

Technology and the Knowledge-based Economy/Society

A key variable for FEEEP is innovation and invention. The rate of technological progress and the dissemination of innovation profoundly influence such FEEEP components as economic growth and the environmental context within which such growth occurs. Innovation and invention are influenced by both domestic and international factors. For example, cross-national technology transfer, trade related intellectual property rights, and foreign investment regimes all influence the rate of technological change.

The knowledge-based economy/society is characterized by three interrelated phenomena: the global reach of information and computer communications systems; knowledge-based economic growth where comparative advantage is derived from the capability to create, acquire, accumulate and exploit knowledge; and, the social changes associated with technology and knowledge-based growth and economies. A major component and agent of change in the global economy including the APEC region is Information Technology.

Information technologies' has significant benefits, notably its effects on economic growth and stimulation of competition. The so-called "Asian Miracle" and the current dynamic role the Asian countries play in the global economy is firmly rooted in private and public sector promotion and use of information technology. Globally, governments are also well aware that their own efficiency and delivery of services maybe enhanced through use of new information technologies.

Outside of a national or a regional context, the APEC members have been supportive of a predictable and open trading environment which promotes competition and innovation. In this regard APEC initiatives toward trade liberalization and reducing protectionism contribute to fully realizing the benefits of new technologies and the global movement toward increasingly knowledge-based economies.¹²

¹² A major development was the WTO agreement to eliminate information products tariffs which was finalized on March 26. The value of this sector, which includes computers, software, and semiconductors equipment, is estimated at over \$500 billion (U.S.). Together, the Information Technology Agreement and the Agreement on Basic Telecommunications Services liberalize approximately \$1 trillion (U.S.) in trade in goods and services.