

# The Real Tragedy of the Commons – Garrett Hardin (1968) Revised

## Tragedia wspólnego pastwiska – Garret Hardin (1968) zaktualizowany

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### Abstract

Garrett Hardin's seminal 1968 paper describes the tragedy of the commons in terms of common goods being neglected or overused. His theory has been widely adopted. However, it refers only to a special case, when inadequate public goods have to compete with the maximisation of private yield. The real tragedy of the commons is not that it is overused or neglected, nor is it any free-rider and spillover effects it gives rise to, but rather the underlying financial incentives and disincentives that prevent an adequate supply. Consequently, the misalignment between our current monetary system and the global commons has led to the latter's erosion and partial destruction. Introducing a new monetary and fiscal policy of strategic triangulation can provide an adequate tool to finance our commons. With their ongoing central bank digital currency (CBDC) initiatives, regulators and central banks can offer a direct monetary mechanism to overcome this tragedy of the commons.

**Key words:** financing the commons, new financial engineering, fiscal and monetary policy, CBDC, strategic triangulation

**Słowa kluczowe:** finansowanie wspólnego pastwiska, nowa inżynieria finansowa, polityka fiskalna i monetarna, CBDC, triangulacja strategiczna

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### Introduction

In 1968, Garrett Hardin published a seminal paper on the tragedy of the commons, which is one of the most cited scholarly articles of the twentieth century. Hardin defined common goods as ones that 1 cannot be sufficiently excluded from private use, and argued that these goods will eventually be either neglected or overused. This triggered several decades of debate, culminating in the Nobel Prize in Economics being awarded to Elinor Ostrom (1990). Today, the 2 discussion is far from over. The current UN SDGs (UN, 2015) and recurrent 3 external shocks (like pandemics) are raising the issue again, since most, if not all, of these challenges affect our commons in one way or another. Two fundamental questions arise. What makes a common good a common good? And if a right, a good or a service causes free-rider effects, what kind of economy or financial mechanism would we need to ensure a maximum of wealth, both for the private and public sectors and for society as a whole (Coase, 1960; Buchanan & Musgrave, 2001)?

### Empty and full worlds – the Anthropocene era

Historically, we used to live in a large, slow, empty world with a low population and low levels of energy and resource consumption (Rockström & Klum, 2016). Now we are living in a fast, full, complex world with a high population density and high levels of energy and resource consumption. The relation between private and common goods in these two worlds is different. In the former, *empty* world, private equity and wealth played a subordinate role and the commons dominated. In the *full* world, private goods dominate and the commons comes second (Club of Rome, 2019). And we have to admit that without the options opened up by private capital accumulation, the world would have been poorer in all respects. However, in a full world where everything is interdependent and interconnected and where we risk overshooting planetary boundaries, private wealth depends on healthy, functional commons. A full and interconnected world, where there are no social or ecological externalities, without functioning commons would be a poorer world in all respects, too. So rather than further privatising the world (*Credit Suisse wealth report*, 2021) by exploiting common goods, shouldn't we instead come up with a sensible interplay between the private and the public sector? In order to better understand this intersection, the monetary and financial sector is key. The relation between privates and commons is like an asymmetric iceberg paradox. Although the commons only makes up 10% of all aggregated assets, it represents the basis of all private wealth accumulation. Can we patent the sun, fresh water, access to preschooling or collective healthcare? Yes, we can, but we shouldn't!

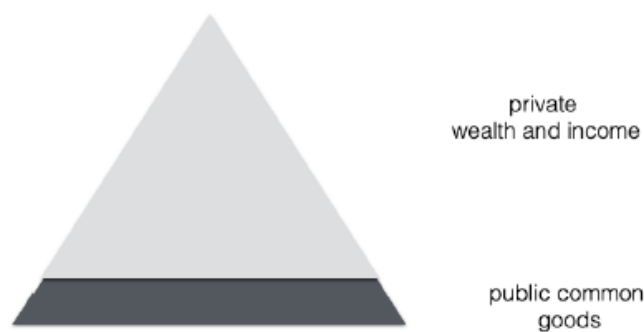


Figure 1. Privates and commons – an asymmetric iceberg effect

### A revised definition of our commons

Traditionally, we define our commons as goods which are not excludable, which are easily overused or neglected and which cause free-rider effects. But this is incomplete and partly misleading. A common good is not a thing, but a convention, like a marriage contract, the rules of a club or a legal code governing our use of or access to a good or service. We as a society determine whether a good or a service becomes common or private, depending on the nature of the good or service in question, with this determination being regulated by our peers. This is equally true for fresh air, species conservation or access to healthcare, preschooling or personal information on digital platforms.

*We define a (social or natural) common in terms of sustainable, universal use of or access to a good, service or right, regulated by the peers involved. This could be local, regional, national or global in scale, depending on the nature of the common.*

Commons differ from private assets, which have an unlimited capacity to grow (Schneider, 2007). For example, once the protection of biodiversity has been achieved, global warming has been stemmed or access to healthcare for everybody has been organised, these commons are complete. Once achieved, commons meet a ceiling, where maintaining the status quo is key. The very nature of commons requires mechanisms to repair, recycle, maintain, refurbish, replace and reuse them over and over again, once everybody has access to them. Meanwhile, private goods by their very nature can be stored, replaced and collected in an unlimited fashion. In other words: we could collect dozens of SUVs, pools, paintings and jewels privately, but once we have provided access to nurseries or collective healthcare, higher education, security and shelter, the job is done. In this sense, common goods are circular and regenerative by their very nature; they are a means to an end and do not force communities to grow in order to maintain their status. In contrast, private goods are a continuous, accumulative process of linear, exponential and unlimited growth, yields and insatiable desires. Commons are not. In short, fresh and clean air will always remain fresh and clean air; attending a nursery will always be simply attending a nursery. Once we all have fresh and clean air and all children have access to preschooling, these commons have been attained. The same is true for entitlement to a universal basic income, access to clean water and energy, and all basic human rights. The table 1 contrasts some features of private and common goods.

Empirically, commons have an extremely impressive return on investment. The commons included in the UN SDGs have an arithmetical average return of 1:15 per annum, which is up to 100 times greater than the figure for S&P stocks (10% annual return) or returns on treasury bills (3–5% annual return) (Copenhagen Consensus, 2019b; Damodaran, 2019). This means that investing 100 billion USD in commons generates 1.5 trillion USD equivalent

of social and ecological goods, a benefit at least 10 to 15 times greater than the initial invested dollars – for all of us. This is when we start waking a sleeping giant (Copenhagen Consensus, 2019a, 2019b).

Table 1. Features of private and common goods

Private goods	Common goods
Private property claim with limited private liability	Public property claim with collective liability
Free-rider effect causing negative externalities, paid for by someone else	Free-rider effect causing additional costs for the public sector
Ongoing and unlimited yield maximisation	More circular and regenerative, need to be maintained
Tradable	Not (necessarily) tradable
Excludable or club goods restricted to a defined membership	Non-excludable, non-rival
Positional, luxury goods compared in terms of their relative value by someone else	Collective entitlement for all of us, means to an end
Unlimited growth (rate), unsaturable	Ceiling effect: once the commons are achieved, mission is accomplished

### The traditional way to do it: end-of-pipe financing

Three options have traditionally dominated the economic discussion on how to best manage our commons. The first is privatising all commons, and thus removing any public liabilities associated with them by turning them into private goods. The second is managing common goods by restricting access to them to defined communities. They are thus turned into club or cooperative goods. This form of limited membership resolves one of the biases that commons are subject to, namely overuse. The third option is allowing public or state authorities to regulate the usage of commons through laws and entitlements, with the commons being financed by taxes, fees, charity or philanthropy. Below, we describe a fourth option, which uses new and different monetary channels to finance common goods.

The most commonly advocated way of financing our commons is what is known as co-financing, which constitutes the core argument in most, if not all, economic theories on financing social and ecological commons. Co-financing is based on the principle that goods and services freely traded on the market are taxed and this revenue becomes the main source of finance for common goods. On this widely accepted view, commons are secondary and subordinate to the activities of the free market. Only when the market generates sufficient yields and liquidity and the political will is strong enough can common goods be financed. For example: if a pig farmer wanted to set up a business with 1,000 pigs in a rural area, providing jobs for 30 workers and supplying pork to the region, the local authorities and the media would see this as an innovative investment that deserves to benefit from tax breaks and other state support. But if a non-profit organisation wanted to establish a care home for 100 children suffering from parental neglect and educational deficits, which would employ 80 people and benefit dozens of other small and medium-sized firms and hundreds of additional families, and would require exactly the same amount of investment as the pig farm, the project would instead be considered a cost to and burden on society. This is surprising, given that we know that investing in early childhood has a return on investment (ROI) of 1:10 to 1:15 for society as a whole. The pig farm business model will never achieve this ROI and has several negative externalities besides, such as increased water consumption and a negative impact on human health.

This co-financing strategy is a form of end-of-pipe technology, well known in engineering science: we first implement a technology, lifestyle or economic activity that is damaging our environment (polluting fresh air, for example), then add a filter at the end of the process in order to avoid too much damage. The co-financing strategy follows the same logic. The economy grows, we take a certain amount of money (through tax or fees) from the added value chain and finally we distribute it to social and ecological projects.

*The real tragedy of the commons is not that it is overused or neglected, nor is it any free-rider and spillover effects it gives rise to, but rather the underlying financial incentives and disincentives that prevent an adequate supply.*

Could it be that we are using the wrong mechanism for real problems? Could it be that the mechanisms for distributing money only work well in stable environments with a high growth rate, strong governance, low externalities and minimal interconnectedness? But we are now living in a new era, where zero interest rates, high public debts and private hyper-liquidity are the norm, where the wealth gap is rising, a new power – Chinese state-funded capitalism – is destroying free market competition and a series of ecological shocks (pandemics, global warming and species loss) are challenging societies. Taken together, these factors are fundamentally changing the landscape of how to finance, fund, hedge and secure our (global) commons (Dario, 2021).

### The indispensable triad – free market, enabling state and regulators

Traditionally, we think of the free market and state interventions as opposites, where the smallest common denominator would provide the best possible solutions. But we end up with over-regulated markets and over-indebted public agencies, finally leading to a pareto-inferior equilibrium for all of us. As an alternative to approaches focusing on causal relations, nudging, voluntary commitments, linear processing, simple stimulus responses, pushbacks or silo solutions, a *strategic triangulation* can offer an additional tool to avoid the smallest common

denominator and suboptimal results. It involves introducing a third party that can overcome the polarity and instead unlock the full potential for both parties. Strategic triangulation can lead to a more systematic approach to problem-solving and allow us to overcome silo thinking.

Let's consider a specific example. A society decides to spend 40% of its GDP on public goods (hospitals, nurseries, universities, motorways, digital infrastructure, basic needs). If the society has sovereignty over its money creation process (i.e. if it can print money), does not have to rely on external debts nominated in a foreign currency and has the necessary human and natural resources, then it can eventually generate the amount of money needed by itself. Consequently, the subsidies and taxation schemes for the private sector initially brought in to finance these commons will be phased out over time. We would then end up with a free and competitive market system, which makes it possible to allocate goods and services optimally while *at the same time* having a high-functioning public sector, where the state authorities enable our commons.

We can take this argument one step further. The private purse is not the public purse (Randall, 2015; Kelton, 2020): private households and corporates have to budget carefully so they don't go bankrupt. Private households and corporates cannot spend more than they earn in the first place. The public purse, however, is different. In a situation where there is a sovereign nation state with the ability to issue money, the financing of its public budget follows a fundamentally different logic to the private sector. We simultaneously require a stronger enabling state and a stronger competitive fair market system in order to benefit from both institutions. But both require a third party to be involved to overcome the constraints of any end-of-pipe financing. Central banks and regulators, operating in a proactive, preventive and restorative manner, can serve this role. This means that monetary policy will trump fiscal policy when it comes to financing our commons. The figure below illustrates this indispensable triad:



#### **Creative Polarities:**

Traditionally Central Banks remain rather passive, neutral, restorative and indirect. Free market and state interventions search for a smallest common denominator. Linear, Silo and causal Thinking is prevailing. The welfare remains pareto-interior.

#### **Overcoming Polarities:**

Central Banks in the Anthropocene Era are becoming proactive, preventive and try to facilitate stable and free markets and strong states at the same time. System thinking in complex world is prevailing. The welfare becomes pareto-superior.

Figure 2. The indispensable triad – overcoming polarities

The misalignment between our global commons and the current monetary system that underlies it has prevented their full economic potential from being achieved for the benefit of us all, and has led to the commons being eroded. Our challenge is not to privatise the commons, but rather to adapt our financial system to the nature of the commons (Gaffney et al., 2018). In short, we need more and better finance. And in fact, this is happening already in a fledgling, experimental form. Monetary regulators and central banks are currently testing what are known as central bank digital currencies (CBDCs) (Gross & Schiller, 2020; Chaum et al., 2021) in order to provide additional, targeted liquidity, thereby enhancing their steering capacity, bolstering price stability and generating thousands of new green jobs and public revenues as well as operating in an anti-cyclical manner. If done in the right way, we would have the monetary mechanism in place to finance the UN SDGs and the associated commons. Eventually, we would have the tools available for new, almost unlimited forms of financial engineering to fund and hedge the associated risks. In short, we can wake this sleeping giant (Brunnhuber, 2021; Brunnhuber et al., 2021).

#### **Conclusion – the curse of the moral hazard**

At first glance it looks like any common will cause neglect or overuse, something that has been characterised as the moral-hazard or free-rider effect of goods and services which are accessible by everybody. But this view, to which Hardin (1968) subscribes, is misleading. It only applies for a special singular case, where private positional

goods or services are competing with commons. In this case, commons are either neglected or overused. For example, the overuse of common land by privately operating farmers. In this special case, a common good (specifically, common land) is neglected due to a lack of regulation. However, the nature of most commons is different. In other words, the moral-hazard or free-rider effect only occurs in the world of the commons if there is an inadequate supply. Unlike privates or positional goods and services, commons have what is known as a ceiling effect. Once everybody is provided with a common, the market for it is saturated. For example: if there is a need for 1,000 places for 1,000 children to attend a nursery, we have to provide and finance 1,000 places for those children. The same is true for fresh air, basic needs, public parks, access to healthcare and so on. We know how to treat malaria, how to educate preschool children, how to set up a sewage system to prevent water-borne infectious diseases, how to build hospitals and schools and how to train teachers and doctors. Awakening this sleeping giant requires not so much technical skills as it does sufficient liquidity and purchasing power. On this understanding, public goods do not represent a market failure, but rather preconditions for functional competitive markets. They are like a visible hand to complement the invisible one. This view changes our perspective entirely. And it would require a shift from austerity to an augmented and adjusted monetary policy.

In fact, the tragedy of the commons as described by Hardin (1968) is a special case, which applies only when the maximisation of private yield meets collective property. This special case has generally been referred to as the tragedy of the commons. However, in almost all cases the commons, where there is adequate financing and provision, follows a different logic. The misalignment between our current monetary system and the global commons has prevented either's full economic potential from being achieved for the good of humankind. Our task is to adapt the economy to conform to the nature of the commons, in the interest of sustainability. And this is why we need to revise Hardin's theory of the tragedy of the commons.

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