

## Economies that can become part of nature

*“We need to relearn our trust in nature and stop trying to use our control and ownership of money to endlessly multiply our control of each other and everything we rely so heavily on working by itself.”*

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### Nature in the gaps



There are always big gaps in human designs, that we rely on nature to fill in. We're leaving ever bigger gaps for nature to fill, though. Seeing why and how to change needs to become part of sustainability for it to work.

The “economic democracy” idea proposed in WorldWatch by David Schweickart [“A New Capitalism—or a New World?”, Sept/Oct 09] is interesting for the ideals expressed, but retains the deep central flaw of capitalism. It has to be dealt with for human economies to ever become part of nature. Schweickart is not alone in overlooking it though, as the same flaw mars nearly all the popular alternate economic models, such as the “transformative technology” ideas of Paul Hawken and the Lovins’s in *Natural Capitalism*, the “transformative governance” or “sustainable development” ideas behind the models of Herman Daly in *Beyond Growth* or Gus Speth in *The Bridge at the Edge of the World*. It’s even in the critically well-received *Prosperity without Growth proposal*, by Tim Jackson of the U.K.’s Sustainable Development Commission.

What’s missing is a correction for how our uses of the earth multiply as investment earnings are reinvested to multiply financial investments. Private, institutional, and government money managers all use money to multiply their incomes and it drives an endless growing search for new ways to consume the Earth. Like choosing to stop adding grains of sand to a sand pile, its stopping the additions to the pile that prevents its collapse. For money, you just stop adding to the accumulating pile of commitments to produce more and more wealth, by not adding investment earnings to continually increase investments.

It’s the central problem of capitalism: the conflict between physical system stability and the habit of owners of money to continually multiply their money, even in a non-growing economy. When there’s a need to limit our consumption of the earth, don’t we also need to limit the growth of obligations and incentives for consuming more?

There’s an elegant certainty that points to a true solution, doing it is truly in everyone’s self interest. What you could call “the general principle of balance”<sup>1</sup> was first discovered by J.M. Keynes, studied further by Kenneth Boulding, and then used by me to point to the riddles of how natural uncontrolled economies take such good care of themselves. Perhaps those who read Chapter 16 in Keynes’ *General Theory* or Boulding’s last chapter in *A Reconstruction of Economics*, or my papers, were embarrassed to not understand the issue or hesitant to confront the intriguing moral quandaries it raises. The financial problem of economic climax comes down to a simple choice, do you limit investment voluntarily or involuntarily. Either a) investment stops growing because conditions get so bad that returns on investments don’t materialize, or b) healthy returns earned by investments are recycled as spending, instead of being allowed to accumulate until (a) occurs. That’s it!

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<sup>1</sup> Keynes & Boulding, like Soddy, studied economies as complex physical systems, using financial models and metaphors, such as the principle of balance Keynes called “the widows cup”. They were dismissed and ignored by later economists where physical world principles conflicted with financial interests.

Natural-system economies have parts that exchange complementary goods and services, like our finically managed economy, creating their own complex organization as they develop by growth. What they do differently is switch off their systematic growth mechanisms and stabilize at their peak of vitality. Otherwise they would overshoot their resources and fail at a peak of exhaustion, with the whole becoming less than the sum of the parts as Keynes and Boulding's principle of balance observes.

For what it would mean to us we could study what happens as ecologies, organisms, cultures and organizations as they mature. For any natural system growth forever "is a bust" and that's what is avoided by maturing. Our own bodies are collectively run market organizations of cells, exchanging complementary services through the blood stream and nerve system networks. A freshwater pond ecology links various populations of organisms that create their own niches and exchange complementary services. Businesses also form around groups of individuals exchanging complementary services to create an organization that works as a whole and respects its own limits too.

Scientists often say "there are no systems, just pressures" and dismiss the idea. That view could come from representing natural-system economies with equations of pressure rules, and so hiding what makes them different. Their parts tend to be clearly self-animating, for example, and actively doing environmental learning. As their parts learn from each other in groups, local rules develop inside the groups. That is hidden from view by representing them as following fixed rules, as if they were centrally controlled.

Tracing how natural-system economies work is challenging, but you can see the principles at work. They start growing by "auto-catalytic" self-investment, using their own products to build up their process. If they're going to successfully mature they finish their designs before exhausting themselves, and that way climax their own investment cycle and become parts of nature at the peak of their vitality.

There are some simple ways to define the requirements for imitating that. The easiest observation is that the energy source used to multiply the system is used for something else. For people, using money as a stand-in for the use of energy to multiply energy use, it's the practice of using money to multiply money that needs to stop. It would actually be in everyone's true interest too. None of the popular "no-growth" models deal with that though. To end growth and assure the continued profitability of investments, the profits need to be spent, and preferably on other more lasting values.

No matter how good our plans, we always rely on nature filling in the gaps. Teaching the economy to mature and fit in with the environment would allow her to resume doing that for us. People have spent so much time trying to figure out how to control nature we just haven't looked at how much we depend on nature's processes being uncontrolled and successfully taking care of themselves, and now we're interfering.

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