity itself. Many people even believe that the law is created to "protect us" from ourselves. When you however understand how the monetary system works, how the governments are held prison by the bankers and how governments are forced to extort their people to work until the banks taken all the wealth, then you see that our current system (with it's laws) is created to make sure nobody can escape that system. It is the exact definition of slavery, with the difference that the slave-owners don't really need to take care of their slaves anymore. It is very difficult for people to swallow the red pill and take a massive detox program to be able to understand they live in a system that is designed to profit on their labour until they've lost everything and die.

Self-Sufficient Identity

With the new blockchain technology, people are now capable of establishing their own Self-Sovereign Identities. The government and banks want to control your ID-Card or Passport so they can to control your monetary capabilities, based on your social credit score in the future. Being able to establish your Self-Sovereign Identity is therefore the first step to leave the current system and to enable yourself to transfer to a proper decentralized economy. A system where people themselves are fully in control, without the need for people that should represent them.

Self-Sovereign Employment

Who should be in charge to create money, if money would be necessary to create a new, well functioning economy? We know now that this power should never be granted to a small group of people, whether it is a government or a central bank. We know now that this simply doesn't work in the end. It doesn't matter if you have a communistic, socialistic or capitalistic system or a mixture of it, when you leave money creation to a small group, things will go bad. History has proven it many, many times.

Because technology is in a phase that it is possible to decentralize, to re-invent the monetary system and to take care of everybody and the environment, it would be a gigantic mistake if we wouldn't redesign society at this very moment. Because the massive indoctrination – where many people are convinced that change is simply not possible – this will however be a very difficult process. But when you are willing to take the red pill and at least join a thought experiment where a new system is envisioned, we might be able to convince enough people to take this idea seriously.

It is clear that any new system must start with taking back control over your own identity. Only then you will be able to take back power of your ability to create real value for yourself, your children, your family and friends instead of working for people that own the banks and governments. It should be clear to anybody that it is essential that every person has basic human rights to determine himself how he wants to create value and to determine which people are the ones that benefit from it. This ability should be the basis for any new monetary system.

We call this ability: Self-Sovereign Employment.

4. A NEW WAY TO CREATE VALUE

Efficiency

We need to focus on finding a system where efficiency is rewarded instead of scarcity. This means that the less time a group of people work on a task, the more they should be rewarded. The simplest reward for efficiency is obviously time itself. The efficiency however should primarily be focussed on tasks that will secure that everyone gets their basic needs. This must be a collective goal. Any time beyond providing the group their basic necessities, can be considered "luxury" time. Luxury time means that people are fully free to decide what to do with their time. They can use it to create more value for themselves by working, or to consume something of value. When they use their spare "luxury" time to work, they can obviously decide for themselves if they want that additional work to be more or less efficient.

Ending Inefficient Land-Ownership

Probably the biggest obstacle in efficiency, is land-ownership. When you look at products, you can see that – in the end – all value that is added, is by doing labour. The virgin materials that you need are basically free, at least they were in ancient history. When we however allow people to own land, they will charge something as compensation if someone wants to have the virgin material from their land. Almost every war that has ever been fought, had to do with the idea that land (and of course its resources) can be owned or can be stolen. In any society based on barter or on money, people that own land will create scarcity, to create and increase a price for the virgin materials they "own". This forces people that can't get to these resources, to use other (less efficient) methods to get the products they need. It also forces people to create less useful luxury goods, to trade for the products they need. And if those options are not possible, it simply forces people to fight over it, which destroys value in the process, which is obviously very inefficient.

"Human Labour": the new economic unit of account for "Value"

We don't need to go back in history very far to see that most indigenous people have been removed from the land where they lived. It is quite clear that most people that "own" land now, do so because their ancestors stole it using (military) force. A full monetary breakdown could set that record straight. When you really think about it, it should be clear that – when we would like to make things much more efficient – no land should be owned by anybody. This doesn't mean that anybody should be able to remove you from the land you live on, but it means that you don't own the natural resources anywhere. This is however only possible, when everyone takes care of everybody's basic needs and that everyone benefits equally from the available natural resources.

For a new monetary system this land-ownership reset would make a lot of sense, because that way, special interests that will block efficiency are removed. When we would like to work towards an economy that uses natural resources in the most economic an environment friendly way, it is very clear that this can be done best when we abandon all historic claims to land. With it we also get rid of the notorious NIMBY (Not In My Back-Yard) behaviour that is intertwined with land-ownership and also blocks many efficient solutions.

Efficient Use Of Time While Providing Basic Necessities

Now let's assume a growing group of people that takes care of each others basic needs. This group should consist of farmers, doctors, architects, construction workers, farm workers, car mechanics, electricians and so on. This group evaluates the basic need of the group and just pledges to take care of the basic needs of all group members. Once it is clear what needs to be done, the group tries to balance the free time everybody has. Also mothers taking care of children are considered working, and children taking care of parents as well. The work is publicly logged so everyone can check that all group members are spending an equal amount of time on providing the group their basic necessities and all have an equal amount of "luxury" time.

Now everybody in this group benefits when one member can automate his job. Because – when a person automates his job – this person has now time to help other people with their tasks, which potentially brings the total amount of working time down. This is the best incentive (also for the group as a whole) to help everybody making their tasks more efficient. This way of incentive is key in getting to a more automated and therefore more efficient society.

This also means that the time and quality (that should be spent on making sure everyone has their basic needs taken care of) must be defined. The group should also be able to change (increase) the quality of their basic needs in a democratic process.

The first estimates are that it will cost not more that between 5% and 10% of what we can consider traditional working time to provide everyone their basic needs. This means there is over 90% of working time left, to do more work and increase your personal wealth. This wealth should however be measured in working hours, instead of money. It is very interesting to see that when you measure the value of all services and products to only working hours, you automatically remove all bad attributes that are connected to traditional money. The most obvious one is that you remove scarcity as a factor, because virgin materials are freely available and all basic needs are free for all group members.

When you only use the actual spent hours as a value, then:

1. You end the wasteful behaviour incentive. This is because the waste-man is also part of the group and the time that it will take to dispose of a product is an integral part of the value of that product.
2. You end the "money owners priority" issue. Because every group-member is first helped in getting their basic needs, "people with money" can no longer solely determine what needs to be produced.
3. You end the "wealth transformation structure" issue. Because value is only created by work. The underlying commodity is no longer gold, silver, oil or computing power. The underlying commodity for value is human labour.

5. EXAMPLES

How To Deal With Some Practical Situations:

Surgeons need to study many years. How is a surgeon compensated for that time investment? And what if the surgeon is a fast student?

Before you can answer this you need to envision a full Self-Sovereign Society where people themselves are responsible and not an (elected) elite. There won't be a representation of the people. People will vote directly on thresholds for basic needs, thresholds for pollution and the use of virgin materials. But also on laws and the priorities of spending time. And – to come back on the question – also determine the rules of education. It is clear that NOT giving your child education is equal to child abuse. It should also be clear that the basis of education should be science, with full freedom of speech and information. All computers and software (including search algorithms) on schools must be fully open source to prevent manipulation by tech companies. Education should be in classes with teachers, but all teaching material should be open source. Children are obliged to go to school between 3 and 16 for a given number of hours and all thresholds can be changed by voting people using their Self-Sovereign Identities.

Now to become a surgeon, you need to study longer. Lets assume you need to study until you are 30. Again this is a threshold that is voted on. Also the amount of hours, that might be 200 hour a year, will be voted on. Voting is nothing more than having a list with thousands of thresholds on your smartphone that is automatically checked every day. So if it is your opinion that surgeons should study longer, you can adjust the threshold on your smartphone. Also the level of tests should be set democratically. It is possible that this is delegated to people that are surgeons, but if public opinion thinks this is too dangerous, this can also be left to direct voting.

When the study of a surgeon is defined, also their working hours can be calculated. Lets assume that a surgeon already works 50% of the time in the last 6 years of his study, and then has 30 years left to work. This means that he can work 33 full years. When you compare that to a street cleaner that can start working at 16, you see that a street cleaner can work 44 years. What also could happen is that the surgeon doesn't passes his tests, or needs to use 4 years more or less than the average surgeon. What happens in all these occasions? Nothing much. The surgeon has to spend (when the threshold for basic needs is 10%) 10% of his 33 years on basic needs, and the rest is considered luxury of which he will earn $(44/33) = 133\%$ x hours he works as luxury hours. Because the entire study is taken care of and is for many students a privilege and the job itself with the status is also rewarding, and all basic needs are taken care of, the 133% should be a sufficient incentive to walk that line.

How are cars and roads valued in labour hours?

When you look at the price of an average car, you can assume about 1,000 hours of work (when you assume \$15,000 average with an average of \$15 per hour of work) go into it. This is not only in the car factory, but also all the work in the entire production chain, including the part (that can be attached to that specific car) of the construction-time of the involved factories and transport roads between the factories and trucks that were used and so on.

A simple highway costs \$12,000,000 per km. When we divide this by \$15 per hour, it means that it takes about 800 hours per meter to build a highway. This includes also the part (that can be attached to that specific road) of the construction-hours to build the involved trucks, machines, factories and transport roads between the factories and the project and so on.

“Human Labour”: the new economic unit of account for “Value”

This is the starting method. But now you can use that info to calculate various tasks. Let's assume I need a painter for 3 days. The painter lives 10 km from my project. This means he needs to travel that highway for $3 \times 2 \times 10 = 60$ km. Now let's assume this road is 100 km. This means it costed 80 million hours to build. On each part of this road an average of 8,000 people per day pass, and the lifespan of that road is 20,000 days. This means that 16 billion kilometres are expected to be driven on this road. So to build a highway cost about 0.005 hours of work for every km that is driven on it. This means that my painters should calculate: 60×0.005 hours = 0,3 hours of work that was necessary to be able to use the road.

Now for the car of the painter: The lifespan of the car is 300.000 km. This means that 0.02% of the lifespan of the car is used on my project, which is 0,2 hours of the total production time of the car.

To sum everything up, the painter spends 24 of his own time plus 0.3 hours of road depreciation plus 0.2 hours of his car depreciation. Next to that he could use 5 hours of production time for the paint plus 0.5 hour for brushes which all adds up to a total of 30 hours of work that is involved.

Now what is very interesting is that – when you only use hours as means of value – efficiency becomes immediately clear. Another painter might live closer and use a bus to get to the project and estimates less hours of work. Instead of guessing which painter is more efficient when you receive an offer in only money, with an offer in hours you know exactly which painter is more efficient. You also don't need to worry about profit. There is no position for profit and it is also not necessary, because when you think only in hours, you only work for yourself, and not for an organization that needs to benefit on your labour.

How to avoid fraud?

When you only use work hours, the most obvious thing that can happen is that people claim they work a certain amount of hours, but in reality didn't. Perhaps they were the amount of hours they claimed at a workshop, but slept half of the time. This however should be quite easy to check. Because work is stored in an open ledger, based on their Self-Sovereign Identity, it will be very difficult to work on 2 jobs at the same time. There will be instances that people just keep flunking tests to avoid to work. In that case, people should be freed a few hours from their studies and asked to help people getting their basic needs.

How about laws and police?

When people just don't want to participate in society, vandalize buildings or harass people, police can arrest them, put them in jail and so on. In a decentralized economy there still will be these institutions and officers. The difference is that they don't work for a government, but work directly for the people. Their hours are also included in the basic needs of the people, just like teachers, surgeons. It seems logical to create laws that can be used globally. The institutes and officers however should always be chosen and employed locally. It is clear that these officers will be able to cooperate with officers from outside their region.

How to purchase and use luxury goods?

Let's assume I can use the land and buildings of a champagne farm. It makes sense to continue the process together with the people that are experienced in producing champagne. Now we can produce 20,000 bottles of champagne per year. It is however much more efficient to use shops to sell the champagne. Let's assume I work 1,000 hours per year on my farm with 9 colleagues that also all work 1,000 hours. This means every bottle takes 0.5 hour to create for my team plus (let's assume) an extra 0,5 hours for the farm real estate, transport and other capital goods. Now let's assume the 20,000 bottles are transferred to a distributor. We suggest to use the “U” symbol to represent the unit of one hour of work. To obtain the 20,000 bottles, the distributor needs to transfer $\cup 20,000$ to the involved people, which is $\cup 1,000$ to the team of 10 people.

Maintenance Reservation

But now how is the other \cup 10,000 distributed? This part of the transfer has to do with the cars, infrastructure and real estate that is involved in the production, but is already created in the past and probably needs to be serviced in the future. To understand how to deal with that part we need to look at the moment where the system gets its reset. All the infrastructure, capital goods and mined resources is already created in the past, but needs to be maintained to service us in the future. Some capital goods will last days, weeks or months where real estate and roads will probably last decades, of course when properly maintained. So what we can do is to distribute the extra \cup 10,000 over the used capital goods. Each of the used farm, car, road and other capital goods gets its own identity number on the blockchain and gets the \cup hours attached to it. It is clear that it is not possible to do this with all the used materials, because there will also be wasted materials: for example the gasoline in the cars, the paper for the etiquettes on the bottles. It seems logical to transfer the remaining \cup to the company so it is able to continue production.

Unproductive work

Now with this system, there seems to be no room for “economic growth”. There is actually a problem that we can call incidental or unpredictable waste. Some bottles might break and turn into “costs” instead of “income”. This will lead to issues for the distributor if it happens in his distribution centre or for the producer, when it happens in the production chain. This means that these accidents will cause “unproductive work”. Lets assume 3% of the work we do is unproductive. “Unproductive work” can however be seen as “Education” as we learn from our mistakes, and similar to education, it costs “working time” that is not compensated with \cup . But is this a problem? Actually it isn't. When we look at what apprentices can do in a company, they work in the process to learn the job and are not compensated for it. It wouldn't be very difficult to get 5% of the work done by apprentices. The “extra” 2% could be used for a Capital Goods Insurance Fund that collects working hours to replace or repair capital goods for unforeseen events, like fire or being hit by meteors. Because all \cup transfers are stored in an open ledger on a blockchain, it will be very easy to check if the collected \cup are properly in place.

Mixing Basic Necessities and Luxury

Also drinking champagne provides a basic necessity. But it will be clear that the amount of labour to get you a glass of champagne is much more than getting a glass of water. Nevertheless, when you drink a glass of champagne, that will be regarded as having fulfilled one of your basic needs. How this works and how basic needs can be quantified and administered, is discussed below.

Quantifying Basic Needs

When you see that an average person can produce about 45 years x 230 days x 8 hours = about \cup 83,000 in a lifetime. A lifetime holds 75 years x 356.25 days x 24 hours is about 660,000 hours. This means an average person is capable of working about 12.5% of his lifetime, which is an average of 3 hours per day. Note that an average of 3 hours per day of work equals a full time job for 45 years. This means when an average person sleeps 7 hours per day, there are 14 hours per day for personal care, eating and leisure. We estimate that taking care of everybody's basic needs will cost no more than 10% of your average of 3 hours of work per day. This is an average of 18 minutes per day. It is clear that small children and very old people can not participate in working, but even then it is probably not more than 30 minutes a day that we need to spend to take care of everybody's basic needs. You can also simply say that of the 40 hours adults can work, 10% or 4 hours of work dedicated to provide everybody's basic needs, should suffice.

Shelter, water, sanitation, electricity, information

A house including solar takes a single, one-time investment of about \cup 500 per person. This will provide shelter, water, sanitation, electricity and if we install a tablet with WiFi in every house, also information. $500 / 83,000 = 0.6\%$ which is (40 hours x 0.6%) about 15 minutes or \cup 0.25 per work week. Because much real estate already exists and just needs additional solar systems plus proper maintenance, the 15 minutes per work week should be realistic.

“Human Labour”: the new economic unit of account for “Value”

Food

For human aid about \$80 per year can buy you the food basket as shown below. This would be about 3 hours per year. This means when we produce food extremely efficient, current technology is able to provide everybody the necessary food for about 15 minutes of work per month.



In reality this type of food is quite far from the food that is normally used. When we look at western world, we probably spend about \$200 per month per adult person. Over an entire lifetime that is about \$170,000 which is about ₪ 11,250 per person over a lifetime. In a lifetime there are about 83,000 work hours. $11,250/83,000 =$ which is 13.55% or about 8 minutes per work hour or about 1 hour per working day. This is obviously more than the expected 10%. But we need to remember that 13.55% is quite some luxury. When we go back to the food basket you see above, this percentage is reduced to \$5,500 over a lifetime which would be 0,4% (instead of 13.55%). which is about 2 minutes plus 7 seconds per day (instead of 65 minutes). When we look at food (including expensive drinks), we can conclude that 97% of what the western world eats and drinks, can be seen as luxury and doesn't need to be part of our basic needs. But reality will push us to start with ₪ 1 per working day to provide everybody their basic needs and that it should be quite easy to bring that down to about ₪ 1 per work week.

Electricity and Sanitation

When we assume that all resources and real estate becomes freely available, we just need to operate and maintain the existing infrastructure. As clarified under “Shelter” we need to add solar and batteries to homes, which is calculated above. This means that the entire electricity that is extra needed for society can be seen as luxury.

Health and Personal Care

About 1 doctor per 1,000 people seems to be sufficient to get proper care. For dentists this is about the same and for physiotherapist this is about 1 per 600 people. This is a total of 1 highly medical trained person per 270 people (0.37%). When you however add nurses, administration and other medical related jobs, you will see that about 1 in seven people works in the Health and Personal Care sector, which is about ₪ 6 per work week (14.3%). It is clear that people also help each other outside the medical employment sector. Especially in developing countries this happens a lot more. Again the ₪ 6 per work week can be seen as luxury from a perspective from developing countries, and a lot of administrative work should be made much more efficient. But in the end, ₪ 4 per work (10%) week is possibly what ultimately will be the basic necessity norm. This includes the pharmaceutical industry. We however should start with ₪ 6 per work week.

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Education

When we spend an average of 18 years in education (starting from 3 years old) this means that we spend 18/75 years in school. When we assume that we need 1 teacher on 15 students, this means that we need to spend $18 / (75 \cdot 15) = 1.6\%$ of our work time to education.

$40 \times 1.6\% =$ about $\cup 0.65$ per work week.

Legal services, Police, Prison

It should be enough to have 1 in 200 people working in this sector. This means that a total of about $40/200 = \cup 0.2$ per work week should be sufficient as basic necessity.

Clothes

It is very obvious that the price of cloths can be almost entirely seen as luxuries. When we assume we need \$300 per year as basic necessities, this means that we need about $\cup 20$ per year to produce basic necessity clothes, also because we already own plenty of clothes in the world.

This is a total of $75 \text{ years} \times \cup 20 / 83,000 \text{ working hours} = 1.8\%$ or $\cup 0.7$ per work week.

Soap and Washing Machines

The price of soap for washing yourself, your clothes or your house is also much more expensive than it actually needs to be. Once patents are simply released, the price of soap will go down very strong. When we assume \$40 per year, this would be $\cup 0.1$ per work week.

Overview Basic Necessity Hours Per Work Week

Shelter, water, sanitation, electricity, information	$\cup 0.25$
Food	$\cup 1.00$
Electricity and Sanitation	included
Health and Personal Care	$\cup 6.00$
Education	$\cup 0.65$
Legal services, Police, Prison	$\cup 0.20$
Clothes	$\cup 0.70$
Soap and Washing Machines	$\cup 0.10$
	=====
Total	$\cup 7.90$

When we round this up to $\cup 8.0$ per work week, this would mean we would need to work 1 of our five working days to provide everyone their basic necessities. This is much higher than the expected 5%-10%. The reason for this is that we increased food, clothes and especially personal health care and education quite a bit higher of what is actually needed to maintain yourself in what you can define as basic necessities.

Another conclusion is that we already can start using 80% of our working time to increase our personal luxuries. You can decide to just do nothing in that time, without having to worry about paying rent or a mortgage, getting food on the table, possible medical problems in the future, your education, electricity, internet, clothes and even soap. Imagine what creativity people could expose once they are no longer shackled to the enslavement of the current monetary system.

Organizing and Administering Basic Necessities

Now we quantified the basic necessities, we need to create the system to deploy this. This is how far I got on 11/11/2019.....