## Is it time to apply the brakes?

Managing Without Growth: Slower by Design, Not Disaster. By Peter A. Victor, Northampton, MA, Edward Elgar Publishing, 2008, 260 pp., \$31.50/paperback.

Managing Without Growth is one of a number of recent books focused on economic growth as a policy issue. Its author, Peter A. Victor, is a professor of Economics at York University in Toronto, Canada, who has worked on environmental issues as an academic consultant and public servant for over 30 years. Victor grounds his book in quantitative information on employment, GDP, poverty, and forecasts of global warming. Its distinguishing feature is econometric modeling of the macro economy assuming slow or no growth.

Concerns about the consequences of a rapidly growing world population and finite resources first came to prominence with the publication of An Essay on the Principle of Population by Thomas Malthus in 1798. The publication in 1972 of The Limits to Growth by Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, and William W. Behrens III, reexamined the exponential growth in the demands placed upon the earth and the linear growth in the earth's capacity to absorb it, looking at 5 variables: (1) world population (2) industrialization (3) pollution (4) food production and (5) resource depletion. The book made no specific predictions, but rather gave indications of tendencies that would occur given specific behavior. It is only natural that a conflict would develop between the conclusions drawn about the book by environmentalists and intellectuals on the one hand (in favor of protecting the earth) and business and government officials on the other (in favor of developing the earth), especially in their view of the effects of pricing mechanisms on the environment. In *Managing Without Growth*, this conflict is revisited in its entirety, and Victor's review of the literature is rich and generous to all sides.

Three chapters of Victor's book cover "sources, sinks, and services." "Sources" is the Malthusian issue of running out of material, with Peak Oil replacing food as the focus. "Services" are what Nature does to preserve the globe. "Sinks" are where the wastes of the economy go. Per Victor, concern about runaway climate change caused by Green House Gas (GHG) emissions pinpoints sinks as a most pressing problem for humanity.

Sinks are confronted in the quantitative section on scale in Chapter 7. Victor uses data on population and GDP growth to examine how rapidly carbon intensity-the multiplicative of carbon per unit of energy and energy per unit of GDP-must decline to achieve the 60 percent reduction in CO2 emissions over 50 years, which the Intergovernmental Panel on Climate Change (IPCC 2007) set as a target to protect against runaway climate change. Victor reports on the relatively slow rate of improvement in carbon intensity world-wide in the years 1972-2002. Since 2002, of course, a new focus on development and deployment of clean energy technology has occurred, which may speed gains. But Victor's calculations show that, if carbon intensity doesn't significantly improve, slower economic growth in the developed world will be a necessity to reduce emissions of Green House Gases.

Using diverse scenarios based on

Canadian data and an econometric model called LowGrow, Victor projects whether slow or zero growth in a modern economy (from 2005 to 2035) is even possible. LowGrow is ambitious and solid work. It raises the discussion of crashing the economy to an analytical plane, but it must be viewed as a beginning. Methods to adjust an economy's rate of growth have been known and employed for decades. Monetary and fiscal policy do just that, after all; for example, the Federal Reserve, if concerned about inflation, can slow economic activity to a zero or negative rate of growth.

One critical economic variable, investment, illustrates part of the problem. Victor has an equation to generate the annual value for investment, I, in LowGrow, but no theory of investment. His value for I is a function of three things—the interest rate, GDP, and the rate of corporate profits, each lagged one year. For private investment, however, the value of assets and the decision about investing in additional assets depend on expectations about the future, specifically on an estimate of cash flows from the assets. Projections of asset value will be lower if expected growth is reduced. This leads, in turn, to reduced investment by business. Ultimately a shift in the balance among worker-owned, government, and business investment would be likely. The model disappoints by implying a future economy much like today's, but simply with slow or zero growth. The changes sure to be required by all parties are scarcely touched; what is clear is that the no-growth economy would be profoundly different from today's economy. For the necessary revolution in consumer culture, Victor relies on individuals choosing "voluntary simplicity." He concludes that it

is possible to have full employment, eliminate poverty, and reduce GHG emissions in an economy with slow or no economic growth by 2035, but only if we act quickly.

The final chapter focuses on policies to achieve and then manage with slow or no growth. Since people tend to resist rules and taxes impacting their lives, the proscriptive rules and taxes listed leads to Victor's remark that, "The dilemma for policy makers is that the scope of the change required for managing without growth is so great that no democratically elected government could implement the requisite policies without the broadbased consent of the electorate." As an incentive to change, Victor recommends reducing the work week, an idea that has proven popular across the world. Demands by labor and others for shorter hours have often been successful in the past, and it is a policy recommendation which shows up in almost every discussion of reducing growth.

One must keep in mind when read-

ing this book that Victor is a selfdescribed ecological economist with a focus on environmental issues. Having said that, *Managing Without Growth* is a strong contribution to the discussion of economic growth, especially in the quantitative analysis that runs through the book and in the author's full command of the many dimensions of the literature.  $\Box$ 

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