

Basic Income Guarantee

Why it Would Work Better With a Land Tax

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- Henry George
New York, 1883

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INTRODUCTION

A widening wealth gap, a marginalized middle class and growing concerns about robots and artificial intelligence (AI) displacing millions of workers is fueling intense debates on the adequacy of social safety nets in advanced capitalist economies. These concerns have only become more conspicuous in the aftermath of the Covid 19 pandemic; with mandatory lockdowns and ensuing disruptions in labor markets.

One idea that has garnered tremendous attention in the search for solutions is basic income guarantee (BIG) – the idea that society must provide funds to individuals, without condition, without means testing, and without work requirements or any other stipulations, to help cover their basic needs. As revolutionary as it may sound, such a proposal also raises important questions of its own when it comes to addressing how one would pay for it.

This paper discusses the robot tax and the value added tax championed by Andrew Yang; and lays out the case for the land tax as a superior alternative to both.

It is important to stress that although AI and the mass adoption of robots are widely believed to be the key forces behind the push for basic income guarantee, our purpose in the paper is not to argue for or against the validity of such claims. Rather than that, the focus here is on how to fund a basic income once we decide to have one, and why the land tax is best way to achieve this.

This paper is divided in three sections. First, we define basic income guarantee, trace its historical roots and outline the main arguments for it. Next, we discuss two funding ideas for a basic income; the robot tax and the value added tax. Finally, we discuss the land

tax and explain why it is a better alternative.

1. Defining Basic Income Guarantee

Basic income guarantee, also known as Universal Basic Income (UBI) is an income support scheme for all or a large part of the population, granted unconditionally or on minimal conditions.

It has been the subject of passionate debates, both in academia and in the public sphere and yet, there does not seem to be a consensus on a proper definition. Very different benefit programs have been assimilated to universal basic income when they have little in common with it and are not used for the same purpose.

Recently, basic income has been tried in many countries but these experiments, past or ongoing, consist in very distinct forms of interventions. From temporary cash transfers to a small group of unemployed people in Finland, to adults in Kenya for a period of twelve years, or to randomly selected households in California. This diversity testifies to the absence of a commonly agreed upon definition and evaluation methodology of basic income guarantee.

Different configurations have been proposed throughout history. Thomas Paine's land rent (1797) is similar to a specific capital subsidy aimed at breaking the circle of poverty from one generation to another. For Milton Friedman (1968), the negative income tax could supplant the welfare state and do away with administrative inefficiencies.¹ Philippe Van Parijs (1995) favors a regular, universal, generous and unconditional cash transfer.² Anthony Atkinson's (1996) participation income³ would complements existing social benefits with minimum income. It is conditioned by a form of social participation -

1. Friedman, M., (1968) *Capitalism and Freedom*
2. Van Parijs, P., (1995) *In Real Freedom for All: What (if anything) can justify capitalism?* Clarendon Press, Oxford.
3. Atkinson, A. B. (1996) *The Case for a Participation Income*, *The Political Quarterly*, January 1996, pp.67-70
Retrieved from: <https://doi.org/10.1111/j.1467-923X.1996.tb01568.x>

employment, education, childcare or other activities. The range of models is wide, but two common denominators distinguish basic income from other types of benefits:

- Universality or near-universal coverage of members of society.
- Unconditionality or presence of a very general condition, as in the case of Atkinson's participation income.

Supporters and detractors highlight different aspects of basic income guarantee, and there seem to be as many arguments for as against it. Some point out that basic income would serve the poor better than means tested programs. Indeed, many factors have prevented those programs from reaching those who need them the most: bureaucracy, high information and administrative requirements and costs, poorly designed targeting mechanisms, and social stigma.

In theory, basic income could reduce administrative costs and increase the transparency of transfer systems, making them less prone to discretionary practices and corruption. Its proponents present it as a useful instrument to support low income households. This ability to help the poor while doing away with excessive government bureaucracy may explain why even those who are traditionally opposed to welfare policies are attracted to the idea of basic income.

On the other hand, opponents argue that providing money to people with no strings attached could encourage a culture of non-work that would negatively impact the economy. They also believe that any meaningful basic income scheme would be extremely expensive and place a heavy burden on taxpayers. It is however interesting that in the United States both conservatives and progressives view the idea of basic

income favorably, even if they may disagree on the ultimate goals or way and means to implement such a policy.⁴

2. Origins and Evolution of the B.I.G. idea

The idea of a living income, paid to everyone universally and unconditionally is not new. In fact, it traces its intellectual lineage to Thomas More who saw it as a more astute way of fighting theft than sentencing thieves to death, which he thought had the unintended side effect of increasing the murder rate.⁵

However, towards the end of the 18th century, the idea re-emerged through the political philosophy of Thomas Paine. Paine even envisioned a funding mechanism to pay for his proposed scheme. In *Agrarian Justice* (1796), he argued that land is a natural heritage and a common good. Consequently, agrarian reforms that legitimized private property in land must be counterbalanced by a fair compensation resulting from the taxation of the agrarian rent to be paid to each citizen equally.

In 1796 he wrote:

“Cultivation is at least one of the greatest natural improvements ever made, but it has dispossessed more than half the inhabitants of every nation of their natural inheritance, without providing for them, as ought to have been done, an indemnification for that loss, and has thereby created a species of poverty and wretchedness that did not exist before.”⁶

Paine's solution, a “ground rent” of £15 to be paid to every individual upon turning 21, followed by £10 every year after turning 50. He argued that “every person, rich or poor, “should receive the payments to

4. Conservatives in particular like the idea because they see it as a possible conduit for replacing the welfare state system with a cheaper, less cumbersome and less bureaucratic alternative. For a discussion of the Conservative and Liberal argument in support of basic income, see Gordon, N. J., "The Conservative Case for a Guaranteed Basic Income" *The Atlantic*, August 6, 2014 issue.

5. More, T., *Utopia* (1st Latin edition, Louvain, 1516), English translation by Paul Turner, Harmondsworth: Penguin Classics, 1963, p. 43-44.

6. Paine, T., (1796) *Agrarian Justice*, p. 611.

prevent what he calls “invidious distinctions.” The idea of funding a social safety net for all from the proceeds of land values has also found its expression in Henry George’s notion of a “citizen dividend.”⁷

While the “agrarian” case for basic income differs from the proposals being debated today, it shares many of their philosophical or ethical premises: the idea of a common good, wealth, or natural resource that belongs to the community as a whole and that must be shared equally among all its members. It should not really matter whether it is urban land or a natural resource, like oil.

But, let us ask why this idea, which has existed in political philosophy for more than two centuries and periodically reactivated, mostly in non-mainstream circles, is now being rediscovered not by marginal outsiders but by some mainstream social reformers and policy makers. It is probably in the texture of the contemporary world that we must look for answers.

Our era is characterized by an unprecedented wave of technological innovation that is only at its beginnings. The *fourth industrial revolution* as it is commonly referred to, represents a paradigm shift characterized by digital integration. This technical revolution has ushered in what became known as “economic singularity”⁸ characterized by the complete disturbance of existing economic and social structures that have already been seriously challenged by the third industrial revolution, (that of information and communication technologies). While still in its infancy, this new wave of innovation promises unprecedented disruptions with spectacular progress in the field of augmented reality, artificial intelligence, robotics, etc.

Major consequences are to be expected on the economic and social fabric of society as a result of what came to be known as “technological unemployment”. There is no consensus within academia on the impacts of this phenomenon, but there is a probability that the net balance of jobs created compared to jobs destroyed will be negative, for the simple reason that machines may replace labor not just in tasks of execution (as initially thought), but in conception and design as well. There is no question that some of this technology would be labor-enabling and will therefore make workers more productive. However, there is also mounting evidence that some of it is labor-replacing. A report from the World Economic Forum estimates the net destruction of jobs caused by this wave of technical and scientific innovation between 2015 and 2020 at 5 million⁹. Carl Benedikt Frey and Michael Osborne predict that 47% of US jobs could be eliminated by the digital wave.¹⁰ The job displacement is likely to affect many sectors of the economy and it could happen simultaneously.

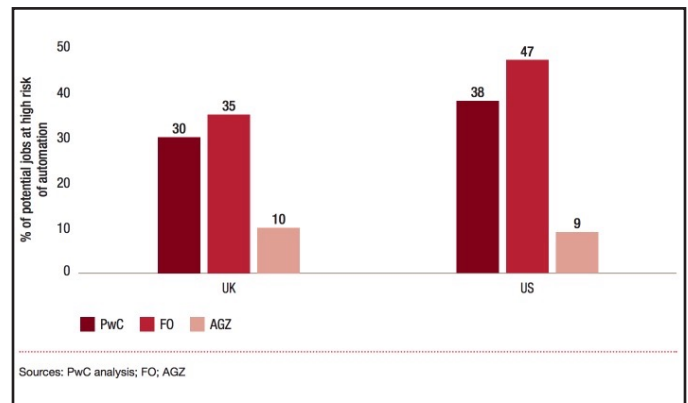


Fig.1. Proportion of Jobs at Risk of Automation

Routine and repetitive tasks are no longer the only ones threatened as robots will soon be able to perform architectural programming tasks, medical diagnostics, or even legal consultations. Predicting with

7. George, H., *The Crime of Poverty*. An address delivered in the Opera House, Burlington, Iowa, April 1, 1885
 8. Chace, C., (2016) *The Economic Singularity – Artificial Intelligence and the Death of Capitalism*
 9. *The Future of Jobs Report*, World Economic Forum, January 2016
 10. Frey, C.B., and Osborne, M., “The Future of Employment: how susceptible are jobs to computerization”, Oxford Martin School, September 2013

precision the impact of this technological unemployment is of course absolutely impossible. It will depend on the speed of innovations linked to artificial intelligence and robotics, but also on social, hence political resistance to the progress of the machine, as well as on the economy's capacity to invent new non-displaceable human jobs. In addition, so-called "interaction" tasks that require soft skills are likely (for now) to hold up much better than "production" or "transaction" jobs.

The erosion of the middle class on the other hand, is a well-documented economic and social phenomenon that has been in motion for over thirty years. To make a parallel between the current situation and the debate on the impact of free trade on the working class during the last wave of globalization, it is helpful to quote these lines from Martin Sandbu:¹¹

"For too long, political decision-makers and economists have ignored the high price paid for certain economic changes that were thought to be profitable to all. Certain developments in world trade have ravaged entire parts of the Western social body, at the same time it was argued that free trade would only bring benefits. In reality, the macroeconomic benefits have been accompanied by concentrated damage in some areas, and the devastation to local employment has lasted longer than economics predicted."

The fear that a disturbing re-stratification of jobs within society is indeed real. For example, between 1993 and 2010, middle class jobs fell by 9% in the United States, 10% in France and in the United Kingdom and by 7% in Germany¹² under the influence of technological changes brought about by the third industrial revolution. There is a widely shared belief that the fourth technological revolution that is underway would be even far more disruptive.

According to Randall Collins, a fully digitalized economy will necessarily generate fewer opportunities and mass unemployment with a huge number of workers competing for menial and poorly paid service jobs.¹³ A 2019 report by the OECD¹⁴ suggests that these concerns are supported by existing data. Moreover, early studies on the platform economy show that this phenomenon is also prone to deflationary tendencies.¹⁵ So, unlike past trends, a complete de-synchronization between technological progress on the one hand, and human and social progress, normally sanctioned by full employment and a sustained rate of growth, on the other hand; cannot be ruled out.

The result of these macroeconomic developments is in any case overwhelming. The wage system, which designates the legal and economic form of employment *par excellence* under capitalism since the second half of the 19th century, is threatened in its very

11. Sandbu, M., "The Shock of Free Trade", Prospect Magazine, July 2016.

12. Goos, M. et al., "Explaining Job Polarization: Routine biased technological change and offshoring", American Economic Review, vol. 104-8.

13. Collins, R., "The End of Middle-Class Work: No More Escapes", in Does Capitalism Have a Future? Oxford University Press, 2013.

14. OECD "Under Pressure: The Middle-Class Squeeze". Retrieved from: <https://www.oecd.org/els/soc/OECD-middle-class-2019-main-findings.pdf>. In the same vein, a 2018 study by Acemoglu and Restrepo from the National Bureau of Economic Research suggests that in the United States, automation and robots are impacting negatively on employment and wages although productivity is positively affected. See Acemoglu, D. and Restrepo, P., "Robots and Jobs: Evidence from US Labor Markets" NBER Working Paper No. 23285, issued in March 2017.

15. Teulings, C. and Baldwin, R., (eds.) Secular stagnation: facts, causes and cures, CEPR, 2014. See also the 2018 report by Auerhahn, L. et al. "Innovating Inequality – How Tech Business Models Concentrate Wealth Which Shortchanging Workers." This report shows an increase of Silicon Valley's resident per capita economic output by 74% over the past two decades and yet, for nearly 9 out of 10 jobs, employers are paying real lower wages now than in 1997. Retrieved from: <https://www.wpusa.org/research/innovating-inequality/>

foundations by the combined risk of technological unemployment and the disappearance of middle class jobs.

Although not all researchers adhere to this bleak scenario, all seem to agree that the transition between disappearing old jobs and the creation of new ones is not going to be an easy one. For example, a 2017 study by the McKinsey Global Institute found that while there may be enough jobs created to offset the negative impacts of automation by 2030, the transition will be extremely challenging due to the massive shifts in occupations needed.¹⁶

Therefore, many have come to the conclusion that if we can't avoid a massive technological disruption that could put millions out of workers, a universal basic income may be an option to consider.

But while most advocates of basic income frame it as a pragmatic response to technology driven labor displacement, others view it primarily as a question of justice and morality. For Karl Widerquist, basic income is necessary because it is “wrong for anyone to come between someone else and the resources they need to survive”¹⁷. Widerquist does not deny the disruptions caused by automation. However, he believes that a basic income should be construed primarily as a fundamental right, isolated from the vagaries of technology driven shifts in the labor market. In other words, it should be viewed as a monetary cushion to ensure that no one's income falls below a certain level, by providing workers with the option to “say no.”

Regardless of the reasons given for its adoption, both advocates and opponents agree that a nationwide implementation of basic income is going to be a very

expensive endeavor. It is therefore not surprising that controversies abound on how it should be funded.

3. Funding a Basic Income Guarantee – A close look at some proposed schemes

There are two financing options for a basic income guarantee: spending cuts to existing programs and raising additional revenue. A 2017 simulation by the OECD shows that spending cuts would not be sufficient to pay for basic income¹⁸. Additional or alternative sources would have to be considered. Fortunately, there has been a flurry of proposals on how best to achieve this. None of these have been tested yet on a large scale but it is nevertheless possible to make some theoretical projections on how they may work in practice. It is important to stress that any funding approach should be viewed not just from its revenue generating potential but also from the perspective of its overall impact on the wider economy and on society.

Let's begin by outlining some basic normative requirements which any good funding mechanism should meet.

- It should not have the effect of slowing down technological progress.
- It should also fulfill its intended promise, which is to maximize social welfare and minimize income and wealth inequality.
- It should be sustainable in order to guarantee continuity and dependability.
- And of course, it should be just or perceived as such. This is important because if basic income is to be politically viable, one has to address

16. Manyika, J., et al. (2017) *Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages*, McKinsey Global Institute Report. Retrieved from: <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>

17. Widerquist, K. (2017) “Basic Income as a Strategy to Promote Georgist Movement.” Retrieved from: <https://www.progress.org/articles/basic-income-as-a-strategy-to-promote-the-georgist-movement>

18. OECD, (2017) *Basic Income as a Policy Option: Can it add up?* Retrieved from: <http://www.oecd.org/employment/emp/Basic-Income-Policy-Option-2017.pdf>

concerns that it might create undue financial burdens on taxpayers.

Two proposals stand out from the lot: the idea of taxing robots to pay for a basic income and a value added tax, as proposed by Andrew Yang. We will examine these in details.

3.1. Taxing Robots to pay for a Basic Income

As novel as it may sound, the idea of taxing robots to pay for a basic income to displaced workers actually takes its root from a very old argument articulated by the Swiss philosopher Sismondi (1773-1842). He argued indeed that every displaced worker should be entitled to a portion of the rent perceived on the wealth created by the machine that eliminated his job.

More recently, the robot tax was proposed by New York City mayor Bill de Blasio as part of his 2016 presidential bid. In Europe the idea has garnered even greater public attention as Benoit Hamon, the French socialist leader made it the center piece of his basic income proposal¹⁹. In 2017, the European Parliament discussed the robot tax but rejected the idea, arguing it would have a negative impact on competitiveness, innovation, employment and growth.

However, what would perhaps come as a surprise to many is the fact that a prominent figure of the

tech revolution such as Bill Gates has become one of the staunchest advocates of the robot tax. In an interview²⁰ he gave in 2017, he called for a tax on robots, even if that would mean slowing down the speed of robotization. According to Gates, such a tax is necessary because the technology and business cases for replacing humans in a wide range of jobs are arriving fast and simultaneously, and it's important that we give ourselves enough wiggle room to be able to cope with these disruptions. At the same time that the rise of robots shrinks government tax revenues, the fallout from automation will place more demands on government social services with the potential for causing a fiscal crisis.²¹

In other words, our society is not ready for the massive changes in labor markets that have been put in motion by technology and until this is the case, we need a control mechanism and taxing the robots is one way to achieve this.

Though Gates' proposition has generated mixed reactions in the United States and Europe,²² in 2018 South Korea took a modest first step toward a robot tax by curtailing tax incentives for investment in automated machines.²³

The problem with a robot tax, and that, even its proponents admit, is it may slow the pace of innovation. It could also create perverse incentive for firms to develop robot-like machines in an effort to exploit loopholes to avoid the tax, which will undermine the ability of governments to raise enough revenues. Furthermore, unless all countries adopt a robot tax it would encourage robot firms to move operations

19. Hamon, B (2021) "Le temps du revenue universel est venu". Retrieved from: <https://france3-regions.francetvinfo.fr/bretagne/benoit-hamon-temps-du-revenu-universel-est-venu-1896966.html>
20. Delaney, K.J., (2017) "The Robot that takes your job should pay taxes, says Bill Gates". Retrieved from: <https://qz.com/911968/bill-gates-the-robot-that-takes-your-job-should-pay-taxes/>
21. Payroll taxes represent one of the largest sources of tax revenues. If even a modest segment of workers is displaced, the impact on government budgets could be substantial.
22. Atkinson, R. D., "The Case Against Taxing Robots". Retrieved from: <https://itif.org/publications/2019/04/08/case-against-taxing-robots>
23. Yoon Sung-won, "Korea takes first step to introduce robot tax", Korea Times, Aug. 7, 2017. Retrieved from: https://www.koreatimes.co.kr/www/news/tech/2017/08/133_234312.html#

to jurisdictions where such taxes don't exist and potentially weaken the competitive position of nations that adopt the tax.

There is however another serious flaw with the robot tax that is not often acknowledged. Indeed, proponents of the tax assume that when machines replace workers on a massive scale, a significant amount of the national income could be transferred from wages to the owners of the robots (the capitalist) as profits. This may be true in the short term but in the long run and unless we are in a scenario of market dominance or monopoly, competition among firms would drive down those profits to normal levels. However, even robots would need land and natural resources in order to produce stuff for society. This will make land even more valuable and allow land and natural resource owners to extract more rent from the productive economy. The robot tax is based on a misdiagnosis of the fundamental causes of inequality in society.

3.2. Paying for basic income with a Value Added Tax

This idea has found a champion in Andrew Yang, New York's former mayoral candidate, and former contender for the Democratic Party's 2020 presidential nomination. In what he calls the *Freedom Dividend*, Yang planned to give every American aged 18 to 64 years, \$1000 a month with no strings attached. According to him, such a plan would grow the economy, address social problems, simplify and thus improve welfare, and leave Americans happier and healthier.

When it comes to funding his *Freedom Dividend*, Yang proposes a mix of different approaches²⁴ such as a financial transactions tax on Wall Street, a carbon tax, a removal of the wage cap on the payroll tax and other worthwhile measures that would make a dent on America's growing wealth inequality. However, the bulk of the funding for the *Freedom Dividend* would come from a value added tax of 10 percent.

VATs are basically sales taxes levied at each stage of the production process and economists agree that most of the burden gets shifted to the end consumer. In this case the less affluent households who spend a bigger share of their income on basic consumption are more likely to be affected. The VAT is indeed a regressive tax.²⁵

According to the Tax Foundation, Yang's approach is unlikely to produce significant growth on a persistent basis and would negatively impact labor force participation. Recent studies indeed suggest that while VAT decreases are often captured by businesses as increased profit,²⁶ increases are passed on to consumers who end up bearing the burden of the tax.²⁷

Another flaw of a VAT funded basic income, and this is true for other funding approaches save the land tax, is its potential for causing housing cost inflation as landlords raise prices to absorb the extra money as rent. Instead of jump starting the real economy by increasing the purchasing power of citizens as Yang has predicted, it is most likely that the new money distributed as *Freedom Dividend* would be diverted into landlords' pockets in the form of higher rents.

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24. According to Kyle Pomerleau of the Tax Foundation, a 10 percent VAT with a very broad base would raise \$952 billion each year. Removing the cap on the Social Security payroll tax would raise an additional \$133 billion. A carbon tax at \$40 per metric ton would raise an additional \$123 billion. A financial transactions tax would raise about \$78 billion. Finally, taxing capital gains and dividends at ordinary income rates would raise \$7 billion each year. See, Pomerleau, P., Does Andrew Yang's "Freedom Dividend" Proposal Add Up? Retrieved from: <https://taxfoundation.org/andrew-yang-value-added-tax-universal-basic-income/>
25. See Tax Policy Center Briefing Book at <https://www.taxpolicycenter.org/briefing-book/who-would-bear-burden-vat>
26. Benzarti, Y. and Carloni, D., (2017) The Incidence of Value Added Taxes. Retrieved from: <https://voxeu.org/article/assessing-incidence-value-added-taxes>
27. Benedek et al. (2015) Estimating VAT Pass Through, IMF Working Paper, WP/15/215, September 2015. Retrieved from: <https://www.imf.org/external/pubs/ft/wp/2015/wp15214.pdf>
28. Davies, L., (2018) Understanding Economics: To Fix What is Wrong, p.14

4. The Land Tax Alternative

4.1. What is a Land Tax?

Simply defined, a land tax is a tax on the unimproved value of land. It differs in scope from the current property tax in the sense that only the land *per se* is taxed. Buildings and other man-made improvements sitting on the land are not affected. Under a land tax, the fiscal burden actually falls on the value of the location, which is generally determined by what is nearby i.e., people, public infrastructure, public services and other natural or man-made, tax payer funded amenities.

However, a broad definition of the land tax goes beyond the limited concept of real estate. Indeed, Henry George defines land as the entire universe except people and the stuff they produce. According to Lindy Davies, this would include “not merely the dry surface of the earth, but all natural materials, forces and opportunities” from trees in a forest to the electromagnetic spectrum; even the atmosphere that serves as the receptacle for the CO₂ and greenhouse gases produced by human activity would qualify as land.²⁸ Under such a broad definition of land, a pollution tax would be considered a land tax.

Unlike taxes on production, a land tax does not stifle economic activity, nor does it impose extra costs on the economy. Being a tax on economic rent, it is the only source of revenue that could be collected without undermining the productive potential of the economy. It is also easier to collect and difficult to evade. Similarly, taxing land does not reduce the

amount of land, it actually discourages land hoarding and incentivizes productive use. It is essentially a tax on unearned income and all economists worth their salt agree that it is the least distortionary tax. In fact, Milton Friedman famously called it the “least bad tax.”

Compared to other taxes, the land tax was also viewed favorably by most classical economists. Adam Smith for example considered land rents as assets “which can best bear to have a particular tax imposed upon them...”²⁹

But the idea became more popular in the late 1800s thanks to the work of Henry George who made it the central argument of his social reform agenda to end inequality. In his seminal work, *Progress and Poverty* (1879), George argued that poverty in society arises not from the way we produce wealth but from how we distribute it among the basic factors of production, i.e., land, labor and capital.

Land which includes all locations, natural resources and opportunities is fixed in supply. It is not the product of human labor, but it is needed for all production. The owners of land did not create nor produce it and yet they collect an income for allowing others to use it and if they choose, they may withdraw land from use, waiting for its price to appreciate. When good land is held out of use, labor must resort to less productive sites. Rents inexorably rise at the expense of wages and productive investment,³⁰ creating unemployment and chronic boom/bust cycles.

George’s solution – a single tax on land values to replace all other taxes on production. According to

29. Smith, A., (1776) *The Wealth of Nations*, Volume 2, Edwin Canaan, editor (University of Chicago Press, 1976), p.370

30. Land speculation is often (inaccurately) referred to as real estate investment. “Investment” involves the creation of something new that enhances future production. But as Rick Rybeck put it, “.... buying and selling land creates nothing; it’s what you do on the land that creates value. Land speculation in

George, this would return to society the values that society itself has created. It would eradicate land speculation, make land more available, lower rents and prices, and allow producers to keep more of what they produce (which would incentivize more production and thus more employment). Finally, relying on land rents to finance public services would free labor and capital from the burden of crippling taxation. George even argued that some portion of the revenue collected via his land tax could be used to pay a dividend to every citizen.

Followers of George have expanded his theories and conducted empirical studies to validate his claims. The Henry George Theorem for example stipulates that the value of land in a city is a function of the public investment in that city's infrastructure. Under certain ideal conditions, aggregate spending by government will be equal to aggregate land rent; thus, 100% of a city's revenue needs could be provided by a levy on its land rents.³¹

But besides the economic efficiency argument, advocates of the land tax also contend that it is the fairest tax. This contention begs the almost inevitable question, how are land values created? Or better perhaps, who creates land values?

According to Adam Smith, land values are derived from the collective efforts of the community. As a society progresses and becomes richer, its land values

grow accordingly.

In Book 1, Chapter 11 of the *Wealth of Nations*, Smith noted:

"All those improvements in the productive powers of labour which tend to directly reduce the real price of manufactures tend indirectly to raise the real rent of land....every increase in the real wealth of society, every increase in the quality of useful labor employed within it, tends indirectly to raise the real rent on land."

In other words, every improvement in productivity, every increase in society's wealth in general, translates into higher land values, which are then captured by whoever owns the land. Indeed, land values tend to be higher where productivity is the highest. Land in wealthy areas tends to fetch higher prices than in blighted areas. Those are also the areas where population density is generally the highest.

A standard rule of thumb in urban economics is that higher density causes higher land prices which in turn causes higher rent/sq. ft. A simple observation of population maps around the world shows a positive correlation between density, distance and rents; which is a reliable proxy for land values.³²

itself is just gambling. It is betting that the work of the community will enhance land values, without contributing to that enhancement." See, Rybeck, R., (2019) If the Land Value Tax is Such a Good Idea, Why isn't it being Implemented? in You Get What You Tax For: How Land Value Tax Can Help us build Prosperous Places. Retrieved from: <https://www.strongtowns.org/journal/2019/3/8/if-the-land-tax-is-such-a-good-idea-why-isnt-it-being-implemented>

31. This idea was initially articulated by Gilbert M. Tucker in his 1958 book *The Self-Supporting City*. It was later adopted in mathematical models by economists such as William Vickrey, David Robinson and Richard Arnott.
32. Zhang, D., and Jiao, J., (2019) "How Does Urban Rail Transit Influence Residential Property Values? - Evidence from An Emerging Chinese Megacity", *Sustainability* 2019, vol. 11, p.534. doi:10.3390/su11020534. In the same vein, see the Henry George School's Land Value Calculator, for a rough estimate of how much land values can be collected in the United States <https://www.hgsss.org/lvt-calculator/>

33. George, H., (1879), *Progress and Poverty*, Book 4, pp.227-255

34. Charlier, J. (2004) [1848] "Solution of the Social Problem or Humanitarian Constitution, Based upon Natural Law, and Preceded by the Exposition of

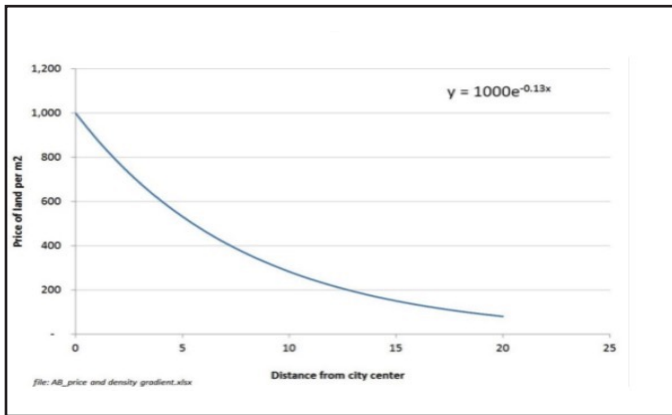


Fig.2. Profile of Land Price Changes by Distance from City Center

Smith's insights were later echoed by Henry George in *Progress and Poverty*. George identified two important channels through which drive up land values.³³

The first of these channels is population growth, which causes demand for land to rise. Land being an inelastic asset, higher demand is not balanced with greater supply but by higher prices. Population also increases land values by adding to its productivity and its desirability. As George wrote in *Progress and Poverty*:

"The most valuable lands on the globe, the lands which yield the highest rent, are not lands of surpassing natural fertility, but lands to which a surpassing utility has been given by the increase of population."

The second factor that correlates positively with land values is what George calls improvements in the arts of production. According to George, technological progress increases the productive powers of society and by doing so, requires more land to be used.

In Book 4 of *Progress and Poverty*, he emphasizes that:

".... every improvement or invention, no matter what it be, which gives to labor the power of producing more wealth, causes an increased demand for land and its direct products, and thus tends to force down the margin of cultivation, just as would the demand caused by an increased population. This being the case, every labor-saving invention, whether it be a steam plow, a telegraph, an improved process of smelting ores, a perfecting printing press, or a sewing machine, has a tendency to increase rent."

Both factors, i.e., increased population and improvements in the arts of production act independently or in combination with each other to cause land values to rise. The fact that both are enabled by the efforts of the community makes land rent the fairest tax base of all, as it is not earned; it is windfall income, entirely the result of being well situated in any market of scarce natural resources and where community demand and social progress (rather than one's own efforts) leads to an appreciation of land values.

4.2. Why fund a Basic Income Guarantee with a Land Tax?

There are a number of reasons why one would want to fund a basic income guarantee using land taxes.

The most obvious of these is justice. Originally, land and natural resources were entirely unowned. They are gifts of nature to the community and therefore, everyone should be equally entitled to them as long as they are not preventing others from enjoying the same rights. Anyone who wants to own land and exclude others from using it must pay for that privilege. The payment is a compensation to the community for the loss of their right as the result of land being privatized; a *territorial dividend*,³⁴ to use Charlier's expression. In modern capitalist societies, where practically all

Reasons", in J. Cunliffe and G. Erreygers (eds.) *The Origins of Universal Grants: An Anthology of Historical Writings on Basic Capital and Basic Income*. Basingstoke, Palgrave Macmillan.

35. McArdle, M. (2013) "Four Reasons a Guaranteed Income Won't Work", New York, Bloomberg View, Wednesday December 4, 2013, Retrieved from: <http://>

land is privately owned, this compensation would take the form of a tax borne by landowners on the value of their sites and the revenue thus collected belongs to the community as a whole.

Moreover, the land tax should be attractive to advocates of a basic income guarantee because it undermines one of the most potent arguments against it. Critics have indeed objected to basic income on the basis that it rewards the work-shy and lazy at the expense of the thrifty and industrious.³⁵ They argue that people are entitled to what they produce and that it would be morally wrong to deprive them of the fruit of their labor. A basic income scheme funded by a tax on land values alone – excluding man made improvements - defeats that argument, because land and natural resources are not the fruit of anyone’s labor. Therefore, taxing them should not deprive anyone of the product of their hard work, nor discourage them from working. As Martin Farley put it, “rather than basic income being a ‘benefit’ paid out to people by a benevolent government, it is in fact each citizen’s share of the nation’s natural wealth.”³⁶

The second argument for funding a basic income exclusively via a land tax is a more pragmatic one. There is a risk that a payment to every citizen of a sum to meet their basic needs could cause housing costs inflation. A potential problem is that a greater share of the income of recipients may end up being captured by landlords via rising rents,³⁷ should basic income be funded using traditional taxes. Under a land tax funded scheme, their ability to do so is severely restricted

because any rise in land values is collected by the community, which is then reinvested in maintaining public infrastructure and paying out benefits to all. In fact, basic income without a land tax would be a boon to landlords,³⁸ because a surge in housing demand would generate an upward pressure on housing costs and the financial resources to pay for it would have to come from the productive parts of the economy. This could potentially make basic income very unpopular as it would have to keep rising to match rising rents, while the landlords take a bigger share of the national wealth. A basic income scheme funded with a land tax does not have any of these flaws. It would not only limit the amount of income absorbed by rents, it would also provide a sustainable revenue stream to support it. Additionally, it would neither penalize the productive economy nor discourage development in AI and robotics.

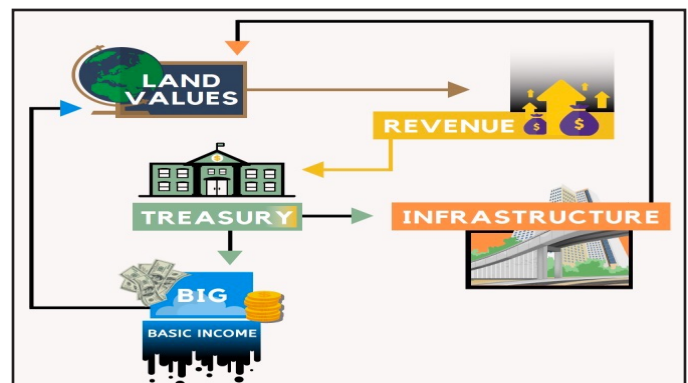


Fig. 3. Basic Income Scheme Funded by a Land Tax

As shown in the diagram above, when society collects land values, society as a whole benefits from its own

www.bloombergview.com/articles/2013-12-04/four-reasons-a-guaranteed-income-won-t-work

36. Farley, M., (2016) “Why Land Value Tax and Universal Basic Income Need Each Other”. Retrieved from: <https://medium.com/basic-income/why-land-value-tax-and-universal-basic-income-need-each-other-42ba999f7322#.4t0aic8gb>

37. BIEN, (2020) Housing prices are an obstacle to universal income. Retrieved from: <https://basicincome.org/news/2020/01/housing-prices-are-an-obstacle-to-universal-income/>

38. In France, two studies have highlighted the fact that housing subsidies have actually contributed to an increase in rents for families who received housing benefits. See, Gabrielle Fack (2005), “Pourquoi les ménages pauvres paient-ils des loyers de plus en plus élevés?” Retrieved from: http://www.persee.fr/web/revues/home/prescript/article/estat_0336-1454_2005_num_381_1_7207. In the same vein, Laferrière and Le Blanc (2002), “Comment les aides au logement affectent-elles les loyers?”. Retrieved from: http://www.persee.fr/web/revues/home/prescript/article/estat_0336-1454_2002_num_351_1_7403”

39. De Jong, F., (2019) Waiting for a Basic Income... Funded out of Rent. Retrieved from: <https://earthsharing.ca/news/waiting-basic-income-funded-out-rent>

infrastructural spending and the technological progress that goes with it. Rent as revenue is not a burden on the productive sector; it actually supports it. Housing costs, the largest expenditure of American households, should also become more affordable since land and location values, mostly driven by speculation, account for nearly 70% of the rise.

It is estimated that about 30% of GDP in every jurisdiction consists of economic rent³⁹, variously called the economic surplus, super normal profits, royalties, capital gains, unearned income, monopoly profits, or profits without a corresponding cost of production.

This unearned wealth presently flows, mostly untaxed, to monopoly owners of land and natural resources, and to businesses with privileged access to public infrastructure like roads, the electromagnetic spectrum, stock markets and the internet. Taxing it to fund a basic income would not cause any distortions to the economy (unlike taxes on production). It would allow technological progress to proceed unimpeded, while providing a reliable social safety net to those who are left behind.

CONCLUSION

The tremendous progress enabled by advances in AI and robotics will boost our capacity to create more wealth using less labor. These forces have the potential of not just causing massive displacement in labor markets, they will also exercise an upward pressure on land values. Under our existing land tenure system, this growth in land values which is the result of social process could potentially enable more rent extraction from owners of land and natural resources and cause unprecedented levels of income inequality.

A basic income funded through a land tax would prevent such an outcome. It offers better prospects for reconciling technological progress and social stability by ensuring that society as a whole benefit from the fourth industrial revolution. As Fred Foldvary wrote in 2015:

“the way to implement basic income without stifling employment and growth is to tap a source that does not flee, shrink, or hide when paid. That source is land rent.”⁴⁰

The Alaska Permanent Fund Dividend is a good template for how such a system might operate. The funding mechanism could be scaled up to include urban land rents and carbon taxes. None of these taxes would penalize production or stifle our economy’s capacity to innovate for they are aimed at economic rent also known as unearned income.

40. Foldvary, F., (2015) Finland’s Basic Income. Retrieved from: <https://www.progress.org/articles/finlands-basic-income>

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