East Asian Tigers, did exceptionally well despite higher levels of protection in advanced economy markets.

A similar outcome is possible today too, provided the major powers do not prioritize geopolitics to such an extent that they start to view the global economy through a purely zero-sum lens. Here too, economics can play a constructive role. Instead of expressing nostalgia for a bygone era that produced mixed results and was never sustainable in the first place, economists can help design a new set of rules for the global economy that assist in the rebalancing. In particular, they can craft policies to help governments attend to their domestic economic, social, and environmental agendas while avoiding explicitly beggar-thy-neighbor policies. They can develop new principles that clarify the distinction between domains where global cooperation is necessary and those where national action should take priority.

A useful starting point is the tradeoff between the gains from trade and the gains from national institutional diversity. Maximizing one undermines the other. In economics, "corner solutions" are rarely optimal, meaning that reasonable outcomes will involve sacrificing some of both sorts of gains. How these contending objectives should be balanced in trade, finance, and the digital economy is a challenging question on which economists could shed much light.

Economists who want to be relevant and useful must offer concrete solutions to the central problems of our time: speeding the climate transition, creating inclusive economies, promoting economic development in poorer nations. But they must avoid cookie-cutter Econ 101 solutions. Their discipline offers much more than rules of thumb. Economics can help only if it expands our collective imagination instead of reining it in. F&D

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## A New Compass for Economics



## **Kate Raworth**

Economic renewal must begin with the goal of human flourishing on a thriving, living planet



f economics is to be a tool for moving human societies away from endemic crisis toward a resilient and thriving future, then its renewal starts with a new compass and map that are fit for our times.

As John Maynard Keynes wrote in 1938, "Economics is the science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world." It's ironic that some of the most profoundly influential models still shaping economic thought today were created in Keynes' own era. If he were alive this century—and were witness to the scale of social and ecological crises that we currently face—he would no doubt be urging his fellow economists to create new models that reflect the knowledge, reality, and values of our times. He would be right.

Last century, when postwar economic thought adopted growth as its de facto goal, GDP became the economist's compass: it depicted progress as an exponential curve, measured with the single metric of monetary value in pursuit of endless increase, no matter how rich a nation already was. The impact of wealthy countries continuing to prioritize GDP growth over tackling inequality and protecting the living world is now all too clear.

This century, we need a far more ambitious and holistic goal: human flourishing on a thriving, living planet. And one compass that can guide us turns out to look like a doughnut (see Chart 1). It prioritizes the essential needs and rights of every person-from food, water, and health to decent work and gender equality. At the same time, it recognizes that the health of all life depends upon protecting Earth's life-supporting systems: a stable climate, fertile soil, healthy oceans, and a protective ozone layer. In the simplest terms, the doughnut enables humanity to thrive between a social foundation and an ecological ceiling-in other words, meeting the needs of all people within the means of the living planet.

Embracing such a compass replaces the single GDP metric with a dashboard of diverse social and ecological metrics. It entails redefining success not as endless growth but rather as thriving in balance between social and ecological boundaries. This calls for a profound paradigm shift. Given that no economy in the world has met the needs of all its people within the means of the living planet (Costa Rica is the closest to doing so), no economy should yet consider itself "developed."

If the doughnut is a compass for 21st century progress, what kind of macroeconomic worldview would give humanity a chance of getting there? Back in the 1940s, when Paul Samuelson first drew the iconic circular flow diagram—depicting the monetary flows that circulate between households and firms, and banks and governments—he essentially defined the model of the macroeconomy that would come to dominate 20th century economic thinking. This model is still applied as a foundational conceptual map of economic systems today.

Yet, in the words of the systems thinker John Sterman, "The most important assumptions of a model are not in the equations, but what's *not* in them; not in the documentation, but unstated; not in the variables on the

Doughnut of social and planetary boundaries

The economy must meet the needs of the people without overshooting the Earth's ecological ceiling.

Climate change

ECOLOGICAL CEILING

ORDER FOR HUMAN MARKET FOR HU

"Facing up to the ecological consequences of economic activity is now a critical moral obligation."

computer screen, but in the blank spaces around them." What is not seen in the blank spaces around Samuelson's circular flow model are the vast quantities of energy, materials, and waste involved in economic activity. Leaving these invisible has proved profoundly dangerous for life on Earth.

A 21st century map must provide a far more holistic and biocentric starting point by recognizing that the economy is both embedded within, and dependent upon, the living world.

The seemingly obvious step of depicting the economy as a subsystem of Earth's biosphere is also one of the most radical and essential acts for renewing economics this century. It calls on all economic analysis to recognize that the economy is an open system—with large

inflows and outflows of both energy and matter—within our planet's unique and delicately balanced biosphere.

From this perspective it becomes clear that energy, not money, is the fundamental currency of life, underpinning all human, ecological, and industrial systems. Energy dependence then lies at the heart of the economist's understanding. We must recognize that humanity's continual use of resources puts intense pressure on planetary boundaries, creating a high risk of undermining the ecological stability on which human and all life fundamentally depends.

When we situate the economy within the living world in this way, the 20th century pursuit of endless growth sits in sharp tension with empirical evidence to date. The ambition of decoupling consumption-based carbon emissions and material use from GDP growth in today's high-income economies is not happening at anywhere near the speed and scale required to avert critical tipping points.

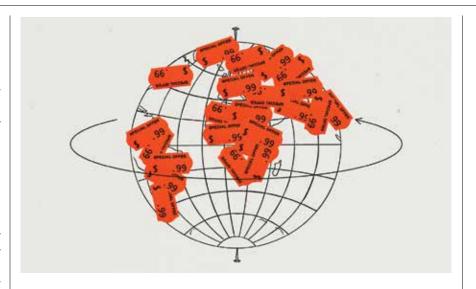
This compels us to question the limits to growth and explore postgrowth economic possibilities, particularly in wealthy economies. Facing up to the ecological consequences of economic activity is now a critical moral obligation.

A new compass for economic thought also entails taking a more holistic view of the range of economic activity that provides for people's essential needs and wants. Mainstream economic thought has been dominated for over a century by an ideological boxing match over the respective roles of the market and the state. Both sides have lost sight of two other critical sources of provisioning: the household and the commons. Much of the value they generate is not reflected in GDP, but they are a key part of the embedded economy model because the value they produce is critical for human well-being.

Take, for example, the unpaid caregiving done predominantly by women in the home, which is essential to well-being and systematically subsidizes paid work. Similarly, the commons can be a highly effective means of provisioning goods and services whose value is not reflected in monetary exchange—from open-source software to Wikipedia to transnational watershed management.

Economic renewal must begin with the goal of human flourishing on a thriving, living planet. If we hope to get there we need macroeconomic models that recognize the economy as a subsystem of the living world. Within it, finance must be redesigned to be in service to the real economy, in service to life. This constitutes a conceptual revolution, and it is essential. F&D

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## The Social Costs of Price



## **Katharina Pistor**

Price-tag policymaking doesn't measure the things that matter to people

ule by price has become fashionable, not only in economics but in public policy too. Putting a price tag on policies—by measuring in one unit the benefits for target groups and the costs others might bear—projects an aura of objectivity and transparency.

The aim is to enable policymakers to choose rationally among different ways to solve the same problem: compare different problems and their policy solutions simply according to their relative cost-effectiveness in dollars or some other currency. Once everything is measured and comparable, it's almost possible to dispense with politics.

The messiness of politics, with the endless struggles to find common ground among inherently incommensurate objectives, can be turned into a simple spreadsheet from which to choose the most cost-effective option. Government is becoming governance by price tags.

Ideal-type markets, the kind found only in textbooks, serve as the model. The idea is that trading reveals the value of objects to buyers and sellers and that the price therefore holds all the relevant information. Of course, this is true only in efficient markets—markets without information costs and transaction costs, where no transaction