

side government) and punished those that continued to rely on commodity exports and state-led development.

Four revolutionary developments in the world's economic and social life have become evident in the last decade: rapid technological change and the emergence of the "knowledge economy"; the freeing of markets; the globalization of capital, production, and labour flows; and a tension between cultural convergence and cultural/political fragmentation.

The "knowledge economy" refers to the increasing substitution of knowledge or innovation — that is, forms of information and the corresponding cerebral skills — for muscle power, raw materials, and financial capital as the basis of wealth and trade competitiveness. Today it normally takes fewer people, materials, and money — but more knowledge and ingenuity — to produce the same product. At the root of these trends is the technological breakthrough that is sometimes called the "information revolution". The manipulation of information through vastly increased and easily accessible computer and telecommunications advances has permitted higher productivity and technical innovation in the form of new products and cost-cutting managerial techniques, in virtually all fields. Alvin Toffler has characterized economic history as an evolution from the agrarian form of wealth creation, in which human brawn played the key role, to the industrial form brought about in the nineteenth century, in which higher skills were required by an elite of engineers and managers but the mass of (assembly-line) workers required fairly unsophisticated and quickly-learned skills, to the "third wave" or "knowledge economy", wherein most people throughout the economic system require ever-increasing technical, conceptual, and interpersonal skills.<sup>7</sup>

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7. See Toffler, Alvin, *Powershift: Knowledge, Wealth, and Violence at the Edge of the 21st Century*. (Bantam Books, New York, 1990)