Perspectives on a Universal Basic Income

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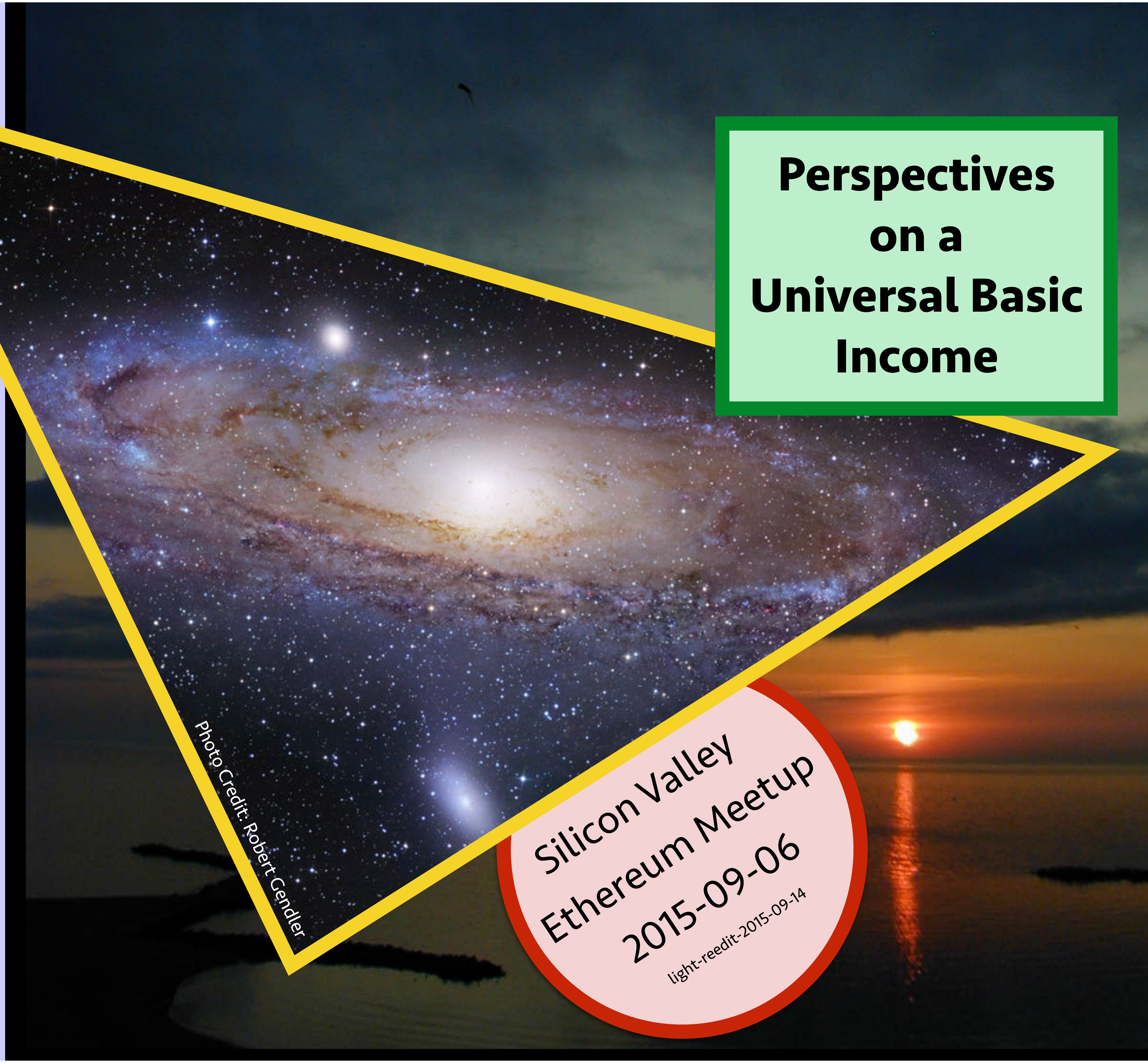


Silicon Valley Ethereum Meetup

2015-09-06

light-reedit-2015-09-14

What is a Universal Basic Income (UBI)?

- The simplest thing…
  - **everybody gets a regular check, in identical amounts, just for breathing.**
- Nothing is that simple…
  - “everybody” demands a definition. kids? dogs? citizens? legal residents? felons? and who’s paying for all this?
- Sure…
  - those are important questions, on which more later. but really, this is pretty simple.

Things related that are not UBI

- Negative Income Tax
  - In theory, a negative income tax can replicate the net cashflows of a tax-financed universal basic income
  - In practice, negative income tax proposals typically imply much steeper reductions in net payments at low incomes than a UBI funded from general revenues
- Guaranteed Minimum Income "Topoff"
  - Government would enforce an income floor by "topping off" incomes that fall beneath a poverty threshold to that threshold.
  - Implies a 100% marginal tax rate at low incomes

Perspectives on a UBI

- Fixed/floating swap on highly variable income
- Improved worker bargaining power without restricting flexibility
- A better antipoverty program
- A sociotechnological dividend
- VC for the people
- Hayekian investment subsidy
- Escaping the macroeconomic floor to prevent “secular stagnation”
- An instrument of socioeconomic cohesion

Side note: Paying for a UBI

- In monetary terms, a UBI, like any other form of government expenditure, would be paid for by some mix of taxation, borrowing, monetization, and reduction of other spending.
- Thinking in terms of "dollars & cents" is misleading and incomplete with respect to government finance.
  - Actual constraints on government finance are
    + *Uncomfortable tradeoffs between inflation and high interest rates*
    + *Valuation uncertainty associated with the possibility of "runs" on cash and government debt*
  - These constraints depend on the target, scale, source of finance, and distribution of expenditure

Side note: Paying for a UBI

- It is conventional to declare a program "funded" if new dollars taxed or recovered through reduction of other expenditures matches the cost of a program, implying no need for new borrowing or monetization.
- Like most conventions, this one is adopted because it is simple, not because it is true.

> ***Example:*** *Consider a 4% surtax on incomes over $5M per year. 20% of the proceeds are used to pay off debt while 80% is used to fund school construction. This program would most likely be inflationary at the margin, despite reducing the Federal debt, because much of the income taxed would otherwise have been saved in financial instruments very loosely coupled to real spending, while the 80% spent would all bid for real goods and services.*

Side note: Paying for a UBI

- A dollar of UBI spending is likely to be less inflationary than a dollar's worth of direct government spending, but more inflationary than a dollar's worth of foregone Federal Income Tax revenue or foregone "tax expenditures" (embedded in tax deductions for mortgage interest, charitable donations, etc).
- A dollar of UBI spending is likely to be similarly inflationary to spending on government transfer programs like social security.
- A UBI "fully funded" from Federal Income Tax alone would likely be net inflationary.
- A UBI "fully funded" in large part by replacement of other transfer programs would likely be close to neutral.

Side note: Paying for a UBI

- A “fully funded” UBI would likely to reduce valuation uncertainty / vulnerability to runs of currency and government debt.
- Unless otherwise noted, we will assume a UBI “fully funded” by reductions of alternative transfer programs and increased taxation, and presume this will be neither inflationary nor deflationary.
- However, sometimes “net inflationary” is a desideratum rather than a constraint.
- In disinflationary times, adjustments of the level and source of finance of a UBI can provide “fiscal stimulus” with unusual transparency and fairness, i.e. with little potential for corruption or “make work”. (More on this later.)

Fixed/floating swap on variable income

- UBI is often understood as a form of redistribution. Everybody gets the same “basic income”, but the poor pay very little for that in taxes while the rich pay much more in taxes than they receive.
- But UBI is first and foremost an insurance program. It would be desirable even in a world where all individuals start-off with identical but uncertain prospects for future wealth and income.
- In financial terms, in a world with *ex ante* identical agents, UBI would be a pure fixed/floating swap. Each individual’s future income (from labor earnings, investment, etc) is uncertain and variable, much more variable than aggregate production of the entire economy.

Fixed/floating swap on variable income

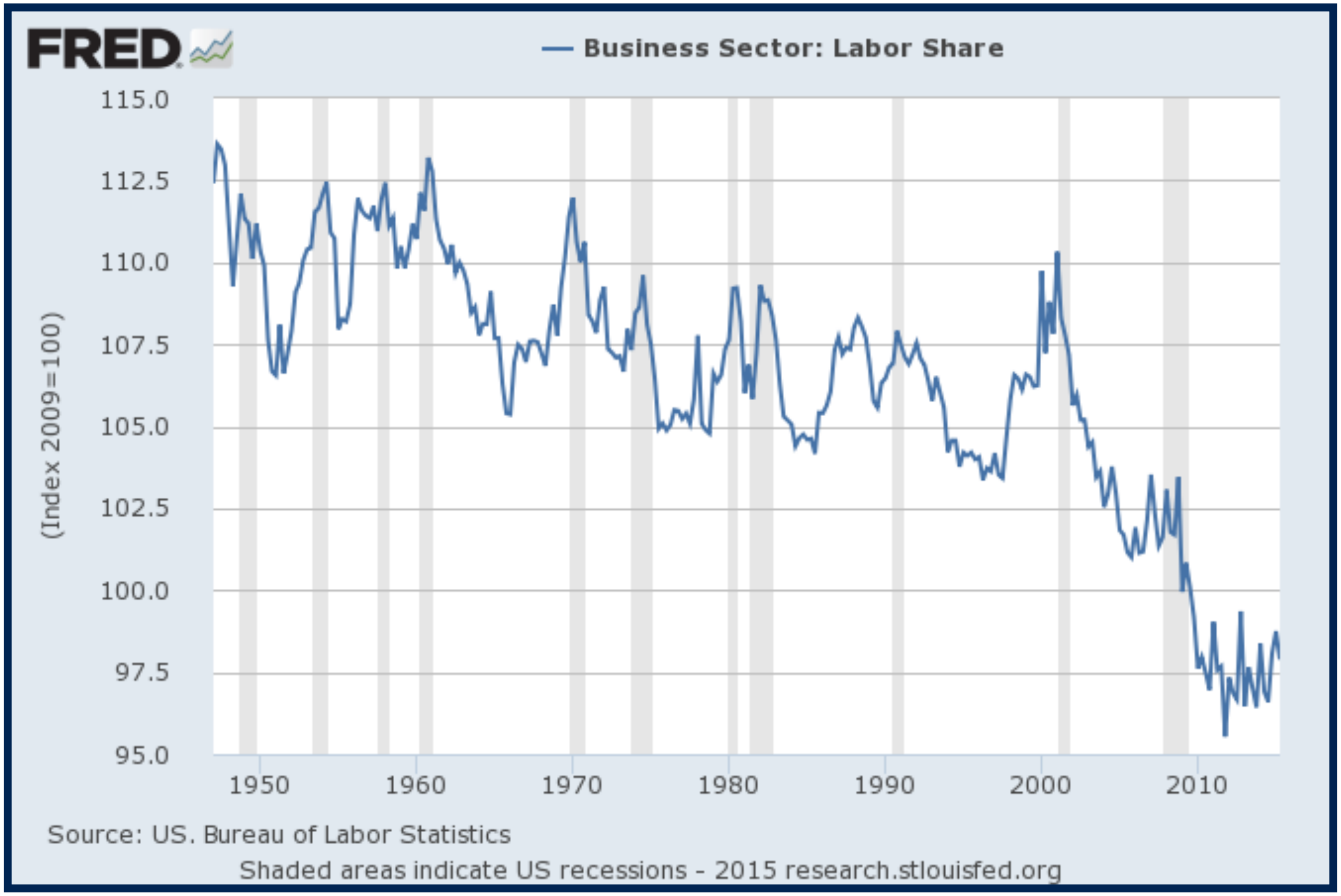
- In such a world, risk-averse humans would universally agree to forego some percentage of their uncertain earnings for a guaranteed proportion of the more stable aggregate economy.
- This arrangement is replicated by a tax-financed UBI in an NGDP-stabilized macroeconomy.
- Like any insurance scheme, the universality of voluntary participation is inversely related to the amount of (real or perceived) information about the future among individual participants.
- Purely self-interested agents who know or believe their future incomes will be above average would opt out, potentially leaving too small a pool of expected income for participation to be desirable for agents who are less certain, or who expect below average earnings.

Fixed/floating swap on variable income

- Even in a world with identical agents, each of whom have no *ex ante* information, a UBI is a more efficient and effective arrangement than "self-insurance" via savings cushions and/or individual borrowing against future earnings.
  - In a (realistic) world in which borrowing is limited and returns on low-risk savings are smaller than the cost of borrowing, self-insurance is capital inefficient: Each agent has to save a significant personal nest egg, or take much smaller fixed payments each period than could be supported by a UBI.
  - Self-insurance breaks much more frequently due to "tail risk" – repeated bad income realizations – than pooled insurance, which is vulnerable only to systematic (not idiosyncratic) bad runs.

Improved worker bargaining power

- In the United States, labor's share of income has fallen quite dramatically over the past few decades.



Improved worker bargaining power

- This decline understates the falling fortunes of typical workers, since aggregate labor income includes much of the income of CEOs, asset managers, doctors, lawyers, and other groups of professions that have taken a strikingly disproportionate fraction of wage growth since in early 1970s.
- Worker productivity has outpaced wages of the median worker since the early 1970s.
- These changes are likely to be due in large part not to change in behavior or ability of workers, but simply due to a decline of *labor bargaining power* due to the decline of trade unions, globalization, and the threat of potential automation.

Improved worker bargaining power

- Many of us consider the declining relative fortunes of the perfectly hardworking people who could once afford middle class lives and now cannot (without dodgy borrowing) to be a compelling social problem.
- Reversing the decline of union power, or the degree to which middle class workers are now in competition with counterparts in lower-wage countries, or the potential for automation seems unlikely and arguably undesirable.
    - *Globalization of the real goods and services economy offers lots of benefits in terms of competition and specialization*
    - *Bargaining power via unions arguably limits flexibility valuable to both firms and workers due to complicated, one-size-fits-all collective bargaining arrangements.*
    - *If we can resolve distributive concerns, technology makes us richer.*

Improved worker bargaining power

- Bargaining power is largely about the propensity and ability of workers to say “no” to a bad deal (in terms of wages or working conditions)
    - Really about the *distribution* of offers that would be accepted among *populations* of similar workers. One individual’s propensity to refuse does not amount to bargaining power unless other individuals with similar skills also refuse the same deal. Bargaining power is diminished by competition.
- *Unions* create bargaining power by establishing labor cartels
    - Everyone agrees to say no to deals less than that which is collectively agreed.
- *Minimum wage laws* also create bargaining power by enforcing labor cartels
    - Everyone is required to say no to deals less than that which is collectively agreed.

Improved worker bargaining power

- A universal basic income creates bargaining power by increasing all workers' capacity to refuse a raw deal.
  - A UBI increases workers' "reserve price" – the minimum each worker must be paid before she is willing to accept a given job with particular working conditions
- A UBI is a much more flexible means of enhancing labor bargaining power than unionization or a minimum wage.
  - All workers are able to drive a harder bargain with a UBI than without, shifting the distribution of behavior and effectively augmenting bargaining power.
  - Firms and individuals retain complete freedom to negotiate the terms of their own engagement, and to take into account unusually pleasant working conditions or nonpecuniary benefits of certain kinds of jobs that might be made untenable by a minimum wage.

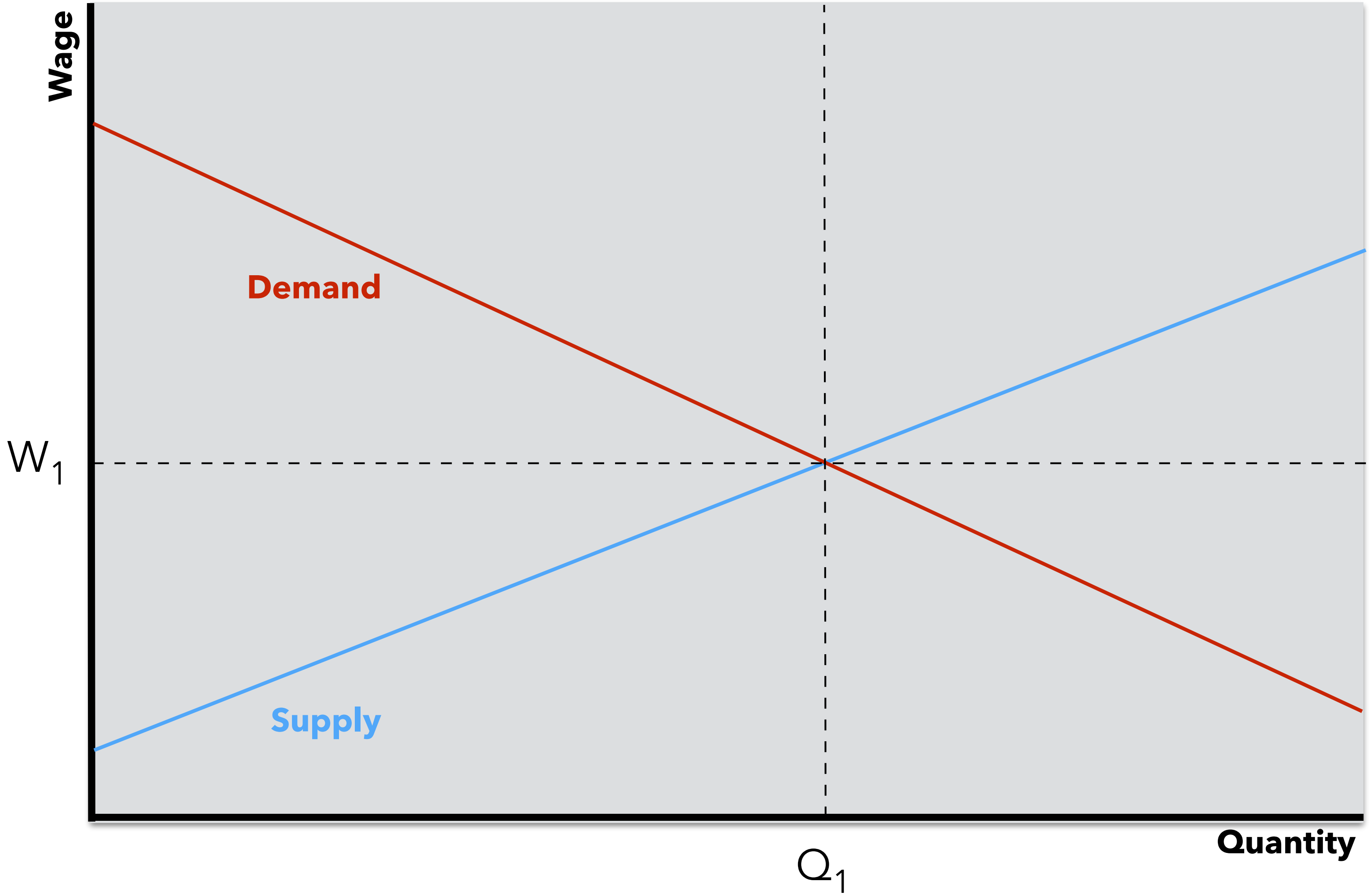
Advanced: UBI and labor supply

- Universal basic income proposals are often criticized because “money for nothing” reduces incentives to work created by the urgent necessity to hold a job in order to feed ones children or make rent.

- That’s a weak criticism, since *much of the point of a universal basic income is to reduce incentives to work in a particular and benign way*. In the language of economists, a core purpose of a UBI is to *shift the labor supply curve upwards*.

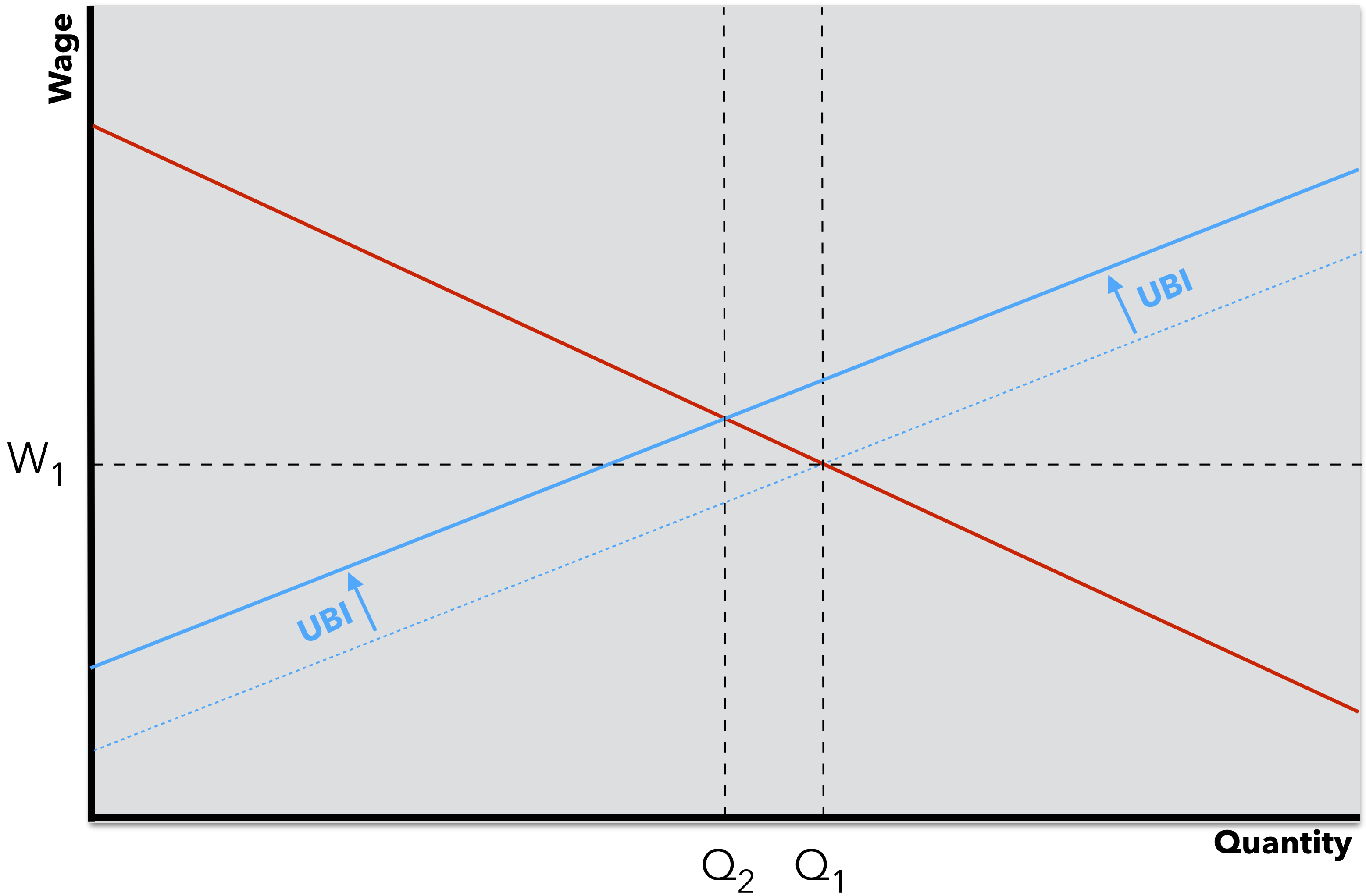
- Reducing incentives to work need not imply that fewer people work, reducing aggregate production. It can instead imply higher wages for the same quantity of work. The *quantity of labor supplied* is a function of the *demand curve* for labor as well as labor supply, and the demand curve for labor is largely a public policy choice.

Advanced: UBI and labor supply



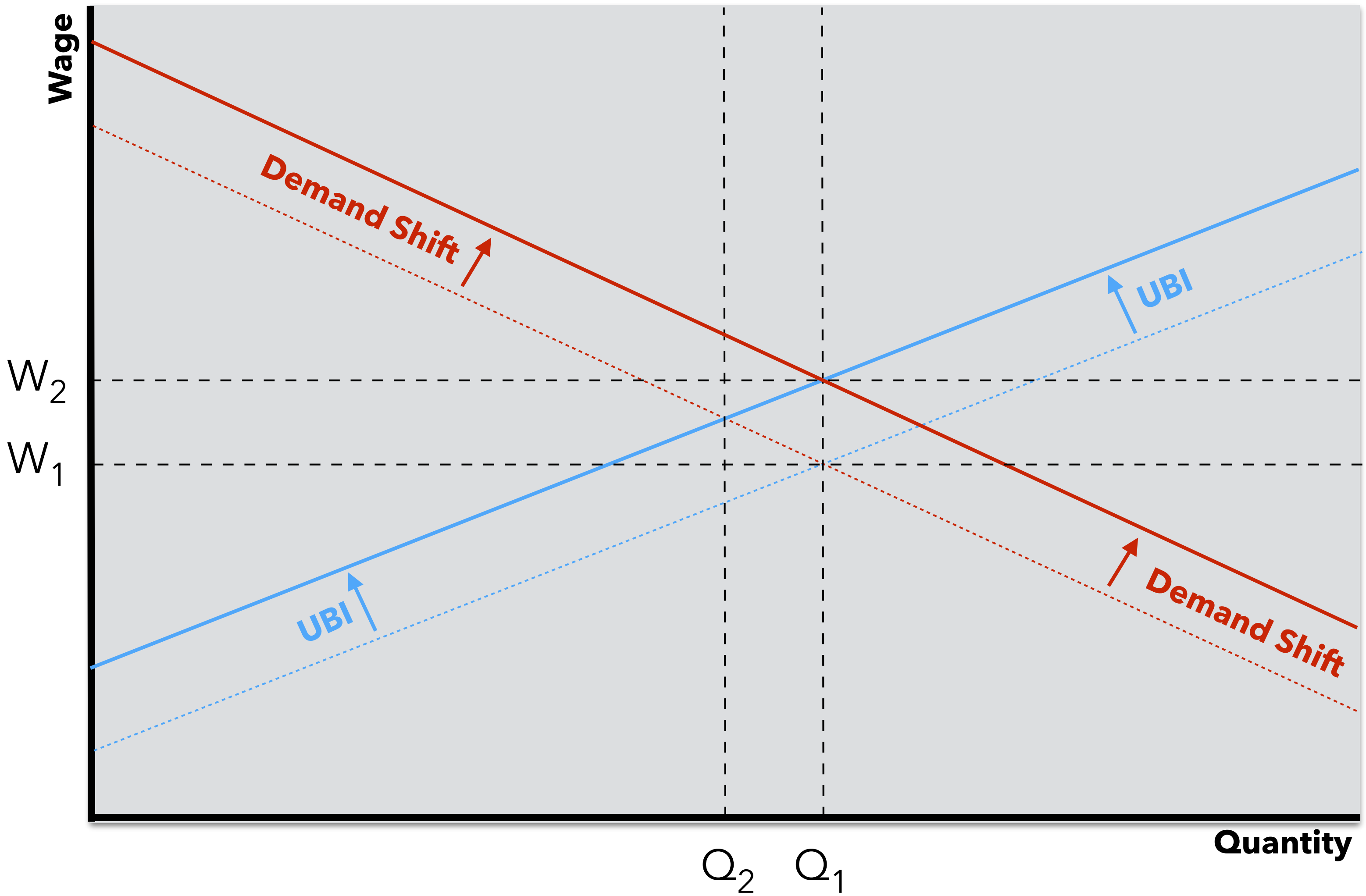
- Labor supply and demand, before any UBI.

Advanced: UBI and labor supply



- A UBI shifts the labor supply curve upwards by increasing workers' reservation wage
- This effect, on its own, leads to an increase in wages and a reduction in quantity of labor supplied

Advanced: UBI and labor supply



- An increase in labor demand (as a policy choice, or potentially as a direct effect of the UBI if demand is unmanaged) restores the original quantity of work provided, but at significantly higher wages

Advanced: UBI and labor supply

- Unlike many other interventions that reduce labor supply, UBI leaves the *marginal supply of labor* effectively unchanged.
- In simple terms, this means that firms have to pay a fixed amount more (in wages or better work conditions) to inspire the same quantity of work, but once this increment is paid, it is not more difficult for firms to inspire greater effort with further incentives.
- Unlike many other interventions that contract labor supply, the upshift in the labor supply curve translates directly to increased take-home pay for workers. None of it represents effective taxation captured by the state.
- The net effect of the upshift of labor supply is an increase in labor bargaining power. Workers (as a group) hold out for a better deals than they would without, and capture all the benefit of those better deals.

A better antipoverty program

- Many existing antipoverty programs, like food stamps or what's left of traditional welfare, are *targeted* or *means-tested*.
- Universal programs are superior to means-tested programs on economic, political, and social grounds.
- The *sine qua non* of a means-tested program is that the amount of support individuals receive decreases as their income increases.
- This functions as an tax on increases in labor effort. In the lingo of economics, means-tested programs impose *high effective marginal tax rates* on lower income workers. For some proposed programs (a topoff minimum income), the effective tax rate can be as high as 100%!

A better antipoverty program

- Like a UBI, means tested programs reduce incentives to work, but means-tested programs do so in a malign and harmful way.
- Firms find it hard to motivate individuals to work harder, and individuals have little reason to be ambitious, when much of any increase in income will be captured by the state.
- Since much of any pay increase due to high demand would be captured by the state, combining means-tested programs with expansionary macro policy is not an effective way of enhancing labor bargaining power.
- Means-tested programs are sometimes described as creating "poverty traps", and not without good reason.
- A generous UBI could replace many (but not all) existing means-tested programs.

A better antipoverty program

- Despite their flaws, means-tested programs are often appealing to politicians because their “sticker price” is lower than similar universal programs.
- This apparent cost difference is illusory. Any means-tested program can be decomposed into a universal program plus a financing scheme. Viewed this way, the difference between means-tested and universal programs is startlingly clear. Means-tested programs force the near-poor to pay much of the cost of the program, in order to shelter the not remotely poor from bearing higher costs.
- Although the superficial politics of “sticker shock” militates against adoption of universal programs, once enacted they are politically more durable than means-tested programs. Compare the popularity of near-universal Social Security or Medicare in the US to the frequent disparaging of food stamps and “welfare”.

A better antipoverty program

- Means-tested programs invariably create complex, demeaning bureaucracies to administer them, as the state has to invent and apply necessarily complicated and arbitrary procedures to distinguish the eligible and “worthy” from the ineligible and “unworthy”.
- Universal programs take the state out of the moral judging business, and are typically administered easily and efficiently.
- Means-tested programs are invariably associated with demeaning social stigma for recipients. They create social cleavages between “upstanding citizens” who pull their own weight and “welfare queens”, “makers” vs “takers”.
- Universal programs do not carry social stigma or provoke a politics of demonization. No one calls an elderly person, rich or poor, a “taker” for receiving Social Security. Nearly every elderly person, rich and poor, receives social security!

A sociotechnological dividend

- One nickname given to a universal basic income is “social dividend”. The intuition is that we all own some claim on the productive economy, and should receive payouts based on that claim like a shareholder receives dividends on her stock portfolio.
- The economic case for a “social dividend” is buttressed by technological development. Technological advancement is in general a public good. No one “owns” the incremental aggregate know-how between now and the 19th Century (despite ridiculously expansive patent and copyright claims).
- Yet economies of scale and network effects have rendered markets in a high-tech world more prone to “winner-take-all” dynamics than ever existed in the low-tech distant past.

A sociotechnological dividend

- There is no evidence that today's "winners" work harder or need to work harder than the extraordinary innovators or businessmen of the past. The vast increase in wealth that comes from a relatively few getting an ever greater share of an ever larger pie is not "economically efficient" (i.e. necessary to inspire production and growth), but simply a matter of happenstance.
- If this is right, then the economic case for changing our institutions to alter this happenstance, not-so-great outcome is strong.
- Giving everybody a "property right" on an equal share of some portion of aggregate output is a facially fair way to change our institutions in a way that resonates and is consistent with our practice of modern capitalism.

A sociotechnological dividend

- The dividend stream generated by such a universal shareholding would look identical to a universal basic income.

VC for the people

- Humans engage in lots of useful activity that does not generate short-term positive cashflows, but has the possibility of creating a great deal of real value over the medium to long-term.
- Here in Silicon Valley, an ecosystem of VCs exists to fund a small sliver of those sorts of activities by the very small sliver of humanity capable of networking to access it.
- Even for those people, the range of activities that are amenable to VC financing is very limited. VCs cannot fund activities that will create huge swaths of value for which no means of monetization is forseeable (e.g. "public goods"). VCs cannot fund activities that are potentially worthwhile but small scale.

VC for the people

- Examples of activities that may, if successful, create clear economic value but that cannot be funded by venture capital or most other sources of finance include:
  - Prestigious unpaid internships for individuals without family support to keep them fed;
  - Music, film, and cultural projects;
  - Scientific research outside of traditional academic contexts;
  - Caregiving to a parent or child;
  - Independent development of “startup ideas” prior to readiness to pitch even to seed finance, by people without a pedigree sufficient to overcome the skepticism surrounding an entirely unimplemented pipe-dream.

VC for the people

- A universal basic income could give to nearly everyone the luxury associated now with a fortunate few, who by virtue of savings or family support, can “opt out” of providing market labor for a while to pursue often more ambitious things.
- For now, a disproportionate share of technological and cultural innovation comes from this fortunate few, but there’s no reason to think that’s due to a correlation between wealth and ability. The pace of development of wonderful new things could increase dramatically if nearly everyone had the option to sacrifice the comforts of a good market income when an idea or opportunity truly merits making sacrifices in order to pursue it.

Hayekian investment subsidy

- Successful developed economies nearly all subsidize business investment in a variety of often very opaque ways.
- These range from explicit tax preferences for capital income to the incredible range of tacit and overt state guarantees that underlie modern banking systems.
- However, all of these are subsidies of “external finance”, encouraging outside investors (banks, lenders, shareholders) to make funds available for business investment.
- But external finance may be low quality finance, uninformed and poorly targeted.
- *The most effective and informationally rich source of funding for new business investment is retained earnings by businesses.*

Hayekian investment subsidy

- Due to increasing perceptions of corruption and low quality project selection, many of us would like to see subsidy of investment laundered through the banking system and tax breaks enjoyed disproportionately by the wealthy curtailed.
- Merely ending subsidies to investment, without offering any kind of replacement, would likely further reduce already anemic (and very badly targeted) real capital formation.
- A universal basic income provides an unusually informationally rich source of retained earnings for firms, as expenditures of UBI flows of real goods and services do not reflect politically directed government priorities but the decentralized patterns of demand determined by the preferences of the entire citizenry.

Hayekian investment subsidy

- Since a UBI is intended to be sustained indefinitely, these demand flows present durable information that businesses can use to choose effective investments from expanded pools of retained earnings.
- From a real economic perspective, replacing subsidies of external investment with UBI-funded retained earnings is likely to yield higher quality capital formation with much less room for corrupt targeting and rent extraction by financial intermediaries.
- *A universal basic income and serious banking/financial reform are highly complementary policies.*

Escaping the macroeconomic floor

- A perceived economic problem throughout the developed world is "secular stagnation".
- In very simple terms, modern developed economies typically use central bank interest rate policy to ensure that *aggregate demand* is sufficiently strong to "fully employ" available economic resources (including especially humans) in production.
    - ("Full employment" implies sustainable employment, not some ecocatastrophe where we exhaust all of our resources in a destructive one-shot supernova of overproduction.)
- Typically, central banks lower interest rates when they expect demand shortfalls. By a variety of mechanisms, this is thought to increase near-term demand for goods and services.

Escaping the macroeconomic floor

- “Secular stagnation” refers to a situation in which despite zero or near-zero central bank policy rates, aggregate demand remains insufficient to fully employ the resources of the economy in production.
- “Secular stagnation” is attributed to a variety of factors: demographic change, technological stagnation, growing inequality, etc.
- At or near the zero bound, central banks must resort to controversial “unconventional monetary policy” (like quantitative easing) that seem to require very large doses to be effective, and may have undesirable effects on financial stability or exacerbate wealth inequality.

Escaping the macroeconomic floor

- Alternatively, fiscal policy (increased government expenditure on goods and services) can be used to create demand very directly, but there is a danger that politically directed, macroeconomically motivated spending will be targeted corruptly, or towards wasteful make-work projects and "bridges to nowhere".
- An increase in the UBI is a form of fiscal policy that delegates the direction of expenditure to the citizenry as a whole in a facially fair way. Almost by definition, the direction of expenditure will not be corrupt. By providing direct information to business about the preferences of the public, UBI expenditures are likely to lead to high quality real capital formation. (See "Hayekian investment subsidy")

Escaping the macroeconomic floor

- If an increase in UBI is fully funded by new revenues from a progressive income tax (but not by replacing other programs), it is likely to be expansionary of demand even without increasing the total indebtedness of the Federal government.
    - (This is because the average UBI recipient is much more likely than the payer of the average income tax dollar to spend rather than save an additional dollar of income. An income-tax financed UBI transfers purchasing power from people with a low *marginal propensity to consume* to people with a high propensity to consume)
- A UBI produced spur in aggregate demand can be made large enough so that nonzero interest rates are required to control inflation or (much better) the path of nominal expenditure.
- Thus increases in UBI can be used to “lift the economy off the floor” whenever secular stagnation threatens a prolonged depression or “shampoo economy”.

Instrument of socioeconomic cohesion

- This is the most controversial perspective on the virtues of a universal basic income. For people who see the world entirely though an individualistic lens, “socioeconomic cohesion” will not be a legitimate goal.
- “Socioeconomic cohesion” refers to the idea that, in very real and tangible ways, “we are all in it together”.
- Extreme degrees of inequality in wealth and income reduce socioeconomic cohesion, as the very rich are much better protected against a wide variety of risks than the very poor.
- Wealthy communities have dramatically different preferences than more modest communities over the degree to which resources should be devoted to the production of shared, inferior but inexpensive public goods, versus private goods.

Instrument of socioeconomic cohesion

- The level of a UBI provides a very cleanly tunable instrument for making tradeoffs between socioeconomic cohesion and private incentives to produce.
- A UBI funded by tax on 100% of production would yield a perfectly egalitarian socialism, and would also be perfectly destructive of private incentives to produce. This would be “pure Communism” in a bad way.
- A UBI funded by a tax on 0% of production — what we have now — leaves private incentives to produce (or game the system for wealth) extremely strong, but lets socioeconomic cohesion fray arbitrarily.
- Between these two extremes are a continuous range of mixed economies, straightforward and corruption-resistant choices about how strong private incentives should be versus how much we value social cohesion, a “middle class society”, lack of poverty.

Not a panacea

- *Does anybody actually ever claim that anything is a panacea?!?*
- UBI is a policy that devolves much of the work of a social democratic state to private sector markets. Complex government action is replaced with simple transfers of purchasing power, and private markets are expected to convert that purchasing power into social goods.
- This obviously won't work when serious market failures are present:
  - Medical care
  - Monopoly power in the face of inelastic demand
    - + *For example in San Francisco, much of the benefit of a UBI might be captured by property owners as recipients use their augmented incomes to even further bid-up rents.*

Not a panacea

- With a UBI in place, governments would need to continue to take an active role in ensuring a competitive marketplace and encouraging elasticity of supply (including supplying goods and services directly when private markets cannot be made to do so competitively).
- UBI can replace many, but not all transfer programs. In particular, programs like unemployment insurance which are intended to insure market incomes for some period of time (and whose payouts must therefore be pegged to market incomes rather than uniform) would still be necessary.

Nonhypothecable

- It is very important that a UBI be *nonhypothecable*, that is to say, contracts pledging future UBI income as collateral for loans should be unenforceable, and UBI income should not be garnishable for the repayment of debts.
- Otherwise, the core social purpose of a UBI – providing a reliable, last-resort “fallback income” to all – can be undone by opportunistic lenders who capture individuals’ future UBI in exchange for a quick, near-term expenditure.
- The state would be left having to deal with and invent new welfare institutions for these destitute people who would have a “basic income” they never see and cannot rely upon.

Generalization

- The foregoing has presumed that a universal basic income would be implemented by a traditional state.
- Can we generalize the idea for communities defined by relationships reified in smart contracts, with a UBI paid in terms of some cryptographic token?

Perhaps!

(Stay tuned for Martin and Greg!)

Generalization

- All we require is…

  (1) A community of people who agree to pool resource in order to finance a UBI across its membership.

  (2) Capacity and willingness of members of that community to generate exchange value (perhaps by performing work) in exchange for the tokens managed by the cryptographic application.

    - This exchange value would need to be recognized by members outside the community, as well as reciprocally among members, so that people can purchase goods and services not produced within the community.

  (3) Willingness of members of the community who expect to produce disproportionately much exchange value to see some of the tokens received as a result of their work "taxed" (or devalued by dilution) to fund other peoples' basic incomes.

Generalization

- All we require is… Scale is important!

This is the hardest part!

(1) A community of people who agree to pool resource in order to finance a UBI across its membership.

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(3) Willingness of members of the community who expect to produce disproportionately much exchange value to see some of the tokens received as a result of their work "taxed" (or devalued by dilution) to fund other peoples' basic incomes.

Generalization

- UBI is first and foremost an insurance arrangement.
- Insurance arrangements function best when there is complete ignorance about who is likely to experience relatively good or relatively bad outcomes.
- From under a “veil of ignorance”, nearly all risk-averse humans voluntarily enter insurance arrangements to pool risk.
- But ***knowledge poisons insurance pools!***
- If outcomes can be predicted, (selfish) people for whom good outcomes are likely *opt out of insurance schemes they would gladly have joined were they ignorant*. This renders the insurance schemes untenable, as people likely to net-pay into the programs opt out, while people likely to make claims against the insurance have insufficient funds to draw on.

Generalization

- Regardless of knowledge, distributive outcomes are often better (from a variety of social perspectives) when an entire community participates in an insurance arrangement.
- States can “coercively” enforce this participation, by extracting premia in taxes or imposing an “individual mandate”. They can enforce “as-if” ignorance to ensure viability of an insurance pool by limiting the information on the basis of which insurers are permitted to differentially price.
  - For example, health insurers may be permitted to charge higher premia to smokers, but not to individuals with a genetic propensity for a cancer. This reflects political judgments about the risks it is socially desirable to let individuals bear (smoking) vs those that should be redistributively insured (genetic risk). In a free and competitive insurance market, people without the genetic propensity would pay lower premia, while people with would find insurance (that does not exclude the condition) prohibitively expensive. State regulation “coercively” prevents this free-market outcome from obtaining.

Generalization

- The main challenge for cryptocurrency-based UBI schemes, as I see it, is how to persuade people who know or believe their ability to generate exchange value is unusually high, not to "drop out" and exchange their labor for old-fashioned money they get to keep.
- If only people who generate unusually little exchange value in trade for the UBI-implementing tokens participate in the arrangement, the value of the basic income will be very low, much like a health insurance pool in which everybody is sick.
- There may well be creative solutions to these problems!
  - Social norms and interpersonal relationships might persuade people to look past narrow economic self-interest in order to support a deep community.
  - Funds might be held in escrow by the application, which would be forfeited as punishment of individuals who defect and work "off the books".

Conclusion

- A universal basic income would be an exceptionally useful addition to the conventional social-democratic state policy mix, from a variety of different perspectives.
- I look forward – with both skepticism and hope – to experiments in the cryptocurrency community that try to replicate some of the benefits of a conventional UBI in the context of voluntary-participation-based distributed apps!