MACRO ECONOMIC PLANNING IN THE REPUBLIC OF KOREA : STAGES AND STRATEGIES

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Certificate

This is to certify that the dissertation, entitled **Macro Economic Planning in the Republic of Korea: Stages and Strategies** submitted by **Rajiv.C.Narayan** in fulfilment of six credits out of total requirements of twenty - four credits for the Degree of **Master of Philosophy** of the University, is his original work according to the best of my knowledge and may be placed before the examiners for evaluation.

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PREFACE

A debate rages over how or what went into the rapid economic development of the Republic of Korea (Korea, hereafter). Views differ. There are some who argue that the development of Korea consisted of nothing but a series of accidents and that chaos reigned. The state, it is contended, reacted to the crisis as and when they came, but it was by no means in control. It is also believed that Korea was the recipient of various favourable external factors, especially the Cold War. And then there are other scholars who have termed Korea as a Bureaucratic Authoritarian Industrialising Regime. The contention here is that the Korean development was a result of a state that inspired developmental nationalism.

I believe the answer lies somewhere between the arguments put above. In this study, it is sought to be shown that there was a method in the madness ... in the frenzy that characterised Korean development. However, planning has, while initially resembling a military command structure, evolved into one that is indicative by nature. Private enterprise was selectively nurtured and these enterpreneurs, not the state or its institutions, possessed the resources. Through the planning process, the state gave its recommendations, which were rarely disobeyed. The planning process projected the state's map or what it perceived as the desired path of development. It set up targets, revised them, and the private enterpreneurs rarely failed to attain them. The system that evolved in the initial stages was one of fear and favour with the state holding the roost.

The planners realised that external trade provided the answer to Korea's development visions. They went in for export-oriented industrialisation and

despite the resource crunches, balance-of-payments crises, they achieved deepening of industries. The establishment of the heavy and chemical industries and the current thrust on technology- intensive industrialisation has changed the focus to the point that now it is the industries that orient the exports. The domestic market has also grown to the extent that it has sustained the growth of the economy despite recession stalking the international markets. The planning process has expanded into the social arena, which in itself, is an indication that the growing maturity, confidence and sheer size of the private enterprise has diffused and decentralised the economic decision-making process.

I have taken the following 'route' to establish the hypothesis. Chapter 1 is an overview of the planning process where three decades of Korean planning is analysed.

Chapter 2 presents the institutions that are involved in the making, implementation and evaluation of the plans. The latter half highlights some planning models to show the growing sophistication and expertise achieved by the planners. I have attempted to show a glimpse of the theoretical framework that goes on behind the making of a Korean plan.

Chapter 3 analyses the Korean policy devices or strategies that the planners designed to propel the economy on a particular path of development. The policies discussed here cover the financial and monetary sectors, while the trade and tariffs policies and industrial policies should highlight the external dependence of the industrialisation- based Korean economic development saga. The success of the planned development has been the near full employment achieved and this is shown in analysis of the employment policies.

Chapter 4 comprises of the Summary and Conclusions of the Study.

The research has required my looking into primary and secondary sources. I could have done with easier availability of research material and time. But in it lies the problem of trying to highlight a limited explanation of a very large question. There are some stages in the Korean experience which parallel that being faced by the Indian economy, but that could not be specifically brought out. These are some of the weaknesses that this study suffers from.

I cannot see how this work would have been possible without the critical, analytical and yet tolerant guidance of Prof. Krishnan. The discussions and his painstaking supervision has lent far greater depth, meaning and direction to the study. I would like to thank the Centre Chairperson Prof. P.A. Narasimha Murthy for inspiring me and offering helpful suggestions from time to time. I am indebted to the Embassy of the Republic of Korea, whose diplomatic staff has offered the fullest cooperation. To my friends Raj, Sudhir, Jack, Archana, Lamat, Luther, Prakash, Rahul ... all I can offer is an inadequate 'thank you.' This study would not seen the light of print without the able help of Mr. Anil Pawar of A.P. Computers. And yes, this dissertation is a gesture of my love, gratitude and respect to my understanding parents, Mrs. Vijayalakshmi and Mr. C. Narayanan as also to my brother, Raviprasad. Your support is what keeps me going on.

Rajiv C. Narayan

Chapter I

MACRO ECONOMIC PLANNING: AN OVERVIEW

An Introduction

In January 1992, Korea completed three decades of planned economic development. The First Five Year Economic Development Plan was launched on 13 January 1962, less than a year after the Military Revolution of 16 May 1961 which catapulted Major Gen. Park Chung-Hee to power. Since then, six five year plans have been successfully completed.

The first three plans and a good part of the fourth plan fell under President Park Chung-Hee's era. The plans sought to grow rapidly with external trade (exports) emerging as the engine of economic development, including industrialisation. The success of the plans, gave the planners greater experience and growing confidence and so they went in for more ambitious, succeeding plans. The fifth and the early part of the sixth plans come under the Chun Doo-Hwan era. The plans took on the onerous yet important task of seeking social development, as well. The Chun era restored confidence in the Koreans with the economic growth resulting in surpluses on the balance of payment account. The Roh Tae-Woo era was a witness to a deceleration of economic growth, but this was the consequence of growing democratisation in Korean polity.

Besides, there are the short-term Overseas Resources Budgets (ORB) that update the five year plans, and eventually seeks to link short-term and long-term plans. The ORB's started during the second plan period. Alongwith tables, the chapter has sought to present an overview of Korea's macroeconomic planning experience.

KOREAN PLANNING, 1948-1962: THE UNSUCCESSFUL ATTEMPTS

Planning is not new to Korea. Though the present plans have been traced from 1962, just as much of Korea's economic resurgence is attributed to the planning process and its institutions which were begun as early as 1948. The same year witnessed an office of planning being established under the Prime Minister's Office and assigned "the responsibility for budgeting, economic planning resource mobilisation, pricing policy, and research activities".[1] This office formulated a five-year plan during the Korean War and presented a revised version when the War ended in 1953. It consisted primarily of a collection of recommended projects most of which were never implemented. This office mostly handled short-term stabilisation policies until it was merged into the Ministry of Reconstruction in 1955.

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[1] Edward S.Mason and others, The Economic and Social Modernisation of the Republic of Korea, (Harvard University Press, Cambridge, 1980), p.252.

In 1952, the United Nations Korea Reconstruction Agency (UNKRA) hired Robert Nathan Associates to prepare a post-war reconstruction programme. This resulted in the preparation of the "Nathan Plan" that was submitted in 1953 but which was never implemented. The non-implementation of the Nathan Plan was partly because the decision to employ Nathan had been made without consulting President Syngman Rhee, but mostly because of its unrealistic terms of reference.[2] Meanwhile, in July 1953, a Three Year Assistance Programme was recommended to the Korean Government by the United States.[3]

The planning apparatus received growing interest as shown by the 1955 establishment of the Ministry of Reconstruction. Besides, there was more evidence of this interest with the appointment of a minister, who, as chairman of the Reconstruction Committee of Economic Ministers, was handed the responsibility for overseeing and coordinating overall planning focusing on the rehabilitation of the industrial economy.

In 1958, an Economic Development Council was established within the Ministry of Reconstruction and consisted of young scholars who had conducted their research abroad. The next year, the council formulated a three-year development

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[2] ibid., p.253.

[3] The Federation of Korean Industries, Korea's Economic Policies (1945-1985), (Seoul, 1987), p.3.

plan for the period, 1960-1962. The plan could not be implemented as the Rhee Government postponed it by a year and then, a few days after its delayed execution, the Rhee cabinet fell consequent to the 1960 April Students' Revolution. The successor Chang Myon government directed the Economic Development Council to prepare a five-year economic plan and invited a Rand Corporation expert to advise in its formulation.[4] The military coup led by Major General Park Chung-Hee brought the Chang Myon regime to an end and hence this plan did not come fully into effect either.

THE MAY 1961 MILITARY REVOLUTION: NEW LEADERSHIP AND A NEW BEGINNING

The military coup had economic growth as a top priority in its agenda - if not for anything, then to consolidate its rather fragile legitimacy. Alongwith the realisation that the achievement of economic betterment required superior government control, "(t)he most general contribution of the military to the development of administration in Korea was its introduction and vigorous application of a 'managerial approach'".[5] What has since emerged has involved a planning process that is much more than indicative planning with a very active role of the government as a development agency. The government "reaches down

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[4] Mason, n.1, p.253.

[5] Hahn Been Lee, Korea : Time, Change and Public Administration, (Honolulu, 1968), p.23.

rather far into the activities of individual firms with its manipulation of incentives and disincentives".[6]

The major changes in Korean planning since the 1962 plan presentation have has been: (a) greater participation of policy- makers in plan formulation; (b) a shift from achievement of consistent optimisation of available resource and target requirements to a greater emphasis on central policy issues; (c) a substantial increase in the quantity and quality of the available data and (d) greater Koreanisation of the planning process.

THREE DECADES OF PLANNING: STAGES AND STRATEGIES

a) The Part Chung-Hee Era, 1962-1979

The First Five-Year Plan (I FYP) for the period 1962-1966 was rather hurriedly formulated under broad directions from the Supreme Council for National Reconstruction that had come up following the military takeover on 16 May 1961. The plan took shape with the rather inexperienced staff of the Economic Planning Board (EPB) at the helm, but in close concert and consultation with concerned ministries. The plan sought to "build an industrial base principally through

[6] Mason, n.1, p.254.

increased energy production". Plan objectives also encompassed construction of overhead capital, self- sufficiency in food-grain production, the establishment or proliferation of cement, synthetic fibre, chemical fertiliser and similar import substituting industries. The plan pointed to earlier corruption and the economic stagnation of the earlier regimes as a major reason for widespread prevalence of low living standards, despite large-scale aid. "Arbitrary assessment by.... capricious tax officials" made "evasion prerequisite for staying in business,... many entrepreneurs went into unsavoury league with politicians and bureaucrats,... (and) virtually all social evils were connected with the greed and maladministration of government officials".[7]

The new plan effort was to modernise traditional values and behaviour and thereby be a break from the past. The resultant economic system was to resemble a form of "guided capitalism" in which the principle of free enterprise was to be nurtured, "but in which the government will either directly participate in or indirectly render guidance to the basic industries and other important fields".[8]

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[7] Government of the Republic of Korea, The First Five Year Economic Development Plan, (Seoul, 1962), p.24.

[8] ibid., p.28.

Table 1.1

Economic Policies Under Three Decades of Planning[9]

	Major Policies	Major Indicators
1962-1971 (the 1st & 2nd plans)	Export-oriented industrialization	Exports: $1 billion (1970) Per capita GNP: $82 (1962) - $289 (1971)
	Expansion of key industries and infrastructure	Relative Size of Mfrg. Sector 17.0% of (1966)
1972-1981 (the 3rd & 4th plans)	Deepening of industrial structure through promotion of heavy and chemical industries	Exports: $10 billion (1977) Per capita GNP $1,000 (1977)
	Formation of the basis for self reliant growth	Relative size of Mfrg. Sector: 27.6% (1976)
1982-1991 (the 5th and 6th plans)	Economic Stablization Promotion of private initiatives and competition	Trade volume : $153 billion (1991) Per capita GNP: $6,498 (1991)
	Enhancement of nat'l Welfare & social equity	Import liberalisation rate (Mfrg) 99.9% (1991)
	Internationalisation	

[9] Govt. of the Republic of Korea, Seventh Economic and Social Development Plan 1992-1996, (Seoul, 1992), p.6.

Disappointing increases in savings, difficulties in increased government revenue collections and dismal harvests in 1962-1963 resulted in lowering the initial plan targets that had been laid down by the military leadership. This led to the revision of the First Five-Year Plan in 1964. The plan revision hoped to correct the first plan's "failures to consider such restraining factors as the repayment of loan principal and interest and the effect of raw material imports on economic growth; lack of attention to the role of public finance in economic growth; insufficient attention to long-term growth potential; neglect of inter-sectoral and inter-project relationships and to individual project feasibility studies; insufficient support measures for actual execution of the Plan; and an inadequate commodity supply and demand schedule".[10] Growth rate was pruned down from the initial 7.1% per annum to 4.8 per cent per annum. The actual growth rate was 9.3% and the only change in the policy direction of the revised plan was the focusing on exports.[11] It was a trend-setter and since then, Export promotion has continued to be a priority in the development and evolution of the Korean economy.

The Second Five Year Plan (1967-1971) was prepared more meticulously and the concerned ministries, the Economic and Scientific Council members, researcher-representatives of economic research institutes, foreign aid missions

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[10] Government of the Republic of Korea, Revised First Five Year Economic Development Plan, (Seoul,1964), p.3.

[11] Paul Kuznets, "Indicative Planning in Korea", Journal of Comparative Economics, (New Brunswick), vol.14, 1990, Table 1, p.670.

and business associations were all involved in its formulation. Data collection and processing were emphasised and this was a consequence of the lacuna of reliable statistics that had dogged the formulations, realization and later revision of the First Five-Year Plan. The Second Plan was based on a sectoral model of the economy and formulated "to promote the modernisation of the industrial structure and designed to build the foundations of a self-supporting economy".[12] Priority was given to channelise resources to: achieving self-sufficiency in food production; investment in chemical, machinery, iron and steel industries to accelerate and diversify industrialisation; continuing expansion of exports which had been a focus in the revised First Five-Year Plan; control of population growth rate through practice of family planning; and raising the level of technology and productivity to accelerate economic modernisation of all sectors.

The Second Five-Year Plan utilised a dynamic input-output model in testing the consistency of the overall plan and in calculating sectoral investment and import requirements.[13] Though much more sophisticated in its formulation, the Second Plan had much the same targets and aims of the First Plan. The Second Plan was also significant for starting the New Community Movement (Saemaul Undong) to help farmers and the rural populace in alleviating their economic and living

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[12] Government of the Republic of Korea, The Second Five Year Economic Development Plan, (Seoul, 1966), p.33.

[13] Mason, n.1,pp.255-256.

conditions. [14]

It is important to place the Second Plan in the right perspective. Circumstances, at the time the Second Plan was put into effect, were different - in fact, better - than when the First Plan was initiated. The stabilisation programme started in 1963, improved the business environment and, not surprisingly, growth accelerated. Government expenditure had been reduced resulting in sharp decreases in deficits on the government account. A major devaluation of the won in early 1964 sharpened and enhanced export competitiveness. An interest rate reform in the latter half of the following year channelised savings away from the unaccountable curb market to the banks. The establishment of a new office of National Tax Administration in 1966 helped raise tax collection and hence tax revenues by two-fold in the space of two years. Overall, the stabilisation programme corrected the distortions consequent to an overvalued won, as also improved Korea's incentive structure, while successfully dampening inflation and, very significantly raising scarce funds for investment. The Second Plan was a big success as major plan targets were achieved. While GNP expected to grow by 50% from 1965 to 1971 and exports were to swell up by 148%, the actual achievement in 1975 prices were 79% for the GNP and an impressive 417% for the exports.[15]

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[14] ibid., pp.96-97. The following quote from the above mentioned page makes for interesting reading: "Beginning in 1969, the government shifted to a policy of high grain prices and initiated the Saemaul Undong which hoped to improve the farm village environment and agricultural production and income".

[15] Kuznets, n.11, p.660.

The Third Five-Year Plan (1972-1976), not unexpectedly given the target realisation in the Second Plan, sought the "dynamic development of the rural economy, sustained increase in exports, and the establishment of heavy emphasis on the development of heavy and chemical industries was designed to avoid dependence on imported raw materials and intermediate goods".[16] "Balanced regional development" continued as a plan priority.[17] The rural bias had been the result of an erosion of rural support for the government in the 1971 elections. Besides, the American PL 480 food grains assistance programme was phased out. That the benefits of development were not trickling down to the Korean countryside was evident in the wake of the huge rural-urban migration of the late sixties. Basic social overhead investments (i.e., in areas like electricity, transportation, communication, storage and cargo handling) as also the promotion of social welfare schemes throughout the country were sought to be achieved. Alongside, increase in food production was given greater emphasis in the Third Plan. It was during this plan period (to be specific, 1971) that the Nixon Shock - when US President Richard Nixon called off dollar's convertibility vis-a-vis gold - as also the reduction by one-third of the US deployment in Korea took place.[18] The need for the development of heavy and chemical industries (HCI) assumed

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[16] Susan MacManus, "The Three "E's" of Economic Development...and the Hardest is Equity: Thirty Years of Economic Development Planning in the Repubic of Korea (I)", Korea Journal, (Seoul), August, 1990, p.10.

[17] Government of the Republic of Korea, The Third Five Year Economic Development Plan, (Seoul, 1971), p.2.

[18] Paul Kuznets, n.11, p.660.

Table 1.2

GNP: Annual Growth Rates (Percentage)

	1962	1963	1964	1965	1966	Avrge
First FYP	5.7	6.4	7.3	7.8	8.3	7.1
Revised First FYP	2.8	4.4	5.0	5.0	5.0	4.8
Actual	2.2	9.1	9.6	5.8	12.7	9.3
	1967	1968	1969	1970	1971	Avrge
Second FYP	7.0	7.0	7.0	7.0	7.0	7.0
Actual	6.6	11.3	13.8	7.6	9.4	10.5
	1972	1973	1974	1975	1976	Avrge
Third FYP	9.0	8.5	8.5	8.5	8.5	8.6
Actual	5.8	14.9	8.0	7.1	13.6	11.2
	1977	1978	1979	1980	1981	Avrge
Fourth FYP	10.0	9.0	9.0	9.0	9.0	9.2
Actual	10.3	11.6	6.4	-6.2	6.6	4.3
	1982	1983	1984	1985	1986	Avrge
Fifth FYP	8.0	7.5	7.5	7.5	7.5	7.6
Revised Fifth FYP	5.6	9.3	7.5	7.5	7.5	8.0
Actual	7.2	12.6	9.3	7.0	12.9	10.4

Sources: The first five FYPs and their adjusted (revised) verions: Bank of Korea, *National Income in Korea*, various issues.

greater significance with the rather sudden and unexpected U.S. rapprochement with China in 1972, as also the realisation by the Koreans of the fact that a deepening of the industrialisation process would increase the value-added content of exports and boost it such as to effect the rise in global protectionism. Besides,

HCI would greatly enhance the indigenisation of defence production in Korea. The Third Plan was a success as reflected by the Korean economy which actually grew by 11.2% per annum as against a projected annual growth rate of 8.6%. This was achieved despite the disruption caused by the first oil shock in 1973.[19] Korea's current account deficits shot upto approximately. US $ 2 billion in 1974-75 or 11% of the GNP... the only blot in the impressive score card of the Korean economy during the Third Plan.[20]

The Fourth Five-Year Plan (1977-1981) was formulated in the wake of the balance of payments crisis. Hence it sought self-relevance in investment financing; equilibrium in the balance of payments by the end of the plan period. The plan called for "deepening" the industrial structure by promoting ".... skilled labour intensive industries such as electronics, machinery, and ship building..."[21] with the aim of enhancing its export (international) competitiveness. Besides, the fourth plan aimed at promoting social development that is, health care, creation of jobs, strengthening the economy as also increased number of vocational education programmes alongwith rural development; tax reforms; more impetus in the housing sector; as also pollution control; technological innovation and greater efficiency. The Fourth Plan stated its priority at upgrading technology

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[19] ibid., p.670.

[20] ibid, p.661.

[21] Government of the Republic of Korea, The Fourth Five Year Economic Development Plan, (Seoul, 1976), p.11.

sophistication or specialisation and greater efficiency thus: "Increased productivity through technological innovation and improvement in efficiency are the keys to Korea's continued high rate of economic growth".[22] The Fourth Plan ushered in Korean planning the need to improve upon and consolidate the gains achieved since the early sixties. The thrust was on lessening and even correcting the mistakes or excesses of the earlier era of high growth, while emphasising on continuing the scorching pace of economic development qualitatively by getting more efficient as also encouraging the indigenisation of technology upgradation. Reorientation was called for as, with the 1973 oil crisis, oil-dependent economies like Korea could not compete effectively in marketing the heavily energy-intensive products of the heavy and chemical industries that had been a major priority sector during the Third Plan. The Fourth Plan targets fell woefully short and the Korean economy further enmeshed itself into the balance of payment crisis with the current account deficit in 1981 standing at 4.4 billion dollars. There were several reasons. One reason was the oil shock in the first half of 1979. On October 26, 1979, President Park was assassinated. Besides a poor harvest marked the following year, 1980. The commitment of huge, continued, industrial investment did not help the ailing Korean economy. A Fourth Plan evaluation report observed that "allotment of 80% of manufacturing investment to the heavy and chemical industries has brought about a shortage of... consumer goods, thus resulting in

[22] ibid.

price increases".[23] As measured by the implicit GNP deflator, the price increase peaked at 27% in 1980, a year that witnessed the GNP shrink for the first time since 1956.[24]

The Park Chung-Hee era witnessed the birth of the Korean planning process. The planned economic development was, by nature, pro-growth, that in turn was dependent on external trade. The economy grew, exports grew, industrialisation deepened and but for the lull in the late seventies (the assassination of President Park being, not surprisingly, a cause for the first break in the planned economic development) actual growth rates exceeded planned targets. The stage was set for the remarkable economic turnaround when Korea became a trade surplus economy in the Chun Doo-Hwan era.

(b) The Chun Doo-Hwan Era, 1980-1988

Internal political chaos at the turn of the eighties resulted in the emergence of another military leader in General Chun Doo-Hwan who, so to say, started from scratch with the formulation of the fifth edition of the planning process from 1982. The basic objectives of this plan were "stability, efficiency, and balance".[25] These

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[23] Office of the Prime Minister, Evaluation Report of Third-Year Programme (of the Fourth Five Year Economic Development Plan, (Seoul, 1977), pp.150-151.

[24] Kuznets, n.11, p.661

[25] Government of the Republic of Korea, The Fifth Five Year Economic and Social Development Plan, (Seoul, 1982), p.13.

objectives included the continued emphasis on being competitive, on export growth, the evaluation of industries with a comparative advantage in both the domestic and global markets; anti-inflationary measures such as price stabilisation and attracting more domestic savings; alongwith balanced regional development and enhanced social development. The Fifth Plan emphasised for the first time "the principles of a market economy encouraging private initiative and creativity". Not so surprisingly, the plan stated that "for private economic activities the indicative function of the Plan is brought into play "while" the government (would) further reduce its intervention in the market mechanism..."[26] and, "by promoting competition... (would) allow the market mechanism to play its proper role".[27] The changes represented an attempt to recover from the debacle of the Fourth Plan which was, among other factors, attributed to the government's failure to "reorient its economic management strategy....". The strategy of the planners now seemed to be aimed at breaking "a chronic inflationary spiral..."[28] and to increase efficiency. Balanced regional and social development was a priority area of the Fifth Plan as shown by its call to reverse "inequalities between regions and income classes (that) were aggravated".[29] The Fifth Plan was aptly called an economic and social development plan and, among other objectives, aimed at

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[26] Government of the Republic of Korea, Revised Sixth Economic and Social Development Plan, (Seoul, 1988), p.7.

[27] Government of Republic of Korea, n.25, p.14.

[28] Ibid., pp.14-15.

[29] Ibid, 1982, p.10.

setting up a comprehensive social security system. The plan also presented a shift in emphasis from heavy and chemical industries to technology-intensive industries.[30]

The subsequent Sixth Economic and Social Development Plan (1987-1991) looked beyond "developing an economic structure for self-sustained growth"[31] and "represented the first phase of laying a foundation for the nation towards the goal of an industrialised advanced state in the 21st century".[32] While aiming to improve international competitiveness such as to "play in the big leagues" of global industrial powers, there was greater emphasis to ensure the trickling down of the fruits of economic gains to all sections of the society. Three major objectives, the plan identified, to achieve this end included: (i) competition between government and major sections of society to establish an economic and social system that would encourage all people to develop their potential fully; (2) cooperation between Korean business leaders and workers to restructure industry and improve technology level and (3) government-inspired incentives to promote balanced regional development to establish a fair market order.[33]

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[30] Federation of Korean Industries, n.3, p.8

[31] Government of the Republic of Korea, The Sixth Five Year Economic and and Social Development Plan, (Seoul, 1986), p.26.

[32] ibid.

[33] Susan MacManus, n.16, p.12.

The Sixth Plan provided for an annual rate of increase in consumer prices by 3.0% and wholesale prices by 2% annually,[34] real GNP rise of 7.3%[35] and an annual current account surplus of 5 billion dollars on an average.[36] This high output growth goal was formulated to create more employment and thereby minimise unemployment, given the 2.2% annual increase in the economically active population. Like the preceding plan, the Sixth Plan also aimed at the evolution of a welfare state, and this meant, besides employment generation, a national pension scheme, a minimum wage legislation as also increased health insurance coverage. The Sixth Plan did not continue either the Fifth Plan emphasis on restoration of market functions, or the Revised Fifth Plan goals of competition and the liberalisation of the financial markets. Instead, the government hoped to compress the heavy dependence of the economic growth on international trade. This trend of trade pessimism grew from the increased threat of protectionism in the major outlets for Korean exports, including the USA and Europe. With the need to maintain the edge in international competitivity, basic research needed to be nurtured. This was becoming necessary with product life cycles becoming shorter while contending with the growing reality that the "major competitors in markets for Korea's more technology-intensive products have become wary about

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34 Government of the Republic of Korea, n.31, p.40.

35 Ibid., Appendix Table 1, pp.108-109.

36 Ibid., Appendix Table 9, pp.132-133.

sharing technology".[37] The Sixth Plan sought to spend on R&D in an increasing fashion such as to constitute 2.5% of the GNP by 1991.[38]

The Chun Doo-Hwan era was witness to the recovery of the Korean economy from the economic slowdown and political crisis in the late seventies. The plans changed in nature to include the social changes as well. Attempts were made successfully to continue on with the pro-rapid developmental policies such as to safeguard the gains made thus far while aiming to reduce the balance of payment crisis. Inflation was sought to the pruned down. Exports were diversified with an emphasis in raising its value-added content. The economic turnaround was achieved right away and in such a fashion that the plan was revised with the growth in the first year breaking all expectations. Besides, there was a change of leadership as the more democratically-leaning Roh Tae-Woo replaced Chun Doo-Hwan. Hence the revised Sixth Plan was an attempt at economic democratisation, as well.

(c) The Roh Tae-Woo Era 1988-1992

The exceptional growth achieved in 1987, the turn around achieved in the balance of payments crisis and the reforms in the political front that brought "...a strong

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[37] Kuznets, n.11, p.662.

[38] Government of the Republic of Korea, n.31, p.58.

Comparison of 1st to 6th Five-Year Plans

(Planned figures are as of target year of each period.)

Measure	Unit	Baseline 1962	1st Five-Year Plan (1962-66)		2nd Five-Year Plan (1967-71)		3rd Five-Year Plan (1972-76)	
			Planned	Actual	Planned	Actual	Planned	Actual
Gross National Product	1980 prices; US$100 million	126.7	137.6	180.6	233.1	309	416	490
	(current prices; US$100 million)	(23)		(37)		(94)		(287)
Rate of GNP Growth	Average annual Rate of growth, Constant prices; %	2.2	7.1	7.8	7.0	9.6	8.6	9.7
Per Capita GNP	1980 prices; US$	395	471	613	719	941	1,221	1,367
	(current prices; US$)	(87)		(125)		(285)		(800)
Industrial Structure	current prices	100.0	100.0[1]	100.0	100.0[2]	100.0	100.0[3]	100.0
Agriculture, Forestry, & Fishery	%	37.0	34.8	34.8	34.0	26.8	22.4	23.5
Mining & Manufacturing	%	16.4	26.1	20.5	26.8	22.2	27.9	28.4
Social Overhead Capital & Other Services	%	46.6	39.1	44.7	39.2	51.0	49.7	48.1
Investment Ratio	current prices; %	12.8	22.7	21.6	19.9	25.1	24.9	25.6
Domestic Savings Ratio	current prices; %	3.2	13.0	11.8	14.4	14.6	21.5	23.9
Current Account Balance	US$100 million	-0.6	-2.5	-1.0	-1	-9	-4	-3
Merchandise Exports	US$100 million	0.5	1.4	2.5	6	11	35	78
Merchandise Imports	US$100 million	3.9	4.9	6.8	9	22	28	84
Increase Rate of Employed Population	Average annual rate of increase; %	—	4.7	3.2	3.3	3.6	2.9	4.5
Unemployment Ratio	%	8.2[5]	14.8	7.1	5.0	4.5	4.0	3.9
Gross National Product	1980 prices; US$100 million	669	643	933	971	1,381	1,450	—
	current prices;		(662)		(940)	(1,750)	(2,400)	—
Rate of GNP Growth	Average annual Rate of growth, Constant prices; %	9.2	5.8	7.5	8.6	7.3	7.5	+5.6
Per Capita GNP	1980 prices; US$	1,723	1,669	2,229	2,344	3,140	3,300	60[6]%
	(current prices; US$)		(1,719)		(2,286)	(4,000)	(5,500)	—
Industrial Structure	current prices	100.0[4]	100.0	100.0	100.0	100.0	100.0	—
Agriculture, Forestry, & Fishery	%	18.5	15.8	12.2	12.8	10.6	10.1	-71.4%
Mining & Manufacturing	%	40.9	30.7	31.0	30.1	32.7	32.9	+26.1%
Social Overhead Capital & Other Services	%	40.6	53.5	56.9	57.1	56.7	57.0	+45.8%
Investment Ratio	current prices; %	26.0	30.3	29.5	29.5	31.3	31.6	+39.2
Domestic Savings Ratio	current prices; %	23.9	20.5	21.7	32.5	33.5	33.5	+157.7
Current Account Balance	US$100 million	12	-47	4	45	50	60	—
Merchandise Exports	US$100 million	202	207	357	336	554	795	—
Merchandise Imports	US$100 million	189	243	351	293	489	765	—
Increase Rate of Employed Population	Average annual rate of increase; %	3.2	2.3	2.5	1.9	2.3	2.3	-51.1%
Unemployment Ratio	%	3.8	4.5	3.8	3.8	3.7	3.5	-76.4%

Note: 1) 1961 prices 2) 1965 prices 3) 1970 prices 4) 1975 prices 5) 1963 prices 6) Revised in 1988 due to better-than-projected performance in 1987. 7) Change figures calculated for standardized (% or p.c.) entries only.

Sources: Government of the Republic of Korea, *The Sixth Five-Year Economic and Social Development Plan 1987-1991*. Seoul: ROK, 1986, pps. 132-133.

Government of the Republic of Korea, *The Revised Sixth Five-Year Economic and Social Development Plan 1987-1991*. Seoul: ROK, 1988, pps. 90-93, 107, 83.

demand for economic democratisation"[39] necessitated policy makers to formulate a revised Sixth Plan. "Economic performance during 1987 (the first year of the Sixth Five-Year Plan) far exceeded the original projections... and political reform toward democratisation and the subsequent demands voiced by different segments of society made it inevitable that macro- economic management and the priorities for economic policy be adjusted".[40] Qualitative improvement of the economy, providing for equal economic opportunities and private initiative in future economic development were areas sought to be concentrated upon by the revised plan. While the plan called for increased international economic cooperation with the Socialist countries in pursuit of the Nordpolitik[41] initiative, it also called for "institutional reforms designed to enhance autonomy and equal opportunity and assigned priority to help alleviate the underprivileged and lagging sectors of the economy.[42] Though the Revised Sixth Plan called for a reduction in the government's role in economic development, its major objectives like the improvement of equity and competitivity in the global marketplace were all dependent on active governmental involvement. This need for more involvement is evident when the call for "economic democratisation" required reducing taxes on

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[39] Government of the Republic of Korea, n.26, p.5.

[40] Ibid., p.3.

[41] Nordpolitik or the Northern Policy was one of the major foreign policy initiatives undertaken by the Roh Tae Woo government. For further details, see Jitendra Uttam, "South Korea's Foreign Policy During the Sixth Republic", M.Phil. dissertation, July 1992, Centre for East Asian Studies, School of Internatinal Studies, Jawaharlal Nehru University.

[42] Government of the Republic of Korea, n.26, p.9.

low-income workers", increasing public welfare expenditures, to go in for greater liberalisation of the financial institutions; curbing real-estate speculation; strengthening measures to limit industrial concentration as also in encouraging establishment of a friendly and autonomous environment for labour-management relations.[43]

The Roh Tae-Woo era started at a time when economic performance had looked up with a large balance of payment surplus being registered due to favourable external conditions. However, the latter half of the plan period saw unprecedented labour disputes as Korea under President Roh lurched toward democratisation. Increased domestic demand spurred by surging private consumption, and construction investment alongwith raised wages resulted in mounting inflationary pressures. The balance of payment returned back to the red. Still, the Roh Tae-Woo era can be described as a vital transitionary plan period when the economy was exacted a rather expensive price for the drive toward democratisation and internationalisation of the economy.

43 ibid., p.14.

Chapter II

PLANNING: INSTITUTIONS AND INSTRUMENTS

An Introduction

Planning brings together institutions which collect, process, formulate, implement and evaluate data and concepts by means of selected instruments and this process, in turn, is used by the policy makers to chalk out the overall direction of the economy's progress. Over the years, Korea has evolved its own set of institutions that provides the framework or "the hardware" for its planning process. This institutional framework of Korean planning is described in this chapter.

There is also a section on the econometric models and modalities adopted by the Korean policy makers. It should be remembered that "poor statistical quality was by no means the least important obstacle to development in the immediate post-Korean War period, nor was the improvement in Korean statistics a minor contributor to the growth pattern."[1] The section will, therefore, highlight the growing expertise and sophistication that the Koreans have acquired since the mid-sixties in the clinical and professional dimensions. This improvement has been linked to improvement in collection of data as also in getting greater technical

[1] G.T. Brown, Korean Pricing Policies and Economic Development in the 1960s, (Baltimore, 1973), pp.282-286. Also see David C. Cole and Princeton N. Lyman, Korean Development: The Interplay of Politics and Economics, (Cambridge, 1971).

competence which count among "the most important developmental prerequisites."[2]

The chapter is divided into two parts:

(a) Making of the plans: Authorities and Consultative Mechanism, a section which introduces and discusses the manner in which Korean institutions are involved in the formulation of the Planning process.

(b) Plan Modalities and Models: where the Instruments used by the Korean policy makers are dealt with.

MAKING OF THE PLANS: AUTHORITIES AND CONSULTATIVE MECHANISM

The Korean development is a saga that has focussed on the centralisation of authority and this stress on coordination and national planning has, in no small manner, contributed to the acceleration in growth during the period extending from the mid-sixties to the late seventies. Policy making institutions have been

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[2] L.L. Wade and B.S. Kim, Economic Development of South Korea: The Political Economy of Success, (New York, 1978), pp.169-170.

located primarily in the executive branch of government. One finds the centralisation ever more so since the promulgation of the Yushin Constitution, which enabled the executive to lay down the national policies. The National Assembly, representing the Legislature, was reduced to debating ratifying and, at best, marginally amending the executive's proposals.[3] Hence there will be focus here mostly on the economic policy-making organs of the executive.

The President is undoubtedly the most important policy maker in the Korean context. His office comprises of the central and personal staffs assist him in pursuit of his duties. There are Special Assistants and Political secretariats who directly aid him in policy making. At the time of the Yushin Constitution, special assistants of the ranks of ministers and vice-minister dealt in areas like the economy, international politics as also internal politics, national defence and social affairs, besides culture and education and inspection. These special assistants enjoyed a more personal and informal relationship with the President than what he shared with Cabinet ministers.[4] They not only advised and suggested to the President, but also presented recommendations that they have evolved or in the areas of their specialisations to the President. The Political Secretariat handles

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[3] Dong-Suh Bark, "Policy making in the Korean Executive Branch", Korean Journal of Public Administration, Vol.4, (Seoul, 1966), pp.207-215.

[4] Wade and Kim, n.2, p.221.

crucial areas like politics, political party affairs, justice, national defence and foreign affairs as also home affairs, social issues, education and health. Economic planning - the area of our interest here - along with finance and the area of economic management is handled by the First Economic Secretariat, while the Second Economic Secretariat dealt with matters that involved defence industry, heavy and chemical industries as also science and technology. The Political and Economic Secretariats thereby are assigned the formal duties to: (1) present general analyses of the current state of affairs and advise the President in policy-formulation; (2) deal with issues related with planning and coordination that comes under the direct purview of the President; (3) monitor the climate prevailing in each administrative branch carefully and (4) to evaluate the performance of each ministry. The power, presidential proximity and verve enjoyed as well as utilised by these secretariats have contributed - in no small way - to the consistency in the Korean developmental policy design as also in the efficacy of the implementation of its policies.[5]

The Cabinet in the Korean context has, by the seventies, evolved into a governmental organ that was more deliberative by its character being wedged between that of an advisory and a legislative organ. The Cabinet council deliberated on (a) the basic planning of national administration and general

[5] ibid.

governmental policy; (b) important foreign policy matters that included peace treaties, declaration of war etc.; (c) planning the fundamentals of such important financial issues or instruments like budget-settlement bills, contract and agreements that could affect the state, disposal of national property etc.; (d) devolution of authority to various administrative agencies; (e) evaluation and analysis of the performance of these administrative bodies; thereby (f) setting up and coordinating the (manifold) performance as also direction that each administrative organ of some consequence takes vis-a-vis major policies; (g) deliberation on proposals vis-a-vis government policies that have been submitted or referred to the government.[6] However, in the high-growth era, the cabinet council was utilised as a legitimising agency for governmental policy and thereby it served an important political function.[7]

The Economic Minister's Conference was set up as a sub- committee within the Cabinet Council. It is made up of the Minister of the Economic Planning Board (who is also Deputy Prime Minister), and Ministers of Finance, Agriculture, Commerce and Industry, Construction, Transportation, Communications, Foreign Affairs and a Minister without Portfolio with the responsibility of economic

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[6] ibid., p.222.

[7] There is, however, a contention that the Cabinet Council is the supreme organ for national policy making. See Wan-Kee Baik, "The Korean Adminstration Process", in Woo-Tai Kim (ed.) Korean Politics, (Seoul, 1976), p.410.

matters. The Conference deals with economic development planning and other national and externally economically significant policies; governmental financial investment and monetary plans; problems that arise between and within the governmental agencies that deal with finance, prices and banking; as also economic problems that require the Cabinet Council's attention and other issues that the Cabinet Council decides to refer. The Vice-Minister introduces the result of the deliberations in the Economic Ministers Conference to the Cabinet Council. It is the Council that actually coordinates the functioning of the several economic policy formulating bodies and lays the economy-related agenda in front of the Council. It is never over-ruled by the Council. It thus emerges as an important deliberative, coordinating economic policy-making organ of the government that has a top-priority, integrated agenda. The Conference is a crucial link which has functions that have managerial, communicative as well as legitimising and educative connotations.[8]

The Vice-Ministers Conference consists of vice-ministers of each governmental branch and is a professional, high-level bureaucratic organ that engages in the preliminary consideration of national policies. It does so before advancing the policies for perusal to the Council and also seeks to coordinate the administrative

[8] Wade and Kim, n.2, pp.223-24.

agencies.[9]

The Economic-Science Council was set up by a statute in 1968 and its job is to advice and suggest recommendations as and when requested by the President - primarily on policies that relate to the development of the national economy and sciences. The Council has a secretariat that formulates the issues to be presented to the Council. It also collects data while organising studies to get a better understanding of the national economy or in promoting sciences. The Council discusses medium and long-range economic policies and planning and plays a pivotal role in the formation and the review of the five-year development plans. This Council has a membership of experts drawn from the fields of economics and sciences.

The Office of Planning and Coordination is headed by the Prime Minister and it helps him in evaluating and developing the coordination and capabilities of all administrative agencies. This organ is the lead planning and coordination fulcrum of all administrative branches and that is inclusive of all those economic policy-making organs. It has gradually become a strategic agency that seeks to correct, and if possible, prevent administration or administrative errors. More importantly, it also analyses and judges the success of policy-implementation as

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[9] ibid.

also administration, in general. This activity is conducted by the Evaluation Professors Group.[10]

The problem when the Park regime came to power was not the challenge of a growingly powerful political elite seeking to replace the already well-established bureaucratic elite. It was more, as noted earlier, the further concentration of political powers within the military-bureaucratic elite. President Park had to evolve a system that channelised the flow of its bureaucratic functions into the hands of an educated, nonpolitical elite that was able to work with the fledgling civilian entrepreneurs. With the United States deciding to end its generous aid package to Korea[11], the Park regime sought in 1961 (shortly after taking charge) to solve this problem by centralising or focussing all economic powers of the Korean government by creating an agency called the *Economic Planning Board (EPB).*[12]

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[10] The Evaluation Professors Group consists of university professors whose professional skills and relative independence has made them contribute to enhancing the efficiency and effectiveness of policy planning and implementation in Korea. See, Wade and Kim, n.2, p.225.

[11] Korea, it should be noted here, had been the third-highest per capita recipient of U.S. aid in the postwar period; the first and second recipients being South Vietnam and Israel in that order. Refer, David C. Cole, "Foreign Assistance and Korean Development", in D. Cole, Youngil Lim, and Paul W. Kuznets, The Korean Economy: Issues of Development, Korea Research Monograph No.1, (Berkeley, 1980), p.1.

[12] Chalmers Johnson, "Political Institutions and Economic Performance: the government-business relationship in Japan, South Korea and Taiwan", in Fred C. Deyo (ed.) The Political Economy of the New Asian Industrialism, (New Jersey, 1987), p.154.

The EPB is the reformed version of the Ministry of Construction of the pre-1961 coup days. The Ministry was an amalgamation of the Ministry of Reconstruction and the Industry Development Committee that fell under the supervision of that Ministry. The EPB was also further expanded with the addition of the Statistics Bureau - that had formerly been under the Ministry of Internal Affairs and the Budget Bureau that had formerly been part of the Ministry of Finance. The EPB thus becomes the chief ministry to coordinate economic policies.[13] The EPB in turn established the *Korean Development Institute (KDI)*, to serve as a think-tank that and has since been manned by professional economists who held advanced degrees from domestic and foreign universities.[14]

Ironically, the EPB's attempts to gain some autonomy or space in its economic policy-making capabilities bore fruit not because Pres. Park intended so or because the EPB maneuvered it to happen. "The First Five-Year Economic Plan (1962-1966) document reveals that the government initially did not clearly envisage adopting export-led growth based on unskilled, labour-intensive manufactures. The primary concern was to improve the chronic balance of

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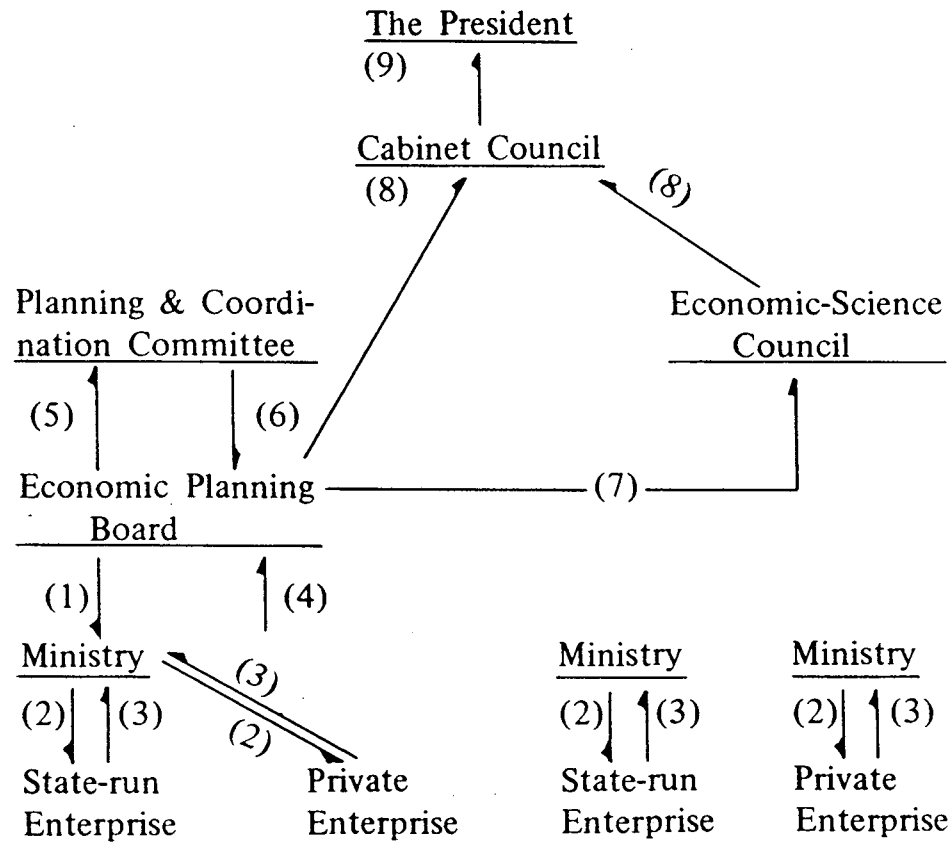
[13]Young Sun Lee, "Korea Economic Development Planning: Institutions, Process, and Methodology", Unpublished Seminar Paper, pp.11-12.

[14] Chalmers Johnson, n.12, p.154. The KDI was established in 1972 and while being considered as the premier economic think-tank in Korea, there have been other institutes that have come up like KIST, KIET etc., that also advise the government on issues regarding economic growth. This is an indication of democratisation in Korea that has gone beyond the realms of politics to mark its imprint in research institutions and, thereby, in plan formulation as well!

Table 2.1

Planning Flow of Korea's Five-Year Development Plan



Source: L.L.Wade & B.S.Kim, *Economic Development of South Korea: The Political Economy of Success*, p.229.

payments deficits that foreign aid had permitted... However, this is not what occurred. The composition of actual exports differed drastically from the government's projections, or targets. It was the private exporters, who played a major role in identifying and taking risks, exporting unskilled- labour-intensive products in which Korea had a comparative advantage".[15]

The EPB, despite its autonomy - that it has consolidated by rewarding the successful entrepreneurs while punishing the laggards - and being the major coordinating organ responsible for economic planning, is not the sole supervisor of the entire planning process. In this context, as this study described earlier, provides for several ministers coordinating towards the furtherment of the economy vis-a-vis the planning process. Within each ministry, there are separate *planning and management offices* that have the function of chalking out or formulating the economic planning related to each respective ministry. An indication of the seriousness accorded to the planning process can be found in that these offices of planning and management have been accorded higher rank than other offices in the ministries.

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[15] Youngil Lim, Government Policy and Private Enterprise: Korean Experience in Industrialisation, (Korea Research Monograph no.6, Berkeley, 1981), pp.16-17.

The EPB alongwith the planning and management offices of each ministry set the guiding principles for the preparation or drawing up of economic plans. These principles form the basis for the formulation - by the innumerable *executive planning units* or the special planning committees - of the administrative plans.[16] These executive planning units - consisting of officials from the development bank and other financial institutions as also representatives from the private enterprises and university professors - were established by the second five-year plan. These administrative units have been strengthened by the planning supervising agency that is comprised of higher ranking government officials. These 'special committees' were incorporated to supervise and evaluate executed undertakings.

The Planning Process in Korea: Conception and Formulation

A medium-term five-year plan has a gestation period of 26 months and four planning stages before it is drawn up[17] *The preliminary phase or the first stage* involves the EPB as it draws up the fundamental guidelines.... the principles that form the foundation or bedrock of the plan-to-be. The prevalent economic environment is taken into account, preliminary macroeconomic targets are

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[16] Young Sun Lee, n.13, p.12

[17] ibid., p.13.

objectives are identified while the basis by which the plan statistics would be calculated, is decided upon. But these are early days in the conception of the plan and nothing final is drawn upon. It is at this stage that the time deemed essential for deciding the path or way or thrust of the economic planning in general as also its policies is arrived at. The EPB often consults think-tanks like the Korea Development Institute and judges public sentiment at this stage when the conception-schedule as also the basic principles of the plan are laid down.[18] Once these principles for the plan are formulated, it is sent to the president who finally approves it. The president, thereby, has the last word at this early stage of the planning process.

The second stage involves the drawing up of the plan at the ministerial level. Once the guideline principles for the plan are approved, the executive planning unit[19] formulates the ministry-level plans. Each such unit put up the investment estimates as also the outlay that each ministry would envisage during the forthcoming plan period. But this exercise[20] is conducted keeping in mind the

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[18] Wade and Kim, n.2, pp.228-230.

[19] Also known as the administrative unit, this team of planners plays an important role in the second stage of the Korean Planning Process. Young Sun Lee, n.13, p.13).

[20] There has been growing decentralisation in the planning process as is evident in the changing leadership of these administrative units that conduct the ministry-level plans. Until the Second Five-Year Plan, these units were always headed by an EPB official. Things changed from the Third Five-Year Plan, when the concerned ministries were appointed to head these units. Further decentralisation has taken place since the Sixth Five-Year Plan, when civilians were drafted in as joint commissioner

aggregate plan objectives that have been drawn up in the earlier stage. Usually these investment plans far exceed the total available resources and so the apex planning body - the EPB - then reformulate these ministry-level estimates with the help of a planning model such as an input-output model.

The third stage in the plan-conception process witnesses the submission of the basic ministry-level plans - that have been drawn up by each administrative unit - to the EPB. The amalgamation of the ministry-level plans involves negotiations between the EPB and the concerned ministries. The ministry, before submitting its proposals, also solicits the views of the various interest groups that exist in the private sector - a practice that came into focus during the formulation of the 5th five-year plan. The negotiations over, the EPB puts together the various ministry plans and then sets about to formulate the aggregate plan.

The fourth and final phase is when the EPB puts into paper the final draft of the plan while taking into account the new development, if any, in the economic conditions. The final draft is, in the event of changes in the economic climate, corrected and this could involve modifications in its macroeconomic indicators... all

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so as to introduce freer discussion into the planning process. See, Government of the Republic of Korea, Seventh Five-Year Economic and Social Development Plan, (Seoul, 1991), pp.1-3.

of which is then submitted to the cabinet council and the President for approval.[21]

The Planning Process: Implementation

The two year, two months of preparations that goes into the making of a five-year plan boils down to the inclusion of a package of programmes that would thrust the Korean economy on a particular road of economic development. The philosophy has changed over time from shifting into a higher gear of growth to the attempt at achieving equitable growth. Emphasis has, as the earlier chapter shows, shifted from the development of labour-intensive to heavy and chemical industrialisation to the establishment and nurturing of technology - intensive industries. The plans have readied and speeded the globalisation of the Korean economy. But then, how were all these adjustments done? The Korean economic success lay in the implementation of the planning process. The following section expands on this stage of the planning process wherein the plan was transformed from mere figures and tabulations and approximations on paper into reality... a feat that few developing economies have achieved while pursuing development via the centralised, primarily five-year planning process.

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[21] Young Sun Lee, n.13, pp.14-15.

Annual plans[22] - that has been closely related to the budget of that fiscal year - were prepared so that the plan implementation was made possible on a year-to-year basis. These annual plans were also known as overall resource budgets (ORBs). These ORBs evaluated the performance of plan-implementation of the previous year and thereby adjusted its policy-map or the implementation of its targets. The ORBs revealed the official or government policy on the private section's economic development, as well.

By the time the third Five-Year Plan took place, the role of ORBs was revised. Originally, the ORBs were meant to be part of the general plan-package that sought to distribute all the available resources, inclusive of private resources, to achieve or exceed the plan-targets. But the content of these annual plans got transformed with the change by the government from simply resource-allocation to policy-planning.[23]

Thus the annual plan acquired the new sobriquet of economic management plan during the realisation of the Fourth Five-Year Plan. These plans had come to indicate the economic estimations and policy directions. It encompassed the

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[22] The official annual plan was first effected in the implementation of the Second Five-Year Plan. (Young Sun Lee, n.13, pp.14-15. Also see, Youngil Lim, n.15, pp.7-29).

[23] Young Sun Lee, n.13, p.15.

governmental budget that, in turn, consisted of public investments. But the economic management plans no longer covered the investment activity that was to take place in the private sector.

The economic management plan[24] is formulated by the EPB in consultation with the relevant ministries. Since these annual plans serve as a vital link that ensures the consistency that exists between the five-year plan and the government's annual budget and other programmes, they require the approval of the Cabinet council as also the President.

The Planning Process: Evaluation

The plan-evaluation process was officially established and carried out right from the beginning... that is, the First Five-Year Plan. Not very surprisingly, the official plan- evaluation format resembled the basic annual management plan framework that was being utilised by the Korean military.[25] The primary supervision and evaluation were undoubtedly carried out by the concerned ministry as the ministers drew up the annual (management) plans before its submission to the

[24] Despite the annual plans not covering in detail the investment activities in the private sector, they stand as good indicators of the official policies during that particular plan period.

[25] The planning process, especially its implementation and evaluation had major influences from the predominantly military backgrounds of the chief policy makers following the 1961 coup. (Young Sun Lee, n.13, p.16).

office of plan coordination that fell under the supervision of the office of the Prime Minister. Besides, the comprehensive evaluation was conducted only in the event of the adoption by the office of plan coordination on the advice of the economic evaluation committee.[26]

The failure of the Fourth Five-Year Plan resulted in the abolition of the office of plan coordination. In its place, a bureau for the supervision and evaluation of the implementation of subsequent plans and their impact was established within the EPB. The erstwhile office of plan coordination was found lacking in the simultaneous control of the budget as also the implementation of the plans as it simply collected the annual plans of its subordinate bodies. The EPB has since (to be more specific, from 1982) defined the guidelines that govern the supervision and evaluation of plans to include three process. These three processes are: (1) supervise the plan implementation process which comprises the budget execution; (2) compare the over-all operation plan and (3) analyse causes of delay or hitches in the plan-implementation stage.[27] The evaluation process now includes a sophisticated mix of government agencies, each of which has been established to analyse the economic efficiency that is based upon the consumption of scarce

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[26] If the examination calls for a correction in the plan-implementation process, the Prime Minister's office directs the concerned official body to do so.

[27] Young Sun Lee, n.13, pp.16-17.

resources. These agencies focus on such scarce resources as skilled man-power, time and budget resources and thus seeks to optimise the objectives underlying the implementation of the plans with the expected result of each operation. Besides, the evaluation process takes into account the relevance of each operation as to whether it is in tandem with the other related operations - all of which when properly implemented go into the making of a successful plan.

PLAN MODALITIES AND MODELS

The planners have in their hands a set of instruments to translate the plan into action. The instruments come in the form of plan methodologies[28], to take a very conceptual view of planning. These methodologies have been used as a medium, a language, a means to realise plan objectives, given the available resources. The policy makers have adopted a two-tier approach in initiating plan methodologies. A macroeconometric model was utilised to compute 'appropriate' growth targets that took into account crucial constraints such as foreign exchange and savings. Once the growth rates had been arrived at, sectoral input-output models that took into account forty or fifty sectors were formulated. These models were of quarterly,

[28] I have tried to solve the dilemma of what constitutes plan instruments and plan policy devices by limiting the former to plan methodologies. The latter has been defined to encompass fiscal, monetary, trade, savings and investment policies. But then, are plan instruments not policy devices? It is a fundamental question that should inspire further research.

semi-annual and annual periodisations. They were used to arrive at the optimum demand-supply balances in each sector while highlighting or pinpointing the strategic or priority sectors for economic development. Investment and external dependency requirements of each sector were also computed by utilising these input- output models.

The input-output models were useful in indicating the sectoral priority approximations even when viewed by comparative advantage. This, it did, by computing capital- output, value-added, labour-output and foreign exchange content ratios. This was obvious by the Second Five-Year Plan when the models employed recommended development of light manufacturing and in those sectors of heavy industries manufacturing that were more skill-intensive rather than capital-intensive in nature. The model, however, recommended the investment by the government in the establishment of a coast- based petrochemical plant as well as an integrated iron and steel complex. These were early days in the setting up of heavy and chemical industrialisation and the model did, as the Korean industrial revolution shows in retrospect, indicate its priorities correctly.

However, before moving into an exposition on the input- output models utilised by planners, macro econometric models are focussed upon.

Macroeconometric Models: a selective analysis

The first macroeconometric model was computed for the Second Five Year EDP by Irma Adelman and Mahn Je Kim in 1968.[29] This model, alongwith Song Heeyhon's model for the Third Plan and S.W. Nam's model for the Fifth Plan are considered here.[30]

The Adelman-Kim model was a variant of the Harrod-Domar model founded non the simple Keynesian multiplier and two gap theories. The three different sectors of production, final demand and finance were described by means of fourteen structural equations and twelve identities. Labour and price-wage sectors were not accounted for.[31] The authors - Irma Adelman and Mahn Je Kim - sought to investigate the sufficiency of potential savings that would finance the requisite investment targets which was, in turn, necessary to achieve the plan's growth targets. Adelman and Kim also sought to discover the appropriate monetary and fiscal policies that would optimise achievement of the plan targets as also compute

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[29]Irma Adelman and Mahn Je Kim, "An Econometric Model of the Korean Economy", in Irma Adelman (ed.), Practical Approaches to Development Planning: Korea's Second Five-Year Plan, Baltimore, 1969, pp.77-108.

[30]All three models were designed by the KDI which, as we have noted earlier, was established as a think tank for the purposes of Korean economic development, especially plans. These three plan-models were the only readily accessible publications to the researcher.

[31]Labour and inflation were not major constraints at the time of the computation of this model.

the optimal mix of policies and targets that would minimise net foreign capital inflows in the event of a short-run disequilibrium between the total available supply of goods and services and the final demand.[32]

The model examined possible gaps between aggregate production and demand as also between exports and imports. While financial intermediation variables were taken to affect the specific allocation of real resources, monetary and fiscal policies were assumed to significantly influence the sectors. Effects of price changes on agricultural and imports prices were studied by allowing for various relative price variables. Also, sectoral output increases were assumed to be a function of capital stock and that of imports of intermediate goods. This implied that labour inputs were not in short supply. Meanwhile, consumption was assumed to be a function of disposable income and the ratio of grain to wholesale prices. Sectoral investment was taken as a function of the value-increment in each sector, money supply, capital stock and government non consumption expenditure. Machinery and equipment imports were taken as a function of gross fixed investment, while all other imports were assumed to be a function of value-increments in manufacturing industries and relative price between the import deflator and the wholesale price index.

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[32]Both the available supply of goods and services and its final demand are taken to be ex ante. (Adelman and Kim, ibid., pp.83-84).

By means of this model, various policy mixes were compared. A mix of low money supply, high agricultural prices, low government investment, more exports, no foreign exchange rate deviations, heavier tax burdens were recommended as the optimal policy mix. Influenced by the model recommendations the policy makers adopted an export-oriented development strategy while maintaining tight fiscal and monetary policies (within the given vicissitudes of a fast developing economy) to boost capital accumulation.

Heeyhon's Song quarterly model was used to find optimal policy mixes in the formulation of the overall resource budgets. Song's model[33] is two-tiered in that it includes several demand vectors to compute the aggregate demand side on the one side while including the functions of production and labour demand to explain the aggregate supply aspect.

Song bases his model by interrelating demand and supply and is primarily Keynesian in his approach. The model examines in greater detail the foreign trade sector and accounts for all factors that could affect the relative prices of exports and imports. The estimations of trade computations include the variables of tariff rates, exchange rates and subsidies. The monetary sector was endogenised by the

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[33] Heeyhon Song, "An Econometric Model of the Korean Economy", in Chuk Kyo Kim (ed.), Planning Model and Macroeconomic Policy Issues, (Seoul, 1977), pp.3-41.

Table 2.2

Characteristics of Macroeconometric Models

	I. Adelman-Kim's Model	II. Song's Model	III. Nam's Model
Plan Period	2nd 5 year plan	3rd	5th
Type	Annual	Quarterly Short term forecasting model	Semi-annual
# of equations	14 behavioral equations 12 identities	15 behavioral equations 12 identities	15 behavioral equations 6 identites
Policy variables	money supply, time deposit, Taxes, agricultural prices, government lending	government expenditure, time deposit rate, exchange rate tariff rate, subsidies to export, money supply, price of rice, public utility price	money supply, exchange rate, deposit rate.
Issues	development policy choice	short term forecasting trade policy impact	short term forecasting policy simulation
Theories employed	simple Keynesian multiplier theory two gap	simple Keynesian price depends on demand trade depends on relative prices	Keynesian Phillips curve money in production fn. various price equations
Data coverage	1956-1966 at 1965 prices	1963 1/4 - 1972 4/4 at 1965 prices	1968 - 1979 (semi annual)
Structure	almost recursive	almost recursive	simultaneous

Source: Young Sun Lee, *Korea Economic Development Planning: Institutions, Process, and Methodology*, Appendix Table 1, p.1.

assumption that demand for money depended on the GNP, inflation and the interest rate. Song felt that money was a major influence on both inflation and production. Inflation, in turn, was computed as a function of money supply, output, some government controlled prices as also the exchange rate.[34] Song's model had fifteen structural equations and twelve identities and was an improved version of the earlier Adelman-Kim model.

S.W. Nam's macroeconometric model[35] is a semi-annual computation that has both monetarist and Keynesian features in its formal structure and was utilised by the policy- makers in the Fifth Five-Year Plan.[36] This model made use of the Phillips curve to estimate nominal wage rates that was assumed to influence prices. Money supply was assumed to be an important determinant of aggregate supply. Output and import price determination were, according to Nam, dependent on exports.[37] Imports and exports, in turn, were assumed to be functions of relative prices and certain demand variables. The Nam model consisted of fifteen

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[34] Song's inclusion of exchange rate as one affecting inflation revealed his vision of Korea as heading towards liberalisation of its economy, however gradual its degree be.

[35] S.W. Nam, "A Semi-Annual Simulation Model of the Korean Economy", Korea Development Studies, (Seoul, 1981), pp.131-152.

[36] Nam's model sought to avoid the unsatisfactory time lag impact of different policies that is the major lacuna in annual models while also overcoming the quarterly model's deficiency in explaining seasonal adjustments, and hence was semi-annual.

[37] By this assumption, Nam admitted the globalisation and the foreign trade dependent nature of the Korean economy.

behavioural equations and six identities and was used to bring out a simulated projection of trade balance by employing the unit export price index equation.

Input-output models were computed once the above-mentioned macroeconometric models had helped in projecting the overall plan targets. These input-output model are discussed below;

Input-Output Models: a study of selected models

In rapidly developing economics, structural changes of a very large and frequent magnitude is the norm in the areas of output, external trade as also the balance of payments position and the crucial area of savings and investment. In this dynamic scenario, macroeconometric model-recommended estimations require to be checked for their consistency and feasibility. In this aspect sectoral input-output models are used.

Like the macroeconometric models above, there will be a focus on three input-output models that have been in operation for different economic plans.[38] The Adelman-Cole- Norton-Lee model, on the ACNL model, was the first input-

[38] The three input-output models discussed are: (1) the Adelman-Cole-Norton-Lee model used during the Second Plan; (2) the Y.K. Kim model that encompassed 53 sectors for the Fourth Plan and (3) the K.S. Kim model which was designed to estimate the long-term projections of the Fourth Plan.

output model that was designed in Korea for purposes of validating the consistency and viability of the development programmes that were built upon targets (for the Second Five-Year Plan) arrived at by the utilisation (again for the first time) of the macroeconometric model. The ACNL model was to indicate total investment requirements as also the optimal allocation of investments acquired.[39]

The Korean economy was divided into forty-three industrial sectors by the ACNL model.[40] Besides, the model brought in four sets of relationships to explain the Korean economy. Physical-balance equations, that specified that the aggregated product available for production plan imports should equal its eventual utilisation in intermediate production, consumption, investment, exports and inventory alterations represented the first set of relationship. The output-capacity relationship was brought out by the second set of equations. Domestic production, at a given time-frame, was affected by available capacity and by bringing this out, this relationship allowed for the gestation that occurred in the annual rate at which investment could affect capacity during the plan period. The third set of

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[39] Later, the model's focus was limited to arriving at the investments needed by the mining and manufacturing (i.e. the secondary) sector as also to evaluate the impact of different import-substitution and export expansion strategies.

[40] In this model (ACNL), production, imports and investments in each of the 43 sectors are assumed to be endogenous variables with the sectoral targets of consumption and exports, the limited availability of primary resources - like labour, capital, land, foreign exchange - as also imports and investments in some prioritised industries being taken to represent the exogenous variables typifying technological and economic constraints. Lee, n.13, pp.25-29.

relationship, the model established, were the balance of payments constraints. The total value of imports was taken to equal the aggregate value of all exports, net foreign commitments for the period in question and the total balance of payments surplus, if any. The savings and investment constraint was brought out by the fourth set of relationships. The ACNL model derived the savings function such that savings became a behavioral constraint. Investment equalled funds from domestic savings and from foreign sources.[41] Imports was divided into two parts, viz., (a) competitive imports that was computed outside the model and (b) non-competitive intermediate and capital goods that was estimated from within the model as requirements.

The model was solved by utilising iterative approximation techniques. Once the policy goals and exogenous estimation equations are calculated, given the condition that capacity does not change from its pre-plan level. The results of these equations give the earliest estimation of the annual production requirements during the plan period. The investment requirements were then calculated and extrapolated into the physical-balance equations and solved such that convergence eventually took place between the two sets of equations... in order to provide the

[41] The model differentiated between investment in the secondary sector (mining and manufacturing) and investment in other sectors. While the former is endogenous, the latter is taken to be exogenous given the unreliable or unstable capital coefficients in the agriculture, trade and services sectors. ibid, pp.27-28.

production requirements over the plan period.

The model required an enormous amount of accurate data. Two types of data, viz., parametres and exogenous variables, were collected and tailored to the demands of the ACNL model. The structural relationships in the economy - inclusive of input- output and capital co-efficients, capacity-utilisation ratios, depreciation rates, labour-utilisation coefficients, import ratios - formed the parameters in the ACNL model.[42]

The Fourth Five-Year Plan was arrived at by the utilisation of YH Kim's 53-sector inter-industry projection model.[43] Kim's model was an improvement on the ACNL model in that it covered more sectors and while being similar to the earlier (ACNL) model, it examined changes due to assumed structural changes not only in consumption and export strategies but also those of import substitution-on sectoral employment, output, import requirements and investment. The establishment of heavy and chemical industries was the major thrust in the Fourth Five-Year Plan and hence Kim's model sought to find out how much production and investment was necessary to achieve the appropriate growth rates in the

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[42] For further details of this data collection process conducted for the ACNL model, refer, ibid, pp.28-30.

[43] Y.H. Kim, "A 53-Sector Interindustry Projection Model, 1974-1981", in Chuk Kyo Kim, n.33, pp.42-116.

heavy and chemical industries. To get to a solution, the model classified aggregated sectoral demand - both intermediate and final - as also input, capital and the total demand coefficients into the three categories of domestic deliveries, competitive and non-competitive imports.

Changes in various import coefficient were regarded as the impact of import substitution. The optimal rate of import substitution-induced reductions of import coefficients were computed taking into account the maximum possible increase in domestic production in each sector and this included the investment goods sector.[44] The model also assumed that the so- induced import coefficients were matched by optimal increases in the demand for domestic inputs. This model also saw the correction of a major lacuna in data compilation in planning thus for: that of the unprecedented incorporation, on an experimental basis, of KDI's preliminary estimates of labour input coefficients in the computation process. The model utilised similar methods as those utilised by the ACNL model to estimate final demand vectors though it differed in that econometric instruments were used to project exports of each sector, thereby revealing the importance assigned by the planners to exports in the evolution and maintenance of the rapid growth spiral in the economy.

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[44] These computations were based on information provided by the long-term sectoral investment plan.

The third input-output model under focus here was designed by KS Kim and utilised to estimate term projections of the Fourth Five-Year Plan. It varied structurally from the other two models, that have been discussed before, in its employment of the solution algorithm.[45] The model sought to study the impact of different policies in the achievement of long term economic goals within the framework of a general equilibrium. An attempt was made by the model to analyse the impact of (a) selection of a particular sectoral growth approach; (b) import substitution and (c) exports expansion strategies.

The basic structural model comprised of an objective function, two identities that defined the GDP and the GNP and seven constraints. The seven constraints included: (1) material balance constraints that put in perspective the sectoral demand-supply relationship in the context; (ii) production capacity coefficients alongwith fixed capital- output coefficients; (iii) the constraints of fixed capital formation that decided the capital stock-investment relationship; (iv) inventory constraints that reflect the inventory changes to output increase ratio; (v) total investment constraint that is the aggregation of domestic and borrowed foreign savings; (vi) domestic savings constraint alongwith of fixed marginal propensity to save and (vii) foreign trade constraint wherein trade deficit should not exceed the aggregated total of net factor income and borrowed foreign savings.[46]

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[45] K.S. Kim and R.A. Inman, "A Static Linear Programming Model of the Korean Economy", Korea Development Studies, (Seoul, 1979), pp.80-92 and K.S. Kim, "Economic Forecasting and Policy Simulation with a Linear Programming Model", Korea Development Studies, (Seoul, 1981), pp.171-189.

[46] Lee, n.13, p.33.

Table 2.3

Characteristics of Input-Output Models

	A C N L Model	Y. H. Kim Model	K. S. Kim Model
Base year	1 9 6 5	1 9 7 3	1 9 7 5
Plan period	2nd	4th	5th
# of equation groups	6	6	9
# of sectors	4 1	5 3	5 3
Focus	BOP constraint S/I constraint	import requirement	production capacity const. S/I constraint BOP constraint
Theory	Simple Leontief (dynamic)	Simple Leontief (dynamic)	Simple Leontief (dynamic)
Solution process	I-O computation	I-O computation	Linear Programing

Source: Young Sun Lee, *Korea Economic Development Planning: Institutions, Process, and Methodology*, Appendix Table 2, p.2

The material balance constraint was classified into domestic delivery, competitive imports and non-competitive imports to help compute the impact of the import substitution policy. In selected industries, the rates of import substitution was exogenously imposed to study the impact of such substitution and achievements of its goals in those industries. Otherwise, the collection of the requisite parameters, data base as also the computation of input-output coefficients was based on YH Kim's 53-sector model. Estimations of final demand vectors were arrived at employing similar methods as those undertaken in the preceding models.[47]

The three macroeconometric models and the three input-output models were some of the instruments that Korean planners utilised in evolving and implementing as also evaluating the Korean planning process. The models were rather simple and the combination of both macroeconometric and input- output models checked the inconsistencies in the plan projections when presented as development programmes. With the liberalisation of the economy, however, sector specific policies were being termed obsolete. This, however, does not diminish the role of input-output models in their limiting the inconsistencies between sectoral demand and supply that could have caused severe disequilibrium hitches.

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[47] A summary of the data base of Y.H. Kim's model can be seen in Y.S. Lee, [illegible], pp.31-32.

Chapter III

MAJOR POLICY DEVICES: PLANNING TOOLS IN EXPORT-ORIENTED DEVELOPMENT

This chapter looks into those policy devices, employed by the policy makers of the EPB and allied institutions, that have contributed to the building of a viable financial and monetary system within, while assisting in gearing the economy to link its development to external trade. The government had few resources in hand, but weilded disproportionately greater authority. The policy devices were the 'acting' arms of the planning process through which the policy makers guided entrepreneurs towards earmarked targets. The realisation and even surpassing of these targets seemed to be a major objective of the policy makers. The policies consisted of measures and incentives that at times forcibly and otherwise implicitly solicited, nudged, forced these private entrepreneurs toward an export-oriented industrialising economy. The policy devices discussed in this chapter are:

a) Financial and Monetary policies

b) Exchange Rate and Foreign Exchange Management policies

c) Trade and Tariffs policies

d) Industrial policies

e) Employment policies.

Financial and Monetary Policies

These policies underwent major changes once the military government took over the reins of power in 1961. The basic thrust toward economic stabilisation[1] that had been undertaken in the late fifties was reversed. Two revisions, viz. the weakening of the independence or autonomy of the central bank[2] on the one hand and the nationalisation of commercial banks on the other, led to the emergence with the onset of the Korean planning process of a government-led, growth-centric financial system. There was greater mobilisation of requisite capital earmarked for high economic growth, and not surprisingly, financial policy also followed in this direction. The reintroduction of a financial stabilisation implemented by the end of the First Plan period (in 1965) in order to establish a financial system that could maximise domestic capital mobnilisation without inducing inflation. These stabilisation policies were undertaken to control inflation that was the fallout of the government-led high economic growth policies during the early plan period.

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[1] In 1957, the Korea-US Joint Economic Committee established a "Financial and Monetary Stability Plan" to quell inflation as also help the struggling Korean Won retain its value and thus maintain a single exchange rate. The Federation of Korean Industries, Korea's Economic Policies: 1945-1985, (The Hankook Ilbo Press, Seoul, 1987), p.29.

[2] The weakening of the autonomy of the central bank was achieved with the transfer of the decision-making authority regarding financial and monetary policies from the central bank to the Ministry of Finance. This was made possible by the revision of the Bank of Korea Law. Besides commercial banks were nationalised, as well. ibid., pp.28-30.

However, these measures were not enough as the economy showed signs of overheating during the second Five Year Plan. A strong stabilization policy was implemented in the financial, foreign exchange and monetary sectors. The government announced in November 1969 "Consolidated Measures for the Creation of Stabilisation Foundation" and in it were included measures that controlled excessive liquidity as also monitoring of foreign capital inducement.[3] A tight monetary policy was attempted well into the Third Five Year Plan and though this was pursued till well after the 1973 oil shock, the government sought to achieve growth by following a rather contradictory growth inducing money supply policy. This contradiction in the financial and monetary policies could not be corrected with the loss of autonomy by the central bank, consequent to the Bank of Korea Law, during the first plan period, as mentioned before. The political will of the administration, instead, dominated the pursuit and implementation of these policies right up to the fourth plan period, in other words, into the eighties.

The continued pursuit of tight financial and monetary policies worsened the stagflationary crisis facing the economy during the Fourth Five-Year Plan in the aftermath of the 1979 oil shock. It became one of the factors that contributed to the persisting recession that then dogged the Korean economy into the subsequent

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[3] ibid., p.30. See, Edward Mason and others, The Economic and Social Modernisation of the Republic of Korea, (Cambridge, 1980), pp.329-339.

plans in the eighties.[4] But the stabilisation policies were continued, money supply was effectively pruned down to 15.2% in 1983 and 7.7% in 1984 and so, the commodity prices rose at a meagre 2 to 3% in 1983 and 1984.[5] The consistent recourse to stabilisation policies have indeed played a major role in placing the economy on a far more solid and stable foundation. It should be one of the important factors that contributed to spectacular economic performance in the 1986-89 period.

Development of the Financial System

With the military leadership adopting "growth-first" measures, the core of the inadequately developed financial system was taken over by the government to help it conform to the overall government-centric developmentalist economic policies. The May 1962 Bank of Korea Law transferred the onus of operation of financial and monetary policymaking to the government. The erstwhile Financial and Monetary Committee, the top policy-making organ in the realm of currency and credit, was rechristened Financial and Monetary Steering Committee where the Finance Minister was given the right of reconsideration. The Bank of Korea was

[4] The continued tightening of the monetary policy in 1979 and 1980 led to a drop in the increase of money supply from 35% in 1978 to 24.6%. The simultaneous 6% increase in interest rates due to the measures taken up on Jan. 12, 1979, also contributed to business condition deteriorating so badly that there was negative growth in 1980. ibid., p.31.

[5] ibid., pp.29-32.

divested of its right to formulate the budget. This right was handed over to the government (Ministry of Finance) dominated Financial and Monetary Steering Committee. Besides, as if to underline the supermacy of the Ministry of Finance (MOF), (it) the MOF was empowered with the authority to inspect the functioning of the Bank of Korea.

Meanwhile, the June 1961 "Temporary Management Law Regarding Banking Institutions[6] alongwith the tough governmental measures that confiscated commercial bank stock held by people accused of corruption... brought commercial banks under government's authority.

Moreover, there was reorganisation of the Agricultural Bank into the Agricultural Cooperative and the establishment of the Fisheries Cooperative, Small and Medium Industry Bank and the Citizens National Bank. These were steps taken to ensure long-term equipment credit as also policy-related financing to develop the agricultural, small and medium industries, while encouraging domestic savings, all of which would contribute to the success of the First and subsequent Five-Year Plans. The normalisation of Japanese - Korean relations in 1965 was also greatly

[6] The "Temporary Management Law Regarding Banking Institutions" implemented in June 1961 restricted voting rights of major (mostly private individuals) bank shareholders. FKI, n.1, p.34. See, Kwang Suk Kim and Michael Roemer, Growth and Structural Transformation, (Harvard University, Cambridge, 1980).

influenced by economic considerations. The Korea Exchange Bank was created in January 1967 to facilitate foreign exchange operations as an export promotion measure with the onset of the Second Five-Year Plan, while allowing for the entry of foreign banks into Korea. The Korea Export and Import Bank was set up - also in the Second Five-Year Plan period - to institutionalise and thereby help improve the financial infrastructure in the handling of trade financing as also overseas investment, ranging from medium to long- term credit.[7]

The President promulgated the "Emergency Order Regarding the growth and Stabilisation of the Economy" on 3 August, 1972. The "August 3rd Measures"- as they are better known - formed part of the newly established, authoritarian Yushin system. These measures include the replacement of higher interest bearing private loans with that of a lower interest rate at 1.35% per month, for whose coordination, there was a freeze on private loans.[8] A 3 year grace period and a five year extended repayment rescheduling were also specified. Besides private financing was brought into the open[9], capital markets sought to be expanded[10]

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[7] Refer, Government of the Republic of Korea, The Second Five-Year Economic Development Plan, (Seoul, 1966).

[8] Another debt alleviation measure was the requirement that 30% of all short-term loans advanced to business or industries be converted to annual 8% interest bearing long term loans alongwith the three year grace period and a five-year repayment-by-installment scheme. FKI, n.1, pp.35-36.

[9] As part of the August 3 Measures, the Short-term Financing Industry Law, the Credit Cooperative Law and the Mutual Credit Savings Body Law were three laws that were enacted to bring the private loan market into the open while regulating them. ibid, pp.36-40.

while third banking institutions were developed... the overall financial structure was thus encouraged to evolve by the start of the Third Five-Year Plan.

As the Fourth Five-Year Plan ended poorly, the eighties witnessed attempts being made by the newly established Chun regime to revitalise the financial sector. Commercial banks were given greater autonomy by allowing for private management takeovers.[11] While the stock transfer of four commercial banks that were under government ownership started in 1981, and ended in May 1983. Ofcourse, there were ownership restrictions with no single individual being allowed to own more than 8% of the total stock in any single bank.[12]

Meanwhile the December 1980 enactment of the Autonomous Management Policies for Commercial Banks further enhanced the autonomous handling of the management of these commercial banks. While a modest sixteen of the 617 governmental directions were done away with in December 1980, the end of the 1981 saw the reduction to a mere twelve of these directives.[13] The thrust, since then in later plans, has been on implementing directions that indirectly regulated

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[10] The November 1968 Capital Market Development Law, the creation of the Korea Investment Corporation, the August 1969 Stock Investment Trust Industry Law, and the December 1972 Enterprise Opening Promotion Law were all measures taken to develop the domestic capital markets.

[11] The Commercial Bank of Korea has been under private management since 1973.

[12] FKI, n.1, p.38.

[13] Ibid., pp.38-39.

or restricted commercial banking activity, thereby helping consolidate greater independence in their internal management.

Monetary Policies

Following the First Five-Year Plan, there was a spurt in inflation that caused economic rumblings. Consequently, Financial Stabilisation plans were implemented.[14] This plan centred on public funds, foreign currency as also on the ceiling-fixation of financial increases on the basis of individual sectors. The International Monetary Fund (IMF) had come to establish a standby credit facility in March 1965 and advised domestic liquidity. The Stabilisation Plan took into account the guidelines established by the IMF by the advent of the Second Five-Year Plan. With the aim of helping the budget possess a monetary character, these plans shifted their thrust from the financial sector to the monetary sector. Besides, the Reserve Base monetary management system[15] made it mandatory to maintain the quantum of total net assets of the central bank and this was used

[14] The Financial Stabilisation Plan was initially implemented in 1954 when the Korea-US Joint Economic Commission used money supply as the indication of the effectiveness of the plan's regulations. They were revived after being shelved at the beginning of the First Five-Year Plan period. Mason, n.3., pp. 214.

[15] The Reserve Base Theory holds that the Reserve Base through the multiplier effect determined the amount of currency in circulation and was adopted at the 'recommendation' of the IMF.

Table 3.1

Rate of Inflation, Rates of interest, and Real Rate of Return in Manufacturing, 1961-1978

Year	Inflation rate (WPI)	Nominal loan rate	Curb market loan rate	Short-term loans for Xs	Loans for equip for Xs	Real rate of return in manfg.
	(1)	(2)	(3)	(4)	(5)	(6)
1961	13.8	....	....	9.1	-	9-19
1962	8.8	13.9	....	8.0	-	9-26
1963	20.1	14.0	52.6	8.0	-	4
1964	35.1	24.0	61.8	6.5	-	4
1965	9.9	24.0	58.9	6.5	-	4
1966	9.0	24.0	58.7	6.5	-	4
1967	6.4	24.0	56.5	6.0	-	16-38
1968	8.4	24.0	56.0	6.0	-	16-38
1969	6.4	24.6	51.3	6.0	-	16-38
1970	9.1	24.0	49.8	6.0	-	16-38
1971	8.8	22.0	46.4	6.0	-	16-38
1972	13.8	19.0	39.0	6.0	-	17-40
1973	6.9	15.5	33.3	7.0	12.0	17-40
1974	42.1	15.5	40.6	9.0	12.0	17-40
1975	26.6	15.0	41.3	7.0	12.0	17-40
1976	12.1	17.5	40.5	8.0	14.0	17-40
1977	9.0	16.5	38.1	8.0	14.0	....
1978	11.7	18.5	....	9.0	16.0	....

Compiled from the BOK, Economic Statistics Yearbook, var. issues (Seoul: BOK), for cols.(1), (2), (4) and (5). The BOK, Survey of Business Financing and Unorganized Money Markets, var. issues (Seoul: BOK), for col. (3). Wontack Hong, Trade, *Distortion and employment growth* in Korea, (Seoul: KDI, 1979), p.189 for col. (6).

as a monetary indicator from the latter half of 1966, i.e. the beginning of the Second Five-Year Plan.

The end of the Second Five-Year Plan brought out problems such as heavy borrowing by businesses despite the prevalence of high inflationary tendencies. There were balance of payments problems as well. The policy makers in the EPB and Ministry of Finance (MOF) had to control aggregate demand and hence constituted and implemented a general stabilisation policy. Business investment demand was sought to be more effectively controlled, while credit was sought to be regulated as it was linked with domestic investment. The Domestic Credit (DC)[16] was, after consultation with the IMF[17], adopted by the beginning of the Third Five-Year Plan.

During the Fourth Five-Year Plan, i.e. 1978, M_1[19] was used as a monetary indicator. But it was changed the very next year with the adoption of M_2 in its place. This comprises of currency in circulation and aggregate deposits of banking

[16] D.C. includes the aggregate sum of loans from the central and commercial banks to the government and private sectors. Its regulations place, as major factors, investment, loans, policies and the Balance of Payments and stresses on the correlations that exist among them while regulating excess demand-pruning loans of banking institutions.

[17] M1 as an indicator suffered from statistical unreliability, while bank deposits were undervalued.

Table 3.2

Money Supply Targets (1979-1990)[18] [the M_2 period]

Year	M_2 Target Growth Rate	Actual Growth Rate
1979	25.0	26.8
1980	20.0	25.98
1981	25.0	27.4
1982	20.0 - 22.0	28.1
1983	18.0 - 20.0	19.5
1984	11.0 - 13.0	10.7
1985	9:5 - 12.0 - 14.0	11.8
1986	12.0-14.0-16.0-18.0	16.8
1987	15.0 - 18.0 - 20.0	16.8
1988	18.0	18.8
1989	16.0-18.0	18.4
1990	15.0 - 19.0	

Source: The Bank of Korea

institutions. With M_2 determining monetary growth targets, the authorities took note of the following variables such as (i) the anticipated growth rate of the real

[18] Based on Moon-Soo Kang, Money Markets and Monetary Policy in Korea, (KDI, Seoul, 1990), Table 35, p.63.

GNP; (ii) the expected rate of inflation;[19] and 3) the anticipated development of "the velocity of circulation of money. Table 3.2 gives figures on money supply targets from the middle of the Fourth Five-Year Plan to the end of the Sixth Five-Year Plan. Except 1988, the target monetary growth rates, since 1982, have hovered around two, if not more, percentage points and this has helped the monetory policy with the requisite flexibility. Despite intentions of keeping a tight money supply policy, the huge demands of a fast developing economy meant the growth of money supply that in turn fuelled inflation.

FOREIGN EXCHANGE RATE POLICY

When the Korean economic success was given global attention, three 'lows' were attributed for its running the remarkable surpluses in 1986 to 1989. The 'lows' were (a) low exchange value of the Korean Won vis-a-vis the US dollar and the Japanese Yen; (b) low petroleum prices and (c) low interest rates. Exchange rates have always been recognised as an important tool in helping a developing economy in making exports attractive and, simultaneously, imports expensive and thereby

[19] The monetary indicator has to take note of the persistent double-digit inflation as shown in table 2-1. The low interest rates for loans accorded to exporters and the liberal loan policy for exports were an important source of inflation as they were a cause for expanding money supply. Export financing contributed to inflation exceedingthe nominal rate of interest (6 to 9% per annum) and so increased exports accompanied increases in money supply and in inflationary pressure, by decreases in the exporters debt burden, and by increases in their investment and production. Youngil Lim, Government Policy and Private Enterprise: Korean Experience in Industrialisation, Korea Research Monograph 6, (University of California, Berkeley, 1981), p.33.

making import substitution a viable, long-term policy. But there is an implicit danger to such an exchange rate policy. Imports also include - and hence could make expensive - import of crucial technology and machinery and equipment which is essential for the creation of an industrial infrastructure and to make exports more technology-intensive and hence add more value to it. An artificial foreign exchange rate manipulation policy could also have its effect on external repayments as also, in most developing economies, on domestic commodity prices, especially those commodities that are dependent on imports. With external trade emerging as a major influence on its economic activity, Korean planners and policy makers have apparently used the policy of exchange rate to boost the trade-oriented Korean development effort.

The First Five-Year Plan was to witness the currency reform where the hwan was converted into won at a 10:1 ratio. Since then, there has only been the won that has served as Korea's currency. The adoption in May 1964 of a single flexible exchange rate system also saw an approximately 100% devaluation of the won vis-a-vis the dollar. The single flexible exchange rate system was implemented in March 1965 and devaluation undertaken to adjust the won that had been overvalued under the erstwile fixed exchange rate system. An attempt - successful at that - was made to stablilise the exchange rate, while increasing revenue from trade as also invisible trade. The government intervened to maintain a stable

exchange rate[20] and exports made unprecedented studies during the sixties. It should, however, be maintained here that the maintainence of a stable exchange rate helped to complement the strategy of expanding low-cost, labour-intensive products to the developed economies. The government kept tight rein on the exchange rate as the balance of payments situation worsened, despite the successes on the exports and the GNP growth fronts. A realistic exchange rate could have meant higher prices on crucial imports of strategic raw materials, machinery and equipment as also the danger of spiralling inflation. Exchange rates again had to account for not affecting the profits or dividends accruing to foreign-invested enterprises or the foreign direct investment (FDI) that was again so important for helping raise economic development.

The retaining of a low exchange rate for the won had the positive impact of expanding exports. But this was at a price. Domestic prices had to be raised to curtail domestic consumption. This also meant higher repayment burden toward foreign-invested enterprises and investment. It also meant that domestic industries were shielded from overseas competition, which while having the possibility of

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[20] The Won was devalued vis-a-vis the US dollar only four times in the fifteen years after the implementation of the flexible exchange rate system upto 1980. In November 1969, there was a 4.4% devaluation; then in June 1971 - a 13% devaluation, then again in December 1974 when the Won was devalued by 21.3%, following which a fixed exchange rate at 484 Won to a dollar was follwed till January 1980 when the Won dipped by 19.8%. For an interesting discussion on this aspect, refer, Anne O. Krueger, The Developmental Role of the Foreign Sector and Aid, (Harvard University, Cambridge, 1980).

Table 3.3

Changes in Exchange Rate between Korean Won and US Dollar (1962-1985)

	Exchange rate of $ 1 to Won	Remarks
First FYP		
June '62	130.00	Currency reform (devluation of 10:1 Hwan from Hwan to Won).
May '64	256.53	Flexible exchange rate system adopted (basic exchange rate 255 Won to $ 1).
Mar. '65	256.53	Flexible exchange rate system implemented.
Dec. '65	272.60	
Dec. '66	272.00	
Second FYP		
July '67	272.65	Korea Exchange Bank founded in April 1967, five commercial banks promoted to "Kap" status, dealer function to foreign banks.
Nov. '67	271.50	Bank of Korea announced concentration criteria rate.
	271.60	Autonomous announcement of sale & purchase rates by banks to customers.
Dec. '67	274.60	Dec. 31, 1967
Dec. '67	281.50	Dec. 31, 1968
Nov. '69	304.35	Increased by 4.4% (291.90-305.10 Won)
Dec. '69	304.35	Dec. 31, 1970
Sept.'70	313.25	Foreign Exchange counter established
Dec. '70	316.65	Dec. 31, 1970
June '71	370.80	Increased by 13% (328.90-376.60 Won)
Dec. '71	373.30	Dec. 31, 1971.
Third FYP		
Feb. '72	376.50	Market rate applied to BOK concentration rate, foreing exchange market reformed.
June '72	399.90	The highest rate since the implementation of flexible exchange rate system.
Dec. '72	398.90	Dec. 31, 1972.
Dec. '73	397.50	Dec. 31, 1973.
Dec. '74	484.00	Increased by 21.3% (400-480 Won, basic rate 480 Won).
Dec. '75	484.00	Dec. 31, 1975.
Dec. '76	484.00	Dec. 31, 1976.
Fourth FYP		
Dec. '77	484.00	Dec. 31, 1977.
Dec. '78	484.00	Dec. 31, 1978.
Dec. '79	484.00	Dec. 31, 1979.
Jan. '79	580.00	Increased by 19.8% (485-585.50 Won)
Feb. '80	580.50	Exchange rate system reform, (multiple currency basket system), flexible exchange rate system.
Dec. '80	659.90	Dec. 31, 1980.
Dec. '81	700.00	Dec. 31, 1981.
Fifth FYP		
Dec. '82	748.80	Dec. 31, 1982.
Dec. '83	795.50	Dec. 31, 1983.
Mar. '84	791.80	
June '84	803.40	
Sept.'84	815.30	
Dec. '84	827.40	Dec. 31, 1984
Jan. '85	830.60	
Feb. '85	842.80	

Source: The FKI, Korea's Economic Policies, pp.116-117.

helping them during their infancy did not make them efficient or competitive in the long run. In fact, there is the distinct possibility or argument that domestic resources have been delayed in their development due to the afore-mentioned reasons.[21] The global recession in 1974 and 1980 caused huge reductions in Korean exports and GNP growth ... resulting in huge devaluations of the won in those years. In 1980, the exchange rate system was reformed into a multiple currency basket system. This was accompanied by a 19.8% devaluation of the won though this did not help in alleviating the balance of payments crisis. In actual terms, it did just the reverse.

The Fifth Five-Year Plan has witnessed a continuous fall in the value of the won from 1980 to 1986, when the first surpluses were achieved on the external trade front. Exports have undoubtedly benefitted. The H.C.I's had come of age and contributed to larger exports. Korean exports were not only cheap, but also good in quality and growing in technological sophistication. However, pressures from the US, an ever-rising Yen (that had initially helped Korean exports vis-a-vis the Japanese) and export surpluses meant a turn around as the won slowly but steadily gained ground and appreciated and more so in the sixth plan. The appreciation of the won well into 1990 had meant that Korean exports could no longer enjoy the price advantage over its competitors and so had to rely on

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[21] FKI, n.1, pp.112-115.

increasing its productivity, quality and technological upgradation. A cheaper dollar and yen meant cheaper imports and while it could have a positive impact on technology imports, there was, instead, a spurt in imports of goods for conspicuous consumption. Moreover, Korean industries suffered on account of the growing labour problems as political democratisation started to make its mark felt in the Sixth Republic of President Roh Tae Woo. The policy makers further relinquishing their firm hold on the economy as is growingly evident in the sixth plan have also slowly slackened their firm rein on the exchange rate policy and allowed for an import liberalisation to make Korean industries more competitive. With the won firming up and escalating labour costs, Korean exports seemed to lose their competitive, comparative advantage and so Korean firms have found the current, less artificially-controlled exchange rates more conducive to shift their investments to other developing economies. Still, exchange rates have been used by the policy makers as an effective tariff wall against what was in the early plan period conceived as unnecessary imports, while succeeding in making the exports that much cheaper....thereby playing a role in generating the trade surpluses in the mid 80's.

TRADE AND TARIFFS POLICIES

Besides a major restructuring and virtual re-creation of a monetary and financial

structure as also policy-making during the plan period, there have been very important effort and changes in the Korean government's shaping of its trade and tariffs policies during the same period. It is a not-so-surprising facet of the Korean planning effort as it was realised at a very early stage that the economy had to base its growth by means of external trade with a pronounced export-bias. Keeping this fact in mind, the evolution of the Korean trading system from amongst the back-runners into one among the top twelve trading economies within three decades make its policies on trade and tariffs one of the most important policy-devices adopted by the planners to propel economic growth. This section undertakes a plan-by-plan examiniation of the Korean external trade policies.

The First Five-Year Plan adopted an export drive policy[22] to alleviate the international balance of payments burden, while seeking to increase export-based production. Among the measures proposed by the trade and tariffs policy were the following: (a) increase production of the import- substitution industries; (b) consolidate foreign trade financing, especially for exports and storage; (c) expand export subsidies, reduce taxes to boost exports, while linking up exports and imports; (d) expansion of the export compensation system; (e) enhance quality and its standardisation by evolving an intensive export inspections system; (f) overseas

[22] Export-orientation of the economy was the fifth of the six basic subsidiary targets of the First Five-Year Plan.

Table 3.4

Export-Promotion Policy Tools, 1950-1976

Types of incentives	Operations dates
Tax Incentives	
Commodity tax exemption	1950
Business tax exemption	1962
Reduction of corporation & income taxes by 50% on earnings from export	1962-1972
Accelerated depreciation allowance for fixed capital directly used for export production in mining, fishing and manufacturing.	1968
Reserve fund deducted from taxable income to develop new foreign markets	1969
Reserve fund deducted from taxable income to defray export or foreign investment losses	1973
Tariff Incentives	
Tariff exemptions on capital equipment for export production	1964-1973
Tariff payments on an installment basis for capital equipment utilized in X pn	1974
Tariff exemptions on raw materials input for x production	1961-1975
Tariff drawback on imported raw materials used for export production Wastage allowance	1975 1965
Discounts on electricity rates	1965-1975
Waiver insurance for shipping	1965
Local L/C systems	1965
Differential treatment of traders based on export performance	1967
Export insurance Export import bank	1976

contd/...

Types of incentives	Operations dates
Financing for collection of export goods	1948-1955
Export shipment financing	1950-1955
Export promotion fund financed by a counterpart fund	1959-1964
Financing imports of materials to be used in export prouction	1961-1972
Export credits (trade credits before 1961)	1950
Financing for suppliers of United States offshore military procurement	1962
Fund to promote the export industry	1964-1969
Funds to convert smal and medium firms into export industry	1964-1969
Fund to prepare exports of agricultural and fishing products	1969
Foreign currency loans	1967
Financing exports on credit	1969
Other Promotion Schemes	
Foreign exchange deposit system	1949-1961
Trade licensing based on export performance	1953
Export bonus with preferential foreign exchanges	1951-1961
Export subsidies	1954-1955
Discounts on railroad freight rates	1958
Monopoly rights to exports of specific items to specific areas	1960
Creation of exporters associations for various export products	1961
Financing of KOTRA	1962
Export-import link systems	1962

Compiled from Wontack Hong, Trade, Distortions and Employment Growth in Korea, Seoul: KOI, 1979, pp.54-55; CR Frank, K.S.Kim and Lany Westphal, Foreign Trade Regimes and Economic Development: South Korea, NY: National Bureau of Economic Research, 1975, p.40 as found Youngil Lim, Jont Policy and Private Enterprise: Korean Experience in Industrialisation, Korea Research Monograph, Berkeley: University of California, 1981, pp.19-20.

or external market research and sustained promotion of exports; (g) balance demand and supply of agricultural products, while (i) protecting domestic infant industries by introduction and implementation of higher import tariff 'walls' on consumer goods.[23]

The 'export-push' trade policy of the First Five-Year Plan and its success was noticed and it became one of the four major objective of the mid-term economic development strategy that the Korean government formulated by 1966-1967 (the end of the First Five-Year Plan) and which was to continue till 1981.[24] (the end of the Fourth Five-Year Plan).

During the Second Five-Year Plan improvement of the international balance of payments situation was sought to be achieved through the continued encouragement of the ISI and by expanded exports totalling $700 million. This was not made easy by increased domestic demand for imports of capital goods and raw materials and the expected fall in American economic aid. The trade policy during the Second Five-Year Plan focussed on (a) increase of international competitivity

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[23] The trade policy measures here were taken with a view to helping alleviate the international balance-of-payments situation and somehow achieve another of the plan's objectives: balanced economic growth.

[24] The four objectives of the 15-year mid-term economic development strategy were: (a) economic viability through increase in exports; (b) optimisation of capital supply; (c) stability of the economy and (d) efficient utilisation of manpower resources.

of Korean goods, especially those earmarked for exports; (b) increase in international cooperation; (c) paying attention to develop export markets. These policy thrusts were sought to be the main intiatives that would help achieve the "Export No.1 Priority Policy". Besides, there was also emphasis on more efficient allocation of resources and on the actualisation of the exchange rate.[25]

The success of the first two plans on the trade front inspired the policy makers to formulate a more ambitious Third Five-Year Plan.[26] The export-biased trade policies included: (a) futher enhancement of the export-import infrastructure that involved greater coordination of the industrial and export subsidy policies to help subsidy- dependent exports, actualisation of foreign exchange rate, the expansion of purchases on the short-term list of deferred exports alongwith increase in long-term deferred export finances and increase in loans and tax benefits to help boost reinvestment in export companies among others; (b) increasing the competitivity of the export industries, which involved expansion and modernisation of export facilities, encouraging free trade zones and export complexes, besides enhancing the technology component of the exports and thereby its value-added component; (c) help the internationalisation of private enterprises and this took

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[25] Actualisation of exchange rate would help not only promote import-substitution industries, but also increase exports. FKI, n.1, p.83.

[26] The Third Five-Year Plan proposed a four-fold increase in exports and a two-fold jump in imports, thereby accounting for 25.6% and 28% of the GNP respectively. This meant that exports had to grow by 24.3% annually while imports increased by 12.9% annually. ibid, p.84.

into account government encouragement in creation of general trading companies as also overseas market development, among others; (d) exports diversification into the spheres of ship-building, electronic machinery, among others; (e) to further enlarge export markes, for which the planners sought to increase market share in the existing markets while expanding to regions that included 'non-enemy' communist countries; (f) maintain a system of imports at a level and composition that optimised the economy's external trade strategies[27] and (g) increased value-added exports to earn more foreign currency and that included quality enhancement.[28]

The Fourth Five-Year Plan witnessed a trade policy that aimed for a trade growth rate of 16% while the plan period was to have an annual 12% import growth increase. The trade policy called for (a) an optimisation of the export- enhancing policy despite fears that a growingly external trade-dependent economy ran the risk of making it vulnerable to any drastic changes in the global market;

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[27] Import levels were sought to be maintained by pursuing effective control of imports by means of tariff and government influenced exchange rates' system, indigenisation of production of intermediate goods meant for ISIs, simplification as also lessening of the administrative control binding imports while seeking to curtail imports by biasing price policy, especially on consumer goods, except food stuffs.

[28] Value-added exports and enhanced quality were to be achieved by allocation of greater capital resources to raise such facilities as also production, besides high quality-maintaining processing and design and packing improvements, among others. Besides, the value-added ratio of industrial imports was proposed to be enhanced by importing them as much as possible in their unprocessed state. There was also governmental encouragement to invest in the ownership - even by private enterprises - of mines, especially of strategic use - outside Korea. Korean ownership of Australian coal mines is a case in point.

(b) risk-minimising tools to absorb the shocks of buffeting tendencies in the international markets including steps taken to diversify export markets; (c) steps to increase the export product mix and continuous upgradation of the quality of these exports.[29]

There were changes in the import policy, some of which included (a) the gradual stopping of direct, quantitative imports control as also the provision of low-interest-bearing, long-term credit to newcomers, especially as a protection measure to infant, sunrise industries; (b) growing liberalisation including uniform tariffs on imports of industrial goods to less efficient ISI's; (c) to enhance capital goods' production by reducing import of foreign capital goods.

The Fifth Plan policy on trade and tariffs was far-reaching in nature and encompassed measures that sought to control domestic demand and supply; economic optimisation, and monetary policy. The control of demand and supply of goods was sought to be achieved by focussing on the supply side by stockpiling vital and strategic raw mateials and by adoption of a flexible import policy and thereby checking increase on the domestic price front. This move was understandable following the 1979 oil shock which exposed vulnerabilities in the Korean economy. The downturn in the GDP growth rate, production and

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[29] FKI, n.1, pp.85-86.

productivity in 1980 revealed the need for a serious stock-taking of the strategies that had been adopted, thus far. Pursuing this line of thought, the Fifth Plan aimed at achieving a greater degree of economic efficiency by encouraging competition. It, for one, sought to enhance the import liberalisation rate to be at par with those of the developed economies by 1986 from the 1980 rate of 68.8%. The policymakers also encouraged the setting up of joint ventures and further liberalised import of technology. There was also the proposal to implement a flexible tariff system alongwith an advance notice system of imports.[30]

Moreover, provision was made for a large increase in the size of deferred exports[31], and, in anticipation, the Plan sought to expand the stock capital of the Korea Exim bank. Commercial banks were also to be advised to provide as much as 30% of their total loans as export-supporting loans.

In December 1983, the Fifth Plan was revised and the handling of the balance of payments in a growingly protectionist global environment was cited as one of the factors. Foreign trade in the revised plan was expected to break even with imports

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[30] ibid, pp.87-88.

[31] Deferred exports were expected to increase by as much as $4 billion in 1986. ibid., p.86.

in the current account balance by 1986.[32] To achieve the revised target, among other measures - such as exhorting improvement of the competitive edge of Korean exports as also export market diversification - there were moves to counter protectionism. Some of these proposed counter tactics included (a) continued liberalisation of imports and reduction of tariffs, (b) trade and mutual cooperation agreements with firms from the industralised economies alongwith encouragement of exports of specialised products, even in small quantities by small and medium sector industries; (c) encourage exports of technology intensive products; (d) coordinate the exports of the private enterprises thereby curtailing duplicity and harmful cooperation between domestic firms; (e) encourage entry into overseas foreign trade zones; (f) become a signatory of the Anti-dumping clause of the General Agreement on Trade and Tariffs (GATT), while taking advice of foreign trade specialists and to employ foreign professional lawyers to defend possible anti-dumping suits; (g) encourage foreign investment, especially from domestic corporation, thereby making them multinationals having strategic access to diverse export markets, especially the growing markets in Asia.[33]

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[32] The original Fifth Five-Year Plan had anticipated a current account deficit of $3.6 billion in 1986 being comprised of $2.5 billion as trade deficit, 1.6 billion deficit on the service account and a $0.5 billion deficit on the transfer account. For details see, Government of the Republic of Korea, the Revised Fifth Five-Year Economic and Social Development Plan, (Seoul, 1983).

[33] FKI, n.1, pp.87-88. Also see, Duk-Hoon Lee, The External Policy of Korea, Working Paper No.9205, (KDI, Seoul, 1992), pp.13-20.

The Sixth Five-Year Plan sought to continue the battle against global protectionism by adopting measures that would (a) promote higher value-added, qualitatively enhanced exports; (b) small quantity or multi- product exports' expansion to help further the share of Korean firms in world trade; (c) participate actively in the Uruguay Round of the GATT, while continuing to (d) further the import liberalisation drive[34] under its market-opening policy, thereby trying to resolve trade conflicts with major trading economies that could take recourse to anti-dumping, countevailing duties and any other restrictive measure to curtail imports from Korea; (e) simultaneously, attempts were to be made to make for an efficient energy utilising industrial structure in order to safeguard the Korean economy against future oil shocks; (f) also, the indigenised manufacture of industrial raw materials, machinery, parts and components, of a quality that would be at par with existing foreign products, was also to be encouraged to enable greater imports substitution; and (g) trade was also to be encouraged with the developing economies by means of increased bilateral economic collaboration. The External Economic Cooperation Fund, which was created in 1986, was to be used to increase awareness and contacts with the developing world. The export insurance fund was to be increased to 100 billion Won by 1989 and the government was willing to promote barter trade wherein Korea exported heavy and chemical

[34] Import liberalisation ratio was expected to increase from 87.7% in 1985 and 91.5% in 1986 to 95.4% in 1988. FKI, n.1, pp.71-91.

products and imported raw materials from the developing economies. The Fund could also be used to help - by means of providing financial assistance - the Korean construction companies to move into these economies.

The Sixth Plan anticipated a balance of payments surplus in 1986 and hoped to maintain a balance of payments surplus at an annual average of about $US 5 billion from 1989 onwards. The surpluses, once consolidated, were to be utilised for the efficient management of foreign assets rather than on reduction of external debt itself. However, it was expected that Korea's foreign debts would be reduced from $44.5 billion in 1986 to $32.9 billion by the end of the plan-period.[35] Korea's external or foreign assets were expected to touch $19.4 billion by 1991 in the form of increased foreign exchange reserves and deferred payments as the exports were advanced on credit, as shown in Table 3·5

[35] A more dramatic exposition of the anticipated fall in Korea's external debt could be seen when one sees it as a % of GNP wherein it was to fall from a very high 47.3% in 1986 to 18.8% in 1991. Table 4.10, Government of the Republic of Korea, The Sixth Five-Year Economic and Social Development Plan, 1987-1991, (Seoul, 1986), p.51.

Table 3.5

Balance of Payments and External Debt

(US $ 100 million)

Current Account Balance	- 9	45	50	50	50	50	50
Trade Balance	0	43	50	53	55	55	55
Exports	264	336	380	419	458	499	544
Imports	264	293	330	366	403	444	489
Invisible Trade Balance and Transfers (Balance)	-9	2	0	-3	-5	-5	-5
Total Outstanding External Debt	468	445	418	390	365	345	329
Foreign Assets	112	118	130	143	158	175	194
Net Outstanding External Debt	356	327	288	247	207	170	135

Source: Government of ROK, The Sixth Five-Year Economic and Social Development Plan, 1987-1991, Seoul, 1986, p.45.

INDUSTRIAL POLICIES

The Korean planners had attempted an economic development founded on industrialisation that was dependent on external trade. At the time when the present planning process began, there were three alternatives to boost growth.

One was to expand agricultural exports, the second was to develop exports of manufacturing sector and the third was the continued import substitution of consumer durables, machinery and their intermediate products with domestic production. With Japan ceasing to be the major market for Korean farm products - as it had been during the Colonisation period - accompanied by the depression by the American agricultural surpluses of global farm prices, there was the need of protecting the domestic market, and extending HCI to a new range of commodities, the export of manufactures seemed to be extended to a larger band of products. However deficiences like the paucity and consequent pressure of arable land as also the reinvigorated ISI seemed out of place with it being quite unsuitable, in the long run. So by error and omission, exports of manufactures was adopted to boost Korea's economic growth.

The Koreans went on to establish labour-intensive, export-based industries in the early plan period of the sixties. The first plan sought to develop the basic industry with the aim of founding "self-sustaining industries" and this included developing industries such as electric power, fertilisers, oil refining, PVC, nylon yarn and other synthetic fibres. A combination of the existing and new industries developed with the latter industries were being financed by direct investment of foreign exchange and external loans. The mining and manufacturing sector developed at an annual average rate of 14.2%, while the share of mining and manufacturing in

Table 3.6

Industrial Production: Average Annual Growth Rates

	1970 weights[a]	1954 to 1960-62	1960-62 to 1970-72
All times	100.00	14.3	16.6
Mining	8.44	25.3	6.4
Electricity	5.63	10.5	19.2
Manufactures	85.93	12.7	17.5
Food	8.81	13.2	12.0
Beverages	5.17	16.6	11.2
Tobacco	4.54	4.8	12.3
Textiles	16.32	8.7	21.0
Apparel	3.39	-	21.8
Leather Products	0.21	4.3	9.8
Wood, cork products	3.60	3.8	20.0
Furniture, fixtures	0.44	-	6.5
Paper and Paper Products	2.77	17.7	13.8
Printing, Publishing	3.45	12.6	12.9
Chemicals[b]	11.51	24.7	23.0
Plastic products	1.10	-	92.2
Petrol, Coal Products	1.70	-	12.9
Petrol Refining	3.89	-	28.1
Rubber Products	2.40	-	9.7
Stone, Clay, Glass Products	6.52	17.1	17.7
Basic metals	4.97	22.4	18.2
Metal Products	2.84	18.0	11.4
Non-Electrical machinery	2.22	5.2	4.7
Electrical machinery	4.06	29.1	25.5
Transport equipment	5.71	9.2	27.5
Miscellaneous[c]	3.54	4.3	8.3

Sources: BOK, Economics Statistics Yearbook, var. years; EPB, Annual Reports on the Current Industrial and Production survey as quoted in Table 6.1, Paul Kuznets, Economic Growth and Structure in the ROK, (Yale University Press, New Haven, 1977), p.150.

[a] Excludes footwear, 0.36 (included with apparel in earlier yeas), and instruments (0.48), formerly included with miscellaneous manufactures.

[b] Weighted average (using 1970 weights) of industrial and other chemicals.

[c] Includes instruments, plastic products in first subperiod, but not in second.

the overall industrial sector rose from 21.7% in 1962 (the first year of the First Five-Year Plan) to 25.7% in 1966 (the final year of the First Five-Year Plan). The HCI to total manufacturing exports ratio accounted for 10.2% annually during the First Five-Year Plan period.[36]

There was, as we have noted earlier, a lot of government initiative at formulating a package of incentives policies. "The industrial policy changes that took place in the first half of the sixties did not clearly result in a significant increase in the measurable incentive to export. They did, however, gradually replace a complicated, largely ad hoc system of incentives based on multiple exchange rates (including those resulting from the export-import link system) and direct cash subsidies with a simplified and more stable system. Consequently, the reforms may be credited with having laid the foundations for the continued rapid export growth by assuring stable profit margins for exporters."[37] This resulted in the deepening of export-led industrialisation of the economy and, as a fallout, a deepening of manufactured component of exports.

Paul Kuznets elaborates on this discussion, but explains by recapitulating and dividing the period of 1953-1955 to 1960- 1962 as the first "subperiod" and the

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[36] Korea Policy Study, Appendix Table 1.

[37] Mason, n.3, p.135.

second period is taken to extend from 1960-1962 to 1970-1972. According to him, the first subperiod witnessed the beginning of a saturation by the sixties of the fairly impressive jump in consumer-goods and material manufactures meant for the domestic market. The second subperiod was different with the new thrust on industrial development accompanied by large investments in manufacturing and infrastructure and shift in manufacturing output from that largely ISI based to one oriented by exports.[38] The growth acceleration was engineered by the industrial sector, especially with the rapid growth attained by manufacturing which, in turn, was marked by output meant for exports.

However, one should not overlook the importance assigned to import substitution. The large scale investments by the planners as also the impressive growth in the output of import substitutes like wollen yarns, fertilisers, oil refining, petrochemicals as also steel are pointers that import substitution did figure in the minds of the planners as part of the industrial policies and spur consequent industrialisation in Korea, especially during the first three plans. It would not be wrong to say then that many of the HCI in Korea - that have its origins during the Second and Third Five-Year Plans - were meant initially to serve the role of import

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[38] Paul W. Kuznets, Economic Growth and Structure in the Republic of Korea, (Yale University Press, New Haven, 1977), p.149.

subsititutes.[39] Later, HCIs like steel, petrochemicals, automobiles (till the mid-seventies, it was primarily at the auto-assembling stage), ship building established and adapted themselves so efficiently that by the mid eighties (the Fifth plan), they were in the forefront of the export drive and alongwith other high-technology, sunrise industries like electronics, computers and semiconductors (by the late eighties, i.e. the Sixth Plan) comprised the majority or bulk of Korean exports. The costly, risky gamble during the Second, Third and Fourth plans to inject large dosages of investment into the development of HCI's was finally paying off.

The industrial policy - once again rewinding to the momentous sixties - was assisted by measures like fiscal reforms, an increase in bank interest rates (as part of boosting the domestic savings) and a devaluation of the Won. These measures were adopted in the mid sixties to end chronic inflation and as a stabilising strategy. Direct controls were gradually scrapped in favour of indirect controls and import liberalisation was stepped up. Still, the government continued its policy of protecting the ISIs by adopting a set of devices that comprised of quotas, tariffs, commodity taxes - mostly on imported materials - alongwith a prohibited list and a special customs duty that was meant to eliminate excess profits of importers. The

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[39] Kuznets notes that the "....emphasis on heavy and chemical industries in the Third Plan (1972-76) suggests that import substitution should continue to play a major role in the growth of manufactures after the end of the second subperiod", Ibid., p.153.

Korea Export Board sparingly issued the requisite repayment guarantees that secured foreign credit thereby limiting its access to importers. The Ministry of Commerce and Industry (MCI) maintained a registration system that all foreign trade enterprises were required to register into and wherein they had to abide by an export minimum in order to import. This export-import link helped in limiting imports and thereby protected the ISIs. Besides, the substitution during this period revealed a greater focus toward the earlier stages of multistage production.[40] This backward linkage was apparent when domestic production was prodded by the planners to include weaving, yarn spinning, and fabric finishing instead of adopting the easier way of importing finished textiles to make apparel.

The Second Five-Year Plan period witnessed the development of ISIs with a view to building up the "outward-looking" industrialisation process. Capital goods industries like iron and steel, petrochemicals, electric appliances were nurtured as part of the ISI drive, while light manufacturing industries such as textiles, rubber and plywood were evolved into export industries. During the planning period, mining and manufacturing developed by 19.8% annually on an average, while the mining and manufacturing component accounted for a fifth of the total industrial scenario (20.9%). Sustained, increased inflow of domestic as well as external

[40] There were, however, notable exceptions in the cases of the oil refining sector and auto assembly plants.

investments went a long way in developing the industrial sector during the Second Five-Year Plan period. The export-orientation of the Korean industry was a necessity imposed by growing external debts to earn more foreign exchange. The balance of payments crisis alongwith the implementation of the structural modernisation of the import-dependent export industries resulted in a spiralling necessity for earning more foreign capital and hence the decision to go in for greater exports and thereby further globalisation of the Korean economy.

By the end of the Second Five-Year Plan, (1970-1972, to be more precise), more than 80% of Korean exports comprised of manufactures from what was only 20% of exports at the outset of the present planning regime in 1960-1962.[41] "Direct subsidy and an import-linking system that permitted exporters, to obtain otherwise prohibited imports for use as raw materials or for resale were the chief means of encouraging exports before 1964." The 1964 devaluation increased the lure of exports, as tax exemption and credit incentives emerged as significant export-boosting measures.[42] It was not surprising when a study concluded that "(e)xport industries have received the highest priority in the government's

[41] By 1970-1972, output for exports represented 22% of total manufacturing output. Exports had, by the way, gone up from being 15% of the GNP to 20% of GNP, the comparable periods being 1960-1962 and 1970-1972. Kuznets, n.38, p.157].

[42] The quote as also more details of the argument are discussed by Kuznets. ibid., pp.156-162.

allocation of foreign borrowings and 'foreign-exchange loans'".[43] Before 1964, direct subsidies were granted to exporters in the form of exchange premia on export earnings upto 25 Won per dollar. There were also discounts on railway and electricity costs in the following years while exporters also gained from these leakages. Incentives to exporting were such that an entrepreneur did so despite low profits, to reap the benefits of cheap credit, as also gains arising from linkage and leakage while retaining the position of being able to shift export financing into more lucrative uses. The ill-effects of the 'export-first' strategy was the substitution by exporters, due to easy access to import-payment guarantees, of imported rather than indigenously produced goods resulting in the growth of foreign debt and of debt- servicing obligations. The failure to harmonise import liberalisation with export growth resulted in the expansionary trend of money supply. This led the Bank of Korea to sell stabilisation bonds to the banks, raise marginal reserve requirements while restricting domestic credit to balance the expansionary thrust on money supply due to foreign borrowing (including export loans).[44]

The consequent jump in exports led to the building up of industrial capacity, the means to buy domestically scarce goods and services, labour absorption while

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[43] S. Kanesa-Thasan, "Stabilising an Economy: The Korean Experience", in Irma Adelman (ed.), Practical Approaches to Development Planning, (Johns Hopkins University, Baltimore, 1969), p.270.

[44] Bank of Korea, Review of the Korean Economy, 1968, (Seoul, 1969), p.26.

steeling the Korean entrepreneur by exposing them competition, providing access to borrowed technology required for export production and ensuring the benefits of learning effects. Exports expansion helped bring in valuable foreign exchange that went into financing the private and commercial loans which helped in the founding of the formidable Korean industrial infrastructure at a time when aid receipts were declining.

The industrial policies in the first three plans were thus laying the bedrock, the foundations of an industrial capacity that was to become the major engine of Korean exports. There were, no doubt, several drawbacks in this lop-sided bias towards industrialisation that sought to first substitute imports in gradual degrees of technological sophistication. The strategy involved large investments to carve out industrial sectors that produced well in excess of the domestic market requirements. The large capital requirements meant that this development process favoured the large business conglomerates, who had the coffers or resources to raise the huge commitments. Despite huge and ever-mounting debts, Korean industries, in the face of global competition, produced good-quality products at low cost and by exporting, developed global networks that have since helped in channelising its increasingly more sophisticated products. The plans in the seventies were important in continuing and deepening the industrialisation process started in earnest in the sixties.

This deepening of the industries was sought to be speeded up by President Park in his January 12, 1972 annual address. The aim of the consequent HCI was (1) to promote six strategic HCIs, viz., iron and steel, nonferrous metals, ship building, industrial machinery, electronics, and petrochemicals; (2) to have private entrepreneurs lead the implementation; (3) the provision by the government of preferential estate and harbour facilities; (4) attached precondition that the participants had to invest no less than 30% with their own capital; and (5) they had to export all production, save domestic consumption.[45]

The subsequent year witnessed the announcement of the HCI- favouring Long Term Prospectus for the Korean Economy.[46] The following targets were sought to be achieved by the end of the prospectus-period: (i) the share of HCIs in the national output was to be increased from 35.2% in 1971 to 51.0% in 1981; (ii) the share of HCI products in exports were to be raised from 19.1% in 1971 to more than 65% in 1981; (iii) six more industrial estates were to be established for each strategic HCIs: Kumi for electronics, Changwon 'base' for machinery and defence, Pohang for iron and steel, Ulsan for ship building and petrochemicals, Yeochun for

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[45] Rajiv C. Narayan, The State, Technology and the International Structure of Subcontracting in the Korean Automobile Industry, Unpublished M.A. Dissertation, (Yonsei University, Seoul, 1990), p.34.

[46] This long-term planning measure was announced in December 1973 and was meant for the period 1973 to 1981.

petrochemicals, and Onsan for non-ferrous metals.[47]

The investment and development in HCI resulted in a growth rate of 10.1%, and the mining and manufacturing sector increased at an annual average rate of 18.1%. HCI's share in the manufacturing sector rose to 45.6%, while the HCI export component accounted for 29.8% at the end of the Third Five- Year Plan in 1976. The HCI emphasis has, undoubtedly, helped the consolidation in Korea becoming an export-oriented economy. The HCI concentration has, however, resulted in the lack of output inducement effect, accompanied by forward and backward linkages and the unsatisfactory attempts at curbing the continued external dependence of the HCI.

A major funding source for industries was the National Investment Fund, which was founded during the Third Five- Year Plan, (to be more exact, in the Financial Year of 1974). The Fund raised its resources from pension and saving funds among other sources and it aimed at promoting selected industries, particularly the HCI. The annual volume of loans granted to industry by this Fund went up by almost six times between the financial years 1974 and 1979 encompassing the Third and Fourth Plans when HCI was being pursued in a big way. This increase exceeded

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[47] Byungyoon Park as quoted by Jae Jean Suh, Capitalist Class Formation and the Limits of Class ower in Korea, Ph.D. Dissertation, (University of Hawaii, Honolulu, 1985), p.155.

the rate of growth of industrial output of investment. There were biases in the manner in which the loans were granted and consequently, there were distortions in the way Korean industry evolved. "Almost 70% of the funds are directly allocated to specific companies and projects by the Ministry of Finance and the Ministry of Commerce and Industry, leaving only 30% that are allocated through applications submitted through participating banks and screened by the Bank of Korea. There is clearly a bias in favour of large companies and large projects, and different criteria are applied in allocating the different parts of funds. Also, there is a large subsidy to industry in the loans because the preferential lending rates are below the rates paid by the Government to obtain the funds. In 1979 this subsidy in interest rates amounted to 70 billion Won. The heavy and chemical industries in 1979 received about two-thirds of the total loans, and of these the largest types of loans were for the purchase of domestic machinery and for the construction of machinery factories."[48]

It was the natural thing to do when the Fourth Plan ushered in an era of technological upgradation and efficient management of industries. Energy-conservation has been recieving a high priority in the industrialisation thrust under the Fourth Plan, undoubtedly influenced by the oil shock in 1973 and

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[48] Frederick T. Moore, "The Machinery Industries During the Fifth Plan", in SaKong Il (ed.), Macroeconomic Policy and Industrial Development Issues, (KDI, Seoul, 1987), p.264.

once again in 1979 which came up during the Fourth Plan period. The Fourth Five-Year Plan channelised its concentration - and thereby, funds - on such technological and skilled labour-intensive industries as electronics, shipbuilding, machinery, automobiles as also the already highlighted large HCIs such as iron and steel, non-ferrous metal and petrochemicals.

In this period, the mining and machinery sector grew by a relatively modest 10.3% - almost twice that of the overall economic growth of 5.5%. By 1981, however, HCI grew by 51.8% and its exports climbed to 45.3% of the total output. The electronics and general machinery, despite fairly large dosages of investment, performed disappointingly. Inefficient operation of industries, high incidence of costs subsequent to the low productivity of the industries following investment in HCI worsened the already precarious balance of payments crisis.[49]

Meanwhile, the Fourth Five-Year Plan also included a definite attempt by the government to alleviate the lot of small and medium enterprises. In July 1980, for instance, the government introduced a major programme that enabled the small and medium enterprises to borrow upto 30 million Won from the Medium Industry Bank (MIB) without collateral. The capital of the MIB was raised, reserve

[49] Government of Republic of Korea, Sixth Five-Year Economic and Social Development Plan, (Seoul, 1986), pp.8-23.

requirements were lowered, and special funds allocated as credit for these enterprises. The attempt was to correct the relatively biased nature of credit allocation that went against these firms.[50]

The Fifth Plan laid emphasis on the rational management of industries to optimise the comparative as well as the competitive advantage of Korean industry, and hence the Korean economy, both in the domestic and the international fronts. This was sought to be achieved by coordinating the development of the materials industries alongwith an emphasis of domestic demand. The normal operation was attempted capital goods industries such as to achieve the reinvigoration of the two industries that had failed to start satisfactorily in the preceding plan: electronics and machinery. Success was achieved with the mining and machinery sector growing by 9.6% by 1984. their share of total industrial sector climbed upto 57%. The Fifth Plan emphasised on addressing to the problem of overcoming the technological dependence that bedevilled the Korean industry. Strategic industries that the Plan hoped to develop included those of precision machinery, the next generation of electronic products, industrial information and communications.[51]

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[50] Government of the Republic of Korea, n.49, p.67.

[51] Kuznets, n.38, p.143.

Meanwhile, in the Fifth Plan, the policy makers sought to evolve a more effective incentive system that would, in turn, stimulate investment and exports. Among the various steps taken to further this simulation, there was, for one, a drive to expand subcontracting amongst Korean industries to break into the global market.[52] Another step was to encourage technical assistance on the production floor to correct deficiencies in operating practices and as an optimal resource utilisation measure as it could improve product quality while cutting costs without requiring any significant increases in new investments. Yet another measure was to improve the level of skills and productivity of labour by means of intensified on-the-job training programmes.

The Sixth Plan, in the mid-eighties, was to continue the acceleration of "the current industrial restructuring, emphasising industries that produce high value-added products and spurring the advancement of industrial technology."[53] The Sixth Plan focussed on encouraging "plant and equipment investment in potentially high-growth manufacturing industries such as machinery, electronics,

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[52] Subcontracting involves an arrangement wherein transnational corporations would control technical assistance, management, loan capital as also the final marketing of the product of the subcontracting firm. Thus exports from the developing world to the developed coutries form part of a complete organisational structure dominated by firms from advanced countries. This structure of the emergent or existing international division of labour is basically rooted in the evolution of manufactured export industrialisation with the participation and initiation, to no small degree, of transnational capital. See, Martin Landsberg, "Export-Led Industrialisation in Third World Manufacturing Imperialism", Review of Radical Political Economies, Vol. XI, no.4, 1979, pp.50-63.

[53] Government of the Republic of Korea, n.49, p.52.

transportation equipment and fine chemicals".[54] This was because they were "relatively less intensive in resource consumption and more intensive in technical manpower. At the same time, the light industries that led Korea's past export growth - including most notably textiles and footwear - should be restructured to produce export products with higher value added and structurally vulnerable industries that are losing competitiveness needed to be rationalised."[55]

The Industrial Development Act that had been enacted just prior to the coming of the Sixth Plan was to boost the development of technology and skilled manpower. Private initiative - to manoeuvre its industrial capabilities in accordance to its own reading or understanding of the market conditions - was encouraged by the policy makers. The private sector was advised to rationalise or restructure sunset industries that were structurally vulnerable. The government was to stand by and support the private sector if and when the necessity arose.[56]

To meet the increased demand, meanwhile, for steel and non- ferrous metals, (that was to follow the rapid growth in the priority areas of automobiles, electronics and machinery), the Sixth Plan provided for the speedy completion of the No. 1 and

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[54] ibid., p.29.

[55] ibid., pp.52-53.

[56] ibid.

No.2 Kwangyang steel mills, all within the plan period. Production capacity for special steel, non-ferrous steels like electrolytic copper and aluminium - was to be increased. Also, emphasis was to be given to those industries that produced parts and components, machinery and industrial raw materials in order to lessen imports of these products that accounted for a major chunk of Korea's large trade with Japan. Eventually, these industries were to be honed to become exporters.[57]

In order to enhance domestic production of machinery and achieve greater automation and computerisation of the automobile and other HCI plants, the planners promised help and more funding. The move was to enable these industries to achieve economies of scale with greater efficiency and productivity. The automobile industry was to practice production under the original equipment manufacturing (OEM) terms as the government encouraged leading foreign automakers to tie-up with Korean automobile companies. The policy makers also aimed at establishing a joint research system among high-technology electronics manufacturers to speed up development of sunrise industries, including semiconductors, automation equipment, and software. Simultaneously, the government proposed to expand the infromation and communication network, boost factory and office automation as also promote small quantity, multi- product production in order to raise demand for sophisticated electronics products.

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[57] ibid, pp.52-56.

The Sixth Plan proposed to help the ailing shipbuilding industry to ride over the recession plaguing the global shipping industry and also provide for its greater indigenisation of intermediate manufacturing equipment Greater attention was to be paid to increasing its competitivity by improving its production methods, enhancing its manpower as also developing the designing prowess of the industry. Besides, measures were "to be implemented to accelerate the development of small and medium industries" to strengthen the industrial base.[58] To achieve this objective, the planners required to establish small and medium enterprises and were further empowered by the enacting in 1986 of a new law to encourage such establishment of these firms. While R&D facilities and access was to be encouraged, the policy makers called for the establishment of "an efficient division of labour between large and small firms and help a systematic subcontracting system linking large firms and ancillary parts and components manufacturers".[59]

An attempt was to be made to restructure business management to bolster the international competitiveness of Korean firms. Firms were to be advised to raise requisite capital by raising through equity finance, rather than opt for loans from financial institutions at home and abroad, as has been the usual practice. This has meant the opening up of the Korean securities and stock markets. Professional

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[58] ibid., p.29.

[59] ibid., p.57.

Table 3.7

Share of Small and Medium Enterprises in Manufacturing

(%age)

	1984	1991
Production	34.6	44.0
Employment	54.9	63.0
Value Added	36.3	45.0

Source: Table 4-11, Government of the ROK, Sixth Five-Year Economic and Social Development Plan, p.57.

management was encouraged to take charge of Korean industry thereby discouraging tradition and nepotistic means of succession in management of the industry.[60]

The growing role of technology and its ever-increasing intensiveness in Korean production and exports had made its indigenous development a crucial and strategic factor in the future evolution of the Korean economy. The planners proposed to increase the ratio of science and technology investments to GNP from 2% in 1986 to 2.5% in 1991.[61] There is an attempt to encourage private

[60] ibid., pp.29-30.

[61] ibid.

industries in augmenting their R&D efforts by providing tax benefits as also financial incentives, while fortifying institutional protection for intellectual property rights vis-a-vis newly developed technologies. Besides, basic science and pure science fields at universities were to be improved, the construction of the Taeduk research complex was to be speeded up and a closely-linked, nation-wide network of specialised high-technology research complex was to be developed to further contribute as an important component of the comprehensive regional development policy.[62]

The plans have thereby directed the advent of ISI, HCI and greater technology-intensity in the industrialisation of Korea since 1962. It has favoured industry in its approach and consequently manufacturing has constituted a very important component of its exports. Planning has shown the consolidation of the approach during the last two plans to achieve a balanced development of the industrialisation of Korea. The plans have focussed on the broadening of the industrial base and seeking to enhance the competitive edge of the Korean economy by developing skill-intensive products, while of late, production has been restructured to focus toward the domestic markets.

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[62] ibid.

PLANS AND EMPLOYMENT

Employment-generation policies have been an important feature of the Korean planning process. It was the intention of the policy makers at the EPB to attain optimum employment, thereby utilising what at the initial stages seemed to be abundant labour resources. As portrayed in the tables and discussion that follows, the plans have succeeded in their continuous focus to reduce unemployment. By 1988, i.e. the midst of the Sixth Five Year Plan, unemployment rates were down to 2.2%... an enviable feat by any economic development standards.

The plans focussed on raising employment levels by going in for a rapid economic growth that was a consequence of "expansion of exports, the construction and operation of HCIs, and the expansion of the social overhead sector".[63] A significant aspect was the major shift in the sectoral employment of labour resources as shown in Table II. The table is clear indication of the growing industrialisation of the economy as also the dominant role of the social overhead capital sector in the employment sphere. Almost half the Korean labour resources were employed by this sector.

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[63] Government of the Republic of Korea, The Third Economic Development Plan, 1972-1976, (Seoul, 1972), p.30.

A feature of the Korean labour resource scenario had been the effort by the policy makers at encouraging the joining by more women and elderly citizens in the workforce and so "the labour force participation rate (was) expected to rise from 55 percent in 1986 to 56 percent in 1991".[64] The sixth plan also looked upon the manufacturing and services industris to absorb the majority of the increased work force. However, automation and other labour saving devices that were increasingly being adopted by Korean firms could decrease the industries' capacity to provide new employment as swiftly as before. The Sixth Plan projections were that "job opportunities should be created for 365,000 persons annually if Korea can achieve an average annual economic growth rate of 7 to 7.5 percent from 1987 through 1991".[65] Consequently, unemployment rate was expected to average 3.7% annually through the plan period.

A matter of concern for the policy makers of the Sixth Plan was the existence of a large proportion of employment in Social Overhead Capital (SOC) and other services that had relatively less growth potential. The Policy makers called for greater policy focus on the improvement of the employment structure synchronising with "the ongoing medium and long-term structural adjustment of industry, by increasing the share of employment in industries with strong

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[64] Government of the Republic of Korea, n.49, p.33.

[65] ibid., p.34.

Table 3.8

Newly Employed Population

	Unit	1977-81	1982-86	1987-91
Newly Employed Population	Av.Annual; '000 persons	298	274	365
Unemployment Rate	Av. for the period, %	4.1	4.0	3.7

Source: Government of ROK, Sixth Five Year Plan, Table 4-2, p.34.

growth prospects" while exhorting the need "for increased plant and equipment investments and steps to spur the development of modern service industries" as also to adopt measures that would "strengthen the job retaining programmes and the employment information services to ensure a smooth and rapid interindustry flow of workers".[66]

Recently, planners have been mulling over the negative aspect of the success of near-optimum employment of its labour resources. Now, Korea faces labour shortages, instead! "The increase rate of the economically active population, the source of the labour supply, dropped sharply in the 1980s compared to the 1970s,

[66] All quotes from Ibid., p.37.

while labour demand continued to increase as the economy grew at a high annual rate of 10% in the second half of the 1980s".[67] Manufacturing and technically skilled labour has now a demand that far outstrips supply. Consequently, the Seventh Plan document calls for (a) a more science and technology biased education system to produce more engineers, technicians and skilled manpower; (b) adjustment and improvement of vocational training with the private sector

Table 3.9

The Prospect of Labour Demand and Supply

(Average annual growth rate, %age)

	1972-81	1982-91	1991-96	1997-2000
Economically active population	3.5	2.6	2.2	1.6
Labour Demand*	3.5	2.8	2.2	1.8

Source:Government of ROK, Seventh Five-Year Plan, Table 5.1, p.32.
Note: * Annual economic growth rate is assumed to be 7.5% in 1992-96 & 7% in 1997-2000.

participating more actively thereby making it more suitable to meet the reorganisation of the industrial structure and rapid technological advances; (c)measures to promote employment of women and the elderly who have the ability and urge to work thereby helping in minimising the labour shortage problem.

[67] Government of the Republic of Korea, The Seventh Five-Year Economic and Social Development Plan, 1992-1996, (Seoul, 1992), p.31.

Table 3.10

Economically Active Population

	Popn. 15 yrs. & over '000 persons	Incr. rate %age	Econo-mically active popn. '000 persons	Incr. rate %age	Employed '000 persons	Incr. rate %age	Unemp-loyed '000 persons	Incr. rate %age	employ-ment rate %age	Unemp-ment rate %age
1972	18819	3.9	10865	4.4	10379	4.4	486	5.4	95.5	4.5
1973	19490	3.6	11389	4.8	10942	5.4	447	8.0	96.1	3.9
1974	20187	3.6	11900	4.5	11341	4.4	479	7.2	96.0	4.0
1975	20918	3.6	12193	2.5	11692	2.4	501	4.6	95.9	4.1
1976	21630	3.4	12911	5.9	12412	602	499	0.4	96.1	3.9
1977	224.7	3.6	13316	3.1	12812	3.2	504	1.0	96.2	3.8
1978	23130	3.2	13849	4.0	13412	4.7	437	13.3	96.8	3.2
1979	23787	2.8	14142	2.1	13602	1.4	540	23.6	96.2	3.8
1980	24463	2.8	14431	2.0	13683	0.6	748	38.5	94.8	5.2
1981	25100	2.6	14683	1.7	14023	2.5	660	11.8	95.5	4.5
1982	25638	2.1	16032	2.4	14379	2.6	654	0.9	95.7	4.4
1983	26212	2.2	15118	0.6	14505	0.9	613	6.3	95.9	4.1
1984	26861	2.5	14997	0.8	14429	0.5	568	7.3	96.2	3.8
1985	27553	2.6	15592	4.0	14970	3.7	622	9.5	96.0	4.0
1986	28225	2.4	16116	3.4	15505	3.6	611	1.8	96.2	3.8
1987	28955	2.6	16873	4.7	16354	5.5	579	15.1	96.9	3.1
1988	29528		17821		17426		395		97.8	2.2

Source: Table II-3, pp.18-19, Korean Economic Indicators, EPB: 1988 2/4).

Table 3.11

Employment by Industrial Sector

	Agriculture, forestry & fishery 1000 Persons	Composition %age	Mining & Mfrg. 1000 Persons	Composition %age	Mfrg. Composition %age	SOC & Others	Composition %age
1972	5238	50.5	1468	14.1	13.6	3674	35.4
1973	5445	49.8	1779	16.3	15.8	3719	34.4
1974	5481	48.0	2027	17.7	17.3	3914	34.3
1975	5339	45.7	2235	19.1	18.6	4118	35.2
1976	5514	44.4	2708	21.8	21.3	4191	33.8
1977	5342	41.7	2866	22.4	21.6	4604	35.9
1978	5154	38.4	3092	23.1	22.3	5167	38.5
1979	4866	35.8	3209	23.6	22.8	5527	40.6
1980	1654	34.0	3079	22.5	21.6	5951	43.5
1981	4801	34.2	2983	21.3	20.4	6239	44.5
1982	4612	32.1	2163	21.9	21.1	6624	46.1
1983	4315	29.7	3375	23.3	22.5	6816	47.0
1984	3914	27.1	3491	24.2	23.4	7024	48.7
1985	3733	24.9	3659	24.4	23.4	7578	50.6
1986	3662	23.6	4013	25.9	24.7	7830	50.5
1987	3580	21.9	4602	28.1	27.0	8172	50.0
1988	4081	23.4	4743	27.2	26.2	8602	49.4

Source: Table II-4, pp.20-21, EPB, Korean Economic Indicators, 1988.

Thus the planning era has seen the successful utilisation of Korea's labour resources as the economy has transformed from a semi-agricultural economy to an export-oriented industrial giant. The success of the Korean planning phenomena has been the sectoral shift of employment, as well. The primary sector has been replaced by the services and social overhead sector as the major employer in the economy. The secondary sector has also employed increasing number of labour inputs. The rapid transformation of the economy and its massive requirement of employment has left the Korean economy demanding for more in excess than the supply can warrant. Hence the early planning process - that aimed for large, labour intensive industries in the wake of an abundant and cheap labour force - had changed by the Sixth and the Seventh Plans calling for (a) greater automation of industries as labor has become inadequate and expensive, especially since 1987-88; (b) training for Korean labor toward satisfying the areas of great demand, viz. those requiring skill and technical expertise... while being responsive to the changes in industrial restructuring that the economy calls for; and (c) measures to employ the untapped or underutilized labor resources of women and the elderly sections of society.

The creation of millions of job opportunities in the last three decades is in itself a major success of the Korean planning process. Now it will have to handle the quality of the work force and conditions to further enhance its productivity.

Chapter IV

SUMMARY AND CONCLUSIONS

The Korean planning process really got started in 1962. It was not that there had been no prior attempts. The importance of planning to impart dynamism to the Korean economy was recognised as early as 1948 with the introduction of the office of Planning in the Prime Minister's Office. The early fifties witnessed the formulation of the Nathan Plan which was rejected as it was found unsuitable not only for the political leadership, but also to the Korean economic reality. There was restructuring of the planning process with the Ministry of Reconstruction taking over the responsibility of planning. The Economic Development Council was created as a think tank. But all these ventures into planning lacked the requisite political backing and with the fall of the Syngman Rhee and the Chang Myon regimes in quick succession, the feeble Korean planning process came to a standstill.

The General Park Chung Hee led military revolution changed it all almost overnight. A managerial approach was introduced and vigorously applied by the military leadership in the management of the economy also. With the economy being the major thrust for the Park regime, all-out efforts were made to evolve a command structure, a la the military, to oversee the rapid economic development that was sold to the Koreans as the panacea to all their evils. Economic

nationalism was encouraged and to achieve it, an ambitious planning structure and process was set in motion. The aim was even at that early stage to evolve an economic system to resemble a form of "guided capitalism" in which the principle of free enterprise was to be assigned centre stage in the development process. The government was to bring to life, direct, channelise and guide the native, nascent entrepreneurs by first investing in basic industries and establishing essential social overheads and other services. Here planning was expected to play the role of imparting information to the fledgling entrepreneurs. While the First Plan had to be revised and anticipated growth rates cut back, the revised plan focused on exports to spur industrialisation, which in turn was to boost economic growth. The attempt was successful and repeated in the second and subsequent plans.

The economic stabilisation programme started in 1963 helped in the success of the subsequent second economic development plan. For the first time, better availability of data and growing expertise led to the adoption of a sectoral model designed to hasten the development of the industrial structure and thereby help in the founding of a self- supporting economy. Import-substituting industries along with the positive fallout of the normalisation of Japanese- Korean ties marked the Second Five-Year Plan period. With actual economic growth and exports far exceeding planned targets, the planners opted to continue the Second Plan thrust at deepening industries by going in for greater investments in heavy and chemical

industries (HCI), while continuing on consolidating the gains made by exports. The alienation of the rural economy was noticed as the planner had almost excluded agriculture in favour of the industrialisation of the economy. The Saemaul Undong was given greater thrust to pacify the rural population who showed their dissent in the keenly contested, crucial Presidential and, more so in the ensuing Assembly, elections of 1971. the seventies had other externalities like the Nixon Shock, the oil shock as also the U.S.-China rapprochement that influenced the Korean planners to think about HCI not only from its economic viability, but also think of it in terms of security. The massive investments undertaken to establish hci in the economy, the resource crunch due to the oil shock, the high import- content of Korean exports... all had its impact with the economy facing a balance of payments imbroglio. Despite this, the silver lining was that an export-oriented industrial structure had come up and in turn was adding to the value added component of exports.

The Fourth Plan sought to emphasise on efficiency and while exhorting consolidation of the strides made by the economy, it sought to solve the balance of payments crisis. Imports were to be minimised, while social development was taken up as a planning issue. However, the assassination of President Park Chung-Hee, the occurrence of a second Oil Shock and the absence of a self-sustaining, inter-related hci that was competitive on the basis of economics of

scale... caused the economy to decelerate and even shrink at the turn of the decade (1979-1980) for the first time since the mid-fifties. Not surprisingly, the balance of payments crisis worsened.

The new government, under General Chun Doo-Hwan, continued with the economic growth-biased policies. The Fifth Plan sought stability and efficiency to reduce the balance of payments crisis in an attempt to revise the economy. There was an attempt at assigning greater social responsibility to the planning process in order to ensure the 'trickle down' effect of the development achieved thus for. The era of economic and social development plans had begun. Alongwith steps to combat chronic inflation that dogged the economy, the shift toward market economy was underlined. Industrial strategy-wise, the Fifth Plan outlined the shift from HCI to technology-intensive industrialisation.

The Sixth Plan fell into two eras, and coincidentally, there were two editions of the plan. The Fifth Plan was formulated during the Chun Doo-Hwan era while the next edition came into effect in the Roh Tae-Woo era. Meanwhile, the first edition of the Sixth Plan emphasised on more efficiency and in greater involvement in welfare schemes. But the first year of the Sixth Plan was so successful, that a revised plan was deemed necessary and hence formulated. This revised plan was more ambitions, as it attempted to guide the Korean economy to achieve greater

efficiency and equity, while attempting to reflect the growing democratisation of the Korean polity that marked the Roh Tae-Woo era.

Plan Institutions

A plan cannot be formulated, implemented and evaluated without an infrastructure. The planning 'hardware', has evolved into a dynamic mix of institutions that involve the President himself as also specialised economic bodies like the Economic Planning Board, to bureaucrats and social scientists. The massive planning exercise, as displayed during the formulation of the recently-unveiled Seventh Economic and Social Development Plan, involved the creation of thirty four sectoral planning committees, each run by the concerned government ministry and agency. A total of 1,200 specialists called from the government, research institutes, private organisations and the academic would took part in the making of this plan. No longer is the government the sole formulation of the plan as private agencies were allowed greater role in the making of this plan.

The making of the Plans - over the last three decades - has involved the overall supervision of the President whose is required even at the preliminary stage of the plan. Usually it is his economic secretariat that deals with issues related to

planning and its coordination.

The Cabinet functions as the deliberative forum for the basic planning of national, administration and general governmental policy. However, till recently, it acted as a legitimising agency for governmental policy and hence has served an essentially political function.

The Economic Ministers Conference is a sub-committee within the Cabinet Council consisting of ministers dealing with the economy and which acts as a crucial bridge linking up managerial, communicative and legitimising functions.

Meanwhile, the Vice Ministers Conference is a high-level bureaucratic organ engaged in the consideration of national policies before putting it in front of the Cabinet Council. The Economic-Science Council gives its recommendations when requested by the Korean President in the council areas of the formulation and review of five year plans.

The Office of Planning and Coordination is the lead planning and coordination fulcrum of all administrative branches, inclusive of economic policy making institutions and is headed by the Prime Minister. The review of policy implementation and administrative comes under its purview.

The Economic Planning Board is the focus of all economic powers of the government, vis-a-vis planning. This government agency, is in charge of planning, budgeting and implementation of the plans by the relevant economic ministries under its jurisdiction. This includes the Ministries of Commerce and Industry, Finance, Construction, Transportation, Communication, and Agriculture and Fishery. In plan documents, the EPB announces targets for all the major economic variable, including investment, consumption, savings, output levels, imports and exports, and the details of allocation by sectors and industries. The Board and the ministries have the power which they have utilized to change, without approval of the National Assembly, taxes, tariffs, subsidies, public utilities rates, interest rates, controlled process of rejected goods, and licenses for imports, unit, use of foreign exchange and new business.

Within each ministry, planning and management offices formulate economic planning related to each ministry.

The planning process in Korea has been discussed in three stages. Conception and Formulation, Implementation and Evaluation. The conception and formulation of a Korean plan takes over two years and involves four stages: the preliminary stage, when the EPB draws up macro targets and objectives; the second stage when ministries draw up their investment estimates to the EPB, and since these

outlays are greater than total available resources, the board has to reformulate them by means of an input-output model; the third stage, when in the plan-conception process, the EPB negotiates with the various ministries and, as witnessed from the fifth plan, interest groups, as well; and the fourth stage involves the preparation of the final draft of the plan.

The plan implementation section discusses the role of the annual Overall Resources Budgets (ORB) that has evaluated the performance of the previous year and thereby adjusted the implementation of targets. These ORB's revealed the official policy on the development of the private sector. While originally meant to be part of the plan package to distribute resources to achieve or exceed plan targets, they were made part of policy planning from the third plan and called economic management plans during the fourth plan. These plans are formulated by the EPB alongwith the relevant ministries. They form the flexible policy responses - the corrective channels - to internal and external vicissitudes which were not anticipated during the formulation of the plans. These plans also represent the link between the annual budget and the five-year plans and represent the attempt mode, despite annual variations in macroeconomic performance, to maintain the broad policy positions as suggested by the Five-Year Plan.

The plan evaluation used to initially resemble the annual management framework as adopted by the military. Till the fourth Five-Year Plan, the office of plan coordination used to be the supervisory body evaluating plans, which barely involved submission to it of evaluation reports by the ministries. Comprehensive evaluation, then, took place only when recommended by the economic evaluation committee. A bureau for supervision and evaluation established in the EPB replaced the Office after the Fourth Five-Year Plan. The EPB is, thus, in effective charge of plan evaluation and this stage involves the EPB's supervision of a complex mix of specialised government agencies that analyse and evaluate the utilisation of scarce resources land whether each operation complements the overall plan intiative. The planning institutional framework is thus in shape. However, without the software, a plan cannot be put to action.

Plan Modalities and Models

The whole planning process dynamically involves the various organs and models described above and several others that have, due to paucity of reference sources, not been discussed here. The Korean planning process receives top priority despite its relative decline as the economy bourgeons and the government continues to liberalise and decentralise. And as the planning process changes, so do the institutions as also model-building in the making, implementation and evaluation

of a plan. If it did not do so, the Korean planning process would cease to be relevant.

The section of Modalities and Models describes some selected plan models and input-output models and how they have contributed to the formulation of the planning process. The macroeconometric models have been described to show the growing sophistication of the planning process. These are the very core, the very heart of the plan conceptualisation process and while not delving into the mathematics or statistics aspect, the study does give a reflection - as viewed by a non-mathematician - of the mathematical tools that the Korean planners possessed and utilised as they tried to optimise the scarce resources and channel it towards the best plan to answer to the fast- changing demands of a rapidly transforming economy. The Korean planners have adopted a two-stage approach to incorporate the methodologies into the planning process. A macroeconometric model is utilised to arrive at "appropriate" growth targets that would take into account crucial planning constraints like the foreign exchange and balance of payments positions, among others. Once the growth rates have been computed, (sectoral) input-output models - that account for forty or fifty sectors - are formulated. Input-output models are of varying periodisations, and are formulated to arrive at the optimum demand-supply balances in each sector, while highlighting the strategic or priority sectors for economic development.

To begin with, the selected macroeconmetric models are the 1968 Adelman-Kim model which was utilised during the Second Five-Year Plan; the Song Heeyhon model for the Third Five- Year Plan and the Nam model for the Fifth Five-Year Plan. While being the models accessible to the researcher, they also represent various crucial stages of the Korean planning process. The Adelman-Kim model was the first indication that the planners had come of age; data collection to make the model formulation had improved; it also showed that the World Bank had a say in the Korean planning process. Being pragmatic, the model was adopted to form the core of the Second Five- Year Plan that consolidated on the gains achieved by the Korean economy during the rather hurried, revised, unsophisticated, and inexperienced First Five-Year Plan. The Import Substitution Industrialisation was at full swing in this plan, while trade was encouraged. The Song model for the Third Plan was an improvement on the Adelman- Kim version and helped form the kernel of a pro-growth plan that propelled Korea into the heavy and chemical industrialisation stage that lasted through the seventies. The Nam model for the Fifth Plan, while being more sophisticated, was a strategic base for a crucial plan that sought to pull back the economy from the slide and recession that dogged the Koreans through the end of the seventies and into the eighties. The Nam model was the basis of a plan for a new era: the Chun regime and it aimed to stabilise the economy and reduce its balance of payment problems by going in for more trade. The Nam model called for opening the Korean economy by

introducing exports as an explanatory variable for output and import price as one affecting the domestic price level. Relative prices and demand variables were factors that Nam included as affecting Korean exports and imports. The fifth plan did pull the economy back on the rails and prepared the stage for the economy to register a trade surplus by the mid-eighties.

Input-output models like the Adelman-Cole-Norton-Lee model, or the ACNL model (the first such model for the 2nd Five- Year Plan), the 53 sector Y.K. Kim model for the 4th plan and the K.S. Kim model for the long-term projection of 4th plan - which included the Fifth Plan, as well - are discussed. The ACNL model sought to check the consistency of the Adelman-Kim model. The economy was divided into forty- three sectors and the Korean economy was sought to be explained by bringing in four sets of relationships to bring out physical-balances equations, the output-capacity linkages, the balance of payments constraints and the savings and investment constraints. The model is then solved to compute the production requirements over the Second Five- Year Plan period. The Y.H. Kim input-output model sought to find out how much production and investment was required to achieve the appropriate growth rates in the heavy and chemical industries, whose establishment and 'deepening' was a major thrust of the fourth plan. This model took into account labour as an input in the computation process for the first time and also, on another plane, calculated export projections for each sector... thereby

revealing the importance of exports in the minds of the Korean planners. The K.S. Kim input-output model attempted to analyse the impact of the selection of a particular sectoral growth approach at one level; import substitution at another level and exports expansion strategies at a third level. These input-output models have been dealt with to give an idea - however selective - of how the Korean planners used their expertise in evolving and incorporating these plan 'softwares' into the planning process to give it life - a core that could give meaning and optimum thrust to the several objectives and goals that the planners sought to achieve in the economy during the respective plan periods. These models also are a valuable reflection of the strategic priorities that the planners sought to direct their resources at a given stage of the development process. For instance, Y.H. Kim's input-output model for the Fourth Plan sought optimisation of the heavy and chemical industries which constituted a major goal of that plan.

The chapter, thus, gives the institutional approach to the planning process while examining the modalities and models that have been used by the policy makers, especially in the EPB, to formulate, implement and evaluate the plans effectively.

Governments resort to macroeconomic planning when it is convinced that markets do not or connot function in an economy which is at an early stage of development. Macro economic planning involves a set of policy devices which are put into

operation to vitalise the different sectors of the economy. Policy devices, in themselves, provide a major field of economic study and constitute an interesting area of research as they have been dynamically utilised in a vibrant economy like that of Korea.

Financial Policies: looked into (a) how the EPB & the MOF took control of the banking sector while assuming the formulation of the budget, which till the First Five Year Plan, was the preserve of the Bank of Korea; (b) how the financial institutions, and thereby the financial sector, was constituted and specialised financial institutions created to cater to the special needs of diverse ranging from agriculture to foreign exchange to the trade sectors; (c) the manner in which stabilisation policies were formulated to regulate domestic inflation as also reduce the B.O.P. problems; (d) the rapid turnaround with privatisation, decentralisation and thereby liberalisation of the banking sector since the Fourth Five Year Plan.

Monetary Policies: The EPB and the MOF, with their effective control of monetary policies (as also the related financial policies), have adopted different indicators to compute the policies and (a) some of the major indicators have been discussed. One notices the growing sophistication and the consistent attempt at changing different indicators in order to arrive at the optimum computation as also trends, given the constraint of primitive data collecting infrastructure compounded

by the fast evolution of the economy. (b) There has been a consistent effort at formulation and implementation of stabilisation policies. It has not been always effective as the tight monetary policies ran counter to the inflationary, fast-growth strategies adopted by the EPB for the economy, in general. This has been substantiated by Table 3.2 that shows the money (M_2) target growth rates and the actual growth rates. Even the target monetary growth rates were high (by moderate estimates) and these were usually exceeded as the demands for investment, external trade and a quick industrialisation -cum-services establishment drive demanded the price of high rates of inflation.

Foreign Exchange Rate Policy - the EPB utilised the foreign exchange rate policies to good effect. Only 'essential' or 'strategically important' imports were sought to be brought in and the manipulation of foreign exchange policies helped by acting as a 'tariff wall'. This section deals with bringing out how these policies played an important role in reducing the high import-content required by the Koreans to pursue their external market-dependent growth of the economy. In this manner, Korea's b.o.p. problems must have been less worse than what it appeared. Table 3.3 shows the pursuit of this policy, the rate of the Korean won to the dollar during the planning era. It ought to give a clear picture, besides, of the gradual evolution of a suitable foreign exchange system that would serve Korea's interests better.

Trade and Tariffs Policies - as adopted by the EPB and, under its command, the relevant ministries and bodies - assumed importance as it had been recognised right from the inception of the plan period that the Korean economy had to evolve an external trade dependent economic development. (a) The major thrust - during the plans and even, at times, beyond its scope - was to evolve a set of trade and tariffs polices that favoured exports, while selectively allowing for imports... as is shown in the study. (b) Besides, the trade and tariffs policies sought to increase the value- added content in the exports so as to achieve diversification while aiming to reduce the b.o.p. crises that has consistently bedeviled the Korean economy. But then, the planners, went ahead with an export-oriented industrialisation that had a very high import content. So, with growing sophistication of Korean exports (which called for the establishment of h.c.i. and high tech. industries like electronics, semiconductors (and even a rarity amongst developing economies, automobiles), there was a growing need for expensive imports which involved constant transfers of technology shifts in industries, increased purchases of raw materials and the like. The attempt of the tariff policies thereby remained at controlling domestic consumer goods consumption during the early planning period. This is shown amongst other attempts at increasing exports by diversification not only of products but also of markets. (c) Quality promotion of exports is also shown in this section that contains a plan-by-plan account of the formulation of trade and tariffs policies by the policy

makers in the relevant decision-making governmental bodies under the overall supervision of the EPB.

Industrial Policies - the Korean planners realised early that, given the circumstances, the Korean economy could achieve rapid growth if it went in for industrialisation that was oriented to the external markets. The policy was to offset the heavy capital requirements and high import- content of Korean manufactured by its exports. This strategy sought to solve the inevitable balance of payments problems as also improve the quality and competivity of Korean manufacturing.

The planners sought to go in for industrialisation based on comparative advantage and hence the early plans focussed on labour-intensive industrialisation. Labour was cheap, abundant and disciplined cheap Korean textiles, leather products, wigs flooded global markets. The initial export drive was successful.

It was, however, realised that the success of the economy depended on going in for a deepening of the industrialisation process and, initially, it was for the purposes of substituting imports. Hence, the first steps to the h.c.i. drive were made as part of an import substitution industrialisation drive during the second plan. However, the Third Plan and the seventies witnessed the pumping in of capital and effort

to the establishment of h.c.i. This strategy of increasing the capital intensity of Korean industrialisation had strategic dimensions, as well. The h.c.i. led to the growing dependence on external trade to solve the worsening b.o.p. situation. A consequence was the increased value-added nature of Korean exports that now predominantly consisted of manufactures.

A positive fallout of the setback of the late seventies was the emphasis in the fifth and sixth plans on increasing the technology intensity of Korean industrialisation. Korean exports have diversified and now have more value-added, technology-intensive products like top-of-the line semiconductors, chips at one level, while at another level, there are automobiles, electronics products and computers (P.Cs) and on a totally different level, there are Korean textiles, fur and leather jackets and coats, not to forget of the shoes of which Korea is even today a major subcontractor.

The three decades of Korean planning has seen the establishment of Korean as an industrial power that has had to be export-oriented. the plans have over the years, deepened the industrial base, but the sheer speed has led to the concentration of a few conglomerates that have led the industrialisation process. Besides, there is now a need for a strong network of small and medium enterprises that would man the production of the intermediate goods. Later, these small

flexible enterprises could even lead the high tech industrialisation process as is evident in advanced economics.

The plans have also raised R&D costs to 2.5% of the GNP by 1991, thereby underlining the fact that eventually Korea would have to develop technologies on its own if its requires to further industrialise and join the ranks of advanced industrialised countries.

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