

## Jane Jacobs Among the Economists

David M. Nowlan

University of Toronto

Jane Jacobs has written two remarkable books on economics, *The Economy of Cities*, her second book, published in 1969, and *Cities and the Wealth of Nations*, published in 1984. These have recently received considerable attention in the economics literature, but were largely ignored in that literature when they were first published. How they moved from obscurity to become standard references is an interesting story.

It was not for want of trying on Jane's part that the books initially received little attention by economists, for she begins each with blunt and provocative criticisms of conventional economics thinking. *The Economy of Cities* is about the importance of cities as the source of innovative economic change, a point that she believes economists have not understood, going back at least to Adam Smith, whom she chides for having misdirected subsequent thinking by glibly adopting the view that successful urban commerce must be founded on a successful agricultural economy, a view that "converted biblical history into economic doctrine."<sup>1</sup> In *Cities and the Wealth of Nations*, Jane challenged much of the then-current macro-economic writing (writing, that is, about whole economies), which was having difficulty with the little-understood phenomenon of "stagflation," with her view that its failure lay in the practice of using sovereign nations rather than cities and their regions as the standard geographic unit for macro analysis. "Surely," she writes, "no other body of scholars or scientists in the modern world has remained as credulous as economists, for so long a time, about the merit of their subject matter's most formidable and venerable assumption,"<sup>2</sup> the assumption that is that economies could be analyzed as national aggregates.

As strong as they were, these criticisms met with little reaction among economists, partly no doubt because Jane was not known as an economist so the books went unread and the economics content remained undiscovered. Also, it was during the mid- and late-eighties, well after her books appeared, that a revival of interest occurred in the theory of

economic growth and its regional dimensions, an interest that continues. Jane's theories about the economies of cities have special relevance to the "new" growth theory, as it is called, so it is understandable that her work has become of special interest within the context of this recent literature.

It is possible to be quite precise about the first significant notice of Jane's work within the economics literature. It occurred in 1988, in an important paper by a well known University of Chicago economist, Robert Lucas. Lucas went on to win the 1995 Nobel prize in economics. The paper is "On the Mechanics of Economic Development" published in the *Journal of Monetary Economics*.<sup>3</sup> In fact, an unpublished version of the paper had been in circulation since 1985 when it was delivered as a Marshall lecture at Cambridge University.

In his paper, Lucas was interested in seeing whether various extensions and alterations to the standard so-called "neoclassical" model of economic growth could explain better the nature of observed economic growth among nations. The neoclassical model has a nasty habit of predicting that both rates of economic growth and per capita levels of economic output will converge among nations, so that poor countries should grow faster than rich countries and growth at high levels cannot be sustained. Since it is not obvious that the real world is indeed behaving in this way, Lucas felt that some aspect or aspects of real economies were not being adequately captured in the model. To deal with these shortcomings, he incorporated into the model human knowledge or skill levels, known as "human capital" in the literature.

In the Lucas model human capital has two features of special importance. The first is that, with effort, it can be acquired without limit and it doesn't take more effort to acquire it when you have more of it. The second is that higher average levels of human capital in an economy raise the level of productivity of everybody in that economy, not just the productivity of those whose human-capital level is higher.

The first feature allows economies to grow without slowing as they become richer, a possibility that the neoclassical model denied. The second feature introduces what's called an "externality" into the model, and it is in this regard that Lucas found Jane Jacobs' books to be particularly stimulating.

The externality is of the following sort. A person can exert some effort, pay some cost, and acquire more human capital. With a higher level of human capital – more skill or knowledge – this person's personal productivity and earnings associated with this productivity will be higher. The fact that this individual's higher level of human capital raises the average level in the economy and so the productivity of everybody is not, however, reflected in their personal earnings – it is a benefit outside and not accounted for by the earnings market -- an "externality."

Lucas recognized that just building external effects into his model told him nothing about the actual channels or mechanisms by which they occurred in the real world. To support his construct, he wanted to find evidence of externalities, realizing that "the scope of such effects must have to do with the ways various groups of people interact."<sup>4</sup> In Jane Jacobs' books he found what he was looking for. "I will be following very closely," he writes, "the lead of Jane Jacobs, whose remarkable book *The Economy of Cities* seems to me mainly and convincingly concerned (although she does not use this terminology) with the external effects of human capital."<sup>5</sup> The external growth effects of interest to Lucas occur within cities, not across whole nations, just as Jane had argued.

Lucas focuses on the external role in economic growth played by human capital. One of his Ph.D. students at Chicago now at Stanford, Paul Romer, has become the leading exponent of the new growth theory, with a model of sustainable growth<sup>6</sup> that is subtly different from Lucas's. It is new ideas, inventions or new knowledge that, once in existence, can be applied over and over again without being used up. Again, there is an important externality associated with new ideas: the creator of the idea can capture only part of the benefit conferred by the idea. Part of it is available to others without compensation to the creator. Where do ideas flow most freely among users? In cities.

Although Romer has not pursued this idea, the mechanism or real-world channels for the externalities that are so important in the new growth theories are typically not nation-wide but occur within cities and city regions.

With Lucas's ringing endorsement, the discovery of Jane's work by the economics fraternity had begun. But there was more to come. In 1991, as part of a research program in growth, a working paper on "Growth in Cities" was issued by the Cambridge (Massachusetts)-based National Bureau of Economic Research. There were four authors, led by a young Harvard economist, Edward Glaeser. The paper was formally published the following year in the prestigious *Journal of Political Economy*.<sup>7</sup>

In the "Growth of Cities," Glaeser and his colleagues used data on employment growth between 1956 and 1987 for the six most important industries in 170 metropolitan areas in the United States to test three theories of what they called "dynamic externalities." The externalities were basically knowledge spillovers from one person or group to another, and the theories were different views about the institutional structure that best facilitated the spillovers. More rapid employment growth would occur in cities with the best institutional structure for growth.

One theory was that of Michael Porter, whose book on *The Competitive Advantage of Nations* had been published in 1990. Porter's research suggested that competitive firms within a concentrated single-industry cluster provided the best structure for successful growth. Another theory was associated with several economists from Alfred Marshall, a turn-of-the-century Cambridge (U.K.) economist through Harvard's Kenneth Arrow to Paul Romer, the MAR theory. This theory, like Porter's, was that single-industry clusters were most conducive to the spread of knowledge but that the incentives to produce knowledge were less among competitive firms than among monopolists or near-monopolists. New knowledge is costly to create and competitive firms can't as easily hang on to the benefits as monopolists, so they don't as readily incur the costs of research.

The third theory that Glaeser *et al* tested was that of Jane Jacobs. This was that new ideas and knowledge spread about most readily in cities with competitive, not monopolistic, businesses and with a diversity of business. Unlike Porter and MAR, diversity not single-industry clusters was important.

The results of the study were that competition was more conducive to growth than monopoly and that a diverse city economy was better than one with a concentration of a few industries. “The evidence is thus negative on MAR, mixed on Porter, and consistent with Jacobs.”<sup>8</sup>

From that point on, references to Jane’s work became mandatory in any study of the growth of cities and city regions. The newest textbook on urban economics<sup>9</sup> has copious references to both of her books, and she has been accorded the ultimate accolade: she has entered the jargon of the discipline. Jane’s particular economic combination of diversity and competition within cities provide what are now known as “Jane Jacobs externalities.”<sup>10</sup>

Published in Max Allen (ed), *Ideas That Matter: The Worlds of Jane Jacobs*, The Ginger Press, 1997, pp. 111-113.

---

<sup>1</sup> Jane Jacobs, *The Economy of Cities*, Random House, 1969. p. 46

<sup>2</sup> Jane Jacobs, *Cities and the Wealth of Nations*, Random House, 1984. p. 31

<sup>3</sup> Robert E. Lucas, Jr., “On the Mechanics of Economic Development,” *Journal of Monetary Economics*, vol. 22, 1988, pp. 3-42.

<sup>4</sup> *Ibid.*, p. 37

<sup>5</sup> *Ibid.*

<sup>6</sup> Paul Romer, “Increasing Returns and Long Run Growth,” *Journal of Political Economy*, vol. 94, 1986, pp. 1002-1037.

<sup>7</sup> Edward L. Glaeser, Hedi D. Kallal, Jose A. Scheinkman and Andrei Shleifer, “Growth in Cities,” *Journal of Political Economy*, vol. 100, 1992, pp. 1126-1152.

<sup>8</sup> *Ibid.*, p. 1129

<sup>9</sup> John F. McDonald, *Fundamentals of Urban Economics*, Prentice Hall, 1997.

<sup>10</sup> See, for example, Vernon Henderson, “Externalities and Industrial Development,” *Cityscape: A Journal of Policy Development and Research*, vol. 1, 1994, pp. 75-93.