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THE PATTERN AND SIGNIFICANCE OF ECONOMIC PLANNING IN KOREA

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Economic planning is a politico-economic process which draws together the techniques of economic analysis and the forces of concensus-building, decision-making and action-taking that are the heart of the political process. The literature on planning is full of admonitions against a one-sided approach because economic analysis, no matter how good, has little impact on a country's development unless it can be transformed into effective policies and actions. Conversely, strong policies and government efforts based upon bad analysis or bad judgements about the future are likely to be very harmful. Korean experience attests to the interdependence of the political and economic facets of planning. A series of planning attempts were sidetracked because the political conditions were inimical to serious consideration, much less adoption and implementation of the plans. Eventually a plan was pushed through to formal acceptance in 1962, but then it was subjected to serious criticism as being mainly a political device rather than a technically sound economic program. Finally, when an analytically competent plan was supported by an appropriate political environment, not only were the economic decisions of the government and the private sector influenced significantly, but also the legitimacy of the government was strengthened and the antagonism toward the government of some alienated groups was mitigated.

The first efforts at planning in Korea were begun during the Korean War by the foreign assistance agencies that were trying to assess the best patterns and the potential costs of rehabilitating the Korean economy. The main result of this work was a program prepared by Robert R. Nathan Associates for the United Nations Korean Reconstruction Agency.[1] This program although technically adequate, was never formally adopted or even recognized by the Korean Government mainly for political reasons. Nonetheless, because no other similar planning work was undertaken for several years, the Nathan Plan provided the only overall perspective of the Korean economy's possible growth path during the rehabilitation period.[2]

Eventually in 1958 a second planning effort was initiated by the newly established Economic Development Council of the Korean Government. This was to be a seven year plan which would be divided into a three-year and a four-year phase. The plan for the first phase, covering the years 1960-62, was formulated in 1959 and approved by the cabinet in January 1960.[3] Three months later the Rhee Government was overthrown and the plan was set aside.

In the following year, a new five year plan was prepared by the Economic Development Council, but if suffered the same fate as the three-year plan.[4] The draft was completed just prior to the military coup of May 1961 and was not acceptable to the new government which assumed power after the coup. It did, however, provide the basis for a third planning attempt which was finally carried through to completion and approved in late 1961 as The First Five Year Economic Plan, 1962-66.

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[1]Robert R. Nathan Associates, An Economic Programme for Korean Reconstruction, prepared for the United Nations Korean Reconstruction Agency, March 1954.

[2]There was a 5-year program worked up by the Korean Government at the time the Nathan team was working on its program, but it was mainly a compendium of possible investment projects.

[3]Joe Won Lee, "Planning Efforts for Economic Development" in Joseph S. Chung, Ed.,

The new military government had been critical of the antiplanning biases of the Rhee Government and therefore gave considerable attention and publicity to its Five-Year Plan. It was encouraged in this by the new United States aid policies which emphasized planning as one of the key self-help measures that would qualify a country for a greater share of United States assistance. While recognizing the importance of building political support for a plan, it also realized the political role of a plan as a statement of a government's economic, social and political objectives. If anything, the First Plan was overly influenced by political considerations and was attacked as economically over-ambitious and infeasible because it projected such sharp departures from the past without supporting analysis and explanation of why this might occur. As a result of this criticism and the poor performance of the economy in 1962, the first year of the Plan, it was decided in 1963 to revise the growth targets and investment program downward. This revision was completed in 1964 but was never given much consideration, because it had little significance for current policy decisions that were concerned with the more immediate problems of financial stabilization. In time the revised version of the First Five-Year Plan was forgotten altogether because the overall performance of the economy from 1963 onward was approaching or exceeding the so-called "over-ambitious" patterns of the original plan.

The Second Five Year Economic Development Plan was prepared in 1965 and 1966 and was approved by the President in August 1966. For the first time in Korean experience a plan combined an adequate technical base, realistic political dimensions in terms of the national objectives, and the involvement of key interest groups in the preparation and review of the plan. Also patterns and procedures had been developed both for translating planning guidelines into policies and for revising the plan targets to respond to changing circumstances without seeming to discredit the whole planning process. These institutional changes did much to enhance the economic and political role of planning within Korea. While it would be wrong to imply that planning in Korea has achieved the degree of importance which it has in India or some of the socialist countries, it has, as we will seek to show, come a long way from the anti-planning biases of the immediate post-Korean War years.

In the following discussion we will review Korea's experience with planning, giving emphasis to the Second Plan with which we were both much involved.

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3 (Continued)

Patterns of Economic Development: Korea, the Korea Research and Publication, Inc., 1966, p. I-11.

[4] Lee, Ibid. has appropriately labeled the three year plan, 1960-63 and this first version of the five year plan, 1962-66 as the "abortive plans."

Who Did the Planning?

The early planning work in Korea was done mainly by foreigners -- the Nathan team and others associated with the United Nations and United States Assistance programs--because there were very few Koreans with any experience in this area. In the second round of planning activity from 1959 through 1961, Koreans played the major role, with only limited help from foreign technicians or advisors. A number of Koreans, who had recently completed training programs abroad, especially in the United States, were drawn into the staff of the Economic Development Council and the Ministry of Reconstruction where the planning work was concentrated, and these people were given the main responsibility for preparing the three-year plan and the first version of the five year plan. There was an advisory team from the University of Oregon attached to the Economic Development Council at this time but, according to its own summary report, the team played a very limited role in the preparation of either of these plans.[5]

After the military coup, the Supreme Council for National Reconstruction which had assumed all legislative,executive and judical powers took an active interest in the planning work. It transformed the Economic Development Council into the Economic Planning Board, combining the planning, budgeting and foreign assistance administering functions and charged the planning group with revising the draft Five-Year Plan to conform to some new guidelines laid down by the Supreme Council.[6]

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[5] The Oregon Advisory Group in Korea, A Report on the University of Oregon Advisory Mission to the Korean Economic Development Council, 1959-1961 (School of Business Administration, Univ. of Oregon, Eugene, 1961). This report contains a summary of the Three-Year Economic Development Plan, issued by the Economic Development Council, Jan. 25, 1960.

[6] Arthur D. Little Inc. "Economic Development Planning in Korea, Report of the

The revised plan was drafted over several months, again mainly by Korean staff of the E.P.B. The plan was reviewed by various Korean advisory groups during the last quarter of 1961 and approved by the Supreme Council. An English summary was issued in January 1962.[7]

Shortly thereafter the First Plan was subjected to analysis by several foreign groups--a team from the World Bank and one from the consulting firm of Arthur D. Little Inc. which was sponsored by the U. S. government. Both of these appraisals were quite critical. The World Bank objected particularly to the ambitious targets of the Plan whereas Arthur D. Little was more critical of the planning methodology and the absence of implementation machinery.

As a result of these criticisms the Economic Planning Board undertook to revise the Plan, as already indicated. But the revision was soon overshadowed by inflation problems and the need to plan short-run stabilization policies rather than longer-run development programs. Consequently the revision of the First Plan was largely ignored and the link between the longer-run planning or development targets and current policy decisions became very attenuated. This growing irrelevance of planning and the criticism of past planning efforts had, as might be expected, a discouraging impact on those Korean planners who had produced the First Plan and the revision. Many of the leading planners left the government or shifted to other positions and a new, younger group assumed responsibility for planning.

One recommendation of the Little report was that another team of foreign planning advisors be made available to the Korean Government to help with the

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6 (Continued)

Arthur D. Little Reconnaissance Survey," May, 1962.

7 Summary of the First Five-Year Economic Plan, Economic Planning Board, Government of Korea, January, 1962.

preparation of the next plan, and in 1964 the U. S. Agency for International Development contracted with Robert Nathan Associates to provide such a team. In contrast with the earlier Nathan Group, this one was to work with and for the Korean Government--specifically the Economic Planning Board--and was to help them prepare the Second Five Year Plan. In addition to the Nathan Group there was an economic and technical advisory team of the German government which was attached to the EPB, and it assisted with the planning work. Also the United States AID mission took a very active and direct interest in the Korean government's planning from 1965 onward and, in contrast to the normal pattern of relationships, functioned as a planning advisory group. The AID mission and the Nathan team brought a number of experts in various aspects of planning to Korea in 1965 and 1966 who further contributed to the formulation of the Second Five Year Plan.[8] Finally several teams were brought in to develop programs for particular sectors. These included an AID supported study of the power industry and a World Bank supported study of transportation.[8a] Thus there was much more participation of foreigners in the preparation of materials for and the formulation of the Second Five Year Plan than there had been in any of Korea's previous planning efforts except the original Nathan Plan which was a purely foreign product.

This broadening of involvement in the planning process was also true for the Korean government, academic and professional communities. The various ministries of the Government were not only asked to propose projects for inclusion in the investment program, but their representatives participated in the deliberations on development strategy and planning methodology. Staff from the ministries and government-owned development banks made up the group

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[8] These experts included, in approximate chronological order, Edward S. Shaw, John G. Gurley, and Hugh T. Patrick on the development of financial institutions and policies; Irma Adelman on planning models and conceptual approaches to (Cont.)

[8a] Korea Electric Co., <u>Korea Electric Power Survey</u>, 2 Vols., prepared in 1965

of 10 industry committees which were responsible for assessing the existing structure of production, estimating the future patterns of development and reviewing the projects proposed for their industries.[9] A number of academic and research groups made studies of topics which were relevant to planning.[10] Finally a number of special interest groups and representatives of the public were consulted periodically, over the roughly 18 months during which the Second Plan was being prepared, to obtain their views on national priorities and the approaches being contemplated by the Government.

This pattern of broadened participation although it was still criticized in some quarters as inadequate, was nonetheless a great change from the earlier planning ventures which had been conceived by foreigners, or, if done by Koreans, carried out either so rapidly or by such a limited group that most parts of the Government, much less the general public, felt far removed from the resulting plan and disinterested in it.

How the Plans were Formulated

We turn now to the questions of planning methodology to see how the methods have evolved from the original Nathan Program of 1954 through the Second Five Year Plan. In this review we shall be concerned with the amount and kind of policy guidance given to the planners by higher political authority, the types of planning models or frameworks used, the criteria for selecting investment projects or economic policies for inclusion in the plan, and what attempts were made to see that the plans were internally consistent.

8(Continued) planning; Richard A. Musgrave on tax and fiscal policy; Peggy B. Musgrave on foreign trade policy; Edward Hollander and Edgar McVoy on manpower planning; and Alan Strout on planning models. Most of these experts prepared papers embodying their analysis and recommendations, which are cited in the bibliography.

8a (Cont'd) by the Electric Power Industry Survey team and Ministry of Transportation Korea Transportation Survey, Draft Report, Korea, 1966.

The Nathan Plan

The Nathan Program was prepared for the United Nations Korean Reconstruction Agency and was attuned to the policy guidance of that agency more than to the desires of the Korean Government or the people. Despite efforts by the Nathan team to elicit guidance and cooperation from the Koreans, Synghman Rhee never agreed to the undertaking and did nothing to encourage support for them.[11] The general guidelines given by the United Nations General Assembly to UNKRA were to restore the prewar consumption levels and to achieve a viable self-supporting economy.[12] These were interpreted to mean that the per capita consumption levels of 1949-50 should be met by the end of the reconstruction program, that domestic savings should be sufficient to finance a level of

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[9] No private enterprise representatives were included in these industry committees (as has been the pattern in France) because it was feared by the Government that they would frequently take advantage of privileged information that they might obtain from the deliberations of the industry committees.

[10] These included Professor Kee Chun Han's study of The Predicative Ability of the Korean Input-Output Tables, and the Korean Development Association's long-term projections in "Korean Economy in 1980's."

[11] Joe Won Lee, op. cit., attribtues President Rhee's chilly reception to the facts that Rhee was not consulted on the project beforehand, and also that Robert Nathan was associated with the Democratic Party in the United States (p. I-5). Shortly after the Nathan team arrived in Korea in the Fall of 1952, the Republican Party won the elections in the United States, and President Rhee,who reportedly identified more with the Republicans than the Democrats, apparently concluded that it would not help to elicit more assistance from the new administration in the U.S. if Korea's reconstruction program was openly based on the Nathan team's studies.

investment which would maintain the growth rate of output at least equal to the rate of population increase, and that exports would be sufficient to pay for the imports that the country required.

There were also a number of critical assumptions underlying the Nathan Program.[13] These included the propositions that South and North Korea would not be reunified during the foreseeable future, that there would be no renewal of open hostilities between the two sides and no major refugee movements into or out of South Korea. All of these proved realistic, although the Korean Government at that time would not accept the idea of non-reunification even for planning purposes.[14] Other assumptions were that population growth would not exceed 2 per cent per annum - which proved to be much too low, that external assistance would be sufficient to meet the estimated reconstruction needs plus the support of military forces above a specified "normal" level, and that the Korean Government would give wise and dedicated support to the reconstruction program.

The third critical dimension of the Nathan Program which related to both the goals and the assumptions was the time period within which the goals could be achieved. Their report claims that after "various trial patterns were analyzed, . . . it appears that a programme of the size . . . proposed should take about five years to accomplish."[15] Despite this claim of scientific basis for the time period in which reconstruction could be completed and the economy made self-supporting, one is inclined to believe that it was also a convenient planning period and perhaps about as far into the future as the suppliers of

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12 Nathan Associates, op. cit., pp. 77-80.

13 Ibid., pp. 72-76.

14 See [illegible] D. Reeve, The Republic of Korea, A Political and Economic Study, p. 122.

15 Nathan Associates, op. cit., pp. 76-77.

foreign assistance were prepared to look at that time. As it turned out the combination of goals, assumptions and time period was not a feasible configuration. Some parts were achieved within the prescribed five years but others were not and the economy was far from self-support by 1958-59. Whether a more realistic combination would have been devised if the Korean leaders had participated more actively in setting the guidelines for the Program is difficult to say, but it seems clear that the main lines were heavily influenced by a desire to show how the objectives of UNKRA could be met within a reasonable time period. The Koreans for their part never felt bound by or committed to the Nathan Program because they had not participated in its formulation.

The Nathan Program was formulated, as their report says, from the top down and from the bottom up, or from the overall or national income approach and from the project or commodity-by-commodity approach.[16] But for the aggregative planning it was necessary first to develope the national income and product accounts and then to project changes in the major aggregates on the basis of a "feel" for probable developments rather than extrapolation of past trends or a formal model fitted to past time series. Although not explicitly stated, the sequence of the aggregate planning seems to have been to work out the private and public consumption levels consistent with the plan targets (i.e. the prewar per capita consumption levels), to then estimate the investment required to produce that level of output. Imports of intermediate and capital goods were derived from the production and investment estimates and then compared with exports that were estimated separately to arrive at the necessary foreign assistance inflow. It is not clear how many and what kinds of adjustments were required to arrive at an internally consistent program and one which would make possible the termination of external assistance by

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16 Ibid., p. 60-61.

the end of the plan period.

The criteria for selecting investment in the Nathan program were primarily oriented toward demand and import substitution. As their report stated, refined calculations based on relative yields of all alternative investment opportunities were impractical. Instead by taking account of the resource pattern and the target year requirements for final products, and then assuming that there were fairly rigid limits on the attainable volume of exports which could finance the minimum needed imports, that pattern of investment was developed which would permit Korea to "produce at home the kinds and quantities of final products it consumes," as far as this was economically feasible.[17]

Much of the investment program in the agriculture, forestry and fisheries sectors was based on proposals contained in a report by a Food and Agriculture Organization team.[18] The industrial investment program was a moderately adjusted version of a program developed by the Korean Government's Office of Planning.[19] Investment in infrastructure was geared mainly to meeting the estimated demands from the other sectors. These several programs were then checked for internal consistency and trimmed to fit within the prospectively available resources. While the Nathan report repeatedly emphasized the need for such internal and overall consistency, and their various tabulations of supply and demand were appropriately balanced, it is not clear from the report how these balances were

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[17] Nathan Associates, op. cit., p. 105.

[18] Food and Agriculture Organization, United Nations Korean Reconstruction Agency, Rehabilitation and Development of Agriculture, Forestry and Fisheries in South Korea, March, 1953.

[19] Nathan Associates, op. cit., p. 389.

achieved or where the consistency was most subject to stress. Only by looking at some of the targets and the actual developments of the economy is it possible to gain insight into probable compromises. This will be discussed after reviewing the methods of formulating the subsequent plans.

The Abortive Plans

The methodology of the three year plan formulated by the new Economic Development Council in 1959, and of the first version of the five year plan completed in the Spring of 1961 is not very well documented. Both of these plans were prepared hastily and by a relatively small group with little publicity or effort to gain broadened participation. It is doubtful that the three-year plan received much positive policy guidance from the President considering his previous anti-planning biases. The main reason given for formulating the plan was that "the recent trend in reductions in foreign aid requires a reappraisal of . . . economic policies and emphasizes the need for long-range planning."[20] The aim of the plan was "to achieve economic self-sufficiency as rapidly as possible through efficient use of domestic human and physical resources in conjunction with foreign economic aid."[21] These propositions suggest that the plan was influenced very much by foreign aid considerations and perhaps directed as much at justifying continuation of aid inflows as with programming investment.

According to Lee, the three year plan used a Gerhard Colm-type planning model with the level of employment and labor productivity as the strategic variables for determining potential growth of output.[22] Increased employment

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[20] Economic Development Council, Three-Year Economic Development Plan, Outline dated Jan. 25, 1960, in Univ. of Oregon. A Report on the Univ. of Oregon Advisory Mission to the Korean Economic Development Council, 1959-61.

[21] Ibid.

[22] Joe Won Lee, op. cit., p. I-11.

was one of the main targets along with increased productivity and improvement of the trade balance.

The main lines of policy and the investment program were formulated by six consultative committees consisting of academics and private technicians who reviewed the proposals of the technical staff of the Economic Development Council. There were no clear criteria for selecting investment projects, and information on proposed projects was often inadequate. Consequently the decisions on the investment program were based mainly on the judgement of the consulting committees. The results of this work were set aside with the fall of the Rhee government.

At the time work was started on the Five Year Plan in the summer of 1960, the new government felt called upon to respond to a different set of pressures than those which had confronted the deposed Rhee government. Severe unemployment and student demands for increased employment opportunities prompted the Democratic Party to try to formulate policies and programs which could meet these pressures. Accordingly the Party leadership prepared a set of instructions for the Economic Development Council to guide their work on the new Plan. These instructions set the strategy of the Plan to concentrate on certain key types of infrastructure, or overhead capital and to use labor-intensive methods of construction in so far as possible.

Except for this new element of policy guidance the planning procedure was similar to that of the Three Year Plan. On a technical level there was a shift from the Colm-type model to a Harrod-Domar type model, and some concentration of the project program on selected areas or key industries, in what was then considered to represent an "unbalanced growth strategy." But the main innovation was the concept of a National Construction Service which would employ the recently graduated students and the unemployed common laborers and farmers in labor-intensive construction of roads, dams, irrigation works and other key projects.

The First Five-Year Plan

Soon after the military coup in May, 1961, the Supereme Council for National Reconstruction made clear its intention to manage the national economy in accordance with a fully articulated, comprehensive plan. It designated a Korean advisory group for economic planning and charged them with responsibility for formulating the guidelines of a new five year plan.[22a] The members of the group were drawn from academic circles, the Bank of Korea, the Korean Reconstruction Bank and other government agencies. Within two months the guidelines were formulated, approved by the Supreme Council and sent to the Ministry of Reconstruction, which shortly thereafter absorbed the budget bureau from the Ministry of Finance and was transformed into the powerful Economic Planning Board headed by the Deputy Prime Minister.

The guidelines made use of the work on the Five Year Plan done by the previous government, but the advisory group did not limit itself to setting out the main lines of strategy. Instead it spelled out in considerable detail the overall and sectoral growth targets, the components of expenditure on GNP, the targets for income distribution and the balance of payments. These numerous targets and projections were set without much consideration of alternatives or their internal consistency because of the limited time or technical apparatus for doing so.

The main responsibilities of the planning staff in the EPB were to fill in the details within the guidelines that they had been given. This involved designating specific projects and scheduling them to fit the annual investment levels. For this purpose, sectoral and industrial capital-output ratios were estimated from past series and applied to the specified output targets to determine investment levels. There were no particular efficiency criteria for selecting among alternative investment projects so the planners were guided mainly by

22a Supreme Council for National Reconstruction, Overall Economic Reconstruction Plan (Draft) From 1962 to 1966 Appendix. Korea 1961.

those industries which were classified as strategic or key industries by the Supreme Council. These included coal mining, an integrated steel mill, cement, petroleum refining, fertilizer and transportation. To the extent that these key projects did not absorb the total projected investment resources, other projects were added in either from those proposed for the earlier Five Year Plan or on the basis of new proposals from the Ministries.

The planners then went on to specify in considerable detail whether individual projects were to be carried out by the Government or the private sector and what would be the sources of financing. This practice later created serious problems because private entrepreneurs tended to assume that they would automatically receive financing if they were authorized to carry out a project listed in the Plan.

There was no good basis for checking the consistency of the Plan in either macro or micro terms. As a consequence, there were some seriously imbalanced elements, especially between savings and investment at the macro level as we shall indicate later. Also there was only limited coordination and cooperation among the various parts of the Government in preparing the investment program. Essentially the planners had done their scheduling job for the Supreme Council and they had not built any bridges to other Government agencies which would have facilitated implementation.

Within a year the First Five Year Plan was sent back to the planners for substantial revision. They were given some overall guidance on lower growth targets and resource availabilities, but in the confusion of rapid inflation, poor agricultural yields and the political pressures of an election campaign, it proved impossible to devise a generally acceptable set of principles for scaling down the investment program. Thus the revision of the First Five Year Plan was finally done in a rough and arbitrary manner, after which it was largely ignored because the Plan provisions were not considered binding on or even relevant for current decision making.

The Second Five Year Plan

Preparation of the Second Plan extended over a longer period and was more thorough and open than it had been for any of the previous plans.[23] Consideration of alternative planning models was begun in the Fall of 1964, nearly two years before the Plan was finally completed. While this may not seem very foresighted in comparison with the planning work in some countries, it was remarkably so in Korean terms. In the Spring of 1965 some basic guidelines for the plan were prepared by the Economic Planning Bureau, approved by the Cabinet and circulated throughout the Government. These guidelines did not contain quantitative targets for the Plan but indicated the preliminary thinking on plan goals, strategy and priority investment areas, and called for the various ministries to submit project proposals consistent with the guidelines. These proposals were received in the summer of 1965 and started through a long and probably not too effective process of checking the project data and trying to calculate some comparative measures of rates of return for evaluating the projects.

Concurrently, work was going ahead on the overall planning models. In March of 1966 Adelman proposed a macroeconomic two-gap model based on the National income and product accounts. Estimates of the relationships were prepared using the then-available national accounts. The main results of these efforts were to demonstrate that the existing accounts apparently not only contained some serious distortions, but that they did not adequately reflect the structural changes which were occurring in the economy as a result of devaluation, export expansion and relaxation of import controls. Even if the previous relations could be accurately estimated they would not give a good basis for projecting future possibilities. It was decided therefore to postpone further work on the macro

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[23] There is a brief section on Preparation of the Plan in the Appendix to the Second Five Year Economic Development Plan 1967-71, Gov't of the Republic of Korea, July 1966.

model until the national accounts could be revised and a series prepared in constant 1965 prices.

Some very rough macro projections were devised while waiting for the revised national accounts, but these were used only to illustrate some of the broad strategy choices among alternative export, import, savings, investment and foreign assistance levels. Eventually when the revised accounts were completed, in preliminary form in the Spring of 1966, they appeared to be more reliable for recent years than for the 1950's. This meant that they were suitable for reflecting base year levels and structure of output and income, but that they still were not reliable for fitting econometric relations in time series form. Thus it was necessary even in the final formulation of the Second Plan, to estimate most of the macroeconomic targets on a largely intuitive basis, giving heavy weight to the structural shifts which were then occurring, rather than to use a formal model based on longer run trends and relations.

Because of the deficiencies in the time series data and, on the other hand, the availability of a recent and apparently reasonably accurate inter-industry or input-output table, the focus of formal model building shifted to the latter area. Here again Adelman in October 1965 proposed a dynamic interindustry projection model for estimating sectoral investment and import requirements and testing the consistency of the overall development program. This model was constructed or implemented on a crash basis within six months and provided the unifying element in the planning process. It gave a conceptual framework for gathering data and estimates on various types of demand and sources of supply. It was particularly well suited to assessing some of the implications of alternative patterns of manufacturing production.

Policy guidance for the Second Plan was given initially in the Basic Guidelines which were approved by the Cabinet and the President. But these broad terms of reference were translated into more specific and operational guidance in a perhaps unique forum which was finally labeled "The Second Plan Deliberation Joint Meeting."[24] This group, which was chaired by the Vice Minister of the Economic Planning Board, brought together senior officials from the concerned Ministries of the Government, members of the Economic and Scientific Council, representatives of the Government Party (the DRP) and, the unusual feature, representatives of the United States Aid Mission, and the Nathan and German groups advising the Economic Planning Board. The joint meetings were held 31 times in the final year of work on the plan to "discuss and review formulation of the plan."[25] Generally presentations were made by the staff of the Economic Planning Bureau and after hearing the comments of the various participants, decisions were made by the Vice Minister of the EPB or referred to higher authority for resolution when this was necessary. Although the meetings were not open to the public, the substance of the presentations and the decisions was frequently made available to the press so that the public was informed about the progress on plan formulation and the directions the plan was likely to propose.

There was also a Second Plan Consultative Council, which consisted only of Koreans and included representatives of banks, economic research institutions, academics and journalists as well as the vice ministers of the concerned ministries. This Council was mainly a forum for disseminating information about the Plan but members were occasionally consulted on some key issues.

Investment decisions in the Second Plan were largely dominated by demand

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[24] The Second Five Year Economic Development Plan, p. 180.

[25] Ibid.

broad terms of reference were translated into more specific and operational guidance in a perhaps unique forum which was finally labeled "The Second Plan Deliberation Joint Meeting."[24] This group, which was chaired by the Vice Minister of the Economic Planning Board, brought together senior officials from the concerned Ministries of the Government, members of the Economic and Scientific Council, representatives of the Government Party (the DRP) and, the unusual feature, representatives of the United States Aid Mission, and the Nathan and German groups advising the Economic Planning Board. The joint meetings were held 31 times in the final year of work on the plan to "discuss and review formulation of the plan."[25] Generally presentations were made by the staff of the Economic Planning Bureau and after hearing the comments of the various participants, decisions were made by the Vice Minister of the EPB or referred to higher authority for resolution when this was necessary. Although the meetings were not open to the public, the substance of the presentations and the decisions was frequently made available to the press so that the public was informed about the progress on plan formulation and the directions the plan was likely to propose.

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considerations. There was an attempt to apply internal rate of return calculations to the agricultural investment projects proposed by the Ministry of Agricultural and Forestry, but this did not prove successful. There was not adequate information on specific projects so typical land reclamation or irrigation projects were analysed, with the expectation that these would give a basis for setting priorities in allocating blocks of investment funds to the various types of projects. But the rate of return estimates were not sufficiently reliable to be convincing and continuing disagreement over the relative emphasis on upland or tideland reclamation projects was not resolved by the time the Plan was completed. As a consequence the agriculture investment program was quite unspecific and the absence of a clear statement of strategy for agriculture, forestry and fisheries made that the weakest part of the Plan.

Investment in manufacturing was heavily influenced by estimates of the potential demand for exports and the derived demand for intermediate goods to supply the export industries. There were only a few projects involving a significant increase in import substitution--an integrated iron and steel mill, a petrochemical complex, an aluminum reduction smelter--and these were tentatively incorporated in the Plan without any careful comparative assessment of benefit to the economy. The infrastructure investment programs were demand oriented and the allocations for social overhead including housing, education and other government services were quite arbitrary decisions based on a combined assessment of demand, existing deficiencies and available resources.

In the area of policies, the Second Plan did not propose any major new directions but mainly reiterated the reorientation of policy which had been carried out in the preceeding two years and whose effects were becoming significant at the time the Plan was being prepared. Because the effects were generally in the desired and expected directions but, on the other hand, because it was still premature in most areas to determine whether the prospective response was of the desired order of magnitude, there was not yet a sufficient basis for modifying most of the policies at that time.

The overall consistency and feasibility of the Second Plan was tested in part by the interindustry model which was most relevant for assessing the level and composition of industrial investment and imports given the estimates of the growth of final demand. But the main questions of feasibility centered around the increases in savings--especially domestic savings--and in exports that were projected in the Plan. These were areas in which exceptionally rapid increases had been experienced but for relatively brief periods. The Plan assumed that these high rates of increase would continue, whereas the skeptics believed the Plan was too ambitious. This was the normal disagreement among those in the midst of a changing situation who cannot be certain whether the change is merely an oscillation or a real structural break. With the benefit of several more years during which the high export and savings growth have persisted, it now seems more certain that a structural change has taken place, but in 1966 it was a difficult judgement to make.

Plan Strategies and Targets

As W. Arthur Lewis has suggested, there is no single unifying theme to a discussion of development strategies but instead a judgement as to which issues are important in a particular setting.[26] The issues of strategy which have been of most concern in Korean planning since the end of the Korean War appear to have been:

a) the overall rate of growth

b) the structure of industrial production and foreign trade

c) the division between domestic and foreign savings and between various forms of domestic saving.

d) the structure of markets and the extent of Government's role in making or guiding investment decisions.

Target Growth Rates

Although there are in any given setting practical upper limits on the potential rate of growth, there is also a range over which the rate can be expected to vary depending upon the commitment of the populous to achieving high growth, the effectiveness of the economic policies of government and the uncontrollable influences of weather, international politics and similar factors. In selecting the target growth rates for planning purposes, the planners or policy makers are likely to be most influenced both by what they think is a reasonable upper limit and the degree of commitment to growth which they either perceive or can hope to instill in the populous Conceptions of a reasonable limit are influenced in turn by recent performance at least during what are considered to be favorable periods.

In the Korean plans there has been an alternating pattern of projecting continuation of past growth rates when those have been relatively high or of

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[26] W. Arthur Lewis, Development Planning, The Essentials of Economic Policy, New York, 1966, p 26.

projecting sharp increases in the growth rate when the immediately previous record has been unfavorable. The Nathan Program, coming right after the Korean War in which so much of the industrial capacity and infrastructure had been destroyed, proposed a very rapid but decelerating recovery with an implicit compound growth rate of 8.6 per cent per annum. Given the limited information on previous performance of the economy and the fact that this was a reconstruction program concerned with rebuilding along previously established lines, which was believed to be easier than charting new paths of development, the high growth target did not at that time seem unreasonable although it in fact proved to be far above actual achievement. In the subsequent Three Year Plan the target growth rate was set at 5.2 per cent which was about equal to the average growth rate of the preceeding five years. Then the First Five Year Plan, prepared in the midst of the stagnation period, contained a target growth rate of 6 per cent in its first version and 7.1 per cent in the final version issued by the military government in January 1962. This was roughly double the growth rate of the preceeding three years and was much above the levels that the Korean economy had been able previously to sustain for more than one or two years Thus it had to imply either major changes in policies, commitment and performance or it simply represented wishful thinking. The Government clearly intended the former but was accused by its critics of the latter Poor performance during the first year of the Plan caused the Government to prepare a revised First Five Year Plan with a 5 per cent growth target but, as previously noted, this was subsequently set aside when the realized growth rate from 1963 on pushed up above the original 7 per cent target.

After experiencing several years of very high growth, the 7 per cent growth target of the Second Five Year Plan seemed relatively modest. Some of the early formulations of the plan frame had assumed that 1966 would be a sort of "dead year" in which the economy would not progress. But as the Plan was being put into final form, it became increasingly clear that the economy was expanding very rapidly in 1966. This resulted in some upward revision of the output estimates for the whole plan period and in acceptance of 7 per cent as a minimum growth target. In subsequent annual planning exercises the target has been raised to 10 per cent,[27] which is only slightly above the average growth rate for the four years 1963-66. This move to a very high planning target was prompted in large part by experiencing the severe constraints of bottlenecks in key infrastructure areas such as power and transportation where it is not possible to fill the shortages with imports. The planners concluded it was necessary to assume the highest possible growth rates in planning for these sectors if they were not to limit the growth of the whole economy.

As the various plans have been drafted and revised over the past 15 years, and the growth targets have been moved about in the range from 5 to 10 per cent, there has been little disagreement over the desireability of striving for the highest practicable rates of growth. The arguments have been mainly over what was realistic, with the implied concern that too high targets would result in overinvestment in some areas and the release of inflationary forces. The planners have generally tended to advocate the higher growth targets while those concerned with financial policy have urged more caution.

The other direction in which growth targets have had relevance is in terms of Korea's relations with the suppliers of foreign assistance. The Nathan Plan was explicitly intended to contribute to agreement among the aid donors on the overall reconstruction objectives and related assistance needs. It failed to serve this purpose because the Korean Government never accepted the Plan or

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[27]Economic Planning Board, Overall Resources Budget, 1968, July, 1967

agreed to its general directions. The high, 7.1 percent, growth target of the First Five Year Plan and the related level of investment were judged by the World Bank to exceed by far the potential of the economy, and in need of being scaled down.[28] The Arthur D. Little team, doing an evaluation on behalf of the United States Government, while acknowledging that the growth target seemed very high, went on to say that there was not sufficient information on the Korean economy to estimate a practicable rate of growth. They recommended concentrating on the preparation and analysis of investment projects and largely eliminating the macroeconomic planning dimensions. As a result of these reports and other assessments, neither the United States nor the World Bank accepted the Plan as a basis for determining appropriate levels or composition of their assistance.[29]

More recently the World Bank has formed a Consultative Group on assistance to Korea and has been evaluating Korea's growth record and targets as a basis for determining assistance needs. In its initial assessments of the Second Five Year Plan, the World Bank experts concluded that the growth targets were too ambitious and recommended that consideration be given to adjustments that would be necessary to scale down from a 7 per cent to a 5 per cent growth target. The Bank also advised the team on transportation planning that it provided to Korea in 1966 to assume a 6 per cent overall growth rate in preparing its estimates of transportation needs.

In time as Korea's actual growth continued to average near 10 per cent in 1966 and 1967, the World Bank has apparently raised its sights and accepted

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[28] This assessment is reported in the Arthur D. Little draft report <u>Economic Development Planning in Korea</u>, May 1962, p. IV-1.

[29] Charles Wolf Jr. in his article "Economic Planning in Korea," in <u>Korean Affairs</u>, Vol.III, No. 2, July 1964, urged that "US policies and programs should strongly support the Korean Plan and subsequent plans." (p. 237)

7 per cent as near the lower rather than upper end of the feasible growth range, with the upper limit running up to 10-11 per cent. It has also been more inclined to accept the Korean estimates of the investment and external resource requirements to attain these higher rates of growth.

Industrial Structure

The main choices confronting planners in the area of industrial structure involve the division between agriculture and manufacturing, and within manufacturing, the relative emphasis on light and heavy industry. The latter choice also is related to the split between labor-intensive and capital-intensive production, the degree of integration of the industrial structure vs. international specialization, and thus the questions of international trade patterns. There have been a number of shifts in the thinking and planning of Korean policy makers since the Korean War which have been reflected in the plan targets and strategies relating to industrial structure.

The Nathan Program emphasized the expansion of primary production--agriculture, fisheries and mining--to satisfy domestic demand and meet the minimum necessary export levels. They projected extensive import substitution to meet consumption and investment demand and to bring the import level down to roughly 10 per cent of GNP by the end of the Plan period. This move toward a more closed economy was deemed necessary because of the apparently limited prospects for boosting the export ratio above 10 per cent and also because of the objective set for the Nathan Program of the economy being self-supporting by the terminal year, 1958. Thus the Program involved a somewhat forced turning inward towards self-sufficiency as the only apparent means of achieving trade balance. These trade and production projections proved very wrong, in part because they were not accepted by the Korean Government, which therefore did not implement the policies that might have contributed toward their realization, but also because the projections were probably unrealistic to start with.

One of the critical assumptions of the Nathan program was that rice production could be raised quickly and that, by substituting other grains for rice, there could be a large surplus of rice available for export. This sort of increase in rice production and exports did not occur. Instead Korea has continued to be a sizeable importer of grains into the 1960's and has only been able to export limited amounts of rice in years following exceptionally good harvests.

The other major hope for exports was minerals which it was assumed would amount to nearly $70 million by 1958 or one-fourth of total exports. Minerals did prove to be the main export, but they were only valued at about $10 million in 1958 which was nearly two-thirds of total exports of $16.5 million. Even in the recent years when exports have expanded rapidly, the level of mineral exports has not exceeded $25 million. While the failure of total exports to expand during the 1950's along the lines suggested in the Nathan Plan should be attributed mainly to the unwillingness of the Korean Government to implement exchange rate and other policies which would have encouraged exports, it also seems clear, on the basis of the subsequent experience with exports during the 1960's that Korea's comparative advantage is mainly in the area of light manufactured goods, not the agricultural and mining areas which the Nathan Plan suggested.

The proposals for broad import substitution in manufacturing also failed to materialize and this was probably fortunate for the long run growth of the economy. The import substitution that did occur was largely at the final processing stages, which resulted in continued dependence on imports of raw materials and intermediate goods. Large raw material imports were inevitable given Korea's limited natural resources, but the choice between imports or domestic production of intermediate goods was one of comparative cost. Many intermediate goods have significant economies of scale so that to produce them in the limited quantities required to satisfy only the internal demands of the Korean market would have been very inefficient. The costs of such inefficiency would have fallen on the Korean consumer and would have been a high price to pay for achieving self-support. The availability of substantial foreign aid beyond the period originally contemplated in the Nathan Plan made it possible to continue imports of intermediate as well as capital goods (imports of finished consumer goods dropped practically to zero) and reduced premature investment in capital-intensive intermediate goods industries.

The Three Year Plan followed many of the same lines as the Nathan Plan in the areas of industrial and trade structure, but it called for "progress toward" rather than "achievement of" a balance of foreign trade. The export targets were less ambitious and the recognition of need for a continuing import surplus, including imports of grains to meet the food defecit, was very different from the earlier program. But, like the Nathan Plan, the new plan called for major import substitution in key industries such as chemicals, metals, machinery and nitrogenous fertilizer, and projected an absolute decline in the import level of 8 per cent between 1958 and 1962 despite a planned 22.6 per cent increase in real GNP. This proposed pattern of investment reflected the Korean objections to excessive growth of consumption goods industries, and the desire to build an integrated or balanced industrial structure which was generally conceived of as an increasing share of capital goods in total manufacturing production.[30]

With the First Five Year Plan the emphasis began to shift away from a self-sufficient, or inward-looking, industrial structure. Although there was

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30 The Three Year Plan stated: "It is hoped we can change the ratio between the production of capital goods and consumer goods from 25:75 in the base year (1958) to 35:65 in the target year (1962)."

still concern about raising the relative output of capital goods, there was also a growing acceptance of the need for relatively high levels of imports and of the idea that the trade gap would have to be closed mainly by raising the export ratio. As stated in the Plan:

> "The ultimate course of the Korean economy lies in industrialization. During the plan period, the period of preparation for industrialization, emphasis will be placed on development of power, coal, and other energy sources, increase in the earnings of farm households by raising agricultural productivity, expansion of key industrial facilities and adequate provision of social overhead capital, utilization of idle resources, some improvement in the balance of international payments, primarily through increased exports, and technological advancement."[31]

Wolf, who was one of the advocates of this so-called "unbalanced growth strategy," has interpreted it as implying concentration on three key sectors: electric power, agriculture and social overhead capital.[32] The expansion in these areas was to provide a basis of essential inputs for growth of industrial production which would be carried out mainly by the private sector.

The investment programs in electric power and related expansion of coal mining were well designed and effectively implemented so that the country had sufficient supplies of electricity and coal by 1964 for the first time since the end of World War II.[33]

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[31] Summary of the First Five-Year Economic Plan, 1962-1966, Republic of Korea, 1962, p. 29.

[32] Charles Wolf, "Economic Planning in Korea," pp. 230-31.

[33] Subsequently, the very high growth of the economy and rapidly expanding industrial demands resulted in renewed power and fuel shortages in 1966 and 1967, but these cannot be charged against the judgements of the First Plan. It was instead a reflection of slowness to respond to changing conditions and needs during the First Plan Period.

Also the plans for expansion of agricultural production were reasonable and effective. The targets for increased cultivated and irrigated area, application of fertilizer and pesticides were approximately met and the effects on agricultural output were of the magnitude that had been predicted.

While there was provision in the First Five Year Plan for a number of import substitute-type industrial investments, these were less important than in the previous plans. As a consequence the ratio of imports to GNP was projected as being about 20 per cent in the terminal year which was approximately the level in the base year. Also a rise in the import ratio was called for during the Plan period to cover needed investment goods. Clearly this implied moving toward a more open, trade-oriented economy. Even so, the import projections proved conservative. Actual imports over the whole Plan period were about 7 per cent above the Plan levels, but in the final year they were 45 per cent higher than the Plan.

The export projections seemed quite unrealistic at the time the First Plan was issued, and it is doubtful that the planners had much of an idea as to how the targets might be achieved. But the implementation of a series of export incentive measures beginning in 1961 and continuing over the next several years resulted in such spectacular growth of exports that by 1966 the realized export level of $250 million was nearly double the target level of $137.5 million. The composition of exports predicted in the Plan followed the traditional assumptions that agricultural and mineral products would predominate, but this too proved very inaccurate as manufactures accounted for over 60 per cent of the total by 1966.

Thus while the First Five Year Plan had anticipated at least the direction of some of the changes in industrial and trade structure, it clearly underestimated the extent of those changes and it did not contemplate many of the policies that were subsequently used to bring these changes about.

As the preparation of the Second Five Year Plan was getting underway, the favorable results of these new policies were becoming apparent and as a consequence the questions that had to be answered in connection with industrial structure for the Second Plan were more in terms of how far the existing trends would or should be pursued, and what marginal adjustments seemed appropriate, rather than what major shifts in direction or policy were needed. One set of proposals argued for continued expansion of exports and of agricultural production, but with increasing reliance on a rural-oriented industrial sector to supply the export commodities. This was intended to provide stronger linkages between the urban and rural populations and improve the incomes of the rural inhabitants so that they could buy more of the rapidly growing industrial production.[31] The basic strategy of export-led industrial development was generally accepted, but the rural industry emphasis was not, in part out of concern that decentralized, small-scale producing facilities might be less efficient and therefore impair the competitiveness of Korean exports in world markets. Although there was a willingness to give at least equal, if not some preferential treatment to smaller scale industry, there was a reluctance to try to push such industry out into the rural areas as Fei and Ranis proposed. Furthermore, there was a disposition to continue the agricultural programs of the First Plan, which seemed to be paying off. While recognizing that the output of the agricultural sector would grow less rapidly than that of manufacturing, it was expected that farm income would continue to rise at a satisfactory rate, that the shift of population from rural to urban areas was inevitable, and that rapid expansion of employment opportunities must occur in the cities.

The main questions concerning industrial structure for the Second Plan were (a) how rapidly could exports be increased; (b) whether the growth of demand for certain intermediate goods would be sufficient to justify building efficient-sized plants

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[31] J. C. H. Fei and Gustav Ranis, "Toward a Long-Run Development Strategy for Korea," Oct. 1, 1964, (mimeo.), p. 59.

within Korea; and (c) whether to permit large-scale importation of machinery and equipment to support a rapid expansion of investment, or to try to divert some of this demand to the domestic machinery and capital goods industries.

The export alternatives were posed as a choice between target levels for commodity exports in 1971 of $500 million or $700 million. These implied compound annual growth rates of 19 and 26 per cent from the 1965 level of $175 million. The Ministry of Commerce and Industry and others advocating high growth and rapid industrialization supported the high target. Those who were more concerned about financial stability and a balanced industrial structure argued for the lower target.[32] The target finally chosen for the Plan was $550 million, or a growth rate of 21 per cent. But this figure was hardly agreed upon when current developments began to indicate that it was too conservative. As shown in Table 2, current account earnings were well above planned levels in 1966 and 1967, due mainly to the service earnings, but this led to increases in the export targets for 1971 to $750 million for commodities and $1,075 million for goods and services. Thus there has been a continuing process of raising export targets and increasing the support for export activities as the current export results have exceeded earlier expectations. The strategy decisions involved in the formulation of the Second Plan were just one stage in this process.

At the time the Second Plan was being prepared there were two major investment projects under consideration for which it was recognized that economies of scale were important and therefore that the prospective rates of growth of demand were very significant. These were an integrated steel mill and a petrochemical complex. Not only was the overall growth rate of the economy of relevance

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[32] World Bank experts as late as the summer of 1966 were still suggesting that

Table 2

Actual and Planned Levels of

Exports and Imports

1965-71

(millions of US Dollars)

	1965 Actual	1966 Planned	1966 Actual	1967 Planned	1967 Actual	1968 Orig. Plan	1968 Revis. Plan	1971 Orig. Plan	1971 Revis. Plan
Exports									
Goods and services	290	395	455	462	643	524	787	719	1075
Merchandise only	175	250	250	300	320	360	450	550	750
Imports									
Goods and services	488	676	778	767	1,064	834	1,156	962	1,371
Merchandise only	420	587	680	655	909	705	993	804	

Sources: Actuals for 1965 and 1966 are from the BOK Monthly Statistical Review. Actuals for 1967 are from estimates prepared by the Asia Department of the IBRD, dated April 11, 1968. Planned estimates for 1966 and 1967 and the Original Plan estimates for 1968 and 1971 are from The Second Five-Year Economic Development Plan, 1967-71, pp. 202-3. The Revised Plan estimates for 1968 and for 1971 are from the Overall Resources Budget: 1968, Economic Planning Board, Aug. 1967.

but the growth and composition of exports and the decision on imported vs. domestic capital goods was likely to have a bearing on the appropriate scale of the steel and petrochemical projects. One further consideration was that, if these projects were to supply the export industries, they should be able to do so at world market prices. Because there was a predisposition against subsidizing these products, it was hoped that costs of production could be brought down to world market levels.

The decisions incorporated in the Second Plan on these two big industrial projects were reached after an analysis of the overall growth of industrial demand and the investments required in the lighter industry sectors to sustain that growth. It was then concluded that the petrochemical complex should be undertaken in the early part of the Plan period both because it required less total investment and because sufficient demand for its output seemed likely. The steel mill would be built in the latter part of the Second Plan and would only come into production in the Third Plan period. This kind of confrontation of demand prospects, overall investment availabilities and the investment needs of other sectors was an essential feature of the decision making on industrial structure in the Second Plan and was made possible by the multisectoral framework within which the Plan was formulated. The framework both required and provided a basis for the reconciliation of conflicting demands in order to arrive at a feasible overall program.

The third critical decision on whether to protect the machinery industries was dominated by the desire to maintain high rates of growth and investment and to take advantage of the potential foreign capital which would be available mainly for financing the importation of machinery and equipment. Therefore, despite statements at various points in the Second Plan about the importance of building up the machinery

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32 (Con't) a $400 million target for 1971 was more reasonable.

sectors, the investment tentatively earmarked for them was not very large and much of that was likely to go into electric and mechanical appliances for the export and consumer markets rather than into the heavier machine tool industries.

In sum, the Second Plan decisions on industrial structure were dominated by the desire for high rates of growth and increased efficiency. By capitalizing on the rapid growth of exports, which emanated mainly from the less capital-intensive manufacturing industries, by delaying some of the more capital-intensive projects until adequate demand for their output was assured, and by relying heavily on imported machinery, the Plan was intended to keep the economy moving ahead strongly. Growth was in fact so rapid in 1966 and 1967 that what had previously seemed to be ample capacity in the infrastructure areas of power and transportation proved to be seriously deficient. Early revisions of the Second Plan involved major acceleration and expansion of investment in these two sectors so that they would "not become more serious bottlenecks to growth."[33]

[33] Economic Planning Board, Overall Resources Budget: 1968, August 1967, p. 13.

Domestic Savings and Foreign Assistance

The prospects for increasing domestic savings and reducing dependence on foreign assistance have been among the most controversial issues of Korean planning. Throughout the post-war period the level of domestic savings in relation to GNP has been low by comparison either eith other countries or with Korea's investment needs and targets. As a corallary, the level of foreign assistance has been high. While most Koreans have expressed a desire to redress this balance and the foreign assistance providers have supported this idea, there has been continuing disagreement on the speed with which the shift should be brought about. There have also been differences as to whether the shift would be achieved mainly by pushing for higher domestic savings rates or accepting lower rates of growth. The conflict is illustrated by a comparison of the macro-economic projections of the Nathan Plan and the First and Second Five-Year Plans. (See Table 3.)

The Nathan Plan projected very high growth of GNP in the early years of the Plan but then declining sharply in the later years. The First Five-Year Plan had the reverse pattern, starting with very low growth in the early years and then accelerating thereafter. The Second Five Year Plan assumed steady 7 per cent growth throughout. These three patterns are symptomatic of the prevailing conditions at the times the plans were formulated. The Nathan Plan was a reconstruction program directed toward rebuilding the economy and achieving self-support. The First Five-Year Plan was designed to promote recovery from stagnation, whereas the Second Plan was intended to continue a high rate of growth that had already been attained.

All three of these plans postulated a very sudden increase in investment at the beginning of the Plan. The Nathan Program was most extreme in that it provided for an increase in investment equal to 72 per cent of the growth of

GNP while GNP was assumed to grow at 15 per cent. Thus the proposed investment increase exceeded 10 per cent of GNP, a very unrealistic target given the conditions in the country at that time. The investment increase projected in the early years of the First Five-Year Plan was also large relative to the change in GNP, but because that latter change was relatively small the investment target was less ambitious. The Second Plan assumed a more modest initial increase in investment and a fairly steady marginal increment thereafter, whereas the earlier plans contained sharply declining marginal increments. Here again the Nathan Plan was extreme in that it assumed investment in the final year would decline absolutely by an amount equal to the rise in GNP.

The domestic savings projections of the first two Plans were similar in that they assumed very high marginal savings rates during the first half of the Plans and then a sharp tapering off in the last two years. In the Second Plan the marginal savings rate was less high on average and was expected to increase significantly in the first year and then decline absolutely at least after the second year. Again in the Nathan Plan it was to drop precipitously in the final year.

A simple comparison of the three Plans shows that the earlier expectations of dramatic change have become more cautious and conditioned by reality with the passage of time. The kinds of adjustments called for in the Nathan Plan were extreme, and some similar ones were repeated in the First Five Year Plan. By the Second Plan there was greater awareness of comparative experience in other countries as well as in Korea. The limits of change in marginal savings and investment rates were better appreciated, but also the structural relationships in the Korean economy were less seriously out of balance than at the beginning of the earlier Plans. There was also a recognition that Korea should expect to have a sizeable net capital inflow for the foreseeable future,

Table 3

Changes in Investment, Domestic Savings and Foreign Capital Inflow as Ratios of Changes in GNP, as Projected in Three Plans

	Base year to year 1	Year 1 to year 2	2 to 3	3 to 4	4 to 5
Nathan Plan (1954 to 1958-9)					
Investment	.72	.12	-.16	-.23	-1.00
Domestic Saving	.45	.42	.46	.16	.20
Foreign Capital Inflow	.27	-.29	-.62	-.39	-1.20
Per Annum Growth of GNP	15%	10%	9%	5%	5%
First Five-Year Plan (1962-1966)					
Investment	1.38	.68	.39	.14	.16
Domestic Saving	.89	.64	.52	.33	.25
Foreign Capital Inflow	.48	.04	-.13	-.19	-.09
Per Annum Growth of GNP	2%	6%	7%	8%	8%
Second Five-Year Plan (1967-1971)					
Investment	.54	.27	.27	.28	.23
Domestic Saving	.27	.25	.34	.35	.33
Foreign Capital Inflow	.26	.02	-.07	-.07	-.09
Per Annum Growth of GNP	7%	7%	7%	7%	7%

Base years were for the Nathan Plan, 1953-54; for the First Five-Year Plan, 1960; for the Second Five-Year Plan, 1965.

but that the sources of financing for the inflow would shift from mainly grant aid to public and private loans and equity investment.[34] For these several reasons the Second Plan projected smoother and more reasonable adjustment in the structure of domestic and foreign savings than had the earlier Plans.

The extreme assumptions about the potential increases in savings and foreign capital during the early years of the Plans provided the basis for planning comparable expansion of investment. By attempting to carry out these investment programs, despite the failure of domestic savings to grow as expected, the potential for severe inflation was created. It is therefore not surprising that prices rose rapidly during the first years of both the Nathan and First Five-Year Plans.[35] The clearest example of this is found in the 1962-3 period when investment was expanded substantially but still not as rapidly as planned. Foreign capital inflow also rose, but savings did not respond at anything like the contemplated rate. As a consequence inflationary forces were unleashed. Domestic credit was doubled in two years to finance a large budgetary deficit (despite the highest ratio of taxes to GNP in Korea's post-war experience), and foreign exchange reserves were severely drawn down. This experience led to the imposition of strong stabilization measures and postponement of planned

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[34] See Peggy B. Musgrave, "Trade Targets and Policies in Korea's Economic Development," Aug. 22, 1965, (mimeo), p. 15.

[35] Although the Nathan Plan was never accepted by the Korean Government, it did have some influence on policies and programs. Thus it is not unreasonable to suggest that the investment projects of the Korean Government and supported by the aid agencies were carried forward on the assumption that something approximating the savings rates projected in the Nathan Plan would be forthcoming.

Table 4

Comparison of Planned and Actual Changes in Investment, Domestic Savings and Foreign Capital Inflow in Relation to Changes in GNP during the First Five-Year Plan

	1960-62	1962-3	1963-4	1964-5	1965-6
Planned					
Investment	1.38	.68	.39	.14	.16
Domestic Saving	.89	.64	.52	.33	.25
Foreign Capital Inflow	.48	.04	-.13	-.19	-.09
Per Annum Growth of GNP	2%	6%	7%	8%	8%
Actual					
Investment	.35	1.02	-.40	.07	.82
Domestic Saving	.20	.50	.45	.16	.45
Foreign Capital Inflow	.15	.52	-.85	-.09	.37
Per Annum Growth of GNP	4%	9%	8%	7%	13%

investment in 1964-65. Thus the unrealistic projections of domestic savings, noted by Wolf and others,[36] contributed to financial instability and disruption of plan implementation.

Public vs. Private Decision-Making

As with other elements of development strategy, there have been some significant shifts in positions on the degree of government ownership of productive facilities or control over economic decision-making in Korea. These attitudes have not reflected a deep philosophical or political division so much as changing circumstances within the country and changing conceptions of what would be most conducive to achieving the more fundamental economic and political objectives. Korean exposure to the Japanese pattern of close relations and coordination between government and private business has probably predisposed the Koreans to accept that as a normal pattern.

At the end of World War II, Japanese property, including much agricultural land and most of the industrial facilities in the country, was taken over by the US military government and then transferred to the Korean Government after 1948. The agricultural land was distributed to private owners as part of the general land reform program in 1949 and 1950, but what was left of the industrial facilities at the end of the Korean War was still mainly in Government hands. Although the government had indicated its intention to transfer these properties to private ownership, much difficulty was experienced in setting prices and arriving at satisfactory agreements under the wartime and immediate post-war conditions.

The Nathan Plan came out strongly in favor of encouraging the growth of the private sector and selling the government-owned enterprises, other than those

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[36] Charles Wolf, Jr. "Economic Planning in Korea," p. 235, and Nam Duck Woo, "Korea's Experience with Planning," in Lee Sang-eun, Ed., Report of International

constitutionally required to be retained by government, to private businessmen. It also urged that the government sharply curtail the numerous direct controls over production, trade and prices which had been introduced during the Korean War and which were severe restraints on private decision-making and enterprise.

The Korean Government did go ahead with the sale of many industrial plants and financial institutions but there were subsequent charges of corruption and claims that the facilities had been made available on preferential terms to groups closely associated with the Government. (After the military coup in 1961, many of these properties were repossessed and the private owners fined or imprisoned.) The Rhee Government retained ownership of all public utilities and most basic enterprises. It also maintained many of the direct controls over prices, imports, investment activity and credit allocations so that even though there was some increase in private ownership there was little progress toward greater private decision-making.

The Three-Year Plan, completed near the end of the Rhee regime, claimed that the ideal of the plan was "to foster the free market system and the creative activities of private enterprises."[37] Considering the pattern of policies and actions of the Government at the time, this ideal may have been included as a sop to the foreign aid donors rather than an expression of serious intent.

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36 (Con't) Conference on the Problems of Modernization in Asia, (Seoul, Asiatic Research Center, 1966) pp. 520-23.

[37] University of Oregon, Report, p. 22.

The short-lived Democratic Party Government, which followed the student revolution in 1960, did move in the direction of reducing controls and greater reliance on market forces. The exchange rate was sharply devalued in early 1961, and import and price controls were relaxed. The draft plan that was prepared by this government indicated a continuing movement in the direction of more liberal policies although the share of government investment in the total investment program was relatively large.[38]

Under the Military Government and the Supreme Council of National Reconstruction, the emphasis shifted back to the direction of greater government control and operation of the economy. As stated in the First Five-Year Plan, the economy was to be operated under a system of "guided capitalism in which the principle of free enterprise and respect for the freedom and initiative of private enterprise will be observed, but in which the government will either directly participate in or indirectly render guidance to the basic industries and other important fields."[39] These guidelines were followed during at least the first three years of the Plan period. Government took over a number of enterprises from private owners who were judged to have profited illegally under the earlier government. New government corporations were established to build and operate such basic industries as oil refining and distribution, and fertilizer production. The commercial banking system was largely controlled by the Ministry of Finance. And as inflation and overvaluation of the exchange rate became serious, the Government imposed the most pervasive system of import and investment controls that had existed in Korea.

These trends were reversed to a considerable degree after the elected government took office and the Chung Il Kwon cabinet was appointed with Chang

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[38] Wolf, op. cit. p. 229.

[39] Summary of the First Five-Year Economic Plan, 1962-66, p. 28.

Key Young as Deputy Prime Minister and chief economic policy maker. The devaluations and semi-freeing of the exchange rates in 1964 and 1965 led to relaxation of import controls. The interest rate reform of 1965 was accompanied by greater freedom of bank lending operations. And the policies for encouraging foreign investment and expansion of domestic private investment included reduction of Government involvement in the approval of such investment. Clearly the Government did not withdraw from these areas completely. Formal government approval was still required for most types of foreign trade and domestic investment, and the government retained ownership of many enterprises. But the degree of Government interference in private decision-making had been reduced.

By the time the Second Plan was prepared, these new directions were so well established and seemingly effective that the Plan could state that "by faithfully adhering to the principles of a competitive market economy. . . and by exploiting the advantages that accrue from such an economy, the overall objective of an efficient and active national economy can be achieved."[40] The Plan went on to say that "in the formulation of economic policies, . . . a high priority will be placed on those policies which will minimize direct governmental control."[41] As regards the process of investment allocation the Plan indicated that Government would assume a guidance function by disseminating information on the types of industries which would be facing heavy demands for capacity expansion over the coming years.[42] Although the Government has continued to review and approve investment proposals, especially those requiring foreign financing, the criteria for approval have been increasingly dominated by economic factors and the process has become more efficient, or at least the volume of approvals has greatly increased.

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[40] The Second Five Year Economic Development Plan 1967-71, op. cit., p. 33.

[41] Ibid. p. 134

[42] Ibid. p. 80.

The Impact of Planning

After nearly a decade and a half of planning activity in Korea what can be said about its impact on the effectiveness of government operations and on relations between the government and the people. Beyond this can anything be concluded on the contribution of planning to the overall growth and efficiency of the economy?

The early planning efforts, including the Nathan Plan, the Three Year Plan of 1959 and the first version of the Five Year Plan, did little to raise the government's effectiveness. The Nathan Plan's main significance was that it introduced the concept of overall planning to Korea, but because the Korean government had not participated in the planning process and did not accept the Plan as a guide for policies or investment, the concept remained quite abstract and irrelevant for government operations. If anything, the government leaders during this period (1953 to 1958) rejected the idea of overall planning and were not interested in trying to define longer-run economic objectives or an integrated set of policies. This probably reflected a belief on their part that they could retain more flexibility and achieve better results in negotiations with aid donors by proceeding on an ad hoc basis and avoiding the overall commitments and constraints of a plan. Clearly the Nathan Plan called for very forceful policy action by the Korean government and set ambitious targets of self-support which the Koreans were not prepared to accept. To have agreed to the Plan would have exposed the government to serious political risks.

Despite the Government's rejection of the Nathan Plan, there was still some tendency to judge the country's economic performance against the standards of the Plan and to attribute the failures manifested in continuing inflation, rising trade deficits and declining growth rates to the absence of an overall plan. It was as a result of these views that the Korean government established the Economic Development Council under the Minister of Reconstruction and initiated its own planning efforts in 1958. But this too proved to be mainly an educational experience and not effective in influencing Government operations.

The group responsible for formulating the three-year plan was too isolated from either the operational or policy-making levels of government to draw upon the experience or guidance of either level in trying to articulate a meaningful development program. Also the Korean planners had no experience and practically no outside assistance in their work. They borrowed an unsuited macro framework from abroad and tried to fit it to the Korean scene. Finally the overthrow of the Government shortly after the Plan was drafted meant there was never an opportunity to test its possible influence on the Government. Still some government officials had at least been exposed to the ideas and problems of planning and had gained some experience in those areas.

Consequently, the formulation of the first and second versions of the First Five Year Plan,under governments that openly espoused the importance of planning, showed somewhat more sophistication and the prospects for greater influence on government programs. The main reasons why these prospects were not fully realized was that the Supreme Council for National Reconstruction imposed what seemed to be a very unrealistic framework of targets on the planners and the resulting plan was severely criticized by both foreign and domestic analysts. This immediately cut the ground out from under the planners and reduced their influence in the government. The very poor performance of the economy during the first year of the Plan, the subsequent inflation, and the time-consuming but fruitless efforts of the planners to scale down the Plan to satisfy the critics completely removed the planners from the main stream of decision making. The First Plan as such was hardly referred to until work was started on the

Second Plan and also until it became apparent that a number of the seemingly too ambitious First Plan targets were going to be exceeded.

Some aspects of the investment program of the First Five Year Plan were influential and contributed to the subsequent growth of the economy. The emphasis on agriculture and infrastructure helped to remove serious bottlenecks and activate lagging sectors of the economy. These were also the areas in which government had primary responsibility (as in power and railroad transport) or was able to carry out more effective programs than the private sector had been able to do (e. g. fertilizer distribution). Other more questionable areas of emphasis were either ignored, as with the steel mill, or postponed until the economy was better prepared to implement them (e. g. the fertilizer plants). Thus the investment program of the Plan served only as a rough guide and investment decisions continued to be made on a case by case basis, often without the planners having much say in the final decision.

Although the First Five Year Plan did not have a well-worked-out set of economic policies, it did imply a number of policy directions that were subsequently followed and provided the real impetus for Korea's rapid growth. These included the encouragement of exports, and domestic savings, and maintenance of realistic, market-oriented interest and exchange rates. While it is difficult to assess the importance of these policy suggestions in the Plan in bringing about the actual implementation of the policies, and it would undoubtedly be misleading to attribute a significant role, it can at least be said that the tendencies expressed in the Plan were not contrary to the policy directions followed mainly after 1964. The Plan was not cited as a basis for recommending the new policy directions nor did the planning technicians have much role in formulating the policies although the Deputy Prime Minister (and concurrently Minister of the Economic Planning Board) was the principal official responsible for implementing the policies. He tended to draw directly on the staff work from various parts of the government rather than relying heavily on the planning staff.

By the time work began on the Second Plan in 1965, planning as such was definitely not a well established or influential process in the Korean Government. The First Plan had been discredited, its revision ignored and the planning staff was not significantly involved in the current major economic policy deliberations. It is therefore remarkable that within little more than a year the planning function and the planners became integral parts of the government's decision-making process. This can be attributed to the following factors: the quality of the statistical and analytical work that went into the preparation of planning models and projections; the leadership of the Vice Minister of the Economic Planning Board in organizing the planning effort, and the active participation of many officials from all parts of the government; the support and involvement of the foreign aid agencies, including the World Bank, in plan formulation rather than simply sitting in judgement on the completed plan; and finally the realization that the Plan was likely to have some continuing influence on the budgetary and policy actions of the government in the coming years. Because the various agencies of the government began to suspect that the planning might have such influence, they took it more seriously and thereby contributed to its increased significance.

In the policy areas, the Second Plan largely confirmed the policy directions which were established while the Plan was being formulated. This included measures to increase public and private saving, limiting inflation, encouraging exports and freeing up controls on imports. As regards investment, the Second Plan began to face up to the possibilities and needs of high growth rates. But it did not consider or accept the possibility of very high growth (e.g. above 7 per cent per year), partly because of the criticism of such high targets in the First

Plan and also because of continuing admonitions from the World Bank to hold the growth target of the Second Plan to 6 per cent. As for the composition of investment the planning process led to some deferring of large, capital-intensive investment projects and some squeezing of the investment recommended for transportation. Such cuts were understandably resisted by the ministries concerned, but because representatives of those ministries had participated extensively in the Plan deliberations they were well aware of the overall resource constraints. Thus the total investment program of the Second Plan was accepted by the various parts of government without serious disagreement and became a meaningful guide for the Government's capital budget and decisions on approval of foreign investments within Korea.

The weakest part of the Second Plan was its program for agriculture, which failed to define a comprehensive set of targets, to relate investments and policies to those targets, or to indicate the other kinds of inputs required to expand agricultural output.[43] Consequently the agriculture program in the Second Plan was largely ignored and agricultural investment has subsequently been decided without reference to the Plan.

Although it became obvious during the first year of the Second Plan period that the overall growth targets of the Plan were too low and in particular that the investment programmed for the power and transportation sectors was grossly inadequate, this did not result in discrediting the planners and the planning process. If anything it strengthened the conviction that more and better planning was needed. In part this was because the limitations of predictive accuracy had been clearly acknowledged in the Second Plan and procedures recommended for revising the investment program annually to take advantage of new information and meet changing conditions. Also the sectors where shortages became acute

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43 Somewhat better agricultural sector planning had been done in the 7 year

were those which would benefit most from good medium term demand projections. Finally in Korea it is probably easier to revise estimates of growth and investment up rather than down without "loosing face," because it attests to the conservatism of the planners.

On balance it seems fair to conclude that the Second Plan achieved an important influence on the Korean Government and that the annual overall resource budgets have so far provided a focal point for review and revision of policies, investment programs and projections of Korean economic growth. It remains to be seen whether this pattern will continue and eventually flow into the formulation of the Third Plan.

The Second Plan also for the first time had the effect of strengthening the political stature of the Government, both at home and abroad. Where the Nathan Plan and the First Five Year Plan had resulted in major disagreements with foreign aid donors and had exposed the Government to criticism and embarassment within Korea, the Second Plan elicited much more favorable reactions and thereby generated greater recognition and cooperation for the Government.

The Nathan Plan with its overly demanding targets gave an unreasonable set of standards against which actual performance was compared. Although the Korean Government was not committed to carrying out the Plan, it was still, to some extent judged against the plan targets. Also in time the Government was criticized for not doing its own planning and trying to organize the reconstruction and development effort more effectively.

The First Five Year Plan, which was the culmination of three years work to meet such criticisms, was in turn criticized openly by academics and the press as well as the foreign appraisers. This tended to discredit the Government

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(Con't) Food Grain Production Plan completed in 1964, but this was not used as the basis for the agriculture program in the Second Five Year Plan .

in the eyes of the people and caused doubt about its intentions and abilities. Finally in the last two years of the First Five Year Plan, as economic achievements began to equal or exceed the targets of the "unrealistic" Plan, the Government began to claim some credit for the Plan and to suggest that the Plan and its related policies had contributed to the achievements. While the public was unable to evaluate the degree of causation, or perhaps did not care, the sentiment grew that the First Plan had been reasonably successful and that the Government deserved some credit for it. This helped to create a more receptive environment for the Second Plan.

When the Second Plan was made public in the summer of 1966, many of its provisions were already well known through advance publicity and press conferences by the officials of the Economic Planning Board. Thus there were no surprises in the Plan; but it immediately attracted a great deal of attention and comment in the press and on television. The Government organized an effective program to publicize the Plan and to answer questions or criticisms of it. The President indicated his approval and commitment to carry out the Plan which the cabinet had endorsed to him. Thus the Government presented the Plan to the public with a united front and an air of confidence.

The principal reactions to the Plan by the initial reviewers, both domestic and foreign, was that it was honest and represented a relatively high degree of competence. The admission in the Plan document of past errors of policy and statistical misrepresentation, and the projection of growth rates below those of the recent past were all taken as evidence of a new integrity in the Government. While there were criticisms of various aspects of the Plan, most critics first acknowledged the apparent sincerity and conscientiousness of the planning effort. A sample survey of the opinions of Korean professors and journalists conducted in late 1966 found that 80 per cent expected some success from the Second Five Year Plan.[44]

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[44] Sung Chick Hong, The Intellectual and Modernization - A Study of Korean

No comparable survey was taken after the earlier plans were completed, but the fact that such a large proportion of traditionally skeptical and anti-government groups were favorably disposed toward, and relatively confident about the benefits to be derived from, the Second Plan was a noteworthy political achievement. There was even some tendency, in the glow of enthusiasm and confidence at the time the Plan was made public in mid 1966, to talk as though the targets of 1971 had already been achieved and the 1981 projections were nearly assurred. This too was remarkable for a people who had been accustomed to a time horizon that seldom exceeded 12 months.

It was therefore not surprising that the President based his campaign for reelection on the successful completion of the First Plan and the seeking of a popular mandate to carry out the Second.

(Continued)
Attitudes, (Seoul, Dachan Textbook Co., 1967).