

# NORTH KOREA'S ECONOMIC DEVELOPMENT AND EXTERNAL RELATIONS

## ECONOMICS OF THE KAESONG INDUSTRIAL COMPLEX

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Worldwide interest has been focusing on the Korean peninsula recently. The security situation on the Korean peninsula, which went from bad to worse after the North Korean nuclear test in October 2006, is now stabilizing after the agreement among the participants at the six-party talks on 13 February of this year. There is now a growing expectation of a normalization of relations between the United States and North Korea. Meanwhile, the South Korea–North Korea relationship is running before the wind. There was a call to stop economic cooperation between South Korea and North Korea after the North Korean nuclear test. Some conservatives have claimed that the cash paid to North Korea through the development of the Kaesong industrial complex is flowing to North Korea's army. In some ways, these allegations do make sense because the two Koreas are still technically in the status of a cease-fire, and 1.8 million soldiers are standing face-to-face across the 155-mile-long Demilitarized Zone (DMZ). However, these fears and tensions can be alleviated by visiting and investigating the reality of the Kaesong industrial complex.

### **Business Status of the Kaesong Industrial Complex**

The objective of the Kaesong industrial complex development project is to construct a joint North-South

industrial complex and establish a new town in the North Korean city of Kaesong, 25 kilometers away from the military demarcation line. The project consists of three phases over a total area of 16,340 acres and a model complex (21.6 acres), which is now in operation. The first phase of the project started in June 2003 and is currently being developed over 817 acres.

The Kaesong industrial complex project is one of the most representative North-South economic cooperation projects with the goal of joint prosperity, combining South Korea's capital and technology with North Korea's labor power and land. The Kaesong industrial complex is giving new vitality to South Korea's smaller enterprises that are looking to move overseas as a result of rising costs and low efficiency systems. As shown in *Table 1*, the Kaesong industrial complex is competitive when compared with China as well as with South Korea. The monthly minimum wage of North Korean workers in the Kaesong industrial complex is 50 percent of China's minimum wage and 8 percent of South Korea's. The corporate tax in the Kaesong industrial complex is lower than that in South Korea, and the price of land is 31 percent of the price in China and 37 percent of the price in South Korea. In particular, the Kaesong area, which was once a North Korean strategic military point, is

**Table 1: Comparison of Industrial Complexes: Kaesong, China, South Korea, 2006**

Terms	Kaesong (A)	China <sup>1</sup> (B)	South Korea (C)	Compared with China (A/B)	Compared with South Korea (A/C)
Monthly minimum wage (dollars)	50	99.28	642	0.50	0.08
Legal workweek (hours per week)	48	40	44	1.2	1.1
Corporate income tax (percent)	10–14	15	23–28	—	—
Land price per <i>pyong</i> (won)	149,000	480,000	407,550	0.31	0.37

Source: Korea Trade-Investment Promotion Agency (KOTRA), Database, February 2006.

1. Chinese data are based on the Qingdao Economic and Technological Development Zone.

being transformed into a peaceful industrial complex with thousands of workers and vehicles coming and going between South Korea and Kaesong every day via the Kyongui Road that cuts across the DMZ. In addition, North Korean officials and workers can play a major role in promoting the reformation and opening of North Korea in the future by learning about the market economy through the process of the development and operation of the industrial complex.

## Development Status

**Model complex.** The model complex is a pilot project to acclimate South Korean small enterprises to the legal system and investment environment at the Kaesong industrial complex before they exercise early entry at the industrial complex. The project aims at increasing the success rate of the Kaesong industrial complex businesses and at making suggestions for future development directions by accommodating and operating 15 companies in an area of 21.6 acres out of a total of 817 acres of the first phase. Companies began moving into the area in December 2004, and the Kaesong industrial complex produced its first products on 15 December 2004. The first phase of development in the main complex is making good progress, as shown in *Table 2*. The main complex is now almost finished for the first phase.

**First phase, main complex.** The first phase of the main complex (817 acres) is a project collaboration between the Korea Land Corporation and Hyundai Asan to lease land from North Korea for 50 years, develop it into an industrial complex, distribute it to domestic and overseas companies, and manage it.

The first section (40 acres) of the first phase was distributed in August 2006 to businesses related to textiles, sewing, clothing, leather, bags, and shoes, because there was a large demand for relocation and problems with place-of-origin issues. Since January 2007, three factories have been operating in the complex. The remaining land work of the first phase was initially completed in May 2006, and the rate of progress for facility work such as roads, water supply and sewerage systems, and afforestation is approximately 86 percent. Infrastructural work is scheduled to be completed in May 2007. In addition, wastewater disposal plants, water supply facilities, and waste disposal plants are scheduled to be completed in June 2007.

Since March 2005, 15,000 kilowatts of electricity from South Korea have been supplied to the model complex using distribution methods, and 100,000 kilowatts will be supplied in the first half of 2007 using power transmission. Direct North-South communication lines were opened in December 2005, and 303 lines have been in operation since January 2006. Construction of a communications center began in 2007, and additional lines will be supplied before the first-phase companies begin operations.

## Operational Status

The total number of North Korean workers in Kaesong was 11, 160 as of December 2006; 8,608 workers are employed by companies in the complex and 2,552 work on construction sites and subsidiary facilities (*Table 3*). The average age of workers is 31, and the proportion of males to females is about one to four.

**Table 2: Development Status of the First Phase of Main Kaesong Industrial Complex**

Construction projects		Size	Construction period	Progress (%)
Site development work	Land work	817 acres	23 April 2004–29 June 2006	100.00
	Facilities		30 August 2004–29 May 2007	89.54
Wastewater treatment facilities		30,000 tons/day	29 April 2005–28 March 2007	91.89
Sewerage	Land work	60,000 tons/ day	19 December 2005–18 June 2007	98.48
	Facilities		7 April 2006–6 September 2007	36.72
Water supply facilities and materials support		1 unit	28 October 2005–31 March 2007	72.90

Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

80 percent of workers are high school graduates, and 20 percent are college or special-school graduates (*Table 4*).

**Table 3: Number from South Korea and North Korea Employed in Kaesong Industrial Park, 2006**

2006	South Korea	North Korea
July	579	7,984
August	693	8,561
September	779	8,879
October	789	9,465
November	862	10,345
December	791	11,160

Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

**Table 4: Personal Characteristics of Workers in Kaesong Industrial Park**

Characteristics		
Educational background (percentage)	College graduates	9.8
	Special school	10.6
	High school	79.6
Average age and ages of male and female employees (years)	Total	31.2
	Male	38.6
	Female	29.5
Age breakdown (percentage)	10s decade	6.6
	20s decade	34.6
	30s decade	44.8
	40s decade	12.9
	50s decade	1.1
Gender of employees (percentage)	Male	18.8
	Female	81.2

Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

The minimum monthly basic wage is \$50 (or \$57.5, including social insurance) (*Table 5*). Workplace chiefs are paid \$75 per month, and section chiefs are paid \$52–\$55. Social insurance in the amount of 15 percent of wages is added, and an additional 50–100 percent is paid for night and holiday shifts. As of January 2007, wages were still not paid to workers directly, but transparency is growing as evidenced by the agreement and signing of a salary certificate by North Korean workers in November 2005. Several measures are under consideration to execute direct wage payments as soon as possible.

**Table 5: Monthly Wages per Capita in Kaesong Industrial Zone, 2006, in U.S. dollars**

Period	Wages <sup>1</sup>	Social insurance	Total
1st quarter, 2006	60.5	8.2	68.7
2nd quarter, 2006	56.3	7.5	63.8
3rd quarter, 2006	60.6	7.9	68.5
October 2006	65.5	8.2	73.7
November 2006	58.2	7.5	65.7
December 2006	67.8	7.4	75.2
Average	60.3	7.8	68.1

Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

1. Wages includes basic wages, extra wages, subsidies, and prize money.

Workers in the Kaesong industrial complex basically work 48 hours a week, but the average number of hours in a workweek is greater than that (*Table 6*). Workers begin to work between 7:30 and 9:00 a.m., and they return home between 5:00 and 7:00 p.m. They bring their lunches, and companies provide them with soup.

**Table 6: Average Number of Hours in a Workweek in Kaesong Industrial Park, 2006**

Month	Hours	Month	Hours
January	54.3	July	54.3
February	55.5	August	55.1
March	56.2	September	56.6
April	54.6	October	58.2
May	53.0	November	55.2
June	52.5	December	55.9

Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

## Markets for Products

The Kaesong industrial model complex produces textiles, chemical goods, metals and machinery, and electric and electronic goods (*Table 7*). Textiles make up roughly 40 percent of the products, 25 percent of products are metal and machinery, 21 percent are electric and electronic goods, and 15 percent are chemical goods.

About 77 percent of the products made in the Kaesong industrial complex are consumed in South Korea, and the remainder (23 percent) is exported overseas. The export status by business category (in order) is metal and machinery (62 percent), chemicals (23 percent), and electric and electronic goods (13 percent). As shown in *Table 8* and *Figure 1*, the value of exported products from the Kaesong industrial complex has increased with time.

### Disputes over Kaesong Industrial Complex

As mentioned in the introduction, some conservatives have raised the question of whether the Kaesong industrial complex development business does, in fact, provide benefits to North Korea. In addition, they claim the cash paid to North Korea by the South through the Kaesong industrial complex is being used

to finance the North Korean army. By the end of October 2006, about 300 billion *won* (\$300 million) was invested in the Kaesong industrial complex. However, only about 30 billion *won* (\$30 million) has been transferred to North Korea. Most of the money includes 50 years of land rent (about \$12 million) already paid in a lump sum in 2005 and monthly wages (\$0.6–0.7 million) paid to North Korean workers, who numbered more than 10,000 as of 21 November 2006. Meanwhile, the investments in electricity supply, site development, and factory facility installation were made by small South Korean enterprises that moved into the Kaesong industrial complex, and all investments were collected by South Korean companies such as the Korea Land Corporation and Hyundai. What is left in North Korea is not cash, but infrastructure such as power cables, factory sites, facilities, and roads.

**Table 7: Production at Kaesong Industrial Complex, 2005–06, thousands of dollars**

Products	2005	2006												Total, 2005 and 2006
		Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	
Textiles	6,780	1,569	1,965	2,813	2,002	2,113	1,897	1,643	1,936	2,416	2,366	3,109	4,164	34,773
Chemicals	1,768	461	373	411	448	458	957	885	1,240	1,408	1,295	1,508	1,456	12,668
Metals and machinery	5,250	1,002	986	1,338	1,243	1,519	1,464	1,924	2,164	2,163	2,080	2,448	2,522	26,103
Electric and electronic goods	1,108	364	468	647	657	1,053	1,190	1,063	1,471	1,634	1,814	1,803	2,097	15,299
Total	14,906	3,396	3,792	5,209	4,350	5,143	5,508	5,515	6,811	7,621	7,555	8,868	10,169	88,843

Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

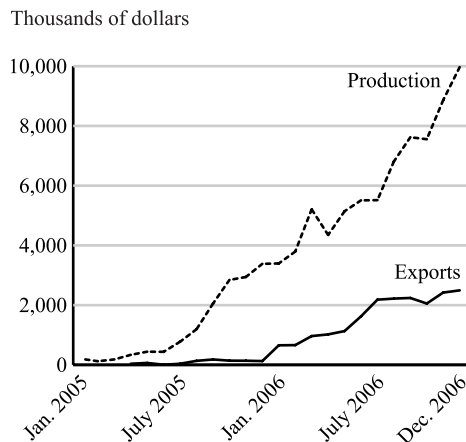
**Table 8: Exports of Categories of Products from Kaesong Industrial Complex Products, 2005–06, thousands of dollars**

Products	2005	2006												Total, 2005 and 2006
		Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	
Chemicals	538	86	54	86	87	72	829	686	530	594	685	646	619	5,512
Metals and machinery	328	516	541	781	839	944	681	1,365	1,516	1,454	1,185	1,480	1,553	13,183
Electric and electronic goods	—	53	66	97	94	115	114	132	173	192	343	295	322	1,996
Total	866	655	661	964	1,020	1,131	1,624	2,183	2,219	2,240	2,213	2,421	2,494	11,323

Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

The Kaesong industrial complex project is not for the one-way benefit of North Korea; a number of statistics clearly confirm this. First, the amount of money invested monthly in North Korea through the Kaesong industrial complex project is \$0.7 million, including wages; and the total value of products produced in the Kaesong industrial complex is \$8 million monthly. It is not difficult to calculate the benefits when \$0.7 million is invested and \$8 million is produced.

**Figure 1: Production of Goods and Export of Goods, Kaesong Industrial Complex, 2005–06**



Source: Ministry of Unification, Statistical data for Kaesong industrial park (Seoul: MOU, January 2007).

Much more is at stake than economic interests. The benefits of security are much larger than the economic incentives of developing one of North Korea's strategic military regions, Kaesong, into an industrial complex. In the early stages of development, a number of land mines had to be removed from the region, and North Korean army bases were relocated 10 kilometers behind military front lines. More than 500 South Koreans travel across the DMZ in and out of the industrial complex every day. The military forces in the South and North are cooperating to secure safe passage for these people; these are the initial stages of building military trust between the two sides. If it had not been for the alleviation of military tensions in this region, the large LG-Phillips liquid crystal display (LCD) complex would never have been built in Paju, in the province of Kyonggi, near the military demarcation line. This is one of the positive cases of economic benefits spilling over from the enhanced security that the Kaesong industrial complex provides.

Furthermore, the Kaesong industrial complex project teaches North Koreans how to conduct business legally. It shows that they can survive by adopting a philosophy of economic cooperation and a market economy rather than by developing nuclear weapons, selling weapons, and laundering money. In this way the activation of the Kaesong industrial complex is extremely useful in discouraging North Korea from acting like a rogue state. In spite of North Korea's nuclear test, many people who want a peaceful solution to the North Korean problem think that the Kaesong industrial complex should be continued because of its strategic advantages.

### Problems of the Kaesong Industrial Complex

There are still many problems with the Kaesong industrial complex that need to be solved in order to gain international competitiveness. Completion of the institutional base of Kaesong industrial complex businesses needs to take place. Also, a more convenient passage system needs to be guaranteed. However, the most important thing is to stabilize the business environment of the Kaesong industrial complex by solving the North Korea nuclear problem: the process and methods for addressing issues such as highly enriched uranium, Banco Delta Asia, and light-water reactors. However, during the process of solving such problems, conflicting opinions between North Korea and the other five participants in the six-party talks could emerge or North Korea could make unreasonable demands. Such occurrences would not be a surprise as North Korea's actions have not been fair and reasonable thus far. But, then again, world disputes have not been solved only by being reasonable and fair. Many historic turning points have taken place by recognizing, engaging, and compromising with unreasonable and unfair counterparts. It is expected that the United States will adopt more flexible policies regarding North Korea, not only for justness, rationality, and morality but also for the exploration of realistic solutions.

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