

Real

Capital

A briefing on how to understand the market failures that deplete it.

Stephen Hinton

We are in a time of transition. The world no longer seems to present vast frontiers of new forests to fell, mineral wealth under our feet to extract, or of new soils to plough. Instead the Earth has become more like a garden which we realise we need to steward carefully to keep it productive.

We also see another transition, from societies where everyone more or less had the basics to massive inequalities where for instance in the UK, one in 200 is homeless.

At least from a European perspective, where the state is seen as the protector of people and resources, and firms are partners in providing what people need, we can see this a massive market failure.

The modern society puts its faith in the market solving societies problems, and in that market, firms will provide for needs.

Part of the explanation for this, I believe, lies in the basic configuration of society that we have come to accept as "normal":

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- The capitalist mode of production: privately or publicly owned formed with employees serving customers
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- A democratic system where firms are given legal body rights including the right to influence democratic decision.
- A monetary system where banks lend money into existence.

In themselves, these building blocks of society on the face of it seem sensible and fair. In practice the combination gives rise to serious failings.

This E-book, produced from earlier writings, attempts to explain how Real Capital - the actual means of production - gets depleted by the current system. Rather than creating a platform for future prosperity the system is removing the very things that coming generations need to provide for themselves

The hope is that this short text will clarify for policy makers where systemic changes need to be made, and where the changes need to be put in place to drive an industry-led transition to the circular economy.

The capitalist mode of production tempts firm owners and managers to extract and exploit. There are ways to halt that extractive approach. However, to understand what needs to be done you need to understand real capital. That is what this booklet set out to do.

In economics there is a definition that defines *capital* as something which is used in the process of producing and delivering services and/or products, but is not used up. This is also termed Real Capital. A good example is the house you own. You live in it, it provides accommodation but it is not used up or consumed, rather it is a platform for consumables like water, heat and food coming into it. Of course, maintenance and repairs are needed.

CAPITAL 'kʌpɪt(ə)l/ :
Assets utilized, but not
used up, in the provision
of goods and services.

In the firm, there are four types of real capital employed, shown below.

Productive Forests
Healthy Soils
Healthy Eco systems
Hydrological function
Available Minerals and Metals

Natural Capital:

The living layer we all rely on as well as the layer beneath our feet with the minerals and other substances from the lithosphere, natural systems like the climate and water cycle.

Infrastructure for safe,
comfortable and energy efficient:
Housing
Transport
Energy provision

Built Capital:

All man-made things that are used to provide our basic needs: houses, roads, factories, equipment, tools etc. This includes systems like telecoms, payments, etc.

Organisations
offering gainful, productive
employment
providing social good

Social Capital:

Our organisations and institutions including the knowledge and capability that is in these organisations.

Healthy, productive,
skilled, strong, capable,
happy, peace-loving,
generous, well-balanced
people

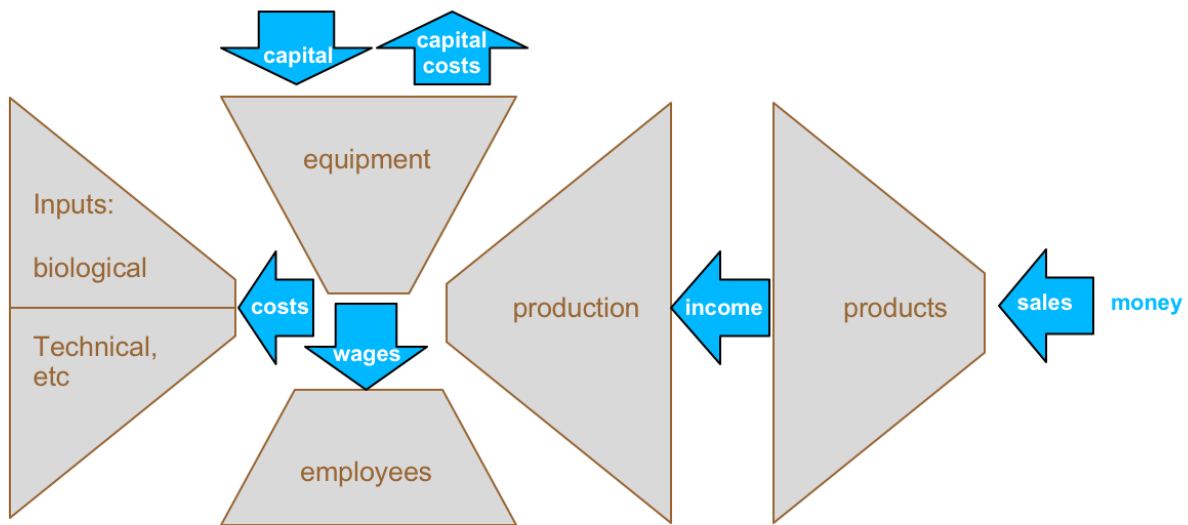
Human Capital:

What we as humans command in terms of strength, knowledge, insights, attitude, capabilities etc.

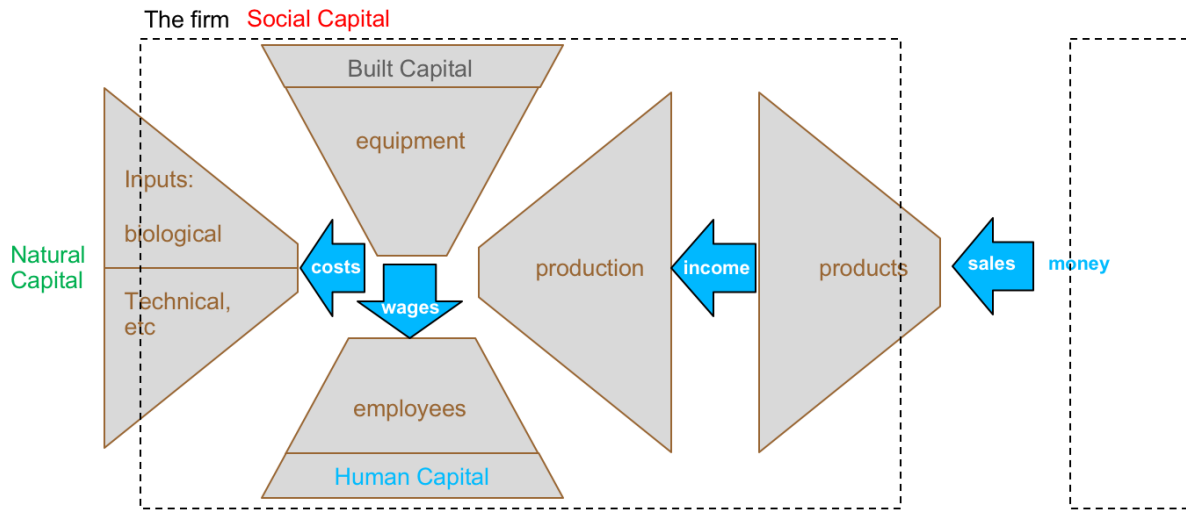
Real Capital – Stephen Hinton Consulting

In our representation of the firm we identify four major components: inputs, employees, equipment (infrastructure) and products. To cover production costs, money flows in the opposite direction to products paying employees and inputs.

Money has to be put into the firm before it can start running, often to buy equipment. This is where the expression "capital" comes from and this money is paid back, with some form of dividend, from money coming into the firm.



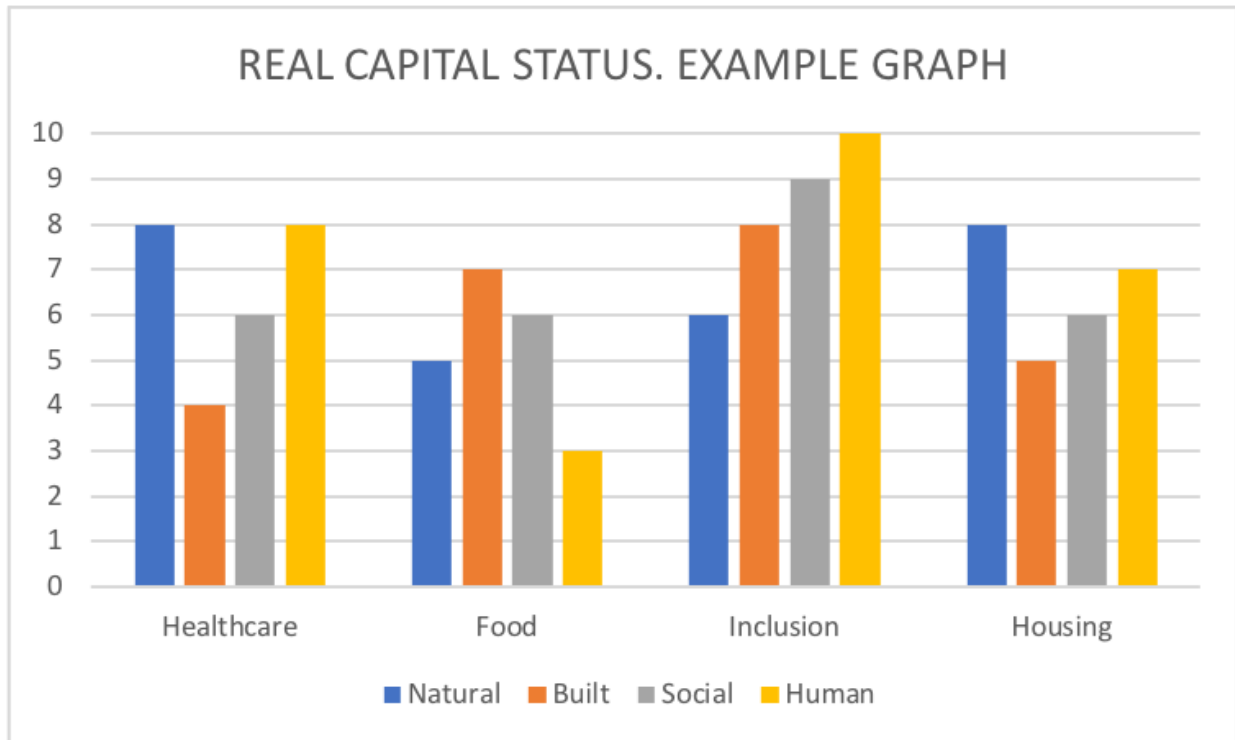
We need to map the concept of real capital onto this map. Human capital is the employees and others working in the firm. Built capital is the equipment and buildings used by the firm. Social capital is the firm and organisation and the learning embodied in the firm, like technical drawings, processes etc. Natural capital is resources harvested if they are biological, extracted if they are mineral either owned or used by the firm.



Organisations delivering goods and services to people are – as I understand it - either firms in the sense of privately or publicly owned companies or government /municipal bodies organised as firms according to the diagram above. This means that in order to address the economy that performs to requirements, we need to address the firm and its relationship with real capital.

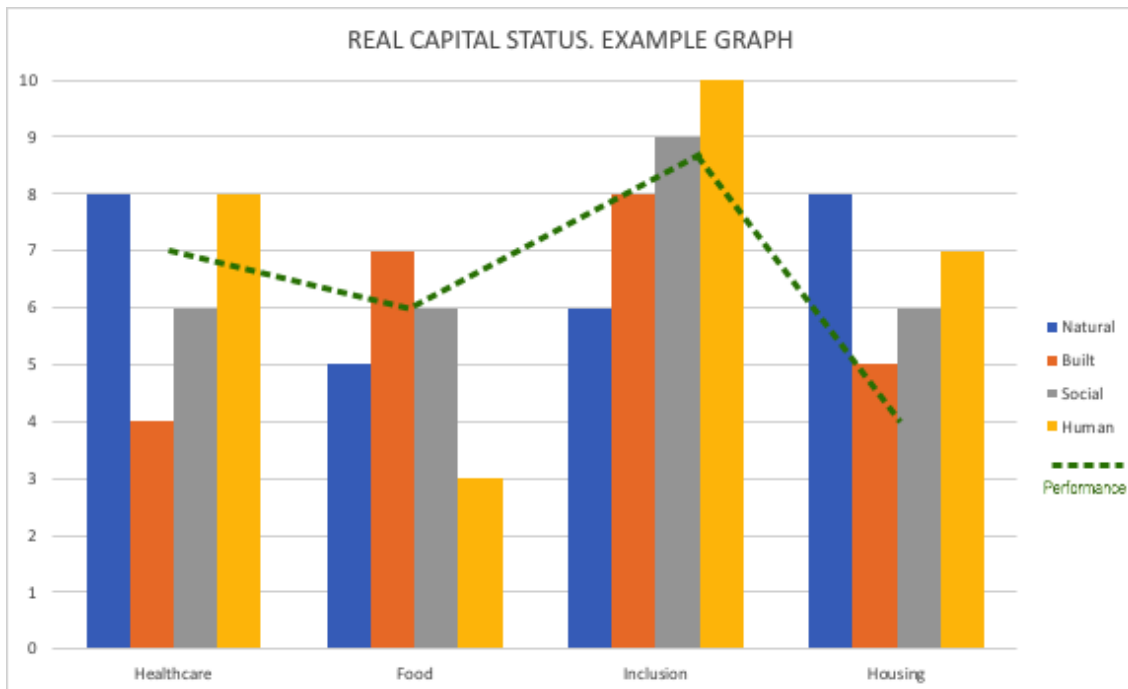
The capability equation: sufficiency of installed real capital

Taking it that these firms exist to fulfil the basic needs of citizens it follows that in any given nation the real capital needed to fulfil these needs should be in place. You could represent this in a graph like the one below, where real capital needs are measured on a scale of 1-10 where 10 is sufficient to produce services in a sustainable way.



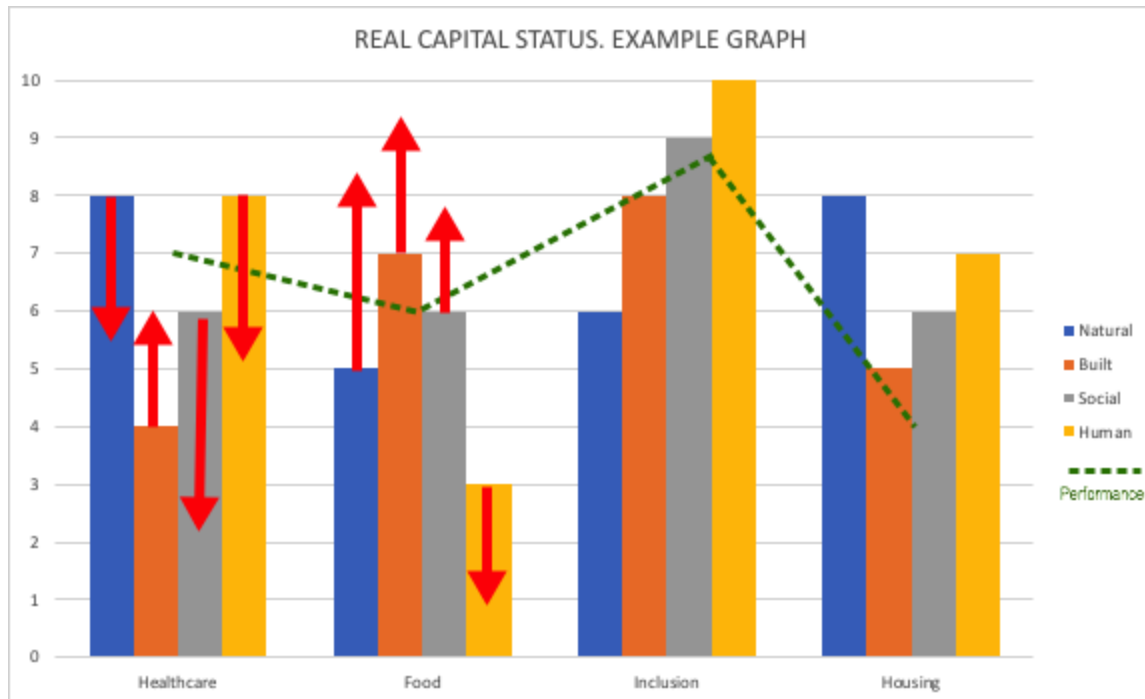
In the example, healthcare needs a major investment in built capital, and food provision needs a major investment in human capital.

The performance equation



The graph above shows how the performance on any one of the dimensions can be illustrated. For example, if there is a housing shortage and 60% are without permanent accommodation, then the graph would show a performance of 4/10. In the example, some 15% are excluded, the performance is shown as 8.5.

Performance of firms in generating or depleting capital



The diagram above illustrates the other aspect of the operation of the firm: its impact on real capital. The red arrows represent trends. In our fictive nation the healthcare system is set up in such a way that it depletes natural capital but operates in a way to regenerate its own built capital.

The food provision operations regenerate natural capital but deplete human capital.

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A functional economy has the real capital it needs, performs to requirements and regenerates capital rather than depletes it.

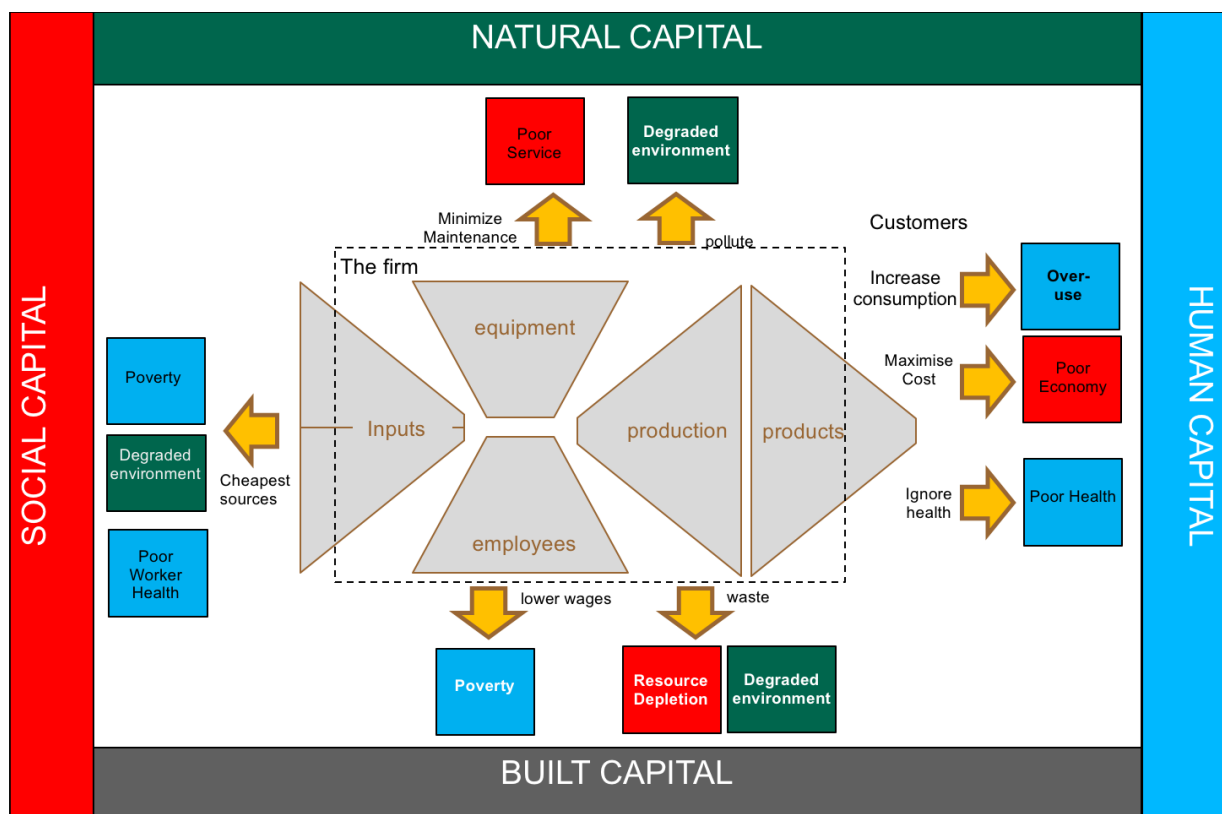
In a functional economy, investment is in regeneration of real capital and in 100% performance to requirements.

In a functional economy, investment would be targeted at producing sufficient real capital to be able to deliver services to 100% of citizens with 100% reliability – or some lower target that was deemed acceptable, if that is possible. We see however, that in for example housing, economies are happy to neither provide sufficient houses (built capital) nor ensure building materials like timber (natural capital) are available to future generations by treating forests regeneratively.

One failing of the economic system today is that it is not organised to provide services to all in a sustainable way. Indeed the kind of simple score-card shown above is lacking, even in the Sustainable Development Goal work.

Where capitalism – and the firm structure – depletes capital.

The diagram below shows the negative consequences of the set-up of the firm that requires firms to compete, for the annual balance sheet to balance and for costs for the money borrowed to install infrastructure and other real capital before operations can begin. As these negatives result in the economic system not performing to requirements, we can deem them market failures.



The risks to the four types of real capital from the pressures on the firm to both cover costs and service debt and equity

We can explore these market failures in turn. The requirement to keep production costs down results in the process depleting natural capital by externalising production costs through pollution, and by offering cheaper but poorer service.

Production can be cheaper if waste handling is reduced to a minimum. Again, the risks are that natural capital in the form of degraded environment or social capital in the loss of resources in the economy,

On the customer side, the drive to keep profits up by increasing consumption of them and keeping their cost high can deplete human capital by encouraging over-use which can reduce customer's health status. Keeping costs high can hurt customer's economy.

Keeping employee costs down can result in worker poverty, or indeed endanger their health by reducing working conditions – both drawing down human capital.

Clearly, there is a lot that needs to be done within economics not least to develop approaches that focus on the role of real capital in society and to ensure that the forces that drive the firm do not result in depletion, poor service or lack of capability to serve all.

Finally, by reducing costs for inputs there is a risk firms will use the cheapest sources which in turn risk natural and human capital in the form of drawing down natural capital in a way that depletes it, or puts economic and health pressures on human capital.

One investment firm at least, [Re Equity Partners](#), is developing investment approaches to address investment needs for real capital so that returns on money invested do not automatically deplete real capital. Indeed, it seems their approach could be a better investment for fiduciary investors like pension funds than the conventional stock market.

In order, then, to ensure the capitalist system of production performs to requirements, firms need to be stimulated to regenerate real capital to a level where all needs can be met, and to refrain from deleting capital. How to do this will be the subject of coming booklets.

We still need a major re-think in how we see the economy in order to be able to meet the challenges ahead. This is the subject for later essays. To keep informed of when they are published do subscribe to my posts on [Medium](#) or [my blog](#).

Real Capital

The present system of production- capitalism - has a tendency to destroy real capital and to create financial capital instead. This is a serious market failure that has been accelerating to the point where human lives are threatened by the very economic system put in place to create wealth for all.