Inter-Korean Economic Cooperation: The Need for Reciprocity -Does Lopsided Cooperation Continue to Soothe North's Bluffing Mentality?-

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ABSTRACT

This paper examines inter-Korean economic cooperation and trade. It reviews the political background and current status of the idiosyncratic determinants of inter-Korean economic cooperation and trade, followed by its resultant impacts as well as policy suggestions for future directions. Over the last 20 years, inter-Korean trade increased by about 90-fold from 20 million US dollars in 1989 to 1.8 billion US dollars in 2007. Since 1999, in particular, inter-Korean economic cooperation has expanded significantly. Its share of North Korean total trade accounted for 13 % in 1999, 26% in 2005 and jumped to 61.2% in 2007. Such an increase is due mostly to increasing aid and investment from the South. While the economic gap between the North and South is still widening, the North's brinkmanship strategy shows no sign of ending. The increase in aid and investment from the South owes largely to non-economic factors to help the deteriorating economy and appearement policy to lure North Korea out of isolation. The success of this lopsided policy by the South is yet to be seen, but a reciprocity principle would likely work better by encouraging the autarchic North to move toward a selfsustaining market economy.

KEY WORDS: Inter-Korean economic cooperation, trade, aids and investment, reciprocity, and market economy.

Inter-Korean Economic Cooperation: The Definition and the Current Status

The Definition: Economic Cooperation vs. Bilateral Trade

The term, economic cooperation, has very multi-facet implications. It may be generally meant to connote the "two-way balanced transactions based on comparative advantages, cooperative economic projects, and mutual economic aids and supports." In the case of bilateral relations between North Korea and South Korea, economic cooperation has been used largely to encompass "human exchanges" (meetings of separate families, mutual visits, Mt. Kumkang tourism, and feasibility surveys for Gaesung special zone, etc.), the South's provision of various material supplies to meet the demands of the North, and both pecuniary and nonpecuniary aids and investments in North Korea. Most of the time, the main flow of such inter-Korean cooperation has run from the South to the North, not the other direction. It has been an utterly unbalanced transaction. Inter-Korean trade has also occurred in such a heavily biased direction that purchases in the South have overwhelmed imports into the North, because the trade has been conducted on the basis of political consideration rather than economic efficiency principle. According to the "Law Governing the North-South Exchange and Cooperation" (1990.8) of South Korea, the inter-Korean trade refers to the imports and exports between the North and South, which include movements of all goods between the two states via any third country. Imports and exports statistics are, however, officially being compiled on the basis of a complete flow of goods, both commercial trade goods and free donation goods under "cooperative programs", by the Custom Clearing Office in the South. Strictly speaking, inter-Korean economic cooperation involves all public and civilian transactions and activities such as economic assistance in cash and materials, cultural performance swaps, tour visits, food, health and medical assistance, sports, and academic exchanges. The definition of economic cooperation is broader than trade. But in reality, inter-Korean trade has been so loosely used as to involve not only commercial transactions but also non-economic flows of all sorts of materials and human services crossing the border between the North and the South. Such a very inclusive and open concept would often be a source of confusion and misunderstanding among people concerned about the meaning of "inter-Korean economic cooperation" and "inter-Korean trade". Objectively speaking, trade is a subset of economic cooperation as mentioned above. But trade involves the interchange of the shipment of goods and services with the monetary payments for the purchase and sales of the goods and services. On the

other hand, economic cooperation may not necessarily involve the counter flows or exchanges between goods and their corresponding monetary payments. Economic cooperation may be based either on the reciprocity principle or in an unbalanced sense. Aside from such definitional distinction, trade and cooperation are being used interchangeably in the economic relations between the North and the South. That reflects the peculiarity of inter-Korean relations.

If we look at inter-Korean economic cooperation, the North has always enjoyed assistance. Even if the inflow of materials accompanied by the South's investment into the North is hard to classify as "lopsided economic aid", the North has been and is currently getting more than the South in this inter-Korean economic cooperation.

In this article, we will define inter-economic cooperation broadly as including trade, investment, and economic assistance (aid) between the two Koreas. So far, inter-Korean trade as well as investment into the North has been promoted to assist the North Korean economy. Therefore, we may use inter-Korean trade interchangeably with inter-Korean economic cooperation in this article, even if the two terms strictly differ from each other, in that trade involves the exchange of goods and services with monetary payments.

In terms of neo-classical economic theory, the investment –saving gap is equal to the external trade gap plus net capital outflow (or inflow) including the income transfer payments between two trade partners. Namely, I - S = -(X-M) - F(r), where I is domestic investment, S domestic saving, X is a country's exports and M imports, and F(r) is net outflows of capital, which is inversely related to the level of domestic interest rate (r) given international rate (r*), which is also inclusive of net transfer payments such as aid and subsidies across the border. This trade gap equation explains that if a country's (say, North Korea's) investment (I) exceeds its own domestic saving(S), it has a trade deficit, that is; its exports (X) are less than its imports (M). The deficits need to be supplemented by net inflows of foreign capital and foreign aid (in this case "minus F," meaning net inflows), in order to keep the balance of payments in equilibrium. In the bilateral trade between the North and South, the North's exports into the South have always larger than its imports from the South. But the total amount of money gained from trade has moved in the same direction as the flow of capital in the inter-Korean trade, which is contrary to the above theory. That is because the trade surplus of North Korea over South Korea has been possible only due to the South's concessions. If we include all beneficial returns obtained in the bilateral trade as well as investment and various aid and grants into the category of trade, the money flow into the North has always exceeded the flow into the South. That creates the appearance of a huge trade surplus for the South in its transaction with the North. In reality, in terms of pecuniary flow involving the inter-Korean trade, the North has gotten the most out of the bilateral trade. For the South has tried to import as much as possible from the North instead of attempting to export to the North in order to give more money to the North. Money runs opposite the flow of the physical import and export of goods. In the inter-Korean trade, for illustration, the sale of commodities from the North accompanies its counter flows of payment money from the South. The purchase of goods from the North is mostly made by political considerations in that the imports are made to help the economy by the South. Meanwhile, the accounting of the South's exports to the North included the tradable commodities as well as investment goods and transfer payment and aid goods which all pass and record through the South's custom clearing-office. In the accounting book, the South appears to gain tremendous trade surpluses because the South's aggregate shipments (exports of intermediate goods and capital goods) sent to the North exceed its imports from the North. But in terms of aggregate monetary settlements, the North has, in fact, gained most of the pecuniary advantage in its transaction with the South.

Because the size of the inter-Korean economic cooperation is measured in terms of monetary flow, the term, inter-Korean cooperation inclusive of the loosely defined-trade, investment and other transfers, reduces "our confusion" as compared to the counter flows of payments involving the pure bilateral commercial trade, as explained above. In the inter-Korean transaction, if more finished goods are shipped to the South, it means more payments are made to the North not only on a purely commercial basis but also on a complementary basis. This implies that the overall surplus by the North is not grounded on the general accounting principle of pure comparative advantage of both commodity and service trade.

Indeed, aggregate shipments into the North, including commercial goods and non-commercial assistance goods, are recoded as the South's export to the North, which are always larger than out-of the North. This, in turn, shows as if the South is enjoying a trade surplus. In reality, the assistance goods and investment goods do not carry immediate paybacks, though the later may bring their return in the long run. In the short run, the surplus from inter-Korean cooperation has mostly fallen in the pocket of North Korea, as the most money has been poured into it.

The Historical Outline of Inter-Korean Economic Cooperation

The inter-Korean economic cooperation was first proposed with "The Agreement on the Implementation of Trade and Economic Cooperation and the Establishment of the South-North Joint Economic Committee (23 articles)" signed by both the North and the South representatives on June 20, 1985, at Panmunjom. The joint proposal for inter-Korean economic cooperation had very important implications on the various aspects, including political, military and social and cultural activities in the divided nation. But no actual implementation was made until South Korean President Roh Tae-Woo unilaterally announced his "Special Declaration on National Self-Esteem, Unification and Prosperity" on July 7, 1988. After this declaration, small indirect trade (trade via a third country) was timidly attempted by businessmen in the Subsequently, various trade promotion measures promulgated in the South. Among them were the Inter-Korean Cooperation Custom Law and the Law of Inter-Korean Cooperation Fund. The size of inter-Korean trade was a mere 20 million US dollars in 1989, which rose ninety-fold to 1.8 billion US dollars in 2007. In March 1993 North Korea declared its withdrawal from the NPT (nuclear nonproliferation treaty), which threatened to interrupt the inter-Korean trade relation. But as top level talks between the United States and DPRK agreed to end the nuclear issue on October 21, 1994, South Korea swiftly moved to expand inter-Korean trade relations. On November 9, the South Korean government announced "the Measures for Inter-Korean Economic Cooperation Promotion" which opened the door, though still with strict restrictions, to the mutual visits of businessmen, limited investments in the North, and the establishment of branch offices of Southern firms in the North. More active inter-cooperation began with the Kim Dae-jung regime in the South. Upon his inauguration to the presidency in February, 1998, Kim Dae-jung (DJ) framed his policy objectives toward North Korea using three basic principles: (1) active promotion of North-South economic cooperation based on the principle of the separation of economics and politics; (2) cooperation on the basis of market function; and, (3) promotion based on each participants' decisions.

DJ's government promulgated in October 1999 "the Guidelines for the Uses of the Inter-Korean Economic Cooperation Funds" in order to subsidize investments in the North, imports and exports, and commission-based processing trade (CPT) as well as financing the small and medium firms involved in projects in the North.

Kim Dae-jung's *sunshine policy* aimed primarily to soften the political and military strains between the two Koreas and to induce the North to *Glasnost and Perestroika*

Especially after the June 15 Kim-Kim¹ joint communiqué in 2000, the Mt. Kumkang sightseeing project (first opened in November, 1998), the Gaesung industrial complex project (started in 1989) and other intra-Korean trade efforts have greatly been enlarged. In the name of mutual cooperation toward both common prosperity and peace, DJ's appeasement policy mainly focused on helping the Greater Dear Leader's regime in the North, in order to retain the political and military status quo in the peninsula. DJ's pro-North policy was continued by his successor, Roh Moo-hyun in 2003.

Roh Moo-hyun had greatly promoted the exchanges of both people and materials across the border by working to provide the South's investors with various legal systems, procedures, and office openings in the North. On October 28, 2005, the North-South Joint Consultant Office for Economic Cooperation was opened in the Gaesung complex. Roh Moo-hyun visited Pyongyang on October 2-4, 2007, to hold summit talks with the Dear Leader, Kim Jong-il. Six weeks later, both prime ministers met (November 14-16), followed by a defense ministers' meeting (November 27-29). It was also followed by an Inter-Korean Economic Cooperation Committee meeting (December 4-6) and the West Sea Peaceful Cooperation Promotion Committee meeting (December 28-29).

The Roh Moo-hyun government forced through the Congress a Law for the Promotion of the North-South Relation Development ² in December 2005. Based on the law, the First Basic Plan for the North-South Relation Development³ was formulated to report to the House of Representatives on November 22, 2007. The Basic Plan contained three broad principles, six promotion directions, and seven strategic targets to implement between 2008 and 2012. What will happen to this plan is now uncertain under the new conservative regime of President Lee Myung-bak which took office in February, 2008.

The Status of the Inter-Korean Trade

It has been about 20 years since the intra-trade began across the demarcation line on Korean peninsula in 1989. In the first two years, the annual intra-trade volume remained at a minimal level of less than 20 million US dollars. In 1991 when the inter-Korean Exchange and Cooperation Law was promulgated in the South, this trade increased by 730% over the previous year. In spite of the DPRK's withdrawal from the IAEA (International Atomic Energy Agency) Non-Proliferation Treaty, the inter-Korean trade continued to grow annually. Amid growing problems in the nuclear issue between the IAEA (and USA) and DPRK in 1998 and the financial crisis in South Korea, President Kim

Dae-jung announced his "sunshine policy", signaling his willingness to expand relations with North Korea. In 1998, the inter-trade was \$221,943, about a 28% decrease over the previous year (\$308, 339), but the inter-Korean trade regained its strength to reach \$1,797,896 in 2007. (See table 1.)

The inter-Korean trade is composed of the following categories: (1) commercial trade which includes the general trade (GT), commission-based processing trade (CPT), economic cooperation (EC) including the of Gaesung Industrial Complex projects, Mt. Kumgang sightseeing projects, and other public investment projects; and, (2) non-commercial trade, which includes both the public and private social and cultural projects, aid and grants, grain and fertilizer supports, the light water reactor construction subsidies, ⁴ and KEDO diesel oil supplies. As shown in table 2, the commercial trade, including economic cooperation

Table 1. Trend of the Annual Inter-Korean Trade (Unit: 1000 US dollars)

	Import into	Export from	/	Annual
Year	South	South	Total	Growth (%)
1989	18,655	65	18,724	
1990	12,278	1,188	13,466	-28.1
1991	105,719	5,547	111,266	726.3
1992	162,863	10,563	173,426	55.9
1993	178,167	8,425	186,592	7.6
1994	176,298	18,249	194,547	4.3
1995	222,855	64,436	287,291	47.5
1996	182,400	69,639	252,039	-12.3
1997	193,069	115,270	308,339	22.3
1998	92,264	129,679	221,943	-28.0
1999	121,064	211,832	333,437	50.2
2000	152,373	272,775	425,148	27.5
2001	176,173	226,787	402,957	-5.2
2002	271,575	370,155	641,730	59.3
2003	289,252	434,965	724,040	12.9
2004	258,039	439,001	697,040	-3.8
2005	340,281	715,472	1,005,754	54.5
2006	519,539	830,200	1,349,739	27.8
2007	765,346	1,032,550	1,797,896	33.2
Total	4,238,749	4,956,801	9,195,551	

Source: The Ministry of Unification, *Trends of Inter-Korean Trade*, annual publication, recognized by the author.

Note: Exports from the South include commercial (general) exports, materials for commission-based processing, investments, and humanitarian and other cooperation, support to the North while imports include only purchases by the South.

projects (such as Mt. Kumgang projects and Gaesung industrial projects) occupies a large proportion as compared to non-commercial trade. The narrowly defined economic cooperation (EC) projects which include the Mt. Kumgang tour-related project, the Gaesung industrial complex project, and other economic cooperative assistance to the North have expanded greatly since 2004. The share of these economic cooperation (EC) projects out of the total commercial trade (GT+CPT+EC) was 6.8% in 2002, which jumped to 39.2% in 2005, 40.0% in 2006 and 44.7% in 2007. As of the end of 2007, the commercial trade consisted of the general trade (25.7%), commission-based processing trade (18.3%), Mt. Kumgang sightseeing (6.4%), and the Gaesung industrial projects (24.5%), and others (4.75), which altogether accounted for 79.6% with the remaining 20.4% being non-commercial trade (private and public In general, non-commercial trade is regarded as pure assistance, mostly moving from the South to the North. A considerable amount of commercial trade contains non-economical 'aid measures', though, in the long run, some profits are expected to return to those partners who are now extending "don't-ask-investment' into the North. It is believed that a large portion of GT and CPT has also been support to the North by the South Korean government.

Table 2: Inter-Korean Trade by Major Categories (Unit: million US dollars)

Commercial Trade									
Year	GT	CPT	Economic Cooperation			Sub-total	Non-com	Total	
			MtKum Gaesug Others						
1995	230.4	45.9				276.3	11.0	287.3	
1998	73.0	71.0	37.7	0	1.2	182.5	39.4	221.9	
1999	89.0	100.0	40.7	0	6.3	236.1	97.3	333.4	
2000	110.5	129.2	16.2	0	17.4	273.3	151.8	425.1	
2002	171.8	171.2	11.9	0	13.1	367.9	273.8	641.7	
2004	171.8	176.0	41.8	41.7	5.8	436.5	260.5	697.0	
2005	209.8	209.7	87.1	176.7	6.2	689.5	366.2	1,055.8	
2006	304.1	253.0	56.7	298.8	15.5	928.1	421.7	1,349.7	
2007	461.4	330.0	114.8	440.7	84.4	1,431.2	366.1	1,797.9	

Source: The same as Table 1.

As a result, both economic and non-economic motives of many inter-Korean trade participants have been intermingled in their decision making processes. But as time has gone by, South Korean firms have tended to become more profit-oriented. Many are also experiencing the insufficiency of infrastructures, including communication, transportation, and custom clearance across the borders, not to speak of solving such problems as 'default products' involved with commission-based processing works in the North. Above all, much unsolved political and military tension of ill remains as factors of uncertainty in the inter-Korean trade.

As regard to the exchange of people between the South and North, visits to the North (excluding sightseeing visits to the Mt. Kumgang and Gaesung areas) dominated as shown in table 3. Table 4 shows the annual visits of South Korean residents to the Mt. Kumgang and Gaesung areas. The overall tilt to the North in the flow of both economic trade and human exchanges are obviously increasing, based on humanitarian concerns, the South's higher income and the South Koreans' general curiosity about the Hermit Kingdom as well as weakening political and military tension. It does, of course, not go without saying that DJ's sunshine policy contributed to South Korean attitudes, while most North Koreans have not yet "untied their combat boots." The South's large economic assistance to the North during the last two decades has apparently helped the Dear Leader hold a bold bargaining position in nuclear negotiations with the United States. Ironically, the South's assistance has so far contributed in some degree to the postponement of friendly diplomatic relations between the United States and the Democratic People's Republic of Korea. But in 2008 when Lee Myungbak and his anti-communist conservative supporters took over the government in Seoul, the South-North relations as well as relations between the United States and North Korea appeared to enter a new phase. North Korea has been seeking military and diplomatic talks with the U.S. while excluding South Korea in the process.

	Table 3: Annual Exchanges of People (unit: numbers)											
	89-97 98 99 00 01 02 03 04 05 06 07 Total							Total				
$S\rightarrow N$	2,405	3,317	5,599	7,280	8,551	12,825	15,280	26,213	87,028	100,838	158,170	427,506
$N\rightarrow S$	575	-	62	706	191	1,052	1,023	321	1,313	870	1,044	7,157
Total	2,980	3,317	5,661	7,986	8,742	13,877	16,303	26,534	88,341	101,708	159,214	434,663

Table 4: Tour Visits to the Mt. Kumgang and Gaesung Regions

Year	98	99	00	01	02	03	04	05	06	07	Total
Mt.Kumgang	10,554	148,074	213,009	57,879	84,727	74,334	268,420	298,247	234,446	345,000	1,734,687
Gaesung								1,484		7,427	8,911
Total	10,554	148,074	213,009	57,879	84,727	74,334	268,420	299,731	234,446	352,433	1,743,607

Sources: The Ministry of Unification: Exchanges of People between the South and the North (monthly statistics).

The past two South Korean regimes of Kim Dae-jung and Roh Moohyun were believed to have poured more than 11.0 US billion dollars into cooperation projects with North Korea. (Kim: 7.3 billion dollars in 1998-2002 and Roh: 3.7 billion dollars in 2003-2006 and, 1.2 billion dollars in 2007). In return, Kim Jong-il invited both South Korean leaders to make cordial visits to Pyongyang.

The Comparison of the Inter-Korean Trade with the North Korean-China Trade

Since 2000, both South Korea and China have been major trade partners of the DPRK. During the period of 2000-2005, the marginal increase of North Korean's external trade amounted to 1.6 US billion dollars or exactly equal to the increase of both the South-North trade (0.6 billion) and China-North Korea trade (1.0 billion dollars).

A comparison of the inter-Korean economic cooperation with the bilateral economic cooperation between North Korea and China reveals some features of inter-Korean relations. First, the annual growth rates of both Chinese and South Korean economic cooperation with North Korea approximated 30% before and after 2000. However, the South-North economic cooperation comprised a relatively lower share of the pure commercial trade and a larger share of investment and aid as compared to the China-North Korea economic cooperation. North Korea has seldom provided either China or South Korea with any subsidy aid or direct investment. Since Northern exports (inclusive of its aid and investments in both China and South Korea) are very insignificant, we may simply compare only its imports (including aid and investments from China and South Korea) from the two countries. In the case of inter-Korean economic cooperation, the South's aid and investments were 184 million dollars (which accounts for 67.5% of South Korea's total exports to the North) in 2000, an amount which rose to 349 million dollars (79.5%) in 2004 and 635 million dollars (88.8%) in 2005.

By comparison, Chinese aid and investments into North Korea was 104 million dollars (23.1%) in 2000, 163 million dollars (20.4%) in 2004, and 290 million dollars (26.8%). China has kept its economic cooperation with North Korea on a commercial basis rather than offering Pyongyang "free gifts" (namely aid and investments). In other words, China trades with North Korea is based far more on reciprocity than the inter-Korean trade, which has been based on favoritism, despite the two Koreas remain in a state of an incomplete truce.

Secondly, South Korea and China are exporting intermediate inputs and materials to North Korea while importing mostly primary goods. But in terms of specifies, South Korea's trade is rather simple and sparse as compared to the Chinese trade. Thirdly, the share of general trade in inter-Korean economic cooperation has been less than the half while the China trade depends heavily on the general trade with only 5% being commission-based processing trade. South Korea has been "red" (deficit) in its general trade with the North, while China has kept "blue". South Korea's pure commercial exports were merely about 1/50 of Chinese exports to North Korea as of 2005. This explains the fact that the

South's influence on the North's markets is far smaller than the Chinese impact. According to China's *People's Daily* (2006.8.11 internet edition), Chinese products account for 70%, North Korean products 20%, and Russian and Japanese products account for 10% together among all commodities being transacted daily in North Korea's markets.

Fourthly, there are distinctive differences in the pattern of direct investment into North Korea between South Korea and China. South Korea has mostly invested in the North's special economic zones (e.g., the Gaesung industrial complex) with the aim of utilizing the low wage labor of the North in CPT and other manufacturing. On the other hand, China has concentrated in such areas as mining to obtain natural resources. Recently, China has diversified its investments in infrastructure expansion as well as manufacturing, circulation and marketing areas. In short, South Korea looks forward with a short-sighted approach while China has adopted a long-ranged one. And the Chinese decision appears more promising in the long run.

The Determinants of Inter-Korean Economic Cooperation

The major determinants of inter-Korean relations involve both "actors (participants)" and "environments" on both sides. Actors include the South's government, the South's enterprises, public and private organizations, and the North Korean government, which, in broad context, is the sole decision maker as well as action planner. The internal and external environments involve various factors affecting the two parties, i.e., the South's and the North's respective relations with other nations, particularly with the United States, as well as the two parties' economic, political and military problems. Once we confine our discussion to the motives of inter-Korean economic cooperation, it is easier to chart the respective interests of the participating actors. Needless to say, South Korea's private companies are mainly concerned with making money while other social NGO groups highlight humanitarian motives to help people in the North rather than simply "profit-seeking". The South's government, including public organizations, has approached North Korea to help relieve the latter's economic hardships with the hope that the cooperation could contribute to easing the long-standing strains across the border.

On the other hand, it seems as if leaders of the North understand that the sustainability of their system depends on improving relations with the United States more than North-South inter-relations. North Korean leaders have apparently learned that their economic recovery, the international environment's impact on a foreign capital and even inter-

Korean economic cooperation are all dependent upon relations with the United States.

Trade, Investment, and Economic Assistance

From the perspectives of South Korean businessmen, the motives for inter-Korean trade and investment into North Korea are numerous. They include current and future profitability, and availability of low wage labor, tariff-preferences, the establishment of bridgehead, contributions to government policy, and, not the least, "helping their own or their parents' native home". But the main incentive lies in profit-seeking.

From the North Korean viewpoint, however, the inter-Korean economic cooperation must be no more or no less than the "mutual sharing of income" based on "our own national fraternity". The North does not generally take into consideration the South business profit from the inter-Korean trade. Nevertheless, North Korea has enjoyed a considerable benefit in its exports of marine products and raw minerals (including coal) to the South due to the relatively short transportation distance and various favors (i.e., tariff exemptions) extended by the South. The major impediment associated with the North's indigenous tradable items is the decreasing demand for such goods in the South.

The South's investments in North Korea are largely in the forms of joint investment or joint operation companies⁷, except for the Mt. Kumgang project which is being solely supported and operated by the South's Hyun-Dae. Most South Korean investors build factories jointly with North Korean puppet companies. They import raw and intermediate goods from the South to process finished goods using low wage workers in the North and then re-export them to South Korea and third countries via South Korea. This inter-Korean trade can continue as long as the overall cost (including plants) of production for a particular product in the South exceeds the overall cost of production of the product in the North. The choice of production locations as well as kinds of products depends on the comparative costs of plants (including land and facilities), wage and productivity differentials, transportation costs involved between the two locations. Considering only that the North's average monthly wage (\$36) is currently about 1.5% of the South's average monthly income (\$2,360) in 2008, there is good incentive for the South's labor-intensive goods producers to look for investment opportunities in the North. Particularly in the investments in the Gaesung complex are being subsidized by the South Korean government in terms of provisions of basic infrastructure lay-outs and electricity supplies in addition to the availability of new road across the border. However, the short and long-run success of any investments not only in the Gaesung complex but also elsewhere, is likely to depend upon the changing dynamism of comparative advantage structures among alternative investment locations and projects across the world. Everything is changing rapidly in this global and dynamic age.

Lastly, the one-way assistance to the North has been so far influenced by non-economic and political considerations. The distinction is very difficult, but largely the private sectors provide the North with somewhat humanitarian aid, while the South Korean government extends more or less politically-motivated assistance. To date, the South Korean government has attempted to change the North's behavior and to further peace on the peninsula. Toward those objectives, South Korea has been willing to pay off as much as possible for its unpredictable brothers in the North. Such a political position is related to the so-called "commercial liberalism", which believes that the inter-Korean economic improvements will contribute to enhancing "peace" among parties concerned. Beginning with the Roh Tae-woo government in 1987, South Korea adopted its policy of functionalism to deepen the intra-Korean dependency and the inter-Korean economic cooperation with the aim of reducing military tensions. The Kim Dae-jung and Roh Moo-hyun regimes aggressively advanced their policies on the basis of both functionalism and liberalism. The functionalists' basic approach is to advance from humanitarian projects to economic projects to a military and political appearement stage. Neo-liberalism, a hybrid of functionalism and liberalism, seeks to pursue parallel policies for the interaction of both economic and political areas as well as other mutual contacts without regard to ideological differences. In spite of the South's aggressive and friendly gestures toward North Korea, the North has maintained a very negative position toward the South when they have come for talks for easing military confrontation, even after the June 15 joint declaration⁸. Therefore, many conservative Koreans doubt if real inter-Korean improvements for peace have ever been made, despite the enormous dollars poured into North Korea under the past two progressive regimes. The returns from the North have been too small as compared to the South's big aid-dumping into the North. When Kim Jong-il launched missiles in July 2006 and tested a nuclear bomb in October 2006, many people began to awaken to the need for reciprocity in inter-Korean economic cooperation. This awakening on the part of majority of the South Koreans led, in fact, to regime change in favor of the more conservative Hannara (Grand National) Party candidate, Lee Myung-bak, in the Presidential election held in December, 2007, ending ten years of South Korea's governing leftist liberal party (which was renamed the United Democratic Party). However, liberal left-wing

factions have already proliferated greatly in numbers in every corner of South Korean society during the last decade. In less than three months after President Lee Myung-bak took office, left-leaning liberals were staging street demonstrations (under the slogan of "candlelit vigil cultural activities" to avoid obtaining legal permission for such demonstrations), whose core target was ousting the right-wing regime while claiming the protests were against US beef imports. The leftist-prone civic coalition members and their supporters are using their internet news-media and blogs to attack the embattled Lee regime. The ideological splits and hatreds will not end in the South unless the communist system of North Korea is dismantled.⁹

The Effects of the Inter-Korean Economic Cooperation The Impacts on the South Korean Economy

Perhaps the policy of inter-Korean economic cooperation has contributed to reducing the military and political strains and tensions toward North Korea, in the South. In particular, the DJ's sunshine policy has largely contributed to encouraging many South Koreans to disarm mentally against any remaining dangers from Kim Jong-il and his communist regime. Furthermore, increasingly the South's most recent post-war generation has come to regard North Korean communists as less the enemy as the United States. They have been influenced by liberal-minded teachers as well as history books and periodicals. 10 Such factors have been reinforced by the DJ's radical policy shifts on domestic issues as well as on North Korea. The extent of the sunshine policy's impact remains unclear. 11 Nevertheless, DJ sunshine policy helped South Koreans, including business people and military soldiers, to reduce worries about a war renewal in the peninsula, thus having induced many to visit North Korea either for sightseeing or in search of business opportunities. The aggregate inter-Korean trade occupied only 0.19% of the South's total external trade and 0.13% out of its GDP respectively in The South's cooperative support for the North including the commercial trade (that consists of both pure trade and investment) accounted for a mere 0.13% of the South's total trade and 0.09% of the South's GDP, which is indeed not significant from the perspective of South Korea's economy. South Korea has annual trade deficits of about 200 million US dollars with North Korea, which is, of course, not a big burden in terms of its current economic strengths. The South Korean economy is capable of providing the North with more economic cooperation, and is willing to, if the North would respond in a friendlier manner. What is now blocking further progress are the emotional issues involving the South's distrust and suspicion that the North's leaders might have diverted the South's money to build its nuclear and missile projects while leaving nearly a million people to starve. What is needed today is reciprocity in the inter-Korean cooperation. Such reciprocity does not necessarily involve the trading of goods and services only but such equivalent pay-offs as positive responses toward common interests in political, military and international objectives.

Table 5: The Share of the Inter-Korean Trade in the South's Economy (2005).

	Economic	Share in South	Share in South
	Cooperation (1 Mil)	Trade (%)	GDP (%)
N-S Cooperation	1,055	0.19	0.13
(Trade)	420	0.08	0.05
Trade Balance	-194	-0.04	-0.02
(Investment)	270	0-05	0.03
(Subsidies)	365	0.07	0.05

Sources: The Ministry of National Unification and the Bank of Korea.

Note: In 2005, South Korean total trade amounted to 545.7 billion US dollars and its GDP was 787.5 billion US dollars.

South Korean government aids originate in the South-North Cooperation Fund, which is classified into three categories: subsidies, investments, and other expenses. The Fund had generated about 2.98 billion US dollars (equivalent to 2,987.9 billion Korean won) for the period of 1991-2005, out of which about 262.0 million US dollars (2,620.0 billion Korean won), that is, an annual average of about 174.7 million US dollars (174.7 billion won per year) were used. amount is equivalent to about 0.1% of the South's total budget of about 2.1 trillion US dollars (2,123.7 trillion won) and about 0.04% of GDP of about 7.3 trillion US dollars (7,264.8 trillion won) during the five year period. This figure does not include the money donated to KEDO projects. Expenditures in the Grain Management Special Account are also excluded, because they aim principally to support domestic farm households through the government purchase of rice. government sent the purchased rice to North Korea for aid 12 whose value is being recoded at the international price, about 1/3 of the domestic rice price. The accounting for the money used to assist the North is never clear cut and the accounting methods remain very elusive, not only because of dual prices like the case of rice above, but also because of many omissions of private humanitarian aid provided through indirect and round-about delivery channels.

Out of the official Cooperation Fund (1991-2005), the South Korean government used 1.68 billion US dollars (equivalent to 1.68 trillion Korean won) (64%) to send North Korea food and fertilizer and

used about 820.0 million US dollars (31%) (equivalent to 820 billion Korean won) for the construction of railroads and roads as well as for other aids, with the remaining 490.0 million US dollars (0.5%) for social and cultural projects during the period of 1991-2005.

The aid provided by the South's private sectors was officially around 600.8 million US dollars (about 54.6 million dollars per year), or about 1/3 of the South Korean government aid during the same period. However, the actual amount handed over to northern relatives and various organizations (churches, temples, orphanages, etc.) by South Korean residents probably exceeded the official figures. Nevertheless, the government's share far exceeded the money provided by the private businesses sectors. Many South Korean companies participating in inter-Korean cooperation projects have not been making profits, except for a few recent business activities in the Gaesung projects.¹³ It is not known if the South Korean government has ever demanded in clear language the North to reciprocate in return to the South's continued assistances. This issue has recently been the source of arguments among South Koreans who are split between the left- and right-wings, as regarding the real nature and intention of the inter-Korean economic cooperation first advanced by DJ's sunshine policy. Right-wing supporters believe that the South's reckless pouring into the North has only helped Kim Jong-II develop missiles and nuclear weapons that will target at the *enemy in the South*.

The total opportunity costs of both the public aid and private investments into the North must include the non-profit making investment times the compound interest rates forgone thereof plus the internalized social costs involving the portion of the South's money that the North might have diverted to develop its war weapons, thus causing unrest among South Korean citizens, minus the positive contribution of the cooperation to reducing the mutual tensions interalia. period 1989-2005, annual public aid was about 175 million US dollars while annual private investments into the North were about 55 million US dollars of which about 2/3 (67%) was lost, as mentioned earlier. Based on these figures, the quick rule of thumb estimate shows that the annual opportunity costs of monetary values given to the North have amounted to about a total of 11.64 billion US dollars by 2005. 14 For the last 10 years as the total opportunity costs of inter-Korean cooperation are estimated to have been approximately 11,640 billion US dollars for South Korea. If we add the external costs of those ideological conflicts involving the intra-Korean issues that would result in frequent antigovernment demonstrations in South Korea, the internalized costs will reach an astronomical amount, even though the nominal intra-Korean trade is not so significant in view of the current size of the South Korean economy. In passing, it may be worth noting that the Gaesung industrial complex was approaching the breakeven point in 2007, according to a report by the Gaesung Industrial Complex Supporting Team of the Ministry of Unification in Seoul. From January 2004 until August 2006, total cash and material inputs for the Gaesung projects amounted to about 28,056 thousand US dollars which included 16,000 thousand dollars for land compensation (for 1 million pyong = 3.3 million square meter of area), 7,218 thousand dollars for wage and salary for workers, 3,105 thousand dollars for construction materials, 1,289 thousand dollars for communication bills, and 444 thousand dollars for tax payments. An exact cost-benefit analysis needs to be done to further estimate the overall effects of the investments on value added, employment and net exports of those South Korean participating firms.

The Impacts on the North Korean Economy

Inter-Korean economic cooperation has increased the dependency of the North Korean economy on the South. Generally, the inter-Korean trade statistics can be reclassified so that the general trade is regarded as commercial trade while classifying aid as a transfer payment. material-type investments are made for branch companies of South Korea in the North. Such investments in the form of input materials for the South Korean branch firms in the North is problematic if we regard it as contributing to the North Korean GDP. Commission-based processing trade is related to the 'transaction of labor forces', from which the North Korean workers take their processing commission which accounts for approximately 50 % of the total cost of CPT¹⁵. On the other hand, we consider that the in-kind grants are not much different from the free aid in view of the special relation between the two Koreas. So in this analysis, we will simply treat it as part of the transfer payments from the South to the North. Though the data sets are only simplified approximations, the North Korea's balance of trade from the inter-Korean economic cooperation, using the data of 2005 as a standard year, could be roughly estimated as shown in the table 6.

The North Korean income increase owing to the inter-Korean economic cooperation is equal to "trade (commodities) balance + processing commission (CP revenue)", which constitute the parts of the North Korean GDP plus "the current transfer payments from the South to the North". The latter (including humanitarian aid and food grants from the South) does not belong to either the North's Gross Domestic Products (GDP) or the North's Gross National Income (GNI).

But the aid and grants (which are also de-facto aid) constitute those items contributing to the increase of the North's Gross Disposable Income (GNDI). The net increase in North Korea's income in 2005 thanks to the inter-Korean economic cooperation was approximately to amount to 194 million US dollars(commodity trade: balance 168.0 million dollars plus processing commission revenue: 26.4 million dollars) in terms of both nominal GDP and GNI. But it totaled 559.4 million US dollars in terms of GNDI (gross national disposable income) for the North Korean people as a whole. The net effect of the inter-Korean economic cooperation (which was based on our very conservative approximation) on North Korean GNI and total exports (the sum of imports and exports) accounted for about 2.3% and 18.7% respectively in 2005. If we added other omitted items such as fertilizer, infrastructure facilities, electricity supplies, medicines, and various fees and tax payments, its share of North Korea's total trade rose from 13% in 1999, 26% in 2005 and, most recently, to 61.2% in 2007. 16

Table 6: North Korea's Trade Balance Earned from the Inter-Korean Economic Cooperation in 2005 (Unit: million US dollars)

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Type	Exports	Imports	BOP Compo.	Credits	Liabil.	Balance
Trade	99.4	320.1				
General	20.9	188.9	trade bal.	20.9	188.9	168.0
CPT	78.5	131.2	commission			26.4
Aids & Grants	365.0	0	Cur transfer	0	365.0	365.0
Humanatarian	241.0				241.0	
Food Grants	124.0				124.0	
Investments	251.1	20.1		20.0	251.1	
Light/Water	0.4	-			0.4	
Mt.Kumgang	87.0	0			87.0	
Gaesung	156.9	19.8		19.8	156.9	
Other projs.	6.8	0.2		0.2	6.8	
Total						559.4

Sources: The Ministry of Unification. This table is based on Lee Young-hoon's *The Status and Evaluation of the Inter-Korean Economic Cooperation*, a working paper of the Bank of Korea, 2007, p.31 (in Korean).

In sum, the inter-Korean cooperation has helped the North fill considerably its external trade gaps with China and other countries. It is estimated that North Korea has annually earned about 180 million US dollars from the inter-Korean economic cooperation. If other revenues made in relation to visitors and relative remittances from the South were added, the figure would exceed 200 million dollars annually since 1998. South Korea has literally contributed since that time to sustaining the regime in the North, regardless of the latter's frequent bluffs and threats

Is There a New Policy Paradigm toward the Inter-Korean Cooperation Under Lee Myung-bak's Leadership?

"National unification is the main hope of 70 million Korean people. The relation between the South and the North must develop toward better productive ways than ever before. I will solve our national division problem not by the measuring rod of ideology, but by the rule of pragmatism. Our goal lies in both helping the South and the North residents live happily and providing the common grounds for reunification".

--President Lee Myung-bak's Inauguration Address on February 25, 2008 –

With a new government in the Blue House being backed by South Korean conservatives, people are demanding fundamental shifts in the policy paradigm toward North Korea. New President Lee has pronounced that his regime will pursue the roads of both *common survival and mutual prosperity* on the basis of pragmatism and productivity. In his remarks, he made it clear that his government would not recklessly pour money into the North if the latter did not respond correspondingly. This did sound as if he fully recognized the need of reciprocity in every transaction between two Koreas. The term reciprocity means a more balanced trade between the two Koreas, not necessarily in pecuniary two-ways but in the form of formidable give-and-take alternatives.

The new government in the South pronounced its 2008 action plan comprising three main objectives with twelve supplementary tasks that are considered necessary for achieving both "common survival and mutual prosperity". The new action plan aims to carry forward the inter-Korean economic cooperation in line with the North's response in reducing its nuclear projects. The new four principles propose that Lee's government will cooperate with the North step by step if, and only if, such preconditions as the North's denuclearization progress, economic feasibility, financial capability, and people's consensus regarding the inter-Korean economic cooperation are met.

As usual, the Northern side began early to criticize Lee's conservative approach. In an interview with reporters in late March, the talkative President Lee said that his government would always leave a door open to talk with the North, revealing his somewhat laid-back position. To make matters worse in the South, the candlelight demonstrations against US beef imports appear certainly targeted against the conservative, pro-American regime. Amidst anti-US beef

and anti-conservative street demonstrations which continued into June 2008, the Lee government appeared to kneel down before the liberal protestors whose core members must be suspiciously linked directly or indirectly to Dear Leader in the North. As long as the liberal groups are protesting against the government, it will be difficult for Lee's plan to survive initial policy discussions. Unless the Lee's government proceeds with its solid policy whatever the costs might be, no bright hope will be forthcoming. The Lee Myung-bak government currently appears to be trapped between these internal protests and North Korean's inconsistent diplomacy.

Concluding Remarks on the Need for Reciprocity in Inter-Korean Relations

From the moment he occupied the Blue House in early 2008, Lee Myung-bak offered to help the North improve its economy, education, infrastructure, finance, and living conditions within five years if the North abandoned its nuclear programs. He also formulated inter-Korean policies to assist the North to raise its per capita income to 3,000 US dollars within ten years, once the North took denuclearization steps. Lee's policy toward the North reflects a reciprocity principle vividly different from the lopsided cooperation of the past regimes. For 10 years, the policy of both Kim Dae-jung and Roh Moo-hyun helped Northern communist leaders to do increasingly less for their starving populace with increasingly greater aid. The idea of DJ's sunshine policy was a serious mistake—the product of wishful thinking and contrary to true realism. Any generous external aid would not help the beggars change their begging mentality unless the aid carried conditions that the beggars promised to stand on their feet. As a result of the sunshine policy, the North could rebuild its military strength while leaving many own residents unable to get out of the shadow of a shortage economy. Free aid could demolish the spirit of the beneficiary unless they carry the lesson that Heaven Helps Those Who Help Themselves. The problem that exists in North Korea with the bottom-hit economy and the total reluctance to implement the most elementary and necessary perestroika and glasnost drives the North leaders to look at non-expensive money that they think they can exploit by warping and bluffing the South.

The North's interests in nuclear weapons have made possible the rogue regime behave more madly to get more money from the South. That is one of the many reasons why the South must now demand reciprocity with the North. Installing reciprocity in the inter-Korean economic relationship will not be cheap, but it is necessary. The

benefits will outweigh the costs in the long run for both South Korea and North Korea as well.

As regards the Lee Myung-bak government's new approach, the North is still responding negatively until June 2008 when the candle lights keep burning in every night in the Seoul streets. The North even turned down the 50 thousand tons of corn aid offered early June 2008 by Lee's government, although North Korea faces severe food shortages. According to a recently obtained North Korean government document released by Good Friends, which is working to help hungry North Koreans, it calls for a redoubling of the North's campaign to increase this (2008) year's crop production. This reveals the fact that the country is in severe state of food shortage.

Anyhow, Lee's initial tough stance toward the North on taking office infuriated the North, which considered it an insult to the Dear Leader Kim, who had negotiated and signed previous deals. Lee soon began to sense a sort of crisis ignited in the South from the resumption of US beef imports in the late spring of 2008. The beef fiasco appeared to make him reconsider, rightly or wrongly, that he could not overcome the crisis by further alienation from North Korea. In a reversal of his hard-line stance toward North Korea, President Lee Myung-bak offered to resume a dialogue with the North during his first parliamentary Presidential speech made on July 11, 2008. The president stressed that his government was willing to engage in serious discussions with North Korea on how to implement the inter-Korean agreements made so far, including the 1991 Joint Declaration on the Denuclearization of the Korean Peninsula, the South-North Joint Declaration of June 15, 2000 and the October 4, 2007 summit declaration between the leaders of the two Koreas. 19 Lee expressed his wish to engage in inter-Korean humanitarian cooperation. "From a humanitarian and fraternal standpoint, the South Korean government is ready to cooperate in efforts to help relieve the food shortage in the North as well as alleviate the pain felt by the North Korean people. Issues involving South Korean POWs, separated families and South Korean abductees should be resolved as well". "Inter-Korean relations should transcend changes in administrations and be pursued from a future-oriented perspective for all the Korean people," Lee told lawmakers.²⁰ There was no immediate North Korean reaction to Lee's speech, which was considered a softening of his previous hard-line posture. 21 Earlier he had said he would "review" the inter-Korean agreements, which promised projects worth billions of dollars. He had during his election campaign ruled out expanding joint economic projects already under way, including the Gaesung industrial complex north of Seoul and another symbol of reconciliation pursued by his liberal predecessors. Lee's overture came amid a deepening chill in relations with the North Korea, though recognizing the need for reciprocity in inter-Korean relations.

The need for reciprocity in inter-Korean relations cannot be overemphasized. "Reciprocity", that is, "cooperate if", is beneficial for both parties. Above all, "the cooperation if" principle will help improve each economic policy efficiently, providing both parties with a "better understanding" about the "economic functioning" of the other system. Learning about the policy efficiency of the other-side is one of the important gains that could be earned through reciprocity deals. Likewise, "paying the price" is far more worthy in the long run than "free lunch" for the parties involved in strengthening their economies. Reciprocity arrangements will also contribute to making both parties earnestly complement one another on the basis of a comparative advantage of endowments in both software and hardware. Reciprocity deals can contribute to promoting peaceful coexistence and to strengthening the inter-Korean cooperation. Reciprocity is the starting point of the long-run joint efforts toward inter-Korean cooperation as well as the way to build mutual trusts and common prosperity in a peaceful environment. Of course, a heavily isolated country like DPRK needs to understand the long-run benefits of reciprocal fair trade instead of beneficiary trade. Getting used to a new mode of mutual cooperation is something that requires paradigm shifts in the ways that the leaders accept reality.

Reciprocity can function well, not only when the two parties agree to follow "the give and take game" complementally, but also only if each party could secure its internal consensus. Do two walk together a long way unless they have agreed to do so? Does any leader keep up with his or her strong political stance if he or she lacks full supports from citizens?

The ideological split among South Koreans is a staggering flaw that is currently dragging down the realistic reciprocity approach being pursued by Lee's government. The South's coalition groups with the candle lights in their hands are demonstrating "against food", namely the beef imports from the United States. The candlelight turmoil in the summer of 2008 is apparently contributing to making the Seoul government turn around from its initial "cooperate if" policy toward North Korea. If the current Lee Myung-bak regime appears bogged down and unready to face its opposing forces firmly, it will invite further conflict inside the state. This will, in turn, lead the regime to be incapable of pursuing straight forward reciprocal deals with the North.

On the other side of the border, many hungry people are striving "for food". The economy of chronic food shortages is not also in a position to assume reciprocity. Pyongyang's stubborn refusal to embrace Lee's offer may seem also to be driven by its distrust against conservatives in the South.

The North's monolithic group of elites who share the same views, values, and visions need first to wake up from their closed mind-sets and to come to understand the outside world if it wants to go forward to overcoming the vicious circle of economic and political policies which has produced only stagnation.

The comparative situations illustrated above reflect the unsolved reality of the two Koreas as of middle of 2008. While the Six Party (South Korea, North Korea, USA, China, Russia and Japan) talks could just barely come to persuade North Korea to abandon its nuclear arsenal, the United States announced it would remove North Korea from its lists of state sponsors of terrorism. Concurrently, President Lee Myung-bak said that a "full dialogue between the two Koreas must resume" in his speech at the newly-convened National Assembly on July 11, 2008. But on his way to the National Assembly, the president was informed that a South Korean tourist had been shot to death near the beach hotel of Mount Kumgang by a North Korean soldier in the early morning of Seoul announced it would temporarily halt its tourism program as of July 12, 2008. The dead woman was one of some 1,500 tourists visiting the Mt. Kumgang area in the week of the accident. More than a million South Koreans have visited the mountainous area since 1989 until this accident. This shooting, whether intentionally made or not, was at least a cloud in the inter-Korean relationship.

On the other hand, so many demonstrators who were recently in the streets with both candle light and loud voices protesting Lee's policy of resuming US beef imports remained "strangely quiet" about the shooting of an innocent tourist by a North Korean soldier, not to mention their continuing silence about human rights suppression in the North

The future win-win outcomes in the inter-Korean relationship seems to depend on not only the removal of blockades in military, political, economic, and ideological fronts on the basis of a reciprocity framework between the two Koreas, but also overcoming the differences between conservatives and liberals in South Korea.

Notes:

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¹ Kim Jong-il and Kim Dae-jung (DJ) met in Pyongyang and released a joint communiqué on June 15, 2000.

² Law No. 7763, December 29, 2005.

³ See the article 13 of Law No. 7763 cited above. The Basic Plan was made in accordance with the article 13: 3 item of the Law.

⁴ Total budget for the light water energy project was set at 4.6 billion dollars of which South Korea was to assume 70 % (3.22 billion dollars), but the project was suspended in December 2003. Actual spending for the project was 1.48 billion dollars until the suspension. (S. Korea: \$1.07 billion, Japan:\$0.39 billion and EU: 0.02billion).

⁵ See Lee Young-hoon, *The Status of China-North Korea Trade and its Impacts on the North Korean Economy*, The Bank of Korea: Monthly Bulletin (in Korean), February 2006.

⁶ North Korea announced its measures (named as 7.1 action plans) on July 1, 2002, in order to designate the Shineuijoo Special Administration Area (September, 2002), and both the Gaesung Industrial Complex and the Mt. Kumgang Tourism Area (November, 2002) with its eye on foreign capital inflows.

⁷ Joint investment company is one where two parties invest each but only one party is solely responsible for managing the company. A joint operation (management) company is when two parties share equally in their investment as well as the management of the company.

⁸ Kim Jong-il and Kim Dae-jung made a joint declaration on June 15, 2000 upon their summit in Pyongyang.

⁹ See Eui-Gak Hwang, *Are Koreans Ideologically Victims Yet?* Working Paper Series Vol.2008-15, June 2008, The International Centre for the Study of East Asian Development (ICSEAD), Kitakyushu, Japan.

¹⁰ Bruce Cumings and his Korean students are responsible for having misled Korean youngsters. DJ may also be one of followers of Bruce Cumings on the origins of the Korean War.

¹¹ Nam Sung-wook shows that there exists some positive correlation between the South's stock price index and the inter-Korean trade in his study made after the IMF crisis. But his research is based on too simple a model with a limited number of variables and observations, which do not guarantee sound results. See his paper titled: "The North-South Relations and Country Credibility—With Emphasis on Correlation between Stock Prices and Inter-Korean Relations," presented at the Korean Political Association, July 2007, 9 (in Korean).

¹² As regards to some arguments that a total of about 8.4 trillion won (that is 8.4 billion US dollars) was given to North Korea for 10 years starting from 1988 to August 2007, refer to *The Reference Data for Aid to the North*, the Ministry of Unification, October 13, 2006, and *Records of the National Assembly*, October, 2008.

¹³ According to Kim Young-yoon's study, about 2/3 of the companies are losing money in their businesses with the North. See Kim Young-yoon, *A Study of Failure Cases on the Inter-Korean Economic Cooperation: A Policy Task*, The Research Institute for National Unification, 2004, (in Korean).

¹⁴ It is estimated as follows: (public aid + private investment times 0.67 times (1+ r)) times 0.01 times ½ of total population in South Korea, where 0.67 is failure rate of the investment, r is the annual interest rate forgone assumed to be 0.05, and the number 0.01 indicates that about 10 percents of total public and private investments going to strengthening the military power in the North. It is also assumed that only a half of the South Koreans are being affected with one US cents per person by the potential threats from the North.

¹⁵ In the total costs of the processed goods being re-imported into the South side, the cost of raw materials provided by the parent companies in the South, transportation costs, and processing costs are included. The costs of commission-based processing goods would vary depending upon both the kinds of goods and the companies involved. We consider the average costs to be around 50 % of the total trade balance related to the CPT goods, in this analysis.

¹⁶ Refer to both various reports cited above on the Inter-Korean trade and cooperation and *The Estimation of North Korean Economic Growth (Annual)* by the Bank of Korea (http://www.bok.or.kr) (in Korean). Also see KOTRA, *The Trends of North Korea Trade (each year)*. (http://www.kotra.or.kr).

¹⁷ The 2008 Action Plan has three objectives and twelve implementation tasks. The first objective target to facilitate the North's denuclearization, in turn, consists of (a) achieving the North's nuclear dismantlement through the inter-Korean relationship; and, (b) inducing the North's denuclearization as well as its glasnost. The second objective aims to enlarge inter-cooperation with an eye on common survival, thus contributing to economic progress in the peninsula. Toward this objective, it proposes (c) to reduce any barriers to the enterprises engaging in the cooperation, promoting (d) forestry area cooperation, (e) fishery area cooperation, and (f) resource area cooperation in addition to (g) the Na-deul island project. The third aims to promote mutual welfare of people in both the South and the North. Toward this, (h) reunion of separate families, (i) POW's and kidnapping issues, (j) dissidents' settlement, (k) transparency of the distribution process of humanitarian aid, and (l) human rights in the North must be solved. (Source: Ministry of Unification, *The Status and The Directions of Policy toward North Korea, June 2008*).

¹⁸ The Korea Herald, p.2, June 19, 2008.

¹⁹ Lee Myung-bak's liberal predecessor, Roh Moo-hyun and North Korean leader Kim Jong-il held the second inter-Korean summit in Pyungyang in October 2007, and signed a 10-point joint declaration calling for establishing permanent peace on the peninsula and significantly expanding inter-Korean cooperation in politics, the economy, denuclearization and other issues.

²⁰ Quoted from *Jong Ang daily*, July 12, 2008 (No.2372), p.1. http://joongangdaily.joins.com.

²¹ Earlier on July 7, 2008, Lee Myung-bak said to reporters that he was willing to meet the North Korean leader any time in order to speed up the North's dismantling of its nuclear programs. North Korea rejected any possibility of summit talks with Lee, saying that "it is preposterous for Lee to suggest such a meeting". The North accused Lee of suggesting a summit with the North Korean leader in an attempt to "evade the responsibility for having bedeviled the inter-Korean relations".

²² On April 18, 2008, South Korean and U.S. negotiators reached agreement on the sanitary rules that Korea would apply to all beef (irrespective of age) imports from the United States. The rules were expected to take effect in mid-May when Korea published implementing regulations. However, continued strong Korean public opposition ignited via TV coverage of the issue and Internet-spread rumors on US beef infected with mad cow disease, or BSE (bovine spongiform encephalopathy) has resulted in escalating protests. Behind the protests is the round-about influence from the North Korean leader or his followers in the South strongly suspected to plot to undermine the standing of the new South Korean President Lee and his conservative political party, which holds a slim majority in the South's Parliament.