



# Capitals in context: Regenerative economies for a regenerative civilization

John Fullerton

Einstein once said, 'It is the theory which decides what we can observe.'<sup>1</sup>

When considering the essential challenge of integrating multiple capitals into our economic analysis and decision-making, inclusive but not limited to business performance measurement, context is critical.

Allow me to assert that our conventional economic and financial theory, whether liberal or conservative, is grounded on flawed and often unquestioned critical assumptions. Like using an inaccurate map, we are unable to see what we need to see. We are lost. Our flawed assumptions include: exponential growth of material throughput on a finite planet, the all knowing 'invisible hand' of markets, even if free and transparent, the statistics underlying modern portfolio theory, value at risk, and on and on. This paper introduces the basis of an alternative and more accurate economic framework: Regenerative Economics.

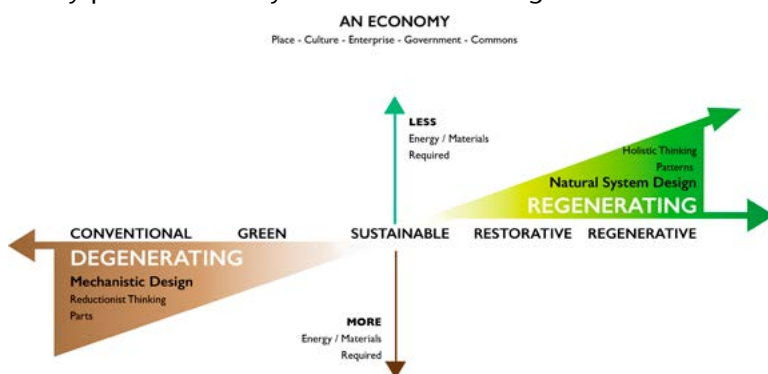
Unlike contemporary economics, Regenerative Economics is aligned with our modern scientific understanding of how all systems in the universe actually work, as well as with the core humanistic beliefs of the world's many wisdom traditions – Western, Eastern, and Indigenous.<sup>2</sup>

It is within this broader context – the profound search for a more accurate and effective economic theory – that the multiple capitals analysis must sit if we are to achieve the healthy human economies and the prosperous civilisation we desire.

My premise is that the history of economic thought did not end with Keynes and Hayek, or Minsky and Friedman, leaving us nothing to do but shout our ideological beliefs across the public square. I believe this early stage of understanding Regenerative Economics is the natural next step in the evolution of economic thinking, building upon the profound advances of Ecological Economics as developed by Herman Daly and colleagues. The potential and structure of regenerative systems applies to both ecological and humanistic values; it is not simply a 'green' idea. We already see expressions of regenerative efforts emerging all around us,<sup>3</sup> although they are often invisible to those observers still trapped in the outdated reductionist paradigm. Until now, this transition has been hampered by the lack of an effective story, grounded in robust theory.

We believe Regenerative Capitalism – informed by practical experience, built around principles of systemic health, anchored in scientific rigor, and grounded in universal wisdom traditions and a commonsense moral framework – can provide the foundation for the new narrative we need at this critical juncture. The centerpiece of this story is that systems that last in the real world – ie, truly 'sustainable systems' – are systems that are healthy, regenerative energy flow networks.<sup>4</sup> Science now understands that everything – from matter to living beings, and even human consciousness – is all energy. Living organisms depend on the circulation of nutrients and oxygen. Ecosystems depend on the circulation of carbon, oxygen, water, etc. Economic systems depend on the circulation of money, information and resources. The physics of flow uses universal principles and patterns of flow to clarify what makes economies healthy over long periods of time. While highly diverse and context specific, vibrant systems follow a consistent pattern, one in alignment with the eight principles summarised below and described in much greater detail in my 'Regenerative Capitalism' white paper.

As the diagram below suggests, regeneration goes well beyond sustainability. In fact, sustainability as an outcome is only possible if the system as a whole is regenerative.



Adopted from Bill Reed's 'Trajectory of Ecological Design.'

1 [aip.org/history/heisenberg/p07c.htm](http://aip.org/history/heisenberg/p07c.htm)

2 The reader is directed to the full white paper, *Regenerative Capitalism: How Universal Principles and Patterns Will Shape Our New Economy*, [capitalinstitute.org/wp-content/uploads/2015/04/2015-Regenerative-Capitalism-4-20-15-final.pdf](http://capitalinstitute.org/wp-content/uploads/2015/04/2015-Regenerative-Capitalism-4-20-15-final.pdf)

3 The Capital Institute's *Field Guide to Investing in a Regenerative Economy* illuminates more than thirty such emergent regenerative stories, just the tip of the iceberg. [fieldguide.capitalinstitute.org](http://fieldguide.capitalinstitute.org)

4 Goerner, S. *The New Science of Sustainability: Building a Foundation for Great Change* (2008)

In summary, our regenerative story starts with a single core idea:

The universal patterns and principles the cosmos uses to build stable, healthy, and sustainable systems throughout the real world can and must be used as a model for economic-system design.

We have identified eight key, interconnected principles that underlie systemic health. Our second principle, 'Views Wealth Holistically' could easily have been labeled 'Integrates Multiple Capitals.' Note that it is in the pattern, the relationships among all eight (and more) principles, operating coherently within one system, across all scales of the system from local to global, that the ultimate power and potential can be found.

Aligning the modern global economy with these principles is NOT tweaking around the edges. It represents profound change (threats and opportunities) for many enterprises, entire industries, and public policy. Anything less profound would simply not pass the credibility test given the enormous challenges we face.

The eight principles can be briefly described as follows:

**In Right Relationship<sup>5</sup>** – Humanity is an integral part of an interconnected web of life in which there is no real separation between 'us' and 'it.' The scale of the human economy matters in relation to the biosphere in which it is embedded. We are all connected; damage to any part of that web ripples back to harm every other part as well. When relationships breakdown (think Wall Street), systemic health is impossible.

**Views Wealth Holistically** – True wealth is not merely money in the bank. It must be defined and managed in terms of the well-being of the whole, achieved through the harmonisation of multiple kinds of wealth or capital, including social, cultural, living, and experiential. It must also be defined by a broadly shared prosperity across all of these varied forms of capital. The whole is only as strong as the weakest link.

**Innovative, Adaptive, Responsive** – In a world in which change is both ever-present and accelerating, continuous learning and the qualities of innovation and adaptability are critical to health. It is this idea that Charles Darwin intended to convey in this often-misconstrued statement attributed to him: 'In the struggle for survival, the fittest win out at the expense of their rivals.' What Darwin actually meant is that: the most 'fit' is the one that fits best ie, the one that is most adaptable to a changing environment.

**Empowered Participation** – In an interdependent system, fitness comes from contributing in some way to the health of the whole. The quality of empowered participation means that all parts must be 'in relationship' with the larger whole in ways that not only empower them to negotiate for their own needs, but also enable them to add their unique contribution towards the health and well-being of the larger wholes in which they are embedded. In other words, beyond whatever moral belief one has, there is a scientifically grounded systemic requirement to address inequality, racism, prejudice and injustice for the health of the whole.

**Honours Community and Place** – Each human community consists of a mosaic of peoples, traditions, beliefs, and institutions uniquely shaped by long-term pressures of geography, human history, culture, local environment, and changing human needs. Honouring this fact, a regenerative economy nurtures healthy and resilient communities and regions, each one uniquely informed by the essence<sup>6</sup> of its individual history and place. This principle poses a profound challenge to the modern global corporation, but forward thinking leaders are already moving toward a more distributed management structure connected to place.

**Edge Effect Abundance** – Creativity and abundance flourish synergistically at the 'edges' of systems, where the bonds holding the dominant pattern in place are weakest. For example, there is an abundance of interdependent life in salt marshes where a river meets the ocean. Edges are also where risk lies. At those edges the opportunities for innovation and cross-fertilisation are the greatest. Business leaders understand that the boundary of the firm is no longer the relevant 'whole' under management, and partnerships across the public and non-profit sectors are becoming more common.

**Robust Circulatory Flow** – Just as human health depends on the robust circulation of oxygen, nutrients, etc., so too does economic health depend on robust circulatory flows of money, information, resources (Circular Economy), and goods and services to support exchange, flush toxins, and nourish every cell at every level of our human networks.

---

5 Brown, P. and Garver, G. In Right Relationship: Building a Whole Earth Economy (2009)

6 Regenerative thinking guru Carol Sanford and Regenerative Design experts at Regenes Group focus their work on tapping into the unique essence of people and place

**Seeks Balance** – Being in balance is essential to systemic health. Like a unicycle rider, regenerative systems are always engaged in this delicate dance in search of balance. Achieving it requires that they harmonise multiple variables instead of optimising single ones. A regenerative economy seeks to balance: efficiency and resilience; collaboration and competition; diversity and coherence; and small, medium, and large organisations and needs. It runs directly against the (short-term) ‘optimise’ ideology that is at the root of modern financial logic.

The resulting theory shows us how to build vibrant, long-lived, regenerative economies and societies using the same holistic principles of health found consistently across widely different types of systems throughout the cosmos. This theory grounds our understanding of why integrity, ethics, caring, and sharing lead to socially vibrant communities and healthy economies – while at the same time making perfect practical and scientific sense.

It differs most from current approaches to sustainability in that, instead of focusing on social and environmental health using traditional reductionist logic to ‘solve problems,’ it aims directly at building healthy human networks as the objective, drawing on universal principles and patterns, with ‘sustainability’ becoming the natural byproduct of systemic health. It is like holistic healthcare in contrast to reductionist disease care.

Because the theory focuses on building healthy human networks, it is not actually new. Instead, it has been discovered and rediscovered time and again over the millennia, appearing from the ancient Greeks’ invention of democracy, to the rules of mutually beneficial, give-and-take relationships that allow stakeholder-owned enterprises to be effective today.

One can quibble with the designation and language of these eight principles – it’s impossible to adequately describe non-linear patterns in linear language – and one can always add principles to deepen understanding. But unless one can refute the assertion that all sustainable systems in the universe behave according to common patterns that exist across scales (fractal patterns), then one either accepts our hypothesis that only when human economies are brought into alignment with these principles and patterns will we have a sustainable economic system, or, one would need to make the case as to why human economies are the only exception to the rule.

The broad shift in vision accompanying regenerative capitalism will be just as profound as the one Copernicus precipitated when the revelation that the earth traveled around the sun undermined the infallibility of medieval authorities and changed our view of how the world worked. Our transition will be chaotic, filled with profound and frightening challenges. It’s underway.

Our long-run prosperity and our very survival both depend on nothing less than this once-in-the-history-of-civilisation transformation from the Enlightenment era reductionist way of thinking to a regenerative civilisation based on a holistic worldview.

This is the Great Work awaiting us in the 21st century!