Heavy and Chemical Industrialization (HCI) Policy as a Mega-policy

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Abstract : The objective of this paper is to show how the Heavy and Chemical Industrialization (HCI) policy during the period of 1972-79 in Korea constituted a Mega-policy. The Mega-policies are intersectoral, require the creation of new institutions, generate new expectations, and engender new paradigms. This paper traces its development, explores how the policy emerged, and how the policy affected numerous sectors of the Korean economy. The influence of this policy on the later development of Korean economy had been substantial. The combination of government support and huge investments by the chaebol is a result of this policy. Despite the success of Korean economy in the 1980s, the legacy of the HCI Mega-policy persists and casts doubt on future prospects for Korean economic development.

INTRODUCTION

In 1972, President Chung-Hee Park proclaimed that Heavy and Chemical Industrialization (HCI) program was to be the new direction for economic development in Korea. According to his plan, the state was to initiate the development of six strategic sectors: iron and steel, chemicals, nonferrous metals, machinery, shipbuilding, and electronics. The government claimed that this strengthening of the industrial structure was required because ofthe reduced competitiveness of the traditional, labor-intensive export industries such as textiles and footwear. During the period of 1972-79, significant preferential treatment was accorded to these strategic industries.

During the 1970s, the consequences of this policy extended far beyond the strategic industries. HCI policy aimed to build up the heavy and chemical industries, but it also ended up creating new state and market institutions that changed the character of government-business relationships, and subsequently, the organization and behavior of firms. These transformed institutions and patterns of behavior continued even after the abolition of the HCI policy. In fact, in the 1980s, policies aimed at liberalization and for the promotion of high technology were constrained by the persistence of institutions and behavior established during the 1970s.

In this regard, the HCI policy deserves to be called a "Mega-policy." Although Mega-policies or "great" policies have not been clearly defined, according to John Montgomery, they are different from just "good" policies. They defy routine; they are rarely unobtrusive; they do not follow recognized standards of acceptability; they do not emerge incrementally; and they do not transfer readily to new situations.[1]

Montgomery defines several general characteristics of Mega-policies by drawing on

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1) John D. Montgomery, *What Makes Great Policies*, New York: PBRC Publications, *1991*

Mega-policies such as the Marshal Plan and Korea's brain-drain policy. According to Montgomery, these policies are distinct in three ways. First, they are intersectoral, in the sense that they arise out of a challenge that cannot be resolved by existing ministries or agencies. Secondly, they require the creation of new institutions. Thirdly, they generate new expectations that lead to claims on government beyond usual. Fourthly, they engender new paradigms that create confusion and uncertainty for conventional policymakers. These characteristics distinguish such "great" or "Mega" policies from merely "good" ones.[2]

The objective of this paper is to show how the HCI policy constituted a Mega-policy. This paper traces its development, explores how the policy emerged and how the policy affected numerous sectors of the Korean economy. The influence of this policy on the later development of Korean economy had been substantial. The combination of government support and huge investments by the chaebol is a result of this policy. Despite the success of Korean economy in the 1980s, the legacy of the HCI Mega-policy persists and casts doubt on future prospects for Korean economic development.

EMERGENCE OF HCI

Although in his announcement promoting the HCI drive President Park claimed that it was necessary to move to higher value-added heavy and chemical industries, this shift could not be explained by economic and technical factors alone. Rather, it was a response to the international and domestic political crises of the early 1970s. Thus, the HCI drive represented more than merely the next natural step in the development of the Korean economy.

In the early 1970s, the US policy toward Korea changed significantly. The policy shift was evidenced by the Nixon administration's initiatives to reduce the number of American troops in Korea, the United States' normalization with China, and later by the Carter administration's proposal to withdraw all US troops from Korea. This policy change reinforced the Korean resolve to develop an independent defense industry and consequently the heavy and chemical industries. For President Park, the strategy of military self-reliance was an integral part of his overall economic policy. Despite Park's emphasis on military self-reliance, by the early 1970s, Korea had virtually no defense industries. In the face of a series of provocations form the North, the South was still unable to produce its own weapons for defense. A series of North Korean military provocations in the late 1960s, and the US apathy toward Korean confrontation,[3] intensified President Park's desire for industrialization in order to establish military self-reliance.

Changes in the international economic environment, such as the sudden breakdown of the Bretton Woods monetary system and subsequent rising protectionism affected the

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2) Ibid.

3) The US, which was demobilized by deep involvement in Vietnam War, would not respond to Park's request not to reduce troop levels. See Soon Sung Cho, *North and South Korea: Stepped-up Aggression and the Search for New Security*. Seoul: Asian Survey Vol. IX, No. 1, 1969: 30.

Korean political and industrial landscape during the 1970s.4) In 1971, President Nixon issued emergency economic measures in reaction to the plunging value of the US dollar and to the mounting trade deficit. These measures included a temporary suspension of specie payment on US currency, a reduction in foreign economic aid, and an imposition of a 10% surcharge on imports. Other industrialized countries soon followed suit. This new protectionism hurt the Korean economy, particularly in export of labor-intensive consumer goods.5) Facing an adverse external environment, the domestic economy worsened. Economic growth slowed from 15.9% in 1969 to 5.3% in 1972. Actual exports fell short of 1971 and 1972 targets by $282 million and $176 million, respectively.6)

Powerful domestic political changes likewise set the stage for the HCI policy. A series of political economic crises culminated with the establishment of an increasingly bureaucratic authoritarian regime. In late 1972, despite widespread, strong opposition and increased popular uprisings, Park imposed the Yushin Constitution.7) Martial law was imposed, and the new constitution was ratified in a national referendum. Ratification gave the President virtually absolute power for life. The president was empowered to dissolve the National Assembly, appoint one-third of the Assembly's members, and curtail civil rights through presidential decrees and emergency measures. While President Park called it "Korean-style democracy," this regime was bureaucratic-authoritarian as demonstrated by its use of highly centralized controlling mechanisms.8)

With his increased powers, Park turned his attention to the economic sector and instituted a massive policy of accelerated industrial mobilization aimed at national self-reliance. HCI policy came to embody this drive for self-reliance. The increasing perception that Korea needed its own defense industries, for what Park called "a military self-reliance," became the overriding justification for HCI. Because this new direction required large-scale high-risk investments, it seemed unlikely that private firms would undertake such investments without active government leadership.9)

Park initially relied on the reform plan of the Economic Planning Board (EPB). However, the EPB's solution emphasizing a "civilian-initiated mode" fell far short of

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4) For the discussion about the effect of the international environment at the time, see Russell Mardon, *The State, the International Economy, and Industrial Development in the Republic of Korea*, Michigan: Michigan State University, 1987:123-225.

5) For further discussion on this issue, see Woo Jung-En, *Race to the Swift: State and Finance in Korean Industrialization*, New York: Columbia University Press, 1991.

6) Economic Planning Board (EPB), *Korea Statistical Yearbook*, Seoul: EPB, 1976.

7) The Korean constitution was first amended at in 1969 to allow President Park to run for a third term. In the presidential election in 1971, his presidency was almost defeated by Kim Dae Jung. The margin of victory was a mere 7%. It was alleged that Kim would have won a fair election. After that, severe measures were taken to combat popular uprisings. The declaration of the Garrison Decree of October 1971 enabled military troops to enter college campuses to crush student activism, and the Emergency Decree on National Security was announced in December. These measures culminated in the imposition of the new Yushin Constitution.

8) For the discussion of Yushin Constitution, see Choue, Inwon. *The Politics of Industrial of Industrial Restructuring: South Korea's Turn Toward Export-led Heavy and Chemical Industrialization, 1961-1974*, Ph.D Dissertation, University of Pennsylvania, 1988.

9) The Planning Office of the HCIPC, *The Reorganization of Industrial Structure Based on HCI Plan*, Seoul: HCIPC, 1973.

Park's expectations. In contrast, the Oh Group, a new strategic body in the Blue House, emphasized a strong "government-led mode" to promote the export of heavy and chemical industries.[10] Members of the Oh Group argued that, given the enormous amount of capital required and the characteristics of economies of scale, government-initiative was essential. Faced with a dichotomy between the EPB solutions and his political imperatives, Park opted for the Oh Group's suggestions.

The new regime needed a revised structure of bureaucracy to enhance its new drive for industrialization. In May 1973, the Heavy and Chemical Industry Promotion Committee (HCIPC) was created and chaired by the prime minister. Under a committee headed by the Presidential Secretary of Economic Affairs, the Heavy and Chemical Industry Planning Team had absolute power over policy planning and execution. The President's strong mandate and direct involvement made the HCIP the center of economic decision-making that concerned heavy industrialization policies. Thus, the HCI program was under the direct control of the President, and economic decision-making authority was further concentrated closely around the President and Presidential Secretariat.[11] As Choi (1991) points out:

Economic decision-making was short-circuited through the Planning Council and the Second Economic Secretary directly to the President, frequently bypassing the Economic Planning Board (EPB) and the Prime Minister's Office. The EPB had little control over private businessmen's access to the Second Economic Secretary or their direct access to the President.[12]

Finally, it is important to understand that HCI emerged alongside rising military authoritarianism in Korea. The HCI program was chosen by President Park as a vehicle to continue his rule. With its decision-making concentrated in the hands of a few, the HCI program continued until Park's assassination in 1979.

State-led Financial System and the Growth of Chaebol

HCI began as a government-initiated policy to strengthen Korea's industrial base and establish the country as a self-reliant military power. Regardless of whether it was a success, there were enormous repercussions from this drive on other sectors of society.

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10) Won-Chul Oh was Second Economic Secretary to President from 1971-1979. From1961-1971, he worked in the Ministry of Commerce and Industry and was the Chief Assistant to the Vice Minister of Manufacturing and a graduate of Seoul National University in a chemical engineering. It is noteworthy that people who maintained close working relationship with Oh in pursuit of HCI, such as Kwan-Mo Kim and Jae-Kwan Kim, also had backgrounds in chemical engineering, rather than economics (Interviews conducted Oct. 1990). For further discussion, see Choue Inwon. *The Politics of Industrial Restructuring: South Korea's Turn Toward Export-led Heavy and Chemical Industrialization, 1961-1974*, Ph.D dissertation, University of Pennsylvania, 1988: 187-302.

11) This is a primary example of the President and his assistants having the upper hand over ministers in matters of economic decision-making. The HCI decision neither was the result of demands from particular elements in society, nor was it the result a bureaucratic effort. For more discussion, see Choue Inwon. *The Politics of Industrial of Industrial Restructuring: South Korea's Turn Toward Export-led Heavy and Chemical Industrialization, 1961-1974*, Ph.D dissertation, University of Pennsylvania, 1988.

12) Choi Byung Sun, *Economic Policymaking in Korea*: Institutional Analysis of Economic Policy Changes in the 1970s and 1980s, Seoul: Chomyung Press, 1991: 106-7.

This section will examine how the financial sector was reorganized and how this contributed to the growth of the Chaebol. The development of HCI required enormous financial support from the government, and this system of government preferential treatment of strategic sectors has continued to this day. In order to channel capital resources to strategic sectors, the state took two basic steps: (1) it solicited a vast inflow of foreign capital and controlled its disbursement to the private sector, and (2) it mobilized domestic capital savings for various policy loans.[13)]

First, the state solicited long-term foreign capital in the form of $8.4 billion in loans and $1.6 billion in foreign direct investment. In 1973, the government revised the Foreign Capital Inducement Law of 1966, which provided substantial privileges for the strategic sector.[14)] From 1973 to 1979, the EPB channeled 32% of total foreign loans, whose payments were guaranteed by the Korean Development Bank (KDB) and other banking institutions, toward heavy and chemical industries. From 1977 on, this trend was accelerated, and these industries consumed more than 80% of total foreign loans, which left less than 20% for light industries.[15)]

Second, the policy loans accessible to strategic sectors were provided at interest rates substantially lower than commercial rates. Among the numerous policy loans, the National Investment Fund (NIF) had the greatest responsibility for channeling fiscal resources to heavy and chemical industries. The NIF was created in December 1973, and the government mobilized all public employee pension funds and a substantial portion of private savings by requiring regular banking institution to automatically transfer 30% of their deposits to the Fund. These funds were managed by state controlled banks and were channeled to government-favored heavy industrial projects at very low interest rates, which in most cases, were negative in real terms. These policy loans comprised more than 35% of total manufacturing investment from 1973 to 1980.[16)] In 1975, the National Investment Fund lent 66% of its portfolio to HCI projects, which was a substantial increase over the 35% it lent in 1973. Despite huge support from the state, the private sector was initially not very interested in investment.[17)] However, the inducement policy continued and financial support was adjusted. This continuation of the HCI policy assured private firms of limited risks and provided an excellent opportunity for expansion. During this time, the chaebol that participated in the HCI enjoyed subsidized credit, monopoly or oligopoly market positions, and in some sectors, guaranteed sales through government procurement. Gigantic private investment in HCI

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13) The primary source of the heavy industries' long-term investment capital and policy loans was the Korean Development Bank (KDB). The KDB was founded in 1954 to supply long-term credit for major industries. It played important roles in the rehabilitation of industrial facilities in the 1950s and the launching of the Economic development plan in the 1960s.

14) Economic Planning Board (EPB), *White Paper on Foreign Investment*, Seoul: EPB, 1981: 30-31.

15) Bank of Korea, *Foreign Loans by Industry*, 1962-82, Choi Byung Sun. *Economic Policymaking in Korea*: Institutional Analysis of Economic Policy Changes in the 1970s and 1980s, Seoul: Chomyung Press, 1991.

16) Kim Jong Kil. *The Incentive Structure for Industrialization in a Developing Economy: The Case of Korea*, Ph.D. Dissertation., University of Connecticut, 1981:139.

17) The private sector was initially not certain of the profitability of the investment. Since their light industry investments were less risky and profitable, they saw no need to take on high risk investments.

was therefore only a matter of time. Due to the state's expansionary policy and the construction boom in the Middle East,[18] the Korean economy enjoyed unprecedented expansion between 1976 and 1978.[19]

The enduring financial support for strategic industries resulted in rapid expansion of chaebols, and consequently a highly concentrated market and industrial structure. Though chaebols were not the direct results of the HCI policies, they owe their rapid growth and entrenchment in the economy to those policies. Their subsequent influence on the development of industry and, later, technology policies, cannot be overstated.

The Yushin authoritarian regime under President Park in 1970s regarded political parties as one of the greatest obstacles to effective economic development. Park attempted to transform Korea's political democracy into an administrative democracy.[20] The regime was supported by bureaucrats, the military and large industrialists but remained isolated from the populace and intellectuals principally because the new institutions were protected from popular reactions and any class interests. The political legitimacy of the regime was therefore highly suspect. In an attempt to under gird its precarious legitimacy, the regime emphasized the benefits that would ensue from government-led rapid economic development. To realize this rapid economic development, however, the regime required well-trained bureaucratic technocrats and the support and cooperation of the chaebols. The government directed that its instrument of growth (and an answer to national security concerns) would be HCI.

The emphasis on HCI contributed to a concentration on business during this period. With the massive amount of capital needed for HCI, these industries were dominated by the existing large chaebols. By joining the government's development of HCI, chaebols enjoyed a full monopoly or oligopoly on goods and services and received a vast amount of favors and enormous financial support from the government. Therefore, state economic policies were more favorable toward chaebols in the 1970s, and the economy shifted from dominance by the state to a symbiosis between the state and business.[21]

In addition to low interest rates for the targeted industries, the state permitted no more than three firms to operate in a given area, thereby regulating and preventing excessive competition. Through these measures, the large chaebols acquired additional funds,

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18) At that time, the share of petroleum in primary energy sources was lower (In the late 1960s, the share was about 20% whereas it grew to over 60% in the late 1970s). The Middle East construction boom was a critical event to the survival of the Korean economy. The Relatively cheap and well-educated labor force perfectly matched the needs of Middle East nations.

19) The goals of $10 billion exports and $1000 per capital GNP by 1980 were used as political slogans and presented with the introduction of the Yushin constitution. The goals were met ahead of schedule in 1977 and 1978, respectively. See Federation of Korean Industries, *Hanguk Kyungje Kyebal: Korean Economic Development*, Seoul: FKI, 1987.

20) According to President Park, this was "Korean-style Democracy." Given the adverse internal and external environments, he asserted that an efficient administration was more needed than special interest politics. For more discussion, see Choue Inwon. *The Politics of Industrial of Industrial Restructuring: South Korea's Turn Toward Export-led Heavy and Chemical Industrialization*, 1961-1974, Ph.D dissertation, University of Pennsylvania, 1988.

21) Kim Eun Mee. *From Dominance to Symbiosis: State and Chaebol in the Korean Economy, 1960-1985*, Ph.D. Dissertation., Brown University, 1987. Kim argues that in the HCI of the 1970s, there was a trend toward a more amicable relationship between the state and *chaebols*, but the state still held the upper hand.

which allowed them to become even larger business groups. Table 1 lists the participants in Heavy Chemical Industries. Almost all of them enjoyed either monopoly or dominant oligopoly status.

Table 1. Participants in HCI (1978)

Industry Group	Participants
Heavy Machineries	
Non-Electrical*	Hyundai, Daewoo, Samsung
Electrical*	Hyundai, Daewoo, Samsung, Hyosung, Korea Shipbuilding
Transportation Equipment	
Automobile	Hyundai, Daewoo, Kia
Locomotives	Daewoo, Korea Shipbuilding
Vehicle Engines*	Hyundai, Daewoo, Ssangyong
Shipbuilding	Hyundai, Daewoo, Samsung, Korea Shipbuilding
Electronics	Lucky-Goldstar, Samsung, Taihan
Petrochemicals*	Samsung, Lucky-Goldstar, Sunkyung, Korea Explosive

Note: * indicates the industries where each participant had an approved monopoly status for one or more products or product groups. Source: Kim Seok Ki, Business Concentration and Government Policy: A study of the Phenomenon of Business Groups in Korea, 1945-1985, Ph.D Dissertation, Harvard University, 1987:188. Table 2 indicates the extent of business expansion by chaebols in the 1970s. Among the 206 subsidiary companies of the top 10 chaebols, 114 (60%) were established or incorporated during the 1970s. Although all of the chaebols, except for Daewoo, were established before 1960, they developed rapidly during the 1970s because of the government's HCI development policy. The government economic drive in the 1970s was indeed favorable to those chaebols that were willing to be faithful to the government's goals.

Table 2. Year of Incorporation or Establishment of the Subsidiary Companies of the 10 Largest Chaebol Ranked by Sales in 1988.

Name	Total	-1949	1950-1959	1960-1969	1970-1979	1980-1984	missing
Samsung	30	1	3	6	11	8	1
Hyundai	32	1	2	4	20	1	4
Lucky-Goldstar	24	1	2	5	10	3	3
Daewoo	24	0	0	0	21	3	0
Sunkyung	14	0	1	1	7	3	2
Ssangyong	14	2	1	3	6	2	0
Korea-Explosive	18	0	1	5	8	3	1
Kukje	18	1	0	0	13	0	4
Hanjin	12	1	2	5	7	0	0
Hyosung	20	1	2	5	12	0	0
Total	206	8	12	34	114	23	15

Source: Kuk Minho, The Governmental Role in the Making of Chaebol in the Industrial Development of South Korea, Seoul: Asian Perspective, December 1988:116.

Table 3 shows the top ten chaebols in 1965, 1975, and 1985. The list changed greatly between 1965 and 1975, but very little between 1975 and 1985. Only three of the top ten in 1965 remained in the list in 1975. As the list indicates, most chaebols were established before the Park regime, which began with the military coup of 1961. However, it was not until the late 1960s and early 1970s that the chaebols favored by the regime leapt toward the top of the list. This fact proves that the HCI policy during the 1970s was a key factor in determining the economic structure.

Table 3. Top Ten Chaebols in Korea

1965	1975	1985
Samsung	Samsung	Lucky
Lucky	Lucky	Hyundai
Kumsung (Ssangyong)	Hyundai	Samsung
Panbon	Hanjin	Sunkyung
Samho	Hyosung	Daewoo
Samyangsa	Ssangyong	Ssangyong
Tongyang	Daewoo	Hanjin
Taehan	Doosan	Korea Explosives
Kaepoong	Dong-a Const.	Daelim
Hwashin	Shin Don-a	Hyosung

Source: Jones, Leroy P., and Il Sakong, Government, Business, and Entrepreneurship in Economic Development: The Korean Case, Cambridge: Harvard University Press, 1980: 262; Jung Ku-Hun, Business-Government Relations in the Growth of Korean Business Group, Korean Social Science Journal, Vol. XIV 1988: 53.

HCI AT THE END OF THE 1970s

The state-led heavy chemical industrialization drive produced the rapid development of HC industries. Table 4 shows how much investment was channeled toward HCI during this period. Between 1976 and 1979, when light industries grew by only 12.0%, HC industries grew by 21.9% (Table 5). By 1979, the share of HC industries in the total manufacturing sector surpassed that of light industries (Table 6). The export of HC industries also steadily increased over the years (Table 7).

Table 4. Investment Ratio between HCI and Light Industry (1975-1980) (Percent)

	1975	1976	1977	1978	1979	1980
HCI	79.4	74.2	75.4	80.0	75.7	82.1
LI	20.6	25.8	24.6	20.0	24.3	17.9

Source: Korean Development Bank (1981)

Table 5. Growth Rate of HCI Sector (1976-1979) (Percent)

	1976	1977	1978	1979
HCI	28.6	19.5	26.4	13.0
LI	17.5	9.5	14.9	6.2

Source: Bank of Korea (1980)

Table 6. Share of HCI in Total Manufacturing (1961-1980) (Percent)

	1961	1966	1971	1977	1978	1979	1980
HCI	22.3	30.7	35.7	48.5	40.0	51.2	52.9
LI	77.7	69.3	64.3	51.5	51.2	48.8	47.4

Source: Economic Planning Board (1981)

Table 7. Changing Structure of Export (1962-1979) (Percent)

	1962	1966	1971	1976	1977	1978	1979
HCI	5.5	7.4	14.2	29.1	32.2	34.6	38.4
LI	15.2	54.4	72.1	58.8	53.6	54.5	51.4

Source: Bank of Korea (1981)

However, by the end of the 1970s inflation led to a high debt to equity ratio in the heavy and chemical sectors. Because of easy access to bank loans, large enterprises in the strategic sector became accustomed to borrowing both on domestic and external credit. According to a KDI report (1981), the corporate firms in the heavy and chemical sector relied on domestic or foreign borrowing for more than 90% of their capital.[22)]

Heavy machinery firms planned overly ambitious investments, which were almost ten times the domestic market capacity. The payoffs of these overly ambitious and duplicated investments did not meet expectations. Some large-scale projects were subject to chronic cost escalations, and were difficult to complete due to the shortage of funds. Affected by strong inflationary pressures and idle capacity in the heavy machinery sector, the operation ratio plunged drastically, from 75% in 1977 to 35% in 1980. This operation ratio, as a percentage of production capacity, was at its lowest level with regard to the Heavy and Chemical Industrial Plan.

The structural problems of the late 1970s created serious political uprisings in various elements of society. Park's repressive rule under the Yushin regime was seriously threatened. The military, the industrialists who were favored through various mechanisms (mainly chaebols), and agriculture sector were the dominant social groups in the Yushin regime. The President thought that as long as he had the support of this dominant coalition, and he could sustain rapid economic growth, groups outside the coalition, such as small and medium-sized enterprises, the middle class, students, and low-wage workers could be easily cajoled.[23)] However, by the end of 1970s, the regime was losing its legitimacy. In the National Assembly elections in December 1978, the opposition New Democratic Party won more popular votes than the ruling Democratic Republic Party (DRP). The defeat of the DRP in the national election was attributed to the economic problems at that time.[24)]

President Park had two choices: continue a high growth strategy with support from the coalition power, which would require a more suppressive and authoritarian rule,[25)] or

22) The debt to equity ratio was especially weak in the heavy machinery sector in the late 1970s. For example, Hyundai International invested only 8.4% of the firm's total capital. Hyundai International was led by Samsung Heavy Machinery with 8.7%, and Ssangyong Heavy Machinery, with 11.2% total invested capital, KDI, *Kyungje Anjunghwa Sichaek Jaryojip: Collection of Materials on Economic Stabilization Measure*, Seoul: KDI, 1981.

23) Choi, Byung Sun, *Economic Policymaking in Korea*: Institutional Analysis of Economic Policy Changes in the 1970s and 1980s, Seoul: Chomyung Press, 1991:142-147.

24) Fifty-nine percent of newly elected Assembly members from the DRP thought that high inflation cost the ruling party a defeat in popular votes. See Donga Daily Newspaper, Feb. 20 1979.

25) The ruthless HCI under the Yushin regime was only possible through the dominant coalition against other groups outside of coalition. Given the discontent of disaffected group, with high inflation, over-investment, the continuous pursuit of high growth policies would only lead to more repressive, authoritarian rule.

liberalize the economy, which would lead to a short-term recession but perhaps, in the end, would stabilize Korea's political situation and favor increased democracy. Park preferred the former solution. He strongly believed that in order to generate high economic growth, a heavy reliance on big business was unavoidable. In fact, the legitimacy of his regime was based on this high growth, and Park concluded that the possibility of a recession would be worse than high inflation.

After the near defeat of the DRP in the 1978 elections, demonstrations against the repressive Yushin regime intensified. Meanwhile, several firm-minded bureaucrats appeared to advocate economic stabilization. The New Deputy Prime Minister (DPM), Shin Hyun Whack, was known as an advocate of economic stabilization. He and a group of American-trained EPB technocrats, such as Kang Kyung-Sik and Kim Jae-Ik, played a strong role in designing the "Comprehensive Measures for Economic Stabilization (CMES)."[26]

These measures included deregulating prices, accelerating import liberalization, suspending major investment projects, restructuring excessive heavy industry investments, adopting a restrictive monetary policy and reducing policy loans, and controlling real estate speculation.

The CMES was a set of more market-oriented and structural economic policies. It became a very important guideline for economic policies in the 1980s but not until the Yushin regime collapsed. Despite EPB's desperate proposal, Park reaffirmed commitment to heavy and chemical industrialization. The CMES bore fruit only after President Chun assumed power in 1980. Less than three months after the CMES were put into effect, a second oil shock occurred, and President Park was assassinated. This combined international and domestic turmoil sank the economy deep into recession.

LEGACIES OF MEGA-POLICY IN THE 1980s

The Korean situation in the 1980s shows a significant change from that of the 1970s. Movements toward liberalization and democratization start at the decade and were directed against the policies of 1970s. The implication of the political changes of the 1980s on state-business relations was profound. This is especially true after 1987, when President Tae Woo Roh, in sharp contrast to his predecessors, came to office through a national election. It was assumed that economic democratization would follow the political democratization.[27]

Shifts in government policies included an increased emphasis on market mechanisms,

26) The major CMES are the following. 1. A retrenchment policy shall be adopted involving tight money supply and suspension of public construction works to control inflation. 2. Strict restrictions shall be applied to investment in heavy and chemical industries, while investment in light industries shall be promoted. 3. The financial sector shall be reformed to allow for more autonomy in the operation of commercial banks. 4. Price controls on a number of items shall be removed and there shall be further liberalization of import restrictions. For more information, see KDI, *Kyungje* {inconsistent spelling. cf., note 22 above} *Anjunghwa Sichaek Jaryojip: Collection of Materials on Economic Stabilization Measure*, Seoul: KDI, 1981: 345-411.

27) President Roh was the first president elected in national election since 1971.

economic stabilization, and a general reduction in government controls. These policies were all associated with less preferential treatment proffered the chaebol. The implementation of such measures, however, caused an immediate political conflict. When new reforms require significant amount of sacrifice on the part of the privileged, the reforms entail political change in the balance of power.[28] If the privileges of established big businesses were to be sacrificed, a complete change of the industrial structure would follow. On the other hand, if the industrial structure resists change, the reform measures must be modified.

Throughout the 1980s, the course of action primarily followed the latter. The institutional structure of Korean political economy developed up until 1980 was a constraint on both politics and economic policies.[29] While looking back upon the past three decades of the Korean experience, it is clear that the role of state in economic activities has been reduced noticeably. However, the amicable state-business relationship continues and economic concentration has not decreased. Some studies showed that the dominance of big business groups in the economy has in fact increased in 1980s.[30]

Despite economic and political changes of the 1980s, the growth of the chaebol and the continuing symbiotic relationship between the government and business were unlikely to reduce concentration in the industrial structure. Three elements that combined to give large chaebols advantages over the small business at that time were the chaebols' extensive high-level contacts and good record of accomplishment, which usually made their communication with top decision makers in the government more effective, efficient and credible than that of small, independent firms. Second, the chaebols' large resource base mad involvement in government decision-making easier and again more efficient than that of small, independent firms. Third, a business group's superior information network minimized the cost of dealing with the high uncertainty caused by the ad hoc nature of the government's discretionary intervention.[31]

In the 1980s, under President Chun Doo Won's leadership a few policies aimed to decrease economic concentration. The most significant of these was the Fair Trade and Anti-Monopoly Act enacted in April 1981. The contents are as follows:

1. Any business activity to impede normal market competition will be prohibited.

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28) Tyson, Laura D. and John Zysman, *Developmental Strategy and Production Innovation in Japan in Politics and Productivity: How Japan's Development Strategy Works*, edited by Johnson, Tyson and Zysman, New York: Ballinger Publishing Company, 1989.

29) This is a structural approach of John Zysman, Daniel Okimoto, *et al.* They posit that a structure creates an enduring set of penalties and rewards that mold actions independent of the motivations or purposes of the actors. There will be regularity in the form of policy, whatever its objectives, because of institutional constraints. Institutional structure defines the range of policy instruments realistically available and the process by which they are used. John Zysman, *Government, Markets, and Growth*, Ithaca: Cornell University Press, 1983: 78-79; Daniel Okimoto, *Regime Characteristics of Japanese Industrial Policy in Japan's High Technology Industries*, edited by Hugh Patrick, Seattle: University of Washington Press, 1986: 35-96.

30) Jung, Ku-Hyun, *Business-Government Relations in the Growth of Korean Business Group*, Seoul: Korean Social Science Journal, Vol. XIV, 1988:65.

31) Kim Seok Ki, *Business Concentration and Government Policy: A Study of the Phenomenon of Business Groups in Korea, 1945-1985*, Ph.D Dissertation, Harvard University, 1987: 317.

2. Price-fixing by monopoly capitalists is prohibited.
3. Price-fixing through negotiation among oligopolies is prohibited unless registered and approved by the EPB.
4. All government offices that plan or implement any policy concerning fair trade and monopoly must consult with the EPB.
5. Contracts or any act involving foreign capital or foreign technology must follow the Fair Trade and Anti-Monopoly Act.
6. The Committee on Fair Trade and Anti-Monopoly will be formed, which will be in charge of examining and prosecuting violations.[32)]

The act aimed at supporting the new regime, which like its predecessor, suffered from a lack of legitimacy. The act blamed the chaebols' concentration of wealth on corruption in both government and business. However, the act was neither effectively implemented nor enforced. For example, by 1983, two years after the enactment, there were 487 firms were either founded or merged. Two hundred and fifty-eight of these were the direct result of large chaebols' attempts at increasing their horizontal integration by acquiring firms.[33)] This failure of state policy at this time is a clear indication that change had occurred in the Korean state-business relationship.

The so-called 'September 27 Measure'[34)] forced the chaebols to sell real estate that had been utilized for the improvement of the business groups' capital structure rather than for legitimate business purposes. This action was enforced in the first year of its jurisdiction, but enforcement relaxed in subsequent years. For example, some 25.7 trillion won worth of real estate was sold in the two-year period following the measure, but eight times as many new properties were acquired by the same companies. In the same period, 140 firms that were owned by the top twenty chaebols were either divested or merged with other group companies; however, 99 new firms were established by the same groups.[35)] Despite the liberalization efforts of the early 1980s, the structure that led business concentration was not corrected. This is because the Korean economy relied so heavily upon the chaebols that it was very difficult to curtail their activities without adversely affecting the growth of the economy.

It is clear that the legacies of the HCI - industrial concentration and big firms dominance - constrained policy change or the reform of some existing economic arrangements. Since the previous arrangements among and within organizations already established positions of privilege, reform by definition entailed a dismantling and reduction of privilege. Therefore, institutional reforms directly gave way to struggles between political and economic elites and the institutions they represented. If the institutions resisted change,

32) Economic Planning Board (EPB), *Economic White Paper: Kyungje Paekseo*, Seoul: EPB, 1984.

33) Dong-A Daily Newspaper, Nov. 15 1983.

34) The measure is taken by President Chun in Sep. 27, 1980 to loose business concentration. This includes: forced divestment of the number of subsidiaries belong to the top business group; compulsory sale of real estate not used for business purposes; abolition of some trade associations that might hamper competition; closer supervision of and restrictions on bank credits provided to excessively leveraged firms; stricter and wider enforcement of external accounting audit.

35) Jung Ku-Hyun, *Business-Government Relations in the Growth of Korean Business Groups*, Seoul: *Korean Social Science Journal*, Vol. XIV, 1988: 73.

new policy approaches could not be implemented, and consequently new goals could not be met. In the early 1980s, new reform targeted the reduction of the chaebols' power. However, it did not occur and ironically, the power of the chaebols actually increased.

While the close relationship between the Korean state and business continues, the political relationship has changed. In the 1960s and 1970s, the Park regime used chaebols selectively and effectively in order to maintain his political legitimacy. As a result, chaebols were created and nurtured. In the 1980s chaebols resisted control by the state. The failure of HCI restructuring efforts by the government in the early 1980s occurred because the government was not as dominant an actor as had been while the bargaining power of the chaebols had steadily increased.

Policies that relied more on market mechanism may have helped the chaebol. By middle of the 1980s, the government made commercial banks autonomous, yet no significant managerial independence was granted. Chaebols requested that the government stop intervening in the banking system, while the top chaebols had been gaining control of a large share of bank resources.[36)]

Table 8 shows the continued industrial concentration rate during the 1980s. In the early 1980s, about 88% of manufacturing and mining products were monopolies or oligopolies.[37)] By 1987, monopoly or oligopoly still accounted for 84% of total markets, and the three top chaebol accounted for 70% of the market share or 67%.

Table 8. Monopoly or Oligopoly Markets by Commodity in Korea: 1977-1987

(Percentage of Total)

	1977	1978	1979	1980	1981	1982	1987
Monopoly or Oligopoly	90	88	89	89	88	88	84
Top 3 supplies market share of 70% or higher	77	74	74	75	73	73	67
Top 3 supplies market share between 50% and 70%	13	14	15	15	14	15	17
Top 3 supplies less than 50%	10	12	11	11	12	12	16
Total number of commodity lines	100	100	100	100	100	100	100

Source: Korea's Economy, Vol. 3, No. 10 (November 1988), 2.

Table 9. Sales and Employment Percentages of the Largest Chaebols among the National Total (1977-1985)

(Percentage)

	1977	1978	1979	1980	1981	1985
Sales						
Top 5 chaebol group	14.8	15.9	16.2	16.5	21.5	23.0
Top 10 chaebol group	20.4	22.0	22.6	20.5	28.4	30.2
Top 50 chaebol group	24.4	26.2	26.9	23.5	32.6	-
Top 100 chaebol group	32.0	34.5	35.0	34.7	39.7	-
Employment						
Top 5 chaebol group	8.5	9.5	10.5	9.9	8.4	9.7
Top 10 chaebol group	12.2	13.9	13.9	14.7	12.1	11.7
Top 50 chaebol group	14.3	16.1	17.4	17.8	14.8	-
Top 100 chaebol group	20.5	22.2	24.4	23.7	19.8	-

Source: Korea's Economy, Vol. 3, No.10, November 1984: 1, Sin Pyung Forum (May 1989), 8.

36) Business Korea, *BK Yearbook 1986*, Seoul: Business Korea, Feb. 1986: 17.

37) *Korea's Economy*, Vol. 3, No. 10 (Nov. 1984): 2.

Most of the current top 50 chaebols are related, directly or indirectly, to product monopolies or oligopolies. The government constantly patronized the monopolistic enterprises in order to use these enterprises to support government economic policy. Monopolization was a tool to force the entrepreneurs into following the government's political goal of economic development.

As we see in Table 9, the share of sales of large chaebols annually increased, and was more conspicuous among the high-ranking chaebols. The rate of increase of the chaebols' employment among the national total, on the other hand, was relatively low. The total sales of the top 50 chaebols increased 7 times from 1975 to 1980 and 3.7 times from 1980 to 1985, while the GNP increased 3.7 times from 1975 to 1980 and 1.9 times between 1980 and 1985. The total sales of the 50 largest chaebols in 1984 were 63.9 trillion won, which accounted for 97.7% of GNP in 1984. The value-added total sales of the 50 largest chaebols in 1984 were 13.6 trillion won, or 20.8% of GNP. The portion of the value-added total sales of the 50 largest chaebols among GNP consistently increased from 15.8% in 1980 to 22.5% in 1985. This demonstrates the ever-increasing financial concentration of large chaebols in the 1980s, regardless of the economic reform measures.[38)]

According to Kyu-Uk Lee (1990), during the 1980s, while the concentration rate by top 30 chaebols decreased from 40.7% in 1982 to 36.3% in 1987, the concentration rate by five top chaebols decreased only from 22.6% to 22.0%.[39)] This shows the phenomenon of bipolarization among chaebols.[40)] The economic reform measures of the 1980s did not affect the continued expansion of a few of the largest chaebols, notwithstanding that those measures may have reduced the overall concentration.

During the 1970s, under the protective environment of government intervention, the basic financial policy of the chaebol was to maximize government's financial support rather than the conventional method of increasing profits by investing in productive industries. The chaebol gave priority to expansion because the more the chaebol expanded, then the easier it became to obtain loans from the government-controlled banks. The high rate of internal inflation in the 1970s incited chaebols to invest in fixed assets rather than to invest in the development of high technologies and managerial skills. Later, the unfavorable conditions in 1980s forced chaebols to invest more borrowed capital in speculative ventures or in purchasing property and buildings. When their speculative ventures succeeded, the chaebols profited, but when they failed, the chaebols had virtually nothing to lose because they had used borrowed capital; the government was not going to foreclose on them. The result was increasing capital accumulation in the hands of small number of people and the emergence of numerous insolvent companies.[41)]

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38) Kuk Minho, *The Governmental Role in the Making of Chaebol in the Industrial Development of South Korea*, Seoul: Asian Perspective. December 1988:123.

39) The ratio of sales to total national sales.

40) Lee Kyu-Uk, *Kiup Jipdankwa Kyungjeryck Jipjung: Business Groups and Concentration of Economic Power*, Seoul: KDI, 1990: 28.

41) The large number of chaebols insolvent companies, which had initially contributed greatly to increased profits, became a huge burden and worsened the *chaebols'* financial structure. The net profit increase of *chaebol* in some profitable industries compensated for the survival of the

For first two years of democratic rule in Korea, which began in 1987, the chaebols again came under intense pressure from both the state and general populace. At first glance, this appeared a serious threat because Chaebols were regarded as the source of various economic and social problems. The big four in particular, Daewoo, Hyundai, Lucky Goldstar, and Samsung, found themselves reviled as greedy and unscrupulous. President Roh's economic team attempted measures intended to squeeze the chaebols' credit lines, shift their subsidies to smaller businesses and in general remove the chaebol from their central role as the driving force behind Korea's export-led economic miracle.[42)]

However, after a few years of economic struggles, Korea's top bureaucrats and political leaders once again recognized that the chaebols were too big and important to eviscerate. The chaebols gained easier access to credit and new tax incentives for corporate investment. Even with the changing political atmosphere, the concentration of economic power in Korea continues.

The influence of HCI policy in the 1970s on the economic structure was tremendous, and out of this, the coalition between the bureaucracy and business intensified. The situation since the early 1980s has been similar to that of the 1970s in that friendly relations between the government and business mark the Korean experience, as big business dominates economic activities in almost every sector. Some argue that this structure is advantageous for the international competitiveness, while others have taken an opposite view. Advantageous or not, it is clear that the legacy of HCI continued throughout 1980s and even persists to the present day to some extent.

CONCLUDING REMARKS

During the 1970s, the Korean HCI policy was a Mega-policy. This policy contributed to the development of HCI and influenced the state and market institutions. The established institutions and structures continued long after HCI policy was abolished, and had significant implications on Korean economic strategies and attempts at further sophisticated industrialization in the 1980s. This paper dealt with the effect of HCI policy during 1980s, but to certain degree, the legacy persists. There are a few points to make regarding this Mega-policy. First, it emerged in a particular political environment. The combination of changes to Korea's international relationships and the emergence of the strong state led by President Park paved the way for HCI. Second, the policy was created by a strong president, not by the existing state institutions and technocrats. Because of active political involvement, the policy remained a priority. Third, because this economic transformation was achieved politically, rather than through a natural development or by existing institutions, powerful new political-economic actors (i.e. chaebols) were established. Both state and market institutions created by the HCI policy persisted even after the abolition of HCI.

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insolvent companies. In this situation, the *chaebols*' financial situation worsened. The debt ratio of the top 50 chaebols increased from 452.6% in 1983 to 506.1% in 1985. Hankook Newspaper Co., *Hangukeui 50 dai, Chaebol: Korea's 50 Largest Chaebols*, Seoul: Hankook Newspaper Co., 1985.

42) See *Business Week*, Dec. 3 1990.

These institutions and industrial structure that were created by HCI policy were helpful for industrial development in many industries and had positive influence on the overall industrialization of Korea. However, there were a considerable number of negative effects. The industrial concentration forced firms to pursue short-term price strategies rather than long-term technological development. Even though there were advantages that large firms could exploit, without a more flexible industry structure and long-term technology-oriented strategies, indigenous innovative capability could not be expected.43)

Developing countries normally lack the capacity to reach economies of scale, and therefore new entrants are constrained. Despite the industry growing rapidly, new entrants are confronted with a situation where rapid market expansion is no longer assured because of the constraints of economies of scale. Korea, however, had that ability, and many argued that this fact might be an important advantage. The institutional structure developed during the 1970s was favorable for overcoming this constraint. The Korean case shows that a developing country is able to be successful in even a few segments of high-tech industry. However, whether this pattern of development assures continued success in the future is unclear. The legacy of HCI may impair future economic development.

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43) Soh Changrok, *From Investment to Innovation: The Korean Political Economy and Changes in Industrial Competitiveness*, Seoul: Global Research Institute, 1997.

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