

Quantum economics, part 8: Land as the Field

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This post continues the story of quantum economics, which began here. There is a summary of posts to date at the end of this post.

Can you please note when reading this post and others in the series that I am not suggesting that quantum physics and economics are akin to each other. Instead, I am exploring how quantum thinking might help build new economic narratives, which is quite a different goal.

Land as the Field

“Man did not make the earth. It is the value of the improvements only, and not the earth itself, that is individual property. Every proprietor owes to the community a ground rent for the land which he holds.” – Thomas Paine

If [labour is the photon of value](#), what is the field in which it operates? In physics, photons travel through and interact with fields. Without a field, energy has no medium.

In economics, land is that field. Not just soil, but all natural resources: minerals, water, air, forests, and the very space we occupy. Land is finite, immovable, and not the product of human effort. It is the substrate without which labour cannot act.

*Henry George, the nineteenth-century political economist, saw this. In his work, *Progress and Poverty* (1879), he argued that land’s unique nature made unearned gains from it — economic rent — socially destructive. He proposed a land value tax to return this unearned wealth to the community.*

His insight remains relevant. Modern economics has buried land within “capital,” disguising rent as profit. But if we want a realistic political economy, we must recognise land as the field of value.

First: the classical trinity

Classical economists distinguished three factors of production: land, labour, and capital.

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Labour: human effort.

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Land: the natural world, freely given and not made.

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Capital: tools and improvements, themselves products of past labour applied to land.

This trinity grounded economics in reality. It acknowledged nature's role and labour's primacy and placed capital in the perspective of time and knowledge.

Second: the neoclassical erasure

Neoclassical economics then made the mistake, quite probably deliberately, of collapsing land into capital. Land became just another asset, owned, bought, and sold like machines or buildings.

This erasure had consequences:

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Rents from land were disguised as returns to capital.

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The distinction between earned and unearned income was lost.

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The power of landlords and resource monopolists disappeared from theory.

By burying land, economics legitimised rentier extraction.

Third: land as a finite field

Unlike capital or money, land is finite. We cannot create more. We can only use what exists.

This finitude creates scarcity rents. Control over land gives control over access to the field itself. It allows landlords to charge for the use of what nature provides freely, a fact they ignore when claiming their income to be profits

Labour is abundant and money is unlimited, but land is scarce. This asymmetry gives land a unique role.

Fourth: Henry George's insight

George argued that rising land values, driven by community growth and public investment, should belong to society, not private landlords.

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A new railway increases land values near stations. The uplift comes not from the landowner's effort but from collective action.

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A growing city makes urban land scarce. The increased rent reflects community demand, not the landlord's contribution.

For George, private appropriation of these gains was unjust and economically destructive. His solution was a land value tax. His suggestion was that this appropriation should be corrected by imposing a tax on the rental value of land to return unearned gains to the community.

Fifth: quantum analogy – land as field

If labour is the photon, land is the field.

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Photons excite fields, producing observable effects.

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Labour excites land, producing goods and services.

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Without the field, photons do nothing. Without land, labour is impotent.

Value arises not from labour alone, but from labour applied to land. Both are indispensable, but land is the substrate, the stage, the finite medium.

Sixth: the problem of speculation in land

Like financial speculation, land speculation traps value in sterile loops.

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Investors buy land not to use it, but to wait for its price to rise.

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This withholds land from productive use, driving up costs for housing, farming, and business.

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The community pays twice: once through higher rents, again through lost opportunities.

Speculation in land is, if anything, worse than in shares. Shares can be created. Land cannot. Withholding it creates artificial scarcity.

Seventh: modern relevance

This insight is not antiquarian. It is urgent today.

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We have a housing crisis. Land values drive unaffordable housing. Rents absorb incomes. Ownership is concentrated.

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We have a climate crisis. Control of land determines energy use and food systems, leading to deforestation and the destruction of the biosphere. Private profit often trumps public need.

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We have an inequality crisis. Land ownership is among the most unequal forms of wealth. A few own much, while many rent precariously.

Ignoring land leads to failed policy. Treating it as capital misses its unique role.

Eighth: policy implications

Recognising land as a field demands new policies:

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Land value taxation needs to be considered. Whilst it would be inappropriate to shift all taxation from labour and production onto land rents, as some argue, because land is not the only source of value. But to tax land is appropriate, to discourage speculation, reward productive use, and return value to society.

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Public land banks are needed to hold land in common ownership for housing, infrastructure, and green transition. We must stop speculative hoarding.

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We must plan for sustainability. Land use must balance human need with ecological limits. Land should be treated as a common heritage, and not as a private commodity.

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Land ownership must be transparent. We need land ownership registers that expose hidden landlords and offshore owners. Democracy requires knowledge of who controls the field.

Ninth: the politics of land

Land is political. Control of land means control of society. From enclosures to colonialism, from aristocracy to oligarchy, power has historically flowed from land ownership.

Today, land politics is hidden behind property markets and financial jargon. But the essence is the same: who controls the field?

A politics of care must reclaim land for the community. Without land, labour cannot function. Without community control, value leaks to rentiers.

Conclusion

If labour is the photon, land is the field. Together, they ground economics in reality.

Henry George saw this. His call for land value taxation was not just a technical fix. It was a demand for justice: that the unearned gains of landowners be returned to the community. That remains the case now.

Modern economics, by erasing land, erased reality. It legitimised rentier extraction and blinded policy to the housing crisis, climate crisis, and inequality.

To rebuild economics, we must restore land to its rightful place. We must recognise its finitude, tax the rents it generates appropriately, and plan its use sustainably. Only then can labour's photons operate freely in the field.

And only then can we fund the future.

Previous posts in this series

- * [Discussing quantum economics, accounting, money and more](#)
- * [Quantum economics, part 1: Why Quantum Thinking Matters for Economics](#)
- * [Quantum economics, part 2: Money as Particle and Flow](#)
- * [Quantum economics, part 3: Entanglement and Double-Entry Bookkeeping](#)
- * [Quantum economics, part 4: Quantum Uncertainty and Economic Forecasts](#)
- * [Quantum economics, part 5: Speculation, Potential, and Energy](#)
- * [Quantum economics, part 6: Infinite Promises, Finite Energy \(MMT and constraint\)](#)
- * [Quantum economics, part 7: The Photon Question — labour as the Quantum of Value](#)

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