

Is Money The Problem?

[Toby Russell](#), January 2009

“[W]hat is needed is an operational definition of a better world, which is as follows: To constantly maximize existing and future technologies with the sole purpose of enhancing all human life and protecting the environment.”

[Jacque Fresco](#)

“Fuller also wrote that political systems competition will not resolve the scarcity issue, because all political-economic ideologies are founded upon the principle of scarcity and are primarily concerned with who gets the scarce resources. Marxism and capitalism’s main difference was deciding who received the benefit of the scarce resources: the workers or those who exploit them (known as capitalists).”

[Wade Frazier](#)

“Systems prepare their own overthrow by a preliminary process of petrification.”
R.H. Tawney, Religion and the Rise of Capitalism, p75

“To get what we've never had, we must do what we've never done.”
Anonymous

Introduction

Understanding money is not easy. There seems to be something magical about it. Who creates it, and how? How do they know how much of it to bring into existence, and at what cost? Does the amount of money in the world accurately represent the value of goods and services available, and thereby the world's wealth? What is value? What does it really mean when money grows in a savings account, or when you owe more and more because you can't keep up with debt repayments? What would happen if there were only savings accounts, and no debt? Why are all these things necessary? And why oh why aren't we taught about money at school? Money is pretty important stuff, after all.

I don't delve into the gravity defying mechanics of modern money in this article, however. If you are interested in a more detailed (though entertaining) analysis of money itself, I recommend the excellent [YouTube videos found here](#) (Money as Debt). For my lowlier purposes a look at the conditions that make money necessary will suffice, for it is, at its most basic level, just a technology – albeit one that humans have slowly refined over the centuries to the highly versatile medium of exchange we know today. And as all technologies have an application, it is valid to take a close look at that application in the light of rapidly changing circumstances, and ask for how long the technology will still have a useful role to play.

I believe money to be one of humanity's more amazing inventions. It enables ever increasing economic activity, gives bite to human creativity and imagination, and helps dreams become reality. Over time it has come to be society's very blood, the locomoting energy society can no longer do without. It seems to have become too a symbol of success, of wealth, above and beyond its simple function as mere medium of exchange. You could say it occupies the driving seat, has both hands on the wheel, and decides which way culture goes. As incredible an invention as money is, however, I argue that this cultural/social/political “over-dependence” on it is unhealthy, in that it concentrates too much power to what is, in the end, just a tool. A tool, I argue, that might have an expiry date.

So money is a technology designed to enable trade, or economic activity. Trade, as a function of society generally, rests on two main prerequisites: 1. it takes human effort to produce goods and services (labour); and 2. there aren't enough goods and services to go around (scarcity). If either of these conditions for trade were to cease to be true, money would quickly become a tool with a problem. So money has two basic challenges to deal with over time: diminishing scarcity as humans master production techniques, and technological developments that render human labour less and less necessary. I look at both these challenges in this article.

This article's basic proposition, in fact, is that abundance, scarcity's opposite, is both possible and desirable,

and should therefore be aimed for. Contrary to the gut reaction most have to this, I believe scarcity promotes greedy behaviours, whereas abundance inspires a more sustainable attitude. Abundance should not be thought of as an infinite amount of everything, rather as more than enough for everyone. Indeed, in light of work by Marshall Sahlins (*The Original Affluent Society*) and the history of the now extinct St. Kildans, it can be powerfully argued that scarcity and abundance have as much to do with reality “on the ground” as with our perception of, and attitude to it. [Bernard Lietaer](#) is also instructive on this.

With scant exception then, human societies have been shaped for millennia by the belief that scarcity is an unalterable fact of existence. Collectively believing otherwise, then progressing to shape human society around abundance, will take a mighty effort, perhaps, and unfortunately, one initiated by social collapse. At a time when the environment is suffering from humanity's rapacious treatment of it, where shortages of fossil fuels, water and food seem to threaten us all, the call for abundance strikes no doubt a most discordant note. I am aware of this. And yet when we look at it, don't we see it is scarcity that leads to greed? Successfully designing our production and other infrastructure to deliver abundance would necessitate a recognition of this, alongside an effort to work within the limits imposed on our growth by the ecosystem we must protect. Abundance is about a sustainable balance between consumption and production, not about opening the doors to the tuck shop and letting everyone storm in and gorge themselves.

In this thesis, money stands in the way of sustainability. As money is only needed in conditions of scarcity, it follows that while there is money, there cannot be abundance, for an abundant supply means a price of zero. Put simply, scarcity encourages hoarding for fear of absence and want, as protection against an uncertain future. Money means, inherently, that being rich is better than being poor, such that staying rich becomes a very logical thing to achieve. Staying rich becomes laws and other mechanisms designed to protect and increase wealth, which lead to gross societal imbalances on all measures, and corrupt behaviours generally. This ongoing struggle to gain and keep advantage over others in the fight for scarce resources cannot engender a sustainable relationship with the environment. Now that humans have been so very successful in terms of their numbers, production technology, and manipulation of demand in the interest of gaining and securing wealth, we threaten our future by devouring our host.

According to [figures I have seen](#), oil-based energy can only support about 3 billion humans living like Americans do. We are fast approaching 7 billion and everyone wants an American-sized piece of the pie. This is an untenable situation, even before we consider the harm to our environment a further 3-4 billion people enjoying an American standard of living would cause, and the irreplaceable nature of fossil fuels. The importance of finding a clean and sustainable alternative to oil cannot be overstated. We appear to be faced with a choice: wars over scarce resources, or cooperation. Money likes war. Can it foster cooperation?

The second factor which is reversing money's usefulness (not to mention continuing helpfulness) is accelerating development in automation, robotics and artificial intelligence (AI). Technological development will proceed apace for sometime yet (oil and/or renewable energy permitting). Robotics and AI will render vast swathes of human skills redundant in coming decades (youth unemployment in Spain is around 40%), maybe sooner, and combined with whatever energy sources replace fossil fuels, will become increasingly deployable in developing countries. Permanent global mass unemployment seems an inevitability. To my mind it is therefore imperative that we begin a dialogue to discover a healthier way of valuing ourselves. We will be less and less able to value ourselves monetarily as our labour becomes increasingly unnecessary. A non-monetary way based on dignity and our capacity for joy seems practical.

I realise full well that what I write here will seem preposterous to most. The ideas presented, compared to what passes for available alternatives in the mainstream media, will appear the stuff of fantasy. But we have to think big to move beyond the societal morass we have found our way into. We are faced with enormous challenges that must be met by brave, cohesive and unfettered thinking. Nothing less will do. This article is one of my efforts in that direction.

Please remember that there is no “finished product” to be presented or discovered. A new direction has to be hewn from an unclear future, then worked towards, experimentally, as reasonably and intelligently as we are able. The future, should it be a good and healthy one, will require us all to grow up and take responsibility for our actions, not sit around like children waiting for the grown-ups to come and fix our mess for us.

1. Scarcity and abundance

I want to begin by addressing the sense a lot of us have of society (globally and locally) being broken in some profound way, of not delivering health and prosperity to a sufficient number of people. From this arises the difficult question of whether it needs a little fine tuning, or is in such a state of disrepair we ought to throw out the whole thing, and replace it with a new, improved version.

So how bad a state is the human world in? The question is of course impossible to answer definitively, since it is a subjective matter as to what an acceptable amount of suffering, or inefficiency, or corruption, or imbalance, is, not to mention the slippery task of defining each of those elements satisfactorily. Typically one quotes statistics about the wealth gap, about how many millions live on less than two dollars a day, without sanitation, without electricity, with no access to education, and no reasonable opportunities for improvement. One details the number of daily child fatalities due to hunger and treatable disease, the depletion of rain forests, the burgeoning prison populations, the rise of religious fundamentalism, and mass-extinctions. One waxes lyrical about the emptiness of consumerism, about the breakdown of civic pride and family values, and on and on and on, but in the end what matters is our reaction to such information. Is amount of suffering 'X' acceptable or not? Is it okay for children in many countries, from the curse of being born poor, to die daily in their thousands from malnutrition and preventable disease, or is it wrong?

If, like I do, you believe such statistics are stains on our collective conscience, that we cannot claim to be civilised until we have put such things right, then I am writing for you. I hope with my efforts here to set a train of thought in motion which leads you to the belief we can actually do something about these ills, that we are *not* powerless, that it is not up to "them" to sort things out, that neither prayer nor meditation will get it done. I want to help you believe that it is up to all of us, jointly, here on Earth, now.

If, on the other hand, you believe such unfortunate aspects of human experience are natural and unavoidable, then I can only politely ask that you look again at human history with the perspective that progress has not been marked by war and conquest, by domination and capitulation *alone*, but also by ethical evolution, and slowly expanding circles of empathy. This ethical evolution may well be fitful, and is certainly not complete. There is much work to be done.

So, if you are still with me, we have agreed that we share a desire to work towards a better future, as clichéd and hackneyed as that sounds. I am no academic, but have pondered this, discussed it with friends, read about various alternative societal models all my adult life. It fascinates me. But I was never able to settle upon one way or the other. I fluctuated between believing in a sort of law of the jungle ruthlessness, and a left-wing desire for fairness, seeing positives and negatives in both modes. Nowadays I distrust left-right divisions, seeing the whole of political theatre as little more than a purposefully distracting pantomime. I distrust corporations, the mainstream media and the political processes of the UK, Europe and America, and elsewhere, seeing them as necessarily corrupt, as almost seamless organs of a status quo which has outlived its usefulness. Of course, no status quo foments for its own downfall, no matter who is at the helm. Hence my belief that change has to start with us as individuals, in our minds, in our outlook, in our expectations and desires. If sufficient numbers are able to build some sort of agreement about a radically different direction for global culture to pursue, we might shuck off the now too restrictive skin of the old, and move on.

In October 2008, I was directed to a flawed, yet important documentary on Google Video by Peter Joseph, called *Zeitgeist: Addendum*. The last third of this film introduces a man by the name of Jacque Fresco, who lays out his ideas about why profound change is needed. He has simple and elegant observations about the nature of money and profit, about scarcity and abundance, which have deeply influenced me. Without repeating them verbatim here, I will simply urge you to watch the [latest Zeitgeist offering](#), and visit their site where an [FAQ](#) sets out, in simple form, Fresco's vision of a world where everything is available without a price tag, that is, a world without money, a society with no medium of exchange. It is this idea, as crazy as it may at first sound, which has led me on to further study, and which I want to pursue and promote.

Why should we consider taking any action that might lead to a moneyless world? In my view, there are, as suggested above, two main reasons.

The first is that no monetary system can deliver abundance. A medium of exchange is only necessary in

conditions of scarcity – try charging someone for a jar of air from your home. This means that any society shaped by, and operating from, monetary forces is systemically incapable of delivering abundance – it would be a kind of system-suicide. The question of whether abundance is at all possible, or even desirable, I address in some detail below. For now let me state what is most likely already obvious: I have been convinced by Fresco’s arguments, that we need to commit resources to testing the idea. The other question that arises from this first reason is whether scarcity – that is, not enough for everyone – is a bad thing.

(In the short discussion that follows, I have in mind scarcity of those resources that *can* be provided abundantly – energy, food, shelter, water, transport etc. I find the classical Malthusian definition of scarcity (infinite desires versus finite resources) profoundly unsatisfying. Not only can there not be infinite desires, even the (finite) total amount of human desire cannot be brought to bear simultaneously; it manifests over time in an ongoing fashion. As such, I believe sustainability and balanced-load is the model we need to look at, which can lead to abundance in the sense described above.

Of course, there will always be some scarcity: two people competing for the love of one and the same person, or the best spot under a tree at a picnic, are but two of many examples. For such challenges, however, I suggest non-monetary solutions are possible, especially on a case by case basis. See below for more on this. Please also bear in mind that we are not trying to reach nirvana or build Utopia, only progress logically from where we are now; follow, as intelligently as possible, the arc of technological development.)

In that scarcity necessitates some of us losing out materially, yes, it is a bad thing, for it means *the endless gaining of advantage over others to secure comfort, pleasure and status*. This ongoing struggle, this societal survival of the fittest, leads to calcifying imbalances, as the winners firm their position with intellectual justifications, and laws favourable to them – laws in a legal system where one’s chance of “justice” is strongly influenced by purchasing power. Over time material imbalances become as good as permanent, become class system, wealth gap, knowledge gap, health gap etc. And as the gaps between rich and poor grow, both nationally and internationally, the incentives to become rich, the rewards for greedy and unethical behaviours, bed down and become ever more urgent. The bigger the gap, the more horrible poverty becomes. The more horrible poverty is, the more powerful the incentive to acquire monetary wealth and keep it. And so it goes on.

Consequently, in a monetary system of any stripe, goods and services remain scarce in defiance of technology that would otherwise deliver abundance, due to the [monetary imperative of controlling supply](#), while hoarding and elitism inexorably distance the vast majority from genuine opportunity, [leading to more crime, more tension](#), and the atomisation of society generally. In short, mediums of exchange generate and entrench material divisions, and give rise to societal models inherently incapable of fairness and equal opportunities.

It seems to me that if you start out with a presumption of scarcity, the pattern I describe above is unavoidable. It will not be smoothly and predictably played out and there will be many variants of course, but over time this pattern will be, and has been, observable. However, homo sapiens sapiens is more than just a greedy machine driven by a set of selfish genes. Wrapped around and influencing the pattern I coarsely describe are also ethical progressions and other more social impulses, such that modern westerners typically now find such ideas as, for example, children working in factories, and slavery, abhorrent. These sensitivities have come to fruition in monetary systems. Speaking crudely history seems to be a dynamic and messy interplay between cooperative and competitive forces, but this is beyond the scope of this essay. For the interested, Kropotkin's “Mutual Aid” is interesting on this.

The above paragraphs describe understandable behaviours and their consequences, which arise organically from conditions of scarcity. Such behaviours are not evil, they are sensible and logical. Jacques Fresco has an elegant way of collapsing this into one sentence: “In a monetary system there is an inherent reason for corruption and that is to gain a competitive advantage over someone else.” Unethical and greedy behaviours are encouraged, some might say generated, by monetary systems. However, as I hinted above, scarcity is as much a perception, an interpretation of the environment, as it is a fact. Marshall Sahlins ([The Original Affluent Society](#)) is very insightful in this area, as is the case of the people of St. Kilda instructive. It seems that even in conditions the modern eye would describe as inhospitable and uninhabitable, a non-monetary culture, including poetry and philosophy, can develop and thrive. The St. Kildans developed and perpetuated

a sustainable society on their remote island for centuries, until their neighbours from mainland Scotland turned up in numbers and disrupted their development to the point of decay and collapse. My basic point here is that humans are not genetically bound to solve problems of scarcity with a medium of exchange, before we even begin to look at the possibilities of redesigning our culture with the deliberate intent of providing abundance and placing human dignity at its centre. This is an important point: *We have never challenged ourselves deliberately and clearly with the goal of designing a social system which has human dignity as its locus.* Why should we not set ourselves this task?

And yet wouldn't scarcity's opposite – a world of freely available plenty – remove incentives, and lead to endemic laziness and moral drift? After all, necessity is the mother of invention. “Getting something for nothing” is not good for the soul. Were society a risk free and eternal playground, it would only spoil and soften us. What of thrift and enterprise, efficiency and endeavour? Surely these virtues would go the way of the Dodo if you could get anything you wanted without lifting a finger? Idle hands make the devil's work. And yet, are these beliefs, these received wisdoms born out by reality?

I came into a world where electricity, plumbing, the internal combustion engine, air travel, free education, etc., all did not have to be established by me – I put no effort into their existence. They were already there as gifts of human ingenuity. I have, on a middling income, enjoyed a life of technological wonder compared to a king of two centuries ago, with access to energy he could not even have dreamed of, and yet I am neither lazy nor unmotivated. I am healthy and capable because of good enough nutrition, warm shelter and a loving, supportive family life, not embittered and sickly due to poverty and want.

If we consider a moment how the world's more fortunate children are before they go to school, during that period when they have next to no concept of scarcity or money, we recall they are insatiably curious and active, often to the despair of their overworked parents! A child of the affluent West, born into conditions of abundance, first becomes lazy, despondent and hopeless when exposed to “the system,” a system that has been shaped by conditions of scarcity ever since humans began farming. Of course, this despondency does not apply to all western school children, but the stereotype I describe is [not uncommon](#).

Put another way, is the rate of change and inventiveness slowing down as technology makes life easier, or is it speeding up? And who is doing the inventing? The poverty stricken or the affluent? We are driven to be inventive and enterprising by virtue of the fact that we are an intelligent, curious and social animal. We do not need scarcity to make us so, we are so. On a more prosaic note, is it money that makes humans go out and do the work that makes society run, or is money merely an influence on the way in which humans go out into society and behave, as well as an influence on the type of work humans end up having to do? Fear of want motivates, the lure of riches motivates, but does this mean their absence removes incentive? The evidence presented to us by non-monetary societies strongly suggests not.

People have strong reactions to the incentive aspect of scarcity. Concepts like thrift, industry, and endeavour are profoundly intertwined with the sense that struggle is necessary, that fighting against adversity is good for the soul. Scarcity could be said to lie at the root of this truism, in the same way that harsh winters have shaped those cultures that developed through them, making them robust and durable. It is hard – though not impossible – to think outside this conditioning, which is everywhere we look; in our language, in literature, films, and advertisements, in education, politics, and religion. But its pervasive omnipresence does not mean it is fixed for all time, nor that it is correct. The world used to be flat, and everyone *knew* it was too, right up until they knew otherwise.

Of course scarcity motivates, but that does not mean its absence does not, nor, and more importantly, does its absence mean an end to all suffering (which is anyway not our goal). The question is the manner and direction of motivation, and the degree to which a blunt tool like money can remain effective as a motivator in [rapidly changing circumstances](#). I will leave this part of the discussion with a question: would all people faced with abundance want to see out their entire lives indulging purely in hedonistic pursuits? To answer it, you must study the way in which scarcity has shaped our paradigm, and how abundance might.

2. Technological unemployment

The second pressure whittling away at the necessity for a medium of exchange, is that human labour remains in competition with technology that would replace it in monetary systems. We are in a constant race to stay useful in the face of technologies that can do our work better. The reason is simple and well known.

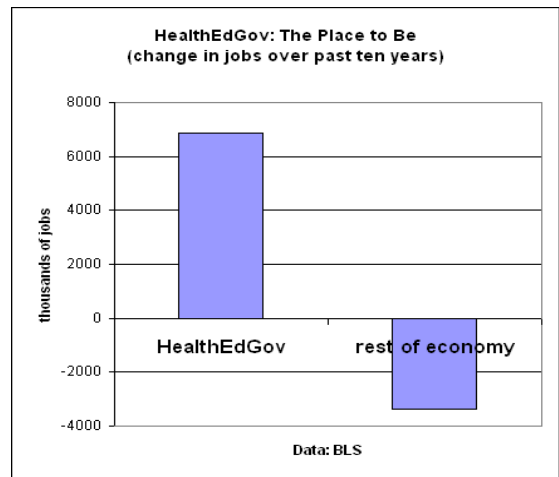
Products and services need to be purchased in sufficient quantities to keep a monetary system going. This means that people *must* exchange their labour for wages *come what may*, so that which is to be sold can be bought. Any technology which makes human life more pleasant by performing some tedious manual or computational task more efficiently than a human could, is one less job-type for humans. Thus technological advances threaten human dignity by rendering humans useless in the economic sphere. Halting all technological development is of course impossible: language is a technology, money is a technology, agriculture, medicine, etc. Technological development is uniquely human and not just, as many often fear, about blinking, inorganic lights and unfeeling, inflexible machines.

So in monetary systems we are effectively in a race against ourselves, against our own ingenuity. We are tasked with remaining more useful than the machines, software and AI that might do our jobs better than we can ever hope to. This constant race would not exist if humans did not have to exchange their labour for wages. And while it is true that humans are the most beautiful and incredibly able animal, capable of far more than we have been able to replicate technologically to date, we are getting better and better at replacing ourselves in the work place. For how long can we remain economically useful in sufficient numbers to keep any monetary system going? Without labour, does money serve any useful function?

Automation is fast becoming a topic of concern for [engineers](#), sociologists and [economists](#), who never seem to consider a non-monetary world as a possible solution to what otherwise is seen as almost exclusively threatening, while insisting on measuring things' worth monetarily (see [here](#), and [here](#), [here](#), and [here](#) for some examples of where technology is headed). There are indeed elements of the process which are troubling and should give pause for serious thought. I don't know who is responsible for the expression, but "humans need humans" seems to me the perfect watchword as technology starts to overtake us in the race I describe above. Monetary systems have a hard time keeping human dignity in focus as they deal with pressing day-to-day issues arising from the distribution of (necessarily) scarce resources. A [resource-based, non-monetary economy](#) would not have this endemic problem. It would exist, and be constantly improved for the benefit of all humans (and the environment).

The theory of technological unemployment is old: Keynes coined it, Marx pointed it out. Orthodox economics is not scared of it, sees it as a natural process of change and upheaval unfortunately necessary as society progresses. Employment suffers a temporary setback – so the argument goes – as some new machine replaces a group of workers, but this means lower costs of production, which means lower prices, which means higher demand, which leads to higher employment. Indeed, the doomsday predictions of Marx and perhaps the Technocrats of the 1930s have not been born out. I think they all failed to foresee the importance of the service sector. But as time goes on, the need for humans in services is slowly diminishing too (see Rifkin, 1994, and [here](#) and [here](#)).

So while it is true that despite robotics taking over in manufacturing and launching its first forays into the service sector, and despite exponential increases in computing power (which will increase further still with the current arrival of [diamond chips](#)), there has not been a corresponding drop in weekly-hours worked (at least to potential – the US Senate voted through in the 30s a 30 hours work week, for the bill to be scuppered by Roosevelt, a decision he later regretted (Rifkin 1994)), nor clearly in employment figures (although the proportion of the global working population in work does not rise with GDP growth, according to [ILO data](#) – chart below left), the proposition that technological advances threaten human labour is a sound one. We just can't be sure about the time scale. For example, one can [debate the type of work being done](#) (chart below right) – also 20% of the British work force is [employed by the state](#) – observe the declining strength of labour unions, [weak wage growth](#), and point out the [lack of correlation between employment levels and productivity](#) (page 9), highlighting anomalies like the highest productivity occurring during the UK's famous three-day week. Rising natural unemployment also speaks volumes that many do not want to hear.



With wages essential to the system’s survival, society is shaped and organised – organically and deliberately – so that as many people as possible have a job, any job, otherwise the whole thing would collapse due to lack of purchasing power. The current financial crisis (2008-9) is being addressed by various means, though all variants are aimed at encouraging consumers to spend/borrow again. Because there has never been any serious attempt to embrace and direct technological unemployment along human lines, its effects have been distorted, and rendered difficult to clearly discern in amongst the mess of data. In terms of how much human effort is directed into luxuries, which offers some glimpse of societal efforts to create work, a US Senate subcommittee on technology and automation concluded 90% of the workforce toiled to produce non-essentials – the study, called the Holland Report, was conducted in 1961 (from “The Best That Money Can't Buy,” by Jacque Fresco).

As a slight digression, I'd like to offer a quick thought exercise, to help give some idea of how “expensive” money is. Imagine for a moment there were suddenly no money and no memory of money. How much human labour would we need to keep society ticking? Think of all the labour directly related to money that would no longer be relevant – banking, finance, accountancy, advertising, billing, retail, insurance etc. Think of all the resources and man-hours consumed by these industries, and the amount of money currently being pumped into the system by governments across the world, just to prevent systemic collapse. Think also how important nurses would become, how essential truck drivers delivering food and other goods would be, and how we would value them. Realise how distorting an incentive money is. Realise how expensive it is. Unlike genuine value, money doesn't grow on trees.

To continue a while with the idea: were there no money there would be no need for trade secrets and intellectual copyright, there would be no standard and advanced editions, no high quality products for the rich and cheap junk for the poor, just the best and most efficient possible – human genius could be deployed for the equal benefit of everyone. There would be no need to have endless economic growth via ever increasing consumption, no need for built-in obsolescence, no need to rush products to market before they're ready, just to meet some profit-motivated deadline. Were there no money there would necessarily be no scarcity, and therefore (perhaps) no war.

Education would need to change, children no longer needing to be groomed for repetitive, meaningless labour and the unthinking obedience it demands, their competitive behaviours need no longer be encouraged along the lines of winners and losers, but simply in the cooperative pursuit of excellence, with success itself the reward. Children’s minds would be focussed on useful things like creative problem solving, independence of thought, the joy of learning, the deep pleasure of accomplishment etc., and on no particular time scale.

The positives of a non-monetary, abundance-based society abound. It is an idea deserving of proper study.

Where next?

Of course, a moneyless world is not something we can switch on like a light. Should we agree we want it and that it makes sense to try, the next steps would be daunting indeed. The first is to get the idea taken seriously by a sufficient number of reasonable people. On that front, the most common objections people raise are:

1. folks would laze around doing nothing useful if you can get what you need for free; and
2. how would it be decided what gets produced, and in what quantities; and
3. there will always be scarcity, and therefore an eternal need for a medium of exchange.

The first objection, already touched upon above, is weak in my opinion. If money were the only motive, we'd all be bankers. In a society shaped by abundance, the motivation to do any necessary work would be nothing less than the eradication of poverty, [most crime](#), greed, war, financial worries, the re-emergence of trust and openness, and a healthy life, full of hope, for all. Why would someone object to working to maintain that sort of system? Furthermore, any work would be done either out of necessity or for pleasure. There would be no chaff, no filler-jobs to make up the numbers, no sense of doing something mindless just to make money. Any work would necessarily be contributing something useful to the continuation of society. How many of us enjoy such a feeling today? I get little to no pleasure from my paid work, but a huge sense of pride from the unpaid work I put into my writings. And remember, for such a society to work, as in any system, children's education must prepare them for that society. This necessitates, as mentioned above, [a complete redesign of education](#).

The second objection is more problematic. Fresco imagines a world as shaped by choice as today's (no brand diversity and no advertising though), just that everything would be available without a price tag. So shopping would involve going to the "shops" – some sort of distribution centre – and collecting what is desired, or perhaps more likely, ordering it online. Demand would be monitored, and production altered in response, similar to today, only absent money/price information.

In a monetary system price information is essential in distributing scarce resources, in that, for example, potatoes are more abundant than, say, Porsche 911s, and the price of these two products reflects their relative availability and shapes their distribution. Therefore, if money/price were taken out of the current system, everyone would want a (free) Porsche 911, but there wouldn't be enough to go around, so you'd have a problem. Consequently, *the current system cannot work without money*.

The alternative is to see the Porsche (or other "luxury" item) generically, that is, in this case, as transportation which *can* be provided abundantly, rather than as a necessarily scarce status symbol denoting "success." Furthermore, ownership, a necessary component of exchange, would need to be removed from the consumption process. Ownership and property – despite our idea they are the natural relationship between humans and "stuff," – are anomalies in human evolutionary development in terms of the proportion of our time on Earth. The genus *homo sapiens sapiens* has been around for about 150,000 years. [Only for the last 10,000](#) or so have we had property and ownership, and any clear sense of scarcity. Ownership, particularly in the legal sense, is not required by our genes.

So in a moneyless (or post-scarcity) society there would indeed be no ownership in the sense we know today. Durable items such as golf clubs, musical instruments and cars would be used until no longer needed, when they would be returned for further use by others, or for recycling at end of life. Easy and efficient recycling, swappable, modular components, and durability, would be essential elements of product design. [Homes would be built](#) to customer specifications. There would be enough cars and/or other forms of transportation for everyone. [Cities would be designed](#) to minimise the need for energy, maximise safety, and arranged to simplify getting from place to place. So in terms of genuine, useful choice, there would be little important change. Demand would be monitored as accurately as it is today, so that production can deliver accordingly.

In terms of ongoing design challenges coping with new technologies and other changes, and to retain sufficient cohesion of purpose, there would be ministries for agriculture, transport, architecture, education, etc., with fully transparent processes open to everyone. In the same way that I am happy to write this article and undergo further study to make the world a better place (for no wage), so people in a non-monetary

society would be happy to offer their skills and abilities for the ongoing maintenance and improvement of human life everywhere. That which improves society generally improves my life particularly. The more you give, the more you get.

The Free Software Foundation is a contemporary example of how people derive genuine pleasure and pride from offering their services and know-how for free, so that life for someone somewhere might be a bit better. This impulse needn't only apply to people writing dry articles about possible future societies, or programming free software, but to fun things too, like film, music, night-clubs, anything you can imagine. Why would doing stuff cease to be appealing if there were no money involved? [Having a looser arrangement](#) (non-contractual/non-monetary) between members of an organisation or project-team has huge advantages too.

The third objection is the toughest nut of all. I have already said there will always be scarcity, and listed a couple of examples. This particular problem is perhaps best expressed though, in the idea of the top floor apartment. There can only be one top floor, by definition. No matter how many houses and sky-scrapers are built, some will seem more attractive than others.

I see this as a challenge that can be solved in different ways. With each solution comes a cost. If we use money to solve the problem of distributing scarce resources, we introduce corruption, because money encourages seeking differential advantage over others, which leads inexorably to social stratification and gross imbalances, as described above. If it is possible to produce the vast majority of goods and services abundantly and with little human labour within a monetary system, scarcity will be preserved in the face of technology that can produce abundance. That is but one cost of monetary solutions to the general problem of scarcity.

On the other hand, if we look at this not as a generic problem which needs a generic solution, but as individual problems requiring individual solutions, money becomes the less attractive proposition, like cracking a walnut with a nuclear warhead. For example, why would someone want the top floor? For the view? Well, we can generate beautiful views artificially by projecting the desired view onto the windows somehow, or organise cities and their sky-scrapers so that each floor, even the lowest, has a decent view. Besides, the top floor's view isn't noticeably better than the one below, and so on downwards.

But maybe the top floor is desired because it is “the best,” the penthouse suite, the most expensive. That is an idea based, of course, on monetary values and social status. In a non-monetary system living on the top floor might in fact be a disadvantage – it takes longer to get there. So maybe the lower floors would be more desired.

Then things start seeming petty, like we are looking for ways in which this home is “better” than that one, like children arguing over their Christmas gifts. I think this lies behind much *perceived* scarcity of this type, the learned human desire to have something better than our neighbour, due to the influences of advertising, income inequality, class divisions, the stigma and threat of poverty, etc. Consequently, I don't think this is a killer problem, serious though it is, because I believe a decent, well-designed education, and a society structured around abundance from the ground up, would render such behaviours pointless. They would fade away, unneeded and unhelpful.

Here is a good point to introduce briefly the stages proposed by [The Venus Project](#), for how we get from scarcity to abundance, from a monetary to a non-monetary world. Stage one is up and running, which is the promotion and dissemination of their ideas from their base in Venus, Florida. Stage two is generating support and raising funds, primarily via a feature film, for stage three. Stage three is the building and running of an experimental city which would be open to the general public, physically introducing to the wider world the technologies and concepts that would make sustainable, non-monetary cities, and by extension societies, possible. It would also be a testing ground for scientists, engineers, sociologists and educators etc., to prepare for the subsequent steps; the building of similar cities in other parts of the world.

It is important to note that this is an experimental process, not a fixed blueprint to be adhered to at all costs. There will be questions that can only be answered by testing, scientifically, the potential solutions. But remember, all societies are experiments to some degree, in that no one knows the final outcome of each

model – change is the only constant. It is not suggested we destroy all money immediately then hop over to some ready-and-waiting alternative. I am presenting this idea as viable, as worthy of scientific examination.

I've covered some of the benefits, so what of the costs of a non-monetary solution? In that monetary systems over-reward and over-punish differences in ability, ambition and desire, forty bedroomed mansions and similar ostentatious displays would not be possible, ditto royalty, any kind of a wealth gap, and all privileges accruing therefrom. I ought to point out though, that in terms of living standards, all humans would be raised to the same level, a level which would be a vast improvement on what we have today. All individuals of a post-scarcity system would need to be emotionally mature enough to cope with almost total freedom. There would be no state guiding their actions, no job telling them when to “work” and “play,” when to wake up, when to retire, what to learn. They would be, to a far larger extent than today, their own bosses. That is a daunting prospect and an enormous challenge, one not to be underestimated.

Obviously, [certain technologies need to mature](#) before such a society can be brought to healthy life. Clean, sustainable energy must be established and made available to all, and new, efficient cities built, if all seven billion of us are to live in healthy prosperity. The [energy](#) is [abundantly there](#), it only needs to be [effectively harnessed](#), free from [corporate interference](#). Education would need to begin the delicate job of preparing our children to become independent thinking, problem solving grown-ups, not greed-driven, consumption-oriented, emotional babies, expecting problems to be solved by someone else. If all of us are to enjoy a healthy and varied diet, artificial or in-vitro meat may be essential to remove the stress cattle and other livestock place on the land. Current research in nanotechnology is yielding very promising results in cell-multiplication, meaning no animal would have to be killed – [the meat would just be grown](#). In terms of soil-grown foods, our planet has vast, as yet [untapped potential](#), as well as the exciting promise of hydroponics and [permaculture techniques](#).

Human ingenuity is capable of delivering solutions to all these problems, but seeing as their solving is a direct challenge to the need for money and the power this affords the elite, and seeing as society has been shaped and structured by money and scarcity throughout history, these technological breakthroughs aren't going to be deployed in a form that equally benefits all humans everywhere. To deliver such solutions equitably and sustainably we must first decide to explore experimentally the direction advocated by The Venus Project, and let its development be guided by the quote that opens this article: “To constantly maximize existing and future technologies with the sole purpose of enhancing all human life and protecting the environment.”

Conclusion

How can we possibly follow Jacques Fresco's unarguably worthy directive with money in the driving seat? Can we still afford to have rich and poor, not only as a society, but as a species dependent on an ecosystem that spawned us? Can the ecosystem sustain any model predicated on scarcity, that encourages suspicion, greed, hoarding, corruption and war? As we come increasingly together as a species, as we look to overcome national and cultural differences, as our powers of production and consumption grow and grow, how can we believe the tool we call money can be healthily deployed in ensuring continuing ethical evolution? We cannot. We need something new, a new way.

Obviously a newly designed society is not something that can be achieved overnight – it will take generations – but the first and most important part, the change that must occur inside each of us, the recognition that we share this planet as a species, that fighting over it as competing nations has become *mutually* destructive (not just destructive), that cooperation is a more potent and productive survival tactic than competition, that part can begin right now.

A deliberate, conscious decision to head in this direction needs to be made by many millions of people to get this ball rolling. Otherwise, who knows what awaits us this coming century. If we don't get a grip on our future direction, it certainly won't be pretty. Personally, I don't imagine bringing about this sort of change via the mainstream media, nor by appeal to politicians. The debate about the efficacy and potential of what Fresco proposes has to begin privately, at home, amongst friends, with work colleagues, at schools, etc., and spread out from there. Websites need to be set up that link to each other, become well-known and well-used, that enable the free and mature exchange of ideas with the aim of agreeing upon a set of common principles and first steps, before action to effect real change can be taken. I envision a leaderless, idea-driven, non-violent revolution, and am in agreement with the steps outlined by The Venus Project.

The current system, being exported and implemented the world over via globalisation, is predicated upon the idea of perpetual economic growth and eternal scarcity. Surely this is an unsustainable model. Surely the idea that success is the accrual of monetary wealth, the [amassing of ever more consumer items](#), items designed to break anyway and which leave us hungry for more, surely the desire to live in ever bigger houses, to drive ever larger and more powerful cars, while watching others languish in poverty, surely all this is a sign of sickness. It certainly has [failed to deliver happiness](#) and [equal opportunity](#).

At the time of writing a global economic crisis is rapidly unfolding, and yet economists (who signally failed to predict it and assess its severity) point out there are always recessions. Between 1870 and 2006 there were [255 recessions in a sample of 17 western economies](#), so they come and go and things carry on. There are depressions too, roughly every seventy years apparently, but society thrives anew thereafter and things carry on. These arguments forcefully give the impression that there is no other way, that the institutions which maintain the status quo are immortal and immutable, that profound change is impossible. And yet we all know nothing lasts for ever. Money is something. It will not last forever. The Roman Empire collapsed, Greek Civilization came and went. *Nothing* lasts forever. If, instead of thinking in terms of weeks, or months, or decades, we think in terms of millennia, both forwards and backwards in time, our sense of what is possible, of what sort of profound change has taken place and will yet take place, is deepened, and nothing seems so established that it cannot change.

People will always be differently abled. With money and its attendant power as the ultimate reward, these differences in ability – a product I am sure of both genetic and environmental factors – result in a terribly unequal world where some have so many millions they can hardly spend them, while millions die of starvation. The “successful” have the power, in this system, to destroy lives everywhere, because the games they play, and the arena they play them in, and the philosophy which justifies it, effect us all. I don't seek a world where everyone is somehow forced to be equal in terms of ability and desire and taste – diversity is essential to any natural, evolving system. What I seek is a structure that allows all people to fulfil their promise and potential, however great or small, *without* harming others, or holding others back. By my reckoning, only a moneyless world can deliver this.

We only have the one planet. It supports all of us, regardless of national borders, regardless of our ethnicity, how big our house, how full our bank account. If it starts to become incapable of supporting us, we are going

to suffer and die together. Consequently, we are equally responsible for maintaining the ecosystem that supports us, for distributing its resources intelligently, sustainably and fairly, for putting an end to the distortions and corruptions monetary systems inevitably create. They threaten us all, rich and poor alike. If enough of us want a better way of sharing life on Earth, we can do it.