# Global Universal Basic Income via 1% Bitcoin Transaction Fee Todd McKissick

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#### Abstract

A proposal for Universal Basic Income to be implemented on a global scale via the Bitcoin cryptocurrency and DNA genome scanning identification, funded by a 1% increase in the existing transaction fee. This proposal creates incentive to attract new members to the use of Bitcoin, to offer commerce for Bitcoin, to manage the creation and upkeep of unique accounts and to maintain a database of open-sourced DNA genomes in the blockchain online for medical research and anonymous ailment identification. After an initial implementation creates high incentive for increased membership and cheaper DNA scanners, the daily dividend would settle to \$1 - \$6 per day for all adults, children and infants signing up for the free benefits. As daily transaction volume increases due to increased commerce among this group, this dividend would increase and attract further growth. Should the dividend prove insufficient, membership growth will slow, allowing per capita dividend to rise. Bitcoin volatility would be reduced and the most productive forms of commerce would be attracted. Many more cultural, social and environmental benefits would result beyond any comparable basic income proposal.

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## Global Universal Basic Income via 1% Bitcoin Transaction Fee

Providing a basic income is looked at from a global perspective. This yields important differences from national, state and local implementations. Also, by quantifying actual basic expenses in the US in the context of funding them outright and aggregated across all groups, the savings available offer additional cost reductions, making a private-currency funded system viable.

### **Global Basic Income**

A globally implemented basic income provides many benefits over a localized system. Imbalances between nations, regions, groups of all kinds and income levels would, for the first time in history, have a mechanism to be reduced.

With all amounts given to the members being equal in monetary value, this would raise the most impoverished individuals the most and the soonest from multiple feedback mechanisms. This equal monetary value would have increased purchasing power in the poorest communities vs the impact in developed countries, thusly increasing their global living standard even more. As this causes an increase in local commerce, it increases the goods and services available to these members as well as attracting business investment from other currencies as people attempt to capture this market. This drives further increases in the BTC – USD exchange rate, which further raises the purchasing power of the members.

## **Bitcoin Implementation**

Implementation of this process is reduced to two simple steps which must be authorized by a majority of the Blockchain and Bitcoin mining and coding community. Once authorized, they must alter the current transaction fee process so that 1% of all BTC transactions is deducted from the recipient and credited to the dividend fund. Then, at 00:00 GMT (once per day), that fund is

distributed equally to all validated accounts with a maximum of 0.1 BTC/day. These accounts belong to the members whom have been DNA scanned and verified to have only one unique dividend account. Additional accounts exist for members linked to a DNA scanner and are enabled for that day if it has scanned at least 20 valid accounts that day. If no accounts exist yet or if the fund cannot distribute the entirety of its funds, the dividend account rolls the balance to the next day. This allows an initial pool of funds to accumulate, guaranteeing the first account members the full 0.1 BTC income (roughly \$45) each day until membership rises enough to dilute the distribution lower.

Scanning Accounts. Initially, no standard will have been created for how to encode a scan into an account. The Bitcoin community, seeing the untapped pool growing, will have maximum incentive to finalize such standards. Issues needing to be addressed include among others, the mathematical model used in conversion, the personal data tags mandated, the personal data tags allowed, which data is one-way hashed and which is clearly visible and what passcode(s) are allowed.

After an initial public standard is finally determined, individuals can purchase a scanner and scan themselves into the system, linked to an identifying code from the scanner. Once this is done, the member will need to validate his or her personal DNA-account info via 2 other scanners. At this time, the Scanner (the member linked to a physical scanner) may scan other individuals into the system, following the standards arrived at earlier. After 20 scans are completed in one day, this Scanner account is enabled for receiving an additional dividend that day only. The 3-scan feature discourages the use of false scans because one mismatched scan requires 3 new scans to re-validate that account, leaving all questionable accounts, physical scanners and Scanner's personal account (the worker doing the scan) disabled. All regular

dividend accounts created also need 3 separate Scanners to match the same information before they become validated. Validation expires after 1 year, ensuring each member has not passed away. Expired dividend account balances are returned to that day's dividend fund. While still valid, all member accounts function identically to normal Bitcoin accounts.

DNA Data. When accounts are created, their owner's DNA genome is stored in the Blockchain in a medically usable format. Accompanying this information may be a number of demographic meta-data tags with the exception of any personally identifying information. The list of mandatory and optional tags is to be determined during the standards process. The openly visible tags may include global region of birth, age, race, sex, known genetic specific traits and other medically relevant information. Additionally, other tags may be added once in the public register by researchers to notify both the individual and the research community of traits they have identified. This offers the DNA research community a large pool of data to perform a myriad of statistics and analyses on.

Growth. Initially, member growth will be attractive because the dividend is maxed out until the dividend pool is depleted. This may take 3-24 months to deplete, depending on popularity. Once depleted, the fund's full daily accumulation will be dispersed each day. Additional membership will decrease the per capita dividend to the normal operating range. This is easily calculated as (1% of daily transaction volume) divided by (member accounts – including enabled Scanner accounts for that day). Estimated amounts range from a few cents to a few dollars per day per account. However, it is likely that the added economic activity in these communities and the ease of making Bitcoin transactions, will create a very high multiplier effect. This would increase the utility of Bitcoin in the local communities, further enhancing growth.

Stability. Because all Bitcoin transactions would now be charged a minimum of 1% transaction fee and an average of around 2%, speculative financial activities will be minimized. It would not be economically viable to perform highly leveraged functions, hedge fund trading, high frequency trading or other derivative related activities which rely on low profit from multiple transactions. However, the majority of the productive economy (physical goods and services) and the majority of individuals only have 2 transactions for each unit of money they encounter. Basically, they earn it and they spend it. As such, they only get charged 1% total for the cost of supporting this system. For an individual who wishes to invest, they move money 4 times (earn, move to A, move from A, spend) and would be charged double. Similarly, just moving money between two owned accounts would also incur a 1% charge. This not only reduces the financial games but the exchange arbitrage as well, making Bitcoin more stable and attractive to the general population. It also attracts the most productive activity in society, which is most beneficial to those who would join.

Individual Support Income Requirements. Due to the fact that this system is completely undertaken in the Blockchain / Bitcoin crypto currency, there are numerous advantages and cost savings when contrasted against a government ran system. There is no threat of political influence altering the rules and no administrative overhead to the system. Also, by making it voluntary, it no longer needs to support all wealth classes even though it is open to doing so. If an age-based schedule for withdrawal limits is implemented starting it high when the recipient is young and then falling, the savings in lifetime interest which can be realized for each individual are significant.

A typical US family living above poverty which has 2 children, has an income of \$40k per year for 40 years. Duplicating this via a traditional basic income would require 2 adults'

basic income of \$54.80 per day for 40 years. However, under a basic income that begins at birth, the individual can save the bulk of this money in advance of the time when those major expenses come up. If this is done, the remaining living expenses follow a declining trend over the remainder of their lifetimes which is estimated at 3% per year to a floor of \$4,000/yr. If those parents were given such an income beginning as a newborn and only 10% of this was spent each year until adulthood, they would be able to pay cash for a car (\$5k used), college (\$15k x 4 years) and for a house (\$100k alone, \$200k couple) and still have enough to live at a higher standard of living than the poverty line. The 80-year lifetime average of this income equates to \$15.29/day. This value is used as a reference, maximum target for a basic income program to provide families a standard of living above the poverty line in the developed world. Other countries will have proportionally lower maximum values, ranging down to \$1.25/day/individual in the poorest countries. For comparison to common basic income proposals, a basic income averaging \$15.29 in the US equates to 9.2% of GDP and 74.4% of current social support mandates.

In this proposal, it is left to the individuals to save their earnings to accomplish this result.

## **Cryptocurrency Basic Income Approximation.**

Due to the floating nature of a transaction-based daily dividend, it is not possible to project incomes with any confidence. However, general trends can be shown which can then be formulated into approximations.

*Initial Period*. The initial bubble during implementation should not be used for other than approximating membership adoption. While this stage will support many families with a rather

high level of income, it is only used to encourage initial growth of the system and reach a stable period.

Stable Growth Period. The stable period would see the following trends. Current daily Bitcoin transaction volume can be estimated at \$100 – 145 M/day. Current transaction expense is 1 – 1.5%, yielding \$1 – 2 M per day to the miners. Adding a 1% mandatory fee would yield receipts similar to the low end of this estimate due to decreased transactions in the existing Bitcoin economy. Due to the initial bubble taking time to deflate, the number of dividend member accounts in existence on reaching stability is estimated to range from 200,000 to 4 million. This results in a wide dividend range of 25 cents to \$6 (US) per person per day. Due to the balance between Scanner income and member dividend, membership growth will slow if the dividend falls below \$1 or too low for that region, allowing poorer individuals to catch up first. It can be estimated from this that the daily dividend will remain between \$1 - \$6 as membership grows in either stable or accelerated rates.

## **Social Benefits**

Depending on which groups the initial membership adoption occurs from, this could already assist many impoverished individuals around the world. However, should it be concentrated in the developed nations, this will not be the case until the poorer groups begin requesting membership. In today's world of instant global communication, it is fair to assume this would occur relatively early on. Since this program is private and voluntary, there would be no stigma associated with membership, reducing any reservations these individuals might have against signing up. Groups requiring immediate assistance include the poorest communities in developing nations, the unemployed and underemployed, and refugees from regions embraced in conflict. As such, the monetary velocity would remain high and the multiplication factor

resulting from local purchases and new commerce would quickly increase the daily transaction volume. If the dividend become sufficiently high for that community, membership will follow. In this way, the dividend is encouraged more to climb than to fall.

Increased commerce in a local community will have many positive social impact areas for that community including, but not limited to, health, crime, education and productivity. However, on reaching a certain level of advancement, trade and other inter-community commerce will accelerate that advancement. It would be impossible to predict all the ways this would benefit the local community but one factor should not be overlooked. Improving the standard of living for them decreases many social problems that are currently driving globalization, emigration the need for foreign aid from governments, charities, NGOs and other groups. The follow-on savings would be many times larger than these direct savings since it would realign charity to its original purpose. And due to the increasing utility of higher and higher volumes of wealth available in Bitcoin, this will drive more of the global commerce from traditional currencies to Bitcoin.

Equality. It should be noted that inequality exists in many areas. An individual or group can have unequal power over their personal finances, their social environment, their political system and even their market choices. How much power an individual has in all these areas is a direct result of the discretionary income they have available after survival at their social standing. If individuals spend all their money maintaining their status, they have no money to spend on changing their surroundings. With the majority of the global population in debt to the point where no surplus income exists, they effectively have no power in any of these areas. Due to this effect, inequality can exist in all regions of the world. The extreme poverty of the very poorest, is worse by far but not unlike other communities in that they have no power to make

effective changes. As such, the solution to both groups' problems lies in satisfying the basic living needs and allowing more opportunities to earn discretionary income.

Increased power from higher discretionary income also carries the benefit of market power. When people lose this power, they are subject to accepting any good or service they are offered. As such, it is easier to manipulate them into rent-seeking deals when ownership would be cheaper. This trend has become pervasive in all parts of the world and is a major cause of increasing inequality. By giving people the power to buy the products they choose, these rents can be replaced with the better, cheaper, longer lasting, more efficient and less wasteful products that wealthier people would choose.

By supporting the poorest of the world first, they can regain the power needed to make political changes, to effect market offerings and to attract or retain the members of their communities. The results for them would be enlightening but the rest of the world would benefit as well. Outsourcing of jobs from wealthier countries to the sweatshops of the poor nations would vanish as workers regained negotiating power over wages and working conditions.

Stopping the flow of migrants to the richer countries and stopping the flow of jobs to the poorer ones would have tremendous benefits to both societies as well.

Cultures could reside where they were formed instead of being transplanted to the poor neighborhoods of a wealthier country. Nations could return to being proud of their heritage instead of enduring conflict of displacement due to market forces.

Climate. With increased power, the beneficiaries of this basic income, both directly and indirectly, wield increased control over their local environment. It would not be as commonplace for them to sell resource rights to multinational corporations or to accept resource contamination. Commerce activity would increase most in the local community, reducing international shipping

as well as work commutes, reducing energy demand. Certainly, increased industrialization would increase overall energy use but with a local focus, this would grow more from decentralized sources commonly sourced by renewables. Environmental destruction from industries such as diamond mining, gold mining, palm oil, corn for ethanol, high fructose corn syrup, and cattle feed, textile dying, waste dumping and poor agriculture would be reduced by the amount of power obtained by the people. Each of these causes of environmental harm has either a substitution or can be eliminated and those are the paths most chosen by a locally aware community with the power to do so.

Long Term. At a point in the future, this system could begin to be seen as a replacement for national social aid programs. If so, governments may decide to reduce or eliminate their national programs. This proposal does not imply this is desired or remotely likely but should it occur, the only change needed for government to migrate their tax/benefit system to this one is for them to perform all tax receipt transactions in Bitcoin. This would increase the daily fund by 1% of their GDP and automatically distribute it to all members around the world. Given the imbalance between nations joining and those not, this would need to be a super-majority decision to be fair. With the coming advancement of technological unemployment rapidly approaching and threatening national economies' stability, this could become an increasingly attractive scenario in decades to come.