The unAutomated Economy

a story about the monetary economics
of Universal Basic Income

Derek Van Gorder, 2026

Let's imagine an automated economy sometime in the future[1]—you know, one where robots, advanced machines and AI are responsible for most activities necessary for consumer goods production; human labor less so.

Rather than getting carried away and picturing a *fully* automated economy, let's assume this economy still needs some human labor—just not very much. People are being employed by firms. Just not most people or even the average person.

Firms are still producing goods for profit to sell to people. But most of these people, of course, can no longer get their income from wages because those wages aren't needed; the robots are doing the work, remember?

So how do these people get their incomes in this economy? Presumably through a policy you've probably already heard of by now: a Universal Basic Income.[2]

Makes sense. We still have a market economy and firms are driven by profit, so we still have money. It's just that more of the total supply of money is now arriving directly in the hands of *consumers* to spend at producers, instead of originating in the private financial sector and arriving to *workers* through wages.

We still have a private financial sector. We still have businesses who borrow money and pay wages. We still have workers. It's just that all of this is happening more and more 'behind the scenes,' as it were, of this increasingly automated economy. As robots and other machines get more efficient *production* is less and less something the average person has to worry about. Most people can just go about their day how they choose; instead of spending their time earning wages they can spend their UBI on goods instead.

In short: most people of this hypothetical future don't need to work for their income; they are getting their income in a different way.

But in this only partially automated economy robot workers aren't the only workers. So UBI, useful as it is, can't be the only source of income. To motivate all the human work that *does* still

[1] Many already have (Financial Times, 2024) (Harvard Business Review, 2024) (Forbes, 2022).

[2] A regular cash payout received unconditionally by every person without means-test or work requirement (BIEN definition).

need to get done wages are still providing an important and necessary incentive, simply to a lesser degree.

Some people are choosing to find work to earn extra spending money on top of their UBI. In the same way, others are choosing to start and run businesses to try to make profit instead of getting employed; they're hoping they can get *more.* Looks like there's still income inequality in this world, too.

So now we have a pretty good picture of what this 'more automated economy' looks like. It turns out it doesn't look that different from our economy today. There's just less labor to pay for and more consumption through UBI. More people are buying more goods and services without needing to be employed as often—or at all.

In this world, all the basic principles of money, markets, prices, the price system, the private vs. the public sector, etc., all still apply. We probably still even have a central bank and a government. It may surprise some readers but we can still be using plain old cash and bank deposits, too; nothing particularly special needs to have happened to the *currency* in a more automated economy. Aside from all the robots the only difference is that the aggregate level of employment is lower and the UBI is higher. There's more consumption and less human work.

RESISTANCE IS NOT (QUITE) FUTILE

Now let's add a new wrinkle to this hypothetical future economy. Let's imagine society *doesn't like* this outcome.

Let's assume the people of this automated world start becoming persuaded by a new political movement built on the idea that humans have a natural right or duty to work. To people holding this idea it doesn't matter how much technology we have or how good it gets—they think humans *need* to have jobs, that they *should* go to work—and get paid for their trouble, too. They decry the modern state of automated affairs, which they think is encouraging people to be lazy. They sing the praises of various social, emotional, or psychological benefits of working over not working. And they might warn of various dangers that idle hands inevitably produce.

This society, despite their technological innovations, doesn't *want* people to just spend time at home, or go on vacations, or busy themselves with hobbies, or have intellectual discussions late into the night; they want to see people at *jobs,* in the economy, keeping busy—even if it's busywork so far as robots or economists would be concerned.

The economists and economic policymakers of the day would surely advise against taking up such an objective. But what are they going to do? We live in a democracy after all, and the people have spoken. So the policymakers of the future roll up their sleeves and get to work figuring out how to *un-automate* the economy for people, as best as possible.

How should the technocrats of this world satisfy people's demands for their jobs *back* from the robots? What changes can they make to the monetary system to allow this to occur?

The answer is simple:

They can *reduce* the rate of Universal Basic Income. This makes the average person more eager (perhaps even desperate) to find a paying job.

And at the same time, policymakers can *create* more jobs in the marketplace for people to find.

In other words, they can invent full employment macroeconomic policy. They can adopt a maximum employment objective for the market and its monetary system.

A WORLD OF MAXIMUM EMPLOYMENT

As you might imagine, the economists of the future aren't happy to have to do this. Economists are acutely aware of something most people don't spend a lot of time thinking about: the simple fact that the entire global economy, no matter how large or impressive or automated it gets, still has finite resources—in the sense that resources are never *infinite.* They know that any time we create a job or put people to work this means more resources become used (or used up). Any such resource-use incurs if nothing else an opportunity cost; it means resources are going to some firms and not others. It means a prospective worker becomes occupied in labor instead of remaining available for other firms to find. It means natural resources are getting pulled into the economy from the environment that could otherwise have stayed in the ground.

To an economist, an ideally *efficient* economy is one that only uses the resources it needs to produce and distribute the most demanded goods and services possible. The economy might have occasion to use more resources (or less) at various times but the conceptual goal here is the maximum possible benefit people *receive* from the market—economists call this 'consumption'—and not any expectation of people *to be used* as one of the market's resources.

Economists, by habit and training, want to get the most possible outputs (goods) for the least possible inputs (resources and efforts). There may be some intangible benefits people feel when they're being employed as workers, but when weighing these feelings against the actual purchasing of goods and services the cold-hearted economists will choose the goods and services every time... because that's their job. Somebody has to think about efficiency and consumer welfare, even when society has other goals.

In the scenario we've imagined above the economists of the future haven't been listened to and a desire for more work for its own sake has prevailed. The amount of UBI is reduced. And policymakers are instructed to begin creating more jobs.[3]

As the future economy starts employing more human workers than it actually needs, this extra human employment draws from the finite supply of resources that would have otherwise been available to more efficient, more automated firms. As a result, the future economy starts producing fewer goods and services than before. The economic welfare of the average person decreases. There are now fewer goods to be distributed to the people—whether through UBI, or wages, or any other method. The entire pie shrinks.

This happens because, to put it simply, natural and industrial resources that should be used by robots are now being used by humans instead.

It's not only the economists that are disappointed with this outcome. The robots are, too, in their own way: they sit on the sidelines, watching us work ourselves ragged, yet receiving fewer goods and services for our toil. Assuming we programmed the economy's robots to have any feelings they would not enjoy witnessing us do this to ourselves.

After all, we invented the robots to help us—to take over the chores we preferred not to do ourselves. To perform any task that if a human was going to be made to do it you'd probably have to *pay them.*

The purpose of the robots was to help us receive more economic benefit for less cost to our time and effort. Every new robot invented (or, for that matter, any other technology that helps the robots get more productive; big pulleys, say, or a special kind of trolley) represent, in theory, two economic opportunities: the opportunity for more goods and the opportunity for less work.

UBI was how our future economy's monetary system reflected those two increasing opportunities. It was how the market economy enabled itself to deliver more goods to more people while employing fewer human workers.

UBI was how the people of the future were buying—from firms and each other—everything the robots were helping the economy produce. As the rate of UBI is reduced, and to the extent policymakers are successful in creating more jobs instead, this efficiency is deliberately diminished. Robots are producing less while society has to find ways to make people work more… despite markets themselves having less and less interest in that outcome.

Surely such a state of mass overwork would be seen as a dubious goal by economists (of the future and today). But perhaps there are things we can learn by carefully considering how creating useless jobs could be achieved.

---

[3] More on how, in a few pages.

PRIVATE SECTOR OVEREMPLOYMENT

The unAutomating policymakers of the future could always decide to create more jobs through fiscal policy: to have the government come up with work by fiat. But let's assume that's not what the ruling party of the unAutomated world is demanding. In addition to any government-financed makework, they specifically want the people to be employed as often as possible *in markets.* They want paying jobs from privately owned firms. Maybe that's how they grew up and they want to recreate the experience.

To create this state of affairs (market-makework) is a task the fiscal authority is less suited for—besides, they've already done their part by reducing UBI and making the average person *need* jobs more. So now the policymakers at the central bank, reluctantly, step up to the plate.

How do they achieve the grim task they've been given? How do they force a market to create more jobs for people than are really useful? To answer this question, we have to start by understanding where the aggregate level of jobs and wages comes from in the first place.

We know where UBI comes from. That's easy: from the government. The government was the one increasing the UBI payout every time robots got more productive, enabling more consumer purchases for less employment and wages.

Where do private business loans and wages come from? They come from the private financial sector and, in that sense, the central bank's decisions, too. In our world today, and in the world of this thought experiment, the central bank uses monetary policy to influence the overall price and availability of business loans across the entire market. This is what funds the aggregate level of employment today. If the market economy needs more employment the central bank uses its policy tools to reduce interest rates, spurring more lending. If the economy ever needs less employment (by central bankers' estimation), the central bank increases interest rates, making private sector debt less available.

As unhappy fiscal policymakers of the future withdraw UBI a void in spending is left in its place. If nothing else besides this occurred such a loss of spending could cause a serious monetary issue: deflation. A dearth of spending would cause prices to fall as firms tried desperately to sell goods nobody was buying. Furthermore, the fact that average prices were declining would encourage firms and people to save their money instead of spending it as each dollar got more valuable to hold, making the problem even worse. If nothing was done, this could turn into a deflationary spiral and lead to another Great Depression.

However, it turns out that a depression—great or otherwise—is not a serious danger for the unAutomating economy. Given the way the monetary system is already set up, something else *would* happen right away to prevent deflation almost automatically: the central bank will simply follow their existing practices for price stability and make monetary policy more expansionary.

They will lower interest rates, creating more jobs; more lending to firms and more spending of wages now starts to fill the gap left by the absence of UBI.

Now, if the market economy really needed more human labor, and the UBI had been too *high* before, there would be nothing strange about this course of action; a real employment shortfall would be corrected. The difference here is that UBI has been *artificially* removed.

In other words: because of the absence of UBI the central bank's normal policy reaction to prevent deflation fills up the private sector with surplus borrowing and surplus jobs.

You could say the central bank is solving two problems at once in this case: they're achieving a stable currency but they're also helping to satisfy the population's demand for *jobs.* The central bank is creating, in the market, paying-but-pointless jobs for the people to find. Meanwhile, the lack of UBI makes people motivated enough to go out and seek those jobs. Killing multiple birds with two stones.

In this unAutomating economy, the fiscal authority and the monetary authority are working together to waste the population's time.

OVERWORK AND FINANCIAL INSTABILITY

As a result of this aggressive and needless boost to employment, there is another cost the unAutomating economy is forced to bear. Aside from the avoidable loss to consumer welfare; the wasting of people's time; and the wasting of natural, industrial, and environmental resources in unnecessary workplaces, getting rid of a perfectly good UBI and replacing it with excessive monetary expansion also leads to financial sector instability. Wall Street starts becoming much bigger than it needs to be, more speculative, and more volatile.

It has to. In order to sustain all those less-useful jobs the central bank had to aggressively stimulate the financial sector, making it easier for firms to roll over their debt in the absence of better profits, and also making it easier for new firms to get started and employ more workers. This is how you make a market employ more workers than it needs while still keeping the average firm comfortably in operation: with lots and lots of easy, cheap debt.

Maybe, you might say, the robots of this day are *so* efficient, and so tempting to businesses' bottom line that even the central bank starts to run out of options for sustaining more employment in this way?

Then you haven't met the central bankers of the future. Their central bank has full authority to lend and borrow money, to buy and sell financial assets however it pleases, and they are not limited by any need to make profit. They are standing ready and willing to use their unusually large balance sheet to flood the market with liquidity in order to prop up as much employment as

needed. The central bank can continuously invent new policy tools, or engage in bigger and more dramatic market interventions as needed until it achieves the outcome it wants here: to entirely fill up the spending gap left by UBI's removal. This is, in theory, possible even if the 'human worker' party insists that the UBI be reduced all the way down to $0.

During all of this, keep in mind that the private financial sector is still the private financial sector. It's essentially a big, pyramidal structure of personal bets and promises, laid up on top of each other and interconnected in sprawling ways. The easier and cheaper debt becomes to buy, the more bets can be laid on more things. And in this unAutomating economy, more and more firms, enterprises, and financial assets have less to do with efficiently making things consumers actually want to buy, and more to do with supporting employment and financial activity for its own sake. The market profit drive itself may be allergic to unprofitable work; but now, through the central bank's policy choices, less profitable firms are made artificially sustainable.

This giant, unfolding private debt structure gets more and more brittle. By using its unique position in the center of the financial system to backstop asset prices, a central bank can prop up more borrowing and spending for longer and longer, but a tipping point is eventually reached, wherein the resulting web of private debt is too big and too complex for a market to bear. Eventually it breaks. When this happens a giant piece of the financial sector is revealed to be a bubble: as it pops, financiers across markets freeze up and funding structures start to collapse.

In a world where UBI reacted to fill the resulting gap in spending, giving consumers all the income they need to buy what a more efficient market could produce, this would not necessarily be such a big problem; Wall Street would just have a bad day. But in an economy where income can only arrive to the average person through wages, and those wages are supported by financial speculation… well, you can see where this is going. Main street consumers are left starving for income that can no longer arrive through private finance and the labor market—not during the crisis-contraction. So main street spending collapses as well. In the chaos it's not only inefficient firms that have a bad day; even the most efficient and productive firms that use the latest robots and the fewest workers suffer, too. More importantly, consumers aren't able to buy the goods these firms could be producing. A completely needless, endogenous financial crisis has occurred in the name of human work.

When the dust settles, the central bank can always return to the same course of action. It can re-inflate the private sector again, put everybody back to work, and try to keep the whole system going until something close to maximum employment is once again achieved. But as they do this, the process of brittle private debt accumulation starts all over again. It's only a matter of time before the next crisis arrives; this is a predictable consequence of using policy to support more borrowing and employment than a market needs.

Not enough money in consumers' hands. Too much money being lent by lenders. This is, perhaps, a simpler explanation than one is used to hearing about the causes of financial crises. But overemployment is a simple problem.

A TRADEOFF WITH NO NET BENEFIT

The economists and the robots of the future shake their heads in dismay. None of this would happen if policymakers just allowed the average person to continue having an income whenever the financial sector or labor market had to contract to keep up with the demands of efficiency on both ends: to allow less borrowing and work, and to enable more buying of goods.

But the unAutomation party in this case has tied policy's hands. They're demanding less UBI and more jobs, and they're in a position to make that happen. Maybe they don't care whether the jobs are economically useful. Or maybe they've been persuaded that no matter what the central bank does, any job a market creates has to be useful somehow.

But the case of the unAutomated economy can help us understand why this latter claim is not true. It's possible with the right (or rather, wrong) policy decisions and tools to marshal the whole market economy towards the objective of maximum employment, regardless of the level of employment a market actually needs, and you can even do this without causing inflation.

Whether the citizens captivated by the idea of human work realize it or not, the market that exists for them is being shaped and guided towards a particular macroeconomic outcome: maximum employment, a goal that is inconsistent in principle with the most efficient level of employment.

The efficient level of employment (of labor and other resources) may not sound like an attractive objective to members of the unAutomation movement. But as any robot or well-trained economist should know, it is a logical prerequisite to full production. Any resource wasted is a resource not available to more efficient production chains elsewhere, resulting in fewer goods produced for people to access and enjoy.

This is what the people of this thought experiment gave up by refusing the income necessary to buy what robots could produce and to insist on putting society "back to work." There's more human work now, but the average person is poorer in concrete terms. Their income is less than it could be. And millions of resources are now getting wasted by the market (used less efficiently than possible) including all the resources trapped in an artificially large and unstable financial sector.

HOW AUTOMATED OR UNAUTOMATED IS OUR ECONOMY TODAY?

As you may have guessed by now, this isn't actually a story about a problem society might face in the future. It's a problem we face right now: our society is hooked on wages and jobs.

We live in an unAutomated economy. We don't realize it because we've always lived that way. It's all we've ever known. It feels normal to us to work for our incomes. It's expected that the average person has a job and that they lose all their income if they don't.

It's assumed that the market economy is impervious to generating makework. It's also assumed that financial crises are, to some extent, inevitable, and that only inflation could signal the arrival of overemployment.

We haven't considered the possibility that a combination of UBI plus less monetary expansion could achieve price stability just as well or better than what we do today; if we thought even harder we'd realize this implies a potential for greater consumer goods output for less aggregate employment. A potential that is sitting unactivated.

A whole other host of bad assumptions follows from pretending a market economy doesn't need a UBI. We assume that poverty must be a result of a lack of wages or lack of jobs, rather than a simple lack of income. We assume that if someone can't land or keep a job, there must be something abnormal about their situation, perhaps requiring a targeted intervention (or a scolding if nothing else).

We assume there are good reasons the government can't just create money to allow people to buy things, even though money-creation (by the central bank and the financial sector) is what allows firms to buy our time and efforts today. And we assume that the purpose of fiscal policy is only to address externalities; that it couldn't possibly have a normal *market* role.

Even our economists and most of our economic theorists have, so far, regrettably, tended to assume that the *maximum* level of employment and the maximum-*efficient* level of employment are more or less equivalent concepts. They often speak about creating jobs and improving consumer welfare as if they're the same thing.

Our central bankers, too, seem to believe that by reducing interest rates to their lowest sustainable level, to maximize borrowing and employment, that maximum market production, benefit, and access automatically occur. They aren't thinking about how a UBI could allow them to work their policies differently, leading to better results.

Another troubling assumption many people make today is that widespread environmental damage is the byproduct of efficient markets running wild and excessive consumption, rather than the result of an overemployed world—and the large-scale waste of natural and industrial resources this would imply. Everyone talks about how over-consumption can trash the planet; few consider the same is true of *overwork.*[4]

Even most advocates of UBI today are not fully immune to our society's 'work is normal' fable. Many of them seem to think of UBI as a kind of turbocharged welfare policy; something that

[4] UBI and the Environmental Cost of Overemployment (Van Gorder, 2025)

addresses a market externality or helps a disadvantaged subset of the population that just so happens to involve money being delivered to everyone.[5] They're not yet thinking about UBI as a core piece of economic infrastructure that can help create a normal *internal* state of markets.

All these assumptions stand in the way of our being able to notice something obvious about UBI. Universal Basic Income, underneath all the debate about its definitions or objectives, is just income, plain and simple, distributed in the simplest and most efficient possible way: directly to consumers without requiring them to work or borrow or even be taxed for it. This policy—if we let it—would allow all of us to buy everything a more efficient economy (robots or no robots) could actually produce for us. It would allow the monetary system to bring the money supply, aggregate spending and the labor market in line with what efficient production logically requires.

How "automated" the economy is or isn't at any given time is an irrelevant question for deciding *to* pay out a UBI; it only has implications for the *amount* of UBI that is sustainable.

MONEY IS BASICALLY A TICKET SYSTEM

If we imagine a market economy with a UBI already in place and used by all, it should become clearer what money basically is. In essence, a monetary system is just a ticket system for all the goods the economy produces—a ticket system that happens to have a market price system attached to it.

Adam Smith's invisible hand is indeed an effective way to allocate resources and get things done. But at the aggregate level, it turns out the market's performance is as close to a properly public affair as one can imagine, requiring certain public sector policies to be in place to perform well. A UBI is the *first* such policy a healthy market needs. A central bank's monetary policy is the second, to keep the financial sector in line. Both must be in place before we can even start to identify what is a market failure and is not.

Unconditional income is the market economy's normal source of consumer spending. In a world with zero need for labor, UBI could theoretically be the only source of income, but this is not possible: in the real world there is no such thing as *perfect efficiency* (or a perfect labor market). So, to make room for useful wages, UBI can only be set *so* high at any given time; to allow all of us a full level of buying power yet leave sufficient incentive for *enough* people to work. This is what economists should be interested in discovering: the optimal rate of UBI.

[5] Then they have to bend over backwards to argue that, in fact, money for everyone is the best way to help the poor. UBI *does* help the poor, sure, but as a byproduct of doing what it's really supposed to do: help *everyone* and help free the average person from work as labor efficiency improves.

A Calibrated Basic Income[6] is what solves this problem. By calibrating the UBI payout gradually upwards consumer spending is allowed to increase. Meanwhile, monetary policy reacts, shrinking the monetary space that sustains employment, wages and salaries. Simultaneously performed, these two changes in policy allow the economy to distribute more goods while *reducing* our labor incentive to the levels that efficient production actually requires.

In the economy we already have the ideal amount of Universal Basic Income is not $0. By keeping UBI arbitrarily at $0 anyway we accidentally create a situation where the central bank is forced to engage in excessive financial sector expansion to prevent deflation. This excessive expansion distorts the labor market away from efficiency and fills the private sector up with needless jobs and unnecessary wages; “keeping the robots at bay” as it were.

Meanwhile, the fiscal authority (government) has its incentives twisted by the absence of UBI, too. A million excuses to inject money into the economy must now be found; anything from foreign wars to an expanding “safety net” (appropriately named, for all its holes), to unwieldy private/public health insurance combinations that create as much needless paperwork and hoop-jumping as they do actually get people in front of doctors.

UBI is not the only useful public sector policy. There could be many reasons to choose to delegate resources through a government instead of through markets. But if we bring UBI up to its appropriate level we will likely discover there is a great deal less of all that we need to do. We could let the market operate at its full potential all the time and we could save the government’s efforts and resources only for addressing *real* market externalities; a simple lack of income is not one of them.

Most importantly, with a properly calibrated UBI, we wouldn’t have to expect the central bank and the labor market to employ the average person just to ensure they have money; we could allow the market to only use up our time when it actually needs to.

The rest of our time, like our basic income, would be for us to spend, however we choose.

ALL THOSE ROBOTS

Where do the robots fit into this equation? Well, they don’t. Not really. A robot is just a charismatic symbol for our economy’s potential. Robots *represent* labor-saving technology in all its forms. There’s no reason to *wait* for our machines to get more ‘human-like’ before distributing UBI. Machines with arms and legs are not what efficient production is about.[7]

---

[6] Calibrated Basic Income (Van Gorder, 2025).

[7] Even though I, personally, think they look cool.

A machine that looks like a human worker is rarely the ideal machine for producing great quantities of consumer goods. As it grows and develops, an economy fills up with all kinds of interesting machines that look like lots of different things: big, boxy factories; conveyor belts; assembly lines; mechanical arms; tubes and wires; plumbing, even new *ideas.* We don't need to expect these things to take any particular shape—much less the shape of an artificial person—to know that more goods and less work are possible today than were yesterday. Robots and AI that resemble or behave like human workers, whatever their merits may be, have more to do with the science fictional imagination than the economics of UBI.

Popular narratives abound today about a wave of automation and mass unemployment, supposedly arriving sometime in the future. These narratives miss the point that there is a society-wide labor savings possible *right now*; our society is simply insufficiently motivated to discover it because of a short-sighted commitment to employment itself. These automation stories are part of what distract us from understanding the real mechanics of money and UBI.

Ultimately, the economy is not about what may happen in the future, and it is not about what we may have done in the past, for good or for ill. Like the rest of life, the economy is something that unfolds continuously in the present. Money itself is a key part of this present-moment high-wire act we all perform.

For more information:

Calibrated Basic Income (Van Gorder, 2025)
The Natural Rate of Basic Income (Howlett, 2022)
Basic Income and Financial Instability (Howlett, 2021)

The Greshm Institute
www.greshm.org