



## ECONOMIC VIEWPOINT

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### Cities As Green Growth Innovators

Two major economic phenomena currently dominate our thoughts about future growth prospects. The first is the inexorable trend toward a greater reliance on cities as engines of growth. This is a result of the continuing tendency of populations to live in and around cities, the agglomeration economies that cities can provide and the outcome that more and more gross domestic product will be urban led. The second phenomenon is the need to consider environmental degradation when undertaking decisions affecting economic growth. This is the green growth agenda that examines the degree to which the dual objectives of growth and sustainability can be simultaneously achieved and, to the extent they conflict, how societies will make important inter-temporal tradeoffs, basically weighing the welfare of current generations against the welfare of future generations.

Green innovations entail technological advances that can ameliorate environmental concerns, especially as regards carbon emissions, while fostering economic growth. They accomplish the latter, in part, by expanding production options or by allowing more efficient use of productive inputs. Wind and solar power are found in the former category, while smart grids and recycled water are in the latter.

There are good reasons to focus on cities as the geographic unit that will drive future green innovation. A number of cities, from Curitiba to Brisbane, Bogota to Vancouver, and Ulsan to Yokohama, have already established track records in one area of green growth or another. We can argue that cities may have an easier time in planning, pricing and coordinating green policies. They also may have an easier time in establishing the political constituency for radical change. For example, since all citizens in Mexico City are affected by its polluted air, they are also directly or indirectly affected by transport policy improvements to reduce congestion. At the same time, local accountability is easier to see in a defined economic area. No doubt there still exist vested interests that can affect a government's ability to design and implement radical reforms. But in

many countries, the likelihood of such influence is higher at the national level.

One may legitimately ask whether green policies will be growth enhancing or growth reducing. The answer depends not only on specifics, but also on two other large issues: time frames and definitions of economic growth. With respect to time frames, the greater the population's preference for the present at the expense of the future (i.e., the higher its rate of time preference or discount rate), the less willing it will be to entertain growth tradeoffs to capture green gains. As for the concept of economic growth, many are questioning whether degradation of the natural resource stock shouldn't be factored in GDP calculations. Development economists in particular have been using enhanced definitions of progress by looking not only at GDP but also its distribution. Straying further—into behavioral economics—the question becomes whether more GDP is associated with greater happiness and whether maximizing income is the singular goal to strive for at either the household or national level.

Governments can provide incentives for green technology development and adoption in a range of areas. In many cases, the paybacks can be positive and even large. Where they are large, such as in the promotion of the solar panel industry, new export markets can result. Such progress is seen in the U.S. states that have prodded wind and solar power via renewable energy standards. And worldwide, cities have enacted carbon surcharges, they have changed building codes to save energy, they have altered transportation systems and they have modified waste-management policies in order to be both pro-growth and pro-green.

This doesn't obviate the fact that tradeoffs still exist. However, practical experience, largely at the local level, demonstrates that there are viable win-win policy choices. While national action is variable and international standards difficult to negotiate (given the uneven distribution of costs and benefits), actions at the city level may well offer the most promising opportunities to pursue green growth. ■