


IT ECONOMY

East Asia and the New Economy

How Can Information Technology Revitalize Economic Development in East Asia?

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East Asia: a Dynamic Region



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An Overview of the Different Countries in East Asia I

Some East Asian countries are high income countries, others still have very low incomes

- Compare Singapore with China or Indonesia

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An Overview of the Different Countries in East Asia II

Per Capita Income in East Asian Countries
 US dollars 1999 (Source: World Bank)

	Xrate basis	PPP basis
• S. Korea	8,490	14,637
• China	780	3,291
• Malaysia	3,400	7,963
• Philippines	1,020	3,815
• Thailand	1,960	5,599
• Singapore	29,610	27,024
• Indonesia	590	2,439
• Vietnam	370	1,755
• Cambodia	260	1,286
• Laos	280	1,726
• East Asia and Pacific	1,000	3,500
• Japan	37,230	24,041
• US	30,600	30,600

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An Overview of the Different Countries in East Asia III

- Some East Asian countries are very industrial
 - South Korea(1), (2), Taiwan
- Others are still agricultural or resource dependent
 - Indonesia(1)
- Some are very small, city states
 - Hong Kong, Singapore(1)
- Others are very large
 - China(1), Indonesia(2)
- Some are transition economies, from socialism to the market
 - China(2), Vietnam, Cambodia, Myanmar, Laos
- Others have been market economies all along
 - Thailand(1), (2), Malaysia(1), (2), Philippines(1), (2), Singapore(2)

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The Stages of the Product Cycle Process

	1950-65	1965-1980	1980-1995	1995-2010
Stage 1 Primary, Agriculture, Mining	China, S.Korea, Taiwan, Philippines, Malaysia, Indonesia, Thailand, Singapore	Thailand, Malaysia, China, Indonesia, Philippines	Indonesia, Philippines, Vietnam	Laos, Cambodia, Myanmar
Stage 2 Labor-Intensive Manufacturing	Japan, Hong Kong	Taiwan, Singapore, Hong Kong, S.Korea, Japan	Thailand, Malaysia, China	Indonesia, Philippines, Vietnam, Thailand, China
Stage 3 High Tech Manufacturing			Taiwan, Singapore, Hong Kong, S.Korea, Japan	Malaysia, Taiwan, S.Korea, Japan
Stage 4 Telecom, Financial, Tech Services				Singapore, Hong Kong

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The Essentials of the Product Cycle Process

- Labor cost rises as countries rise on the ladder
- Labor intensive industries are no longer competitive
- Industries migrate to countries where labor cost is lower
- Advanced countries seek more sophisticated capital and technology intensive products
- A linked process

The Sources of East Asian Growth

- **Input-based Growth**
 - Domestic Saving and Investment
 - Foreign Investment
 - Human capital
- **Technical Change**

The need for skilled labor

- Some East Asian countries are very short of managers and engineers

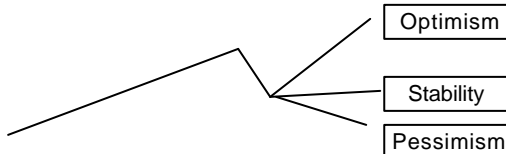
East Asian Statistics

East Asian Economic Growth has been very rapid

	Growth of GDP per year		
	1970-80	1980-90	1990-98
• Hong Kong	9.2	6.9	4.4
• Singapore	8.3	6.6	8.0
• S.Korea	10.1	9.4	6.2
• Indonesia	7.2	6.1	5.8
• Malaysia	7.9	5.3	7.7
• Philippines	6.0	1.0	3.3
• Thailand	7.1	7.6	7.4
• China	5.5	10.2	10.1
• US	2.8	3.0	2.9
• Japan	4.3	4.0	1.3

From Miracle to Meltdown to "New Economy?"

- the growth miracle
- the 1997 meltdown
- the recovery
- the NEW ECONOMY?



Is Recovery Under Way?

	Real GDP Growth (% change per year)					
	1997	1998	1999	2000	2001	2002e
• China	8.5	7.8	7.6	8.2	7.3	8.4
• H.K	5.3	-5.1	3.4	10.2	0.6	1.4
• Indonesia	4.9	-13.7	0.9	4.8	3.5	3.2
• Malaysia	7.7	-6.7	6.1	8.3	0.4	4.5
• Philippines	5.2	-0.5	3.4	4.2	3.2	4.0
• Singapore	8.9	1.5	6.9	10.3	-2.0	3.9
• S. Korea	5.0	-5.8	10.9	9.3	3.0	6.0
• Taiwan	6.8	4.8	5.4	5.9	-2.0	3.0
• Thailand	-1.3	-9.4	4.4	4.6	1.8	3.8

After a strong recovery from the 1997 crisis, many East Asian countries had cyclical ups and downs and slower growth.

The Digital Divide

- Some East Asian countries are still on the dark side of the digital divide

Education and Computer Use in East Asia

Education and Computers

	Tertiary Education Rate (% of age group) 1999	Computers per 1,000 people (1998)	Internet Hosts per 10,000 people (2000)
China	7.5%	8.9	0.6
Hong Kong	23.3%	237.2	162.8
Indonesia	11.3%	8.2	1.0
Malaysia	23.3%	58.5	25.4
Philippines	29.5%	15.1	1.58
Singapore	43.8%	458.4	452.2
S. Korea	71.7%	156.8	60.0
Thailand	31.9%	21.6	6.5
Japan	46.0%	237.2	208.1
United States	71.6%	458.6	1,940.0

What is the “New Economy”

- A technological revolution based on information technology (IT) and network interaction

What Activities Does the “New Economy” Include?

- Hardware, consumer electronics
PCs, cell phones, etc. (labor-intensive)
- Advanced high tech hardware--chip fabrication, high tech equipment
- Software development--programming
- Software applications--e-business

East Asian Growth and IT

- Some countries have already benefited strongly from Information Technology, others have not.
- All have benefited from lower transportation and communication cost
- Some governments are working very hard to promote improved technology
 - a wired island in Singapore
 - Cyberjaya in Malaysia
 - Technological centers in Taiwan
 - The Golden plans in China

Pros and Cons of an IT Revolution in East Asia

- Pros
 - Imitative technology
 - Leapfrogging?
 - “Creation without destruction”?
- Cons
 - Need for capital—Internet spines, computers
 - Need for human capital
 - Need for cultural change

East Asian Countries and the “New Economy”

- **The Advanced Countries**
 - S. Korea, Taiwan, Singapore
- **The Potential Countries**
 - Malaysia, Thailand, China, Philippines
- **The Laggards**
 - Indonesia, Vietnam, Myanmar

Summary Comment--The New Economy in East Asia

- Globalization of hardware and software production is rapidly expanding in East Asia
- Ultimately most East Asian Countries will join the New Economy, but for some of them it may take time until the barriers like insufficient infrastructure and skills are overcome.

Thank you