



New and Appropriate Economics for the 21st Century: A Survey of Critical Books, 1978-2013

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Abstract

Economics is an important construct explaining human wealth and well-being. Many economic ideas of the industrial era, however, are not appropriate to 21st century economies, where human and natural capital are increasingly valued, and simplistic assessments of wealth, national product, growth, and human happiness are increasingly questioned due to bad economic ideas in high places. To cope with growing complexity, uncertainty, and concern for sustainability, many critical books have been published, especially over the past 35 years. This "frontier frame" seeks to outline these views in a compact format of six categories: General Critiques of deficient economic thought, Ecological Economics, Scientific and Global Organizations (such as the OECD and UN), Textbooks Supporting a Broader View, Alternative Labels (such as Heterodox and Post-Kevnesian), and a sevenpoint agenda of needed actions to accelerate learning about better ideas for economic policy. An Appendix briefly describes ten organizations promoting new economics.

The Problem of Outmoded Economics

"Economics" is an important construct, having to do with the production and distribution of wealth, human well-being and welfare. Despite disclaimers, it is inexorably tied to ideology and values—political ideas about the good society and how to promote it. Some economists describe their efforts as "scientific," but this is merely a strategy to legitimate their work and their assumptions, while excluding other economic thinking that is deemed less "rigorous," even if broader and more relevant.

"Alternative views of what economics is and ought to be are highly fragmented and seldom debated."

Economics is often considered as a "social science," but the discipline does not behave as a science, where competing views are seriously debated, and practitioners are truth-seekers above all, open-minded to new perspectives and paradigms. Curiously, alternative views of what economics is and ought to be are highly fragmented and seldom debated. The purpose of this "frontier frame" is to display the growing literature of alternatives, so as to encourage more discussion, debate, and integration. A new and appropriate economics construct is certainly one of the "evolutionary ideas that can spur our collective progress" (*Cadmus* Vision Statement) and, arguably, the keystone construct. But how do we decide on what it should be?

The economics of the industrial era and the 20th century is not appropriate to the 21st century service economies, where human capital and natural capital are—and should be—increasingly valued, and estimates of "wealth", national product, and human happiness and satisfaction are increasingly questioned. On the negative side, the world economy and the world environment have been gravely damaged by bad economic ideas in high places, especially simplistic and idealized "free market" economics that brought on the ruinous Great Recession of recent years, and equally simplistic measures of Gross Domestic Product that omit many fundamental components of wealth, as well as activities such as pollution that diminish wealth

Outmoded paradigms need to be replaced by an economics appropriate to 21st century conditions of climate change, environmental crises, scarce financial and natural resources, burgeoning technology (for better *and* worse), globalization, large multinational enterprises, an aging-yet-still-expanding population with rising expectations and frustrations, and growing complexity, uncertainty, and concern for sustainability. Transition appears to be slowly underway, yet the dead ideas of "zombie economics" (see Quiggan, below) continue to prevail. This essay seeks to hasten the transition by pointing to the growing flood of critiques, and who wrote what and when.

Titles from the 2009-2012 period have been extracted from my Global Foresight Books website (where one can access longer abstracts), while titles from the 1980-2008 period are selected from *Future Survey*, a monthly publication of the World Future Society, that I founded and edited. They are arranged in six overlapping categories. An Appendix lists organizations supporting new economics, many of them connected with books cited here.

- 1. General Critiques
- 2. Ecological Economics
- 3. Scientific and Global Organizations (NRC, World Bank, OECD, UN)
- 4. Textbooks Supporting a Broader View
- 5. Alternative Labels: Heterodox, Post-Keynesian, etc.
- 6. What Must Really Be Done

APPENDIX: Ten Organizations Promoting New Economics

Items within each category are generally arranged from broad to specific in focus, and recent to not-so-recent. I have seen many of these books, but information on many others is from publisher catalogs. This listing should be seen as provisional, and an invitation to a more thorough treatment of all titles considered here, as well as appropriate titles that have been overlooked. An asterisk (*) indicates titles that appear to be especially important.

1. GENERAL CRITIQUES

It is difficult to identify one "knock-'em-dead" book that appears to stand out above all

others. Each has some contribution to make. The Skeptical Economist: Revealing the Ethics Inside Economics by Jonathan Aldred of Cambridge University (Earthscan, Nov 2010/288p) discusses views about how we ought to live and what we value, and questions the ethical foundations of economics. Debunking Economics: The Naked Emperor Dethroned by Steve Keen of University of Western Sydney (Zed Books, revised edition, Sept 2011/544p; www.debunkingeconomics.com) considers the many critiques of neoclassical theory, seen as "a degenerative research program" leading to a belt of hypotheses that shield core beliefs from critics. The Puzzle of Modern Economics: Science or Ideology by Roger E. Backhouse of University of Birmingham (Cambridge University Press, Aug 2010/216p) describes how economists have tried to make their subject scientific, and the pace of dissent within the discipline. Reassessing the Paradigm of Economics: Bringing Positive Economics Back into the Normative Framework by Valeria Mosini of the London School of Economics (Routledge, July 2011/176p) questions neoliberal doctrine, as well as attempts to create scientific status, and calls for reformulating 21st century economics in an explicitlyrecognized normative framework. Also see The End of Value-Free Economics edited by Hilary Putnam of Harvard University and Vivian Walsh of Muhlenberg College (Routledge, Nov 2011/240p). Economics of Good and Evil: The Ouest for Economic Meaning from Gilgamesh to Wall Street by Czech economist Tomáš Sedláček (Oxford University Press, May 2011/384p) questions the touting of economics as a science, and views it merely as a parable to grasp the world around us; ultimately, it is about good and evil.

The Delusions of Economics: The Misguided Certainties of a Hazardous Science by Gilbert Rist of the Graduate Institute of International and Development Studies in Geneva (Zed Books, Nov 2011/224p) examines the biases and quasi-religious beliefs that led to constructing economics as a "science." Gross Domestic Problem: The Politics Behind the World's Most Powerful Number by Lorenzo Fioramonti of the University of Pretoria (Zed Books, Jan 2013/208p) addresses the global quest to dethrone the GDP measure and changes from below. *Economics after the Crisis: Objectives and Means by Adair Turner, Chair of the UK Financial Services Authority (MIT Press, April 2011, 128p) argues that the faults of theory and policy that led to the recent crisis resulted from simplistic beliefs about the objectives and means of economic activity, and assumptions about inequality as inevitable and necessary. *The Assumptions Economists Make by Jonathan Schlefer of the Harvard Business School (Harvard University Press, March 2012, 296p) also views economists as largely accountable for the financial crisis and income inequality, due to blind faith in the invisible hand of unregulated enterprise. *Zombie Economics: How Dead Ideas Still Walk among Us by John Quiggan of University of Queensland (Princeton University Press, Oct 2010, 216p) lays bare the many assumptions behind market liberalism and dead ideas such as "trickle-down economics," and asks how we might kill these zombie ideas once and for all. The new paperback edition (Princeton University Press, May 2012, 248p) adds a chapter on the re-emergence of questionable pre-Keynesian ideas about austerity and balanced budgets as a response to the recession.

The Economic Crisis and the Crisis in Economics (Institute for New Economic Thinking, April 2010; see APPENDIX on Organizations, #2) assembles proceedings of the inaugural conference of INET held at King's College/Cambridge, where Keynes did his thinking in the 1930s. Topics include theory to guide reform and restructuring, a new global

financial architecture, consequences of inequality, and what government can and will do. The New Economics: A Bigger Picture by David Boyle and Andrew Simms of the New Economics Foundation in London (Earthscan, Oct 2009, 192p; see APPENDIX #9) points to a world driven by economic assumptions that no longer work, and boosts "new economics" approaches that value real wealth, put people and planet first, and reflect full costs in pricing. Similarly, The Economics of Enough: How to Run the Economy as if the Future Matters by Diane Coyle of University of Manchester (Princeton University Press, March 2011/304p) argues that the world's leading economies face many crises and share "a reckless disregard for the future," and lays out steps to create a sustainable economy, *Rapport de la Commission sur la mesure des performances economiques et du progress social by Joseph Stiglitz, Amartya Sen, and Jean-Paul Fitoussi (Ministere de l'Economie, Sept 2009/324p) considers quality of life, sustainable development, and the need for new indicators of wealth and progress. Right Relationship: Building a Whole Earth Economy by Peter G. Brown of McGill University and Geoffrey Garver of the Quaker Institute for the Future in Montreal (Berrett-Koehler, Feb 2009/216p; foreword by Thomas E. Lovejoy) exposes dangerous assumptions and uses the core Quaker principle of "right relationship" to aid the common good as foundation for a new economic model. The End of Progress: How Modern Economics Has Failed Us by Singapore-based economist Graeme P. Maxton (Wiley, 2011/226p) asserts that "our species is moving backwards" as we destroy more than we build, "a major cause of our problems is modern economic thinking," our financial system is broken, we will become financially poorer and less healthy, and many changes are needed. Beyond the Financial Crisis: The Oxford Scenarios by Angela Wilkinson of University of Oxford (Said Business School and James Martin 21st Century School, March 2010/81p; www.sbs. oxford.edu/financial-scenarios) describes the recent crisis as caused by "socially constructed ignorance" of standard economics, and offers two scenarios of "Growth" (business as usual) and "Health" (coping with complexity and pursuing sustainability as opportunity). The Restructuring of Capitalism in Our Time by Marxist economist William K. Tabb of CUNY-Queens College (Columbia University Press, Jan 2012/352p) questions the shift to financialization and calls for a social structure of accumulation that values economic justice over profit and establishes an inclusive, sustainable growth model.

All of the above-mentioned books have been energized by the Great Recession that began in 2008. But critiques of economic thinking go back several decades. In the post-2000 period, The Meaning of the 21st Century: A Vital Blueprint for Ensuring Our Future by James Martin (Riverhead/Penguin, 2006/400p) questions perverse subsidies and the false accounting of the GDP measure that ignores natural capital. Capitalism as if the World Matters by Jonathon Porritt of the UK Forum for the Future and the UK Sustainable Development Commission (Earthscan, Dec 2005) attacks the GDP measure and proposes a "Five Capitals Framework" that considers natural capital, human capital, social capital, manufactured capital, and financial capital. In The Real Wealth of Nations: Creating a Caring Economics (Berrett-Koehler, 2007/318p), Riane Eisler insists on six elements in any economic model: the market economy, the illegal economy, household production, unpaid community work, government, and the natural economy. Based on Eisler's thinking, The State of Society: Measuring Economic Success and Human Well-Being by Erwin de Leon and Elizabeth T. Boris of the Urban Institute (UI/CIP, May 2010/81p; www.urban.org/publications/412101.html) offers a broad range of measures that go beyond GDP, with 79 indicators

in 14 categories of well-being. **Economics for Humans** by Julie A. Nelson of Tufts University (University of Chicago Press, 2006/154p) questions the biased beliefs of academic economics, which holds mathematical sophistication in high regard while issues of human need and caring are considered "non-rigorous." **A Guide to What's Wrong with Economics** edited by Edward Fullbrook of the University of the West of England (Anthem Press, 2004/323p) pillories micro nonsense, macro nonsense, ethical voids, misuse of mathematics, and neoclassical economics as ideology (shedding light on an ever-smaller proportion of economic reality), while advocating ecological economics. Fullbrook went on to edit **Real-World Economics: A Post-Autistic Economics Reader** (Anthem, 2007) and **Pluralist Economics** (Zed Books, 2008), to edit the *Real World Economics Review*, and to found the World Economics Association in 2011 (see APPENDIX #1).

Several outstanding books were published in the 1990s. *Turning Point: An End to the Growth Paradigm by futurist Robert U. Ayres of INSEAD (St. Martin's Press, 1998) expresses "deep misgivings" about economic growth as currently defined and measured, world trade as an instrument to achieve growth, irrational belief in the free market, econometric models as "very sophisticated trend extrapolation machines," and economic mismanagement due to flaws in theory. *The Genuine Progress Indicator: Summary of Data and Methodology by Clifford Cobb, Ted Halstead, and Jonathan Rowe (Redefining Progress, 1995; brief version as Atlantic Monthly Cover Feature, Oct 1995, pp59-78) critiques the GDP measure for ignoring contributions of families, communities, and the environment (much of what economists call "growth" is really fixing blunders and social decay from the past), and proposes the GPI as a measure of "honest national accounting" expanding on the Index of Sustainable Economic Welfare proposed by Herman Daly and John B. Cobb Jr. Also see The Green National Product: A Proposed Index of Sustainable Economic Welfare by Clifford W. Cobb and John B. Cobb Jr (University Press of America, 1994/285p). For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future by Herman Daly of the University of Maryland and John B. Cobb of the Claremont Graduate School (Beacon Press, 2nd edition, March 1994/534p), first published in 1989, critiques the failings of economics and proposes a real-world approach to the economy, including a restoration of honesty to the function of money in the economic system. The Death of Economics by Paul Ormerod of The Economist (Faber and Faber, 1994; St. Martin's Press, 1995) views the orthodoxy of conventional economics as "trapped in an idealized, mechanistic view of the world" and questions measuring prosperity by GDP, mechanistic modeling, and competitive general equilibrium. The End of Economics? Ethics and the Disorder of Progress by Cristovam Buarque of the University of Brasilia (Zed Books, 1993) calls for ethics in economics, valuing nature and culture, and rethinking progress. The Misunderstood Economy: What Counts and How to Count It by Robert Eisner of Northwestern University, a past president of the AEA (Harvard Business School Press, 1994), discusses failures of the GDP measure, the full value of government output, environmental deterioration, intergenerational transfers, and measure of human suffering and well-being. Steady-State Economics by Herman E. Daly (Island Press, 2nd edition, 1991), first published in 1977, criticizes the "more is better" growth paradigm, evasion of ethical issues, and the failure to seriously consider "management of the household." Real-Life Economics: Understanding Wealth Creation edited by Paul Ekins of University of London and Manfred Max Neef of the Development Alternatives Center in Santiago (Routledge,

1992/460p) faults mainstream economics for failing to provide a coherent explanation of reality, and proposes a four-capital model of wealth creation and humanistic economics. The 37 essays were sponsored by London's Living Economy Network.

The 1980s also saw a number of critiques. The Living Economy: A New Economics in the Making edited by Paul Ekins (Routledge & Kegan Paul, 1986) provides papers from 1984/1985 conferences of The Other Economic Summit on the assumptions of GDP and human-scale economics. Contributors include James Robertson, Herman Daly, Hazel Henderson, Johan Galtung, John McKnight, and Willis Harman. Future Wealth by British economist/futurist James Robertson (Cassell, 1989/178p) questions the "primitive assumptions" of conventional economics and proposes principles for a new economic order. Earlier in the decade. *Dialogue on Wealth and Welfare: An Alternative View of World Capital Formation—a Report to the Club of Rome by Orio Giarini of the Graduate Institute of European Studies in Geneva (Pergamon, 1980/386p) critiqued the GNP measure for including destructive activity and excluding non-monetarized production, insisting that the natural environment must be recognized in economic terms. A follow-on report to the Club of Rome, The Limits to Certainty by Orio Giarini and Walter Stahel (Kluwer Academic, 1993; preface by Ilya Prigogine) enumerates several ways in which the predominance of services alters the fundamental notions of economic value. Both books are summarized in "The Wealth of Nations Revisited" by Orio Giarini, Garry Jacobs, Bernard Lietaer, and Ivo Slaus (Cadmus, 1:1, Oct 2010, pp 9-27). Also in the same issue, see "Indicators of Economic Progress: The Power of Measurement and Human Welfare" by Garry Jacobs and Ivo Slaus (pp 53-113), a lengthy summation of alternative economic indices such as ISEW and GPI, and a proposed Human Economic Welfare Index (HEWI).

Also in the 1980s, *The Moral Dimension: Toward a New Economics by wide-ranging sociologist Amitai Etzioni of GWU (Free Press, 1988; see APPENDIX #8) criticizes the paradigm of neoclassical economics for overemphasis on free-standing selfish individuals. Humanistic Economics: The New Challenge by Mark A. Lutz of the University of Maine and Kenneth Lux (Bootstrap Press/ITDG, 1988; foreword by Amitai Etzioni), an update of The Challenge of Humanistic Economics (Benjamin/Cummings, 1979), critiques the one-dimensional "rational man" of mainstream economics and builds on the universality of human needs for basic material needs, meaningful work, and dignity. Of related interest is Human Economy: A Bibliography compiled by John Applegath of the long-defunct Human Economy Center in Amherst MA (HEC, 1981/77p), with 50 annotated items and some 950 unannotated items on critiques of economics, wealth distribution, self-sufficiency, ecology/environment, etc.

*Stabilizing an Unstable Economy by widely-respected economist Hyman P. Minsky of Washington University (Yale University Press, 1986/353p; a Twentieth Century Fund Report) takes a "post-Keynesian view" that the standard body of economic theory is seriously flawed; despite its elegant logical structure, it fails to explain how financial crises emerge. *Dangerous Currents: The State of Economics by Lester C. Thurow of MIT (Random House, 1983) cites the intellectual disarray of economists, lack of shared ideas, unsupported assertions, and ever-narrower interpretations as mathematical sophistication increases; transition to another mode of thought is difficult, however, since it involves "abandoning a beautiful sailing ship." Economics and Policymaking: The Tragic Illusion by political

scientist Eugene J. Meehan of University of Missouri-St. Louis (Greenwood Press, 1982) notes that economists rarely examine their basic assumptions and their reward system strongly supports the status quo. *The Politics of the Solar Age: Alternatives to Economics by the remarkable auto-didact Hazel Henderson (Anchor Press/Doubleday, 1981, 433p) offers a spirited collection of essays aimed at a "complete restructuring of economics" and its statistical illusions; topics include the end of "flat-earth economics," failures of Keynesianism and post-Keynesians, economists as apologists for late-stage industrial culture, and battles over changing paradigms; it utilizes extensive footnoting and annotations of 46 books on re-doing economic theory. Henderson's earlier book, Creating Alternative Futures: The End of Economics (Berkeley/Windhover, 1978, 403p; foreword by E.F. Schumacher) has essays on economics as "our reigning sophistry," the vision of a decentralized society, problems with GNP measures ignoring social and environmental costs, and inadequate modeling of "efficiency" criteria. Managing Growth in the 80's: Toward a New Economics by Robert Hamrin (Praeger, 1980), former staff economist of the US Congress Joint Economic Committee, argues for new variables to overhaul old economic models, and a shift to the "economics of quality" and a "total employment economy."

2. ECOLOGICAL ECONOMICS

A parallel stream of critiques focuses largely if not entirely on the neglect of environmental concerns. Several general overviews deserve mention at the outset. *The Bridge at the End of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability by James Gustave Speth (Yale University Press, March 2008/295p), former head of the World Resources Institute and Dean of the Yale School of Forestry and Environmental Studies, passionately argues that our market economy operates on "wildly wrong market signals" and lacks correcting mechanisms; advocates real growth that promotes well-being of people and nature (as measured by ISEW), and ecological economics not as the end of the world but the beginning of a new one. *Natural Capitalism: The Next Industrial Revolution by Paul Hawken, Amory B. Lovins, and L. Hunter Lovins (10th Anniversary Edition, Earthscan, June 2010/416p) criticizes regulatory failures and "free market fantasies" that assume perfect information; advocates radical resource productivity, biomimicry, and saving energy as less costly than buying it. *State of the World 2008: Innovations for a Sustainable Economy edited by Gary Gardner and Thomas Prugh of the Worldwatch Institute (W.W. Norton, Jan 2008) calls for reforming economics in seven areas: shifting focus from growth to well-being, making prices tell the ecological truth, accounting for nature's contribution, applying the precautionary principle, adjusting economic scale, valuing women's work, and revitalizing commons management. Prosperity Without Growth: Economics for a Finite Planet by Tim Jackson of University of Surrey (Earthscan, Dec 2009/264p) updates Jackson's 2003 Redefining Prosperity report to the UK Sustainable Development Commission, proposing "a different kind of macroeconomics" that does not rely on evergrowing consumption and growth, where economic activity remains within ecological scale.

A New Blueprint for a Green Economy by Edward Barbier of the University of Wyoming and Anil Markandya of the Basque Center for Climate Change (Earthscan/Routledge, Sept 2012/192p), updates the original 1989 version, urging progress in three key areas: valuing the environment, accounting for the environment, and incentives for environmental

improvement. Capitalizing on Nature: Ecosystems as Natural Assets by Edward Barbier (Cambridge University Press, Oct 2011/336p) addresses key issues in the unfolding "Age of Ecological Scarcity," the central challenge of environmental economics. Our Choice: A Plan to Solve the Climate Crisis by Al Gore (Rodale Press, Nov 2009/416p) synthesizes 30 "Solutions Summits" convened by the former US Vice President, including changing the GDP system of national accounts (never intended as a measure of well-being when created in the 1930s) and the way we think about the true cost of carbon (several trillion dollars of subprime carbon assets depend for their valuation on a zero price for carbon emissions).

Economic Thought and U.S. Climate Change Policy edited by David M. Driesen of the Syracuse University College of Law (MIT Press, June 2010/356p) questions the unyielding neoliberal stance that embraces free markets, the many errors of cost-benefit analysis of climate change, and overestimates of the cost of abating pollution and reducing greenhouse gases. *The Economics of Climate Change: The Stern Review by Sir Nicholas Stern (Cambridge University Press, Jan 2007/712p), describes climate change as "the greatest market failure the world has ever seen," and urges policy to promote strong market signals. Twenty-First Century Macroeconomics: Responding to the Climate Challenge edited by Jonathan M. Harris and Neva R. Goodwin of Tufts University (Edward Elgar, June 2009/352p) challenges conventional assumptions about economic growth and urges an economics that accounts for environmental and generational impacts of climate change, and reorienting investment to new economic development paths.

The Economics of Biodiversity: Ecological and Economic Foundations edited by Pushpam Kumar of University of Liverpool (Earthscan, Nov 2010/400p) describes The Economics of Ecosystems and Biodiversity Project (TEEB) set up in 2007 and led by the UN Environmental Programme to globally assess the economic aspects of ecosystem services provided by nature. This resulted in The Economics of Ecosystems and Biodiversity: TEEB for Local and Regional Policymakers (UNEP, Jan 2011/208p) and The Economics of Ecosystems and Biodiversity in National and International Policymaking (UNEP, June 2011/494p), which highlight the growing costs of biodiversity loss and ecosystem degradation, the benefits of investing in natural capital, and the need to integrate the values of nature across policy sectors. Biodiversity and Ecosystem Insecurity: A Planet in Peril by Ahmed Djoghlaf and Felix Dodds (Routledge, June 2011) emphasizes the need to place a realistic value on nature and the services that ecosystems provide. Valuing the Environment: Economics for a Sustainable Future by David Glover of the International Development Research Centre in Ottawa (IDRC, May 2010/120p) shows how poorly functioning markets, incomplete property rights, and misguided policies are harmful to the environment and future generations. Ecosystem Services from Agriculture and Agroforestry: Measurement and Payment edited by Bruno Rapidel et al. (Earthscan, May 2011/320p) shows viable mechanisms to compensate agricultural systems for the environmental services they provide. Valuing Ecosystem Services: The Case of Multi-Functional Wetlands by R. Kerry Turner et al. (Earthscan, May 2011, 23p) underscores the importance of ecosystem services valuation from a policy and project appraisal perspective. The Law and Policy of Ecosystem Services by J.B. Ruhl et al. (Island Press, 2007/345p) argues that natural capital is no longer generally in surplus, so the economic playing field must be adjusted into an ecological-economic playing field, with government regulating natural capital and viewing ecosystem services as public goods. Similarly, **The New Economy of Nature: The Quest to Make Conservation Profitable** by Gretchen C. Daily of Stanford University and Katherine Ellison (Island Press, 2002/260p) argues that it was once reasonable to think of ecosystem services as free when natural capital was abundant and human activities limited; today, when nature everywhere is under siege, externalities must be considered. **You Can't Eat GNP: Economics As If Ecology Mattered** by Eric A. Davidson of Woods Hole Research Center (Perseus Books, 2000/247p) seeks to displace outmoded GNP thinking that ignores the value of natural resources.

The Economics of Nature and the Nature of Economics edited by Cutler J. Cleveland, David I. Stern, and Robert Costanza (Edward Elgar, 2001/293p) discusses the evolution of ecological economics, green national accounting, a green GNP, the need for a new growth paradigm, and formation of ISEE in 1987 (see APPENDIX #7). An Introduction to Ecological Economics by Robert Costanza, John Cumberland, Herman Daly, Robert Goodland, and Richard Norgaard (St. Lucie Press/ISEE, 1997/275p) covers the historical growth of economy and ecology, principles of ecological economics, institutions, and instruments. Environmental Economics by Clem Tisdell of University of Queensland (Edward Elgar, 1993) considers externalities, pollution control policies, cost-benefit analysis, intergenerational economic welfare, risk-taking, etc. Economic Values and the Natural World by David W. Pearce of University College London (MIT Press, 1993/129p) considers national priorities, modifying GNP, and applying economic valuation to project appraisal. World Without End: Economics, Environment, and Sustainable Development by David W. Pearce and Jeremy J. Warford of the World Bank (Oxford University Press/World Bank, 1993/440p) covers environmental economics, choice of discount rate, evaluating environmental damage and benefits, carrying capacity, market failure, pricing for cost recovery, etc. *Choosing a Sustainable Future: The Report of the National Commission on the Environment chaired by Russell E. Train (Island Press, 1993) focuses on the goal of sustainable development as the primary goal of economic policy, an end to price-distorting subsidies, revising GNP, and taxing environmentally harmful activities. The Natural Wealth of Nations: Harnessing the Market for the Environment by David Malin Roodman of the Worldwatch Institute (W.W. Norton, 1998/303p) focuses on prices that do not tell the environmental truth, shifting taxation to activities that hurt the environment, and trading of permits for pollution and resource depletion.

Still more excellent books from the 1990s deserve consideration, especially because ecological economics and environmentalism *appear* to have recently lost their momentum (perhaps eclipsed by the Great Recession). *Taking Nature into Account: Towards a Sustainable National Income. A Report to the Club of Rome edited by Wouter van Dieren of the Institute for Environment and Systems Analysis in Netherlands (Copernicus/Springer-Verlag, 1995/332p) argues that economics is not a science but a set of theories and choices; we must rid our economies of hypocrisy, the main hypocrisy being the System of National Accounts employed for nearly half a century. Real Value for Nature: An Overview of Global Efforts to Achieve True Measures of Economic Progress by Fulai Sheng of WWF (World Wildlife Federation, 1995/158p) critiques the UN System of National Accounts for failing to consider natural resources and environmental services, while including costs of reparative measures. Investing in Natural Capital: The Ecological Economics Approach

to Sustainability edited by Ann-Mari Jansson, Monica Hammer, Carl Folke, and Robert Costanza (Island Press, 1994/504p), derived from the 1992 ISEE second conference in Stockholm (see APPENDIX #7), considers a natural capital depletion tax, investing in cultural capital for sustainable use of natural capital, mitigation strategies for sea-level rise, etc. Ecological Economics: The Science and Management of Sustainability edited by Robert Costanza (Columbia University Press, 1991, 525p), derived from the 1990 ISEE first meeting in Washington (see APPENDIX #7), includes essays by Kenneth Boulding, Herman E. Daly, Garrett Hardin, Mary E. Clark, and Juan Martinez-Alier. *The Gaia Atlas of Green Economics by Paul Ekins *et al.* (Anchor Books/Doubleday, 1992; foreword by Robert Heilbroner) urges a four-capital model of wealth creation (ecological, human, manufactured, social), economic accounting for the environment, the Adjusted National Product as superior to GNP, creating eco-capital, etc.

3. SCIENTIFIC AND GLOBAL ORGANIZATIONS

One important indicator that the above critiques are being accepted, or simply discovered anew, can be found in the adaptation of these ideas by large and influential organizations. (This section can probably be considerably expanded, but a few items suggest what is happening). *Beyond the Market: Designing Nonmarket Accounts for the United States by the National Research Council (National Academies Press, 2005/209p) states that the National Income and Product Accounts constructed for the US in the 1930s omit a large part of the nation's product; high priority should be given to five areas: household production, investments in human capital and formal education, investments in health, government and non-profit sectors providing public goods and services (notably with volunteer labor), and environmental assets and services (value changes in stocks of natural resource and externalities associated with pollution). The World Bank takes an equally radical step forward with *The Changing Wealth of Nations: Lessons for Sustainable Development (World Bank, Oct 2010/270p), which estimates "comprehensive wealth" (including produced, natural, and human/institutional assets) for over 100 countries in 1995, 2000, and 2005.

The frequently overlooked Organization for Economic Co-operation and Development in Paris, arguably the world's largest think tank, issues hundreds of reports each year encouraging "a stronger, cleaner, fairer world economy." Several reports are quite relevant to new economic thinking. Harnessing Markets for Biodiversity: Towards Conservation and Sustainable Use (OECD, 2003/137p) provides a conceptual framework for the OECD Environmental Strategy of the First Decade of the 21st Century, arguing that the first step requires that economic values be made explicit: once undervalued biodiversity goods and services are valued, rational decisions can be made regarding use or conservation. Costs of Inaction on Key Environmental Challenges (OECD, Sept 2008/213p) enumerates direct financial costs (spending on health, remediation and restoration, and private defensive measures), indirect costs related to resource depletion and environmental degradation, costs associated with the loss of environmental use (aesthetics, visibility), and costs to biodiversity. *Towards Green Growth (OECD, June 2011/142p; GlobalForesightBooks.org Book of the month, June 2011) is the central report for the OECD Green Growth Strategy (www.oecd.org/greengrowth), a major on-going effort now embracing many related reports and encouraging OECD countries, notably South Korea, to go green. Green growth seeks to foster economic growth while ensuring that natural assets continue to provide services on which our well-being relies. The strategy "takes into account the full value of natural capital as a factor of production" and promotes market instruments that impact price signals (such as green taxes) and regulatory policies providing incentives for better resource use, energy efficiency, etc. **Towards Green Growth: Monitoring Progress—OECD Indicators** (OECD, May 2011/141p) provides a framework for governments to monitor the natural asset base, the environmental quality of life, resource productivity, and greener management approaches.

The Report of the UN Secretary-General's High-level Panel on Global Sustainability, Resilient People, Resilient Planet: A Future Worth Choosing (UN, 30 Jan 2012/94p; www.un.org/gsp; GFB Book of the Month, June 2012) provides 56 proposals to empower people, strengthen governance, and promote a sustainable economy. Proposal #27 urges natural resource and externality pricing instruments, long-term incentives for sustainable practices, national and international schemes to pay for ecosystems services (in water use, farming, fisheries, and forestry); #39 advocates a Sustainable Development Index or similar set of indicators by 2014 to measure progress. Even more important, *Inclusive Wealth Report 2012: Measuring Progress Toward Sustainability by the UNU International Human Dimensions Programme on Global Environmental Change (Cambridge University Press, July 2012/336p; www.ihdp.unu.edu/article/iwr) introduces the Inclusive Wealth Index (IWI) that combines measures of physical capital, human capital, and natural capital, and assesses 20 major countries, finding that 14 of them had positive IWI growth rates in the 1990-2008 period (led by China at 2.1% and Germany at 1.8%), and six nations had negative IWI growth rates, primarily due to high population growth. The broader IWI explicitly moves beyond the GDP measure, although many critics may still find it inadequate in several respects.

4. TEXTBOOKS SUPPORTING A BROADER VIEW

For students seeking a broader and more "real-world" view, as well as teachers who seek to assist their learning, at least seven textbooks are available.

*Macroeconomics in Context by Neva Goodwin, Julie A. Nelson, and Jonathan Harris of the Tufts University Global Development and Environment Institute (M.E. Sharpe, 2009/437p) covers both standard topics and the broader "contextual economics" approach addressing such topics as macroeconomic goals (decent living standards, security, sustainability), macroeconomics for the 21st century and in global context, the three spheres of economic activity (business, public, household/community), and challenges for the 21st century (human development, sustainability, discounting the future). *Microeconomics in Context by Neva Goodwin, Julie A. Nelson, Frank Ackerman, and Thomas Weisskopf (M.E. Sharpe, 2nd Edition, 2009/522p) focuses on human well-being and the broader context of economic activity including the five forms of capital (natural, manufactured, human, social, and financial). Microeconomic Theory Old and New: A Student's Guide by ISEE president John Gowdy of RPI (Stanford University Press, Jan 2010/208p; see APPENDIX #7) presents contemporary extensions of the core model of economics (Walrasian general equilibrium theory), as well as emerging alternatives. The Economics Anti-Textbook: A Guide to Critical Thinking by Rod Hill and Tony Myatt of the University of New Brunswick (Zed Books, May 2010/224p) might also be considered as a textbook.

Three textbooks are explicitly designated as "ecological economics." **Ecological Economics: Principles and Applications** by Herman F. Daly of University of Maryland and Joshua Farley of the University of Vermont Gund Institute (Island Press, 2nd edition, Oct 2009/488p; see APPENDIX #6), first published in 2004, views Ecological Economics as a "transdiscipline," discussing open and closed systems, types of resources, market failures, GNP vs. ISEW, redefining efficiency, sustainable scale, pricing and valuing non-market goods and services, and the importance of public goods. **Principles of Environmental Economics and Sustainability: An Integrated Economic and Ecological Approach** by Ahmed Hussen of Kalamazoo College (Routledge, 3rd edition, April 2013/480p) seeks to reconcile environmental and ecological economics. The first green textbook, however, was issued nearly twenty years ago by three UK professors! **Environmental Economics: An Elementary Introduction** by R. Kerry Turner, David Pearce, and Ian Bateman (Johns Hopkins University Press, 1993/328p) covers sustainable development, causes of environmental degradation (how markets and governments fail), cost-benefit thinking, valuing nature, coping with uncertainty, economic control of the environment, biodiversity, the ozone layer, and climate change.

5. ALTERNATIVE LABELS: HETERODOX, POST-KEYNESIAN, ETC.

The above-mentioned textbooks promote "contextual economics" and "ecological economics." A possible problem in the evolution to new and appropriate economics is the profusion of labels. Some examples follow. Post Keynesian and Ecological Economics: Confronting Environmental Issues edited by Richard P.F. Holt of Southern Oregon University et al. (Edward Elgar, Jan 2010/296p) argues that mainstream economics is limited in its ability to analyze and fashion adequate policy and proposes a transdisciplinary approach that focuses on complexity, bounded rationality, and socio-economic dynamics. *In Defense of Post-Keynesian and Heterodox Economics: Responses to their Critics edited by Frederic S. Lee of UMKC (see APPENDIX #3) and Marc Lavoie of University of Ottawa (Routledge, Aug 2012/256p) discusses inter-paradigm cooperation, theoretical convergence, brands of economics, the Trojan Horse of pluralism, and how to move forward. A Primer on Heterodox Economics by Ingrid Rima of Temple University (Routledge, July 2012/256p) charts the development of various schools of thought such as post-autistic economics, evolutionary institutionalism, post-Keynesian economics, German-Austrian economics, and revival of political economy. Toward an Integrated Paradigm in Heterodox Economics: Alternative Approaches to the Current Eco-Social Crisis edited by Julien-Francois Gerber of Harvard University and Rolf Steppacher (Palgrave Macmillan, Jan 2012/256p) explores new economic directions and paradigms; contributors include Herman Daly and Juan Martinez-Alier. Interdisciplinary Economics edited by Wilfred Dolfsma of Rijksuniversiteit Groningen and Stefan Kesting of Auckland University of Technology (Routledge, March 2012/288p) pays homage to the late Kenneth Boulding for stretching the boundaries of different fields in the social sciences. Beyond Reductionism: A Passion for Interdisciplinarity edited by Katharine Farrell of University of Aarhus et al. (Routledge, April 2012/288p) assesses ecological economics, eco-feminism, and methodological pluralism. Contributors include Richard Norgaard, Juan Martinez-Alier, Mary E. Clark, and Vandana Shiva.

Much of this is prefigured by *The Changing Face of Economics: Conversations with Cutting Edge Economists by David Colander of Middlebury College *et al.* (University of

Michigan Press, 2004/358p), which distinguishes between mainstream economics and heterodox economics, identifies complexity as a defining factor at the edge of economics, and concludes that economics is moving from strict adherence to the holy trinity of rationality, greed and equilibrium to a more eclectic trinity of purposeful behavior, enlightened self-interest and sustainability. Much earlier, **The Methodology of Economic Thought** edited by Warren J. Samuels of Michigan State University (Transaction Books, 1978) provided critical essays by heterodox economists. **Evolutionary Economics** by former AEA president Kenneth E. Boulding of the University of Colorado (Sage, 1978) argues that EE, in contrast to "mainline economics," embraces complexity and offers a "mutation that would strengthen the whole ecosystem of economic thought and make it richer and more varied," while opening up "the possibility for very large improvements on public policy based on more realistic appraisals."

Finally, mention should be made of **Socio-Economics: Toward a New Synthesis** edited by wide-ranging sociologist Amitai Etzioni of GWU and Paul R. Lawrence of the Harvard Business School (M.E. Sharpe, 1991/359p), with papers from a 1989 conference at HBS leading to formation of SASE (see APPENDIX #8), which promotes a more complex image of economic reality. **Morality, Rationality, and Efficiency: New perspectives on Socio-Economics** edited by Richard M. Coughlin of the University of New Mexico (M.E. Sharpe, 1991/411p) presents papers from the second SASE conference in 1990, criticizing neoclassical economics for neglecting morality. **If Women Counted: A New Feminist Economics** by Marilyn Waring of the NZ Parliament (Harper & Row, 1988/386p) complains that women's work is counted out of the labor force, whereas non-productive military spending is counted; also considers the value of caring services and flaws of the GNP measure.

"Happiness Economics" has yet to be used as a label, but this is an important new angle of thinking that serves to quietly undermine notions of GNP and its growth. The Pursuit of Happiness: Toward an Economy of Well-Being by Carol Graham of Brookings Institution (Brookings Institution Press, June 2011/160p) argues that well-being is broader than income, and many efforts are underway to develop well-being metrics as complements to traditional income and GDP data. [This complements the earlier Report of the Brookings Task Force on Intangibles, Unseen Wealth by Margaret M. Blair and Steven M.J. Wallman (Brookings, 2001/124p), which focuses on intangible factors such as human capital as most important to societal wealth.] Happiness: A Revolution in Economics by Bruno S. Frey of University of Zurich (MIT Press, 2008; pb. edition Sept 2010/256p) describes how government can provide the conditions for well-being based on happiness research, which has "the potential to change economics substantially" by measuring subjective well-being, how humans value goods and services, and non-material values. The Politics of Happiness: What Government Can Learn From the New Research on Well-Being by former Harvard University president Derek Bok (Princeton University Press, March 2010/262p) summarizes happiness research that challenges conventional wisdom about what people want, e.g. economic growth and higher income. His spouse, Sissela Bok, also addresses this topic in Exploring Happiness: From Aristotle to Brain Science (Yale University Press, Aug 2010/208p). Notably, this argument was also made some two decades ago in The Market Experience by Robert E. Lane of Yale University (Cambridge University Press, 1991/630p), a past president of the American Political Science Association, who asserted that the market should be judged

by satisfactions people receive, rather than efficiency in producing goods and services, thus shifting the axis of debate toward how economic life contributes toward happiness or human development.

In sum, all of these books seek a broader and more appropriate view of economics. But there are many overlapping ways to construct such a worldview. Contextual Economics, Ecological Economics, Post-Keynesian Economics, Heterodox Economics, Interdisciplinary Economics, Real-World Economics, Evolutionary Economics, Socio-Economics, Feminist Economics and the study of happiness all offer valuable perspectives. Can these ten perspectives unite to overcome the hold of simplistic Zombie Economics?

6. WHAT IS REALLY NEEDED

The complaint that we need more good ideas is seriously incomplete and misleading. As amply illustrated above, there are plenty of sensible and thoughtful ideas about new and appropriate economics, as well as other important global issues. This plethora of constructive thinking includes both recently published books (not to mention articles) as well as those published two to three decades ago. Do economists and policymakers know of these books? Read these books? And substantially change their thinking as a result? One cannot help but sense that there is something very wrong. Surely, yet another book, article, or journal is not what is needed. Rather, what is really needed are actions in seven areas, none of which is sufficient on its own.

- 1) A Clearinghouse for New Economics: Ongoing collection and assessment of books and articles on new economics are needed, in order to accelerate learning. A global clearinghouse is roughly outlined by this biblioessay. It should provide far more extensive abstracts, indexing of ideas (i.e. the many definitions of wealth) and selection of best books—both popular and scholarly—by an individual or a panel to counter the glut of titles. The harsh but unspoken fact is that these titles compete with each other, but some are surely more valuable than others, while all should be recorded.
- 2) The Summation: An ongoing summary statement must bring together the best of these ideas about post-GDP measurement and the varieties of wealth that should be considered for well-being and sustainability in the 21st century. Serious dissenting views can and should be included, but some sort of ongoing provisional consensus is needed, following the lead of the Intergovernmental Panel on Climate Change. Similar to the IPCC, this consensus statement should be made in a variety of formats, including a brief executive summary and one or more popularized versions. The agreement will feature some alternative measurement scheme (ISEW, GPI, or Human Economic Welfare Index (HEWI) as discussed in *Cadmus* 1:1, 99-113), and efforts should begin to encourage usage initially as a supplemental measure, and eventually as a substitute for GDP. Any new and broader measure will be imperfect and controversial, but still far better than continuing use of GDP/GNP alone. The OECD might be a valuable partner or lead agency in this project.
- 3) <u>National Champions:</u> Designated national champions are needed to promote these ideas, as regards national policies. It is clearly inadequate to make only a global statement, although initiatives such as OECD's Green Growth Strategy deserve far

- more attention (in the US, this set of relatively mild policy proposals would be considered in 2012 as daring and "radical").
- 4) Designing Debates: In addition to Op-Ed pieces, talk show appearances, and anything else that works to publicize the summary statement and new gross indicator of wealth and progress, considerable attention must be paid to staging serious debates with the proponents of mainstream economics on college campuses, on fair-minded television channels, and in the print media. Debates are needed to overcome the structural problem of academic fragmentation and general inattention to serious issues that have been greatly aggravated in our

"Universities are supposed to encourage progress in all areas of thinking and truth-seeking. The possible corruption of scholarly ideals is too important to be ignored."

era of infoglut. There will surely be well-funded plutocratic pushback from those who benefit from the current reigning ideas; this obstacle must be anticipated and somehow dealt with. Fair and thorough debates are difficult to arrange, but perhaps can start in academia, which claims to be open to all ideas.

- 5) Indicators of New Economic Progress: This biblioessay suggests by book titles alone that there is growing discontent with industrial era economics, especially after the still-unfolding disruptions of the Great Recession. In an important New York Times article five years ago ("In Economics Departments, a Growing Will to Debate Fundamental Assumptions" by Patricia Cohen, 11 July 2007, B6), Frederic S. Lee of the Heterodox Economics Newsletter (see APPENDIX #3) is cited as estimating that 5-10% of America's 15,000 economists are heterodox. Presumably, the number of full or partial apostates is growing after the financial crisis, but by how much? Are there thorough debates in fact, or mere casual exchanges? And what about economists in other countries? A global survey is needed to evaluate economists' changing allegiances and indicators such as which textbooks are used and how widely, and developments in global organizations and national policies are also needed.
- 6) Priority Surveys: As a way to draw attention to the evolutionary need for new and appropriate economics, ongoing surveys are needed among both economists and policymakers as to what is needed most in the years ahead. An exemplary model is provided by "Some Elements of the Next Global Economic System over the Next 20 Years," Chapter 3 of 2009 State of the Future by Jerome Glenn, Theodore J. Gordon, and Elizabeth Florescu (Millennium Project, Aug 2009; www.StateOfTheFuture.org), presenting results of an on-line questionnaire with 217 participants from 35 countries rank-ordering economic elements for improving the human condition. The top three elements were ethics as a key in economic exchanges and work relations, new GNP/GDP definitions that include all forms of national wealth, and a small "Tobin tax" on international transactions to support the global commons. Other elements include a redefinition of wealth and a new economic theory that accommodates many new "goods" such as information, new financial rules, a global minimum living wage applied to local conditions, and greatly increased public disclosure of tax havens and secret accounts.

7) Investigative Reporters Addressing Obstacles: A number of heterodox economists have claimed that many economics departments in major universities lock them out for lack of publications in the "right" journals, which are controlled by mainstream economists. This charge, suggesting a huge scandal of repressed discourse in academia, quite possibly deserves a book-length inquiry by investigative reporters. Universities are supposed to encourage progress in all areas of thinking and truth-seeking. But, in fact, do many economics departments present obstacles to learning and the necessary evolution of new and appropriate economic thought for the 21st century? The possible corruption of scholarly ideals is too important to be ignored.

In sum, economics is increasingly a disputed discipline. A trickle of dissent began in the 1960s and early 1970s, e.g., **The Costs of Economic Growth** by Ezra J. Mishan (Praeger, 1967/190p), **The Entropy Law and the Economic Process** by Nicholas Georgescu-Roegen (Harvard University Press, 1971/457p), and **Toward a Steady-State Economy** edited by Herman E. Daly (W.H. Freeman, 1973/332p), which included 1966 essays by Kenneth E. Boulding on "The Economics of the Coming Spaceship Earth" and E.F. Schumacher on "Buddhist Economics." The trickle became a small stream, arguably around 1978, and is now growing into a flood of justified but largely unanswered criticisms against the outmoded and ruinous conventional wisdoms. "Flood management" is now needed to accelerate the necessary global transition to new and appropriate economic thinking.

Other areas of economics also deserve close scrutiny, notably monetary theory and employment/unemployment. For example, the former is addressed by **Money and Sustainability: The Missing Link.** A **Report from the Club of Rome-EU Chapter** by Bernard Lietaer *et al.* (Triarchy Press, July 2012/210p); the latter by "Theories and Strategies for Full Employment" by Ashok Natarajan (*Cadmus*, 1:1, Oct 2010, 42-48). These subjects must be dealt with separately, but are no doubt linked to the general rethinking of economics that is now underway.

APPENDIX: TEN ORGANIZATIONS PROMOTING NEW ECONOMICS

At least ten organizations explicitly promote new and appropriate economics. This appears to be an encouraging development. But, however discomforting, it is important to ask if they are succeeding in getting good ideas in high places, or simply in creating more publications (however learned and innovative) and fragmentation, at a time when "leadership in thought that leads to action" (the WAAS slogan) is increasingly needed.

Organizations are listed here in reverse chronological order of their founding.

- World Economics Association (2011; www.worldeconomicsassociation.org): Founded by Edward Fullbrook, editor of the *Real World Economics Review* (2000). Began publication of World Economic Review, an open access journal, in Fall 2012; also publishes *Economic Thought*. Claims more than 10,000 members. Membership is free.
- 2. Institute for New Economic Thinking (2009; www.ineteconomics.org): Founding Sponsors: Jim Balsillie of CIGI, William Janeway of Warburg Pincus, and George Soros of Soros Fund Management. INET "was created to broaden and accelerate the development of new economic thinking that can lead to solutions for the great

challenges of the 21st century." The mission is "to nurture a global community of next-generation economic leaders." Partners with the Oxford Martin School and CIGI (Centre for International Governance Innovation, Canada). Bestows grants of \$25-\$250K.

- 3. **Association for Heterodox Economics** (1999): Holds annual conferences and publishes *Heterodox Economics Newsletter* (2004; http://heterodoxnews.com); founding editor, Frederic S. Lee, University of Missouri-Kansas City. Also publishes *Heterodox Economics Directory* (5th edition, Jan 2013). The Heterodox Microeconomics Research Network (HMiRN) was founded in 2011 to promote teaching and research in HM.
- 4. **Redefining Progress** (1994; www.rprogress.org): Founded in San Francisco by Ted Halstead; now in Oakland CA as "the nation's leading public policy think tank dedicated to smart economics." Seeks to shift public policy "to achieve a sustainable economy, a healthy environment, and a just society." Introduced the Genuine Progress Indicator in 1995.
- 5. **International Confederation of Associations for Pluralism in Economics** (1993): ICAPE is a consortium of over 30 groups in economics to maintain diversity and innovation, holding that "each tradition of thought adds something unique and valuable."
- Gund Institute for Ecological Economics (1991): Founded by Robert Costanza as Institute for Ecological Economics at University of Maryland; moved to University of Vermont in 2002. Promotes research at the interface of ecological, social, and economic systems.
- 7. **International Society for Ecological Economics** (1989; www.isecoeco.org): Founded by Robert Costanza. Publishes *Ecological Economics* journal.
- 8. **Society for the Advancement of Socio-Economics** (1989; www.sase.org): Founded by Amitai Etzioni of GWU. Now headquartered in Paris. Publishes *Socio-Economic Review* to advance "an emerging meta-discipline," in that economics is "embedded in society, polity, and culture."
- 9. **New Economics Foundation** (1986; www.neweconomics.org): Established in London by leaders of The Other Economic Summit (TOES) to promote "economics as if people and the planet mattered." Partners with NEI, below.
- 10. **New Economics Institute** (c.1980; www.NewEconomicsInstitute.org): Boston and Great Barrington MA. Formerly the E. F. Schumacher Society; promotes "global transition to a new economy" and "a green and fair world." Leaders include Gar Alperovitz, Neva Goodwin, Richard Norgaard, James Gustave Speth, and David Orr.

Author's Note: As background to this essay, I wish to acknowledge the many helpful conversations with my good friend Keith Wilde of Gananoque, Ontario, a truth-seeking economist with the Canadian government for 35 years.

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