

Economies that can become part of nature

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

Nature in the gaps



There are always big gaps in human designs, that we rely on nature to fill in. We're now leaving ever bigger gaps for nature to fill, though. Seeing why and how to change that

needs to become part of sustainability, or it won't 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 central flaw of capitalism, the use of money to take ever growing control of anything that can be owned. 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 seemingly 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 control of investments in driving an endless growing search for new ways to increase our control and consumption of 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, a fatal conflict between our cultural reality and physical reality, that points to a true solution that would be in everyone's self interest. What one could call "the general principle balance"¹ was first discovered by J.M. Keynes, studied further by Kenneth Boulding, and then used by me to point to how natural uncontrolled economies commonly demonstrate its use. 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. Investment growth multiplies the obligations of those invested in, exponentially, and the spending investment returns relieves its recipients of obligations to investors. With that we can wind up the pressure to consume the earth ever faster, or wind it down. Either a) investment stops growing because increasing financial burdens cause conditions to get so bad that returns on investments don't materialize, or b) healthy returns earned by investments are used for spending and relieve the financial burdens of others, as an alternative to allowing them to accumulate until (a) occurs. That's it!

¹ 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. The ones that develop to climax in a period of stable vitality, like organisms and ecologies often do, coming into balance by ending their systematic growth and maturing. They use their growth resource to finish and perfect their growth process, refining their systems rather than multiplying them. Otherwise they would overshoot their resources and fail at a peak of exhaustion, 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 at the peak of their own vitality become part of the larger cycles of nature. Failing to do that

causes a prompt recycling of their parts rather than allowing a long period of maturity.

There are some simple ways to define the requirements for imitating that. The easiest is that the procedure for multiplying the obligations of others and the energy used to multiply our control of the earth needs to be used for something else. We measure that with money, so it's the practice of using money to multiply money that needs to stop. It's like not adding onto a pile of sand till it collapses, not adding to our consumption of the earth till our systems for doing so fails is a matter of not adding. It would actually be in everyone's true interest. None of the popular "no-growth" models deal with that though. To end growth and assure the continued profitability of investments, the profits that customarily get added so keep investments multiplying 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. Everything wears out in the end too. It's just that some things wear out precipitously as they accelerate their expansion and some things reach a relatively long lasting stability. Nature's design for achieving maturity, a lasting balance available to learning systems, to temporarily defeat the other natural tendency to decline, is her best device for putting off the inevitable. Teaching the economy to mature and fit in with the environment would do that for us, making civilization something other than the proverbial "flash in the pan". People have spent so much time trying to increase our control of nature, pushing her into our shapes, we just haven't looked at how much we need her system to take care of themselves, and how much we have to learn about that from her ourselves.

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

pfh