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DRAFT - COMMENTS WELCOME

TOKEN AS A DERIVATIVE AND A GIFT
On inalienable circulation of objects

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Derivatives as a framework for understanding the social dimensions of crypto-tokens

This working draft builds upon two extremely provocative lines of thought by members of ECSA, Dick Bryan and Akseli Virtanen's resetting of the cryptoeconomics agenda and Brian Massumi and Erin Manning's *99 Theses on Revaluation of Value*. Both try to provide a framework for understanding what Dick and Akseli call "cryptoeconomics". Dick and Akseli provide some of the intellectual landscape needed for any future discussion of cryptocurrencies while Brian and Erin provide guidelines for the construction of a future social imaginary for cryptotokens, particularly as being developed now by ECSA. Of course, each draws upon the tools of their training, the political economist-finance theorists providing an exciting overview of both traditional economic and current cryptocurrency thinking, while Brian and Erin apply their path breaking work on "affect theory" to the problem of the quantitative subsumption of the creative potential of cryptocurrencies in contemporary capitalism.

I'm going to take a slightly different route.

My thinking comes out of the work on volatility that I'm doing with Emanuel Derman (dir.,Financial engineering program, Columbia University; former Dir. Quantitative strategies, Goldman Sachs) and Ackbar Abbas (prof., comp.lit., UCI). As Dick and Akseli point out, most of the economic thinking about cryptocurrencies focuses on their role as money; *99 Theses* differs from many of these accounts by placing the discussion in the non-standard context - for economists! - of Marx's theory of money and capital (without emphasizing the labor theory of value), pointing out that M-C-M' describes how capitalism subsumes both economic and social processes for the production of surplus value.

I'd like to build off of Brian's discussion of Marx, especially using the interpretation of Moishe Postone, to suggest that cryptotokens, especially conceived more broadly as cryptographically enabled decentralized economic-organizational systems, *should be thought of introducing a new type of social* *relationship, which will ultimately turn out to have the properties of a derivative*; prematurely thinking about the potential of cryptotokens as money may cause us to overlook the magnitude of the social breakthrough on which the success of any cryptocurrency depends. Instead, we might indulge in leap of imagination: *what are the effects of introducing a form of social mediation that is unforgeable, continuously updated, publicly distributed, and that in principle everyone has access to?*

I also want to say that these ideas are preliminary and very much in formation. But this is what draws me to ECSA. We are feeding each other's creativity and imagination in economic thinking. We are turning economy into a place of creation.

I wrote a longish review of *99 Theses* that isn't completely wrong, but it is incomplete—I kind of ran out of steam at the end, especially when I hit Brian's speculations about Peirce and the continuum hypothesis (see here). However in my mind the starting point for thinking about cryptotokens is what kind of social relationships are created by a non-forgeable, distributed ledger that records social relationships even as it disintermediates them. It's not a face-to-face exchange relationship, but a species of what Michael Warner and others have called "stranger mediation," which is presupposed by a range of social categories of modernity from nationalism ("we, the people") to markets; it's a fundamental assumption in Simmel and the cultural politics of the Frankfurt School in which, as Moishe Postone has pointed out, relative surplus value (not absolute surplus value) becomes the dominant form of social mediation characterized by an accelerating temporal dynamic. The contemporary form of "stranger mediated" social relationships would include the internet, and cryptotokens' use of randomness (i.e, volatility) makes it less like standard accounts of money and more like derivatives (which price volatility and take as their model the randomness of Brownian motion).

Several people in our group have suggested that derivatives might make a good framework for understanding cryptotokens. *What I would like to suggest is that derivatives provide an interesting framework to understand the neglected social dimensions of cryptotokens because they can be traced back to the "gift," which anthropologists argue is the fundamental social relationship out of which more complex ones are built.* The derivative is not only the immanent realization of (what Marx called) relative surplus value but it also antedates the simple form of value, which is where Marx's account of money begins.

The Marxist story is usually told as a trajectory that starts with the **simple form of value**, moves through the **money dialectic**, and ends with **M-C-M'** (the transformation of Money into Commodities into More Money; capitalism is about production of money); in relative surplus value the excess M' is produced by technological competition and innovation. Finance capital is seen as non-productive and derivative finance is thus "fictitious" or "speculative" capital" as are cryptocurrencies. Derivatives are not seen as the culmination of any systematic line of development but are assigned marginal status from the standpoint of production even as their notional value is now over ten times global GDP.

However, overlooked in most commentaries about money and capital in Marx is a short section in chapter two where Marx talks about societies such as the "Indian commune" or "Inca state" that do not have "alienable exchange," which is a condition for commodity exchange in the simple form of value. *But such societies are what anthropologists call "gift societies" in which the circulation of objects is not the free exchange of things among individuals in a "relationship of reciprocal isolation* *and foreignness" but among "dividuals" whose relationships are performatively created by the exchanges themselves.* In such societies, things exchanged partake of the "substance" of the exchangers and are not viewed as independent of the agents involved (food exchange in caste systems in India, for example) as they are in the exchange of commodities in the simple form of value.

But as Pierre Bourdieu showed, *gifts are "commensurated" by the later return of "counter-gifts"; people and groups build up "portfolios" of social claims and obligations, which need to be maintained and exercised before they begin to lose their value.* Since these claims and obligations are often overlapping, and involve different payoffs and expirations, there is an "art" to giving and receiving gifts that lie at the heart of "primitive economies"; these systems of exchange become elaborated into inter-tribal cultural economies such in the kula of the Trobriands or the potlatch of the Kwakiutal, to name two of the more famous examples.

Instead of the exchange of objects that were thought to be independent of their "owners" (alienable exchange), *in gift societies the objects exchanged were integral parts of relationships with others, a part of yourself or spirit that circulated among consociates and kin (or even enemies as in the case of witchcraft).* In the famous Kula ring, Kula valuables were circulated for purposes of accruing status and prestige and sharply distinguished from objects that could be bartered and exchanged. Kula valuables did not serve any economic function but rather *established the framework of meaning for its participating societies*, which consisted of eighteen relatively isolated island communities held together by networks of differential status. The circulating valuables established framework of status and prestige that modulated a social system of affects and emotions that encompassed the whole Kula despite its dispersed populations—both the consociates who lived on the same island and those whom one might never meet—a precursor to the "stranger mediation" of modern societies in which the people that make up a social collectivity may never know or have contact with one another.

While Marx's money dialectic gave a picture that started with simple exchange and ended with money as mediating a totality of value that it created, his comments about alienability indicate mistakenly that the precursor to money as a medium of exchange and store of value would be the "alienable" objects circulated via barter and exchange, and not Kula valuables or their inalienable counterparts in gift societies. Marx even states that the "exchange of commodities begins where communities have their boundaries, at their points of contact with other communities" and only work inwards from the margins. Since gift givers and takers were not seen as independent of the social relationships in which they were embedded, anthropologists of India and Melanesia developed the term "dividuals" (which Deleuze independently coined) to contrast with the autonomous "individuals" of capitalism. ***In such societies, "gifts" would not function as medium of exchange or unit of account, but rather as indices of sociability that give meaning to what is happening as it happens.*** In the case of the Kula, the circulating valuables keep the Kula operating by creating a shared framework of status and prestige across the island communities that ranks and aligns the various groups and determines the appropriate social relations between them, including those in barter. The flow of affective sentiments subsumes the economic by defining the social groups that barter and exchange.

Gift societies circulate objects as "archives" of value without direct alienable exchange; as Bourdieu points out, there is an interval between the gift and its return; simultaneous return is considered an insult. The simple form of value collapses the interval into the event of exchange. *The Kula shows* *that the functions normally associated with money as unit of account, medium of exchange, and store of value can be separated; the alienable exchange of commodities in the simple form of value begins to bring all these separate functions together, which will result in the* **"money form".** Kula valuables are neither a medium of exchange nor a unit of account but could be said to be ***a store of value that indexes the structure of groups and their history, which are enacted and updated in ritual and myth.*** The cycles of ritualized gift giving are the social modulations of affect driven by culturally specific "sentiments" such as honor and "face." The circulating valuables not only subsume "economic" exchanges under affective modulations of social values such as honor (sensibilities embodied in what Bourdieu called "habitus") but also act as updatable frameworks of meaning that constitute who is "in" or "out." In *Outline of a Theory of Practice,* Bourdieu shows how Kabyle society is organized around a constant flow of ordinary gifts (cooked foods such as "couscous with a bit of cheese") punctuated by the extraordinary gifts of major festivals (weddings and births), all organized around *nif* or the point ("nose") of honor, which acted as the "affect modulator" for the whole system.

Can we extend these insights about "money" in pre-capitalist societies to our present situation?

Much of the excitement around cryptotokens is the possibility of creating a "society" organized around decentralized access to money and information. *In gift societies,* even as they were organized around qualitative intensities and "played" with the differentials of intensive magnitudes, *social reproduction depended upon asymmetries of information, status, and power: power and status were based on differential access to information, often encoded in valuable objects (the precursors to money) such as the famous cowrie shells of the Kula ring or the copper "jewelry" of the Kwakiutl.* These valuable objects were not only distinguished from those exchanged in barter (for which the Trobriands had a special term, *gimwali*) but were also embodiments of the value system that organized the Kula, i.e. it held the various groups together in a system of differential circulation and exchange.

In his reanalysis of the gift, Bourdieu suggests that the meaning and value of a gift is conferred by its countergift, which can't be immediate because that would be an insult. Gifts are contingent upon their expiration—their value is fixed via a ritualized "retro-performativity" in which the value of the gift offered is conferred by the gift returned (Elie Ayache would argue for a similar "backwards performativity" for the pricing of options). ***Gifts are thus pre-monetary contingent claims and obligations—i.e. derivatives.*** In this sense derivatives antedate money as a form of social mediation—whole systems of ritualized exchange are built around gift exchange, as Mauss catalogued in his class, *The Gift.*

We can thus interpret Marx as having a proto-form of the derivative in the gift that antedates the money dialectic. At the end of the trajectory of money and capital lies the financial derivative; the immanent realization of relative surplus value is the derivative, or perhaps more precisely, the option (not the forward or future). The connection between the derivative and relative surplus value is that they share the property of *convexity* and involve *arbitrage*, which absolute value does not. The difference between absolute and relative surplus value is one of the major theses of Poston's *Labor, Time, and Domination,* which focuses almost exclusively on the social effects of the "treadmill" dynamic of relative surplus value as it spreads as a social mediation. Absolute surplus value is linear in structure with a constant relation between labor time and value; the more one works the more value produced. However, relative surplus value being innovation driven is convex (the payoff for a successful innovation is far more than its costs, hence has an asymmetric positive payoff) and subject to an arbitrage structure. When an innovation first appears, there are two “prices”-—that of the innovation and the socially necessary labor time of competing commodities—an arbitrage opportunity that the capitalist takes advantage of. Convexity and arbitrage combine in Black-Scholes to price a new form of abstraction, volatility as opposed to the directional risk. Portfolio theory and CAPM are linear (covariance is linear), whereas Black-Scholes doesn't even have the expected return of the stock as a parameter, only its volatility. This suggests that by tracing out the interplay between the convexity of relative surplus value and its arbitrage, the immanent potential of relative surplus value is the non-arbitrage, convex structure of the derivative. If this argument is correct, then rather than derivative finance being "fictitious" it is rather the immanent realization of capital itself.

If the derivative is both the “primitive” social form of circulation and the immanent realization of capital, then it is not money that is at the heart of thinking though the social implications of cryptotokens. ***We won’t understand their social potential if we think of them as simply forms of money.*** It’s implicit in the language of cryptotokens, which require “coin offerings” before they can function as monies. *But where does this sociality reside that must be invoked for any coin to succeed?* Could we develop a coin to measure its own possibility of success? Instead of thinking about coins, perhaps we have to ask *what are the social implications of the distributed ledger at the heart of cryptotokens?* A non-forgeable distributed ledger that contains its own updateable history and removes the middle-man is a new type of social relationship that *isn’t present in the dividualized non-alienable gift circulation systems that anthropologists once studied in which the status of “big men,” chiefs, and gods provided the engine of social circulation.* What is the effect of introducing a form of social mediation that is unforgeable, publicly distributed, and that everyone in principle has access to? ***What would happen if the mediations that created and held together social groups did not rely upon asymmetries of knowledge and information but were instead like the protocols embedded in cryptocurrencies that moved social groups towards creating decentralized processes of potentially universally shared, transparent, and symmetric information and knowledge?*** Social reproduction would not be organized around certain groups having privileged access to "valuable" information, but rather everyone having access to the same information. And, as ECSA plans, everyone having access to the capabilities of designing and issuing these engines of social circulation. Imagine issuing your own rituals. Your own living community.

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Cryptocurrencies apply this distributed ledger to monetized transactions, but its logic could be applied to other areas of non-monetized exchange. Imagine elections or histories “written and ratified from below”—what would the official Chinese dynastic histories look like if they were written in the form of a distributed ledger that was continuously updated and confirmed by the “people”? Randy Martin gave the example of the development of skateboarding in LA during the early seventies as a form of qualitatively “risking together,” which spread rapidly as a way for people to enjoy themselves when they couldn’t surf. With the invention of polyurethane wheels skateboarders faced the question of whether they should commercialize—how did they turn their new way of qualitatively exploring volatility into a technological innovation that would bring in the profits of their quantitative subsumption under capitalism? As Brian and Erin raise the question, how do we “ward away” the premature quantitative subsumption of qualitatively based creativities to create a holding environment in which creativity and innovation can flourish? How do we develop measures of the circulation and expansion of intensive magnitudes that can be converted or exchanged for outside “monies” when the participants decide that is necessary or desireable?