Funding the Future

ne Quantum Essays: Quantum economics, discounting, and

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Background

Having finished the first series that I plan to publish on quantum economics (others are planned), it became clear that explaining the use of this thinking was important before moving on to further ideas. The result is a new series, called The Quantum Essays, of which the fourth (and last, for the time being) is below. Previous posts are listed at the end of the post.

Like many of the essays in this series, this one was written in response to a comment on this blog, this time by someone called Roger. I take responsibility for the reaction.

A list of essays in this series, which explore ideas flowing from my first series on quantum economics, is to be found at the end of this essay.

Quantum economics, discounting, and the cost of inaction

Economics has long had a problem with time. Its preferred solution has been to eliminate time altogether. The mechanism for doing so is discounting. This technical term conceals an extraordinary act of erasure.

Discounting rests on the claim that money today is worth more than money tomorrow. The logic is dressed up in the language of opportunity cost: people could invest their money elsewhere and get a return, so any future stream of income or benefit must be reduced in value to take account of this alternative. The higher the discount rate, the less weight is given to the future. At sufficiently high rates the future is discounted to nothing.

This is not a marginal detail. It is foundational to mainstream economics. Cost–benefit analyses of public investment apply discount rates as a matter of course. Infrastructure, education, health, or climate policies are all filtered through this lens. The outcome is

predictable: the further away the benefits are, the less they count. In the language of the models, they vanish.

The intention is clear. Economics finds time messy. Different projects have different durations and unpredictable consequences. To produce neat models, economists want to eliminate that complexity. Discounting does the job. It compresses everything into the present, tidying the equations, but at the cost of turning the future into an irrelevance.

The consequence is disastrous. Discounting means that projects with benefits extending across decades or centuries – schools, sewer systems, clean water, public health, renewable energy, or action on climate change – are treated as if they have little or no value. Rules about “fiscal prudence” and “sound money” are, in truth, rules about ignoring time. They are mechanisms for making sure governments do not see the worth of long-term investment.

That is why it has become easy for governments to cut capital spending. In their own frameworks, the benefits of such spending disappear quickly, but the costs are always immediate. This bias towards short-termism is not an accident of political convenience. It is baked into the very economics that guides decision-making.

Contrast this with physics. Quantum mechanics treats time as a parameter, a fundamental backdrop against which probabilities unfold. Relativity, on the other hand, shows us that time bends, stretching and contracting depending on an object's speed and gravitational field. Neither perspective eliminates time. Both accept that it is central. Economics, however, has tried to wish it away.

The truth is that time cannot be eliminated. It is the medium in which all human activity occurs. That is why ignoring it in economics is such a profound mistake. And that is where the concept of sustainable cost accounting matters.

What sustainable cost accounting does is reverse the logic of discounting. Instead of writing down the value of future costs and benefits to nothing, it insists that we must recognise the compounded costs of inaction at the moment decisions are made.

Think of climate change. If a government decides not to invest today in decarbonisation, the cost of that inaction does not drift away into a discounted future. It grows. Every year of delay makes the problem bigger and more expensive to resolve. The compounding effect is relentless.

Sustainable cost accounting says we must account for those costs now. When the decision not to act is made, the liability is created. It should be recognised immediately. That liability is not some theoretical future loss. It is the real consequence of inaction. The economy will bear it, and society will suffer it, whether we acknowledge it or not.

This changes everything. Instead of discounting the future to zero, we bring the future into the present. We insist that inaction today carries a price that must be reported today. The balance sheet of government, business, and society is altered. Decisions that look cheap under the discounting model are revealed as ruinously expensive when their compounded costs are made explicit.

Take public health. Spending on preventive care is often cut because the benefits lie far in the future, while the costs are immediate. Discounting reinforces this choice. But sustainable cost accounting shows that every pound not spent now creates a liability – in the form of increased illness, lost productivity, and greater treatment costs – that compounds over time. The failure to act generates costs that are far larger than the initial saving.

The same is true of education. Investment today equips generations with skills, resilience, and capacity. Failure to invest stores up deficits in knowledge, productivity, and social cohesion. Under discounting, these benefits are written down and ignored. Under sustainable cost accounting, the liability of inaction is carried forward and recognised.

Infrastructure provides another example. Victorians who built sewers were not thinking in terms of discounted future benefits. They acted out of necessity. But their decision delivered continuing returns across centuries. Had they not acted, the compounded cost of inaction – in disease, lost labour, and social breakdown – would have been catastrophic. That liability should always have been recognised the moment the decision was taken not to build.

This is not just an accounting technicality. It is about the way we see the world. Discounting tells us the future does not matter. Sustainable cost accounting tells us that the future is the measure of all we do. One erases time; the other insists that time is always present.

And this is where the idea links back to quantum economics. In quantum theory, outcomes are uncertain, but time remains the essential backdrop against which probabilities evolve.

The lesson for economics is that time must be treated in the same way. It cannot be ignored. It must be recognised as the dimension in which all value is created, and all costs accumulate.

The irony is that, when seen in this light, investment today is cheap. Education, health, renewable energy, infrastructure: all deliver benefits so large and so long-lasting that their cost now is trivial by comparison. The real expense lies in not acting. That is the liability that compounds beyond measure.

So the challenge is clear. We need an economics that bends time back into our view,

that refuses to discount the future, and that recognises the cost of inaction as a liability at the moment the choice is made. We need accounting frameworks that reveal, rather than conceal, the truth.

Because in the end, this is not about abstractions. It is about survival. If we continue to discount the future, we discount our own existence. If we continue to ignore the costs of inaction, we compound them until they overwhelm us.

The task is therefore urgent. We must move beyond discounting and embrace sustainable cost accounting. We must see time as essential, not incidental. And we must fund the future in ways that recognise that the value of investment today is not only real – it is infinite.

That, surely, is what Funding the Future must mean.

Other essays in this series:

* ***The Quantum Economics series*** ***(this link opens a tab with them all in it)***

* ***The Quantum Essays: Observing and Engaging***

* ***The Quantum Essays: Quantum MMT: The wave function of sovereign spending***

* ***The Quantum Essays: Is equilibrium only possible in death?***

* ***The Quantum essays: Economics, the Big Bang and Rachel Reeves***

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