

# 2013 Trilateral Statistics



Trilateral  
Cooperation  
Secretariat





# 2013 Trilateral Statistics

# Foreward

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I am more than delighted to present the 2013 edition of the Trilateral Statistics. In the past 15 years, China, Japan and the Republic of Korea (ROK) have witnessed the progress in trilateral cooperation. There are 18 ministerial meetings and over 50 working-level mechanisms among the three countries in various areas. Alongside all these mechanisms, the Trilateral Cooperation Secretariat (TCS) has been mandated to promote a better understanding of trilateral cooperation since its establishment in 2011. I believe, with direct demonstration of figures and graphs, the Trilateral Statistics can help people to realize how close the three countries are connected to each other.

The 2013 Trilateral Statistics contains facts and figures from economic interrelations among the three countries as well as each country's current economic circumstances. Indicators on macroeconomy, population, or resources offer an overall economic situation of the three countries. Indicators on intra-trade, investment or movement of people reveal the close connections and the driving force for regional integration.

I hope that the 2013 Trilateral Statistics will provide guidance for understanding the dynamic and close relations among the three countries.

**February 2014**  
**IWATANI Shigeo**  
**Secretary-General**  
**Trilateral Cooperation Secretariat**

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# 1

# Quick Look

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- 1-1. 2012 at a Glance
- 1-2. Regional Economies (2012)

## 1-1. 2012 at a Glance

|                                    | China                              | Japan                             | ROK                                 | Total     |
|------------------------------------|------------------------------------|-----------------------------------|-------------------------------------|-----------|
| <b>Land Area</b>                   | 9,327,480                          | 364,500                           | 97,100                              | 9,789,080 |
| Square Km (%)                      | (7.2)                              | (0.3)                             | (0.1)                               | (7.6)     |
| <b>Population</b>                  | 1,350,695                          | 127,561                           | 50,004                              | 1,528,260 |
| Thousand Persons (%)               | (19.2)                             | (1.8)                             | (0.7)                               | (21.7)    |
| <b>Nominal GDP</b>                 | 8,358                              | 5,960                             | 1,130                               | 15,448    |
| Billion US\$ (%)                   | (11.6)                             | (8.3)                             | (1.6)                               | (21.5)    |
| <b>GDP per Capita</b>              | 6,188                              | 46,720                            | 22,590                              | -         |
| US\$                               |                                    |                                   |                                     |           |
| <b>Inflation Rate (CPI)</b>        | 2.7                                | 0.0                               | 2.2                                 | -         |
| %                                  |                                    |                                   |                                     |           |
| <b>Exports</b>                     | 2,167                              | 918                               | 644                                 |           |
| Billion US\$                       |                                    |                                   |                                     |           |
| <b>Imports</b>                     | 1,935                              | 1,022                             | 622                                 |           |
| Billion US\$                       |                                    |                                   |                                     |           |
| <b>Trade Dependency</b>            | 49.9                               | 32.6                              | 113.8                               | -         |
| %                                  |                                    |                                   |                                     |           |
| <b>Export</b>                      | 26.36                              | 15.43                             | 56.99                               | -         |
| %                                  |                                    |                                   |                                     |           |
| <b>Import</b>                      | 23.54                              | 17.17                             | 56.81                               | -         |
| %                                  |                                    |                                   |                                     |           |
| <b>Current Account</b>             | 232                                | -104                              | 22                                  | -         |
| Billion US\$                       |                                    |                                   |                                     |           |
| <b>Foreign Exchange Reserve</b>    | 3,331.1                            | 1,227.1                           | 323.2                               | 4,857     |
| Billion US\$ (Ranking)             | (1)                                | (2)                               | (8)                                 |           |
| <b>Inward FDI Stocks (2011)</b>    | 1,907                              | 226                               | 134                                 | 2,266     |
| Billion US\$ (%)                   | (9.1)                              | (1.1)                             | (0.6)                               | (10.8)    |
| <b>Outward FDI Stocks (2011)</b>   | 425                                | 963                               | 331                                 | 1,718     |
| Billion US\$ (%)                   | (2.0)                              | (4.5)                             | (1.6)                               | (8.1)     |
| <b>Number of Inbound Travelers</b> | 3,658 (Japanese)<br>4,070 (Korean) | 1,425 (Chinese)<br>2,044 (Korean) | 2,837 (Chinese)<br>3,519 (Japanese) |           |
| Thousand Persons                   |                                    |                                   |                                     |           |

\* Total =China+Japan+ROK

\*\* %=Percentage of World

**Source** World Bank, International Monetary Fund (IMF), Organization for Economic Cooperation and Development (OECD) Statistics, Chinese National Tourism Administration, Japan National Tourism Organization, Korea Tourism Organization, Statistics Korea (KOSTAT)

## 1-2. Regional Economies (2012)

|                             | Nominal GDP<br>Billion US\$ (%) | Population<br>Million persons (%) | Exports ***<br>Billion US\$ | Imports ***<br>Billion US\$ | % of<br>World<br>Trade |
|-----------------------------|---------------------------------|-----------------------------------|-----------------------------|-----------------------------|------------------------|
| <b>China+Japan+ROK</b>      | 15,447.68 (21.4)                | 1,528.3 (21.7)                    | 3,813.82                    | 3,547.18                    | 16.6                   |
| <b>ASEAN</b>                | 2,254.55 (3.1)                  | 608.4 (8.6)                       | 1,462.92                    | 1,327.68                    | 6.3                    |
| <b>ASEAN+3</b>              | 17,702.23 (24.6)                | 2,136.7 (30.3)                    | 5,276.74                    | 4,874.86                    | 22.9                   |
| <b>APEC *</b>               | 41,284.11 (57.4)                | 2,787.7 (39.6)                    | 9,994.15                    | 10,463.86                   | 46.1                   |
| <b>BRICS<sup>1</sup></b>    | 14,851.83 (20.7)                | 2,980.8 (42.3)                    | 3,732.10                    | 3,413.16                    | 16.1                   |
| <b>EU</b>                   | 16,633.53 (23.1)                | 509.0 (7.2)                       | 7,706.40                    | 7,511.30                    | 34.3                   |
| <b>GCC **2</b>              | 1,577.20 (2.2)                  | 47.6 (0.7)                        | 1,054.9                     | 569.95                      | 3.7                    |
| <b>MERCOSUR<sup>3</sup></b> | 3,179.04 (4.4)                  | 279.8 (39.7)                      | 499.2                       | 474.70                      | 2.2                    |
| <b>NAFTA</b>                | 18,684.18 (26.0)                | 469.6 (6.6)                       | 3,000.70                    | 3,604.69                    | 14.9                   |
| <b>World</b>                | 71,918.40 (100.0)               | 7,046.4 (100.0)                   | 22,534.82                   | 21,862.96                   | 100.0                  |

\*The data of APEC were sourced from StatsAPEC.

\*\* The data of Nominal GDP and Population for GCC was sourced from the IMF World Economic Outlook, which are estimate values.

\*\*\* At current prices (2011). It does not include Myanmar's and Uruguay's data.

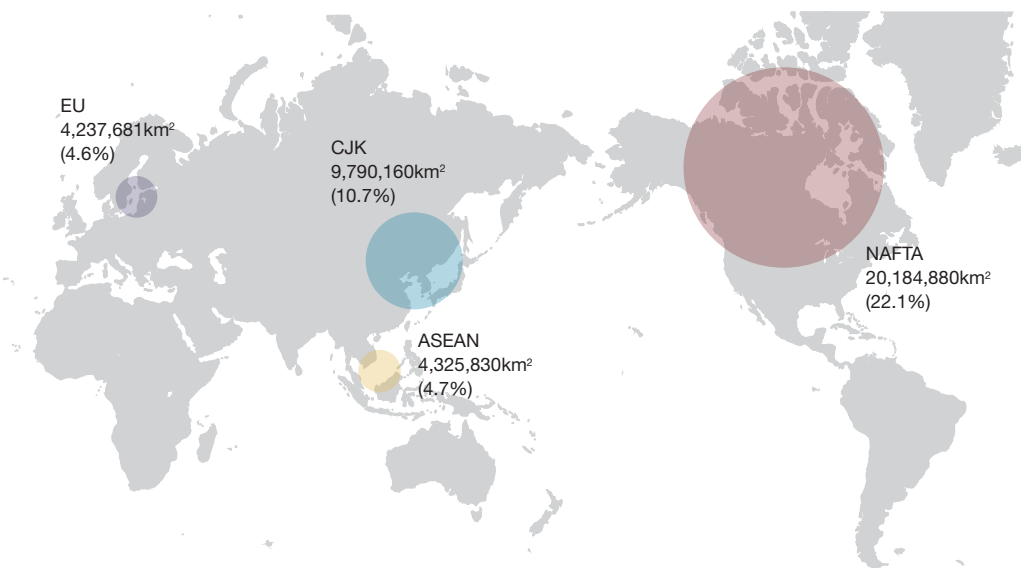
1. BRICS: Brazil, Russia, India, China, South Africa

2. GCC(Gulf Cooperation Council): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates

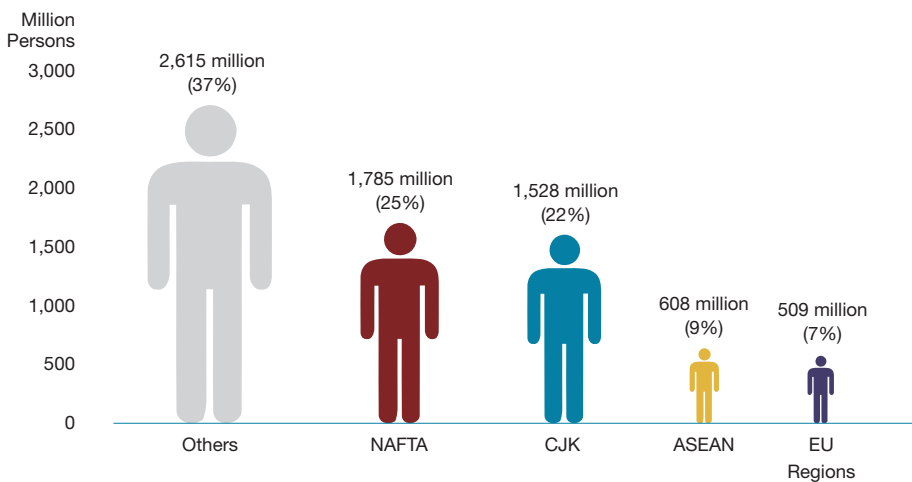
3. MERCOSUR(Southern Common Market): Argentina, Brazil, Paraguay, Uruguay, Venezuela

**Source** International Monetary Fund (IMF), The Statistics Korea, Bank of Korea

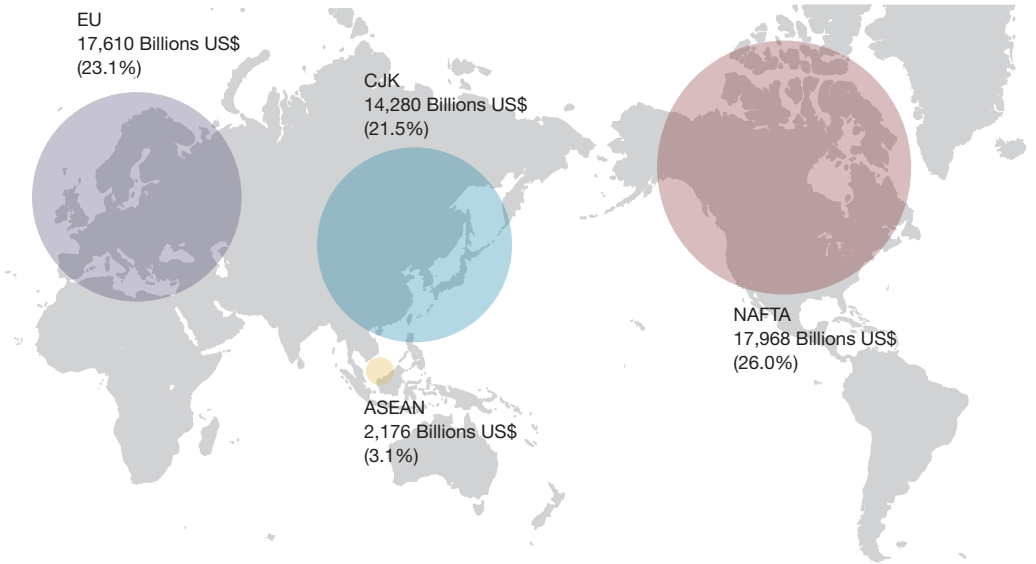
## Land Area in 2012 (% of Total Land Area)



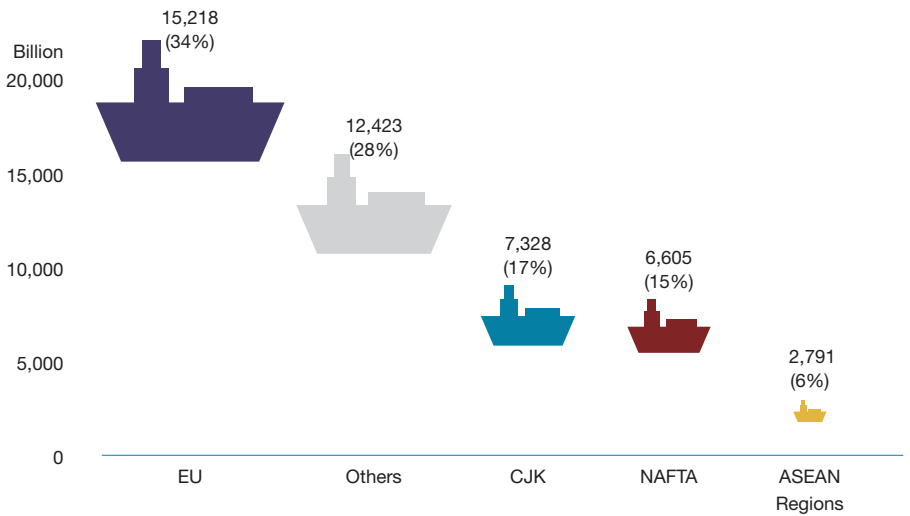
## Population in 2012 (% of World Population)



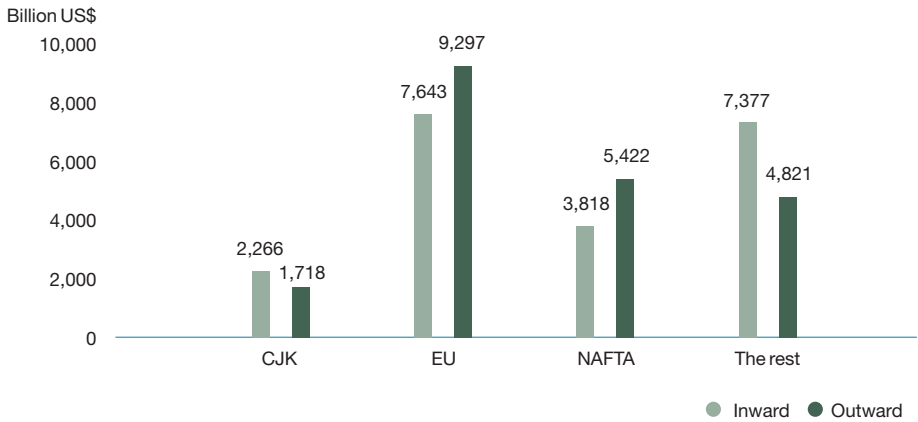
## Gross Domestic Product in 2012 (% of World GDP)



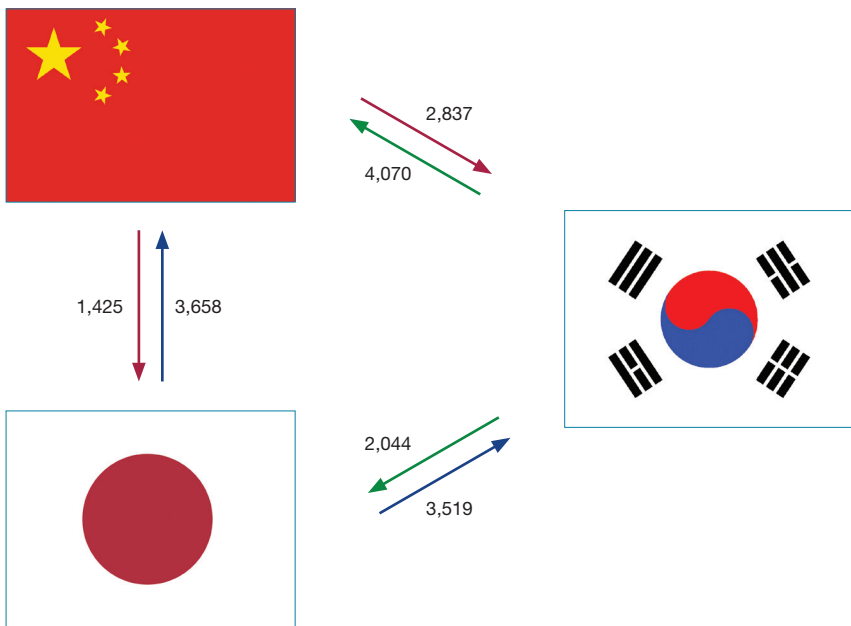
## Trade Volumes in 2012 (% of World Trade)



## Foreign Direct Investment Stocks in 2011 (Billion US\$)



## Number of Travelers in 2012 (Thousand Persons)



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# 2

# Basic Economic Indicator

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- 2-1. Gross Domestic Product (GDP)
- 2-2. GDP per Capita
- 2-3. GDP Growth Rate
- 2-4. GDP Composition by Sectors
- 2-5. Expenditure Structure on GDP
- 2-6. Gross National Income (GNI)
- 2-7. GNI per Capita
- 2-8. GNI Growth Rate
- 2-9. Budget Balance
- 2-10. Price Index (CPI and PPI)
- 2-11. Foreign Exchange Reserves



## 2-1. Gross Domestic Product (GDP)

Unit: Billion US\$ (% of World GDP)

|                     | World  | China        | Japan        | ROK         |
|---------------------|--------|--------------|--------------|-------------|
| <b>2002</b>         | 33,408 | 1,454 (4.4)  | 3,981 (11.9) | 576 (1.7)   |
| <b>2003</b>         | 37,589 | 1,641 (4.4)  | 4,303 (11.5) | 644 (1.7)   |
| <b>2004</b>         | 42,293 | 1,932 (4.6)  | 4,656 (11.0) | 722 (1.7)   |
| <b>2005</b>         | 45,728 | 2,257 (4.9)  | 4,572 (10.0) | 845 (1.9)   |
| <b>2006</b>         | 49,542 | 2,713 (5.5)  | 4,357 (8.8)  | 952 (1.9)   |
| <b>2007</b>         | 55,876 | 3,494 (6.3)  | 4,356 (7.8)  | 1,049 (1.9) |
| <b>2008</b>         | 61,335 | 4,522 (7.4)  | 4,849 (7.9)  | 931 (1.5)   |
| <b>2009</b>         | 58,080 | 4,991 (8.6)  | 5,035 (8.7)  | 834 (1.4)   |
| <b>2010</b>         | 63,412 | 5,931 (9.4)  | 5,495 (8.7)  | 1,015 (1.6) |
| <b>2011</b>         | 70,371 | 7,322 (10.4) | 5,867 (8.4)  | 1,114 (1.6) |
| <b>2012</b>         | 71,666 | 8,227 (11.5) | 5,960 (8.3)  | 1,130 (1.6) |
| <b>2012 Ranking</b> | -      | 2            | 3            | 15          |

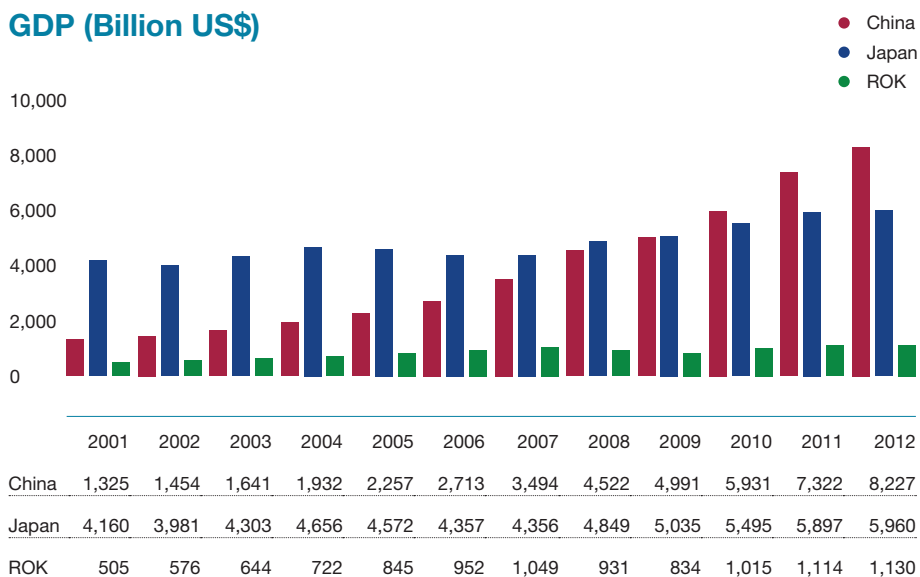
\*At current prices

\*\* GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates.

Source

World Bank

### GDP (Billion US\$)



## 2-2. GDP per Capita

Unit: US\$

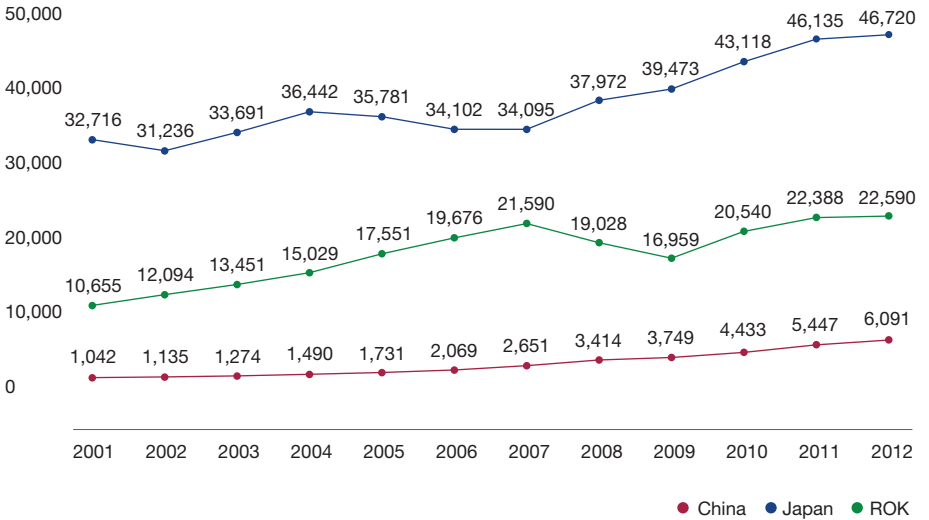
|      | China | Japan  | ROK    |
|------|-------|--------|--------|
| 2002 | 1,135 | 31,236 | 12,094 |
| 2003 | 1,274 | 33,691 | 13,451 |
| 2004 | 1,490 | 36,442 | 15,029 |
| 2005 | 1,731 | 35,781 | 17,551 |
| 2006 | 2,069 | 34,102 | 19,676 |
| 2007 | 2,651 | 34,095 | 21,590 |
| 2008 | 3,414 | 37,972 | 19,028 |
| 2009 | 3,749 | 39,473 | 16,959 |
| 2010 | 4,433 | 43,118 | 20,540 |
| 2011 | 5,447 | 46,135 | 22,388 |
| 2012 | 6,091 | 46,720 | 22,590 |

\* At current prices

\*\* GDP per capita is gross domestic product divided by midyear population.

Source World Bank

## GDP per Capita (US\$)



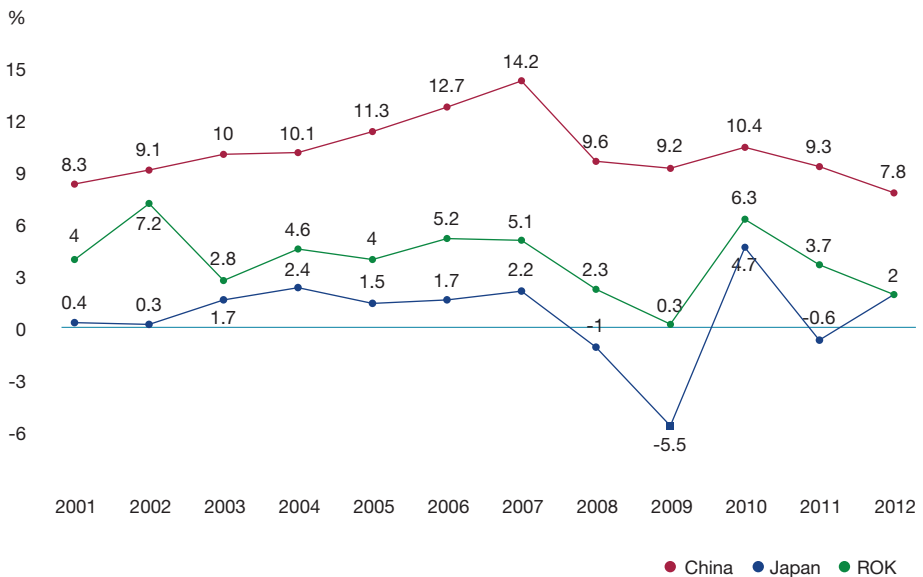
## 2-3. GDP Growth Rate

Unit: %

|      | China | Japan | ROK |
|------|-------|-------|-----|
| 2002 | 9.1   | 0.3   | 7.2 |
| 2003 | 10.0  | 1.7   | 2.8 |
| 2004 | 10.1  | 2.4   | 4.6 |
| 2005 | 11.3  | 1.3   | 4.0 |
| 2006 | 12.7  | 1.7   | 5.2 |
| 2007 | 14.2  | 2.2   | 5.1 |
| 2008 | 9.6   | -1.0  | 2.3 |
| 2009 | 9.2   | -5.5  | 0.3 |
| 2010 | 10.4  | 4.7   | 6.3 |
| 2011 | 9.3   | -0.6  | 3.7 |
| 2012 | 7.8   | 2.0   | 2.0 |

Source: World Bank

## GDP Growth Rate



## 2-4. GDP Composition by Sectors

Unit: %

| Sector | China       |          |          | Japan       |          |          | ROK         |          |          |
|--------|-------------|----------|----------|-------------|----------|----------|-------------|----------|----------|
|        | Agriculture | Industry | Services | Agriculture | Industry | Services | Agriculture | Industry | Services |
| 2002   | 13.7        | 44.8     | 41.5     | 1.2         | 28.1     | 70.7     | 4.0         | 36.2     | 59.8     |
| 2003   | 12.8        | 46.0     | 41.2     | 1.1         | 28.2     | 70.6     | 3.7         | 36.7     | 59.6     |
| 2004   | 13.4        | 46.2     | 40.4     | 1.1         | 27.5     | 71.3     | 3.7         | 38.1     | 58.1     |
| 2005   | 12.1        | 47.4     | 40.5     | 1.2         | 26.0     | 72.8     | 3.3         | 37.7     | 59.0     |
| 2006   | 11.1        | 47.9     | 40.9     | 1.2         | 27.5     | 71.4     | 3.2         | 37.2     | 59.7     |
| 2007   | 10.8        | 47.3     | 41.9     | 1.1         | 28.2     | 70.6     | 2.9         | 37.1     | 60.0     |
| 2008   | 10.7        | 47.5     | 41.8     | 1.1         | 27.5     | 71.3     | 2.7         | 36.5     | 60.8     |
| 2009   | 10.3        | 46.3     | 43.4     | 1.2         | 26.0     | 72.8     | 2.8         | 36.8     | 60.4     |
| 2010   | 10.1        | 46.7     | 43.2     | 1.2         | 27.5     | 71.4     | 2.6         | 38.8     | 58.5     |
| 2011   | 10.1        | 46.8     | 43.1     | 1.2         | 26.1     | 72.7     | 2.7         | 39.2     | 58.1     |
| 2012   | 10.0        | 46.6     | 43.4     | -           | -        | -        | 2.6         | 39.1     | 58.2     |

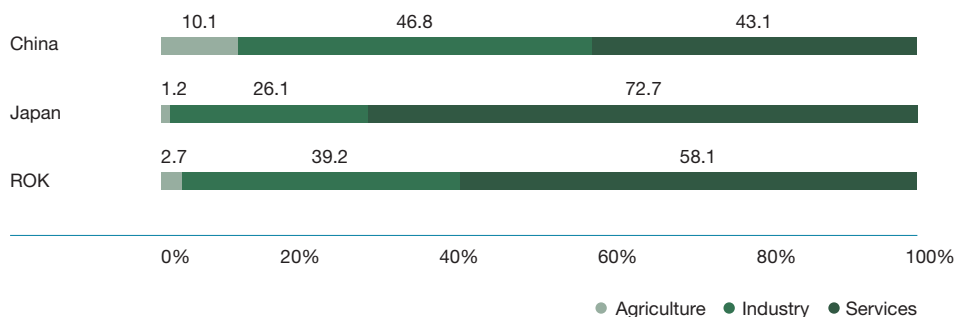
\* Agriculture: Agriculture corresponds to ISIC (International Standard of Industry Classification) divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production.

\*\* Industry: Industry corresponds to ISIC divisions 10-45 and includes manufacturing (ISIC divisions 15-37). It comprises value added in mining, manufacturing (also reported as a separate subgroup), construction, electricity, water, and gas.

\*\*\* Services: Services correspond to ISIC divisions 50-99 and they include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services. Also included are imputed bank service charges, import duties, and any statistical discrepancies noted by national compilers as well as discrepancies arising from rescaling.

Source Key Indicators for Asia and the Pacific 2013, Asian Development Bank

## GDP Composition by Sectors



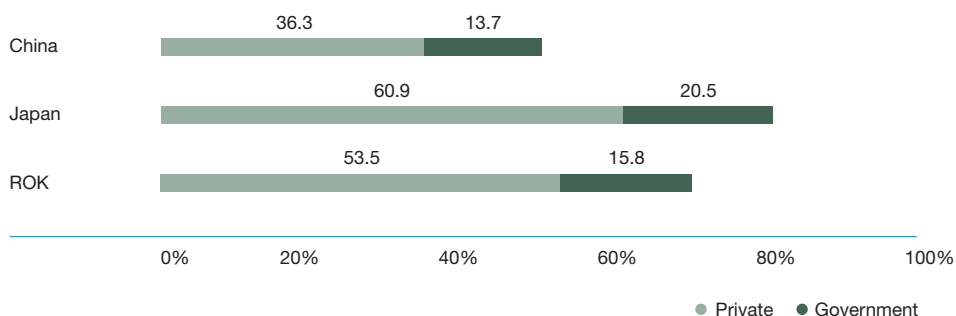
## 2-5. Expenditure Structure on GDP

| Year | China<br>(billion Yuan (% of GDP)) |               |              |               | Gross Fixed Capital Formation |                |
|------|------------------------------------|---------------|--------------|---------------|-------------------------------|----------------|
|      | Total                              | Private       | Government   | Total         | Private                       | Government     |
| 2002 | 12,033                             | 5,306 (44.1)  | 1,876 (15.6) | 4,363 (37.9)  | 477,915                       | 282,074(57.9)  |
| 2003 | 13,582                             | 5,765 (42.4)  | 2,004 (14.8) | 5,349 (41.2)  | 485,968                       | 283,474 (57.6) |
| 2004 | 15,988                             | 6,522 (40.8)  | 2,233 (14.0) | 6,512 (43.3)  | 497,441                       | 286,742 (57.3) |
| 2005 | 18,494                             | 7,296 (39.3)  | 2,640 (14.3) | 7,423 (42.1)  | 503,921                       | 291,133 (57.8) |
| 2006 | 21,631                             | 8,258 (38.0)  | 3,053 (14.1) | 8,795 (43.0)  | 512,452                       | 294,344 (57.9) |
| 2007 | 26,581                             | 9,633 (36.2)  | 3,590 (13.5) | 10,399 (41.7) | 523,686                       | 297,063 (57.3) |
| 2008 | 31,405                             | 11,167 (35.6) | 4,175 (13.3) | 12,808 (44.0) | 518,231                       | 294,313 (58.3) |
| 2009 | 34,090                             | 12,358 (36.3) | 4,569 (13.4) | 15,668 (48.3) | 489,588                       | 292,342 (60.1) |
| 2010 | 40,151                             | 14,076 (35.1) | 5,336 (13.3) | 18,362 (48.2) | 512,364                       | 300,436 (59.3) |
| 2011 | 47,310                             | 16,896 (35.7) | 6,315 (13.3) | 21,568 (48.3) | 509,369                       | 301,767 (60.5) |
| 2012 | 51,932                             | 18,837 (36.3) | 7,123 (13.7) | 24,315 (48.8) | 519,277                       | 308,725 (60.9) |

\* Values of all expenditures are at 2005 market prices except those of China which were adjusted to make the total GDP by production approach, consistent with the GDP estimates by expenditure approach at current prices.

Source *Key Indicators for Asia and the Pacific 2013, Asian Development Bank*

### Expenditure Structure on GDP (2012)



| Japan<br>(Billion Yen (% of GDP)) |                                       | ROK<br>(Billion Won (% of GDP)) |                |                |                                     |
|-----------------------------------|---------------------------------------|---------------------------------|----------------|----------------|-------------------------------------|
| Government                        | Gross Fixed<br>Capital Forma-<br>tion | Total                           | Private        | Government     | Gross Fixed<br>Capital<br>Formation |
| 88,704 (18.3)                     | 110,994 (22.5)                        | 773,868                         | 408,716 (56.7) | 90,930 (12.6)  | 206,052 (29.2)                      |
| 90,369 (18.3)                     | 111,191 (22.4)                        | 795,558                         | 420,099 (54.8) | 100,057 (13.0) | 225,076 (29.9)                      |
| 91,744 (18.2)                     | 111,630 (22.5)                        | 832,305                         | 435,060 (52.6) | 110,128 (13.3) | 241,475 (29.9)                      |
| 92,468 (18.4)                     | 112,574 (22.5)                        | 865,241                         | 465,431 (53.8) | 120,010 (13.9) | 249,690 (29.7)                      |
| 92,493 (18.2)                     | 114,272 (22.7)                        | 910,049                         | 494,918 (54.5) | 131,901 (14.5) | 260,651 (29.6)                      |
| 93,521 (18.1)                     | 114,631 (22.9)                        | 956,515                         | 530,264 (54.4) | 143,262 (14.7) | 278,168 (29.4)                      |
| 93,403 (18.6)                     | 109,923 (23.0)                        | 978,499                         | 561,628 (54.7) | 156,944 (15.3) | 300,794 (31.2)                      |
| 95,525 (19.9)                     | 98,282 (19.7)                         | 981,625                         | 575,970 (54.1) | 170,325 (16.0) | 309,714 (26.3)                      |
| 97,335 (19.7)                     | 98,043 (19.8)                         | 1,043,666                       | 616,983 (52.6) | 178,396 (15.2) | 331,734 (29.5)                      |
| 98,702 (20.4)                     | 99,140 (20.0)                         | 1,082,096                       | 655,387 (53.1) | 189,552 (15.3) | 340,101 (29.5)                      |
| 101,049 (20.5)                    | 103,523 (20.6)                        | 1,104,215                       | 680,757 (53.5) | 201,476 (15.8) | 339,895 (27.6)                      |

## 2-6. Gross National Income (GNI)

Unit: Billion US\$

|      | China | Japan | ROK   |
|------|-------|-------|-------|
| 2002 | 1,439 | 4,045 | 576   |
| 2003 | 1,633 | 4,374 | 644   |
| 2004 | 1,927 | 4,743 | 724   |
| 2005 | 2,241 | 4,678 | 844   |
| 2006 | 2,708 | 4,481 | 953   |
| 2007 | 3,502 | 4,504 | 1,051 |
| 2008 | 4,550 | 5,012 | 938   |
| 2009 | 4,983 | 5,175 | 837   |
| 2010 | 5,905 | 5,643 | 1,016 |
| 2011 | 7,252 | 6,081 | 1,117 |
| 2012 | 8,185 | 6,150 | 1,136 |

\* At current USD

Source World Bank

## 2-7. GNI per Capita

Unit: US\$

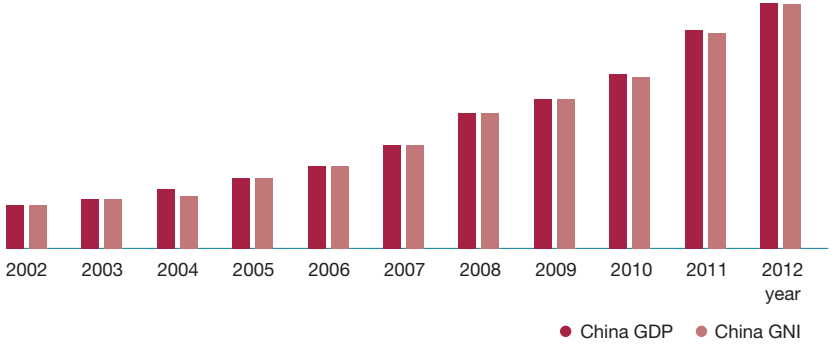
|      | China | Japan  | ROK    |
|------|-------|--------|--------|
| 2002 | 1,100 | 33,750 | 11,830 |
| 2003 | 1,270 | 34,010 | 12,680 |
| 2004 | 1,500 | 37,150 | 14,830 |
| 2005 | 1,740 | 39,140 | 16,900 |
| 2006 | 2,040 | 38,600 | 18,920 |
| 2007 | 2,480 | 37,660 | 21,140 |
| 2008 | 3,040 | 37,870 | 21,430 |
| 2009 | 3,620 | 37,610 | 19,650 |
| 2010 | 4,230 | 42,190 | 19,720 |
| 2011 | 4,950 | 45,130 | 20,870 |
| 2012 | 5,680 | 47,870 | 22,670 |

\* GNI per capita converted to U.S. dollars using the World Bank Atlas method.

Source World Bank

## GDP and GNI

Billion US\$  
10,000



7,000

6,000

5,000

4,000

3,000

2,000

1,000

0



1200

1000

800

600

400

200

0



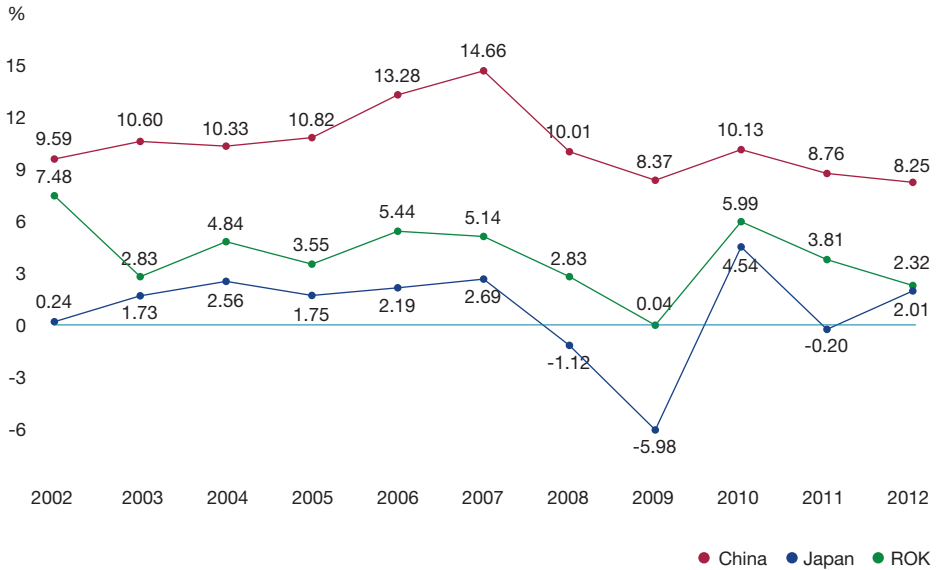


## 2-8. GNI Growth Rate

Unit: %

|        | China      | Japan | ROK  |
|--------|------------|-------|------|
| 2002   | 9.59       | 0.24  | 7.48 |
| 2003   | 10.60      | 1.73  | 2.83 |
| 2004   | 10.33      | 2.56  | 4.84 |
| 2005   | 10.82      | 1.75  | 3.55 |
| 2006   | 13.28      | 2.19  | 5.44 |
| 2007   | 14.66      | 2.69  | 5.14 |
| 2008   | 10.01      | -1.12 | 2.83 |
| 2009   | 8.37       | -5.98 | 0.04 |
| 2010   | 10.13      | 4.54  | 5.99 |
| 2011   | 8.76       | -0.20 | 3.81 |
| 2012   | 8.25       | 2.01  | 2.32 |
| Source | World Bank |       |      |

## GNI Growth Rate



## 2-9. Budget Balance

Unit: % of GDP

|      | China | Japan | ROK  |
|------|-------|-------|------|
| 2002 | -2.6  | -6.5  | 3.1  |
| 2003 | -2.2  | -6.5  | 1.0  |
| 2004 | -1.3  | -5.1  | 0.6  |
| 2005 | -1.2  | -4.1  | 0.4  |
| 2006 | -0.8  | -0.9  | 0.4  |
| 2007 | 0.6   | -2.4  | 3.5  |
| 2008 | -0.4  | -2.9  | 1.2  |
| 2009 | -2.3  | -7.6  | -1.7 |
| 2010 | -1.7  | -6.7  | 1.4  |
| 2011 | -1.1  | -8.3  | 1.5  |
| 2012 | -1.8  | n/a   | 1.5  |

\* Budget balance is the difference between government revenue and government expenditure.

**Source** Key Indicators for Asia and the Pacific 2013, Asian Development Bank

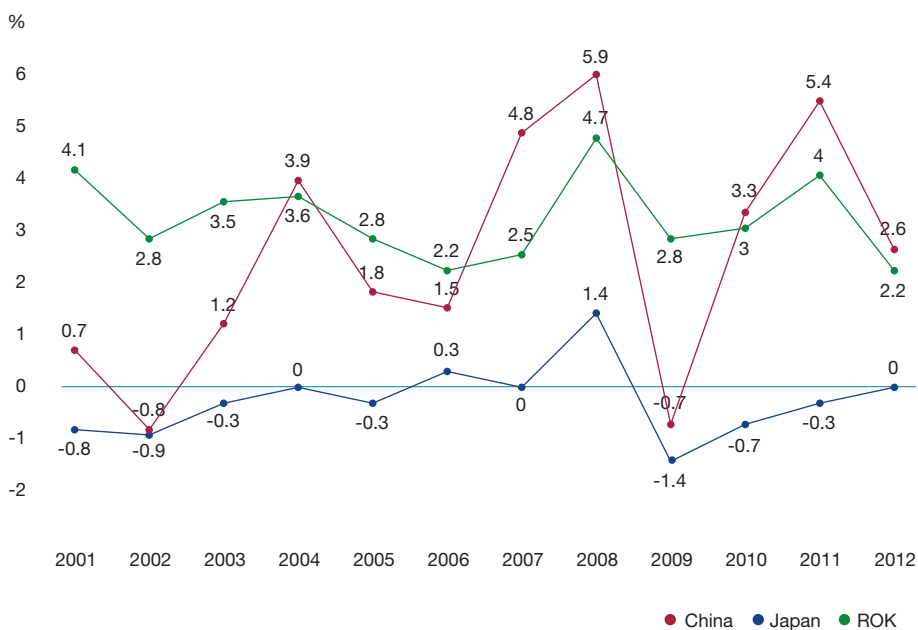
## 2-10. Price Index

Unit: Annual % Change

|      | CPI (Consumer Price Index) |       |     | PPI (Producer Price Index) |       |      |
|------|----------------------------|-------|-----|----------------------------|-------|------|
|      | China                      | Japan | ROK | China                      | Japan | ROK  |
| 2002 | -0.8                       | -0.9  | 2.8 | -2.2                       | -2.1  | -0.3 |
| 2003 | 1.2                        | -0.3  | 3.5 | 2.3                        | -0.9  | 2.2  |
| 2004 | 3.9                        | 0.0   | 3.6 | 6.1                        | 1.3   | 6.1  |
| 2005 | 1.8                        | -0.3  | 2.8 | 4.9                        | 1.6   | 2.1  |
| 2006 | 1.5                        | 0.3   | 2.2 | 3.0                        | 2.2   | 0.9  |
| 2007 | 4.8                        | 0.0   | 2.5 | 3.1                        | 1.8   | 1.4  |
| 2008 | 5.9                        | 1.4   | 4.7 | 6.9                        | 4.6   | 8.5  |
| 2009 | -0.7                       | -1.4  | 2.8 | -5.4                       | -5.3  | -0.2 |
| 2010 | 3.3                        | -0.7  | 3.0 | 5.5                        | -0.1  | 3.8  |
| 2011 | 5.4                        | -0.3  | 4.0 | 6.0                        | 1.5   | 6.7  |
| 2012 | 2.6                        | 0.0   | 2.2 | -1.7                       | -0.8  | 0.7  |

**Source** Key Indicators for Asia and the Pacific 2013, Asian Development Bank

### CPI (Consumer Price Index)



## 2-11. Foreign Exchange Reserves

Unit: Billion US\$ (Ranking)

|      | China       | Japan       | ROK       |
|------|-------------|-------------|-----------|
| 2002 | 297.7 (2)   | 469.6 (1)   | 121.5 (4) |
| 2003 | 416.2 (2)   | 673.6 (1)   | 155.5 (4) |
| 2004 | 622.9 (2)   | 844.7 (1)   | 199.2 (3) |
| 2005 | 831.4 (2)   | 846.9 (1)   | 210.6 (3) |
| 2006 | 1,080.8 (1) | 895.3 (2)   | 239.1 (4) |
| 2007 | 1,546.4 (1) | 973.3 (2)   | 262.5 (7) |
| 2008 | 1,966.0 (1) | 1,030.8 (2) | 201.5 (7) |
| 2009 | 2,452.9 (1) | 1,049.0 (2) | 270.4 (7) |
| 2010 | 2,913.7 (1) | 1,096.1 (2) | 292.1 (7) |
| 2011 | 3,254.7 (1) | 1,295.8 (2) | 306.9 (8) |
| 2012 | 3,331.1 (1) | 1,227.1 (2) | 323.2 (8) |

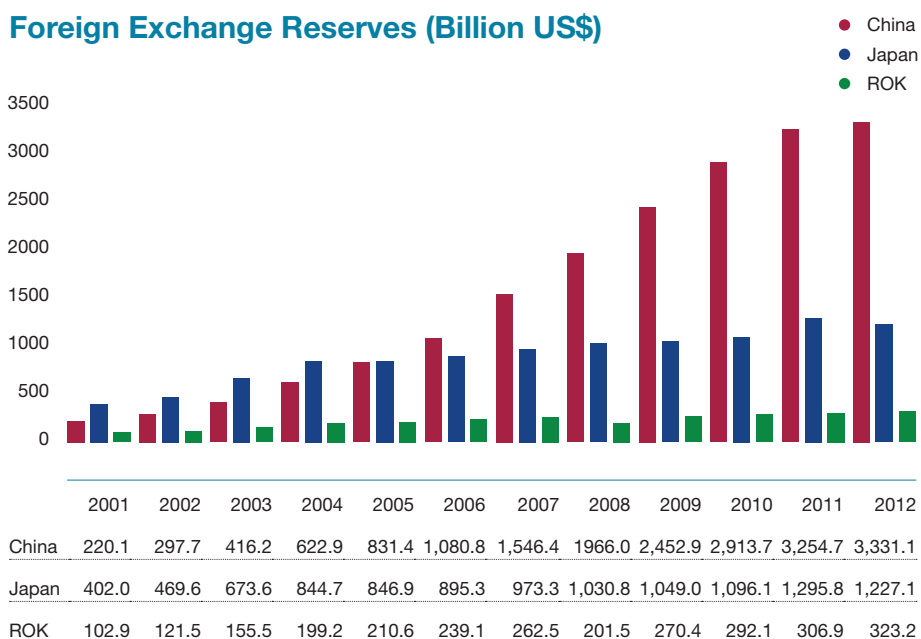
\* At current prices

\*\* Data refer to international reserves with gold at national valuation unless otherwise specified.

Source

World Bank

### Foreign Exchange Reserves (Billion US\$)



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# 3

# Population

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- 3-1. Total Population
- 3-2. Population Density
- 3-3. Annual Average Growth Rate of Population
- 3-4. Population in Urban and Rural Areas
- 3.5. Population Distribution by Age Group
- 3-6. Age Dependency Ratio
- 3-7. Old-Age Support Ratio
- 3-8. Total Fertility Rate
- 3-9. Birth Rate
- 3-10. Aging Index
- 3-11. Average Life Expectancy
- 3-12. Employment and Unemployment
- 3-13. School Enrollment
- 3-14. Future Population Estimates

### 3-1. Total Population

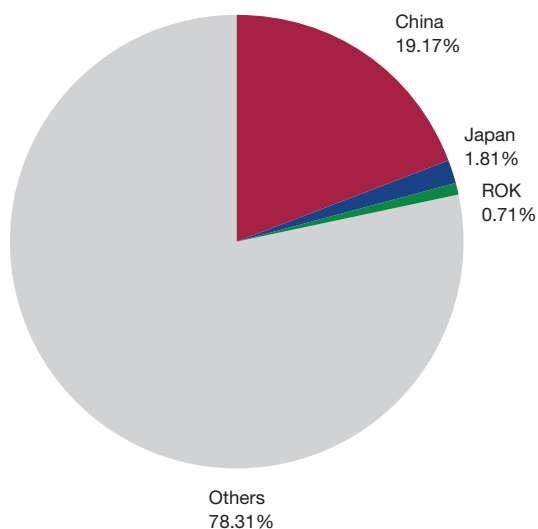
Unit: Thousand Persons (% of World Population)

|      | World     | China             | Japan          | ROK           | Others            |
|------|-----------|-------------------|----------------|---------------|-------------------|
| 2002 | 6,257,639 | 1,280,400 (20.46) | 127,445 (2.04) | 47,622 (0.76) | 4,802,172 (76.74) |
| 2003 | 6,335,191 | 1,288,400 (20.34) | 127,718 (2.02) | 47,859 (0.76) | 4,871,214 (76.89) |
| 2004 | 6,412,915 | 1,296,075 (20.21) | 127,761 (1.99) | 48,039 (0.75) | 4,941,040 (77.05) |
| 2005 | 6,490,741 | 1,303,720 (20.09) | 127,773 (1.97) | 48,138 (0.74) | 5,011,110 (77.20) |
| 2006 | 6,568,642 | 1,311,020 (19.96) | 127,756 (1.94) | 48,372 (0.74) | 5,081,494 (77.36) |
| 2007 | 6,646,909 | 1,317,885 (19.83) | 127,771 (1.92) | 48,598 (0.73) | 5,152,655 (77.52) |
| 2008 | 6,726,054 | 1,324,655 (19.69) | 127,704 (1.90) | 48,949 (0.73) | 5,224,746 (77.68) |
| 2009 | 6,805,251 | 1,331,260 (19.56) | 127,558 (1.87) | 49,182 (0.72) | 5,297,251 (77.84) |
| 2010 | 6,885,218 | 1,337,705 (19.43) | 127,450 (1.85) | 49,410 (0.72) | 5,370,653 (78.00) |
| 2011 | 6,965,945 | 1,344,130 (19.30) | 127,817 (1.83) | 49,779 (0.71) | 5,444,219 (78.15) |
| 2012 | 7,046,369 | 1,350,695 (19.17) | 127,561 (1.81) | 50,004 (0.71) | 5,518,109 (78.31) |

\* Others=World-(China+Japan+ROK)

Source World Bank

### Population (2012)



Unit: Million persons

- China 1,357.7
- Japan 127.6
- ROK 50.0
- Others 5,518.1

## 3-2. Population Density

Unit: Persons Per Square km of Land Area

|        | China  | Japan | ROK   |
|--------|--|-------|-------|
| 2002   | 133.8  | 341.8 | 478.0 |
| 2003   | 135.0  | 342.4 | 480.5 |
| 2004   | 135.0  | 342.6 | 482.2 |
| 2005   | 136.0  | 342.7 | 483.1 |
| 2006   | 136.9  | 343.1 | 484.5 |
| 2007   | 137.6  | 343.5 | 487.0 |
| 2008   | 138.3  | 343.6 | 490.0 |
| 2009   | 139.0  | 343.6 | 492.0 |
| 2010   | 140.0  | 343.6 | 494.0 |
| 2011   | 140.0  | 343.0 | 498.0 |
| 2012   | 140.7  | 342.3 | 500.0 |
| Source | Key Indicators for Asia and the Pacific 2013, Asian Development Bank |       |       |

### 3-3. Annual Average Growth Rate of Population

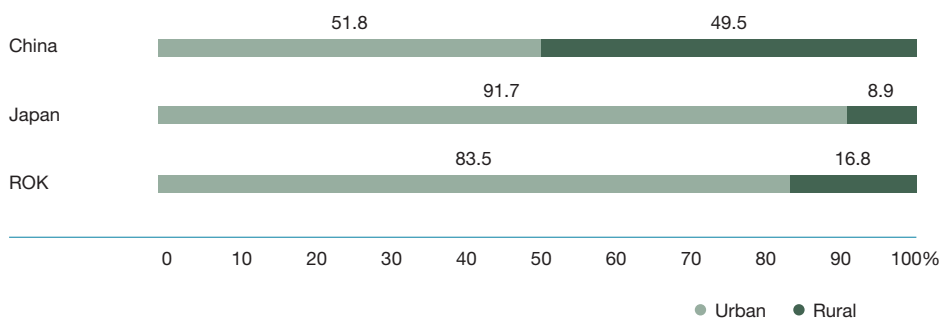
Unit: %

|      | China | Japan | ROK  |
|------|-------|-------|------|
| 2002 | 0.67  | 0.23  | 0.56 |
| 2003 | 0.62  | 0.21  | 0.50 |
| 2004 | 0.59  | 0.03  | 0.38 |
| 2005 | 0.59  | 0.01  | 0.21 |
| 2006 | 0.56  | -0.01 | 0.49 |
| 2007 | 0.52  | 0.01  | 0.47 |
| 2008 | 0.51  | -0.05 | 0.72 |
| 2009 | 0.50  | -0.11 | 0.48 |
| 2010 | 0.48  | -0.08 | 0.46 |
| 2011 | 0.48  | 0.29  | 0.74 |
| 2012 | 0.49  | -0.20 | 0.45 |

\* Population growth (annual %) is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage.

Source World Bank

### Percentage of Population in Urban and Rural Areas (2012)





### 3-4. Population in Urban and Rural Areas

#### Number of Population

Unit: Thousand Persons

|      | China   |         | Japan   |        | ROK    |        |
|------|---------|---------|---------|--------|--------|--------|
|      | Urban   | Rural   | Urban   | Rural  | Urban  | Rural  |
| 1970 | 142,387 | 675,928 | 75,000  | 29,345 | 12,994 | 18,929 |
| 1975 | 159,453 | 756,942 | 84,756  | 27,184 | 16,947 | 18,335 |
| 1980 | 189,947 | 791,288 | 88,959  | 27,823 | 21,624 | 16,500 |
| 1985 | 240,415 | 810,625 | 92,633  | 28,121 | 26,473 | 14,333 |
| 1990 | 300,166 | 835,019 | 95,542  | 27,995 | 31,656 | 11,213 |
| 1995 | 373,035 | 831,820 | 97,862  | 27,577 | 35,280 | 9,813  |
| 2000 | 452,999 | 809,646 | 99,782  | 27,088 | 37,428 | 9,580  |
| 2005 | 554,368 | 749,352 | 109,857 | 17,916 | 39,158 | 8,980  |
| 2010 | 658,499 | 679,206 | 115,395 | 12,056 | 40,977 | 8,433  |
| 2011 | 678,796 | 665,334 | 116,487 | 11,331 | 41,417 | 8,362  |
| 2012 | 699,330 | 651,365 | 117,011 | 10,550 | 41,738 | 8,266  |

\* Urban population refers to people living in urban areas as defined by national statistical offices. It is calculated using World Bank population estimates and urban ratios from the United Nations World Urbanization Prospects.

\*\* Rural population refers to people living in rural areas as defined by national statistical offices. It is calculated as the difference between total population and urban population.

#### % of Total Population (Growth Rate)

Unit: % of Total Population (% of growth)

|      | China      |             | Japan      |             | ROK        |             |
|------|------------|-------------|------------|-------------|------------|-------------|
|      | Urban      | Rural       | Urban      | Rural       | Urban      | Rural       |
| 1970 | 17.4 (2.0) | 82.6 (2.9)  | 71.9 (2.3) | 28.1 (-1.7) | 40.7 (6.3) | 59.3 (-0.6) |
| 1975 | 17.4 (1.8) | 82.6 (1.8)  | 75.7 (2.6) | 24.3 (-1.5) | 48.0 (5.0) | 52.0 (-0.8) |
| 1980 | 19.4 (3.3) | 80.6 (0.8)  | 76.2 (0.9) | 23.8 (0.4)  | 56.7 (4.7) | 43.3 (-2.4) |
| 1985 | 22.9 (4.5) | 77.1 (0.5)  | 76.7 (0.8) | 23.3 (0.2)  | 64.9 (3.5) | 35.1 (-3.6) |
| 1990 | 26.4 (4.2) | 73.6 (0.5)  | 77.3 (0.5) | 22.7 (-0.2) | 73.8 (3.6) | 26.2 (-5.5) |
| 1995 | 31.0 (4.0) | 69.0 (-0.2) | 78.0 (0.6) | 22.0 (-0.2) | 78.2 (2.6) | 21.8 (-2.5) |
| 2000 | 35.9 (3.6) | 64.1 (-0.7) | 78.6 (0.3) | 21.4 (-0.4) | 79.6 (1.2) | 20.4 (-0.5) |
| 2005 | 42.5 (3.8) | 57.5 (-1.7) | 86.0 (1.7) | 14.0 (-9.9) | 81.3 (0.6) | 18.7 (-1.6) |
| 2010 | 49.2 (3.2) | 50.8 (-2.1) | 90.5 (0.9) | 9.5 (-9.3)  | 82.9 (0.8) | 17.1 (-1.4) |
| 2011 | 50.5 (3.0) | 49.5 (-2.1) | 91.1 (0.9) | 8.9 (-6.2)  | 83.2 (1.1) | 16.8 (-0.8) |
| 2012 | 51.8 (3.0) | 48.2 (-2.1) | 91.7 (0.4) | 8.3 (-7.1)  | 83.5 (0.8) | 16.5 (-1.2) |

Source

World Bank

### 3-5. Population Distribution by Age Group

Unit: %

| Age Group | World |       |      | China |       |      | Japan |       |       | ROK   |       |       |
|-----------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
|           | 0-14  | 15-64 | 65+  | 0-14  | 15-64 | 65+  | 0-14  | 15-64 | 65+   | 0-14  | 15-64 | 65+   |
| 2002      | 29.30 | 63.65 | 7.06 | 23.56 | 69.24 | 7.19 | 14.24 | 67.52 | 18.24 | 20.28 | 71.63 | 8.09  |
| 2003      | 28.84 | 64.01 | 7.15 | 22.45 | 70.18 | 7.36 | 14.08 | 67.16 | 18.76 | 19.94 | 71.57 | 8.49  |
| 2004      | 28.41 | 64.35 | 7.24 | 21.41 | 71.06 | 7.52 | 13.93 | 66.77 | 19.29 | 19.55 | 71.55 | 8.90  |
| 2005      | 28.02 | 64.66 | 7.31 | 20.51 | 71.82 | 7.67 | 13.80 | 66.35 | 19.85 | 19.10 | 71.62 | 9.29  |
| 2006      | 27.68 | 64.94 | 7.38 | 19.76 | 72.43 | 7.81 | 13.68 | 65.89 | 20.42 | 18.58 | 71.76 | 9.66  |
| 2007      | 27.38 | 65.17 | 7.45 | 19.17 | 72.89 | 7.94 | 13.57 | 65.41 | 21.02 | 18.00 | 71.98 | 10.02 |
| 2008      | 27.12 | 65.37 | 7.51 | 18.71 | 73.22 | 8.07 | 13.47 | 64.89 | 21.64 | 17.40 | 72.23 | 10.37 |
| 2009      | 26.90 | 65.52 | 7.58 | 18.38 | 73.42 | 8.20 | 13.38 | 64.34 | 22.29 | 16.80 | 72.48 | 10.72 |
| 2010      | 26.71 | 65.64 | 7.65 | 18.14 | 73.51 | 8.35 | 13.29 | 63.75 | 22.96 | 16.24 | 72.68 | 11.08 |
| 2011      | 26.54 | 65.72 | 7.74 | 18.01 | 73.48 | 8.51 | 13.20 | 63.13 | 23.67 | 15.73 | 72.83 | 11.44 |
| 2012      | 26.41 | 65.76 | 7.84 | 17.98 | 73.34 | 8.68 | 13.11 | 62.49 | 24.40 | 15.25 | 72.94 | 11.81 |

\* Population, age 0-14 (% of total) is the population between the ages of 0 and 14 as a percentage of the total population.  
 (Population, age 0-14 /Total Population)\*100

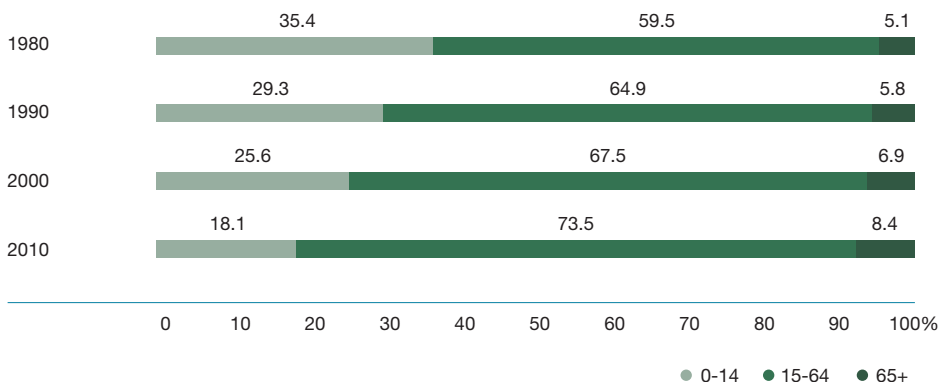
\*\* Population, age 15-64 (% of total) is the population between the ages of 15 and 64 as a percentage of the total population.  
 (Population, age 15-64 /Total Population)\*100

\*\*\* Population ages 65 and above as a percentage of the total population.  
 (Population, age 65 and above /Total Population)\*100

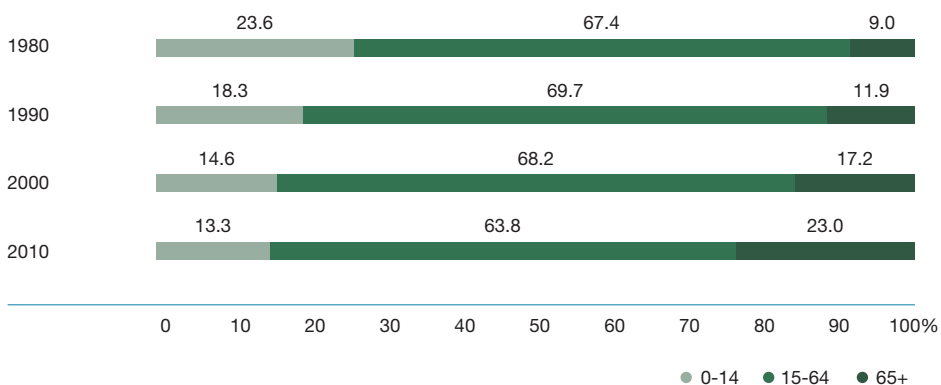
Source

World Bank

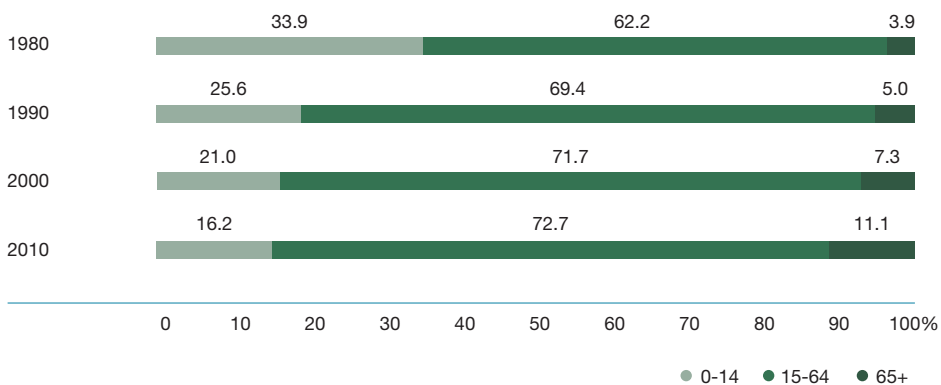
## China's Population Distribution by Age Group over Time



## Japan's Population Distribution by Age Group over Time



## ROK's Population Distribution by Age Group over Time



### 3-6. Age Dependency Ratio

Unit: %

| Age Group | World |      |       | China |      |       | Japan |      |       | ROK   |      |       |
|-----------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|
|           | Total | Old  | Young | Total | Old  | Young | Total | Old  | Young | Total | Old  | Young |
| 2002      | 58.5  | 11.1 | 46.0  | 44.4  | 10.4 | 34.0  | 48.1  | 27.0 | 21.1  | 39.6  | 11.3 | 28.3  |
| 2003      | 57.6  | 11.2 | 45.1  | 42.5  | 10.5 | 32.0  | 48.9  | 27.9 | 21.0  | 39.7  | 11.9 | 27.9  |
| 2004      | 56.9  | 11.2 | 44.1  | 40.7  | 10.6 | 30.1  | 49.8  | 28.9 | 20.9  | 39.8  | 12.4 | 27.3  |
| 2005      | 56.2  | 11.3 | 43.3  | 39.2  | 10.7 | 28.6  | 50.7  | 29.9 | 20.8  | 39.6  | 13.0 | 26.7  |
| 2006      | 55.6  | 11.4 | 42.6  | 38.1  | 10.8 | 27.3  | 51.8  | 31.0 | 20.8  | 39.3  | 13.5 | 25.9  |
| 2007      | 55.0  | 11.4 | 42.0  | 37.2  | 10.9 | 26.3  | 52.9  | 32.1 | 20.8  | 38.9  | 14.4 | 25.0  |
| 2008      | 54.6  | 11.5 | 41.5  | 36.6  | 11.0 | 25.6  | 54.1  | 33.4 | 20.8  | 38.4  | 14.8 | 24.1  |
| 2009      | 54.2  | 11.6 | 41.1  | 36.2  | 11.2 | 25.0  | 55.4  | 34.6 | 20.8  | 38.0  | 15.2 | 23.2  |
| 2010      | 54.0  | 11.7 | 40.7  | 36.0  | 11.4 | 24.7  | 56.9  | 36.0 | 20.8  | 37.6  | 15.7 | 22.3  |
| 2011      | 53.7  | 11.8 | 40.4  | 36.1  | 11.6 | 24.5  | 58.4  | 37.5 | 20.9  | 37.3  | 15.7 | 21.6  |
| 2012      | 53.6  | 11.9 | 40.2  | 36.4  | 11.8 | 24.5  | 60.0  | 39.0 | 21.0  | 37.1  | 16.2 | 20.9  |

\* Age dependency ratio is the ratio of dependents (people younger than 15 or older than 64) to the working-age population, those ages 15-64. Data are shown as the proportion of dependents per 100 working-age population.

{(Younger than 15 or Older than 64)/Working population, ages 15-64}\*100

\*\* Age dependency ratio, old, is the ratio of older dependents--people older than 64 (to the working-age population) to those ages 15-64.

(Older than 64/Working population, ages 15-64)\*100

\*\*\* Age dependency ratio, young, is the ratio of younger dependent (people younger than 15) to the working-age population--those ages 15-64.

(Younger than 15/Working population, ages 15-64)\*100

Source

World Bank

### 3-7. Old-Age Support Ratio

Unit: %

|      | China | Japan | ROK  |
|------|-------|-------|------|
| 2007 | 7.97  | 2.90  | 6.52 |
| 2008 | 7.93  | 2.82  | 6.32 |
| 2009 | 7.87  | 2.73  | 6.13 |
| 2010 | 7.78  | 2.63  | 5.95 |
| 2011 | 7.66  | 2.53  | 5.78 |

\* Number of People of Working Age (20-64) per Person of Pension Age (65+).

**Source** United Nations World Population Prospects (2012 Revision)

### 3-8. Total Fertility Rate

Unit: %

|      | World | China | Japan | ROK  |
|------|-------|-------|-------|------|
| 1970 | 4.71  | 5.47  | 2.14  | 4.53 |
| 1975 | 4.14  | 3.83  | 1.91  | 3.47 |
| 1980 | 3.72  | 2.71  | 1.75  | 2.83 |
| 1985 | 3.55  | 2.81  | 1.76  | 1.67 |
| 1990 | 3.27  | 2.51  | 1.54  | 1.59 |
| 1995 | 2.86  | 1.75  | 1.42  | 1.65 |
| 2000 | 2.54  | 1.51  | 1.36  | 1.47 |
| 2005 | 2.53  | 1.59  | 1.26  | 1.08 |
| 2006 | 2.52  | 1.60  | 1.32  | 1.12 |
| 2007 | 2.52  | 1.62  | 1.34  | 1.25 |
| 2008 | 2.50  | 1.63  | 1.37  | 1.19 |
| 2009 | 2.49  | 1.64  | 1.37  | 1.15 |
| 2010 | 2.48  | 1.65  | 1.39  | 1.23 |
| 2011 | 2.45  | 1.66  | 1.39  | 1.24 |

\* Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her child-bearing years and bear children in accordance with current age-specific fertility rates.

Source

World Bank

## 3-9. Birth Rate

Unit: %

Per Thousand Persons

|      | World | China | Japan | ROK   |
|------|-------|-------|-------|-------|
| 1970 | 32.31 | 33.43 | 18.70 | 31.20 |
| 1975 | 28.88 | 23.01 | 17.00 | 24.80 |
| 1980 | 27.27 | 18.21 | 13.50 | 22.70 |
| 1985 | 27.04 | 21.04 | 11.90 | 16.20 |
| 1990 | 25.68 | 21.06 | 10.00 | 15.40 |
| 1995 | 23.18 | 17.12 | 9.54  | 16.00 |
| 2000 | 21.43 | 14.03 | 9.40  | 13.40 |
| 2005 | 20.24 | 12.40 | 8.41  | 8.90  |
| 2006 | 20.09 | 12.09 | 8.65  | 9.20  |
| 2007 | 20.01 | 12.10 | 8.63  | 10.00 |
| 2008 | 19.93 | 12.14 | 8.70  | 9.40  |
| 2009 | 19.78 | 12.13 | 8.50  | 9.00  |
| 2010 | 19.58 | 11.90 | 8.50  | 9.40  |
| 2011 | 19.43 | 11.93 | 8.30  | 9.50  |

\* Crude birth rate indicates the number of live births occurring during the year, per 1,000 persons estimated at midyear.

Source

World Bank

### 3-10. Aging Index

Unit: %

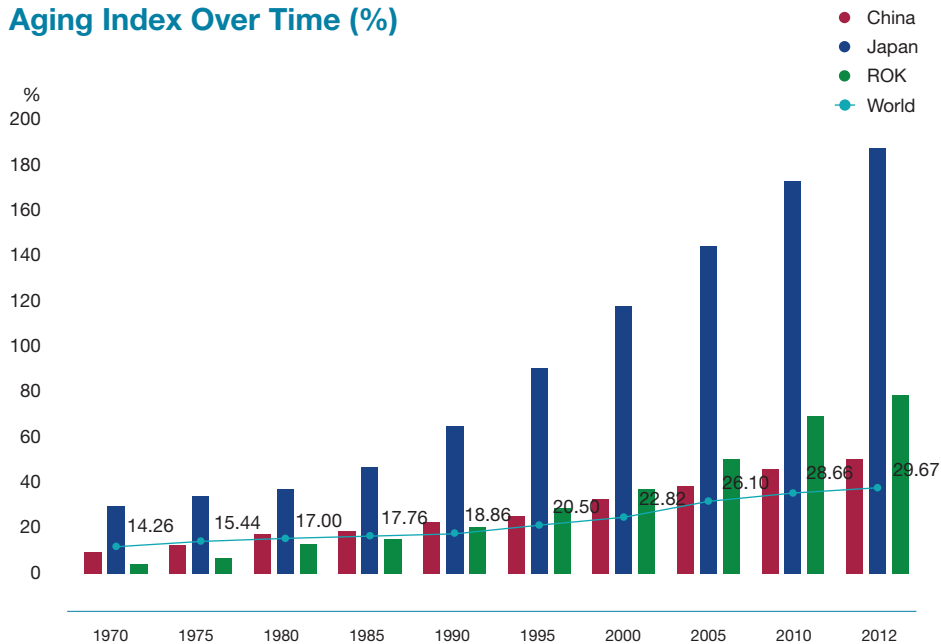
|      | World | China | Japan | ROK  |
|------|-------|-------|-------|------|
| 2002 | 24.1  | 30.5  | 128.1 | 39.9 |
| 2003 | 24.8  | 32.8  | 133.2 | 42.6 |
| 2004 | 25.5  | 35.1  | 138.5 | 45.5 |
| 2005 | 26.1  | 37.4  | 143.8 | 48.6 |
| 2006 | 26.7  | 39.5  | 149.3 | 52.0 |
| 2007 | 27.2  | 41.4  | 154.9 | 55.7 |
| 2008 | 27.7  | 43.1  | 160.7 | 59.6 |
| 2009 | 28.2  | 44.6  | 166.6 | 63.8 |
| 2010 | 28.6  | 46.0  | 172.8 | 68.2 |
| 2011 | 29.2  | 47.3  | 179.3 | 72.7 |
| 2012 | 29.7  | 48.3  | 186.1 | 77.4 |

\* Aging Index =(65 and above/0~14 Age)\*100

Source

World Bank

### Aging Index Over Time (%)





### 3-11. Average Life Expectancy

Unit: Age

|             | World |      |        | China |      |        | Japan |      |        | ROK   |      |        |
|-------------|-------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|
|             | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| <b>2001</b> | 68.0  | 65.9 | 70.1   | 72.6  | 71.3 | 74.0   | 81.4  | 78.1 | 84.9   | 68.0  | 72.8 | 80.0   |
| <b>2002</b> | 68.2  | 66.2 | 70.4   | 73.1  | 71.8 | 74.4   | 81.6  | 78.1 | 85.2   | 68.2  | 73.4 | 80.4   |
| <b>2003</b> | 68.5  | 66.5 | 70.6   | 73.5  | 72.2 | 74.8   | 81.8  | 78.4 | 85.3   | 68.5  | 73.9 | 80.8   |
| <b>2004</b> | 68.8  | 66.8 | 70.9   | 73.8  | 72.6 | 75.1   | 82.0  | 78.6 | 85.6   | 68.8  | 74.5 | 81.4   |
| <b>2005</b> | 69.0  | 67.0 | 71.2   | 74.1  | 72.8 | 75.3   | 81.9  | 78.5 | 85.5   | 69.0  | 75.1 | 81.9   |
| <b>2006</b> | 69.3  | 67.3 | 71.5   | 74.3  | 73.0 | 75.5   | 82.3  | 79.0 | 85.8   | 69.3  | 75.7 | 82.4   |
| <b>2007</b> | 69.6  | 67.5 | 71.7   | 74.4  | 73.2 | 75.7   | 82.5  | 79.2 | 86.0   | 69.6  | 76.1 | 82.7   |
| <b>2008</b> | 69.8  | 67.8 | 72.0   | 74.6  | 73.3 | 75.9   | 82.6  | 79.3 | 86.1   | 69.8  | 76.5 | 83.3   |
| <b>2009</b> | 70.1  | 68.0 | 72.2   | 74.7  | 73.5 | 76.0   | 82.9  | 79.6 | 86.4   | 70.1  | 77.0 | 83.8   |
| <b>2010</b> | 70.3  | 68.2 | 72.5   | 74.9  | 73.6 | 76.2   | 82.8  | 79.6 | 86.3   | 70.3  | 77.2 | 84.1   |
| <b>2011</b> | 70.5  | 68.5 | 72.7   | 75.0  | 73.8 | 76.4   | 82.6  | 79.4 | 85.9   | 70.5  | 77.5 | 84.4   |

\* Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

**Source**

World Bank

### 3-12. Employment and Unemployment

Unit: Thousand Persons

|      | China      |              |      | Japan      |              |      | ROK        |              |      |
|------|------------|--------------|------|------------|--------------|------|------------|--------------|------|
|      | Employment | Unemployment |      | Employment | Unemployment |      | Employment | Unemployment |      |
|      |            | Total        | Rate |            | Total        | Rate |            | Total        | Rate |
| 2002 | 732,800    | 7,700        | 4.0  | 63,300     | 3,590        | 5.4  | 22,169     | 752          | 3.3  |
| 2003 | 737,360    | 8,800        | 4.3  | 63,140     | 3,500        | 5.3  | 22,139     | 818          | 3.6  |
| 2004 | 742,640    | 8,300        | 4.2  | 63,270     | 3,130        | 4.7  | 22,557     | 860          | 3.7  |
| 2005 | 746,470    | 8,400        | 4.2  | 63,560     | 2,940        | 4.4  | 22,856     | 887          | 3.7  |
| 2006 | 749,780    | 8,470        | 4.1  | 63,820     | 2,750        | 4.1  | 23,151     | 827          | 3.5  |
| 2007 | 753,210    | 8,300        | 4.0  | 64,120     | 2,570        | 3.9  | 23,433     | 783          | 3.2  |
| 2008 | 755,640    | 8,860        | 4.2  | 63,850     | 2,650        | 4.0  | 23,577     | 769          | 3.2  |
| 2009 | 758,280    | 9,210        | 4.3  | 62,820     | 3,360        | 5.1  | 23,506     | 889          | 3.6  |
| 2010 | 761,050    | 9,080        | 4.1  | 62,570     | 3,340        | 5.1  | 23,829     | 920          | 3.7  |
| 2011 | 764,200    | 9,200        | 4.1  | 62,890     | 3,020        | 4.6  | 24,244     | 855          | 3.4  |
| 2012 | 767,000    | 9,200        | 4.1  | 62,700     | 2,850        | 4.34 | 24,681     | 820          | 3.2  |

\* Total labor force comprises people ages 15 and older who meet the International Labour Organization definition of the economically active population: all people who supply labor for the production of goods and services during a specified period.

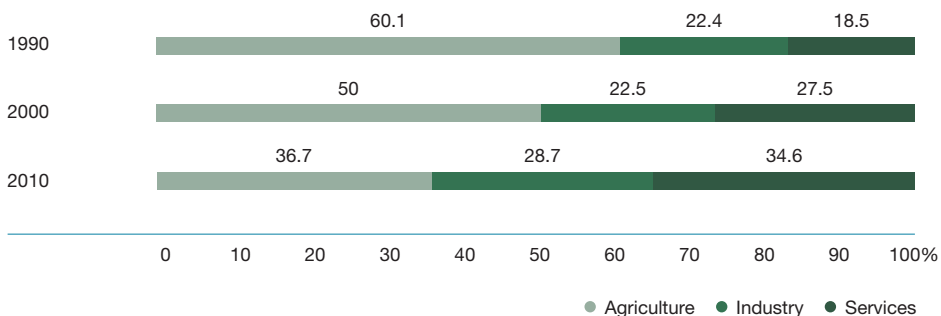
\*\* Unemployment rate: Urban areas only

Unit: % of employees

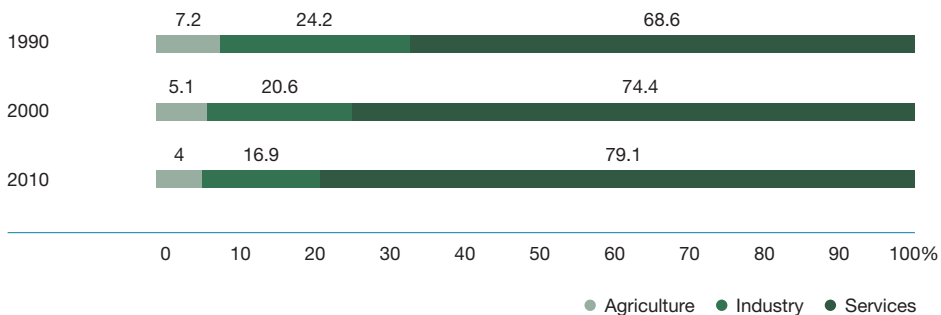
|      | Employment in Agriculture |       |      | Employment in Industry |       |      | Employment in Services |       |      |
|------|---------------------------|-------|------|------------------------|-------|------|------------------------|-------|------|
|      | China                     | Japan | ROK  | China                  | Japan | ROK  | China                  | Japan | ROK  |
| 1990 | 60.1                      | 7.2   | 17.9 | 21.4                   | 24.2  | 27.6 | 18.5                   | 68.6  | 54.5 |
| 1995 | 52.2                      | 5.7   | 11.8 | 23.0                   | 22.6  | 23.7 | 24.8                   | 71.7  | 64.5 |
| 2000 | 50.0                      | 5.1   | 10.6 | 22.5                   | 20.6  | 20.4 | 27.5                   | 74.4  | 69.0 |
| 2007 | 40.8                      | 4.2   | 7.4  | 26.8                   | 18.3  | 17.2 | 32.4                   | 77.5  | 75.4 |
| 2008 | 39.6                      | 4.2   | 7.2  | 27.2                   | 18.0  | 16.9 | 33.2                   | 77.8  | 75.9 |
| 2009 | 38.1                      | 4.2   | 7.0  | 27.8                   | 17.2  | 16.4 | 34.1                   | 78.6  | 76.6 |
| 2010 | 36.7                      | 4.0   | 6.6  | 28.7                   | 16.9  | 17.0 | 34.6                   | 79.1  | 76.4 |
| 2011 | 34.8                      | 4.0   | 6.4  | 29.5                   | 16.7  | 16.9 | 35.7                   | 79.3  | 76.7 |
| 2012 | 33.6                      | 3.8   | 6.2  | 30.3                   | 16.5  | 16.7 | 36.1                   | 79.7  | 77.1 |

Source Key Indicators for Asia and the Pacific, Asian Development Bank

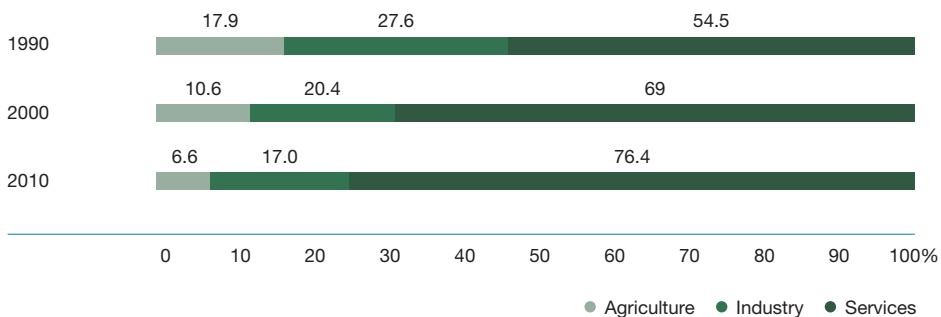
## Employment Distribution in China



## Employment Distribution in Japan



## Employment Distribution in ROK



### 3-13. School Enrollment

Unit: % Gross

| China |             |         |           |          |
|-------|-------------|---------|-----------|----------|
|       | Pre-primary | Primary | Secondary | Tertiary |
| 2007  | 42          | 110     | 76        | 22       |
| 2008  | 45          | 111     | 79        | 22       |
| 2009  | 49          | 111     | 80        | 24       |
| 2010  | 54          | 111     | 81        | 26       |
| 2011  | 61.2        | 113     | 81        | 27       |
| Japan |             |         |           |          |
|       | Pre-primary | Primary | Secondary | Tertiary |
| 2007  | 89          | 103     | 101       | 58       |
| 2008  | 90          | 102     | 101       | 59       |
| 2009  | 90          | 103     | 102       | 59       |
| 2010  | 88          | 103     | 102       | 60       |
| 2011  | n/a         | n/a     | n/a       | n/a      |
| ROK   |             |         |           |          |
|       | Pre-primary | Primary | Secondary | Tertiary |
| 2007  | 106         | 103     | 96        | 102      |
| 2008  | 114         | 104     | 96        | 104      |
| 2009  | 121         | 104     | 97        | 104      |
| 2010  | 119         | 106     | 97        | 103      |
| 2011  | n/a         | n/a     | n/a       | n/a      |

\* Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown.

\*\*Preprimary education refers to the initial stage of organized instruction, designed primarily to introduce very young children to a school-type environment.

\*\*\* Primary education provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.

Source

World Bank

## 3-14. Future Population Estimates

### Future Total Population

Unit: Thousand Persons

|      | China     | Japan   | ROK    |
|------|-----------|---------|--------|
| 2013 | 1,385,567 | 127,144 | 49,263 |
| 2014 | 1,393,784 | 127,000 | 49,512 |
| 2015 | 1,401,587 | 126,818 | 49,750 |
| 2020 | 1,432,868 | 125,382 | 50,769 |
| 2025 | 1,448,984 | 123,256 | 51,602 |
| 2030 | 1,453,297 | 120,625 | 52,190 |
| 2035 | 1,448,589 | 117,663 | 52,426 |
| 2040 | 1,435,499 | 114,517 | 52,270 |
| 2045 | 1,414,089 | 111,359 | 51,780 |
| 2050 | 1,384,977 | 108,329 | 51,034 |

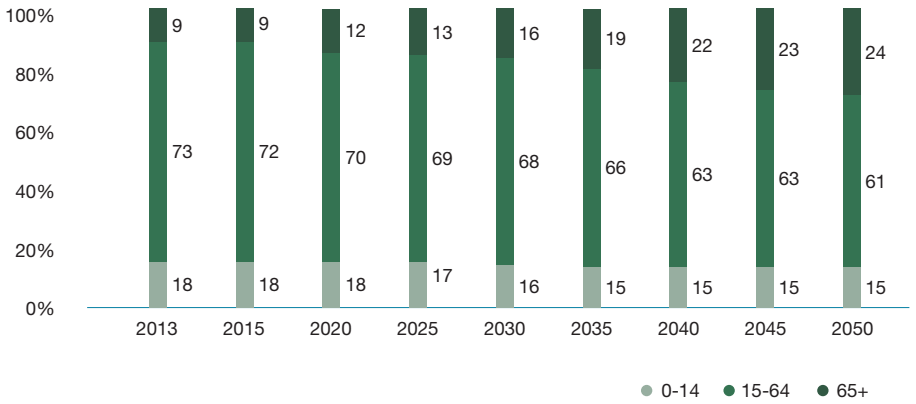
### Future Population Distribution by Age Group

Unit: % of total population

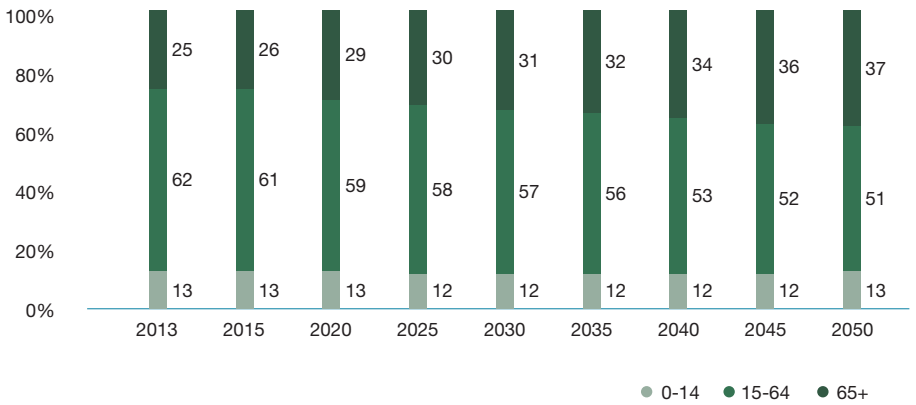
|      | China |       |     | Japan |       |     | ROK  |       |     |
|------|-------|-------|-----|-------|-------|-----|------|-------|-----|
|      | 0-14  | 15-64 | 65+ | 0-14  | 15-64 | 65+ | 0-14 | 15-64 | 65+ |
| 2013 | 18    | 73    | 9   | 13    | 62    | 25  | 15   | 73    | 12  |
| 2015 | 18    | 72    | 9   | 13    | 61    | 26  | 14   | 73    | 13  |
| 2020 | 18    | 70    | 12  | 13    | 59    | 29  | 14   | 71    | 16  |
| 2025 | 17    | 69    | 13  | 12    | 58    | 30  | 14   | 67    | 19  |
| 2030 | 16    | 68    | 16  | 12    | 57    | 31  | 14   | 63    | 23  |
| 2035 | 15    | 66    | 19  | 12    | 56    | 32  | 13   | 60    | 27  |
| 2040 | 15    | 63    | 22  | 12    | 53    | 34  | 13   | 57    | 31  |
| 2045 | 15    | 63    | 23  | 12    | 52    | 36  | 12   | 55    | 33  |
| 2050 | 15    | 61    | 24  | 13    | 51    | 37  | 12   | 53    | 35  |

**Source** World Population Prospects: The 2012 Revision, UN Department of Economic and Social Affairs Population Division (2013)

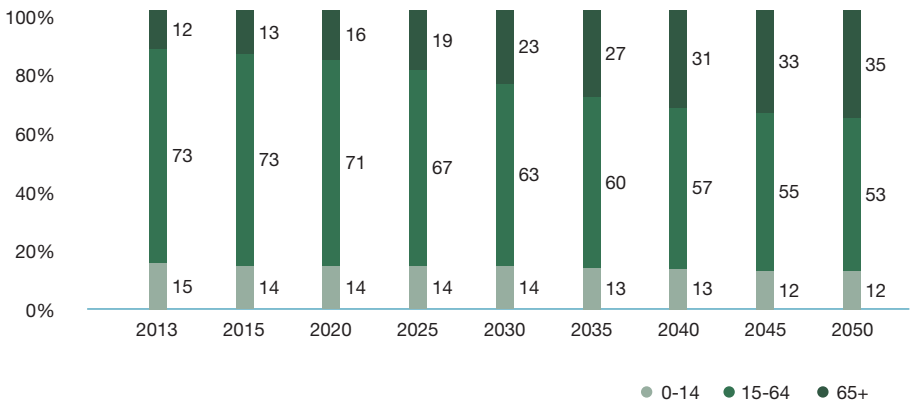
## Future population: China



## Future population: Japan



## Future population: ROK



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# 4

# Resources and Environment

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- 4-1. Land
- 4-2. Water
- 4-3. Major Natural Resources Endowment
- 4-4. Coal
- 4-5. Crude Oil
- 4-6. Dry Natural Gas
- 4-7. Total Production of Energy
- 4-8. Energy Consumption Ranking (2010)
- 4-9. Primary Energy Consumption by Fuel
- 4-10. Electricity
- 4-11. Electricity by Renewable Energy
- 4-12. Nuclear Electricity Production
- 4-13. Nuclear Energy Generation

## 4-1. Land

Unit: % of Total Land Area

|               | Forest Area |       |       | Arable Land |       |       | Agricultural Land |       |       |
|---------------|-------------|-------|-------|-------------|-------|-------|-------------------|-------|-------|
|               | China       | Japan | ROK   | China       | Japan | ROK   | China             | Japan | ROK   |
| <b>1990</b>   | 16.85       | 68.43 | 64.52 | 13.26       | 13.08 | 19.78 | 54.23             | 15.61 | 22.07 |
| <b>2000</b>   | 18.98       | 68.25 | 63.69 | 12.97       | 12.27 | 17.40 | 56.29             | 14.43 | 19.98 |
| <b>2010</b>   | 22.18       | 68.53 | 64.08 | 11.94       | 11.75 | 15.52 | 55.62             | 12.60 | 18.26 |
| <b>Source</b> | World Bank  |       |       |             |       |       |                   |       |       |



## 4-2. Water

|             | Renewable Freshwater       |       |       | Renewable Freshwater per Capita |         |         | Freshwater Withdrawals                               |                |                |
|-------------|----------------------------|-------|-------|---------------------------------|---------|---------|--|----------------|----------------|
|             | Unit: Billion cubic meters |       |       | Unit: Cubic meters              |         |         | Unit: Billion cubic meters (% of internal resources) |                |                |
|             | China                      | Japan | ROK   | China                           | Japan   | ROK     | China  | Japan          | ROK            |
| <b>1992</b> | 2813                       | 430   | 64.85 | 2414.65                         | 3761.35 | 1485.24 | 500.0<br>(17.8)                                      | 91.4<br>(21.2) | -              |
| <b>1997</b> | 2813                       | 430   | 64.85 | 2286.85                         | 3410.23 | 1411.19 | 525.4<br>(18.7)                                      | 89.0<br>(20.7) | -              |
| <b>2002</b> | 2813                       | 430   | 64.85 | 2196.97                         | 3374.00 | 1361.77 | 525.4<br>(18.7)                                      | 90.0<br>(20.9) | 25.5<br>(39.3) |
| <b>2007</b> | 2813                       | 430   | 64.85 | 2134.48                         | 3365.40 | 1334.42 | 554.1<br>(19.7)                                      | 90.0<br>(20.9) | 25.5<br>(39.3) |
| <b>2011</b> | 2813                       | 430   | 64.85 | 2092.80                         | 3364.18 | 1302.76 | 554.1<br>(19.7)                                      | 90.0<br>(20.9) | 25.5<br>(39.3) |

|             | Improved Water (Rural Area)             |       |      | Improved Water (Urban Area)             |       |      |
|-------------|---|-------|------|---|-------|------|
|             | Unit: % of rural population with access |       |      | Unit: % of urban population with access |       |      |
|             | China                                   | Japan | ROK  | China                                   | Japan | ROK  |
| <b>1990</b> | 56                                      | 100   | -    | 96.7                                    | 100   | 97   |
| <b>1995</b> | 63.2                                    | 100   | 67.4 | 97.1                                    | 100   | 97   |
| <b>2000</b> | 70.4                                    | 100   | 75.3 | 97.5                                    | 100   | 98.1 |
| <b>2005</b> | 77.6                                    | 100   | 83.2 | 97.9                                    | 100   | 99.1 |
| <b>2008</b> | 82                                      | 100   | 87.9 | 98.2                                    | 100   | 99.7 |
| <b>2009</b> | 83.4                                    | 100   | 87.9 | 98.3                                    | 100   | 99.7 |
| <b>2010</b> | 84.9                                    | 100   | 87.9 | 98.4                                    | 100   | 99.7 |
| <b>2011</b> | 84.9                                    | 100   | 87.9 | 98.4                                    | 100   | 99.7 |

\* Access to an improved water source refers to the percentage of the population using an improved drinking water source. The improved drinking water source includes piped water on premises (piped household water connection located inside the user's dwelling, plot or yard), and other improved drinking water sources (public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, and rainwater collection).

Source

World Bank

## 4-3. Major Natural Resources Endowment

Unit: Billion Barrels

| Crude Oil Reserves |  |       |     |
|--------------------|--|-------|-----|
|                    | China  | Japan | ROK |
| 2007               | 16.00  | 0.06  | n/a |
| 2008               | 16.00  | 0.04  | n/a |
| 2009               | 16.00  | 0.04  | n/a |
| 2010               | 20.35  | 0.04  | n/a |
| 2011               | 20.35  | 0.04  | n/a |
| 2012               | 20.35  | 0.04  | n/a |
| 2013               | 25.59  | 0.04  | n/a |
| <b>Source</b>      | U.S. Energy Information Administration (EIA) |       |     |

Unit: Trillion Cubic Feet

| Proved Natural Gas Reserves |  |       |      |
|-----------------------------|--|-------|------|
|                             | China  | Japan | ROK  |
| 2007                        | 80.00  | 1.40  | 0.11 |
| 2008                        | 80.00  | 0.74  | 0.11 |
| 2009                        | 80.00  | 0.74  | 0.07 |
| 2010                        | 107.00                                       | 0.74  | 0.07 |
| 2011                        | 107.00                                       | 0.74  | 0.04 |
| 2012                        | 107.00                                       | 0.74  | 0.25 |
| 2013                        | 124.20                                       | 0.74  | 0.19 |
| <b>Source</b>               | U.S. Energy Information Administration (EIA) |       |      |

Unit: Million Tons

| Proved Coal Reserves |  |       |     |
|----------------------|--|-------|-----|
|                      | China  | Japan | ROK |
| 2007                 | 114,500  | 355   | 135 |
| 2008                 | 114,500  | 355   | 133 |
| 2010                 | 114,500  | 350   | 126 |
| 2011                 | 114,500  | 347   | 126 |
| <b>Source</b>        | Survey of Energy Resources, World Energy Council |       |     |

\* Proved Reserves mean the amount of resources identified in a reserve that is technologically or economically feasible to extract.

## 4-4. Coal

Unit: Thousand Short Tons

|             | Production <sup>1</sup> |       |       | Consumption |         |         |
|-------------|-------------------------|-------|-------|-------------|---------|---------|
|             | China                   | Japan | ROK   | China       | Japan   | ROK     |
| <b>2007</b> | 2,844,311               | 0     | 3,181 | 2,788,086   | 207,581 | 98,226  |
| <b>2008</b> | 3,021,900               | 0     | 3,057 | 2,953,217   | 203,803 | 110,522 |
| <b>2009</b> | 3,301,803               | 0     | 2,777 | 3,350,859   | 181,497 | 114,150 |
| <b>2010</b> | 3,505,520               | 0     | 2,297 | 3,501,780   | 206,125 | 127,414 |
| <b>2011</b> | 3,844,942               | 0     | 2,308 | 3,826,869   | 192,854 | 139,481 |
| <b>2012</b> | 3,991,050               | 0     | 2,306 | 3,976,117   | 203,846 | 136,482 |

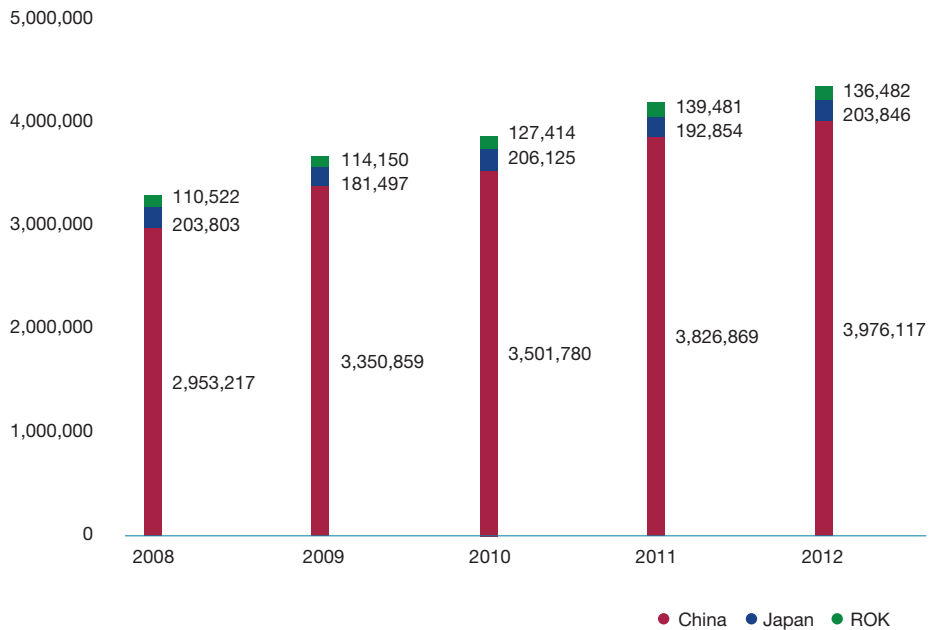
1. Total Primary Coal Production

|             | Import  |         |         | Export |       |     |
|-------------|---------|---------|---------|--------|-------|-----|
|             | China   | Japan   | ROK     | China  | Japan | ROK |
| <b>2007</b> | 53,559  | 208,984 | 94,082  | 75,415 | 1,528 | 0   |
| <b>2008</b> | 43,289  | 205,919 | 107,062 | 63,388 | 1,044 | 0   |
| <b>2009</b> | 124,406 | 182,089 | 109,874 | 25,240 | 1,033 | 0   |
| <b>2010</b> | 163,821 | 206,701 | 125,808 | 24,751 | 723   | 0   |
| <b>2011</b> | 192,499 | 194,071 | 138,165 | 18,165 | 1,079 | 0   |

| CO2 Emission from Coal Consumption (Thousand Metric Tons) |           |  |         |  |         |  |
|---|-----------|--|---------|--|---------|--|
|   | China     |  | Japan   |  | ROK     |  |
| <b>2007</b>   | 5,228,599 |  | 445,835 |  | 213,441 |  |
| <b>2008</b>   | 5,537,758 |  | 436,440 |  | 240,307 |  |
| <b>2009</b>   | 6,292,162 |  | 389,015 |  | 248,422 |  |
| <b>2010</b>   | 6,568,872 |  | 442,431 |  | 277,132 |  |
| <b>2011</b>   | 7,178,190 |  | 413,106 |  | 303,246 |  |

**Source** U.S. Energy Information Administration (EIA)

## Coal Consumption (Thousand Short Tons)



## 4-5. Crude Oil

Unit: Thousand Barrels per Day

|             | Crude Oil Including Lease Condensate Production |       |     | Total Petroleum Consumption |       |       |
|-------------|---|-------|-----|-----------------------------|-------|-------|
|             | China   | Japan | ROK | China                       | Japan | ROK   |
| <b>2008</b> | 3,790   | 6     | 0   | 7,468                       | 4,798 | 2,142 |
| <b>2009</b> | 3,796   | 5     | 0   | 8,540                       | 4,390 | 2,189 |
| <b>2010</b> | 4,078   | 5     | 0   | 9,330                       | 4,455 | 2,269 |
| <b>2011</b> | 4,059   | 5     | 0   | 9,852                       | 4,471 | 2,258 |
| <b>2012</b> | 4,085   | 5     | 0   | 10,277                      | 4,715 | 2,301 |

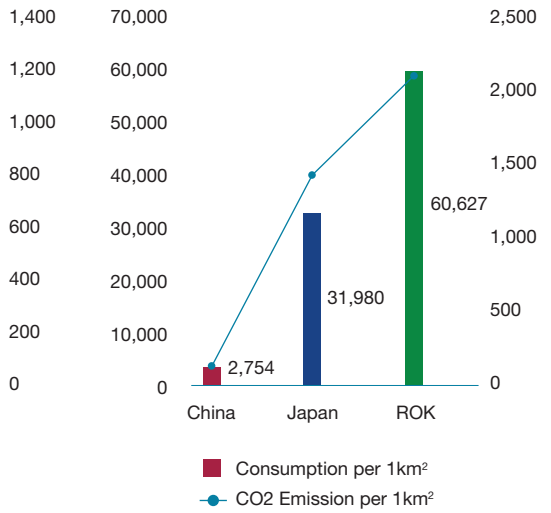
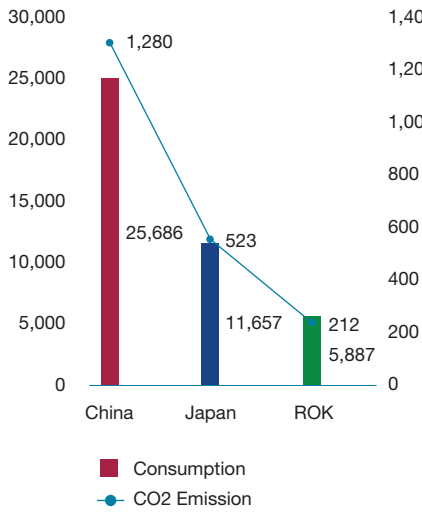
\* Crude oil is a mixture of hydrocarbons that exists as a liquid in natural underground reservoirs and remains liquid when brought to the surface. Petroleum products are produced from the processing of crude oil at petroleum refineries and the extraction of liquid hydrocarbons at natural gas processing plants. Petroleum is the broad category that includes both crude oil and petroleum products.

|             | Crude Oil Imports |       |       | Crude Oil Exports |       |     |
|-------------|-------------------|-------|-------|-------------------|-------|-----|
|             | China             | Japan | ROK   | China             | Japan | ROK |
| <b>2007</b> | 3,264             | 3,998 | 2,367 | 78                | 0     | 0   |
| <b>2008</b> | 3,578             | 3,825 | 2,333 | 85                | 0     | 0   |
| <b>2009</b> | 4,082             | 3,444 | 2,320 | 104               | 0     | 0   |
| <b>2010</b> | 4,754             | 3,472 | 2,372 | 61                | 0     | 0   |
| <b>2011</b> | n/a               | n/a   | n/a   | n/a               | n/a   | n/a |

|             | CO2 Emission from Petroleum Consumption (Thousand Metric Tons) |         |         |
|-------------|--|---------|---------|
|             | China  | Japan   | ROK     |
| <b>2007</b> | 959,177  | 598,608 | 215,867 |
| <b>2008</b> | 995,196  | 574,346 | 206,405 |
| <b>2009</b> | 1,107,277  | 511,228 | 203,865 |
| <b>2010</b> | 1,218,433  | 521,795 | 213,633 |
| <b>2011</b> | 1,279,787  | 523,153 | 211,613 |

**Source** U.S. Energy Information Administration (EIA)

## Petroleum Consumption and its CO2 Emission



## 4-6. Dry Natural Gas

Unit: Billion Cubic Feet

|      | Production |       |     | Consumption |       |       |
|------|------------|-------|-----|-------------|-------|-------|
|      | China      | Japan | ROK | China       | Japan | ROK   |
| 2008 | 2,685      | 185   | 16  | 2,726       | 3,667 | 1,265 |
| 2009 | 2,975      | 176   | 27  | 3,125       | 3,653 | 1,215 |
| 2010 | 3,334      | 171   | 34  | 3,768       | 3,848 | 1,516 |
| 2011 | 3,629      | 176   | 36  | 4,624       | 4,361 | 1,614 |
| 2012 | 3,828      | 116   | 15  | 5,152       | 4,388 | 1,753 |

|      | Import |       |       | Export |       |     |
|------|--------|-------|-------|--------|-------|-----|
|      | China  | Japan | ROK   | China  | Japan | ROK |
| 2008 | 159    | 3,369 | 1,314 | 119    | 0     | 0   |
| 2009 | 264    | 3,278 | 1,191 | 113    | 0     | 0   |
| 2010 | 577    | 3,489 | 1,549 | 142    | 0     | 0   |
| 2011 | 1,108  | 4,113 | 1,654 | 113    | 0     | 0   |
| 2012 | n/a    | 4,314 | 1,671 | n/a    | 0     | 0   |

| CO2 Emission from Natural Gas Consumption (Thousand Metric Tons) |       |         |       |         |     |        |
|--|-------|---------|-------|---------|-----|--------|
|  | China |         | Japan |         | ROK |        |
| 2007   |       | 138,588 |       | 209,997 |     | 73,791 |
| 2008   |       | 151,696 |       | 205,466 |     | 75,059 |
| 2009   |       | 173,941 |       | 204,671 |     | 72,153 |
| 2010   |       | 209,739 |       | 215,573 |     | 90,335 |
| 2011   |       | 257,330 |       | 244,356 |     | 96,096 |

\* Dry natural gas does not contain any hydrocarbon liquids.

**Source** U.S. Energy Information Administration (EIA)

## 4-7. Total Production of Energy

Unit: Million Tons of Oil Equivalent (Mtoe)

|             | China    | Japan | ROK   | World     | OECD     | EU27   |
|-------------|----------|-------|-------|-----------|----------|--------|
| <b>2007</b> | 1,915.30 | 90.63 | 42.60 | 12,109.60 | 3,848.47 | 861.93 |
| <b>2008</b> | 1,995.49 | 88.69 | 44.73 | 12,385.25 | 3,860.99 | 855.72 |
| <b>2009</b> | 2,092.95 | 93.97 | 44.31 | 12,292.67 | 3,790.50 | 819.18 |
| <b>2010</b> | 2,262.09 | 99.51 | 44.92 | 12,868.13 | 3,877.49 | 836.36 |
| <b>2011</b> | 2,432.56 | 51.67 | 46.99 | 13,201.76 | 3,853.90 | 804.93 |

\* Total production of energy refers to the quantities of fuels extracted from the ground after the removal of inert matter or impurities (e.g. sulphur from natural gas). For non-combusted energy such as nuclear, hydro and solar, the primary energy equivalent is calculated using the physical energy content method, which expresses the energy content of each source in million tons of oil equivalent (Mtoe) energy.

**Source** Statistics Report, International Energy Agency (IEA)



## 4-8. Energy Consumption Ranking (2010)

Unit: Million Tons of Oil Equivalent (Mtoe)

| Rank | Country | TPES     |
|------|---------|----------|
| 1    | China   | 2,417.13 |
| 5    | Japan   | 496.85   |
| 10   | ROK     | 250.01   |

\* TPES stands for Total Primary Energy Supply

Unit: Toe/Capita

| Energy Consumption per Capita |                     |                 |
|-------------------------------|---------------------|-----------------|
| Rank                          | Country             | TPES/Population |
| 1                             | Iceland             | 16.88           |
| 2                             | Trinidad and Tobago | 15.92           |
| 21                            | ROK                 | 5.12            |
| 33                            | Japan               | 3.9             |
| 64                            | China               | 1.81            |

Unit: Toe/Thousand US\$

| Energy Consumption per GDP |                    |          |
|----------------------------|--------------------|----------|
| Rank                       | Country            | TPES/GDP |
| 1                          | Dem. Rep. of Congo | 2.56     |
| 2                          | Uzbekistan         | 2.04     |
| 29                         | China              | 0.63     |
| 84                         | ROK                | 0.25     |
| 127                        | Japan              | 0.11     |

**Source** Key World Energy Statistics, International Energy Agency (IEA)

## 4-9. Primary Energy Consumption by Fuel

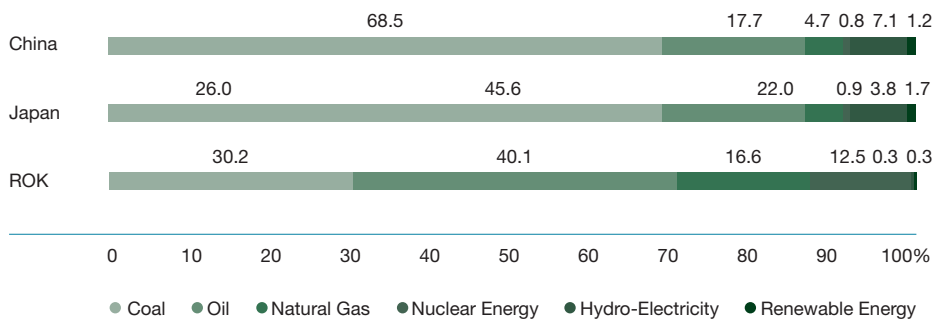
Unit: Million Tons of Oil Equivalent (Mtoe)

|                          | 2011    |       |       | 2012    |       |       |
|--------------------------|---------|-------|-------|---------|-------|-------|
|                          | China   | Japan | ROK   | China   | Japan | ROK   |
| <b>Oil</b>               | 459.4   | 204.7 | 105.8 | 483.7   | 218.2 | 108.8 |
| <b>Natural Gas</b>       | 117.5   | 95.0  | 41.7  | 129.5   | 105.1 | 45.0  |
| <b>Coal</b>              | 1,760.8 | 117.7 | 83.6  | 1,873.3 | 124.4 | 81.8  |
| <b>Nuclear Energy</b>    | 19.5    | 36.9  | 35.0  | 22.0    | 4.1   | 34.0  |
| <b>Hydro-Electricity</b> | 158.2   | 19.4  | 1.0   | 194.8   | 18.3  | 0.7   |
| <b>Renewable Energy</b>  | 25.4    | 7.5   | 0.7   | 31.9    | 8.2   | 0.8   |
| <b>Total</b>             | 2,540.8 | 481.1 | 267.9 | 2,735.2 | 478.2 | 271.1 |

\* Primary energy comprises commercially traded fuels, including modern renewable energy used to generate electricity.

**Source** BP Statistical Review of World Energy

## Primary Energy Consumption by Fuel (2012)



## 4-10. Electricity

Unit: Billion KWh

|               | Total Net Generation                         |          |        | Total Electric Power Consumption |          |        |
|---------------|--|----------|--------|----------------------------------|----------|--------|
|               | China  | Japan    | ROK    | China                            | Japan    | ROK    |
| <b>2006</b>   | 2,717.81                                     | 1,035.55 | 379.20 | 2,525.05                         | 985.321  | 364.61 |
| <b>2007</b>   | 3,090.55                                     | 1,061.49 | 401.55 | 2,874.07                         | 1,010.51 | 386.20 |
| <b>2008</b>   | 3,280.67                                     | 1,017.20 | 418.22 | 3,054.08                         | 965.89   | 402.12 |
| <b>2009</b>   | 3,508.39                                     | 988.686  | 425.26 | 3,271.19                         | 938.16   | 408.49 |
| <b>2010</b>   | 3,904.12                                     | 1,051.77 | 467.55 | 3,633.79                         | 1,002.38 | 449.51 |
| <b>2011</b>   | n/a  | 1,050.69 | 485.08 | n/a                              | n/a      | n/a    |
|               | Imports                                      |          |        | Exports                          |          |        |
|               | China  | Japan    | ROK    | China                            | Japan    | ROK    |
| <b>2007</b>   | 4.25   | 0        | 0      | 14.57                            | 0        | 0      |
| <b>2008</b>   | 3.84   | 0        | 0      | 16.64                            | 0        | 0      |
| <b>2009</b>   | 6.01   | 0        | 0      | 17.39                            | 0        | 0      |
| <b>2010</b>   | 5.55   | 0        | 0      | 19.06                            | 0        | 0      |
| <b>2011</b>   | 6.56   | 0        | 0      | 19.32                            | 0        | 0      |
| <b>2012</b>   | 6.87   | 0        | 0      | 17.65                            | 0        | 0      |
| <b>Source</b> | U.S. Energy Information Administration (EIA) |          |        |                                  |          |        |

## 4-11. Electricity by Renewable Energy

Unit: Million KWh

| China         |                                    |        |               |                               |        |               |                                  |           |               |
|---------------|------------------------------------|--------|---------------|-------------------------------|--------|---------------|----------------------------------|-----------|---------------|
|               | Electricity - Solar Production     |        |               | Electricity - Wind Production |        |               | Electricity - Thermal Production |           |               |
|               | Total                              | Public | Self-Producer | Total                         | Public | Self-Producer | Total                            | Public    | Self-Producer |
| 2007          | n/a                                | n/a    | n/a           | 11,226                        | 11,226 | 0             | 2,722,933                        | 2,502,103 | 220,829       |
| 2008          | n/a                                | n/a    | n/a           | 13,079                        | 13,079 | 0             | 2,790,078                        | 2,505,674 | 284,404       |
| 2009          | n/a                                | n/a    | n/a           | 46,096                        | 46,096 | 0             | 2,982,780                        | 2,740,877 | 241,903       |
| 2010          | 34,558                             | 34,558 | 0             | 44,622                        | 44,622 | 0             | 3,331,928                        | 3,061,709 | 270,219       |
| Japan         |                                    |        |               |                               |        |               |                                  |           |               |
|               | Electricity - Solar Production     |        |               | Electricity - Wind Production |        |               | Electricity - Thermal Production |           |               |
|               | Total                              | Public | Self-Producer | Total                         | Public | Self-Producer | Total                            | Public    | Self-Producer |
| 2007          | 2,015                              | 0      | 2,015         | 2,624                         | 6      | 2,618         | 779,970                          | 661,083   | 118,887       |
| 2008          | 2,251                              | 0      | 2,251         | 2,946                         | 5      | 2,941         | 732,970                          | 621,286   | 111,684       |
| 2009          | 2,758                              | 0      | 2,758         | 2,949                         | 8      | 2,941         | 677,444                          | 568,400   | 109,044       |
| 2010          | 3,799                              | 5      | 3,794         | 3,962                         | 38     | 3,924         | 729,916                          | 611,214   | 118,702       |
| ROK           |                                    |        |               |                               |        |               |                                  |           |               |
|               | Electricity - Solar Production     |        |               | Electricity - Wind Production |        |               | Electricity - Thermal Production |           |               |
|               | Total                              | Public | Self-Producer | Total                         | Public | Self-Producer | Total                            | Public    | Self-Producer |
| 2007          | 70                                 | 19     | 51            | 376                           | 368    | 8             | 278,891                          | 252,577   | 26,314        |
| 2008          | 285                                | 252    | 33            | 436                           | 381    | 55            | 289,186                          | 263,209   | 25,977        |
| 2009          | 566                                | 516    | 50            | 685                           | 680    | 5             | 299,841                          | 276,010   | 23,831        |
| 2010          | 772                                | 683    | 89            | 817                           | 812    | 5             | 342,851                          | 314,463   | 28,288        |
| <b>Source</b> | United Nations Statistics Division |        |               |                               |        |               |                                  |           |               |

## 4-12. Nuclear Electricity Production

|   |                                | As of 2012 |        |         |
|---|--------------------------------|------------|--------|---------|
|   |                                | China      | Japan  | ROK     |
| <b>Nuclear Electricity Production (GWh)</b> |                                | 98,200     | 17,073 | 143,548 |
| <b>Under Operation</b>                      | <b>Electric Capacity (MWh)</b> | 16,878     | 42,388 | 20,676  |
|   | <b>Number of Reactors</b>      | 21         | 48     | 23      |
| <b>Under Construction</b>                   | <b>Electric Capacity (MWh)</b> | 27,756     | 2,650  | 6,380   |
|   | <b>Number of Reactors</b>      | 28         | 2      | 5       |
| <b>Shutdown</b>                             | <b>Permanent Shut-down</b>     | 0          | 11     | 0       |
|   | <b>Long-term Shut-down</b>     | 0          | 1      | 0       |
| <b>Energy Availability (%)</b>              |                                | 89.2       | 9.8    | 81.6    |

\* World Nuclear Electricity: 2,346,190 GWh

**Source** World Statistics, International Atomic Energy Agency (IAEA)

## 4-13. Nuclear Energy Generation

Unit: Billion KWh

|        | China  | Japan | ROK   |
|--------|--|-------|-------|
| 2007   | 62.6   | 250.6 | 135.8 |
| 2008   | 65.3   | 245.2 | 143.4 |
| 2009   | 66.6   | 265.8 | 140.4 |
| 2010   | 70.2   | 273.8 | 141.2 |
| 2011   | 83.0   | 154.8 | 142.7 |
| Source | U.S. Energy Information Administration (EIA) |       |       |

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# 5

## Trade

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## 5-1. Trade Volumes

Unit: Billion US\$

|      | World  |        | ASEAN <sup>1</sup> |        | China  |        | Japan  |        | ROK    |        |
|------|--------|--------|--------------------|--------|--------|--------|--------|--------|--------|--------|
|      | Export | Import | Export             | Import | Export | Import | Export | Import | Export | Import |
| 2002 | 8,148  | 8,005  | 490                | 444    | 365    | 328    | 461    | 410    | 195    | 186    |
| 2003 | 9,457  | 9,257  | 548                | 481    | 485    | 449    | 527    | 454    | 235    | 216    |
| 2004 | 11,453 | 11,191 | 664                | 597    | 656    | 607    | 637    | 542    | 305    | 271    |
| 2005 | 13,004 | 12,589 | 769                | 696    | 770    | 646    | 673    | 603    | 340    | 317    |
| 2006 | 14,953 | 14,393 | 889                | 786    | 973    | 765    | 729    | 666    | 393    | 375    |
| 2007 | 17,384 | 16,670 | 1,015              | 895    | 1,255  | 947    | 802    | 719    | 462    | 437    |
| 2008 | 19,797 | 19,232 | 1,162              | 1,080  | 1,494  | 1,145  | 890    | 873    | 525    | 526    |
| 2009 | 15,968 | 15,290 | 1,011              | 863    | 1,260  | 1,040  | 669    | 646    | 432    | 401    |
| 2010 | 18,996 | 18,234 | 1,245              | 1,107  | 1,648  | 1,425  | 867    | 792    | 549    | 517    |
| 2011 | 22,535 | 21,602 | 1,463              | 1,334  | 1,991  | 1,809  | 927    | 970    | 647    | 621    |
| 2012 | 22,448 | 21,738 | 1,522              | 1,409  | 2,167  | 1,935  | 918    | 1022   | 664    | 622    |

Unit: %

|      | % of World |        |        |        |        |        | % of ASEAN + 3 |        |        |        |        |        |
|------|------------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|
|      | China      |        | Japan  |        | ROK    |        | China          |        | Japan  |        | ROK    |        |
|      | Export     | Import | Export | Import | Export | Import | Export         | Import | Export | Import | Export | Import |
| 2002 | 4.5        | 4.1    | 5.7    | 5.1    | 2.4    | 2.3    | 24.2           | 24.0   | 30.5   | 30.0   | 12.9   | 13.6   |
| 2003 | 5.2        | 4.8    | 5.6    | 4.9    | 2.5    | 2.3    | 27.0           | 28.1   | 29.4   | 28.4   | 13.1   | 13.5   |
| 2004 | 5.8        | 5.4    | 5.6    | 4.8    | 2.7    | 2.4    | 29.0           | 30.1   | 28.2   | 26.9   | 13.5   | 13.4   |
| 2005 | 6.5        | 5.6    | 5.3    | 4.8    | 2.6    | 2.5    | 31.9           | 30.5   | 25.8   | 26.1   | 13.0   | 13.6   |
| 2006 | 7.2        | 5.9    | 4.9    | 4.6    | 2.7    | 2.6    | 34.5           | 31.8   | 23.8   | 25.0   | 12.8   | 14.0   |
| 2007 | 7.8        | 6.2    | 4.7    | 4.3    | 2.7    | 2.6    | 37.0           | 33.5   | 22.2   | 23.4   | 12.8   | 14.1   |
| 2008 | 8.0        | 6.4    | 4.5    | 4.5    | 2.7    | 2.7    | 38.1           | 33.4   | 21.6   | 23.8   | 12.7   | 14.2   |
| 2009 | 8.4        | 7.3    | 4.3    | 4.2    | 2.7    | 2.6    | 38.5           | 36.3   | 19.4   | 21.2   | 12.5   | 13.1   |
| 2010 | 9.3        | 8.3    | 4.6    | 4.4    | 2.9    | 2.8    | 39.7           | 38.5   | 19.7   | 20.2   | 12.4   | 13.1   |
| 2011 | 10.7       | 9.3    | 4.6    | 4.6    | 3.1    | 2.9    | 42.4           | 40.8   | 18.4   | 20.6   | 12.4   | 12.6   |
| 2012 | 9.7        | 8.9    | 4.1    | 4.7    | 3.0    | 2.9    | 41.1           | 39.7   | 17.4   | 21.0   | 12.3   | 12.8   |

\* Trade in goods and service

\*\* ASEAN: Philippines, Malaysia, Singapore, Indonesia, Thai, Brunei, Vietnam, Lao PDR, Cambodia, Myanmar

\*\*\* ASEAN + 3 include members of ASEAN and China, Japan, ROK.

<sup>1</sup> World Bank Statistics does not include Myanmar's data.

Source

World Bank



## 5-2. Trade Dependency

Unit: % of GDP

|      | World | China | Japan | ROK   |
|------|-------|-------|-------|-------|
| 2002 | 48.4  | 47.7  | 21.2  | 66.1  |
| 2003 | 49.8  | 56.9  | 22.1  | 70.0  |
| 2004 | 53.5  | 65.4  | 24.5  | 79.8  |
| 2005 | 56.0  | 62.7  | 27.2  | 77.8  |
| 2006 | 59.2  | 64.1  | 31.1  | 80.7  |
| 2007 | 60.9  | 63.0  | 33.8  | 85.7  |
| 2008 | 63.6  | 58.4  | 35.2  | 112.9 |
| 2009 | 53.8  | 46.1  | 26.1  | 99.9  |
| 2010 | 58.7  | 51.8  | 30.2  | 105.0 |
| 2011 | 62.7  | 51.9  | 32.2  | 113.8 |
| 2012 | 61.7  | 49.9  | 32.6  | 113.8 |

\* Trade dependency is the ratio of total trade volume to GDP.

Source

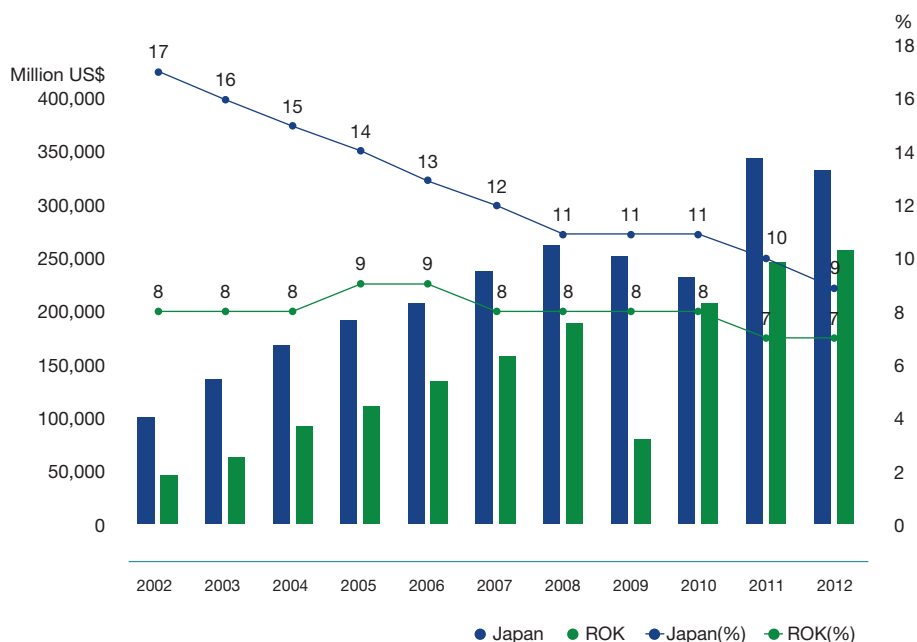
World Bank

### 5-3. Trade Relations among the Three Countries (China)

Unit: Million US \$ (% of Total Trade Value)

|      | China         |                |              |                |               |               |
|------|---------------|----------------|--------------|----------------|---------------|---------------|
|      | Japan         |                | ROK          |                | Total         |               |
|      | Exports       | Imports        | Exports      | Imports        | Exports       | Imports       |
| 2002 | 48,434 (14.9) | 53,466 (19.1)  | 15,535 (4.8) | 28,568 (10.2)  | 325,595 (100) | 280,190 (100) |
| 2003 | 59,409 (13.6) | 74,148 (19.1)  | 20,095 (4.6) | 43,128 (11.1)  | 438,227       | 387,666       |
| 2004 | 73,509 (12.4) | 94,327 (18.1)  | 27,812 (4.7) | 62,234 (11.9)  | 593,325       | 522,574       |
| 2005 | 83,986 (11.0) | 100,408 (16.6) | 35,108 (4.6) | 76,820 (12.7)  | 761,953       | 604,790       |
| 2006 | 91,623 (9.5)  | 115,673 (16.1) | 44,522 (4.6) | 89,724 (12.5)  | 968,935       | 718,128       |
| 2007 | 102,062 (8.4) | 133,951 (15.4) | 56,432 (4.6) | 103,752 (11.9) | 1,220,059     | 870,342       |
| 2008 | 116,132 (8.1) | 150,600 (14.5) | 73,932 (5.2) | 112,138 (10.8) | 1,430,692     | 1,040,101     |
| 2009 | 97,911 (8.1)  | 130,938 (14.2) | 53,680 (4.5) | 102,552 (11.2) | 1,201,647     | 919,141       |
| 2010 | 121,044 (7.7) | 176,736 (13.7) | 68,766 (4.4) | 138,339 (10.7) | 1,577,763     | 1,289,134     |
| 2011 | 148,269 (7.8) | 194,568 (12.0) | 82,920 (4.4) | 162,717 (10.0) | 1,898,388     | 1,620,780     |
| 2012 | 151,627 (7.4) | 177,832 (10.6) | 87,674 (4.3) | 168,728 (10.1) | 2,048,781     | 1,675,269     |

Source World Integrated Trade Solution (WITS), World Bank

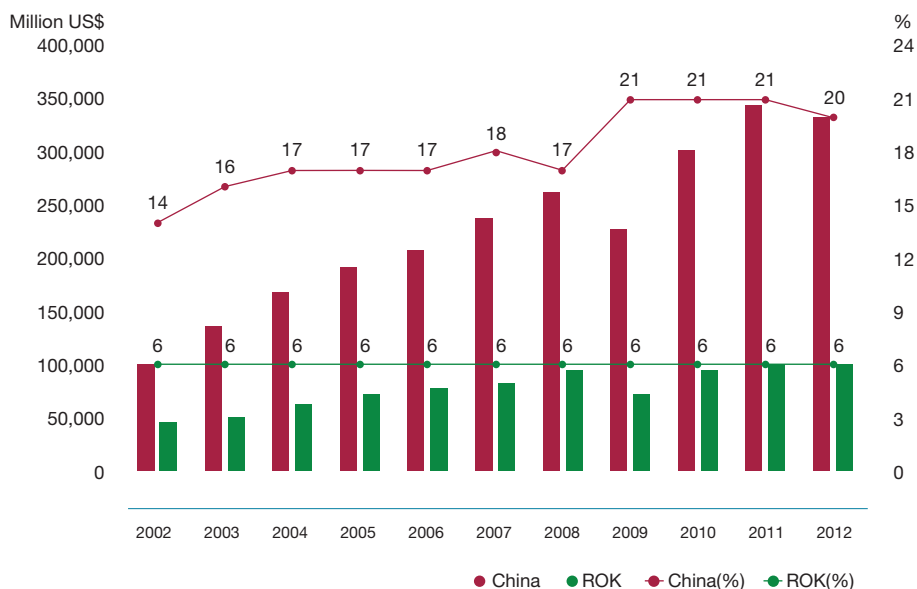


## 5-4. Trade Relations among the Three Countries (Japan)

Unit: Million US \$ (% of Total Trade Value)

|             | Japan          |                |              |              |               |               |
|-------------|----------------|----------------|--------------|--------------|---------------|---------------|
|             | China          |                | ROK          |              | Total         |               |
|             | Exports        | Imports        | Exports      | Imports      | Exports       | Imports       |
| <b>2002</b> | 39,810 (9.6)   | 61,780 (18.4)  | 28,556 (6.9) | 15,480 (4.6) | 415,976 (100) | 336,674 (100) |
| <b>2003</b> | 57,368 (12.2)  | 75,448 (19.7)  | 34,781 (7.4) | 17,887 (4.7) | 470,793       | 382,766       |
| <b>2004</b> | 73,816 (13.1)  | 94,273 (20.8)  | 44,222 (7.8) | 22,007 (4.8) | 564,555       | 454,058       |
| <b>2005</b> | 79,913 (13.5)  | 108,409 (21.1) | 46,593 (7.9) | 24,402 (4.7) | 593,520       | 514,525       |
| <b>2006</b> | 92,565 (14.4)  | 118,455 (20.5) | 50,195 (7.8) | 27,311 (4.7) | 643,717       | 578,135       |
| <b>2007</b> | 109,163 (15.4) | 127,903 (20.6) | 54,240 (7.6) | 27,282 (4.4) | 710,709       | 621,279       |
| <b>2008</b> | 124,803 (16.1) | 143,211(18.8)  | 59,403 (7.7) | 29,419 (3.9) | 776,206       | 761,291       |
| <b>2009</b> | 109,664 (19.0) | 122,562 (22.2) | 47,139 (8.2) | 21,842 (4.0) | 576,234       | 551,162       |
| <b>2010</b> | 149,365 (19.6) | 153,138 (22.1) | 62,127 (8.1) | 28,524 (4.1) | 763,422       | 691,581       |
| <b>2011</b> | 161,897 (19.9) | 183,861 (21.5) | 65,918 (8.1) | 39,696 (4.6) | 813,119       | 854,409       |
| <b>2012</b> | 144,074 (18.2) | 188,416 (21.3) | 61,347 (7.8) | 40,494 (4.6) | 791,543       | 884,925       |

Source World Integrated Trade Statistics (WITS), World Bank

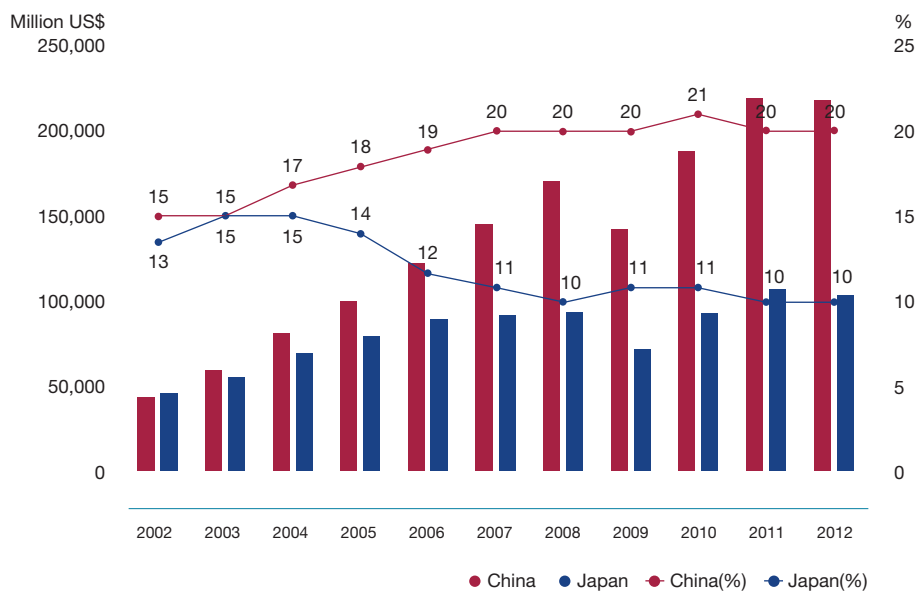


## 5-5. Trade Relations among the Three Countries (ROK)

Unit: Million US \$ (% of Total Trade Value)

|      | ROK            |               |              |               |               |               |
|------|----------------|---------------|--------------|---------------|---------------|---------------|
|      | China          |               | Japan        |               | Total         |               |
|      | Exports        | Imports       | Exports      | Imports       | Exports       | Imports       |
| 2002 | 18,172 (14.7)  | 13,302 (11.6) | 16,501 (9.4) | 26,562 (19.8) | 149,371 (100) | 139,455 (100) |
| 2003 | 23,729 (18.3)  | 17,397 (12.4) | 15,122 (9.0) | 29,834 (20.6) | 161,526       | 150,355       |
| 2004 | 35,068 (19.8)  | 21,892 (13.4) | 17,270 (8.6) | 36,292 (20.9) | 191,850       | 175,873       |
| 2005 | 49,701 (21.8)  | 29,532 (14.8) | 21,693 (8.5) | 46,117 (18.6) | 250,861       | 220,894       |
| 2006 | 61,858 (21.4)  | 38,636 (15.8) | 24,022 (8.2) | 48,364 (16.8) | 284,153       | 260,291       |
| 2007 | 69,389 (22.1)  | 48,551 (17.7) | 26,525 (7.1) | 51,846 (15.8) | 324,625       | 308,238       |
| 2008 | 81,903 (21.7)  | 63,015 (17.7) | 26,339 (6.7) | 56,146 (14.0) | 370,772       | 355,151       |
| 2009 | 91,319 (24.0)  | 76,918 (16.8) | 28,182 (6.0) | 60,864 (15.3) | 420,675       | 433,976       |
| 2010 | 86,605 (25.2)  | 54,241 (16.9) | 21,542 (6.1) | 49,285 (15.1) | 360,698       | 321,958       |
| 2011 | 116,719 (24.3) | 71,569 (16.5) | 28,072 (7.2) | 63,937 (13.0) | 463,394       | 423,635       |
| 2012 | 134,075 (24.6) | 86,408 (15.6) | 39,561 (7.1) | 68,012 (12.4) | 552,069       | 522,690       |

Source World Integrated Trade Statistics (WITS), World Bank



## 5-6. Top 10 Export Markets (2012)

Unit: Million US \$ (%)

| Rank          |  | China   |             | Japan   |           | ROK     |
|---------------|--|---------|-------------|---------|-----------|---------|
| 1             | USA  | 352,540 | China       | 144,226 | China     | 134,323 |
| 2             | Hong Kong  | 323,654 | USA         | 142,009 | USA       | 58,807  |
| 3             | Japan  | 151,509 | ROK         | 61,526  | Japan     | 38,796  |
| 4             | ROK  | 87,646  | Thailand    | 43,717  | Hong Kong | 32,606  |
| 5             | Germany  | 69,175  | Hong Kong   | 41,062  | Singapore | 22,888  |
| 6             | Netherlands  | 58,917  | Singapore   | 23,302  | Vietnam   | 15,946  |
| 7             | India  | 47,745  | Germany     | 20,799  | Indonesia | 13,955  |
| 8             | UK   | 46,279  | Australia   | 18,415  | India     | 11,922  |
| 9             | Russia   | 44,073  | Malaysia    | 17,704  | Mexico    | 9,042   |
| 10            | Singapore  | 40,321  | Netherlands | 16,158  | Germany   | 7,510   |
|               | others   | 945,391 | others      | 389,082 | others    | 317,767 |
| <b>Source</b> | Country Profile (2013), Asian Development Bank (ADB) |         |             |         |           |         |

## 5-7. Revealed Comparative Advantage (RCA) Index

| RCA Indexes: Average 2008-2012 |                   |   |      |                   |   |      |                   |  |      |
|--------------------------------|-------------------|---|------|-------------------|---|------|-------------------|--|------|
|                                |                   | China   |      |                   | Japan   |      |                   | ROK  |      |
| Rank                           | HS Code (2 digit) |   | RCA  | HS Code (2 digit) | RCA   |      | HS Code (2 digit) | RCA  |      |
| 1                              | 66                | Umbrella, sun umbrellas, walking-sticks             | 6.95 | 37                | Photographic or cinematographic goods               | 5.14 | 89                | Ships, boats and floating structures               | 9.19 |
| 2                              | 46                | Manufactures of straw, of esparto                   | 6.90 | 89                | Ships, boats and floating structures                | 2.99 | 60                | Knitted or crocheted fabrics                       | 4.51 |
| 3                              | 67                | Prepared feathers and down and articles             | 6.17 | 87                | Vehicles other than railway or tramway              | 2.60 | 54                | Man-made filaments; strip and the like of manmade  | 2.39 |
| 4                              | 50                | Silk  | 4.71 | 92                | Musical instruments; parts and accessories of such  | 2.44 | 90                | Optical, photographic, cinematographic, measuring, | 2.31 |
| 5                              | 65                | Headgear and parts thereof                          | 4.39 | 81                | Other base metals; cermets; articles thereof        | 1.95 | 79                | Zinc and articles thereof                          | 2.30 |
| 6                              | 63                | Other made up textile articles; sets; worn clothing | 3.89 | 72                | Iron and steel                                      | 1.92 | 59                | Impregnated, coated, covered or laminated textile  | 1.88 |
| 7                              | 61                | Articles of apparel and clothing accessories, knit  | 3.71 | 70                | Glass and glassware                                 | 1.82 | 72                | Iron and steel                                     | 1.80 |
| 8                              | 42                | Articles of leather; saddlery and harness; travel   | 3.70 | 90                | Optical, photographic, cinematographic, measuring,  | 1.68 | 85                | Electrical machinery and equipment and parts there | 1.76 |
| 9                              | 64                | Footwear, gaiters                                   | 3.52 | 84                | Nuclear reactors, boilers, machinery and mechanical | 1.58 | 29                | Organic chemicals                                  | 1.60 |
| 10                             | 58                | Special woven fabrics; tufted textile fabrics;      | 3.40 | 38                | Miscellaneous chemical products                     | 1.55 | 39                | Plastics and articles thereof                      | 1.59 |

\* The RCA index is the proportion of the product's export in country's exports relative to the proportion of the product's export in world exports. The country has a comparative advantage of  $RCA > 1$ , and has a comparative disadvantage when  $RCA < 1$ .

**Source** World Integrated Trade Solution (WITS) using UNSD COMTRADE data, World Bank

## 5-8. RCA: Average 1990-2000 and 2001-2012

| Revealed Comparative Advantage (RCA) Index |                   |  |       |    |  |      |    |  |      |     |  |
|--|-------------------|--|-------|----|--|------|----|--|------|-----|--|
| RCA Index: Average 1990-2000               |                   |  |       |    |  |      |    |  |      |     |  |
|  |                   |  | China |    |  |      |    | Japan  |      | ROK |  |
| Rank                                       | HS Code (2 digit) |  | RCA   |    | HS Code (2 digit)  | RCA  |    | HS Code (2 digit)  | RCA  |     |  |
| 1  | 46                | Manufactures of straw, of esparto                                    | 15.98 | 92 | Musical instruments, parts & accessories   | 3.2  | 54 | Man-made filaments, inc. yarns & woven etc.  | 7.17 |     |  |
| 2  | 66                | Umbrella, sun umbrellas, walking-sticks                              | 11.08 | 89 | Ships, boats & floating structures   | 2.99 | 89 | Ships, boats & floating structures   | 6.35 |     |  |
| 3  | 50                | Silk   | 10.43 | 37 | Photographic or cinematographic goods  | 2.52 | 60 | Knitted or crocheted fabrics   | 5.17 |     |  |
| 4  | 67                | Prepared feathers, human hair & articles thereof, artificial flowers | 9.47  | 87 | Vehicles other than railway or tramway rolling stock   | 2.04 | 50 | Silk, inc. yarns & woven fabrics thereof   | 4.6  |     |  |
| 5  | 42                | Articles of leather, saddlery & harness, travel goods, handbags      | 7.15  | 90 |  | 1.96 | 42 | Articles of leather, saddlery & harness, travel goods, handbags                          | 4.1  |     |  |
| 6  | 5                 | Products of animal origin  | 5.79  | 85 | Electrical machinery & equip. & parts, telecommunication equip., sound recorders, television | 1.74 | 59 | Impregnated, coated, covered, or laminated textile prod, textile prod for industrial use | 4.06 |     |  |
| 7  | 63                | Made-up textile articles nesoi, needlecraft sets                     | 5.63  | 96 | Miscellaneous manufactured articles  | 1.65 | 58 | Special woven fabrics, tufted textiles, lace   | 3.89 |     |  |
| 8  | 65                | Headgear & other parts   | 5.61  | 84 | Nuclear reactors, builders machinery & mechanical appliances                                 | 1.49 | 65 | Headgear & other parts   | 3.82 |     |  |
| 9  | 62                | Articles of apparel & clothing accessories-not knitted               | 5.47  | 72 | Iron & steel   | 1.31 | 67 | Prepared feathers, human hair & articles thereof, artificial flowers                     | 3.55 |     |  |
| 10   | 53                | Veg. textile fibers nesoi, yarns & woven etc.                        | 5.44  | 40 | Rubbers & articles thereof   | 1.3  | 86 | Railway or tramway locomotives, rolling stock, track fixtures & fittings, signals        | 3.43 |     |  |

| RCA Index: Average 2001-2012 |                   |  |      |    |  |      |    |   |      |
|------------------------------|-------------------|--|------|----|--|------|----|---|------|
|                              |                   | China  |      |    | Japan  |      |    | ROK   |      |
| Rank                         | HS Code (2 digit) |  | RCA  |    | HS Code (2 digit)  | RCA  |    | HS Code (2 digit)   | RCA  |
| 1                            | 46                | Manufactures of straw, of esparto                                    | 8.28 | 37 | Photographic or cinematographic goods  | 4.34 | 89 | Ships, boats & floating structures  | 9    |
| 2                            | 66                | Umbrella, sun umbrellas, walking-sticks                              | 7.8  | 89 | Ships, boats & floating structures   | 2.97 | 60 | Knitted or crocheted fabrics  | 5.11 |
| 3                            | 67                | Prepared feathers, human hair & articles thereof, artificial flowers | 6.57 | 87 | Vehicles other than railway or tramway rolling stock   | 2.46 | 54 | Man-made filaments, inc., yarns & woven etc.  | 3.1  |
| 4                            | 50                | Silk   | 5.56 | 92 | Musical instruments, parts & accessories   | 2.44 | 59 | Impregnated, coated, covered, or laminated textile prod, textile prod for industrial use                              | 2.64 |
| 5                            | 42                | Articles of leather, saddlery & harness, travel goods, handbags      | 4.47 | 90 | Optical, photgraphic, cinematographic, measuring, checking, precision, medical or surgical instruments & accessories | 1.79 | 79 | Zinc & articles thereof   | 2.14 |
| 6                            | 65                | Headgear & other parts   | 4.46 | 81 | Base metals nesoi, cermets, articles etc.  | 1.71 | 58 | Special woven fabrics, tufted textiles, lace  | 2.11 |
| 7                            | 63                | Made-up textile articles nesoi, needlecraft sets                     | 4.06 | 72 | Iron & steel   | 1.66 | 85 | Electrical machinery & equip. & parts, telecommunication equip., sound recorders, television                          | 1.87 |
| 8                            | 95                | Toys, games & sports equip, parts & acces.                           | 3.9  | 84 | Nuclear reactors, builders machinery & mechanical appliances   | 1.5  | 55 | Man-made staple fibers, inc., yarns etc.  | 1.78 |
| 9                            | 64                | Footwear, gaiters & the like   | 3.81 | 70 | Glass & glassware  | 1.49 | 72 | Iron & steel  | 1.69 |
| 10                           | 61                | Articles of apparel & clothing accessories-knitted or crocheted      | 3.68 | 40 | Rubbers & articles thereof   | 1.48 | 90 | Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments & accessories | 1.57 |

\* The RCA index is the proportion of the product's export in country's exports relative to the proportion of the product's export in world exports. The country has a comparative advantage of  $RCA > 1$ , and has a comparative disadvantage when  $RCA < 1$ .

\*\* The blue boxes in 'RCA Index: Average 1990-2000' shows products which are not included in the top 10 RCA index in 'RCA Index: Average 2001-2012'. The blue boxes in 'RCA Index: Average 2001-2012' shows products which are not included in the top 10 RCA index in 'RCA Index: Average 1990-2000'.

#### Source

World Integrated Trade Solution (WITS) using UNSD COMTRADE data, World Bank



## 5-9. Balance of Trade

Unit: Million US \$ (% of GDP)

|      | China         | Japan          | ROK            |
|------|---------------|----------------|----------------|
| 2001 | 28,084 (2.1)  | 26,613 (0.6)   | 11,415 (2.3)   |
| 2002 | 37,383 (2.6)  | 53,413 (1.3)   | 8,497 (1.5)    |
| 2003 | 36,079 (2.2)  | 71,223 (1.7)   | 14,603 (2.3)   |
| 2004 | 49,284 (2.6)  | 91,128 (2.0)   | 30,018 (4.2)   |
| 2005 | 124,798 (5.5) | 64,360 (1.4)   | 22,829 (2.7)   |
| 2006 | 208,912 (7.7) | 54,753 (1.3)   | 13,199 (1.4)   |
| 2007 | 307,477 (8.8) | 73,655 (1.7)   | 15,849 (1.5)   |
| 2008 | 348,870 (7.7) | 9,408 (0.2)    | -10,969 (-1.2) |
| 2009 | 220,100 (4.4) | 18,454 (0.4)   | 30,900 (3.7)   |
| 2010 | 232,074 (3.9) | 65,656 (1.2)   | 28,299 (2.8)   |
| 2011 | 297,805 (4.1) | -53,893 (-0.9) | 22,575 (2.0)   |

\* Goods and Services

\*\* The balance of trade is the earnings on exports of goods and services minus payments for imports of goods and services.

Source

World Bank

## 5-10. Trade in Goods and Services

Unit: Million US \$

|               | Goods      |           |         |         |         |         |
|---------------|------------|-----------|---------|---------|---------|---------|
|               | China      |           | Japan   |         | ROK     |         |
|               | Exports    | Imports   | Exports | Imports | Exports | Imports |
| 2005          | 681,308    | 561,649   | 570,982 | 464,018 | 289,873 | 257,016 |
| 2006          | 859,607    | 663,503   | 619,219 | 524,113 | 336,495 | 305,061 |
| 2007          | 1,107,850  | 817,033   | 680,623 | 560,022 | 389,569 | 352,439 |
| 2008          | 1,327,580  | 985,716   | 749,118 | 693,841 | 434,652 | 429,481 |
| 2009          | 1,116,150  | 880,969   | 548,145 | 490,054 | 358,190 | 320,324 |
| 2010          | 1,476,230  | 1,230,690 | 735,436 | 626,912 | 461,445 | 421,362 |
| 2011          | 1,805,900  | 1,569,850 | 789,951 | 794,425 | 551,765 | 520,105 |
| 2012          | 1,970,950  | 1,653,350 | 776,640 | 830,123 | 552,709 | 514,171 |
|               | Services   |           |         |         |         |         |
|               | China      |           | Japan   |         | ROK     |         |
|               | Exports    | Imports   | Exports | Exports | Imports | Exports |
| 2005          | 89,150     | 84,183    | 101,961 | 139,013 | 49,745  | 59,696  |
| 2006          | 113,851    | 101,037   | 109,346 | 141,407 | 56,842  | 70,174  |
| 2007          | 147,511    | 130,287   | 121,579 | 158,677 | 72,995  | 84,962  |
| 2008          | 165,990    | 159,018   | 141,040 | 178,976 | 90,634  | 96,369  |
| 2009          | 144,185    | 159,233   | 120,914 | 155,754 | 73,580  | 80,221  |
| 2010          | 171,490    | 194,005   | 131,215 | 164,880 | 87,282  | 95,908  |
| 2011          | 184,763    | 238,909   | 137,349 | 175,780 | 95,257  | 101,107 |
| 2012          | 196,302    | 282,055   | 134,186 | 184,689 | 110,854 | 108,178 |
| <b>Source</b> | World Bank |           |         |         |         |         |

## 5-11. Top 10 Export Commodities of China (2010 to 2012)

Unit: Million US \$

| Rank          | 2010   |  |              | 2011        |  |              | 2012        |  |              |
|---------------|--|--|--------------|-------------|--|--------------|-------------|--|--------------|
|               | HS-4 digits  | Products   | Export value | HS-4 digits | Products   | Export value | HS-4 digits | Products   | Export value |
| 1             | 8471   | Automatic data processing machines and Units thereof                   | 139,100      | 8471        | Automatic data processing machines and Units thereof                   | 152,029      | 8471        | Automatic data processing machines and Units thereof                   | 163,437      |
| 2             | 8517   | Electrical apparatus for line telephony or line telegraphy             | 105,976      | 8517        | Electrical apparatus for line telephony or line telegraphy             | 133,414      | 8517        | Electrical apparatus for line telephony or line telegraphy             | 153,185      |
| 3             | 8901   | Vessels for the transport of persons or goods                          | 35,190       | 8901        | Cruise ships, excursion boats, ferry-boats, cargo ships, barges        | 37,100       | 8542        | Electronic integrated circuits & microassembly                         | 53,745       |
| 4             | 8541   | Semiconductor devices, light-emit diodes                               | 32,003       | 8541        | Diodes, transistors and similar semiconductor devices                  | 35,428       | 9013        | Liquid crystal device, lasers  | 38,715       |
| 5             | 8528   | Microphones, loudspeakers, sound amplifier                             | 31,889       | 8542        | Electronic integrated circuits & microassembly                         | 32,900       | 8901        | Cruise ships, excursion boats, ferry-boats, cargo ships, barges        | 31,838       |
| 6             | 8473   | Parts etc for typewriters & other office machines computer accessories | 31,313       | 9013        | Liquid crystal device, lasers  | 31,682       | 8473        | Parts etc for typewriters & other office machines computer accessories | 30,425       |
| 7             | 8542   | Electronic integrated circuits & microassembly                         | 29,608       | 8473        | Parts etc for typewriters & other office machines computer accessories | 30,642       | 8528        | Microphones, loudspeakers, sound amplifier                             | 27,740       |
| 8             | 9013   | Liquid crystal device, lasers  | 27,853       | 8528        | Microphones, loudspeakers, sound amplifier                             | 30,291       | 8541        | Diodes, transistors and similar semiconductor devices                  | 27,337       |
| 9             | 8443   | Printing machinery, machines for uses ancillary to printing            | 23,581       | 8443        | Printing machinery, machines for uses ancillary to printing            | 25,124       | 9403        | Furniture  | 27,018       |
| 10            | 8504   | Electrical transformers, static converters                             | 20,194       | 4202        | Travel goods, handbags, wallets, jewelry cases                         | 23,941       | 4202        | Travel goods, handbags, wallets, jewelry cases                         | 25,310       |
|               |  | All Commodities  | 1,577,764    |             | All Commodities  | 1,898,388    |             | All Commodities  | 2,048,782    |
| <b>Source</b> | United Nations Commodity Trade (UNCOMTRADE) Database |  |              |             |  |              |             |  |              |

## 5-12. Top 10 Import Commodities of China (2010 to 2012)

Unit: Million US \$

| Rank | 2010        |   | 2011         |             | 2012  |              |      |   |             |
|------|-------------|---|--------------|-------------|---|--------------|------|---|-------------|
|      | HS-4 digits | Products  | Import value | HS-4 digits | Products  | Import value |      |   |             |
| 1    | 8542        | Electronic integrated circuits & microassembly                      | 158,010      | 2709        | Crude oil from petroleum and bituminous minerals                    | 196,771      | 2709 | Crude oil from petroleum and bituminous minerals                    | 220,794     |
| 2    | 2709        | Crude oil from petroleum and bituminous minerals                    | 135,300      | 8542        | Electronic integrated circuits & microassembly                      | 171,142      | 8542 | Electronic integrated circuits & microassembly                      | 192,967     |
| 3    | 2601        | Iron ores & concentrates, including roast pyrites                   | 79,722       | 2601        | Iron ores & concentrates, including roast pyrites                   | 112,409      | 2601 | Iron ores & concentrates, including roast pyrites                   | 95,619      |
| 4    | 9013        | Liquid crystal device, lasers                                       | 51,505       | 9013        | Liquid crystal device, lasers                                       | 53,140       | 9999 | Other items   | 68,769      |
| 5    | 8703        | Motor cars & vehicles for transporting persons                      | 28,921       | 9999        | Other items   | 49,498       | 9013 | Liquid crystal device, lasers                                       | 55,868      |
| 6    | 8471        | Automatic data process machines, magnetic reader, computer hardware | 26,856       | 8703        | Motor cars & vehicles for transporting persons                      | 40,965       | 8703 | Motor cars & vehicles for transporting persons                      | 45,492      |
| 7    | 1201        | Soybeans  | 25,093       | 2710        | Oil (not crude) from petroleum & bituminous minerals                | 32,776       | 8517 | Electrical apparatus for line telephony or line telegraphy          | 39,127      |
| 8    | 8517        | Electrical apparatus for line telephony or line telegraphy          | 22,487       | 8517        | Electrical apparatus for line telephony or line telegraphy          | 30,862       | 1201 | Soybeans  | 34,977      |
| 9    | 2710        | Oil (not crude) from petroleum & bituminous minerals                | 22,435       | 1201        | Soybeans  | 29,726       | 8471 | Automatic data process machines, magnetic reader, computer hardware | 34,886      |
| 10   | 8541        | Semiconductor devices, light-emit diodes                            | 22,347       | 8471        | Automatic data process machines, magnetic reader, computer hardware | 29,351       | 2710 | Oil (not crude) from petroleum & bituminous minerals                | 33,033      |
|      |             |   | All          |             |   | All          |      |   | All         |
|      |             |   | 1,396,002    |             |   | 1,743,395    |      |   | 1,818,199   |
|      |             |   | Commodities  |             |   | Commodities  |      |   | Commodities |

Source United Nations Commodity Trade (UNCOMTRADE) Database

## 5-13. Top 10 Export Commodities of Japan (2010 to 2012)

Unit: Million US \$

| Rank | 2010        |  |              | 2011        |  |              | 2012        |  |              |
|------|-------------|--|--------------|-------------|--|--------------|-------------|--|--------------|
|      | HS-4 digits | Products   | Export value | HS-4 digits | Products   | Export value | HS-4 digits | Products   | Export value |
| 1    | 8703        | Motor cars & vehicles for transporting persons       | 90,379       | 8703        | Motor cars & vehicles for transporting persons       | 87,338       | 8703        | Motor cars & vehicles for transporting persons       | 97,460       |
| 2    | 9999        | Other items  | 40,037       | 9999        | Other items  | 39,383       | 8708        | parts & access for motor vehicles                    | 39,699       |
| 3    | 8708        | parts & access for motor vehicles                    | 35,073       | 8708        | parts & access for motor vehicles                    | 37,489       | 9999        | Other items  | 35,510       |
| 4    | 8542        | Electronic integrated circuits & microassembly       | 34,533       | 8542        | Electronic integrated circuits & microassembly       | 32,013       | 8542        | Electronic integrated circuits & microassembly       | 30,588       |
| 5    | 8901        | Vessels for the transport of persons or goods        | 25,592       | 8901        | Vessels for the transport of persons or goods        | 25,683       | 8901        | Vessels for the transport of persons or goods        | 21,473       |
| 6    | 8486        | Manufacture of semiconductor boulds or wafers        | 19,071       | 8486        | Manufacture of semiconductor boulds or wafers        | 20,960       | 8486        | Manufacture of semiconductor boulds or wafers        | 14,655       |
| 7    | 8443        | Printing machinery, machine ancil to printing        | 15,204       | 8443        | Printing machinery, machine ancil to printing        | 15,136       | 8443        | Printing machinery, machine ancil to printing        | 13,749       |
| 8    | 8541        | Semiconductor devices, light-emit diodes             | 12,396       | 2710        | Oil (not crude) from petroleum & bituminous minerals | 14,584       | 8704        | Motor vehicles for transport of goods                | 12,513       |
| 9    | 2710        | Oil (not crude) from petroleum & bituminous minerals | 11,643       | 8541        | Semiconductor devices, light-emit diodes             | 12,257       | 2710        | Oil (not crude) from petroleum & bituminous minerals | 11,653       |
| 10   | 8704        | Motor vehicles for transport of goods                | 10,279       | 8429        | Self-propelled bulldozers, graders, scrapers         | 11,643       | 8429        | Self-propelled bulldozers, graders, scrapers         | 11,421       |
|      |             | All Commodities                                      | 769,839      |             | All Commodities                                      | 823,184      |             | All Commodities                                      | 798,568      |

Source: United Nations Commodity Trade (UNCOMTRADE) Database

## 5-14. Top 10 Import Commodities of Japan (2010 to 2012)

Unit: Million US \$

| Rank | 2010        |   |              | 2011        |   |              | 2012        |   |              |
|------|-------------|---|--------------|-------------|---|--------------|-------------|---|--------------|
|      | HS-4 digits | Products  | Import value | HS-4 digits | Products  | Import value | HS-4 digits | Products  | Import value |
| 1    | 2709        | Crude oil from petroleum and bituminous minerals                    | 105,775      | 2709        | Crude oil from petroleum and bituminous minerals                    | 142,101      | 2709        | Crude oil from petroleum and bituminous minerals                    | 153,103      |
| 2    | 2711        | Petroleum gases & other gaseous hydrocarbons                        | 48,278       | 2711        | Petroleum gases & other gaseous hydrocarbons                        | 71,317       | 2711        | Petroleum gases & other gaseous hydrocarbons                        | 88,022       |
| 3    | 2701        | Coal, briquettes, ovoids  | 23,946       | 2701        | Coal, briquettes, ovoids  | 30,908       | 2710        | Oil (not crude) from petroleum & bituminous minerals                | 30,026       |
| 4    | 8542        | Electronic integrated circuits & microassembly                      | 20,413       | 2710        | Oil (not crude) from petroleum & bituminous minerals                | 28,880       | 2701        | Coal, briquettes, ovoids  | 29,037       |
| 5    | 2710        | Oil (not crude) from petroleum & bituminous minerals                | 18,744       | 2601        | Iron ores & concentrates, including roast pyrites                   | 21,449       | 8517        | Electrical apparatus for line telephony or line telegraphy          | 25,520       |
| 6    | 2601        | Iron ores & concentrates, including roast pyrites                   | 15,316       | 8517        | Electrical apparatus for line telephony or line telegraphy          | 18,754       | 2601        | Iron ores & concentrates, including roast pyrites                   | 19,232       |
| 7    | 8471        | Automatic data process machines, magnetic reader, computer hardware | 14,464       | 8542        | Electronic integrated circuits & microassembly                      | 17,967       | 8542        | Electronic integrated circuits & microassembly                      | 17,424       |
| 8    | 8517        | Electrical apparatus for line telephony or line telegraphy          | 13,444       | 8471        | Automatic data process machines, magnetic reader, computer hardware | 17,040       | 8471        | Automatic data process machines, magnetic reader, computer hardware | 16,997       |
| 9    | 9999        | Other items   | 11,965       | 3004        | Medicaments   | 13,903       | 3004        | Medicaments   | 16,697       |
| 10   | 2603        | Copper ores and concentrates  | 11,705       | 9999        | Other items   | 12,321       | 9999        | Other items   | 12,214       |
|      |             | All Commodities   | 692,621      |             | All Commodities   | 855,380      |             | All Commodities   | 885,843      |

Source: United Nations Commodity Trade (UNCOMTRADE) Database

## 5-15. Top 10 Export Commodities of ROK (2010 to 2012)

Unit: Million US \$

| Rank | 2010        |  |              | 2011        |   |              | 2012        |   |              |
|------|-------------|--|--------------|-------------|---|--------------|-------------|---|--------------|
|      | HS-4 digits | Products   | Export value | HS-4 digits | Products  | Export value | HS-4 digits | Products  | Export value |
| 1    | 8542        | Electronic integrated circuits & microassembly                         | 37,904       | 2710        | Oil (not crude) from petroleum & bituminous minerals    | 50,371       | 2710        | Oil (not crude) from petroleum & bituminous minerals    | 54,726       |
| 2    | 8901        | Vessels for the transport of persons or goods                          | 37,208       | 8703        | Motor cars & vehicles for transporting persons          | 40,910       | 8703        | Motor cars & vehicles for transporting persons          | 42,388       |
| 3    | 8703        | Motor cars & vehicles for transporting persons                         | 31,782       | 8542        | Electronic integrated circuits & microassembly          | 39,665       | 8542        | Electronic integrated circuits & microassembly          | 41,347       |
| 4    | 2710        | Oil (not crude) from petroleum & bituminous minerals                   | 30,163       | 8901        | Vessels for the transport of persons or goods           | 37,970       | 8901        | Vessels for the transport of persons or goods           | 30,566       |
| 5    | 9013        | Liquid crystal devices, lasers   | 30,077       | 9013        | Liquid crystal devices, lasers                          | 27,656       | 9013        | Liquid crystal devices, lasers                          | 27,525       |
| 6    | 8517        | Electronic apparatus for line telephony, telephone sets                | 25,882       | 8517        | Electronic apparatus for line telephony, telephone sets | 25,802       | 8708        | parts & access for motor vehicles                       | 22,632       |
| 7    | 8708        | parts & access for motor vehicles                                      | 17,822       | 8708        | parts & access for motor vehicles                       | 21,583       | 8517        | Electronic apparatus for line telephony, telephone sets | 20,962       |
| 8    | 8905        | Light-vessel, fire-floats, fl docks & platforms                        | 9,408        | 8905        | Light-vessel, fire-floats, fl docks & platforms         | 16,044       | 2902        | Cyclic hydro-carbons                                    | 9,066        |
| 9    | 8529        | Parts for television, radio and radar apparatus                        | 8,267        | 8529        | Parts for television, radio and radar apparatus         | 8,444        | 8905        | Light-vessel, fire-floats, fl docks & platforms         | 7,216        |
| 10   | 8473        | Parts etc for typewriters & other office machines computer accessories | 8,037        | 2902        | Cyclic hydro-carbons                                    | 7,987        | 8529        | Parts for television, radio and radar apparatus         | 7,092        |
|      |             | All Commodities  | 466,380      |             | All Commodities   | 555,209      |             | All Commodities   | 547,854      |

Source United Nations Commodity Trade (UNCOMTRADE) Database

## 5-16. Top 10 Import Commodities of ROK (2010 to 2012)

Unit: Million US \$

| Rank | 2010        |  |              | 2011        |  |              | 2012        |  |              |
|------|-------------|--|--------------|-------------|--|--------------|-------------|--|--------------|
|      | HS-4 digits | Products   | Import value | HS-4 digits | Products   | Import value | HS-4 digits | Products   | Import value |
| 1    | 2709        | Crude oil from petroleum and bituminous minerals                                 | 68,662       | 2709        | Crude oil from petroleum and bituminous minerals                                 | 100,806      | 2709        | Crude oil from petroleum and bituminous minerals                                 | 108,298      |
| 2    | 8542        | Electronic integrated circuits & microassembly                                   | 23,836       | 2711        | Petroleum gases & other gaseous hydrocarbons                                     | 30,183       | 2711        | Petroleum gases & other gaseous hydrocarbons                                     | 33,834       |
| 3    | 2711        | Petroleum gases & other gaseous hydrocarbons                                     | 21,789       | 8542        | Electronic integrated circuits & microassembly                                   | 25,370       | 2710        | Oil (not crude) from petroleum & bituminous minerals                             | 25,701       |
| 4    | 2710        | Oil (not crude) from petroleum & bituminous minerals                             | 17,330       | 2710        | Oil (not crude) from petroleum & bituminous minerals                             | 22,030       | 8542        | Electronic integrated circuits & microassembly                                   | 25,422       |
| 5    | 2701        | Coal, briquettes, ovoids   | 12,863       | 2601        | Iron ores & concentrates, including roast pyrites                                | 18,284       | 2701        | Coal, briquettes, ovoids   | 15,908       |
| 6    | 8486        | Manufacture of semiconductor boules or wafers                                    | 11,076       | 8486        | Manufacture of semiconductor boules or wafers                                    | 11,381       | 2601        | Iron ores & concentrates, including roast pyrites                                | 9,532        |
| 7    | 7208        | Flat-roll iron & non-alloy steel of width of 600mm or more, hot-rolled, not clad | 7,718        | 8517        | Electronic apparatus for line telephony, telephone sets                          | 10,336       | 8486        | Manufacture of semiconductor boules or wafers                                    | 8,219        |
| 8    | 2601        | Iron ores & concentrates, including roast pyrites                                | 6,646        | 7208        | Flat-roll iron & non-alloy steel of width of 600mm or more, hot-rolled, not clad | 8,493        | 7208        | Flat-roll iron & non-alloy steel of width of 600mm or more, hot-rolled, not clad | 5,995        |
| 9    | 8517        | Electronic apparatus for line telephony, telephone sets                          | 5,898        | 2603        | Copper ores and concentrates   | 7,775        | 8517        | Electronic apparatus for line telephony, telephone sets                          | 5,373        |
| 10   | 8541        | Semiconductor devices, light-emit diodes   | 4,683        | 7204        | Ferrous waste & scrap, remelting scrap iron/steel ingot                          | 5,634        | 7204        | Ferrous waste & scrap, remelting scrap iron/steel ingot                          | 4,867        |
|      |             | All Commodities  | 425,208      |             | All Commodities  | 524,405      |             | All Commodities  | 519,576      |

Source United Nations Commodity Trade (UNCOMTRADE) Database



## 5-17. Bilateral Exports of China

Unit: Million US\$

|    |   | China's Exports |         |         |   |     |        |        |        |
|----|---|-----------------|---------|---------|---|-----|--------|--------|--------|
|    | Japan   | 2010            | 2011    | 2012    |   | ROK | 2010   | 2011   | 2012   |
| 1  | Machinery and transport equipment               | 50,927          | 57,896  | 62,662  | Machinery and transport equipment               |     | 31,963 | 35,817 | 42,151 |
| 2  | Miscellaneous manufactured articles             | 34,831          | 42,791  | 45,938  | Manufactured goods                              |     | 15,927 | 20,463 | 19,142 |
| 3  | Manufactured goods                              | 14,707          | 20,426  | 18,747  | Miscellaneous manufactured articles             |     | 9,148  | 11,845 | 12,466 |
| 4  | Chemicals and related products, n.e.s.          | 7,605           | 11,024  | 8,894   | Chemicals and related products, n.e.s.          |     | 5,531  | 7,376  | 6,782  |
| 5  | Food and live animals                           | 8,252           | 9,883   | 10,767  | Food and live animals                           |     | 2,974  | 3,532  | 3,395  |
| 6  | Mineral fuels, lubricants and related materials | 2,032           | 3,087   | 2,472   | Mineral fuels, lubricants and related materials |     | 1,971  | 2,390  | 2,166  |
| 7  | Crude materials, inedible, except fuels         | 1,745           | 2,051   | 2,018   | Crude materials, inedible, except fuels         |     | 1,178  | 1,411  | 1,448  |
| 8  | Commodities and transactions, n.e.s.            | 856             | 1,014   | 6       | Animal and vegetable oils, fats and waxes       |     | 34     | 30     | 22     |
| 9  | Beverages and tobacco                           | 61              | 64      | 79      | Beverages and tobacco                           |     | 33     | 29     | 37     |
| 10 | Animal and vegetable oils, fats and waxes       | 28              | 33      | 43      | Commodities and transactions, n.e.s.            |     | 7      | 28     | 59     |
|    | Total   | 121,044         | 148,269 | 151,627 |   |     | 68,766 | 82,920 | 87,671 |

\* The products are categorized by SITC sections.

**Source** United Nations Conference on Trade and Development (UNCTAD) Statistics

## 5-18. Bilateral Imports of China

Unit: Million US \$

|    |   | China's Imports |         |            |   |            |            |            |
|----|---|-----------------|---------|------------|---|------------|------------|------------|
|    | Japan   | 2010            | 2011    | 2012       | ROK   | 2010       | 2011       | 2012       |
| 1  | Machinery and transport equipment               | 101,720         | 112,164 | 98,678,698 | Machinery and transport equipment               | 67,649,000 | 76,737,769 | 84,201,703 |
| 2  | Manufactured goods                              | 25,250          | 27,456  | 24,780,300 | Miscellaneous manufactured articles             | 25,261,376 | 27,573,815 | 26,744,734 |
| 3  | Chemicals and related products, n.e.s.          | 23,242          | 25,885  | 25,140,633 | Chemicals and related products, n.e.s.          | 22,013,294 | 27,355,934 | 27,913,372 |
| 4  | Miscellaneous manufactured articles             | 18,498          | 20,704  | 20,911,585 | Manufactured goods                              | 13,171,191 | 14,608,827 | 13,860,480 |
| 5  | Crude materials, inedible, except fuels         | 4,705           | 5,387   | 5,730,942  | Mineral fuels, lubricants and related materials | 7,841,627  | 12,727,966 | 11,540,278 |
| 6  | Mineral fuels, lubricants and related materials | 2,325           | 2,406   | 2,107,466  | Crude materials, inedible, except fuels         | 1,611,787  | 2,145,507  | 1,925,413  |
| 7  | Commodities and transactions, n.e.s.            | 481             | 294     | 157,996    | Commodities and transactions, n.e.s.            | 398,754    | 1,004,614  | 1,985,199  |
| 8  | Food and live animals                           | 483             | 250     | 284,907    | Food and live animals                           | 353,671    | 511,420    | 488,565    |
| 9  | Beverages and tobacco                           | 20              | 12      | 27,607     | Beverages and tobacco                           | 34,112     | 43,512     | 59,069     |
| 10 | Animal and vegetable oils, fats and waxes       | 12              | 10      | 12,202     | Animal and vegetable oils, fats and waxes       | 4,411      | 7,478      | 9,591      |
|    | Total   | 176,736         | 194,568 | 177,832    |   | 138,339    | 162,717    | 168,728    |

\* The products are categorized by SITC sections.

Source United Nations Conference on Trade and Development (UNCTAD) Statistics

## 5-19. Bilateral Trade of China in 2012 (Top 10 Merchandise Detailed Products)

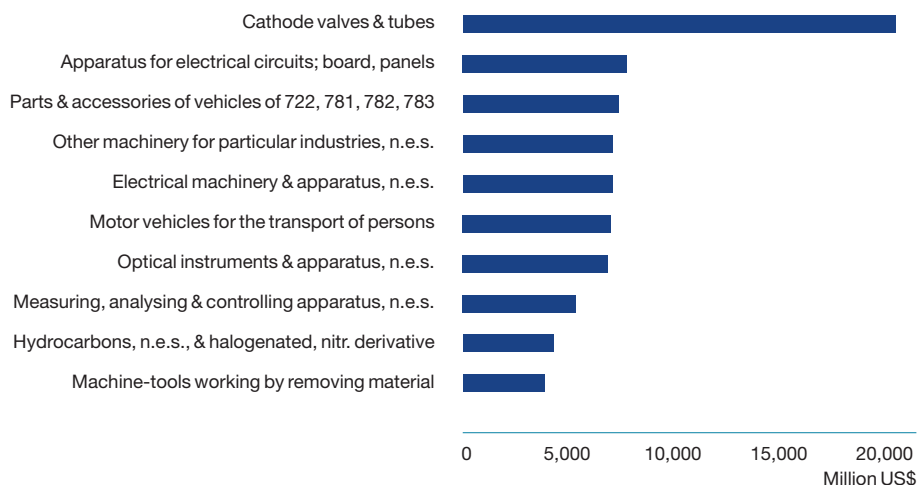
Unit: Million US \$

| Rank   | Japan   |        | ROK  |        |
|--------|---|--------|--|--------|
|        | Export  |        |  |        |
| 1      | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.  | 11,270 | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.   | 17,572 |
| 2      | [752] Automatic data processing machines, n.e.s.            | 9,792  | [776] Cathode valves & tubes                                 | 4,561  |
| 3      | [845] Articles of apparel, of textile fabrics, n.e.s.       | 7,522  | [752] Automatic data processing machines, n.e.s.             | 3,305  |
| 4      | [842] Women's clothing, of textile fabrics                  | 4,680  | [871] Optical instruments & apparatus, n.e.s.                | 2,898  |
| 5      | [821] Furniture & parts                                     | 3,863  | [675] Flat-rolled products of alloy steel                    | 2,453  |
| 6      | [841] Men's clothing of textile fabrics, not knitted        | 3,712  | [793] Ships, boats & floating structures                     | 2,301  |
| 7      | [775] Household type equipment, electrical or not, n.e.s.   | 3,712  | [676] Iron & steel bars, rods, angles, shapes & sections     | 2,213  |
| 8      | [776] Cathode valves & tubes                                | 3,505  | [772] Apparatus for electrical circuits; board, panels       | 1,729  |
| 9      | [894] Baby carriages, toys, games & sporting goods          | 3,251  | [682] Copper   | 1,684  |
| 10     | [772] Apparatus for electrical circuits; board, panels      | 2,879  | [674] Flat-rolled prod., iron, non-alloy steel, coated, clad | 1,610  |
| Import |   |        |  |        |
| 1      | [776] Cathode valves & tubes                                | 19,690 | [776] Cathode valves & tubes                                 | 43,104 |
| 2      | [772] Apparatus for electrical circuits; board, panels      | 8,187  | [871] Optical instruments & apparatus, n.e.s.                | 20,335 |
| 3      | [784] Parts & accessories of vehicles of 722, 781, 782, 783 | 7,699  | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.   | 10,090 |
| 4      | [728] Other machinery for particular industries, n.e.s.     | 7,221  | [334] Petroleum oils or bituminous minerals > 70 % oil       | 9,197  |
| 5      | [778] Electrical machinery & apparatus, n.e.s.              | 6,985  | [511] Hydrocarbons, n.e.s., & halogenated, nitr. derivative  | 8,573  |
| 6      | [781] Motor vehicles for the transport of persons           | 6,927  | [772] Apparatus for electrical circuits; board, panels       | 5,002  |
| 7      | [871] Optical instruments & apparatus, n.e.s.               | 6,910  | [513] Carboxylic acids, anhydrides, halides, per.; derivati. | 3,398  |
| 8      | [874] Measuring, analysing & controlling apparatus, n.e.s.  | 5,391  | [778] Electrical machinery & apparatus, n.e.s.               | 3,254  |
| 9      | [511] Hydrocarbons, n.e.s., & halogenated, nitr. derivative | 5,047  | [575] Other plastics, in primary forms                       | 3,066  |
| 10     | [731] Machine-tools working by removing material            | 4,917  | [784] Parts & accessories of vehicles of 722, 781, 782, 783  | 2,750  |

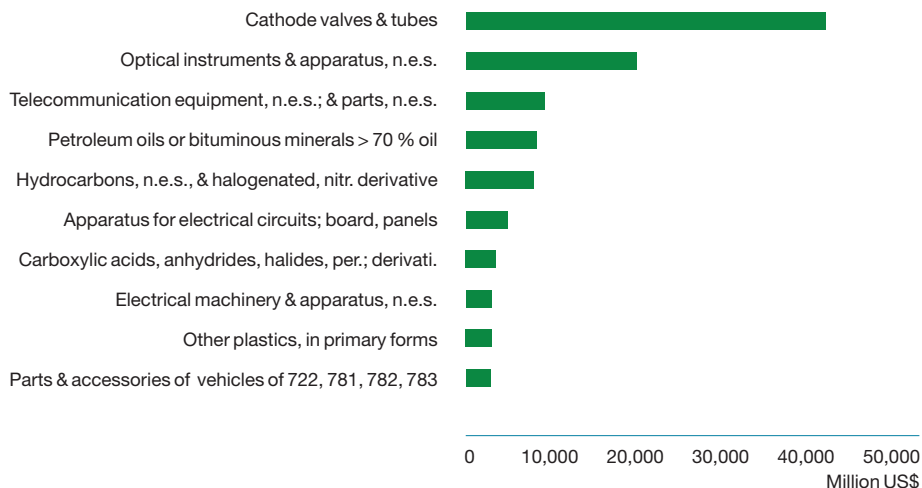
\* Product 722 is tractors, 781 motor vehicles for the transport of persons, 782 motor vehicles for transport of goods and for special purpose, and 783 road motor vehicles.

**Source** United Nations Conference on Trade and Development (UNCTAD) Statistics

## China's Import from Japan in 2012



## China's Import from ROK in 2012



## 5-20. Bilateral Exports of Japan

Unit: Million US \$

|    |   | Japan's Exports |         |         |   |        |        |        |
|----|---|-----------------|---------|---------|---|--------|--------|--------|
|    | China   | 2010            | 2011    | 2012    | ROK   | 2010   | 2011   | 2012   |
| 1  | Machinery and transport equipment               | 81,25           | 88,911  | 75,145  | Machinery and transport equipment               | 22,114 | 22,581 | 20,105 |
| 2  | Manufactured goods                              | 21,654          | 22,823  | 19,995  | Chemicals and related products, n.e.s.          | 14,671 | 15,918 | 14,901 |
| 3  | Chemicals and related products, n.e.s.          | 19,152          | 21,103  | 19,949  | Manufactured goods                              | 14,076 | 14,941 | 12,687 |
| 4  | Miscellaneous manufactured articles             | 12,553          | 14,644  | 14,582  | Miscellaneous manufactured articles             | 5,301  | 5,574  | 6,051  |
| 5  | Commodities and transactions, n.e.s.            | 7,668           | 6,787   | 6,711   | Commodities and transactions, n.e.s.            | 2,484  | 2,461  | 2,449  |
| 6  | Crude materials, inedible, except fuels         | 4,628           | 5,289   | 5,548   | Crude materials, inedible, except fuels         | 2,015  | 2,200  | 2,732  |
| 7  | Mineral fuels, lubricants and related materials | 2,058           | 2,171   | 1,891   | Mineral fuels, lubricants and related materials | 1,240  | 2,064  | 2,250  |
| 8  | Food and live animals                           | 473             | 300     | 324     | Food and live animals                           | 376    | 334    | 267    |
| 9  | Beverages and tobacco                           | 39              | 19      | 48      | Beverages and tobacco                           | 59     | 60     | 64     |
| 10 | Animal and vegetable oils, fats and waxes       | 14              | 15      | 15      | Animal and vegetable oils, fats and waxes       | 33     | 35     | 33     |
|    | Total   | 149,464         | 162,062 | 144,208 | Total   | 62,369 | 66,167 | 61,538 |

\* The products are categorized by SITC sections.

Source United Nations Conference on Trade and Development (UNCTAD) Statistics

## 5-21. Bilateral Imports of Japan

Unit: Million US \$

|    |   | Japan's Imports |         |         |   |        |        |        |
|----|---|-----------------|---------|---------|---|--------|--------|--------|
|    | China   | 2010            | 2011    | 2012    | ROK   | 2010   | 2011   | 2012   |
| 1  | Machinery and transport equipment               | 67,613          | 78,065  | 83,593  | Machinery and transport equipment               | 10,363 | 12,266 | 12,546 |
| 2  | Miscellaneous manufactured articles             | 46,121          | 54,681  | 57,583  | Mineral fuels, lubricants and related materials | 3,789  | 8,703  | 10,146 |
| 3  | Manufactured goods                              | 17,376          | 22,501  | 21,653  | Manufactured goods                              | 5,908  | 8,539  | 7,771  |
| 4  | Chemicals and related products, n.e.s.          | 8,646           | 13,190  | 10,222  | Chemicals and related products, n.e.s.          | 3,073  | 4,055  | 4,020  |
| 5  | Food and live animals                           | 7,851           | 9,172   | 9,833   | Miscellaneous manufactured articles             | 1,805  | 1,728  | 1,803  |
| 6  | Crude materials, inedible, except fuels         | 1,974           | 2,501   | 2,522   | Food and live animals                           | 1,403  | 1,652  | 1,721  |
| 7  | Mineral fuels, lubricants and related materials | 1,819           | 1,906   | 1,280   | Crude materials, inedible, except fuels         | 927    | 1,249  | 870    |
| 8  | Commodities and transactions, n.e.s.            | 1,646           | 1,696   | 1,615   | Commodities and transactions, n.e.s.            | 1,034  | 1,176  | 1,253  |
| 9  | Beverages and tobacco                           | 77              | 72      | 86      | Beverages and tobacco                           | 276    | 422    | 455    |
| 10 | Animal and vegetable oils, fats and waxes       | 31              | 35      | 47      | Animal and vegetable oils, fats and waxes       | 3      | 8      | 7      |
|    | Total   | 153,155         | 183,818 | 188,435 | Total   | 28,581 | 39,798 | 40,593 |

\* The products are categorized by SITC sections.

**Source**

United Nations Conference on Trade and Development (UNCTAD) Statistics

## 5-22. Bilateral Trade of Japan in 2012 (Top 10 Merchandise Detailed Products)

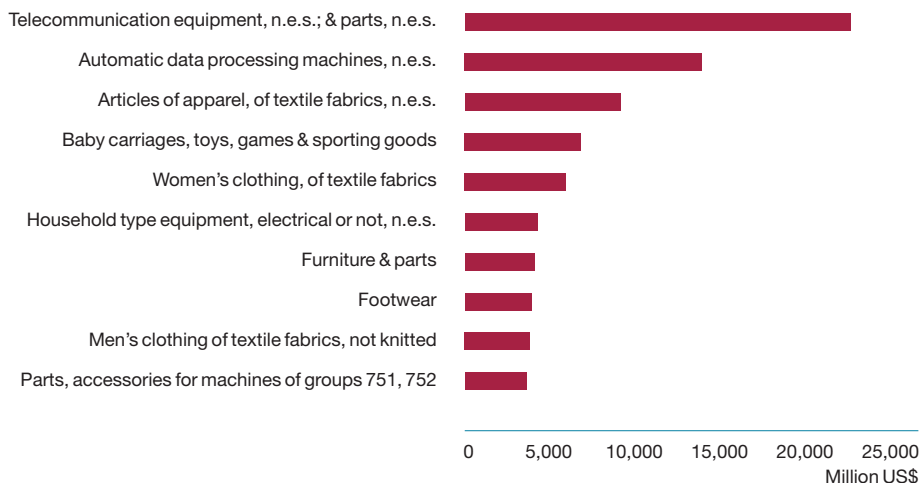
Unit: Million US\$

| Rank   | China   |        | ROK  |       |
|--------|---|--------|--|-------|
|        |   | Export |  |       |
| 1      | [776] Cathode valves & tubes                                | 12,268 | [728] Other machinery for particular industries, n.e.s.      | 4,511 |
| 2      | [784] Parts & accessories of vehicles of 722, 781, 782, 783 | 7,436  | [582] Plates, sheets, films, foil & strip, of plastics       | 3,632 |
| 3      | [728] Other machinery for particular industries, n.e.s.     | 6,332  | [511] Hydrocarbons, n.e.s., & halogenated, nitr. derivative  | 2,922 |
| 4      | [772] Apparatus for electrical circuits; board, panels      | 5,587  | [776] Cathode valves & tubes                                 | 2,796 |
| 5      | [781] Motor vehicles for the transport of persons           | 5,428  | [673] Flat-rolled prod., iron, non-alloy steel, not coated   | 2,774 |
| 6      | [511] Hydrocarbons, n.e.s., & halogenated, nitr. derivative | 4,782  | [598] Miscellaneous chemical products, n.e.s.                | 2,595 |
| 7      | [778] Electrical machinery & apparatus, n.e.s.              | 4,670  | [884] Optical goods, n.e.s.                                  | 2,063 |
| 8      | [871] Optical instruments & apparatus, n.e.s.               | 4,202  | [282] Ferrous waste, scrape; remelting ingots, iron, steel   | 2,040 |
| 9      | [731] Machine-tools working by removing material            | 4,131  | [874] Measuring, analysing & controlling apparatus, n.e.s.   | 1,968 |
| 10     | [874] Measuring, analysing & controlling apparatus, n.e.s.  | 3,614  | [772] Apparatus for electrical circuits; board, panels       | 1,878 |
| Import |   |        |  |       |
| 1      | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.  | 22,593 | [334] Petroleum oils or bituminous minerals > 70 % oil       | 9,590 |
| 2      | [752] Automatic data processing machines, n.e.s.            | 13,761 | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.   | 3,316 |
| 3      | [845] Articles of apparel, of textile fabrics, n.e.s.       | 8,842  | [776] Cathode valves & tubes                                 | 2,826 |
| 4      | [894] Baby carriages, toys, games & sporting goods          | 6,165  | [673] Flat-rolled prod., iron, non-alloy steel, not coated   | 1,748 |
| 5      | [842] Women's clothing, of textile fabrics                  | 5,753  | [681] Silver, platinum, other metals of the platinum group   | 1,207 |
| 6      | [775] Household type equipment, electrical or not, n.e.s.   | 4,258  | [778] Electrical machinery & apparatus, n.e.s.               | 761   |
| 7      | [821] Furniture & parts                                     | 4,226  | [784] Parts & accessories of vehicles of 722, 781, 782, 783  | 609   |
| 8      | [851] Footwear  | 3,975  | [034] Fish, fresh (live or dead), chilled or frozen          | 562   |
| 9      | [841] Men's clothing of textile fabrics, not knitted        | 3,966  | [674] Flat-rolled prod., iron, non-alloy steel, coated, clad | 540   |
| 10     | [759] Parts, accessories for machines of groups 751, 752    | 3,926  | [335] Residual petroleum products, n.e.s., related mater.    | 496   |

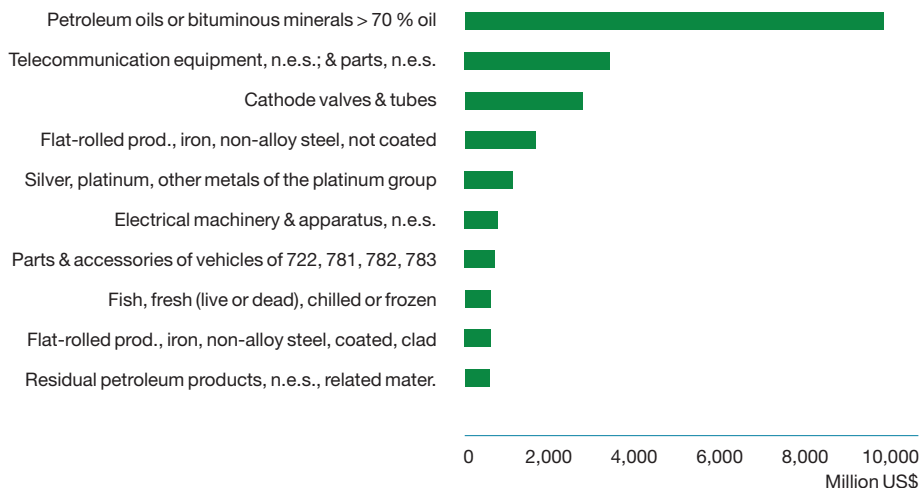
\* Product 751 is office machines, 752 automatic data processing machines, 722 tractors, 781 motor vehicles for the transport of persons, 782 motor vehicles for transport of goods and for special purpose, and 783 road motor vehicles.

Source United Nations Conference on Trade and Development (UNCTAD) Statistics

## Japan's Import from China in 2012



## Japan's Import from ROK in 2012





## 5-23. Bilateral Exports of ROK

Unit: Million US\$

|    |   | ROK 's Exports |         |         |   |        |        |        |
|----|---|----------------|---------|---------|---|--------|--------|--------|
|    | China   | 2010           | 2011    | 2012    | Japan   | 2010   | 2011   | 2012   |
| 1  | Machinery and transport equipment               | 52,565         | 56,427  | 57,902  | Machinery and transport equipment               | 9,503  | 11,603 | 12,092 |
| 2  | Chemicals and related products, n.e.s.          | 20,452         | 25,361  | 25,407  | Manufactured goods                              | 6,164  | 9,143  | 8,163  |
| 3  | Miscellaneous manufactured articles             | 23,011         | 25,242  | 25,907  | Mineral fuels, lubricants and related materials | 3,687  | 8,775  | 8,776  |
| 4  | Manufactured goods                              | 11,212         | 12,336  | 11,426  | Chemicals and related products, n.e.s.          | 3,346  | 4,278  | 4,207  |
| 5  | Mineral fuels, lubricants and related materials | 7,272          | 11,589  | 10,602  | Miscellaneous manufactured articles             | 2,922  | 2,592  | 2,584  |
| 6  | Crude materials, inedible, except fuels         | 1,546          | 2,088   | 1,937   | Food and live animals                           | 1,395  | 1,637  | 1,683  |
| 7  | Food and live animals                           | 580            | 921     | 868     | Crude materials, inedible, except fuels         | 792    | 1,145  | 795    |
| 8  | Commodities and transactions, n.e.s.            | 127            | 120     | 145     | Beverages and tobacco                           | 251    | 367    | 361    |
| 9  | Beverages and tobacco                           | 52             | 66      | 88      | Commodities and transactions, n.e.s.            | 111    | 127    | 126    |
| 10 | Animal and vegetable oils, fats and waxes       | 19             | 37      | 40      | Animal and vegetable oils, fats and waxes       | 6      | 12     | 10     |
|    | Total   | 116,838        | 134,185 | 134,322 | Total   | 28,176 | 39,679 | 38,796 |

\* The products are categorized by SITC sections.

**Source** United Nations Conference on Trade and Development (UNCTAD) Statistics

## 5-24. Bilateral Imports of ROK

Unit: Million US\$

|       |   | ROK 's Imports |        |        |   |        |        |        |      |
|-------|---|----------------|--------|--------|---|--------|--------|--------|------|
| China |   | 2010           | 2011   | 2012   | Japan   |        | 2010   | 2011   | 2012 |
| 1     | Machinery and transport equipment               | 33,029         | 37,903 | 35,999 | Machinery and transport equipment               | 24,516 | 25,449 | 22,600 |      |
| 2     | Manufactured goods                              | 16,466         | 21,148 | 19,290 | Chemicals and related products, n.e.s.          | 14,548 | 15,689 | 15,049 |      |
| 3     | Miscellaneous manufactured articles             | 10,335         | 12,739 | 12,608 | Manufactured goods                              | 14,889 | 15,662 | 13,667 |      |
| 4     | Chemicals and related products, n.e.s.          | 5,8467         | 7,734  | 7,075  | Miscellaneous manufactured articles             | 6,209  | 6,536  | 7,028  |      |
| 5     | Food and live animals                           | 2,642          | 3,139  | 2,835  | Crude materials, inedible, except fuels         | 2,135  | 2,381  | 2,979  |      |
| 6     | Mineral fuels, lubricants and related materials | 1,904          | 2,100  | 1,400  | Mineral fuels, lubricants and related materials | 1,123  | 1,827  | 2,426  |      |
| 7     | Crude materials, inedible, except fuels         | 1,283          | 1,594  | 1,448  | Food and live animals                           | 427    | 371    | 281    |      |
| 8     | Animal and vegetable oils, fats and waxes       | 28             | 28     | 20     | Commodities and transactions, n.e.s.            | 359    | 308    | 240    |      |
| 9     | Beverages and tobacco                           | 35             | 23     | 27     | Beverages and tobacco                           | 54     | 55     | 55     |      |
| 10    | Commodities and transactions, n.e.s.            | 5              | 23     | 80     | Animal and vegetable oils, fats and waxes       | 36     | 41     | 37     |      |
| Total |   | 71,573         | 86,431 | 80,782 | Total   | 64,296 | 68,320 | 64,363 |      |

\* The products are categorized by SITC sections.

**Source** United Nations Conference on Trade and Development (UNCTAD) Statistics

## 5-25. Bilateral Trade of ROK in 2012 (Top 10 Merchandise Detailed Products)

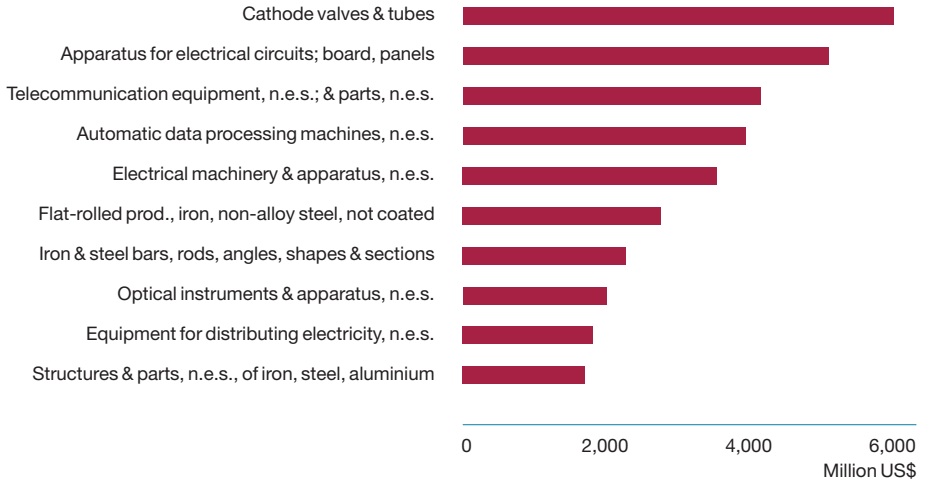
Unit: Million US\$

| Rank | China  |        | Japan  |       |
|------|--|--------|--|-------|
|      |  | Export |  |       |
| 1    | [871] Optical instruments & apparatus, n.e.s.                | 19,793 | [334] Petroleum oils or bituminous minerals > 70 % oil       | 8,335 |
| 2    | [776] Cathode valves & tubes                                 | 16,974 | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.   | 3,180 |
| 3    | [778] Electrical machinery & apparatus, n.e.s.               | 9,228  | [776] Cathode valves & tubes                                 | 2,433 |
| 4    | [334] Petroleum oils or bituminous minerals > 70 % oil       | 8,978  | [673] Flat-rolled prod., iron, non-alloy steel, not coated   | 1,689 |
| 5    | [511] Hydrocarbons, n.e.s., & halogenated, nitr. derivative  | 8,421  | [681] Silver, platinum, other metals of the platinum group   | 1,286 |
| 6    | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.   | 5,168  | [699] Manufactures of base metal, n.e.s.                     | 676   |
| 7    | [772] Apparatus for electrical circuits; board, panels       | 4,790  | [784] Parts & accessories of vehicles of 722, 781, 782, 783  | 673   |
| 8    | [784] Parts & accessories of vehicles of 722, 781, 782, 783  | 4,118  | [728] Other machinery for particular industries, n.e.s.      | 513   |
| 9    | [513] Carboxylic acids, anhydrides, halides, per.; derivati. | 3,308  | [778] Electrical machinery & apparatus, n.e.s.               | 512   |
| 10   | [575] Other plastics, in primary forms                       | 2,838  | [674] Flat-rolled prod., iron, non-alloy steel, coated, clad | 510   |
|      |  | Import |  |       |
| 1    | [776] Cathode valves & tubes                                 | 5,735  | [728] Other machinery for particular industries, n.e.s.      | 4,760 |
| 2    | [772] Apparatus for electrical circuits; board, panels       | 4,892  | [776] Cathode valves & tubes                                 | 3,814 |
| 3    | [764] Telecommunication equipment, n.e.s.; & parts, n.e.s.   | 4,110  | [582] Plates, sheets, films, foil & strip, of plastics       | 3,547 |
| 4    | [752] Automatic data processing machines, n.e.s.             | 4,008  | [673] Flat-rolled prod., iron, non-alloy steel, not coated   | 3,358 |
| 5    | [778] Electrical machinery & apparatus, n.e.s.               | 3,525  | [511] Hydrocarbons, n.e.s., & halogenated, nitr. derivative  | 2,780 |
| 6    | [673] Flat-rolled prod., iron, non-alloy steel, not coated   | 2,789  | [598] Miscellaneous chemical products, n.e.s.                | 2,673 |
| 7    | [676] Iron & steel bars, rods, angles, shapes & sections     | 2,241  | [282] Ferrous waste, scrape; remelting ingots, iron, steel   | 2,189 |
| 8    | [871] Optical instruments & apparatus, n.e.s.                | 2,067  | [884] Optical goods, n.e.s.                                  | 2,137 |
| 9    | [773] Equipment for distributing electricity, n.e.s.         | 1,981  | [772] Apparatus for electrical circuits; board, panels       | 2,051 |
| 10   | [691] Structures & parts, n.e.s., of iron, steel, aluminium  | 1,732  | [874] Measuring, analysing & controlling apparatus, n.e.s.   | 1,873 |

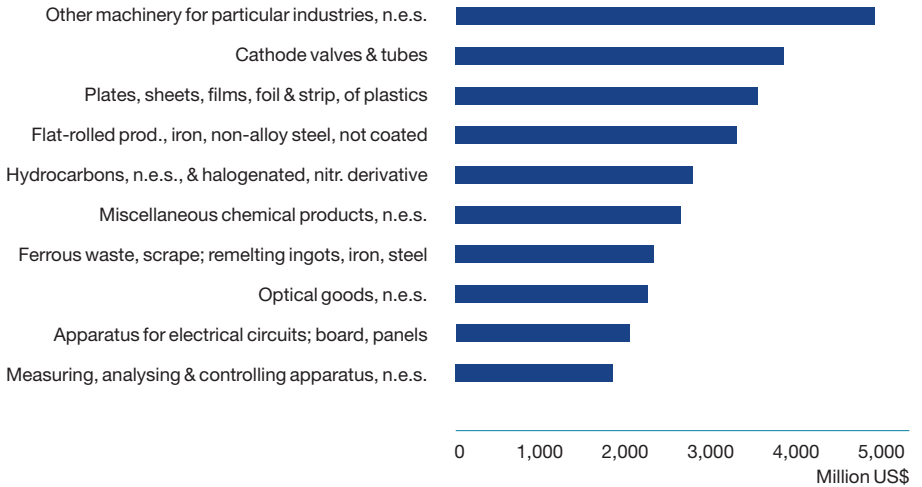
\* Product categories 722 is tractors, 781 motor vehicles for persons, 782 transport of goods and special purpose, and 783 road motor vehicles.

Source United Nations Conference on Trade and Development (UNCTAD) Statistics

## ROK's Import from China in 2012



## ROK's Import from Japan in 2012



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# 6

# Investment

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- 6-1. Investment of Each Country
- 6-2. Foreign Direct Investment Inflows
- 6-3. Foreign Direct Investment Outflows
- 6-4. Foreign Direct Investment Inward Stocks
- 6-5. Foreign Direct Investment Outward Stocks

## 6-1. Investment of Each country

Unit: Million US \$

| Foreign Direct Investment |         |          |         |
|---------------------------|---------|----------|---------|
|                           | China   | Japan    | ROK     |
| 2007                      | 143,100 | -51,000  | -17,935 |
| 2008                      | 121,700 | -103,593 | -16,941 |
| 2009                      | 70,300  | -62,761  | -14,948 |
| 2010                      | 124,900 | -57,515  | -22,184 |
| 2011                      | 170,400 | -116,111 | -15,694 |
| Portfolio Investment      |         |          |         |
|                           | China   | Japan    | ROK     |
| 2007                      | 18,700  | 70,074   | -26,058 |
| 2008                      | 42,700  | -282,403 | -2,406  |
| 2009                      | 38,700  | -219,144 | 49,728  |
| 2010                      | 24,000  | -150,938 | 42,480  |
| 2011                      | 19,600  | 161,959  | 10,312  |

\* Portfolio investment is a passive investment in securities, none of which entails active management or control of the securities' issuer by the investor.

| Other Investment |                        |          |         |
|------------------|------------------------|----------|---------|
|                  | China                  | Japan    | ROK     |
| 2007             | -69,700                | -209,217 | 32,788  |
| 2008             | -121,100               | 189,714  | -23,593 |
| 2009             | 67,900                 | 141,602  | 2,039   |
| 2010             | 72,400                 | 65,030   | -21,414 |
| 2011             | 25,500                 | 15,433   | -11,085 |
| <b>Source</b>    | Asian Development Bank |          |         |

## 6-2. Foreign Direct Investment Inflows

Unit: Million US \$

|             | by Partner Country |        |       |                           |        |       |                         |       |       |
|-------------|--------------------|--------|-------|---------------------------|--------|-------|-------------------------|-------|-------|
|             | China <sup>1</sup> |        |       | Japan (Reporting Country) |        |       | ROK (Reporting Country) |       |       |
|             | World              | Japan  | ROK   | World                     | China  | ROK   | World                   | China | Japan |
| <b>2001</b> | 44,241             | 1,483  | -272  | 17,927                    | 3.3    | 25    | 3,859                   | 47    | 524   |
| <b>2002</b> | 49,308             | 1,718  | -     | 17,455                    | 2.4    | 25    | 3,059                   | 81    | 377   |
| <b>2003</b> | 49,457             | 3,065  | 1,305 | 18,252                    | 2.6    | 33    | 3,888                   | 184   | 186   |
| <b>2004</b> | 62,108             | 4,539  | 2,291 | 37,232                    | 8.3    | 228   | 7,726                   | 696   | 1,735 |
| <b>2005</b> | 104,109            | 6,596  | -     | 2,778                     | 11.8   | 29    | 6,066                   | 2     | 1,469 |
| <b>2006</b> | 124,082            | 6,164  | 3,075 | -6,503                    | 12     | 108   | 4,964                   | 29    | 1,431 |
| <b>2007</b> | 156,249            | 6,203  | 4,913 | 22,548                    | 14.4   | 216   | 1,450                   | 47    | 633   |
| <b>2008</b> | 171,535            | 6,480  | 4,035 | 24,418                    | 36.8   | 283   | 7,603                   | 242   | 2,084 |
| <b>2009</b> | 131,057            | 6,938  | 3,545 | 11,939                    | -144.3 | 259   | 6,586                   | 67    | 1,592 |
| <b>2010</b> | 243,703            | 7,160  | 5,313 | -1,252                    | 314.5  | 267   | 8,117                   | 104   | 2,517 |
| <b>2011</b> | 280,000            | 12,582 | 4,977 | -1,757                    | 111.5  | 197.9 | 10,247                  | 158   | 2,213 |

1. Numbers of China's total FDI inflows are reported by OECD "FDI series from 1990 to Q2 2013" (Updated on October 17, 2013).

China's FDI inflows from Japan and ROK are cited from data of Japan and ROK's FDI outflows to China.

**Source** Organization for Economic Cooperation and Development (OECD)  
-FDI series from 1990 to Q2 2013 (Updated on October 17, 2013)  
-International Direct Investment Database

Unit: Million US \$

|             | by Industry     |     |                 |       |                            |      |              |       |                  |       |             |        |
|-------------|-----------------|-----|-----------------|-------|----------------------------|------|--------------|-------|------------------|-------|-------------|--------|
|             | Primary Sector* |     | Manufacturing** |       | Electricity, Gas and Water |      | Construction |       | Service Total*** |       | Unallocated |        |
|             | Japan           | ROK | Japan           | ROK   | Japan                      | ROK  | Japan        | ROK   | Japan            | ROK   | Japan       | ROK    |
| <b>2007</b> | 8               | 3   | 1,321           | 1,421 | -                          | 12   | 19           | -648  | 20,537           | 2,151 | 663         | -1,456 |
| <b>2008</b> | -1              | 30  | 2,269           | 670   | -                          | 107  | -61          | 183   | 20,909           | 4,620 | 1,302       | 1,995  |
| <b>2009</b> | -4              | 38  | 3,515           | 708   | -                          | 67   | 16           | 5     | 8,144            | 4,087 | 268         | 1,681  |
| <b>2010</b> | 73              | 8   | 1,905           | 2,365 | -                          | 93   | -1           | 21    | -3,708           | 4,582 | 479         | 1,048  |
| <b>2011</b> | -5              | 7.9 | 2,481           | 3,910 | -                          | 29.5 | -66.4        | -25.6 | -4,689           | 5,174 | 522.3       | 1,151  |

\* Primary Sector: agriculture and fishing, mining and quarrying

\*\* Manufacturing: food products, textiles and wearing apparel, wood, publishing and printing, chemical products, rubber and plastic products, etc.

\*\*\* Service Total: trade and repairs, hotel and restaurants, transports, storage and communication, financial intermediation etc.

**Source** International Direct Investment Database,  
Organization for Economic Cooperation and Development (OECD)

## 6-3. Foreign Direct Investment Outflows

Unit: Million US \$

|      | by Partner Country |        |     |                           |        |       |                         |       |       |
|------|--------------------|--------|-----|---------------------------|--------|-------|-------------------------|-------|-------|
|      | China <sup>1</sup> |        |     | Japan (Reporting Country) |        |       | ROK (Reporting Country) |       |       |
|      | World              | Japan  | ROK | World                     | China  | ROK   | World                   | China | Japan |
| 2001 | 6,884              | 3.3    | 47  | 32,554                    | 1,483  | 560   | 1,890                   | -272  | 75    |
| 2002 | 2,518              | 2.4    | 81  | 35,268                    | 1,718  | 609   | -                       | -     | -     |
| 2003 | -152               | 2.6    | 184 | 35,187                    | 3,065  | 277   | 3,515                   | 1,305 | 50    |
| 2004 | 1,805              | 8.3    | 696 | 35,332                    | 4,539  | 840   | 5,965                   | 2,291 | 289   |
| 2005 | 11,306             | 11.8   | 2   | 45,831                    | 6,596  | 1,786 | -                       | -     | -     |
| 2006 | 21,200             | 12     | 29  | 50,244                    | 6,164  | 1,520 | 9,942                   | 3,075 | 192   |
| 2007 | 17,000             | 14.4   | 47  | 73,546                    | 6,203  | 1,302 | 18,903                  | 4,913 | 486   |
| 2008 | 53,500             | 36.8   | 242 | 127,981                   | 6,480  | 2,367 | 17,304                  | 4,035 | 366   |
| 2009 | 43,900             | -144.3 | 67  | 74,699                    | 6,938  | 1,084 | 20,260                  | 3,545 | 340   |
| 2010 | 60,100             | 314.5  | 104 | 56,276                    | 7,160  | 1,067 | 26,821                  | 5,313 | 252   |
| 2011 | 48,400             | 111.5  | 158 | 114,302                   | 12,582 | 2,435 | 26,989                  | 4,977 | 130.5 |

1. Numbers of China's total FDI outflows are reported by OECD "FDI series from 1990 to Q2 2013" (Updated on October 17, 2013).

China's FDI outflows to Japan and ROK are cited from data of Japan and ROK's FDI inflows from China.

**Source** Organization for Economic Cooperation and Development (OECD)  
-FDI series from 1990 to Q2 2013 (Updated on October 17, 2013)  
-International direct investment database

Unit: Million US \$

|      | by Industry    |       |               |        |                            |       |              |       |               |       |             |      |
|------|----------------|-------|---------------|--------|----------------------------|-------|--------------|-------|---------------|-------|-------------|------|
|      | Primary Sector |       | Manufacturing |        | Electricity, Gas and water |       | Construction |       | Service total |       | Unallocated |      |
|      | Japan          | ROK   | Japan         | ROK    | Japan                      | ROK   | Japan        | ROK   | Japan         | ROK   | Japan       | ROK  |
| 2007 | 4,215          | 1,983 | 39,676        | 7,124  | -                          | 398   | 486          | 726   | 27,510        | 8,672 | 1,659       | 0    |
| 2008 | 10,545         | 3,565 | 44,987        | 5,474  | -                          | 71    | 390          | 689   | 70,005        | 7,505 | 2,055       | 0    |
| 2009 | 6,497          | 5,118 | 32,950        | 7,047  | -                          | 489   | 499          | 285   | 33,340        | 7,321 | 1,414       | 0    |
| 2010 | 9,279          | 7,118 | 17,670        | 10,133 | -                          | 295   | 299          | 157   | 27,016        | 9,115 | 2,013       | 0    |
| 2011 | 16,527         | 6,757 | 57,111        | 10,286 |                            | 512.8 | 434.6        | 303.9 | 37,385        | 9,102 | 2,844       | 26.5 |

\* Primary Sector: agriculture and fishing, mining and quarrying

\*\* Manufacturing: food products, textiles and wearing apparel, wood, publishing and printing, chemical products, rubber and plastic products, etc.

\*\*\* Service Total: trade and repairs, hotel and restaurants, transports, storage and communication, financial intermediation etc.

**Source** International Direct Investment Database,  
Organization for Economic Cooperation and Development (OECD)



## 6-4. Foreign Direct Investment Inward Stocks

Unit: Million US \$

|             | by Partner Country |        |        |                           |       |       |                         |       |        |
|-------------|--------------------|--------|--------|---------------------------|-------|-------|-------------------------|-------|--------|
|             | China <sup>1</sup> |        |        | Japan (Reporting Country) |       |       | ROK (Reporting Country) |       |        |
|             | World              | Japan  | ROK    | World                     | China | ROK   | World                   | China | Japan  |
| <b>2001</b> | -                  | 10,018 | 4,386  | 50,320                    | 72    | 190   | 41,282                  | 138   | 6,614  |
| <b>2002</b> | -                  | 1,236  | -      | 78,143                    | 80    | 209   | 44,341                  | 219   | 6,991  |
| <b>2003</b> | -                  | 15,277 | 6,441  | 89,729                    | 90    | 244   | 48,229                  | 404   | 7,177  |
| <b>2004</b> | 368,970            | 20,142 | 8,852  | 96,987                    | 89    | 535   | 55,955                  | 1,100 | 8,912  |
| <b>2005</b> | 471,549            | 24,553 | -      | 100,901                   | 102   | 311   | 62,020                  | 1,102 | 10,381 |
| <b>2006</b> | 612,508            | 30,309 | 14,533 | 107,636                   | 100   | 423   | 70,951                  | 1,131 | 11,766 |
| <b>2007</b> | 703,667            | 37,505 | 23,728 | 132,854                   | 124   | 689   | 67,842                  | 1,178 | 12,419 |
| <b>2008</b> | 915,524            | 48,747 | 31,823 | 203,369                   | 224   | 1,229 | 75,446                  | 1,326 | 13,533 |
| <b>2009</b> | 1,314,800          | 55,090 | 31,388 | 200,153                   | 197   | 1,445 | 117,732                 | 1,056 | 27,091 |
| <b>2010</b> | 1,476,400          | 66,531 | 57,278 | 214,890                   | 399   | 1,935 | 134,234                 | 1,078 | 32,403 |

1. Numbers of China's total FDI inward stocks are reported by OECD "FDI series from 1990 to Q2 2012" (Updated on October 21, 2012).

China's FDI inward stocks from Japan and ROK are cited from data of Japan and ROK's FDI outward stocks to China.

**Source** Organization for Economic Cooperation and Development (OECD)  
-FDI series from 1990 to Q2 2012 (Updated on October 21, 2012)  
-International Direct Investment Database

Unit: Million US \$

|             | by Industry    |     |               |        |                            |       |              |     |               |        |             |        |
|-------------|----------------|-----|---------------|--------|----------------------------|-------|--------------|-----|---------------|--------|-------------|--------|
|             | Primary Sector |     | Manufacturing |        | Electricity, Gas and water |       | Construction |     | Service total |        | Unallocated |        |
|             | Japan          | ROK | Japan         | ROK    | Japan                      | ROK   | Japan        | ROK | Japan         | ROK    | Japan       | ROK    |
| <b>2007</b> | 101            | 404 | 50,090        | 22,418 | -                          | 581   | 161          | -99 | 75,697        | 35,759 | 6,804       | 8,988  |
| <b>2008</b> | 142            | 404 | 74,702        | 21,549 | -                          | 642   | 212          | 78  | 118,131       | 32,847 | 10,182      | 19,926 |
| <b>2009</b> | 131            | 651 | 70,063        | 32,364 | -                          | 1,025 | 190          | 122 | 119,624       | 56,781 | 10,144      | 26,788 |
| <b>2010</b> | 228            | 185 | 76,275        | 52,634 | -                          | 501   | 193          | 340 | 126,188       | 72,826 | 12,005      | 7,749  |

\* Primary Sector: agriculture and fishing, mining and quarrying

\*\* Manufacturing: food products, textiles and wearing apparel, wood, publishing and printing, chemical products, rubber and plastic products, etc.)

\*\*\* Service Total: trade and repairs, hotel and restaurants, transports, storage and communication, financial intermediation etc.

**Source** International Direct Investment Database,  
Organization for Economic Cooperation and Development (OECD)

## 6-5. Foreign Direct Investment Outward Stocks

Unit: Million US \$

|      | by Partner Country |       |       |                           |        |        |                         |        |       |
|------|--------------------|-------|-------|---------------------------|--------|--------|-------------------------|--------|-------|
|      | China <sup>1</sup> |       |       | Japan (Reporting Country) |        |        | ROK (Reporting Country) |        |       |
|      | World              | Japan | ROK   | World                     | China  | ROK    | World                   | China  | Japan |
| 2001 | -                  | 72    | 138   | 300,116                   | 10,018 | 4,380  | 28,706                  | 4,386  | 528   |
| 2002 | -                  | 80    | 219   | 304,234                   | 12,354 | 5,222  | -                       | -      | -     |
| 2003 | -                  | 90    | 404   | 335,504                   | 15,277 | 5,068  | 33,844                  | 6,441  | 643   |
| 2004 | 52,704             | 89    | 1,100 | 370,542                   | 20,142 | 6,580  | 39,936                  | 8,852  | 861   |
| 2005 | 64,493             | 102   | 1,102 | 386,583                   | 24,553 | 8,217  | -                       | -      | -     |
| 2006 | 90,630             | 100   | 1,131 | 449,567                   | 30,309 | 10,667 | 54,075                  | 14,533 | 1,153 |
| 2007 | 115,960            | 124   | 1,178 | 542,618                   | 37,505 | 12,010 | 74,777                  | 23,728 | 1,881 |
| 2008 | 185,694            | 224   | 1,326 | 680,313                   | 48,747 | 12,117 | 98,483                  | 31,823 | 2,707 |
| 2009 | 245,800            | 197   | 1,056 | 740,962                   | 55,090 | 12,613 | 115,450                 | 31,388 | 2,470 |
| 2010 | 310,800            | 399   | 1,078 | 831,111                   | 66,531 | 15,054 | 254,716                 | 57,278 | 5,288 |

1. Numbers of China's total FDI outward stocks are reported by OECD "FDI series from 1990 to Q2 2012" (Updated on October 21, 2012).

China's FDI outward stocks to Japan and ROK are cited from data of Japan and ROK's FDI inward stocks from China.

**Source** Organization for Economic Cooperation and Development (OECD)  
-FDI series from 1990 to Q2 2012 (Updated on October 21, 2012)  
-International Direct Investment Database

Unit: Million US \$

|      | by Industry    |        |               |         |                            |       |              |       |               |        |             |     |
|------|----------------|--------|---------------|---------|----------------------------|-------|--------------|-------|---------------|--------|-------------|-----|
|      | Primary Sector |        | Manufacturing |         | Electricity, Gas and water |       | Construction |       | Service total |        | Unallocated |     |
|      | Japan          | ROK    | Japan         | ROK     | Japan                      | ROK   | Japan        | ROK   | Japan         | ROK    | Japan       | ROK |
| 2007 | 19,223         | 5,936  | 300,801       | 37,068  | -                          | 689   | 1,257        | 1,766 | 205,266       | 29,318 | 16,071      | 0   |
| 2008 | 32,758         | 10,922 | 334,235       | 43,539  | -                          | 484   | 1,489        | 2,355 | 293,249       | 41,184 | 18,582      | 0   |
| 2009 | 43,235         | 14,057 | 354,162       | 49,574  | -                          | 1,047 | 2,046        | 2,742 | 321,709       | 48,030 | 19,811      | 0   |
| 2010 | 53,452         | 47,513 | 385,041       | 108,526 | -                          | 2,974 | 2,576        | 4,388 | 367,300       | 91,315 | 22,743      | 0   |

\* Primary Sector: agriculture and fishing, mining and quarrying

\*\* Manufacturing: food products, textiles and wearing apparel, wood, publishing and printing, chemical products, rubber and plastic products, etc.)

\*\*\* Service Total: trade and repairs, hotel and restaurants, transports, storage and communication, financial intermediation etc.

**Source** International Direct Investment Database,  
Organization for Economic Cooperation and Development (OECD)

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# 7

# Free Trade Agreement

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- 7-1. FTA of the Three Countries (Negotiation Concluded)
- 7-2. FTA of the Three Countries (Under Negotiation)
- 7-3. FTA of the Three Countries (Under Discussion)
- 7-4. Economic Effects of China-Japan-ROK FTA  
(Estimation as of 2005)

## 7-1. FTA of the Three Countries (Negotiation Concluded)

| Current Situation     | China (9)   |            |                   | Japan (13)         |           |                   | ROK (11)  |            |                   |
|-----------------------|-------------|------------|-------------------|--------------------|-----------|-------------------|-----------|------------|-------------------|
| Negotiation Concluded | Partner     | In effect  | Type of Agreement | Partner            | In effect | Type of Agreement | Partner   | In effect  | Type of Agreement |
|                       | ASEAN       | Jul. 2005  | FTA               | Singapore          | Nov.2002  | EPA <sup>1</sup>  | Chile     | Apr. 2004  | FTA               |
|                       | Chile       | Oct. 2006  | FTA               | Mexico             | Apr. 2005 | EPA               | Singapore | Mar. 2006  | FTA               |
|                       | Pakistan    | Jul. 2007  | FTA               | Malaysia           | Jul. 2006 | EPA               | EFTA      | Sep. 2006  | FTA               |
|                       | New Zealand | Oct. 2008  | FTA               | Chile              | Sep. 2007 | EPA               | ASEAN     | Jun. 2007  | FTA               |
|                       | Singapore   | Jan. 2009  | FTA               | Thailand           | Nov. 2007 | EPA               | India     | Jan. 2010  | CEPA <sup>2</sup> |
|                       | Peru        | Mar. 2010  | FTA               | Brunei Darus-salam | Jul. 2008 | EPA               | EU        | Jul. 2011  | FTA               |
|                       | Costa Rica  | Aug. 2011  | FTA               | Indonesia          | Jul. 2008 | EPA               | Peru      | Aug. 2011  | FTA               |
|                       | Iceland     | Apr. 2013* | FTA               | ASEAN              | Dec. 2008 | EPA               | USA       | Mar. 2012  | FTA               |
|                       | Switzerland | Jul. 2013* | FTA               | Philippines        | Dec. 2008 | EPA               | Columbia* | Aug. 2012  | FTA               |
|                       |             |            |                   | Switzerland        | Sep. 2009 | EPA               | Turkey    | May. 2013  | FTA               |
|                       |             |            |                   | Viet Nam           | Oct. 2009 | EPA               | Australia | Dec. 2013* | FTA               |
|                       |             |            |                   | India              | Aug. 2011 | EPA               |           |            |                   |
|                       |             |            |                   | Peru               | Mar. 2012 | EPA               |           |            |                   |

\* Signed dates

1 EPA: Economic Partnership Agreement

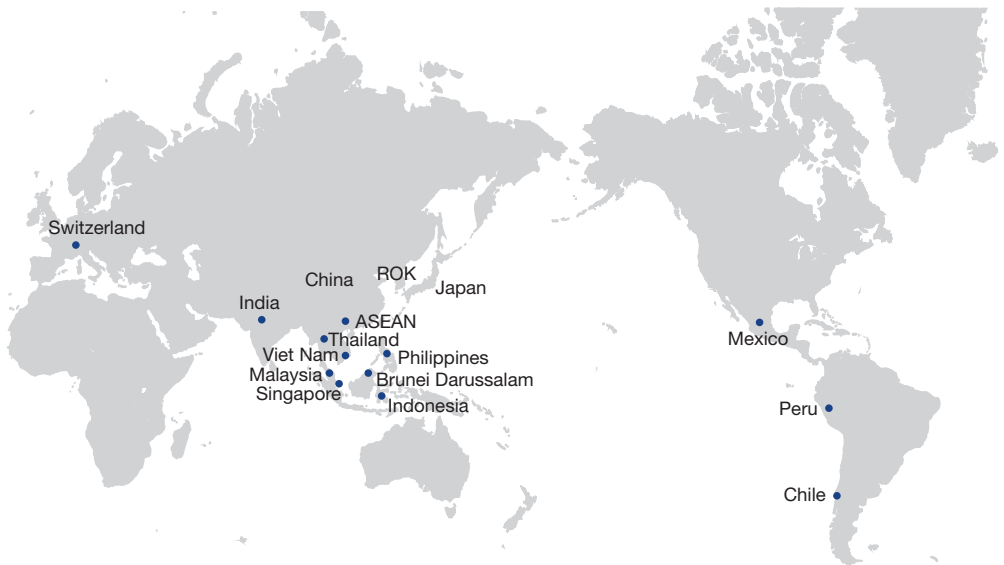
2 CEPA: Comprehensive Economic Partnership Agreement

**Source** Ministry of Commerce of China, Ministry of Foreign Affairs of Japan, Ministry of Foreign Affairs and Trade of ROK

## FTA Partners of China



## FTA Partners of Japan



# FTA Partners of ROK



## 7-2. FTA of the Three Countries (Under Negotiation)

| Current Situation | China (7) * |                    |                   | Japan (10) |                    |                   | ROK (10)    |                    |                   |
|-------------------|-------------|--------------------|-------------------|------------|--------------------|-------------------|-------------|--------------------|-------------------|
| Under Negotiation | Partner     | Negotiation Launch | Type of Agreement | Partner    | Negotiation Launch | Type of Agreement | Partner     | Negotiation Launch | Type of Agreement |
|                   | GCC         | Jul. 2004          | FTA               | ROK**      | Oct. 2003          | EPA/FTA           | Japan**     | Dec. 2003          | FTA/EPA           |
|                   | SACU        | Jun. 2004          | FTA               | GCC        | Sep. 2006          | EPA               | Canada      | Jul. 2005          | FTA               |
|                   | Australia   | Oct. 2006          | FTA               | Australia  | Apr. 2007          | EPA               | Mexico***   | Sep. 2005          | FTA               |
|                   | Norway      | Apr. 2007          | FTA               | Mongolia   | Mar. 2012          | EPA               | GCC****     | Nov. 2007          | FTA               |
|                   | ROK         | Apr. 2011          | FTA               | Canada     | Mar. 2012          | EPA               | New Zealand | Jul. 2009          | FTA               |
|                   | RCEP        | Mar. 2013          | FTA               | Colombia   | Dec. 2012          | EPA               | China       | Apr. 2011          | FTA               |
|                   | CJK         | Mar. 2013          | FTA               | CJK        | Mar. 2013          | FTA               | Indonesia   | Nov. 2011          | FTA               |
|                   |             |                    |                   | EU         | Apr. 2013          | EPA               | Vietnam     | Nov. 2011          | FTA               |
|                   |             |                    |                   | RCEP       | Mar. 2013          | FTA               | CJK         | Mar. 2013          | FTA               |
|                   |             |                    |                   | TPP        | Jul. 2013          | FTA               | RCEP        | May 2013           | FTA               |

\* Indicate the date of the first negotiation.

\*\* Japan-ROK FTA Negotiations have been suspended since 2004.

\*\*\* ROK-Mexico FTA Negotiations have been suspended since 2005.

\*\*\*\* ROK-GCC FTA Negotiations have been suspended since 2009.

**Source** Ministry of Commerce of China, Ministry of Foreign Affairs of Japan, Ministry of Foreign Affairs and Trade of ROK

### 7-3. FTA of the Three Countries (Under Discussion)

| Current Situation |   | China (2)         |         | Japan (1)         |                 | ROK (7)           |  |
|-------------------|---|-------------------|---------|-------------------|-----------------|-------------------|--|
| Under Discussion  | Partner   | Type of Agreement | Partner | Type of Agreement | Partner         | Type of Agreement |  |
|                   | India   | FTA               | Turkey  | EPA               | MERCOSUR        | FTA               |  |
|                   | MERCOSUR  | FTA               |         |                   | Israel          | FTA               |  |
|                   |   |                   |         |                   | Central America | FTA               |  |
|                   |   |                   |         |                   | Malaysia        | FTA               |  |
| <b>Source</b>     | Ministry of Commerce of China, Ministry of Foreign Affairs of Japan, Ministry of Foreign Affairs and Trade of ROK |                   |         |                   |                 |                   |  |



## 7-4. Economic Effects of China-Japan-ROK FTA (Estimation as of 2005)

Unit: %, Million US \$

|   | GDP Growth Rate |       | Economic Welfare Gains |
|---|-----------------|-------|------------------------|
| <b>China</b>                                  | 0.30            |       | 3,349                  |
| <b>Japan</b>                                  | 0.37            |       | 16,760                 |
| <b>ROK</b>                                    | 3.55            |       | 12,446                 |
| Cross-sector Industrial Impacts of the CJKFTA |                 |       |                        |
|   | China           | Japan | ROK                    |
| <b>Agriculture</b>                            | +               | -     | -                      |
| <b>Fishery</b>                                | +               | /     | -                      |
| <b>Textile</b>                                | +               | -     | +                      |
| <b>Electronics</b>                            | +               | /     | +                      |
| <b>General Machinery</b>                      | -               | +     | -                      |
| <b>Steel</b>                                  | /               | +     | /                      |
| <b>Automobiles</b>                            | -               | +     | /                      |
| <b>Chemical</b>                               | -               | +     | +                      |

\* + means the output increases, - means the output decreases, and / means the impact is quite small

**Source** Trilateral Joint Research by the Development Research Center of China, National Institute for Research Advancement of Japan and Korea Institute for International Economic Policy (2005) 'Joint Report and Policy Recommendation on Towards a CJKFTA: Visions and Tasks'

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# 8

# Finance

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- 8-1. Balance of Payment
- 8-2. Government Finance
- 8-3. Government Debts
- 8-4. Interest Rate and Savings
- 8-5. Currency Exchange Rates
- 8-6. Expenditure on R&D
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- 8-8. Military Expenditure
- 8-9. Bond Market (LCY Bonds)
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- 8-11. Stock Market (Growth Rate)
- 8-12. Stock Market (Capitalization)

## 8-1. Balance of Payment

Unit: Million US\$ (% of GDP)

| Current Account Balance (BoP) and % of GDP |                |               |              |
|--|----------------|---------------|--------------|
|  | China          | Japan         | ROK          |
| 2002                                       | 35,422 (2.4)   | 112,447 (2.8) | 7,542 (1.3)  |
| 2003                                       | 43,052 (2.6)   | 136,216 (3.2) | 15,584 (2.4) |
| 2004                                       | 68,941 (3.6)   | 172,059 (3.7) | 32,312 (4.5) |
| 2005                                       | 132,378 (5.9)  | 165,783 (3.6) | 18,607 (2.2) |
| 2006                                       | 231,843 (8.5)  | 171,078 (3.9) | 14,083 (1.5) |
| 2007                                       | 353,183 (10.1) | 211,685 (4.9) | 21,770 (2.1) |
| 2008                                       | 420,569 (9.3)  | 159,363 (3.3) | 3,197 (0.3)  |
| 2009                                       | 243,257 (4.9)  | 147,017 (2.9) | 32,791 (3.9) |
| 2010                                       | 237,810 (4.0)  | 203,916 (3.7) | 29,394 (2.9) |
| 2011                                       | 136,097 (1.9)  | 119,064 (2.0) | 26,068 (2.3) |
| 2012                                       | 193,139 (2.3)  | 60,859 (1.0)  | 43,335 (3.8) |

\* At current prices

\*\* Current account is the sum of the balance of trade (i.e., earnings on exports of goods and services minus payments for imports of goods and services), net factor income (earnings on foreign investments minus payments made to foreign investors) and net cash transfers.

Source

World Bank

## 8-2. Government Finance

Unit: National Currency

|               | China (Billion Yuan)   |         |                   |                                   |
|---------------|------------------------|---------|-------------------|-----------------------------------|
|               | Total Revenue          | Taxes   | Total Expenditure | Overall Budgetary Surplus/Deficit |
| 2008          | 6,133                  | 5,422   | 6,259             | -126                              |
| 2009          | 6,852                  | 5,952   | 7,630             | -778                              |
| 2010          | 8,310                  | 7,321   | 8,987             | -677                              |
| 2011          | 10,387                 | 8,974   | 10,925            | -537                              |
| 2012          | 11,721                 | 10,060  | 12,571            | -850                              |
|               | Japan (Billion Yen)    |         |                   |                                   |
|               | Total Revenue          | Taxes   | Total Expenditure | Overall Budgetary Surplus/Deficit |
| 2008          | 65,043                 | 45,053  | 79,811            | -14,768                           |
| 2009          | 54,424                 | 39,616  | 90,126            | -35,702                           |
| 2010          | 54,132                 | 42,830  | 86,674            | -32,542                           |
| 2011          | 53,408                 | 44,506  | 92,327            | -38,919                           |
| 2012          | n/a                    | n/a     | n/a               | n/a                               |
|               | ROK (Billion Won)      |         |                   |                                   |
|               | Total Revenue          | Taxes   | Total Expenditure | Overall Budgetary Surplus/Deficit |
| 2008          | 250,713                | 167,306 | 233,354           | -34,571                           |
| 2009          | 255,252                | 164,542 | 254,823           | -42,602                           |
| 2010          | 270,923                | 177,718 | 251,146           | -31,826                           |
| 2011          | 292,323                | 192,381 | 269,768           | -31,783                           |
| 2012          | 311,456                | 203,015 | 286,921           | -30,599                           |
| <b>Source</b> | Asian Development Bank |         |                   |                                   |

## 8-3. Government Debts

Unit: National Currency (% of GDP)

| General Government Gross Debt and % of GDP |   |                     |                   |
|--|---|---------------------|-------------------|
|  | China (Billion Yuan)  | Japan (Billion Yen) | ROK (Billion Won) |
| 2002                                       | 2,279 (18.9)  | 818,561 (164.0)     | 133,730 (18.6)    |
| 2003                                       | 2,614 (19.2)  | 845,917 (169.6)     | 165,825 (21.6)    |
| 2004                                       | 2,963 (18.5)  | 910,015 (180.7)     | 203,687 (24.6)    |
| 2005                                       | 3,261 (17.6)  | 939,458 (186.4)     | 247,972 (28.7)    |
| 2006                                       | 3,502 (16.2)  | 942,424 (186.0)     | 282,783 (31.1)    |
| 2007                                       | 5,207 (19.6)  | 938,808 (183.0)     | 298,902 (30.7)    |
| 2008                                       | 5,327 (17.0)  | 961,380 (191.8)     | 309,046 (30.1)    |
| 2009                                       | 6,024 (17.8)  | 990,554 (210.2)     | 359,609 (33.8)    |
| 2010                                       | 13,466 (33.5)   | 1,037,243 (215.3)   | 392,238 (33.4)    |
| 2011                                       | 13,588 (28.7)   | 1,083,750 (230.3)   | 422,839 (34.2)    |
| 2012                                       | 13,547 (26.1)   | 1,131,983 (238.0)   | 445,133 (35.0)    |
| <b>Source</b>                              | World Economic Outlook Database (October 2013)<br>International Monetary Fund (IMF) |                     |                   |

## 8-4. Interest Rate and Savings

Unit: %

| Lending Interest Rate and Savings Rate |                                   |       |     |              |       |      |
|--|-----------------------------------|-------|-----|--------------|-------|------|
|  | Lending Interest Rate             |       |     | Savings Rate |       |      |
|  | China                             | Japan | ROK | China        | Japan | ROK  |
| 2008                                   | 5.3                               | 1.9   | 7.2 | 53.2         | 26.2  | 30.7 |
| 2009                                   | 5.3                               | 1.7   | 5.7 | 53.5         | 22.5  | 30.3 |
| 2010                                   | 5.8                               | 1.6   | 5.5 | 52.8         | 23.3  | 31.7 |
| 2011                                   | 6.6                               | 1.5   | 5.8 | 52.8         | 23.3  | 31.7 |
| 2012                                   | 6.0                               | 1.4   | 5.4 | 52.8         | 23.3  | 31.7 |
| Source                                 | International Monetary Fund (IMF) |       |     | World Bank   |       |      |

Unit: %

| Gross Domestic Savings in GDP |       |       |      |
|-------------------------------|-------|-------|------|
|                               | China | Japan | ROK  |
| 2001                          | 38.6  | 25.7  | 31.3 |
| 2002                          | 40.4  | 23.8  | 30.7 |
| 2003                          | 43.1  | 24.1  | 32.2 |
| 2004                          | 45.6  | 24.5  | 34.1 |
| 2005                          | 47.1  | 23.9  | 32.3 |
| 2006                          | 49.3  | 23.9  | 31.0 |
| 2007                          | 50.5  | 24.6  | 30.9 |
| 2008                          | 51.6  | 23.2  | 30.0 |
| 2009                          | 51.8  | 20.0  | 29.9 |
| 2010                          | 51.9  | 21.0  | 32.2 |
| 2011                          | 51.8  | 19.0  | 31.7 |

\* Savings rate is the total amount of savings divided by the amount of disposable income of the country.

Source UN Economic and Social Survey of Asia and the Pacific 2012, UN ESCAP

## 8-5. Currency Exchange Rates

Unit: National Currency Unit per US\$ (Annual Average)

|        | China (Yuan)      | Japan (Yen) | ROK (Won) |
|--------|-------------------|-------------|-----------|
| 2002   | 8.3               | 125.3       | 1,251.0   |
| 2003   | 8.3               | 115.9       | 1,191.0   |
| 2004   | 8.3               | 108.1       | 1,145.2   |
| 2005   | 8.2               | 110.1       | 1,024.2   |
| 2006   | 8.0               | 116.4       | 951.8     |
| 2007   | 7.6               | 117.8       | 929.5     |
| 2008   | 6.9               | 103.4       | 1,100.9   |
| 2009   | 6.8               | 93.6        | 1,274.9   |
| 2010   | 6.8               | 87.8        | 1,155.4   |
| 2011   | 6.5               | 79.8        | 1,107.8   |
| 2012   | 6.3               | 79.8        | 1,126.5   |
| Source | OECD StatExtracts |             |           |

## 8-6. Expenditure on R&D

Unit: % of GDP

|               | Gross Domestic Expenditure                                   |       |      | Government-Financed Expenditure |       |      | Industry-Financed Expenditure |       |      |
|---------------|--|-------|------|---------------------------------|-------|------|-------------------------------|-------|------|
|               | China  | Japan | ROK  | China                           | Japan | ROK  | China                         | Japan | ROK  |
| <b>2007</b>   | 1.40   | 3.46  | 3.21 | 0.34                            | 0.54  | 0.80 | 0.98                          | 2.69  | 2.36 |
| <b>2008</b>   | 1.47   | 3.47  | 3.36 | 0.35                            | 0.54  | 0.85 | 1.05                          | 2.71  | 2.45 |
| <b>2009</b>   | 1.70   | 3.36  | 3.56 | 0.40                            | 0.59  | 0.98 | 1.22                          | 2.53  | 2.53 |
| <b>2010</b>   | 1.76   | 3.25  | 3.74 | 0.42                            | 0.56  | 1.00 | 1.26                          | 2.47  | 2.68 |
| <b>2011</b>   | 1.84   | 3.39  | 4.03 | 0.40                            | 0.56  | 1.00 | 1.36                          | 2.59  | 2.97 |
| <b>Source</b> | Main Science & Technology Indicators database, June 2013     |       |      |                                 |       |      |                               |       |      |
|               | Organization for Economic Cooperation and Development (OECD) |       |      |                                 |       |      |                               |       |      |



## 8-7. Expenditure on Health

Unit:% of GDP

|        | China      | Japan | ROK |
|--------|------------|-------|-----|
| 2002   | 4.8        | 8.0   | 5.1 |
| 2003   | 4.8        | 8.1   | 5.4 |
| 2004   | 4.7        | 8.0   | 5.4 |
| 2005   | 4.7        | 8.2   | 5.7 |
| 2006   | 4.6        | 8.2   | 6.0 |
| 2007   | 4.4        | 8.2   | 6.3 |
| 2008   | 4.6        | 8.5   | 6.5 |
| 2009   | 5.1        | 9.5   | 6.9 |
| 2010   | 5.0        | 9.2   | 7.1 |
| 2012   | 5.2        | 9.3   | 7.2 |
| Source | World Bank |       |     |

## 8-8. Military Expenditure

Unit: Million US\$ (% of GDP)

|      | China        | Japan        | ROK          |
|------|--------------|--------------|--------------|
|      | Expenditure  | Expenditure  | Expenditure  |
|      | (% of GDP)   | (% of GDP)   | (% of GDP)   |
| 2002 | 25,114 (1.2) | 60,701 (1.0) | 21,177 (2.4) |
| 2003 | 28,057 (1.1) | 61,460 (1.0) | 21,898 (2.5) |
| 2004 | 32,353 (1.2) | 61,201 (1.0) | 22,859 (2.5) |
| 2005 | 36,396 (1.1) | 61,288 (1.0) | 24,722 (2.6) |
| 2006 | 43,814 (1.2) | 60,892 (1.0) | 25,613 (2.6) |
| 2007 | 52,278 (1.3) | 60,574 (1.0) | 26,773 (2.6) |
| 2008 | 61,452 (1.3) | 59,140 (1.0) | 28,525 (2.8) |
| 2009 | 72,810 (1.4) | 59,735 (1.0) | 30,110 (2.9) |
| 2010 | 78,432 (1.4) | 59,003 (1.0) | 29,912 (2.7) |
| 2011 | 89,784 (1.2) | 59,572 (1.0) | 30,884 (2.8) |
| 2012 | n/a          | 59,242 (1.0) | 31,484 (2.7) |

Note: Military expenditures, which are derived from the NATO definition, include all current and capital expenditures on the armed forces, including peacekeeping forces; defense ministries and other government agencies engaged in defense projects; paramilitary forces, if these are judged to be trained and equipped for military operations; and military space activities.

\* Figures of China's military expenses are from the Central People's Government of the People's Republic of China.

\* Figures are in US \$ at constant 2011 prices and 2012 data at current 2012 US\$.

\* Blue colored data is estimate.

### Source

Central People's Government of the People's Republic of China  
Stockholm International Peace Research Institute (SIPRI) Military Expenditure  
Database

## 8-9. Bond Market (LCY Bonds)

Unit: Billion US \$

| Size of LCY Bond Market in USD |         |         |         |          |         |          |       |       |         |
|--------------------------------|---------|---------|---------|----------|---------|----------|-------|-------|---------|
|                                | China   |         |         | Japan    |         |          | ROK   |       |         |
|                                | Govt.   | Corp.   | Total   | Govt.    | Corp.   | Total    | Govt. | Corp. | Total   |
| <b>2002</b>                    | 333.6   | 8.7     | 342.3   | 4,503.6  | 897.5   | 5,401.1  | 163.1 | 323.1 | 486.2   |
| <b>2003</b>                    | 435.2   | 13.3    | 448.5   | 5,541.8  | 907.1   | 6,449.0  | 205.7 | 308.0 | 513.6   |
| <b>2004</b>                    | 599.5   | 24.3    | 623.8   | 6,556.3  | 891.1   | 7,447.4  | 318.7 | 338.0 | 656.7   |
| <b>2005</b>                    | 835.2   | 64.1    | 899.2   | 6,301.6  | 743.7   | 7,045.3  | 392.9 | 360.8 | 753.7   |
| <b>2006</b>                    | 1,078.7 | 105.6   | 1,184.2 | 6,389.4  | 706.9   | 7,096.3  | 480.6 | 441.2 | 921.8   |
| <b>2007</b>                    | 1,531.7 | 156.6   | 1,688.3 | 6,874.2  | 773.1   | 7,647.3  | 498.3 | 529.1 | 1,027.4 |
| <b>2008</b>                    | 1,956.7 | 256.0   | 2,212.6 | 8,564.4  | 963.2   | 9,527.6  | 368.5 | 448.2 | 816.7   |
| <b>2009</b>                    | 2,112.7 | 454.4   | 2,567.1 | 8,655.6  | 964.2   | 9,619.7  | 444.1 | 572.2 | 1,016.3 |
| <b>2010</b>                    | 2,407.8 | 644.3   | 3,052.0 | 10,605.8 | 1,112.6 | 11,718.4 | 492.2 | 656.9 | 1,149.1 |
| <b>2011</b>                    | 2,540.2 | 851.9   | 3,392.2 | 11,556.1 | 1,151.9 | 12,708.0 | 509.6 | 719.4 | 1,229.0 |
| <b>2012</b>                    | 2,771.8 | 1,039.6 | 3,811.3 | 10,668.2 | 988.1   | 11,656.3 | 572.2 | 898.8 | 1,471.0 |

\* This indicator shows the absolute amount of local currency (LCY) bonds outstanding in USD, categorized as government and corporates. Government bonds include obligations of the central government, local governments, the central bank, and state-owned entities. Corporates comprise both public and private companies including financial institutions and international organizations. Financial institutions comprise both private and public sector banks and other financial institutions.

Source

AsianBondsOnline (19 Nov. 2013)

## 8-10. Bond Market (FCY Bonds)

Unit: Billion US \$

| FCY Bonds in USD (local sources) |                                     |                  |           |            |                                     |                  |           |            |                                     |                  |           |        |
|----------------------------------|-------------------------------------|------------------|-----------|------------|-------------------------------------|------------------|-----------|------------|-------------------------------------|------------------|-----------|--------|
| China                            |                                     |                  |           | Japan      |                                     |                  |           | ROK        |                                     |                  |           |        |
| Government                       | Banks and<br>Financial Institutions | Other Corporates | Total FCY | Government | Banks and<br>Financial Institutions | Other Corporates | Total FCY | Government | Banks and<br>Financial Institutions | Other Corporates | Total FCY |        |
| 2002                             | 6.16                                | 3.33             | 5.22      | 14.7       | n/a                                 | n/a              | n/a       | n/a        | 13.61                               | 11.6             | 25.91     | 51.11  |
| 2003                             | 7.46                                | 3.52             | 5.47      | 16.45      | n/a                                 | n/a              | n/a       | n/a        | 14.91                               | 14.62            | 25.36     | 54.89  |
| 2004                             | 9.38                                | 3.89             | 4.92      | 18.18      | 25.77                               | 9.98             | 18.41     | 54.16      | 15.93                               | 18.85            | 27.64     | 62.43  |
| 2005                             | 13.7                                | 5.05             | 5.84      | 24.59      | 24.73                               | 18.17            | 15.93     | 58.84      | 19.31                               | 21.56            | 31.12     | 71.99  |
| 2006                             | 14.09                               | 5.26             | 9.38      | 28.74      | 23.68                               | 38.08            | 15.52     | 77.28      | 20.78                               | 27.98            | 33.58     | 82.33  |
| 2007                             | 14.84                               | 5.11             | 15.02     | 34.97      | 25.63                               | 43.66            | 11.89     | 81.19      | 22.59                               | 41.42            | 32.51     | 96.51  |
| 2008                             | 13.44                               | 4.9              | 19.81     | 38.15      | 25.51                               | 44.24            | 9.92      | 79.67      | 18.65                               | 40.68            | 39.09     | 98.43  |
| 2009                             | 12.08                               | 6.03             | 21.65     | 39.76      | 28.21                               | 49.92            | 8.96      | 87.09      | 21.86                               | 52.15            | 45.89     | 119.9  |
| 2010                             | 12.41                               | 15.14            | 36.65     | 64.2       | 31.44                               | 48.22            | 9.38      | 89.04      | 20.86                               | 57.13            | 51.43     | 129.42 |
| 2011                             | 14.44                               | 25.92            | 51.69     | 92.05      | 32.78                               | 55.78            | 14.25     | 102.81     | 23.41                               | 62.56            | 55.52     | 141.5  |
| 2012                             | 20.72                               | 45.99            | 81.66     | 148.37     | 18.82                               | 51.27            | 25.62     | 95.71      | 23.63                               | 68.26            | 58.9      | 150.79 |
| 06-2013                          | 15.36                               | 51.14            | 93.02     | 159.52     | 40.95                               | 54.53            | 21.64     | 117.11     | 22.91                               | 70.42            | 57.71     | 151.04 |

\* This indicator presents the total USD equivalent of bonds outstanding denominated in foreign currency (FCY). It provides a breakdown of the size of FCY-denominated bonds outstanding by government, banks and financial institutions, and corporates. FCY bonds outstanding includes offshore bond issuance.

Source

AseanBondsOnline (19 Nov. 2013)

## 8-11. Stock Market (Growth Rate)

Unit: %

| Growth Rates of Stock Market Price Index |       |       |       |
|--|-------|-------|-------|
|  | China | Japan | ROK   |
| 2002                                     | -19.6 | -18.0 | 32.3  |
| 2003                                     | -6.0  | -6.2  | -10.2 |
| 2004                                     | 0.0   | 21.8  | 22.6  |
| 2005                                     | -22.1 | 13.5  | 28.5  |
| 2006                                     | 41.4  | 28.2  | 26.3  |
| 2007                                     | 161.1 | 2.3   | 26.7  |
| 2008                                     | -27.7 | -28.6 | -10.6 |
| 2009                                     | -10.2 | -26.9 | -7.0  |
| 2010                                     | 3.4   | 2.0   | 23.6  |
| 2011                                     | -5.7  | -7.2  | 12.9  |
| 2012                                     | -16.8 | -6.5  | -2.6  |

\* China: CSI300, Japan: NIKKEI225, ROK: KOSPI

\*\* 0.0: Magnitude is less than half of unit employed.

**Source** International Finance Centre Key Indicators for Asia and the Pacific 2011,  
Asian Development Bank

## 8-12. Stock Market (Capitalization)

Unit: Million US \$ (% of GDP)

| Stock Market Capitalization and % of GDP |                   |                   |                   |
|--|-------------------|-------------------|-------------------|
|  | China             | Japan             | ROK               |
| 2005                                     | 780,762 (34.6)    | 4,736,512 (103.6) | 718,180 (85.0)    |
| 2006                                     | 2,426,325 (89.4)  | 4,726,268 (108.5) | 835,188 (87.8)    |
| 2007                                     | 6,226,305 (178.2) | 4,453,474 (102.2) | 1,123,632 (107.1) |
| 2008                                     | 2,793,612 (61.8)  | 3,220,485 (66.4)  | 494,630 (53.1)    |
| 2009                                     | 5,007,646 (100.3) | 3,377,892 (67.1)  | 836,461 (100.3)   |
| 2010                                     | 4,762,836 (80.3)  | 4,099,591 (74.7)  | 1,089,216 (107.3) |
| 2011                                     | 3,389,098 (46.3)  | 3,540,684 (60.3)  | 994,301 (89.1)    |
| 2012                                     | 3,697,376 (44.9)  | 3,680,982 (61.8)  | 1,180,473 (104.5) |

\* China: CSI300, Japan: NIKKEI225, ROK: KOSPI

**Source** International Finance Centre, Key Indicators for Asia and the Pacific 2012,  
Asian Development Bank

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# 9

# Transportation and Logistics

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- 9-1. Air Transport: Freight and Passengers Carried
- 9-2. Container Port Traffic
- 9-3. Road and Rail
- 9-4. Vehicle Ownership Rate

## 9-1. Air Transport: Freight and Passengers Carried

Unit: Million Ton-km

| Air Transport: Freight |        |        |        |
|------------------------|--------|--------|--------|
|                        | China  | Japan  | ROK    |
| 2008                   | 11,386 | 8,173  | 8,727  |
| 2009                   | 11,976 | 10,486 | 15,163 |
| 2010                   | 17,194 | 7,711  | 12,943 |
| 2011                   | 16,765 | 6,556  | 12,382 |
| 2012                   | 15,569 | 7,036  | 12,291 |

\* Air freight is the volume of freight, express, and diplomatic bags carried on each flight stage (operation of an aircraft from takeoff to its next landing), measured in metric tons times kilometers traveled.

Unit: Persons

| Air Transport: Passengers Carried |             |             |            |
|-----------------------------------|-------------|-------------|------------|
|                                   | China       | Japan       | ROK        |
| 2008                              | 191,001,220 | 97,022,471  | 36,077,655 |
| 2009                              | 229,062,099 | 86,896,527  | 34,168,590 |
| 2010                              | 266,293,020 | 109,551,151 | 36,987,982 |
| 2011                              | 292,160,158 | 89,734,863  | 39,911,750 |
| 2012                              | 318,475,924 | 98,907,859  | 39,969,577 |

Source World Bank



## 9-2. Container Port Traffic

Unit: TEU (20 Foot Equivalent Units)

|      | China       | Japan      | ROK        |
|------|-------------|------------|------------|
| 2001 | 44,726,084  | 13,127,144 | 9,287,221  |
| 2002 | 55,717,488  | 13,501,420 | 11,719,500 |
| 2003 | 61,898,336  | 15,055,696 | 13,049,534 |
| 2004 | 74,725,444  | 16,436,146 | 14,363,194 |
| 2005 | 67,245,263  | 17,055,082 | 15,113,275 |
| 2006 | 84,810,503  | 18,469,710 | 15,513,935 |
| 2007 | 103,823,024 | 19,164,522 | 17,086,133 |
| 2008 | 115,941,970 | 18,943,606 | 17,417,723 |
| 2009 | 108,799,934 | 16,285,918 | 15,699,663 |
| 2010 | 130,290,443 | 18,098,346 | 18,542,804 |
| 2011 | 139,736,156 | 18,886,713 | 20,830,308 |

\* Port container traffic measures the flow of containers from land to sea transport modes and vice versa.

\*\* TEU is a unit of cargo capacity based on the volume of a 20-foot-long (6.1m) intermodal container.

Source

World Bank

### 9-3. Road and Rail

|             | Road            |         |         |  |         |        |
|-------------|-----------------|---------|---------|--|---------|--------|
|             | Network (Km)    |         |         | Road Density (Km of Road Per 100sq. km of Land Area) |         |        |
|             | China           | Japan   | ROK     | China  | Japan   | ROK    |
| <b>2007</b> | 3,583,715       | 327,752 | 103,019 | 37   | 87      | 103    |
| <b>2008</b> | 3,730,164       | 331,071 | 104,236 | 39   | 88      | 105    |
| <b>2009</b> | 3,860,823       | 333,574 | 104,983 | 40   | 88      | 105    |
| <b>2010</b> | 4,008,229       | 336,578 | -       | 42   | 89      |        |
|             | Rail            |         |         |  |         |        |
|             | Rail Lines (Km) |         |         | Passengers Carried (Million Passenger-km)            |         |        |
|             | China           | Japan   | ROK     | China  | Japan   | ROK    |
| <b>2007</b> | 3,583,715       | 327,752 | 103,019 | 689,618  | 252,579 | 31,596 |
| <b>2008</b> | 3,730,164       | 331,071 | 104,236 | 772,834  | 255,865 | 32,025 |
| <b>2009</b> | 3,860,823       | 333,574 | 104,983 | 787,890  | 253,555 | 31,298 |
| <b>2010</b> | 4,008,229       | 336,578 | -       | 791,158  | 244,235 | 33,027 |
| <b>2011</b> | -               | -       | -       | 815,699  | 244,591 | 21,603 |

\* Total road network includes motorways, highways, and main or national roads, secondary or regional roads, and all other roads in a country. A motorway is a road designed and built for motor traffic that separates the traffic flowing in opposite directions.

\*\* Rail lines are the length of railway route available for train service, irrespective of the number of parallel tracks.

**Source**

World Bank

| Road                            |           |      |                                       |         |        |
|---------------------------------|-----------|------|---------------------------------------|---------|--------|
| Paved Road<br>(% of Total Road) |           |      | Goods Transported<br>(Million Ton-km) |         |        |
| China                           | Japan     | ROK  | China                                 | Japan   | ROK    |
| 49.6                            | 79.6      | 78.3 | 1,135,470                             | -       | -      |
| 53.5                            | 79.9      | 78.5 | 3,286,819                             | 355,000 | 12,546 |
| -                               | 80.1      | 79.3 | 3,718,882                             | 346,420 | 12,546 |
|                                 |           |      | 4,338,967                             | 334,667 | -      |
| Rail                            |           |      |                                       |         |        |
| China                           |           |      | Japan                                 |         |        |
|                                 |           |      | Goods Transported<br>(Million Ton-km) |         |        |
|                                 |           |      |                                       |         | ROK    |
|                                 | 2,211,246 |      | 23,145                                |         | 10,927 |
|                                 | 2,511,804 |      | 23,032                                |         | 11,566 |
|                                 | 2,523,917 |      | 22,100                                |         | 9,273  |
|                                 | 2,451,185 |      | 20,432                                |         | 9,452  |
|                                 | 2,562,635 |      | 20,255                                |         | 9,996  |
| World Bank                      |           |      |                                       |         |        |

## 9-4. Vehicle Ownership Rate

Unit: Per Thousand Persons

|      | Motor Vehicles |       |     | Passenger Cars |       |     |
|------|----------------|-------|-----|----------------|-------|-----|
|      | China          | Japan | ROK | China          | Japan | ROK |
| 2006 | 28             | 594   | 329 | 18             | 450   | 240 |
| 2007 | 32             | 592   | 339 | 22             | 450   | 250 |
| 2008 | 37             | 592   | 346 | 27             | 451   | 257 |
| 2009 | 47             | 593   | 355 | 34             | 451   | 267 |
| 2010 | 58             | 591   | 363 | 44             | 453   | 276 |

\* Motor vehicles include cars, buses and freight vehicles, but do not include two-wheelers. Population refers to the mid-year population in the year for which data are available.

\*\* Passenger cars refer to road motor vehicles, other than two-wheelers, intended for the carriage of passengers and designed to seat no more than nine people (including the driver).

Unit: Per Km of Road

|      | Vehicles |       |     |
|------|----------|-------|-----|
|      | China    | Japan | ROK |
| 2006 | 10       | 63    | 156 |
| 2007 | 12       | 63    | 159 |
| 2008 | 13       | 63    | 161 |
| 2009 | 16       | n/a   | n/a |
| 2010 | 19       | n/a   | n/a |

\* Vehicles per kilometer of road include cars, buses and freight vehicles, but do not include two-wheelers. Roads refer to motorways, highways, main or national roads, secondary or regional roads, and other roads. A motorway is a road specially designed and built for motor traffic that separates the traffic flowing in opposite directions.

Source

World Bank

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# 10

# Movement of People

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- 10-1. Travelers among the Three Countries
- 10-2. Resident Foreign Nationals among the Three Countries
- 10-3. Tourist Arrivals from World
- 10-4. Foreign Students among the Three Countries
- 10-5. International Marriage

## 10-1. Travelers among the Three Countries

Unit: Thousand Persons

| Total Number of Travelers |   |            |            |          |
|---------------------------|---|------------|------------|----------|
|                           | Origins of Country  | From China | From Japan | From ROK |
|                           | Destination   |            |            |          |
| 2008                      | To China  |            | 3,446      | 3,960    |
|                           | To Japan  | 1,000      |            | 2,382    |
|                           | To ROK  | 1,168      | 2,378      |          |
| 2009                      | To China  |            | 3,317      | 3,198    |
|                           | To Japan  | 1,006      |            | 1,587    |
|                           | To ROK  | 1,342      | 3,053      |          |
| 2010                      | To China  |            | 3,731      | 4,076    |
|                           | To Japan  | 1,413      |            | 2,440    |
|                           | To ROK  | 1,875      | 3,023      |          |
| 2011                      | To China  |            | 3,658      | 4,185    |
|                           | To Japan  | 1,043      |            | 1,658    |
|                           | To ROK  | 2,220      | 3,289      |          |
| 2012                      | To China  |            | 3,658      | 4,070    |
|                           | To Japan  | 1,425      |            | 2,044    |
|                           | To ROK  | 2,837      | 3,519      |          |
| <b>Source</b>             | Number of travelers from China and Japan to ROK: Korea Tourism Organization<br>Number of travelers from Japan and ROK to China:<br>Chinese National Tourism Administration<br>Number of travelers from China and ROK to Japan:<br>Japan National Tourism Organization |            |            |          |

## 10-2. Resident Foreign Nationals among the Three Countries

Unit: Persons

|             | Number of Resident Foreign Nationals |         |         |         |                    |        |
|-------------|--------------------------------------|---------|---------|---------|--------------------|--------|
|             | China <sup>1</sup>                   |         | Japan   |         | ROK <sup>2</sup>   |        |
|             | Japan                                | ROK     | China   | ROK     | China <sup>3</sup> | Japan  |
| <b>2008</b> | n/a                                  | n/a     | 655,377 | 589,239 | 555,517            | 51,763 |
| <b>2009</b> | n/a                                  | n/a     | 680,518 | 578,495 | 555,082            | 47,718 |
| <b>2010</b> | 66,159                               | 120,750 | 687,156 | 565,989 | 608,881            | 48,905 |
| <b>2011</b> | n/a                                  | n/a     | 674,879 | 545,401 | 677,954            | 58,169 |
| <b>2012</b> | n/a                                  | n/a     | 652,555 | 530,046 | 698,444            | 57,174 |

1. The figures in 2010 are from the Census and are available every ten years.

2. The number includes foreign students and the short time residents.

3. The number of Chinese in ROK includes Korean-Chinese as well as oversea Chinese

**Source** National Bureau of Statistics of China, Statistics of Foreign Registration, Ministry of Justice of Japan, Statistics Bureau of Japan, 'KIS Statistics', Korea Immigration Service (KIS)

### 10-3. Tourist Arrivals from World

Unit: Persons

|        | China   | Japan     | ROK        |
|--------|---|-----------|------------|
| 2008   | 24,325,300  | 8,350,835 | 6,890,841  |
| 2009   | 21,937,500  | 6,789,658 | 7,817,535  |
| 2010   | 26,126,900  | 8,611,175 | 8,797,658  |
| 2011   | 27,112,000  | 6,218,752 | 9,794,796  |
| 2012   | 27,191,600  | 8,358,000 | 11,140,028 |
| Source | National Bureau of Statistics of China,<br>Japan National Tourist Organization,<br>Korea Tourism Organization |           |            |



## 10-4. Foreign Students among the Three Countries

Unit: Persons

|             | Number of Foreign Students |        |         |                       |         |          |
|-------------|----------------------------|--------|---------|-----------------------|---------|----------|
|             | In China                   |        |         | In Japan <sup>1</sup> |         | In ROK   |
|             | Japanese                   | Korean | Chinese | Korean                | Chinese | Japanese |
| <b>2008</b> | 16,733                     | 66,806 | 72,766  | 18,862                | 44,746  | 3,324    |
| <b>2009</b> | n/a                        | n/a    | 79,082  | 19,605                | 53,461  | 3,931    |
| <b>2010</b> | 16,808                     | 64,957 | 86,173  | 20,202                | 57,783  | 3,876    |
| <b>2011</b> | 17,961                     | 62,442 | 87,533  | 17,640                | n/a     | n/a      |
| <b>2012</b> | n/a                        | n/a    | 86,324  | 16,651                | 57,798  | 2,334    |

1. As of May 1

Unit: %

|             | % of Total Foreign Students |        |         |                       |         |          |
|-------------|-----------------------------|--------|---------|-----------------------|---------|----------|
|             | In China                    |        |         | In Japan <sup>1</sup> |         | In ROK   |
|             | Japanese                    | Korean | Chinese | Korean                | Chinese | Japanese |
| <b>2008</b> | 7.5                         | 29.9   | 58.8    | 15.2                  | 70.0    | 5.2      |
| <b>2009</b> | n/a                         | n/a    | 59.6    | 14.8                  | 70.5    | 5.2      |
| <b>2010</b> | 6.3                         | 23.7   | 60.8    | 14.2                  | 68.9    | 4.6      |
| <b>2011</b> | 6.1                         | 21.3   | 63.4    | 12.8                  | n/a     | n/a      |
| <b>2012</b> | n/a                         | n/a    | 62.7    | 12.1                  | 68.2    | 2.8      |

**Source** Ministry of Education of China  
Japan Student Services Organization  
Statistics Korea (KOSIS)

## 10-5. International Marriage

Unit: Persons

|             | Japan <sup>1</sup> |               |        |       |                 |       |       |
|-------------|--------------------|---------------|--------|-------|-----------------|-------|-------|
|             | Total              | Japanese Male |        |       | Japanese Female |       |       |
|             |                    | Foreign       | China  | ROK   | Female          |       | Male  |
|             |                    |               |        |       | Foreign         | China | ROK   |
| <b>2008</b> | 36,969             | 28,720        | 12,218 | 4,558 | 8,249           | 1,005 | 2,107 |
| <b>2009</b> | 34,393             | 26,747        | 12,733 | 4,113 | 7,646           | 986   | 1,879 |
| <b>2010</b> | 30,207             | 22,843        | 10,162 | 3,664 | 7,364           | 910   | 1,982 |
| <b>2011</b> | 25,934             | 19,022        | 8,104  | 3,098 | 6,912           | 850   | 1,837 |
| <b>2012</b> | 23,657             | 17,198        | 7,166  | 3,004 | 6,459           | 820   | 1,823 |

Source Statistics Bureau of Japan

|             | ROK    |             |        |       |               |       |       |
|-------------|--------|-------------|--------|-------|---------------|-------|-------|
|             | Total  | Korean Male |        |       | Korean Female |       |       |
|             |        | Foreign     | China  | Japan | Female        |       | Male  |
|             |        |             |        |       | Foreign       | China | Japan |
| <b>2008</b> | 36,204 | 28,163      | 13,203 | 1,162 | 8,041         | 2,101 | 2,743 |
| <b>2009</b> | 33,300 | 25,142      | 11,364 | 1,140 | 8,158         | 2,617 | 2,422 |
| <b>2010</b> | 34,235 | 26,274      | 9,623  | 1,193 | 7,961         | 2,090 | 2,293 |
| <b>2011</b> | 29,762 | 22,265      | 7,549  | 1,124 | 7,497         | 1,869 | 1,709 |
| <b>2012</b> | 28,325 | 20,637      | 7,036  | 1,309 | 7,688         | 1,997 | 1,582 |

\* The data of China is not available.

1. ROK includes Korean with permanent residence in Japan.

Source Statistics Korea

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# 11

## Others

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- 11-1. Fortune 500 Enterprise (2013)
- 11-2. Human Development Index (HDI)
- 11-3. UN Peacekeeping Force
- 11-4. Competitiveness Index (2013)
- 11-5. Number of Patent Applications
- 11-6. Broadband Internet Subscribers
- 11-7. Telecommunication Penetration Rate

## 11-1. Fortune 500 Enterprises (2013)

| 2013: China (89 Enterprises), Japan (62 Enterprises), ROK (14 Enterprises) |                                       |          |         |         |  |
|--|---------------------------------------|----------|---------|---------|--|
| Rank   | Company                               | Revenues | Profits | Country |  |
| 4  | Sinopec Group                         | 428.2    | 8.2     | China   |  |
| 8  | Toyota Motor                          | 265.7    |         | Japan   |  |
| 5  | China National Petroleum              | 408.6    | 18.2    | China   |  |
| 7  | State Grid                            | 298.4    | 12.3    | China   |  |
| 13   | Japan Post holdings                   | 190.9    | 6.8     | Japan   |  |
| 14   | Samsung Electronics                   | 178.6    | 20.6    | ROK     |  |
| 29   | Industrial & Commercial Bank of China | 133.6    | 37.8    | China   |  |
| 32   | Nippon Telegraph & Telephone          | 128.9    | 6.3     | Japan   |  |
| 44   | JX Holdings                           | 119.5    | 1.9     | Japan   |  |
| 45   | Honda Motor                           | 119      | 4.4     | Japan   |  |
| 47   | Nissan Motor                          | 116      | 4.1     | Japan   |  |
| 50   | China Construction Bank               | 113.4    | 30.6    | China   |  |
| 54   | Hitachi                               | 108.9    | 2.1     | Japan   |  |
| 57   | SK Holdings                           | 106.3    | 0.9     | ROK     |  |
| 64   | Agricultural Bank of China            | 103.5    | 23      | China   |  |
| 70   | Bank of China                         | 98.4     | 22.1    | China   |  |
| 71   | China mobile Communications           | 96.9     | 11.9    | China   |  |
| 76   | Noble Group                           | 94       | 0.5     | China   |  |
| 80   | China State Construction Engineering  | 90.6     | 1.3     | China   |  |
| 83   | Panasonic                             | 87.9     | -9.1    | Japan   |  |
| 86   | Nippon Life Insurance                 | 86.7     | 3       | Japan   |  |
| 93   | China National Offshore Oil           | 83.5     | 7.7     | China   |  |
| 94   | Sony                                  | 81.9     | 0.5     | Japan   |  |
| 100  | China Railway Construction            | 77.2     | 0.8     | China   |  |
| 102  | China Railway Group                   | 76.7     | 1.2     | China   |  |
| 103  | SAIC Motor                            | 76.2     | 3.3     | China   |  |
| 104  | Hyundai Motor                         | 75       | 7.6     | ROK     |  |
| 111  | China Life Insurance                  | 73.7     | -1.7    | China   |  |
| 117  | Tokyo Electric Power                  | 72       | -8.3    | Japan   |  |
| 118  | Mitsubishi                            | 71.9     | 4.3     | Japan   |  |
| 119  | Sinochem Group                        | 71.8     | 0.8     | China   |  |
| 126  | Toshiba                               | 69.8     | 0.9     | Japan   |  |
| 127  | AEON                                  | 69.3     | 0.9     | Japan   |  |
| 134  | China Southern Power Grid             | 66.7     | 1       | China   |  |

|     |                                   |      |      |       |
|-----|-----------------------------------|------|------|-------|
| 141 | China FAW Group                   | 64.9 | 2.6  | China |
| 142 | Dai-ichi Life Insurance           | 63.6 | 0.4  | Japan |
| 146 | Dongfeng Motor Group              | 61.7 | 1.3  | China |
| 150 | Seven & I Holdings                | 60.9 | 1.7  | Japan |
| 156 | Mitsui                            | 59.1 | 3.7  | Japan |
| 160 | Marubeni                          | 58.5 | 2.5  | Japan |
| 161 | China North Industries Group      | 58   | 0.7  | China |
| 163 | Mitsubishi UFJ Financial Group    | 57.4 | 10.3 | Japan |
| 164 | Meiji Yasuda Life Insurance       | 56.9 | 2.9  | Japan |
| 167 | POSCO                             | 56.5 | 2.2  | ROK   |
| 172 | CITIC Group                       | 55.4 | 4.8  | China |
| 174 | Itochu                            | 55.2 | 3.4  | Japan |
| 178 | Shenhua Group                     | 54.5 | 6.2  | China |
| 181 | Ping An Insurance                 | 53.8 | 3.2  | China |
| 182 | China Telecommunications          | 53.4 | 1.1  | China |
| 185 | Nippon Steel & Sumitomo Metal     | 52.9 | -1.5 | Japan |
| 186 | Fujitsu                           | 52.8 | -0.9 | Japan |
| 187 | China Resources National          | 52.4 | 1.9  | China |
| 190 | Sumitomo Mitsui Financial Group   | 52.1 | 9.6  | Japan |
| 191 | MS&AD Insurance Group Holdings    | 52   | 1    | Japan |
| 192 | China Minmetals                   | 51.8 | 0.7  | China |
| 196 | China Post Group                  | 50.9 | 4.1  | China |
| 200 | Sumitomo Life Insurance           | 50.5 | 1.3  | Japan |
| 206 | Hyundai Heavy Industries          | 48.8 | 0.9  | ROK   |
| 209 | China South industries Group      | 48   | 0.2  | China |
| 212 | Aviation Industry Corp. of China  | 47.4 | 1    | China |
| 213 | China Communications Construction | 47.3 | 1.2  | China |
| 215 | Idemitsu Kosan                    | 47.3 | 0.6  | Japan |
| 218 | Tokio Marine Holdings             | 46.5 | 1.6  | Japan |
| 222 | Baosteel Group                    | 45.7 | 0.9  | China |
| 225 | LG Electronics                    | 45.2 | 0.1  | ROK   |
| 231 | China Huaneng Group               | 44.3 | 0.1  | China |
| 233 | KDDI                              | 44.1 | 2.9  | Japan |
| 235 | Korea Electric Power              | 43.6 | -2.8 | ROK   |
| 236 | Canon                             | 43.6 | 2.8  | Japan |
| 239 | GS Caltex                         | 43.4 | 0.7  | ROK   |
| 242 | Denso                             | 43.1 | 2.2  | Japan |
| 243 | Bank of Communications            | 43.1 | 9.3  | China |

|     |   |      |      |       |
|-----|---|------|------|-------|
| 244 | Mitsubishi Electric                     | 43   | 0.8  | Japan |
| 252 | Kia Motors                              | 41.9 | 3.4  | ROK   |
| 256 | People's Insurance Co. of China         | 40.8 | 1.1  | China |
| 257 | Softbank                                | 40.7 | 3.5  | Japan |
| 258 | China United Network Communications     | 40.6 | 0.4  | China |
| 266 | Jardine Matheson                        | 39.6 | 1.7  | China |
| 269 | Hebei Iron & Steel Group                | 39.3 | -0.2 | China |
| 273 | Aluminum Corp. of China                 | 38.8 | -0.8 | China |
| 277 | China National Aviation Fuel Group      | 38.4 | 0.1  | China |
| 278 | JFE Holdings                            | 38.4 | 0.5  | Japan |
| 283 | Bridgestone                             | 38.1 | 2.2  | Japan |
| 290 | Mitsubishi Chemical Holdings            | 37.2 | 0.2  | Japan |
| 292 | China Railway Materials                 | 37.2 | 0.1  | China |
| 295 | NEC                                     | 37   | 0.4  | Japan |
| 299 | China Guodian                           | 36.8 | 0.2  | China |
| 302 | China Metallurgical Group               | 36.8 | -0.8 | China |
| 306 | Sumitomo                                | 36.3 | 2.8  | Japan |
| 311 | Jizhong Energy Group                    | 35.3 | 0.1  | China |
| 312 | Mizuho Financial Group                  | 35.1 | 6.8  | Japan |
| 315 | Huawei Investment & Holding             | 34.9 | 2.4  | China |
| 318 | Jiangsu Shagang Group                   | 34.6 | 0.1  | China |
| 319 | China National Building Materials Group | 34.5 | 0.5  | China |
| 320 | Kansai Electric Power                   | 34.4 | -2.9 | Japan |
| 322 | Shougang Group                          | 34.3 | 0.1  | China |
| 325 | NKSJ Holdings                           | 34.2 | 0.5  | Japan |
| 326 | Sinomach                                | 34   | 0.7  | China |
| 327 | Mitsubishi Heavy Industries             | 33.9 | 1.2  | Japan |
| 328 | Wuhan Iron & Steel                      | 33.9 | 0    | China |
| 329 | Lenovo Group                            | 33.9 | 0.6  | China |
| 330 | Medipal Holdings                        | 33.9 | 0.2  | Japan |
| 336 | Beijing Automotive Group                | 33.4 | 1.1  | China |
| 343 | Tewoo Group                             | 32.9 | 0.1  | China |
| 345 | Cosmo Oil                               | 32.7 | -1   | Japan |
| 351 | East Japan Railway                      | 32.2 | 2.1  | Japan |
| 354 | Power China                             | 32   | 0.7  | China |
| 355 | ChemChina                               | 32   | -0.2 | China |
| 356 | Chubu Electric Power                    | 31.9 | -0.4 | Japan |
| 357 | COFCO                                   | 31.8 | 0.6  | China |

|     |  |      |      |       |
|-----|--|------|------|-------|
| 359 | Greenland Holding Group                      | 31.7 | 1.2  | China |
| 363 | Hutchison Whampoa                            | 31.3 | 3.4  | China |
| 365 | Korea Gas                                    | 31.1 | 0.3  | ROK   |
| 367 | Suzuki Motor                                 | 31   | 1    | Japan |
| 364 | Zhejiang Materials Industry Group            | 31.2 | 0    | China |
| 371 | S-oil  | 30.8 | 0.5  | ROK   |
| 373 | Shandong Energy Group                        | 30.7 | 0.9  | China |
| 374 | Aisin Seiki                                  | 30.5 | 0.9  | Japan |
| 376 | China Datang                                 | 30.4 | -0.1 | China |
| 383 | Sharp  | 29.8 | -6.6 | Japan |
| 387 | Amer International Group                     | 29.6 | 0.6  | China |
| 388 | Shandong Weiqiao Pioneering Group            | 29.6 | 1.1  | China |
| 389 | China Huadian                                | 29.3 | 0.5  | China |
| 390 | Shanxi Coal Transportation & Sales Group     | 29.3 | 0    | China |
| 392 | T&D Holdings                                 | 29.1 | 0.8  | Japan |
| 395 | China Electronics                            | 29   | 0.2  | China |
| 400 | Alfresa Holdings                             | 28.8 | 0.2  | Japan |
| 401 | China Ocean Shipping                         | 28.7 | -0.4 | China |
| 403 | Shanxi Coking Coal Group                     | 28.6 | 0    | China |
| 404 | Henan Coal & Chemical                        | 28.6 | -0.4 | China |
| 406 | Xinxing Cathay International Group           | 28.6 | 0.3  | China |
| 407 | Yangquan Coal Industry Group                 | 28.6 | 0    | China |
| 408 | China Power Investment                       | 28.6 | 0.2  | China |
| 411 | China Minsheng Banking Corp.                 | 28.4 | 6    | China |
| 412 | china Merchants Bank                         | 28   | 7.2  | China |
| 414 | Jiangxi Copper                               | 27.9 | 0.3  | China |
| 415 | Kailuan Group                                | 27.8 | 0.1  | China |
| 417 | China Shipbuilding Industry                  | 27.8 | 1    | China |
| 426 | Hyundai Mobis                                | 27.3 | 3.2  | ROK   |
| 427 | Samsung Life Insurance                       | 27.3 | 0.9  | ROK   |
| 428 | Industrial Bank                              | 27.2 | 5.5  | China |
| 429 | China Pacific Insurance (Group)              | 27.2 | 0.8  | China |
| 430 | Shanxi LuAn Mining Group                     | 27.1 | 0    | China |
| 432 | Datong Coal mine Group                       | 27   | -0.1 | China |
| 435 | Shanxi Jincheng Anthracite Coal mining Group | 26.8 | 0.3  | China |
| 436 | Showa Shell Sekiyu                           | 26.7 | 0    | Japan |
| 437 | Fujifilm Holdings                            | 26.7 | 0.7  | Japan |
| 440 | Mazda Motor                                  | 26.6 | 0.4  | Japan |

|     |                                       |      |      |       |
|-----|---------------------------------------|------|------|-------|
| 446 | Sinopharm                             | 26.2 | 0.3  | China |
| 447 | LG Display                            | 26.1 | 0.2  | ROK   |
| 450 | Sumitomo Electric Industries          | 26   | 0.5  | Japan |
| 455 | Maruhan                               | 25.7 | 0.2  | Japan |
| 459 | Japan Tobacco                         | 25.5 | 4.1  | Japan |
| 460 | Shanghai Pudong Development Bank      | 25.4 | 5.4  | China |
| 464 | Shaanxi Yanchang Petroleum (Group)    | 25.3 | 2.4  | China |
| 466 | Bailian Group                         | 25.2 | 0.1  | China |
| 467 | Nomura Holdings                       | 25   | 1.3  | Japan |
| 477 | Zhejiang Geely holding Group          | 24.6 | 0.1  | China |
| 481 | Daiwa House                           | 24.2 | 0.8  | Japan |
| 482 | China Nonferrous Metal Mining (Group) | 24.1 | 0.1  | China |
| 483 | Guangzhou Automobile Industry Group   | 24.1 | 0.1  | China |
| 493 | Ansteel Group                         | 23.6 | -1.6 | China |
| 494 | Sumitomo Chemical                     | 23.5 | -0.6 | Japan |
| 496 | Kirin Holdings                        | 23.4 | 0.7  | Japan |
| 500 | Ricoh                                 | 23.2 | 0.4  | Japan |

**Source** Global 500, Fortune



## 11-2. Human Development Index (HDI)

|      | China | Japan | ROK   |
|------|-------|-------|-------|
| 2008 | 0.648 | 0.881 | 0.87  |
| 2009 | 0.655 | 0.881 | 0.872 |
| 2010 | 0.663 | 0.884 | 0.877 |
| 2011 | 0.687 | 0.901 | 0.897 |
| 2012 | 0.699 | 0.912 | 0.909 |

\* The Human Development Index (HDI) is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development: a long and healthy life (health), access to knowledge (education) and a decent standard of living (income). Data availability determines HDI country coverage. To enable cross-country comparisons, the HDI is, to the extent possible, calculated based on data from leading international data agencies and other credible data sources available at the time of writing.

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|        |                      |
|--------|----------------------|
| Source | The Statistics Korea |
|--------|----------------------|

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### 11-3. UN Peacekeeping Force (as of Oct. 2013)

Unit: Person (Ranking)

|               | China                       | Japan    | ROK      |
|---------------|-----------------------------|----------|----------|
| <b>2009</b>   | 2,136 (15)                  | 39 (85)  | 397 (38) |
| <b>2010</b>   | 2,039 (15)                  | 266 (47) | 633 (43) |
| <b>2011</b>   | 1,924 (16)                  | 260 (48) | 634 (33) |
| <b>2012</b>   | 1,930 (15)                  | 488 (38) | 636 (34) |
| <b>2013</b>   | 1,919 (16)                  | 271 (47) | 616 (35) |
| <b>Source</b> | United Nations Peacekeeping |          |          |

## 11-4. Competitiveness Index (2013)

| IMD (2013)    |      | WEF (2013-2014) |      |
|---------------|------|-----------------|------|
| Country       | Rank | Country         | Rank |
| USA           | 1    | Switzerland     | 1    |
| Switzerland   | 2    | Singapore       | 2    |
| Hong Kong SAR | 3    | Finland         | 3    |
| Sweden        | 4    | Germany         | 4    |
| Singapore     | 5    | USA             | 5    |
| Norway        | 6    | Sweden          | 6    |
| Canada        | 7    | Hong Kong SAR   | 7    |
| UAE           | 8    | Netherlands     | 8    |
| Germany       | 9    | Japan           | 9    |
| Qatar         | 10   | UK              | 10   |
| China         | 21   | ROK             | 25   |
| ROK           | 22   | China           | 29   |
| Japan         | 24   |                 |      |

\* World Competitiveness Scoreboard (WCS) of International Institute for Management Development (IMD) means the state capability for remaining competition in business. Global Competitiveness Index (GCI) of World Economic Forum (WEF) means the state capability for improving GDP growth rate per capita.

### Source

International Institute for Management Development (IMD)  
World Competitiveness Yearbook; WEF

## 11-5. Number of Patent Applications

Unit: Number

| Number of PCT Applications by Country |         |        |        |        |
|---------------------------------------|---------|--------|--------|--------|
|                                       | World   | China  | Japan  | ROK    |
| 2005                                  | 136,749 | 2,503  | 24,870 | 4,686  |
| 2006                                  | 149,624 | 3,942  | 27,025 | 5,945  |
| 2007                                  | 159,927 | 5,455  | 27,743 | 7,045  |
| 2008                                  | 163,240 | 6,120  | 28,760 | 7,899  |
| 2009                                  | 155,405 | 7,900  | 29,802 | 8,035  |
| 2010                                  | 164,338 | 12,296 | 32,150 | 9,669  |
| 2011                                  | 182,379 | 16,402 | 38,874 | 10,447 |
| 2012                                  | 194,400 | 18,627 | 43,660 | 11,848 |

Unit: %

| Share of Country in Total PCT Filing |       |       |      |
|--------------------------------------|-------|-------|------|
|                                      | China | Japan | ROK  |
| 2005                                 | 1.83  | 18.19 | 3.43 |
| 2006                                 | 2.63  | 18.06 | 3.97 |
| 2007                                 | 3.41  | 17.35 | 4.42 |
| 2008                                 | 3.75  | 17.62 | 4.84 |
| 2009                                 | 5.08  | 19.18 | 5.17 |
| 2010                                 | 7.48  | 19.56 | 5.88 |
| 2011                                 | 9     | 21.32 | 5.73 |
| 2012                                 | 9.6   | 22.5  | 6.1  |

Source PCT Yearly Review 2013, World Intellectual Property Organization (WIPO)

## 11-6. Broadband Internet Subscribers

Unit: per 100 Persons

|      | China | Japan | ROK   |
|------|-------|-------|-------|
| 2002 | 0.26  | 7.46  | 22.40 |
| 2003 | 0.87  | 11.82 | 23.97 |
| 2004 | 1.92  | 15.48 | 25.45 |
| 2005 | 2.86  | 18.44 | 25.91 |
| 2006 | 3.87  | 20.91 | 29.71 |
| 2007 | 5.03  | 22.37 | 30.97 |
| 2008 | 6.24  | 23.80 | 32.42 |
| 2009 | 7.79  | 25.96 | 34.08 |
| 2010 | 9.42  | 26.88 | 35.68 |
| 2011 | 11.61 | 27.56 | 36.91 |
| 2012 | 12.97 | 27.92 | 37.56 |

\*Fixed broadband Internet subscribers are the number of broadband subscribers with a digital subscriber line, cable modem, or other high-speed technology.

Source

World Bank

## 11-7. Telecommunications Penetration Rates

Unit: per 100 Persons

|             | Telephone Lines |       |       | Cell phone Subscriptions |        |        | Internet Users |       |       |
|-------------|-----------------|-------|-------|--------------------------|--------|--------|----------------|-------|-------|
|             | China           | Japan | ROK   | China                    | Japan  | ROK    | China          | Japan | ROK   |
| <b>2002</b> | 16.66           | 48.21 | 55.44 | 16.02                    | 64.35  | 69.67  | 4.60           | 46.59 | 59.40 |
| <b>2003</b> | 20.31           | 47.72 | 53.89 | 20.87                    | 68.67  | 72.05  | 6.20           | 48.44 | 65.50 |
| <b>2004</b> | 23.97           | 47.20 | 50.33 | 25.74                    | 72.43  | 78.12  | 7.30           | 62.39 | 72.70 |
| <b>2005</b> | 26.80           | 45.93 | 50.81 | 30.09                    | 76.34  | 81.50  | 8.52           | 66.92 | 73.50 |
| <b>2006</b> | 27.98           | 44.30 | 47.46 | 35.07                    | 78.94  | 85.04  | 10.52          | 68.69 | 78.10 |
| <b>2007</b> | 27.67           | 40.50 | 48.44 | 41.42                    | 84.84  | 93.41  | 16.00          | 74.30 | 78.80 |
| <b>2008</b> | 25.62           | 38.27 | 51.03 | 48.28                    | 87.24  | 95.54  | 22.60          | 75.40 | 81.00 |
| <b>2009</b> | 23.50           | 52.78 | 56.07 | 55.97                    | 91.90  | 99.96  | 28.90          | 78.00 | 81.60 |
| <b>2010</b> | 21.95           | 51.86 | 59.24 | 64.04                    | 97.43  | 105.36 | 34.30          | 78.21 | 83.70 |
| <b>2011</b> | 21.16           | 51.12 | 60.90 | 73.19                    | 104.95 | 108.50 | 38.30          | 79.05 | 83.80 |
| <b>2012</b> | 20.60           | 50.84 | 61.95 | 81.26                    | 109.43 | 110.36 | 42.30          | 79.05 | 84.10 |

\* Telephone lines are fixed telephone lines that connect a subscriber's terminal equipment to the public switched telephone network and that have a port on a telephone exchange. Integrated services digital network channels and fixed wireless subscribers are included.

\*\* Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service using cellular technology, which provide access to the public switched telephone network. Post-paid and prepaid subscriptions are included

\*\*\* Internet users are people with access to the worldwide network

**Source**

World Bank

Pursuant to the Agreement on the Establishment of the Trilateral Cooperation Secretariat (TCS) signed by the governments of the People's Republic of China (China), Japan and the Republic of Korea (ROK) in December 2010, the TCS was established as an international organization in September 2011 in Seoul.

The TCS is mandated to promote cooperation and co-prosperity among the three countries. The primary mandate is to support the trilateral consultative mechanisms including providing reference to newly established mechanisms. We also aim to become the hub of the trilateral cooperation by organizing multiple projects and events. Additionally, we conduct researches, explore new initiatives and promote public understanding of the trilateral cooperation.



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