CHINA AND INDIA IN THE WORLD ECONOMY

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Nominal GDP 2004 (US$bn.)

1.US	10,383.1		11. India	510.2
2. Japan	3993.4		12. South Korea	476.7
3. Germany	1,984.1		13. Brazil	452.4
4. UK	1566.3		14. Netherlands	417.9
5. France	1431.3		15. Australia	409.4
6. China	1266.1		16. Russia	346.5
7. Italy	1184.3		17. Taiwan	281.6
8. Canada	714.3		18. Switzerland	267.4
9. Spain	653.1		19. Belgium	245.4
10. Mexico	637.2		20. Sweden	240.1

Purchasing Power Parity

The nominal GDP of China measured in yuan.

The nomninal GDP of the US is measured in US$

To compare the two, divide China's nominal GDP by the current exchange rate of Y8.3 for US$1.

However, Y8.3 will buy more food, clothing or accommodation in China than US$1 buys in the US.

If Y8.3 buys 4.63 times as much as US$1 then the purchasing power parity exchange rate is 8.3/4.63 = 1.79.

Divide China's GDP in yuan by 1.79 to compare it to US GDP at the purchasing power parity (PPP) exchange rate.

GDP (PPP) 2004

1.US	10308		11. Canada	925
2. China	5861		12. Mexico	905
3. Japan	3425		13. Spain	878
4. India	2800		14. South Korea	807
5. Germany	2236		15. Indonesia	683
6. France	1601		16. Australia	556
7. UK	1549		17. Netherlands	470
8. Italy	1525		18. SouthAfrica	457
9. Brazil	1355		19. Turkey	445
10. Russia	1186		20. Iran	438

Real GDP Growth (%)

1992-2002			1982-1992	
China	9.3		China	10.2
Myanmar	8.1		Botswana	9.8
Ireland	7.7		South Korea	8.7
Vietnam	7.5		Taiwan	8.5
Singapore	6.2		Thailand	8.4
India	5.9		Indonesia	7.1
Malaysia	5.7		Singapore	7.0
South Korea	5.6		Malaysia	6.5
Botswana	5.3		HK	6.4
Taiwan	5.0		India	5.4

Growth Paths

	Japan 1955-1985	Asia 7 1965-1995	China 1970-2000
% world GDP	1 to 10	1 to 4	2 to 3.5
% world trade	2 to 7	2 to 8	1 to 4

Inequality in Urban China

Year	Top 20%/ Bottom 20%	% Share of bottom 20%	% Share of top 20 %	Share of Top 10%
1990	2.62	9	14.7	23.6
1993	4.5	6.3	14.2	29.3
1998	6.98	5.5	13.9	38.4
2002	9.18	4.9	19.3	45.0

Population 2002 (m.)

1. China	1294.4		11. Mexico	101.8
2. India	1041.1		12. Germany	82.0
3. US	288.5		13. Vietnam	80.2
4. Indonesia	217.5		14. Philippines	78.6
5. Brazil	174.7		15. Iran	72.4
6. Pakistan	148.7		16. Egypt	70.3
7. Russia	143.8		17. Turkey	68.6
8. Bangladesh	143.4		18. Ethiopia	66.0
9.Japan	127.5		19. Thailand	64.3
10.Nigeria	120.0		20. France/UK	59.7

Population 2025 (m.)

1. China	1445.1		11. Japan	123.4
2. India	1369.3		12. Ethiopia	116.0
3. US	358.0		13. Philippines	108.6
4. Indonesia	270.1		14. Vietnam	104.6
5. Pakistan	249.8		15. Egypt	103.2
6. Brazil	216.4		16. Congo	95.4
7. Bangladesh	208.3		17. Iran	90.9
8. Nigeria	192.1		18. Turkey	89.0
9. Mexico	129.9		19. Germany	82.0
10. Russia	124.4		20. Thailand	73.9

% of Population in Labour Force

1. China	57.8
2. Switzerland	56.7
3. Thailand	54.7
4. Iceland	54.2
5. Canada	53.8
5. Denmark	53.8
7. Japan	53.1
8. Norway	52.8
9. Portugal. Singa	51.9
10. Hong Kong	51.8

17. UK	50.5
21. New Zealand	49.9
25. US	49.0
27. Germany	48.5
32. Brazil	47.9
33. Russia	47.7
36. Bangladesh	47.3
38. South Korea	47.3
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> 40. India	<46.8

Long-term effects of China and India I

US+Russia+Japan+Germany+France+UK+Brazil =935.9m.

Over the 100 years from 1850, US essentially became a clone of Western Europe, i.e., US growth doubled the developed world

Foreigners can be excluded from sharing in wealth by border controls and citizenship rules.

Citizens cannot be excluded. So China's growth will not stop until all of its population enjoys modern living standard.

So the developed world will be doubled again.

In fact, it will be tripled since the same is true of India

A Rational World Economy I

US has plenty of fertile land with good rainfall.

China and India have large populations

Food should be grown in the US, exported to China and India

China should specialize in large scale manufacturing.

India should specialize in software and services.

Unskilled and even skilled people in developed economies will have wages driven down toward levels in China and India

High wages worldwide for services requiring skills, knowledge and contacts that are difficult to replicate.

A Rational World Economy II

Manufactures and services will decline in price relative to resources, because China and India will reduce cost of production, hence the value added to the resources.

So resource-rich countries will become relatively better off.

But with poor government, the increased value of resources will be captured by small corrupt elite, while rest of population dies off from bad government, e.g., AIDS in Africa.

Africa will become arena for international competition for resources.

Global Political Economy I

Will developed countries protect wages of their workers by blocking Chinese and Indian exports?

NO.

1. Western politicałeconomic elites now rely on China and India for their profits.

2. Western politicałeconomic elites are incorporating their companies offshore and shifting personal wealth offshore.

3. In the short term advanced economies can collaborate with China and India by allocating them lower stages of the supply chain while keeping high value jobs (engineering, marketing design) at home

Global Political Economy II

But China and India are steadily moving up the value chain

By the time that the high value jobs in advanced economies are threatened, and protectionist pressures become strong, China and India will be able to rely upon each other as markets.

By that time they will comprise 2/3 of the world economy and the current developed economies will be marginalized, just as today Europe is today only one third of the developed economies

Economic Relations Among Regions I

North America facilitated Europe's Industrial Revolution by providing cheap food.

Economies of China and India were impoverished by Industrial Revolution.

Indian textile industry by UK colonial government was shut down to provide a market for UK exports of textiles.

China was forced to accept exports of opium from India because the UK was suffering a drain of silver to China because it was running a balance of payments deficit.

Coastal provinces of China were impoverished by textile exports from UK.

Economic Relations Among Regions II

North America will provide cheap food for China and India as they industrialize.

Economies of China and India driven by demand from the US.

Western companies shifting manufacturing to China to keep their industries competitive. But this is teaching Chinese about technology and management.

Western companies outsourcing business processes and software to India to keep their industries competitive. But this is teaching Indians about technology and management.

Historical Ironies

Hong Kong ceded to China from the Opium war. Became financial base that funded China's modern industrialization.

Chinese migrated from coastal provinces to South East Asia.

Became the "Overseas Chinese" who helped start China's industrialization

British colonization of India ensured a large English-speaking population, which today mans call centres and business process outsourcing in India, taking the jobs of unskilled English speakers around the world.

Long-term effects of China and India II

China and India will grow much faster than the US did during its growth spurt, so they will:

- Cause much greater short-term disruption of the global economy, e.g., sharp rise in oil prices.
- Put much greater long-term pressure on the global economy since global resources are hitting natural limits.
- Damage the environment via global warming, pollution, industrial and nuclear waste. At present China and India are dumps for scrap and industrial waste from the developed world, e.g., old mobile phones.

Long-term effects of China and India III

China’s 3 largest cities all have about 3 times the level of particulates deemed safe by the World Health Organization

7 of the 10 most polluted cities in the world are in China

None of the biggest 340 cities meets safe pollution standards

Japan has provided 3.1 billion in loans and aid to Chinese environmental projects from 1997-2002.

Chinese pollution visible in US West Coast, measurable all over the US.

May be reducing rainfall in US Midwest farm belt — a key source of food for China in the future.

Environmental Sustainability

Highest
1. Finland
2. Norway
3. Sweden
4. Canada
5. Switzerland
6. Uruguay
16. Australia
19. New Zealand
20. Brazil

Lowest
1. Kuwait
2. U. Arab Emirates
3. North Korea
4. Iraq
5. Saudi Arabia
6. Haiti
7. Ukraine
8. South Korea
14. China

Water Pollution

Kg. of organic emissions per day	
1. China	6,204.2
2. US	1,968.2
3. India	1,582.3
4. Russia	1,485.8
5. Japan	1,332,3
6. Germany	792.2
7. Indonesia	752.8
8. Brazil	629.4
9. UK	569.7

Long-term Effects of China and India IV

China and India will suffer the most from global warming because their river systems are stabilized by melting snow in Tibet

Short-term flooding as snow melts.

Then loss of reservoir of snow will mean that water flow becomes unstable

Disruption of weather patterns will affect agriculture, water supplies.

China and India have responsibility for the largest populations so they will be most vulnerable to social stability.

Biggest Exporters (US$

1. Euro Area	1294.4		11. Belgium	101.8
2. US	1041.1		12. Spain	82.0
3. Germany	288.5		13. South Korea	80.2
4. UK	217.5		14. Mexico	78.6
5. Japan	174.7		15. Switzerland	72.4
6. France	148.7		16. Taiwan	70.3
7. China	143.8		17. Ireland	68.6
8. Italy	143.4		18. Russia	66.0
9. Canada	127.5		19. Austria	64.3
10.Netherlands	120.0		20. Sweden	59.7

Current Account (US$m)

Surplus			Deficit	
1. Japan	112,450		1. US	-480,860
2. Euro Area	64,390		2. UK	-26,710
3. Germany	46,590		3. Australia	-17,264
4. China	35,422		4. Spain	-15,942
5. Russia	29,520		5. Mexico	-14,020
6. Switzerland	26.011		6. Greece	-10,405
7. France	25,740		7. Portugal	-8,813
10. Singapore	18,704		8. Brazil	-7,696
11. Canada	14,909		9. Italy	6,741
12.HK	13,725		14. N. Zealand	-2,269

Highest Median Age

2000	
1. Japan	41.3
2. Italy	40.2
3. Switzerland	40.2
4. Germany	39.9
5. Sweden	39.6
6. Finland	39.4
7. Belgium	39.1
18. UK	37.7

2025	
1. Italy	50.5
2. Japan	50.2
3. Switzerland	49.3
4. Andorra	49.0
5. Spain	48.4
6. Slovenia	48.2
7. Greece	48.1
18. Austria	47.6

Lowest Median Age

2000	
1. Niger	15.1
2. Mali	15.4

2025	
1. Niger	16.1
2. Uganda	15.1

Estimated Average Age 2020

India	29
China	37
US	37
Western Europe	45
Japan	48

Demography and the Balance of Payments

Countries with low population growth must run surpluses to accumulate retirement funds, as there will be insufficient taxpayers to support future pensioners.

But will they be able to cash in their savings in other countries?

Or will the debt be deflated away, e.g., by devaluation of the US dollar?

Growth in China's Textile Exports

% Change 1st qtr. 04 to 1st qtr. 05	
1. Spain	92.34
2. France	90.19
3. Germany	88.77
4. UK	88.21
5. Italy	81.89
6. US	78.38
7. India	48.97
7. Australia	17.07
8. Russia	13.47
9. Japan	6.78

Creativity

Innovation Index	
1. US	6.44
2. Taiwan	5.92
3. Finland	5.71
4. Sweden	5.52
5. Japan	5.49
6. Israel	4.80
7. South Korea	4.69
8. Switzerland	4.65
34. Hong Kong	2.86

Patents	
1. Japan	123,978
2. US	83,090
3. South Korea	34,052
4. Taiwan	20,094
5. Germany	18,328
6. Russia	16,340
7. France	11.290
8. UK	4.491
10. China	3,742

% of Business Software that is Pirated

1. Vietnam	95
2. China	92
3. Indonesia	89
3. Russia	89
3. Ukraine	89
6. Pakistan	80
15. India	70
19. Malaysia	68
19. Philippines	68