

however, if there had not been economic incentives to discover the necessary technologies and economic growth to pay for their application.

Similarly, the Cayuga River and Lake Erie were for years synonymous with environmental rape. While neither has yet been returned to an acceptable level, it is now safe to light a match when crossing the Cayuga and it will not be long before Lake Erie will once again be safe for swimming.

What these examples have in common is that the human species, having first affected the environment negatively, adapted and learned to affect it positively. The key to both changes in direction came about because markets were allowed to work. At the beginning of the process, the value of exploiting the environment negatively was less than the negative effects, leading to degradation. Once these negative effects became clear and unacceptable, appropriate steps to adapt were taken leading to an improvement.⁶ As Marian Radetzki concluded at a recent World Bank symposium:

There simply is no evidence of general environmental deterioration in consequence of continued economic growth. Empirical observation suggests, if anything, the obverse relationship to be closer to the truth: that the quality of the environment improves as the density of the economy increases.⁷

In developing an acceptable approach to defining how best to achieve a cooperative trade and environment interface, therefore, the first element involves agreeing on an appropriate definition of what constitutes sustainable development. As a working hypothesis for this paper, the definition set out in the Brundtland Commission provides a good starting point:

Sustainable development is best understood as a process of change in which the use of resources, the direction of investments, the orientation of technological developments, and institutional change all enhance the potential to meet human needs both today and tomorrow.⁸

Sustainable development does not mean that there will be no conflicts or adjustments, particularly at the micro level. The decision to protect the rare spotted owl in the US Northwest, for example, has profound implications for the US and Canadian lumber industries and downstream industries dependent on that lumber. The capture of sulphur from the stacks of smelters and coal-fired generating stations has changed the outlook for sulphur mining. At the same time, higher environmental standards may also lead to new opportunities. Greater environ-

⁶ Economists explain this phenomenon in terms of an inverted U curve. Conflict between north and south in the preparations for the UN Conference on the Environment and Development, for example, reflect differences of view on where countries see themselves on this U curve.

⁷ Marian Radetzki, "Economic Growth and Environment," in Patrick Low, ed., *International Trade and the Environment*, World Bank Discussion Paper 159 (Washington: World Bank, 1992), p. 127.

⁸ World Commission on the Environment and Development (Brundtland Commission), *Our Common Future* (New York: Oxford University Press, 1987), p. 46.