

Japan Drops to 14th Place

The Potential Competitiveness

- The potential competitiveness ranking of 50 nations and territories has been compiled. Potential competitiveness here denotes the extent to which a nation or a region will be able to increase per capita Gross Domestic Product (GDP) in the coming decade or so. It shows how much every nation and territory will grow after the global financial crisis.
- The ranking shows “Competitiveness toward the future”, not “Recent result of Economic growth”.
- The potential competitiveness indicates sustainable and long term ability of economic growth. It is important for planning the development strategy.

* The ranking is based on the calculation of objective data. (The indices of IMD and other organizations reflect subjective data such as surveys.)

* The ranking adopted the factors (data of indices) that accelerate the economic growth by the theories. It shows the reason for the choice of each index.

Topics

- Japan has dropped to 14th place in the 2009 survey, from 12th place in the 2008 survey. Japan is strong in “science and technology” and “enterprises,” but is weak in “government,” “infrastructure” and “finance.”
- Hong Kong has remained on top for five consecutive years. And Singapore is in second place and the United States was in third place.
- The United States remains 3rd place. It has declined in “government” and “finance” because of the crisis, but, it maintains competitiveness in “science and technology”, “internationalization” and “education”. We conclude United States still has potential competitiveness even if we take the damage of the crisis into account.

1. Ranking Results

United States remain 3rd after the global financial crisis

The latest potential competitiveness ranking shows that Hong Kong has remained in first place for five consecutive years (Table 1 and Figure 1). Singapore was in second place and the United States was in third place.

When we examine Hong Kong by items, it is in first place in “internationalization” and “finance” and in second place in “enterprises” and “infrastructure.” Singapore, which comes second in overall competitiveness, is in first place in “enterprises” and “infrastructure.”

After the sub-prime problem, the United States has been suffering from economic stagnation, but it is not correct that it lost competitiveness in every determinant.

It has further moved down in the ranking in “finance” and “government” because of the damage of the crisis. However, it ranked high in “internationalization”, “education” and “science and technology”. It indicates the United States still maintains long term potential competitiveness.

China has dropped from 34th place to 35th place. China could become a second biggest nation in the world in terms of scale of GDP. But the level of GDP per capita is still very low. The reason of relatively low ranking attributes the character of China. This survey measured all of the regions including the hinterlands, which have lagged behind in economic development. When the ranking of China including Hong Kong was obtained by combining the competitiveness indices of China and Hong Kong weighted to their respective nominal GDP, the nation drops from 33rd in the previous survey to 34th in the 2009 survey.

We attempt to make a new ranking which we take population factor into account. The 1st place is the China. 2nd place is United States and 3rd place is India. Surprisingly Japan is the 4th place. Because Japan's population is in 8th place during 50 nations and regions, and its size is larger than European countries and city states such as Hong Kong and Singapore.

Japan Drops to 14th Place

In the 2009 survey, Japan was in 14th place (Table 2), dropping two steps from the previous year's survey. It was in the 6th place in 1980, 9th place in 1990, but it dropped considerably

Table 1 Rankings of the top three countries

	Hong Kong	Singapore	United States
Overall	1 (1)	2 (2)	3 (3)
Internationalization	1 (1)	3 (3)	2 (2)
Enterprises	2 (2)	1 (1)	4 (9)
Education	26 (24)	38 (33)	2 (3)
Finance	1 (1)	5 (2)	30 (18)
Government	3 (6)	2 (3)	32 (28)
Science and technology	24 (24)	21 (21)	1 (1)
Infrastructure	2 (2)	1 (1)	11 (10)
IT	5 (10)	10 (23)	14 (8)

Note: Numbers in parentheses are 2008 rankings

Table 2 Japan's ranking

	Deviation			Ranking		
	2008	2009	Change	2008	2009	Change
Overall	58.1	57.8	-0.4	12	14	2
Internationalization	49.7	50.1	0.4	17	16	-1
Enterprises	65.3	65.7	0.4	5	5	0
Education	57.4	57.5	0.1	15	14	-1
Finance	46.1	44.8	-1.3	35	41	6
Government	53.4	51.7	-1.7	24	30	6
Science and technology	68.4	69.0	0.7	2	2	0
Infrastructure	49.1	48.9	-0.1	27	27	0
IT	57.0	56.2	-0.7	18	20	2

Note: — (minus) indicates a rise in ranking.

to 15th place in 2000. After 2000, it has been rising gradually, but its ranking drops again.

Japan has ranked high in “science and technology” (second place) and “enterprises” (5th place). It has ranked in 10th place or below in all other items.

Its rank dropped in “government” and “finance” because of huge fiscal deficit and decrease of stock price. Its rank improved in “internationalization” and “education”. Each component of the “IT” has improved, but magnitude of the improvement is smaller than other countries.

In Asia, Korea overtakes Taiwan

The latest findings on the potential competitiveness of Asian countries and regions show that Hong Kong is at the top (Figure 1). Singapore is also strong at second place, followed by Japan.

South Korea overtook Taiwan. South Korea is in 17th place and Taiwan is 19th place.

In the Association of Southeast Asian Nations (ASEAN), the ranking is Singapore, Malaysia, Thailand, Indonesia and the Philippines in descending order. The Indonesia's ranking has improved, while Philippine's ranking made no improvement.

2. Ranking Method

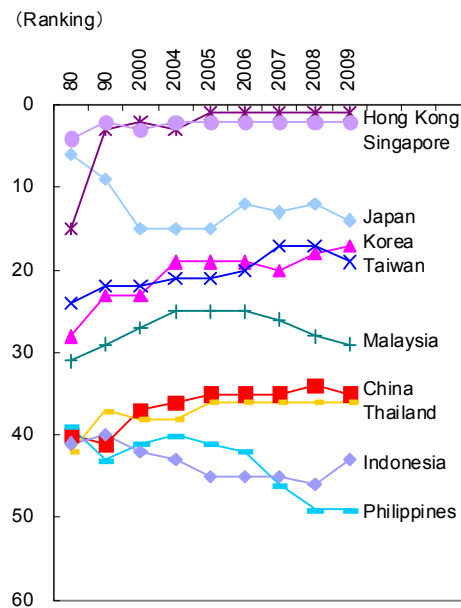
Significance of Potential Competitiveness

In this project, we have adopted per-capita GDP as an overall competitiveness indicator. The greater the per-capita capital and the higher the productivity for a given period, the greater the growth of per-capita income. A competitive country is one that can provide products or services to domestic or foreign markets efficiently. An appropriate comprehensive indicator that measures such competitiveness should be based on per-capita output.

Determining factor for competitiveness

We have selected factors that increase the per-capita of GDP pursuant to economic theory. Based on eight determinants of competitiveness: (1) internationalization, (2) enterprises, (3) education, (4) finance, (5) government, (6) science and technology, (7)

Figure 1 Rankings of Potential Competitiveness in Asian countries or regions



infrastructure, and (8) IT(information technology), we have generated overall potential competitiveness indices using Principal Component Analysis.

Table 3 Indicators adopted for each item

Item	Indicator			
Internationalization (average)	Export of goods and services (ratio to GDP and absolute amount)	Import of goods and services (ratio to GDP and absolute amount)	Outflow of direct investment (ratio to GDP and absolute amount)	Inflow of direct investment (ratio to GDP and absolute amount)
Enterprises (estimate)	Ratio of combined exports & imports to GDP(adjustment of GDP factor)	Labor productivity of manufacturing industry	Developing country dummy	
Education (estimate)	Rate of enrollment in higher education	TOEFL scores	Average years of school attendance	Ratio of government education expenditure to GDP
Finance (estimate)	Ratio of bank liquidity reserves to its assets (opposite sign)	Ratio of credit to private sector to total domestic credit	Ratio of stock market capitalization to nominal GDP	
Government (estimate)	Ratio of customs duties to tax revenue (opposite sign)	Ratio of budget balance to GDP	Inflation (opposite sign)	
Science and Technology (product log)	Cumulative number of patents granted to U.S.	Number of R&D researchers per population		
Infrastructure (estimate)	Aircraft departures per capita	Containers handled per capita	Rate of power transmission/distribution loss	Ratio of paved roads
IT (principal component analysis)	Rate of fixed-line phone diffusion	Rate of mobile phone diffusion	Rate of PC diffusion	Rate of Internet diffusion
	Rate of broadband diffusion			

Note: The above indicators have been used to compute competitiveness for the latest period.

Competitiveness is measured in various ways. This project discusses “potential competitiveness”, which is defined not as an outcome of economic growth, but as an ability to be competitive in future.

The measure primarily seeks to determine if a country is equipped with the necessary groundwork for future improvement in competitiveness. High-level education and good infrastructure mean strong potential competitiveness.

3. Thoughts on competitiveness

Competitiveness may be defined in many ways. When an indicator is assumed to express competitiveness, it is important to determine if it represents the “cause” or the “effect” of competitiveness. For example, high-level education or labor productivity is a cause of a nation’s strong competitiveness, while an increase in income is an indicator that represents

the effect of such competitiveness.

One of the existing, representative competitiveness indicators is provided by The World Competitiveness Yearbook, published by the International Institute for Management Development (IMD) in Switzerland. The IMD develops rankings of competitiveness using a variety of different indicators but does not give reasons for its selection of such indicators. While the IMD uses questionnaire surveys, our project features quantitative analyses based on available socio-economic data.

4. Time relationship between potential competitiveness and

Per-capita GDP increment

Potential competitiveness computed with various indicators shows the potential capabilities of a country at a given moment to compete over the next ten years. For instance, the potential competitiveness indicator as of 1980 indicates a country's ability to increase per-capita GDP during the 1980s.

Potential competitiveness as of '80 → influential on competitiveness in the 1980s
Potential competitiveness as of '90 → influential on competitiveness in the 1990s
Potential competitiveness as of the latest period
→ will be influential on competitiveness over the next 10 years

Potential competitiveness and realized competitiveness do not correspond completely because potential competitiveness indicators are based on data provided at the initial point in time of the period under measurement and we need to acknowledge the possibility of unforeseen events occurring over the next ten years. For example, Japan's potential competitiveness, which ranked ninth as of '90, resulted in realized competitiveness falling to 14th place as measured by the '90-'98 per-capita GDP due to the collapsed financial bubble and the delayed disposal of subsequent bad loans.

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Appendix Table 1 Overall Ranking

	80		90		2000		2008		2009		
1	United States	73.0	United States	70.1	United States	69.4	Hong Kong	76.0	Hong Kong	74.0	1
2	Switzerland	66.4	Singapore	64.8	Hong Kong	68.6	Singapore	71.2	Singapore	72.0	2
3	Sweden	63.6	Hong Kong	63.1	Singapore	67.5	United States	66.9	United States	65.6	3
4	Singapore	63.0	United Kingdom	62.9	Switzerland	63.5	Germany	60.3	Switzerland	61.0	4
5	Germany	62.6	Germany	62.8	Norway	61.8	Netherlands	59.9	Germany	60.7	5
6	Japan	62.0	Norway	62.5	Sweden	61.4	Sweden	59.8	Sweden	60.1	6
7	Netherlands	61.9	Switzerland	62.1	United Kingdom	61.1	Switzerland	59.8	Netherlands	59.9	7
8	Denmark	61.4	Netherlands	61.6	Netherlands	61.1	United Kingdom	59.3	Norway	59.0	8
9	Canada	61.0	Japan	61.5	Finland	60.7	Norway	58.9	United Kingdom	58.8	9
10	Norway	60.5	Sweden	61.1	Germany	60.7	Belgium	58.7	Belgium	58.6	10
11	United Kingdom	60.5	Canada	61.0	Canada	59.6	Ireland	58.5	Ireland	58.4	11
12	Finland	60.0	France	59.7	Ireland	59.4	Japan	58.1	Denmark	58.0	12
13	France	59.9	Belgium	59.4	Belgium	58.2	Canada	58.0	Canada	58.0	13
14	Austria	59.3	Denmark	58.7	Denmark	58.0	Denmark	57.4	Japan	57.8	14
15	Hong Kong	59.0	Ireland	57.9	Japan	58.0	France	57.0	France	57.6	15
16	Australia	57.8	Finland	57.7	France	57.5	Finland	56.8	Finland	57.6	16
17	Belgium	57.2	Australia	57.5	Australia	56.1	Taiwan	55.1	South Korea	55.8	17
18	Italy	55.3	New Zealand	57.2	New Zealand	55.7	South Korea	54.9	Australia	55.0	18
19	New Zealand	54.9	Austria	55.0	Austria	54.2	Australia	54.6	Taiwan	55.0	19
20	Czech Rep.	53.7	Israel	53.9	Israel	54.0	Israel	54.1	New Zealand	53.8	20
21	Ireland	52.8	Italy	53.3	Italy	53.6	New Zealand	53.8	Austria	53.7	21
22	Russia	52.3	Taiwan	53.3	Taiwan	53.4	Austria	53.4	Spain	53.6	22
23	Israel	50.4	South Korea	51.3	South Korea	53.1	Spain	53.1	Israel	53.1	23
24	Taiwan	50.2	Spain	51.0	Spain	52.6	Italy	53.0	Italy	52.2	24
25	Spain	49.4	Russia	49.5	Greece	48.5	Czech Rep.	50.0	Czech Rep.	50.5	25
26	Greece	49.0	Czech Rep.	48.8	Czech Rep.	48.5	Greece	49.1	Russia	50.3	26
27	South Africa	48.1	Saudi Arabia	47.6	Malaysia	48.0	Hungary	49.1	Hungary	49.7	27
28	South Korea	47.4	South Africa	47.5	Portugal	46.9	Malaysia	48.5	Greece	49.2	28
29	Hungary	47.1	Malaysia	47.1	Hungary	46.6	Saudi Arabia	48.3	Malaysia	47.9	29
30	Portugal	45.8	Greece	46.9	Russia	46.5	Russia	48.2	Saudi Arabia	47.1	30
31	Malaysia	45.6	Hungary	45.4	Poland	46.5	Poland	47.6	Poland	47.0	31
32	Argentina	44.4	Portugal	45.1	South Africa	46.2	Chile	46.2	Chile	46.0	32
33	Saudi Arabia	44.2	Poland	44.6	Saudi Arabia	44.6	Portugal	45.8	Portugal	45.7	33
34	Poland	42.6	Mexico	43.6	Argentina	43.5	China	44.0	South Africa	45.0	34
35	Venezuela	42.4	Chile	43.3	Chile	43.1	South Africa	44.0	China	44.3	35
36	Mexico	41.9	Argentina	42.9	Mexico	43.0	Thailand	43.3	Thailand	43.2	36
37	Chile	41.8	Thailand	42.1	China	42.8	Argentina	42.9	Argentina	41.9	37
38	Brazil	41.7	Venezuela	41.7	Thailand	42.4	Mexico	42.6	Turkey	41.2	38
39	Philippines	40.6	Turkey	41.5	Brazil	40.0	Turkey	41.9	Mexico	40.8	39
40	China	39.9	Indonesia	41.2	Turkey	39.5	Brazil	41.2	Peru	40.7	40
41	Indonesia	39.4	China	39.7	Philippines	39.3	Peru	38.9	Brazil	40.2	41
42	Thailand	39.2	Brazil	39.5	Indonesia	39.1	Venezuela	38.7	Vietnam	38.2	42
43	Turkey	37.9	Philippines	38.8	Venezuela	38.5	Iran	37.4	Indonesia	37.7	43
44	Peru	37.8	Egypt	38.2	Peru	38.3	Egypt	36.7	Iran	37.6	44
45	Iran	37.6	Iran	36.9	Colombia	36.8	Colombia	36.6	Colombia	37.2	45
46	Egypt	36.9	Colombia	36.4	Egypt	36.0	Indonesia	36.2	Egypt	36.3	46
47	India	36.8	Peru	34.5	Iran	36.0	India	35.0	Venezuela	35.5	47
48	Vietnam	36.6	India	33.9	Vietnam	35.4	Vietnam	34.5	India	34.7	48
49	Colombia	35.5	Vietnam	32.5	India	33.2	Philippines	34.2	Philippines	33.8	49
50	Pakistan	31.8	Pakistan	31.6	Pakistan	31.5	Pakistan	30.5	Pakistan	29.1	50