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Present western methods of planning and analysis are too cumbersome to cope with the accelerated development underway in many great cities of Asia. Among the needed new tools are a series of snapshot indicators that illustrate comparative conditions, linkages, and trends in urban growth. Drawing on communications theory and social transactions measurement, the author develops indicators of the progress and problems of development in one of the most rapidly modernizing Asian metropolises—Seoul—and suggests policies for minimizing the most serious problems of economic imbalance.

An astonishing transformation is underway in many of the great cities of Asia that will have a huge influence on the future. These Oriental leviathans are finding ways of generating millions of new and productive jobs, acquiring ultramodern skills, digesting streams of immigrants, accelerating economic development, and maintaining public order. More remarkable yet, perhaps, is that the phenomenon is not being reported as a significant factor in development policy, nor are the strategies leading to apparent success being analyzed as components of a policy plan. Most social scientists still think in terms of political elites, virtually static subcultures, village development schemes, and national economies. Nor are the urban geographers and city planners, the professions with the most direct interest in the phenomena, at work synthesizing some holistic framework to account for the development.¹

The work of the national economic planners in South Korea has been among the most successful in recent times, and we are fortunate enough to have a new report and comparative assessment on hand (Adelman, 1969). Careful reading suggests that the economic planners must have made repeated miscalculations in underestimating the dynamism and capabilities of Seoul. This showed up most strongly in Seoul's ability to generate, on short notice, productive proposals for light industry as well as funds to finance such industry. Consequently, activities within the non-agricultural sectors ran far ahead of any others. The city and its harbor became exceedingly important in the promotion of exports for the acquisition of scarce

foreign exchange. Seoul provided a backdrop that speeded up negotiations and mobilized all the components of the kind of labor force needed to get into production quickly. Pragmatic project-by-project, year-by-year reviews were a feature of the planning process, and they overcame the impulse of regional planners to slow the explosive growth of the capital city. Reports on Singapore's industrial progress during 1969 suggest that the same kinds of heroics are being performed there (*Business Week*, 1969). Taipei and Hong Kong started along this path around 1960; Bangkok seems about ready to begin; and Saigon may well be ready within a few years.

Not long ago I noted that post-War Tokyo evolved the most marvelous "engine for development" the world has ever constructed (Meier, 1967). It created highly productive jobs and new organizational capabilities more rapidly than ever before by translating the most appropriate modern ideas into a Japanese format. (Since that report, however, it has been superseded by still another Asian metropolis—Seoul.) The annual output from Greater Tokyo, made up primarily of the value added from manufacture and the attributed value of services provided by residents of the urban region as adjusted by the rate of local inflation, seems to have been rising at an average rate of 18 to 20 percent per year for more than two decades. These are very crude estimates of gross regional product; refinement of the data is made extraordinarily difficult because there has been a continuous extension of the boundaries of the commuter-dominated region. A rapid turnover of sojourners, with a heavy residuum staying on indefinitely, is another source of ambiguity. Perhaps in five to ten years a formal model will have been elaborated and the actual growth computed as well as the data permit. But by then a city such

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as Tokyo will have expanded its volume of activity again by two to four times! This growth rate appears to put contemporary applied regional science into a ludicrous situation: present methods are far too cumbersome to cope with accelerated development and still produce dependable proposals for guiding public decisions.

Until we comprehend better the forces that induce such extraordinary growth, the planning advice based on experience with the much slower growing Western cities (when measured in a similar manner most exhibit increases in gross regional product of 6 to 12 percent per year) is more likely to act as a brake upon development rather than the intended lubricant or shock absorber—to carry the analogy forward. This means that we need better instruments for observation, especially a set of *snapshot indicators* that provide a fair representation of the vigor of a sector of the city or of the urban economy comparable to past conditions or to equivalent sectors elsewhere. The indicators need to be linked by a theory that transcends all academic disciplines and still is explicit enough for measurement. Thus any burst of economic growth would be considered to be a mere bubble, or borrowing against the future, if it rested on exploitation of a natural resource that would soon be depleted, a windfall injection of industry, or running down the present capital stock and foreign credits without local replacement. However, a quick application of these other frameworks for assessing change in cities suggests that the recent Asian urban experience is no “flash in the pan”: the development is as balanced as any that has preceded it.

Each investigator brings his own synthesis of relevant theories to a task of this magnitude. The modern sociopolitical historian would be particularly well equipped, for example, as would a political economist.² My own exploration is based on the cybernetic features of communication theory and the aggregative qualities of social transactions (Meier, 1962 and 1968). The geographer seems to be relevant, yet he may very well miss out because his methods are anchored to analysis of the spatial components, especially such compound concepts as density or flux, under circumstances where the key stimuli may be the import of knowledge, acquisition of capital, hybridization of modern organizations with the traditional kind, mobilization of new incentives, or additions to popular culture.

The need for speed in observation and analysis, if ever one is to comprehend the features of a “metropolis in motion,” cannot be denied. I had an opportunity in 1966–67 to try out various suggestions for identifying sources of growth in urban environments where I was unable to read or understand the official language. It is in such situations that the risk of error for any kind of study is maximal. The locales included were Thessalonica, Athens, Tel Aviv, Teheran, Delhi, Calcutta, Hong Kong, and Tokyo (Meier, 1969).

It was astonishing to discover, in the course of these investigations, the extent to which even American scholarly thinking is conditioned by the formula for newsworthiness adopted by *The New York Times*. With some lag, rarely less than a year, the formula itself is influenced by the reasoned arguments of scholars, nevertheless, it remains an extremely limited viewpoint. The business periodicals, especially the McGraw-Hill list and the *Wall Street Journal*, fill in some of the blind spots for the technologically oriented public. Most other outlets seen by intellectuals, with the exception of the *Atlantic* and *The New Yorker*, carry versions of tourism blurbs put out with the express aim of selling airline seats and hotel reservations. Therefore, a principal objective of any quick assessment of an overseas metropolis is to find specific evidence that controverts the clichés and preconceptions shared by well-informed people in America. Such corrections in overview are needed before any new data can be understood.

The methodology that evolved was, as a result, as much a search for surprising economic, social-cultural, and political precedents as it was a collection and analysis of locally available data. It

was tested in the course of two nine-week trips in the field, in 1968–69. Here is a slightly revised “quick fix” for navigating strange urban terrain, followed by an example which provides the best clues to an explanation of the recent astonishing growth rates in certain metropolises. Parallel studies have been carried out in Bombay (five and a half million), Calcutta (eight million), Hong Kong (four million), Taipei (two million), and Tokyo (twenty-three million). In the first few instances they describe the selective impact of ideology-based planning on urban development and the difficulties to which it leads, while the others exhibit the properties of a pragmatic, trade oriented policy (Meier, 1970).

A Quick Fix on the Futures of Great Cities

Too often we forget that a city is great because it has created an information-rich environment. The urban environment circulates such information at an accelerating pace. Moreover, in normal times it must remain an open system, if it is to function efficiently, so it is possible for any curious bystander to plug in and educate himself.

It follows, almost automatically, from the opening statement that cities are braggarts: they polish up myths about themselves for delivery to their own citizens, as well as for naive visitors. Each myth may have substantial factual basis; however, in accordance with local standards of asepsis, all possible dishonorable and unheroic connotations have been cleanly removed. This expurgated public relations version of past and present is the city’s “best suit of clothes.” Once the facile stranger penetrates that carefully prepared front, he is able to perceive the bulk of the background communication in the city as a high decibel uproar, while detailed stories on the back pages of newspapers about local personalities or opportunities presented by flashing signs and shining display windows appear as surface indicators of the operation of markets, utilities, cultural establishments, and miscellaneous other urban institutions. However, all but one part in a million or so must be tuned out before one can discriminate the local images that affect the future by inducing organized achievement. The game is one of observing-listening-reading-probing-referring-checking-revising-rechecking-synthesizing. It seeks useful propositions about potential directions of change and the rates likely to be achieved.

A bit more system can be put into that exercise. A proposed ten-step standard path for the whirlwind survey of such a metropolis follows:

1. Collect the tourist handouts readily available in airports and major hotels. They portray the city’s image of itself as it would like to be seen by outsiders. The same kind of material is used for the indoctrination of children in elementary schools (McClelland, 1961) and includes verities about past, present, and prospect, along with clichés maintained by the mass media. They should be catalogued quickly and then avoided, because such myths are so overlain with pretense that no source of objective information is likely to be found. What is the proportion of nostalgic items?

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What fractions are dominated by the need for affiliation, power, and achievement? What evidence is present that the current regime is manipulating symbols to legitimize itself? By taking up to a hundred of the most salient items (such as, portraits, panoramas, tours, advertisements of cuisine, entertainments), the profile becomes quite distinctive for each metropolis. What part of this *persona* is connected to the future?

2. Look closely at the English language dailies and weeklies that have been set up in every major metropolis that permits free enterprise. What editorial compromises does the foreign language newspaper need to make in order to survive? To whom are its advertisements directed? List the local political names that appear daily in the local press that is dutifully translated by the foreign language press. From the stories construct the “political facade” to which pundits are so sensitive. Who is publicly what to whom? Note also the novel uses and abuses of the English language because they stem from the problems of translation and serve as flags for typical misunderstandings between natives and strangers. Finally, using both advertisements and stories, list the establishments at which both locals and foreigners are expected to be present (scratch the American Club but include almost any other), to gain insights into the cosmopolitan life that the metropolis sustains. Many inferences can be checked by referring to the telephone book, since organizations set up to communicate with foreigners will put forward a version of their name and address in Latin characters and Arabic numerals.

3. Explore with a map of the city. An enterprising tourist office will have made sure that

a convenient map has been produced in color with the principal roads and sectors translated into English equivalents. Are they studded with classical terms drawn from the formal language and from history (a society in early phases of modernization) or a literal translation of the *phones* in the idiomatic popular language (a remarkably open society that propagates little xenophobia)? Ultra-nationalist societies will provide maps only in the official language. Where on this map are the monumental foci? Allowing for these constraints, drift with map in hand along the streets in a crudely spiral path that takes one away from the hotel or the terminal. In this manner the contrasts between life styles on avenue frontage, lanes, and back courts are quickly sensed. The patterns of residential segregation can usually be deduced, even if one's stamina does not take him into some of the outlying ghettos. During the day, this walk will lead one to the English language bookshop. Purchase there all available books on the history of the metropolis, the official tourist guides, and pay particular attention to the titles of the hardback novels kept in stock since they are often reading recommended by acculturated bilinguals to new long-term visitors.

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4. Take the half-day city tour for strangers. In it the city is careful to put its best foot forward. The guides are trained to identify the principal landmarks and expound on the most treasured traditions. The tour provides efficient contact with the great parks, waterfront, and the prosperous suburbs. The spatial structure of the city becomes decipherable by the time the trip is completed, so one need never be lost for more than an hour thereafter when exploring on foot. Listen carefully to questions posed by fellow tourists and note how deftly the guide handles all evidences of culture shock and political curiosity. He is on the defensive in these issues and must know how to parry them or he will not keep his job.

5. Dig into economic reports and statistical series, especially those pertaining to international trade, transport trends, and internal migration. In what sectors, industries, communities, and sub-cultures is unusual growth evident? *Growth* brings with it both opportunities and a trespassing of customary boundaries, therefore all kinds of alerts

and alarms are set off. The *status quo* is being upset by innovations with unexpected influence, so talk is rife. Where on the map are these changes likely to be visible? The new suburbs, the corridors served by new roads, the industrial estates, or the central business district? The brief stories accompanying the statistics in the international trade periodicals that report on and interpret the trends will be very helpful because they give names and locales that will already be familiar or can be tracked down with ease.

6. By this time, two or three days after entry, visits with the people to whom one has introductions can be very rewarding. A host of questions will have been raised by prior enquiries, and they can be posed to the permanent residents. One's first hosts deliver fair explanations of salient details, but they also transmit the local intellectual myths as generalized explanations. The verifiability of general propositions obtained from early discussion is quite low.

These local contacts are most accurate in their descriptions of their own families and neighbors. From their accounts it is possible to deduce a great deal about the techniques urbanites employ to enhance their status. For example, they are likely to speak at length on the difficulty of getting a son into the university or a prized professional school because it is a matter of great personal concern. These appraisals are expected to resemble to only a minor degree the reports on social structure available in the books and novels purchased earlier, mainly because the latter concentrate on a standardized traditional society while one's host belongs to a marginal cosmopolitan component that elected to be different about the time their most advanced education was completed and has already made a few compromises in order to earn a living.

7. All the time during the first furious days of exploration, the urban analyst should have been writing a few sentences and well digested paragraphs in the bits of free time he has at his disposal. Now the pieces need to be assembled. How is this metropolis able to compete with other major metropolises? What will happen when the internal metropolitan growth zones spill over into other established political units, such as states, provinces, prefectures, counties, or self-governing communities: a battle or a withdrawal? Which ethnic group or social class is becoming better organized? What kind of changes are in store for the city if the expanding communities take over the reins of power? Where will the metropolitan

middle class overspill go? What new spatio-economic structure for the metropolis is envisioned as a result of such projections? A camera may come in handy at this point because photographs can catch the backdrop of the stage on which future urban dramas will be played while it is still being furbished.

8. Only then is one ready to be invited to the planning unit for the metropolis, which is as likely to be in the engineer's office as in a suite next to the chief executive's office where it belongs if it is to be effective. The young men in these units will be bilingual and often will have obtained overseas degrees. Notice how the planning unit will very often understand crises anticipated from this quick absorption of the information and will have already explored the strategies for development that occur to the visitor, but note also they are seldom permitted to plan in the way that seems logical. Work at this discrepancy because it is the first opportunity an outsider has to understand key interest groups and power structures that operate behind the political facade portrayed in the newspapers. One should be alert to the tiniest hints in the least developed countries, because junior civil servants there must avoid all traces of treason and disaffection; they know that jealous oldtimers are itching to catch them off base.

9. Offer a reasoned, written analysis of the alternative futures for this metropolis to some expert on the local scene in such a way that he is free to criticize frankly. In the subsequent interchange insist upon evidence—typical situations, data, or missing verifiable facts. What went wrong with the chain of inferences? Does that error affect other conjectures? Write a new draft that projects developments that are readily ascertainable by consulting reports carried in the international news. Then, it should be possible to judge which of the alternative paths is being taken, or whether, as with Havana and Djakarta, a clean break with the past is being made so that local history and experience offer relatively few clues to the future.

10. What such reconnaissance of internally generated information ought to uncover at the level of theory building is the *relevance* of the comparative method. In what ways do the destinies of cities converge? (One of the implications of the communications theory of urban growth is that the cosmopolitan contingents in great cities should be expanding in number and influence more rapidly than any other and that their interests are convergent in large part so that the core of every metropolis will soon possess a representative, a

deputation, or a colony from almost every urban group.) These brief surveys should tell us where the investment of great effort in careful doctoral dissertations and in-depth systematic academic investigations is likely to be worthwhile, since the latter are intended to test only the productive propositions.

Seoul: A Prototype of the New Modernization

Nowhere else in the world today are the processes of urbanization so intense, so compressed in time, as in the capital of South Korea. The flow of people to Seoul has been at flood stage for sixteen years. It has had Korean competitors, mainly inland centers, that have also swelled mightily in this interval, but none to compare with Seoul. Its nearest equivalent in recent history is in Japan where the surge began eight years earlier and has by now transformed almost all rural people into urbanites. Japan had, however, started with a much higher degree of industrialization. This willingness to adopt new ways in a new environment creates a pressure cooker for modernization in the metropolis.

The process by which Seoul added population is quite normal; it is only the pace that is unusual. In the first three years after the War, refugees returned and the population began to rebuild what had been destroyed. Seoul was then supporting its pre-War population. But, the refugees from North Korea, who could not tolerate life under communism, continued to move from camps and makeshift housing to the metropolis. Retrospectively, we can see that Seoul profited from having been rather thoroughly destroyed because it was then able to obtain the highest priority when South Korea was reconstructed with massive foreign aid. During the completion of reconstruction, its population increase was 9 to 10 percent per year, with an extra million people added. In 1961, national development planning was instituted, which distributed capital investments all over the country. However, immigrants continued to prefer Seoul, so the city added another million population at a rate of growth of 7 to 8 percent per year, although a number of small cities exceeded Seoul's power of attraction during this period. Since 1966, the people in those smaller cities have been moving to Seoul, thus opening up niches for their successors from the countryside, but most migrated directly from the village. Seoul still grows by about 8 to 10 percent per year, which means absorbing 300,000 to 400,000 immigrants annually, and there is no sign as yet of a diminished demand for entry.

Why do they come? No longer are their urgencies compounded by homelessness or incompatibility with an alien administration, as in the 1950's. More than 80 percent of the immigrants indicate economic motives when they are surveyed, the remainder generally mention educational opportunity and medical facilities. The villages no longer seem to be able to accommodate the population explosion that has occurred in the countryside, even after extensive land reform. The second and third sons volunteer for the army or work on contract for construction gangs, some even in Japan. They begin to experience what the city has to offer and acquire confidence that they can put their newly acquired skills to work. Many, of course, have a brother or an uncle already in the metropolis, so one need only bring them presents and hope that they can help a man "looking for work" to find something that offers better prospects than the village.

In the beginning, a remarkably rapid acceleration of construction employment was assured by foreign aid, yet support from overseas has been less important than in other countries, such as Israel, and now has a declining role as a stimulus to economic growth. Internal markets and foreign trade have risen to take their places as job creators.

At the time of this writing, the "Special City" of Seoul had an estimated population of 5,200,000 people. The planners believe that it may level off at fifteen million within two to three decades. This means that it is aiming at the dimensions of the New York City metropolitan area, as measured in population, although the income is expected to be about a fifth of current American levels and the physical equipment needed to sustain the residents will be an even smaller fraction. Foreseeing population equilibrium is reasonable, because the family planning program is beginning to be successful. Family size in Seoul itself seems to be under control in more than half the city's households, and the crude birth rate is now close to 18 per 1,000, or not much above that of California. Moreover, the eventual proportion of the capital region to the whole population of a small country—a fifth or a quarter at equilibrium—seems quite reasonable in the light of European, Latin American, and Japanese experience with primate cities. The projections of the planners seem to be quite realistic when using all the tests we know how to apply.

Considering the average scale of development in South Korea, Seoul maintains an extraordinarily high level of income and standards for urban

services. Reports to the countryside of the pay available to the full-time employee in Seoul probably trickle out in a more credible fashion than do reports about living costs. The level of per capita income is about 1.9 times that of the rest of the country and about three times that of the villages and towns. This means that Seoul has managed to produce jobs for immigrants at least as rapidly as they have been arriving. Prices for services in Seoul are almost as high as in Japan and generally exceed those in places that have developed further, such as Kuala Lumpur, Hong Kong, and Taipei.

A number of reasons can be advanced for the high incomes and high prices in the capital. Foremost, perhaps, has been greater rationality in pay scales for civil servants and governmental contractors than in other places. Salaries were so low as to require independent income or corruption, but, during the past two years, 30 percent raises have been instituted across the board. Another is that the rate of inflation has been tolerable during the past fifteen years, so salary structures have not been completely upset. One other factor has been the absurdly high cost of rent due to the extreme increases in land value (about 40 percent per year). In addition, a dualistic society has been maintained, with the many hundreds of thousands of people who live in areas just outside the old city walls and who are delegated the dirty jobs in the city—operating abattoirs, tanning hides, salvage, and dung collection—able to exist at levels more or less at equilibrium with agriculture. This population is made up of hereditary outcasts, criminals, ex-communists, and illiterates. This substratum does not seem to be growing as rapidly as the city itself.

Yet these arguments are quite unsatisfactory. They do not explain the extraordinary differential in earning power between metropolis and village that is maintained despite the remarkable immigration. It may only be the consequence of "economic rationality," since Seoul continues to generate the best benefit-cost ratios on new projects and to put forward the most competent entrepreneurs. Therefore, projects in and around Seoul continue to be selected, even though there are political pressures from other regions for development projects.

THE IMAGE OF SEOUL

The new immigrants see Seoul as the epitome of all economic, educational, and political opportunity. For those who took history in middle school, it is

known as the capital of the Yi Dynasty, which ruled Korea continuously for over 500 years before it was finally subjugated by Japan in 1910. The royal palaces have been carefully maintained.

The national capital has a dome, as all capital buildings of its era should, but it states only that it is *government* and has nothing sublime or mystical about it. The solid gray trapezoidal Seoul City Hall says much the same thing for itself. Other government buildings are places to work and nothing more. Even Taipei has more lasting modern imagery than Seoul, although Seoul's ordinary standard for new housing appears higher.

What does the tourist see? Again we find that even a minor export industry, such as tourism, is well organized in Korea. The conscientious visitor can find a number of volumes of first class photographs—the kind that treat a cultural object so well that it is hardly recognized later when viewed *in situ*. Because the truly popular images must be portrayed repeatedly, they should show up in the tourism monthly. Its publisher has had the initiative to bring in three Peace Corpsmen to find and catalog the events of the month, lecture to countrymen about polite behavior in Korea, and straighten out tangled syntax. It records the following: colorful Buddhist temples, Confucian shrines, and visits to the palace museums. The forts at the gates of the old city have been preserved and are noted in passing. On a standard short tour of the metropolis, the defenseless tourist is also shown a brassware factory, an exhibition hall (railroad progress this September), the Korea trade promotion office, a Freedom Center, and a women's university. During September, with its many brilliant autumn days and afternoon temperatures in the high 70's, it produces the suggestion that the tourist should not even be in Seoul when the mountains to the east are so beautiful. Seoul is a delight only to the person who is thrilled by the prospect of progress and by rising structures that have been quite successfully planned and coordinated. The true image of Seoul today is *change*; since virtually all of it is in the process of *becoming*, South Koreans anticipate that practically none has yet arrived.

THE EDUCATIONAL PRIZE IN KOREA

Educational achievement is greatly stressed in Korea for reasons that are more similar to those in China than in Japan. In China, the formal examinations for the civil service were highly classical and required a great deal of time and discipline on the part of a reasonably apt student, but a village often

sponsored one of its bright boys during his studies so that the new entrants were not all drawn from the 1 to 2 percent that constituted leisured classes. In Japan, education was the most common function of the retired *samurai*, and ordinary villagers, even girls, were educated along with the children of the samurai and the landowners. Thus, education became widespread in Japan as a direct outgrowth of the rise of a nation-state from a fragmented feudal population. In the absence of revolution, the warrior class was free to teach. In Korea, the acquisition of education led traditionally to the *yangban* status, a kind of mandarinship achieved by passing an examination (*kwako*). However, access to the examination was restricted rather early to persons who could demonstrate no illegitimacy in the family line for four generations. A Japanese invasion in 1592 somewhat modified this ruling by allowing access by achievement, such as bringing in the head of a Japanese general or providing arms for the troops. Those excluded from the examination demonstrated repeatedly over the centuries, arguing that they should also be admitted. Finally, just before the successful Japanese invasion (1910), the reform was legally achieved.

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Japanese influence then tended to lay down a prestige pathway through the schools, with critical examinations at every step. Some schools maintained a significantly higher performance so that students had an inside track to government posts. Competition for the preferred schools became extreme, and many sacrifices were made by family and student alike to gain entry. Virtually all of these schools were in Seoul itself. The future social status of the family depended on the school to which its sons matriculated; the situation was said to be far worse than the public school system of England. Thus the paragraph in the Annual Report of the Minister of Education stating that the examination for entering the middle school was abolished and students would move freely into middle school was as radical a change as repealing the "eleven's" examinations in England and fraught with even more political peril. But, the minister had the evidence to show that the stress at the age of eleven in Korea caused a lag in physical development and led to a slighter and more nervous citizen. This has changed the power

structure in the school system, since it is now the middle school teachers who get extra "tuition" by coaching slower students in their homes. They are now making more money than university teachers.

Despite the rapid growth of Seoul, the capacity of the schools is keeping up, although perhaps at the expense of the quality of education in the rest of the nation for teachers scheme to get appointed in Seoul even though the cost of living is so much higher. The school construction program seems well organized, and average class size is slowly declining. Statistics show that 96 percent of the population of elementary school age are in school, which leaves a standard number of blind, deaf, and feeble-minded outside the system. There is also an interesting excess of about 5,000 boys in each age class who must have been sent from the countryside to live in boarding schools or with relatives to get a headstart in Seoul schools.

Junior high schools are divided into two kinds, middle and technical. In 1967, about 71 percent of the students in the appropriate cohorts were enrolled. Surprisingly, the girls have a slight edge in enrollment over boys, even when night technical school is taken into account. This means that a major shift has occurred in the status of women within the metropolis. This is particularly significant since even the public schools are expensive to attend, and families must be investing cash in the education of their daughters without hope of receiving adequate return.

Enrollment in the senior ("general") high schools now means that the student has serious intentions of proceeding to the university. The entrance examination is currently the big hurdle that every ambitious student must anticipate. Here the boys are still favored by a 55:45 ratio. About 32 percent of the cohorts were admitted to senior high school in 1967, a figure likely to be raised in succeeding years.

A close look at the cohorts yet to come in Seoul indicates that the recent successes in family planning are about to pass on a dividend that will probably be spent raising the quality of education provided by the system. Schools must be rebuilt because the students are much larger for their age than before, achieving almost European rates of growth in stature in this generation; also, educational standards are being raised, and this requires a reduction in noise levels as well as the addition of playing fields.

Half the students in institutions of higher education in Korea are living in Seoul. This number (86,999 in 1967) is now leveling off but contin-

uous additions are being made to teaching staffs, and new graduate enrollment is concentrated in the capital. This impressive level of educational attainment suggests that Seoul's schooling is not behind that of Tokyo when it was at the same level of income (but twice the size), and Tokyo has hitherto been preeminent in this respect in world history (although if we had the numbers for Moscow, they would be expected to be comparable).

Decisions about the pace of educational development in Korea were reached by Koreans, but the strategy is a result of extensive consultation with Americans. The Ministry of Education is one of the departments in the Korean government that puts out an annual report in English. It has also created a Central Education Research Institute (CERI), which has undertaken a program of international exchange on matters of educational administration, and has assigned the CERI the task of planning the improvement of quality throughout the whole system.

Most unexpected, however, is the recent establishment of an Institute for Research in Behavioral Sciences. Its duties are to expedite talent identification, but its terms of reference include "research on child development, social development, organizational development, and test development." The major studies it has already launched include construction of tests for science aptitude, validation of tests for differential aptitude, creative ability measurements, and critical thinking. The institute is also concerned with the effects of cultural deprivation on cognitive development—a cross-cultural check on studies surrounding Operation Headstart in American ghettos. Behavioral science is expected to take the stress out of the examinations, thus permitting measurements of something more than stamina.

I obtained a publication for instruction in the English language. Entitled *The English Monthly* (October 1969), this magazine has a Van Gogh cover showing a golden pastoral scene. Since something like 80 percent of the print is in Korean, it is not surprising that English generated by Koreans is troubled by multiple lapses mostly explained by the inadequacy of direct translation from the mother tongue.

Koreans nevertheless demand sophistication. For instance, their squibs of news deal with the Miss World contest, race relations in the U.S., political hooliganism in Moscow, and cartoons about moon men discussing American litter. The poem published is a romantic frill by Shelley; the political

item is concerned with the assassination of Rasputin; the western classics are represented by commentaries on the role of grasshoppers in the lives of Greek gods and the invention of the term "bad egg" by Shakespeare. The contemporary scene shows a newspaper story with picture and headline of the eighth coed slaying in Michigan during the summer of 1969; the comic strips are the Flintstones and Emmy Lou; the gossip column mentions actor Lee Marvin's Las Vegas divorce and litigation, along with the landscaping of Beatle Ringo Starr's English mansion. There is a fable from Aesop as well as lectures on manners with quite satisfying explanations about the "reasons why."

The content of an English course in the general high school indicates that Koreans have gone much further than anyone in Asia to make their education relevant to the times and the popular culture. Perhaps the authorities have been conscious of the need to compete with the private enterprise *English Monthly*. It teaches the double entendre, the various forms of POW! expressed in words and simulated sounds, and revels in shocks implicit in American racial conflict phenomena. Thus, English for the Korean offers an entry into a cosmopolitan world with all its attractions and contradictions rather than a colonial Victorianism as in Hong Kong or Kuala Lumpur, the world of officialdom as in India and Pakistan, or the vistas of science as in Taiwan.

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It is clear why international firms such as Fairchild, Motorola, or Toshiba can build up production so rapidly in the Seoul area. This kind of education is raw material for effective organization. The reforms were massively introduced following the Military Revolution and the assembling of the administration under President Park in 1962. The fruits should now be visible in the form of high productivity—almost equal to the Japanese. It will also show up, however, in the formation of labor unions and in student politics. The present strong dependence on *authority* to coordinate activities in a large organization, such as a bureau, agency, or a corporation, must be displaced very quickly by a policy of continuous consultation.

A new charter setting up goals for the reform of national education has been promulgated (*Korea*

Journal, 1969), and, as elsewhere in Asia, the order in the wording is important. Appearance of the key terms occurs as follows: sincere mind, strong body, develop innate faculty, national progress, creative power, pioneer spirit, public good, order, efficiency, quality, mutual assistance, love, respect, faithfulness, cooperation, individual growth, responsibility, freedom, rights, participate, building the nation. Then, love of country, love of countrymen, democracy against communism, ideals of the free world, industrious, confidence, pride, make new history, collective wisdom. It was framed after a series of community meetings followed by a conference of leading professionals and is intended to effect a transition from "slaves of change" to "masters of progress."

BUILDERS AND PLANNERS OF THE NEW KOREA

The Ministry of Construction moves at a feverish pace. Responsibility for installation of infrastructure for Seoul has been assigned to this highly organized body of engineers and planners. One can get a glimpse of what is in store for the "Special City" by going to the city hall and viewing the stirring photos and renderings stretched along two sides of the building. Weary slums are displaced by white apartment blocks; roads break through rocky ridges leaving spectacularly blasted cliffs on both sides of the future right of way. Most incredible of all is the intersection of a ring road with a radial road inside a mountain so that the traffic exchange is carried out in tunnels. (Apparently, the price of land has gone so high, and the technology of tunnelling has improved so much that this is now an economical solution, particularly when the value as a bomb-shelter contributes to the "benefits.") Then there is the mayor ("Bulldozer Kim" in yellow helmet) with his own pet project, the "new town in town" that will be constructed on a rocky island and a reclaimed sand bar in the Han River. (Kim resigned under fire in March 1970.)

But this is not "pie in the sky." The money is being found somewhere (government securities with a three-year term are paying up to 36 percent per year!), bids are let, and the job goes ahead. Many strategies have been found for overcoming difficulties encountered with similar projects in other countries. For example, most cities are embarrassed by the fact that slums must be destroyed two years or more before the replacement housing can be ready. In Korea, most slums are on hillsides, where there is some access to water from wells. The solution is to build a road to the

top, construct apartments there with greater accessibility than the slums highest on the hillside, and work downwards. This means that the people being moved do not have to hunt for transitional homes. Because next year is election year, many more apartments are scheduled for completion than ever before.

The predecessor of the Ministry of Construction in Japanese times was designated as the agency for implementing projects. This role was reinterpreted after World War II by the Corps of Engineers of the U.S. Military Government to include the planning of reconstruction. Thereafter, full claims were made for conducting the physical planning effort in the Five Year Plan. Strong men occupying the post of minister have accumulated powers for this agency that make it a prime force in planning as well as designing the projects. I was fortunate to obtain the "Guidelines for National Physical Plan," in English of sorts, put out by the ministry in June 1969. From the data employed it is evident that the original document was prepared two years ago and apparently has been in use over the intervening period.

. . . policy planning is not being carried out using the principles learned . . . in the United States.

For Seoul, the president, the mayor, and the economic planners decide what goes into the capital improvement budget, and then the mayor and the minister decide on what jobs are to be done and when. The Koreans do not bother with a city council because it would slow down the action. The physical planners then cost out alternative means for getting the job done and the project design with the best benefit-cost ratio is usually accepted.

It is hard to discover how the people react to this arbitrariness, but the planners resent it and allow their pique to show through on many occasions in their working documents. The policy planning is not being carried out using the principles learned at Syracuse, Pitt, Penn, and other places in the United States. The people themselves have rarely had it better, since they have always been victims of those in power who wished to build monuments. Never before have the monuments resulted in such an improvement of creature comforts. Their sentiments are tapped by frequent small-scale polls conducted at the universities, and citizens do submit petitions when conditions are bad. In the cost-benefit studies, it is interesting to

note that time is valued at 35¢ per hour for bus passengers (or bicyclists) and 70¢ per hour for riders in cars. This is to be compared with \$3 to \$4 per hour for city people in the United States—based on empirical study. Even at 35¢ per hour, human time is too valuable to force people to walk any distance to work or school. Calculations show that transportation systems can produce a lot of welfare.

Physical planning is coming into being by stages because suitable land use data were not available before. Until recently, land was viewed by government as a tax resource, and not as something to be conserved and developed. The first of the regional plans was the Seoul-Inchon Special Regional Plan designated in 1965, with the tollroad and the harbor development as major projects. Since then, four other regional plans have been launched covering 22 percent of the country, but the outline for the whole nation is also available. Now, the plans for Seoul can be envisaged in the context of development of the entire country.

One interesting land use planning problem encountered in Korea is the allocation of land for graves. Since this restricts the growth of cities, a policy of land conservation encourages cremation in funerals and the design of "cemetery parks." The land in Seoul used for burial urns required very careful clearing procedures with payment to families for removal, while extinct families were transferred to temples constructed for the purpose. Even then, the original land was said to be haunted and was slow to be developed. Land scarcity is so great, however, that the stranger cannot detect any differences in land use resulting from this history. On closer inspection, one might possibly find that many more Christians are residing there and doing business because they are not disturbed by Buddhist and mixed ritual spirits.

Everywhere in the documents one sees comparisons with Western European countries and sometimes the United States—the standards, the consumption levels, the organizational framework. This is the way both Korean advisors and foreign-trained students have been taught, and it does not often lead to error because that road to development has been heavily travelled and the previously encountered traps can be bypassed. This tendency to follow faithfully leads to a special problem, which Korea, particularly Seoul, will have to face in the 1970's—the demand for "My-Car." The term is a Japanese neologism transmitted to Korea a few years ago (1964?) through advertising. It reflects the intense feeling of a materialistic society for the prize possession of all—a private automobile. Most

TABLE 1 *Changes in Land Price in Korea 1961-8 (Won/Pyung)^a*

	Seoul			Pusan			Rural		
	Commer- cial	Resi- dential	Indus- trial	Commer- cial	Resi- dential	Indus- trial	Field	Paddy	Wholesale Price Index
1961	21,650	5,062	..	9,088	3,275	..	..	..	51.2
1962	49,063	5,719	..	28,444	4,626	..	..	..	56.0
1963	64,187	6,800	..	29,555	5,860	2,960	108	158	67.5
1964	120,545	13,016	2,500	41,388	11,250	6,375	144	182	90.5
1965	117,000	19,777	..	54,900	9,033	5,800	236	263	100.0
1966	..	..	3,000	..	..	..	..	..	108.8
1967	..	41,555	..	114,500	19,425	13,400	328	506	115.8
1968	313,181	50,111	5,500	124,660	32,166	12,250	350	348	123.1

^a 1 pyung = 1 Japanese tsubo = 35.6 square feet = 3.3 square meters so that one divides the above figures by 6,361 in order to get dollars per square feet at existing exchange rates. The peak payments for land in Seoul in 1969 seem to be \$472 per square foot for commercial land, \$80 per square foot for residential land.

Source: Ministry of Construction, Seoul, Korea, *Monthly Construction Statistics*, I, No. 1 (August 1968), 97.

of the land readjustment is intended to raise circulation space in cities from 7.2 percent at present to 20 percent or more to accommodate the coming "My-Car" days. Because Korea has no petroleum of its own, and because coal is quite expensive to convert to liquid fuels, foreign exchange problems are expected to frustrate this hope.

Another kind of designed scarcity applies to the water and sanitation field, where planners want to install flush toilets in 30 to 50 percent of all buildings by 1986, despite water supply difficulties in dry seasons. Seoul is supposed to get a sewer system in the third five-year plan. This is realistic because the night soil collection system will be breaking down then, due to the superiority of synthetic fertilizers for growing food. Japan's experience provides a very helpful guide in this direction for development. Due to the cold winters in Seoul, high-rate algae-culture ponds are not likely to work well here for sewage treatment and conversion, unless waste heat is available.

Emerging from these guidelines, a number of pieces of expediting and regulatory legislation affecting the organization of land use have been drafted. Included in them, with second priority, is a City Planning Act; a Road Act, as third; a Building Act as Sixth; and provisions for water supply and sewerage as seventh. Most of these acts will be tested in the courts, which remain quite independent of the executive, so the quality of the drafting is exceedingly important.

One factor that has gone out of control is the land price level. Wholesale prices have moved upward during the periods of maximum growth at a steady rate but land has skyrocketed. Speculators

seem to be assuming already the values implicit in a metropolitan area of 15,000,000 persons (Table 1).

I carried out an analysis of the transport use in connection with land that had a mixed residential-commercial-manufacturing use. This is a part of the city that is very similar to parts of Taito-ku in Tokyo, which were studied by Hoshino and myself three years ago (Meier and Hoshino, 1968 and 1969). The land value then would be the equivalent for Seoul of today (\$10 to \$20 per square foot). It is also comparable to parts of New Delhi, Taipei, Bangkok, and Kaipur that were analyzed over the last year, at least with respect to function if not land value. Seoul is distinguished by the mixing of the role of the bicycle so that it operates both as a passenger vehicle and as a two-wheel cart that carries up to 300 kilograms in a trip. A higher proportion of passengers use the bus in Seoul since bus capacity does manage to keep up with demand most of the time. Climate is a factor that also favors bus transport, although one must remember that only a few years ago Koreans were almost without buses but kept an urban economy stumbling ahead. Thus, a strong cultural factor seems to be involved in the choice of vehicular mode (Table 2).

There are some notable differences between Seoul and other metropolises. In the observed area, at least a third of all bicycle use appeared to have light goods delivery as its prime purpose. Motor-bicycles appeared to be operated by young owners of shops or others in responsible positions. In Korea it did not appear to be proper for young women to ride the second seat. The backpack coolie is unique to Korea because women carry loads on their heads, but men have a sturdy

wooden A-frame pack rack, sometimes with a folding basket attached, which allows them to deliver goods even in a crowded market place. The coolie seems to be far more prevalent than is indicated by the statistics, perhaps because he is encountered as a pedestrian rather than a vehicle. The three-wheel truck is the same as the kind that was popular in the 1950's in Japan but has now virtually disappeared there; the most common version is equipped with a large bed about a foot deep that can be used even more than the light van because it is much more an all-weather vehicle.

The two-wheeled cart is a far more efficient vehicle for drayage in restricted areas, perfectly designed for settlement patterns with 7 to 12 percent circulation space. It is basically a steel pipe frame for a box that could be as large as a cubic meter but is usually half that size. It has wire wheels the same diameter as a bicycle but the rim width is twice the diameter. Although less graceful than the Tokyo version, it is better suited to hills because the tail can be dragged as a brake. It is normally pulled, but is readily pushed by a second person when a hill must be overcome. It offers an ideal form of goods transport for those parts of the city built up earlier to a one-to-two floor average.

The decision to plan a subway for the central section of Seoul has apparently been reached at the time of this writing. Most documents have treated

the subject very gingerly, partly because it will be a feather in the cap of the Ministry of Construction. Again it appears that the new efficiency of tunnelling in homogeneous rock is the deciding factor. It will be a short subway that will cross in midtown—one corridor will extend to the harbor and the back-of-the-port industries to the west, and the other to the satellite town of Suwon on the main route south. Very likely it was the problem of finding outside capital that held the project in abeyance for so long. The presence of the subway, together with the very new housing estates, will create new subcenters in Seoul. The ministry has the power to use the profits from subcenter development for financing the sale of luxury houses with lots on a lakeside tract near Suwon to help finance the toll road to the south. The subway will require much more integration of urban design than has taken place thus far in the ministry.

IS THE GROWTH PROCESS UNBALANCED?

One of the indirect, but potent, reasons for the increase in migration to cities has been the radical reduction in morbidity during the 1960's. A survey in 1964 found 23 percent ill, while a similar survey in 1968 identified only 10 percent in the sick category. The death rate among workers dropped from twenty-two to nine per thousand. Although a cholera epidemic was raging while I was in Seoul, the casualties were very light. The reduction in the prevalence of dysentery, worms, and other intestinal diseases, together with tuberculosis, accounts for most of the improvement. Thus, physical pathology has been strikingly reduced over the past few years and probably social pathology as well, because we know there are close linkages between them. This vastly improved health of the masses might then reveal certain intractable conditions that refuse to diminish and may easily rise to serious levels of incidence. For example, families may be breaking up in the course of urbanization so that the traditional social security system may fail for an important fraction of the population. To check on these aspects of urbanization, I was able to obtain an English version of a document entitled "Major Policies on Health, Social Welfare, and Labor Affairs" put out by the Ministry of Health and Social Affairs (July 1969).

One index to be reviewed is the amount of juvenile delinquency. The data show a steep rise up to 1963, then a two-year plateau, followed within two years by a remarkable dropoff to about half. The improvement is ascribed to the improvement in economic conditions in the cities. Reports of

TABLE 2 *Vehicular Use in Seoul (Adjacent to Wholesaling Area)*

Passenger type	Number	Proportion (%)	Share of capacity (%)	Relative ^a unit cost	Index of capitalization
<i>Bicycles</i>	150	60	31	1	30
<i>Motorbikes</i>	24	10	8	10	80
<i>Passenger car</i>	75	30	62	30	1,860
Total					2,000 ^b
Goods movement	Number	Proportion (%)	Share of capacity ^c (%)	Cost per vehicle (\$)	Capital per ton-mile-day capacity (\$)
<i>Backpack coolie</i>	17	10	2	5	5
<i>Bicycle (allocated)</i>	50	..	8	20	4
<i>Cart</i>	119	70	31	60	10
<i>Truck, 3-wheel</i>	6	4	9	3,000	13
<i>Light van or jeep</i>	15	9	10	2,000	16
<i>Truck, heavy</i>	12	7	38	5,000	7

^a Multiples of a bicycle valued at \$20.

^b Compare with an equivalent index for the advanced parts of Seoul and Western Europe, where the index is 2,500–3,000, Old Delhi at 800, and subsistence level market towns at 250.

^c This sets the coolie's capacity at 100 kg for 20 km, the cart at 300 kg for the same distance, the 3-wheeler at 1,500 kg for 150 km, the light van at 500 kg for 250 km, and the heavy truck at 5,000 kg for 150 km.

TABLE 3 *Korean Commerce with Japan (US\$)*

Year	Exports to Japan	Imports from Japan	Unfavorable balance
1968	101,630	602,653	501,023,000
January–May, 1969	37,247	315,722	..
1969 (est.)	120,000	750,000	630,000,000

runaway children also declined significantly in the 1964–67 period. Normally, one looks at data like this very skeptically, because the figures are highly susceptible to subtle changes in reporting behavior or in orders given to police rather than the objective condition of the society. However, the internal evidence adds to the credibility of the data. For example, in the relatively prosperous year of 1967, as much as 34 percent of delinquency was ascribed to poverty, which means that the youth caught stealing or going into prostitution were in rags or threatened with hunger. Breakup of the home due to death, remarriage, conflict, criminal conviction, and abandonment was held responsible for 44 percent of the delinquency. Very likely the increased availability of technical high schools during the 1960's was partly responsible for the reduction in delinquency, because it kept the boys off the streets at a critical age. One may conclude with a fair amount of confidence that the improvement in economic conditions combined with the further elaboration of educational institutions should bring about extra reductions in teenage delinquency. The licensed "fallen women" are mostly from rural areas and constant in number. It would seem that the growth has been reasonably well-balanced if it is judged by means of data on family breakdown.

Nor is crime considered a problem. Professional people do not seem to be seriously concerned about crime. For example, the elaborate measures employed by Hong Kong apartment dwellers in self-defense (such as barbed wire barriers to prevent the climbing of poles and trees) were not in evidence. Fights break out on the streets at least as often as in America, but they are between people who have known each other for some time. A small item in the paper indicating that a roundup of hoodlums had netted 12,000 arrests in the previous month is a good indication that crime data are worthless as a basis for assessing the health of the society and will reflect only law enforcement policies.

Sometimes, when a powerless portion of the population is neglected in the course of develop-

ment, this group resorts to spiritualism or use of the supernatural. In Seoul such practitioners are licensed and must renew annually. We see a gradual increase in witches, wizards, diviners, psalmists, physiognomists, graveyard selectors, and sutra-changers, but not as great proportionally as the population increase. Certainly no significant change is detectable. An alternative is retreat into narcotics, but the statistics in law enforcement show an erratic decline in arrests in that area.

Traffic accidents have multiplied, however, although the data appear to be due, in part, to improved organization of the police from 1966 onward. Deaths have dropped off since then, although lesser casualties continue to build up slowly. The risk of injury per mile travelled appears to have declined by a factor of four or five in the 1960–67 interval.

Transport bottlenecks have been met by a variety of measures. A major program for pedestrian overhead and underpass crossings of busy streets is now almost complete. The street cars were retired last year. The tollroad to Inchon is working, as is the expressway to the south. The railroads provide a Japanese standard of service, but this is now becoming old-fashioned and requires careful operations research and redesign—a project that is nearing completion. The number of automobiles on the road is becoming unbalanced, but it is rumored that a new tax bill is in the making and a higher excise tax on cars could easily be justified (as elsewhere it is about 100 percent at present). The annual growth in telephones in service is currently proceeding at a breakneck 20 to 25 percent pace. Electric power is now sufficient, so no tendency to produce blackouts at peak periods is noted, but new generating plants must be started almost yearly.

A glance at the economic indicators did give a few twinges of alarm. The amount of money in circulation was rising at the rate of 2 percent per month. Virtually all coinage has disappeared, so a tremendous number of 10-won notes (worth 3.5¢) were changing hands. Inflation seemed to be barely under control. One hopes that the people on the Economic Planning Board were not making any miscalculations, and everyone admits that the board is highly competent in using the tools of quantitative economists.

Of course, the principal economic imbalance applies to the country as a whole, rather than just to Seoul, although the region of Seoul will bear the brunt of the readjustment. The size of this imbalance is indicated by data found in Tokyo

(*Economic Statistics Monthly*, 1969) and revised to be applicable to Korea (Table 3).

It should be promptly pointed out that "invisible" flows due to three-way trade, tourism, remittances of overseas workers, reparations, insurance, and other factors that normally restore a balance are not significant in this relationship. The difference is made up from services to foreign troops, foreign aid, foreign loans, and extensions of credit from Japanese suppliers—but mostly from the latter, due to certain automatic provisions in the Japanese MITI guarantees of bank loans for financing foreign trade.

The Japanese Economic Planning Agency has constructed a series of very sophisticated indicators of conditions and prospects in the economy of Japan which are called "warning signals," where the indicators are red if some kind of constraining action needs to be taken, orange if borderline, and green if some lifting of restraints on business is required. This agency has even superimposed an index on the indices. In the last monthly report the Japanese planners have identified none of this imbalance by their system of indicators, and their summary signals say "Don't rock the boat. We're all right, Jack!", as they have for five quarters in a row. Yet their figures show an extraordinary rise in Japanese foreign exchange reserves from July 1968 to July 1969 of \$962 million, more than the accumulation of the preceding five years (*Economic Statistics*, 1969).

The surplus has been built up by granting credits to firms in just those metropolises I had detected earlier as being boosted by "Japanization," a process which has greatly accelerated this year beyond the levels it had achieved when its local impact was first identified as a phenomenon worth more thorough study (Table 4). The trends in trade in the first half of 1969 are exacerbating the imbalance that suddenly became very large last year.

Solutions to this difficulty based on theory are readily proposed. However, they will require some

drastic local readjustments and some severe reorganizations of institutions. The initiative really rests with Japan which must decide at some point that it will no longer extend credit to countries unable to expand exports. At the rate things are going they must blow the whistle in less than a year. A team from MITI is working on the problem of increasing Japanese imports from these countries. For the most part, however, the Japanese are still thinking along traditional lines and have spent most of their effort trying to boost raw materials production for the expanding industries of Japan. Any analysis of commodity price trends in food stuffs, wood, and natural fibers, as compared to manufactured products, will demonstrate that there is little to be gained in that direction.³ The lags in getting output of sufficient quality (as in bananas, for example) are something like five years. In Korea they may be even greater. At any rate, one concludes from the public statements that Japan feels much less urgency at the moment than do the deficit countries.

This may mean that a revaluation of the *yen* is likely to be undertaken to bring Japan's overall trade closer to balance. An increase in value of about 10 to 15 percent seems reasonable. Such an adjustment will not solve the problems of Korea, Thailand, or Taiwan, particularly in the light of the prospective American withdrawal from Vietnam. After ticking off all the other potential remedies, two remain as likely strategies: (1) direct investment in Korea; (2) marketing products made with Korean labor. The German-Swiss-Swedish solution, that of bringing in foreign nationals to operate the home industries and allowing them to send home remittances from earnings, seems to be ruled out by cultural considerations. The Japanese were obviously happy to get rid of their Korean workers a few years ago and do not want them back.

Carrying out the first policy implies Japanese investments in hotels (this has begun), refineries, petrochemicals, fertilizers, power plants, steel fabrication, and computers instead of expanding facilities on the Japanese islands. This also implies setting up labor-intensive assembly plants in electronics, garments, and household equipment, which can be exported not only to Japan but elsewhere in the world via Japanese marketing organizations. More than that, the fierce independence of the Koreans will force them to invent new institutional arrangements that keep the Japanese banks and managers far in the background with even fewer controls over operations than are maintained by U.S.-based transnational corporations.

TABLE 4 *Contribution of Bilateral Trade to Foreign Exchange Reserves Gain of Japan (Calendar Year 1968)*

	Percent	
Korea	56	
Hong Kong	45	
Thailand	24	
Philippines	.2	(Total: \$886 million)
Malaysia and Singapore	.27	
Indonesia	.12	

The second policy is already being expedited in conjunction with Japanese electronics and food-processing firms. Fortunately, the expansion of these labor-intensive technologies will be spurred on by new developments just emerging from the laboratories.

Conclusions for Planners

Seoul is a metropolis that has reduced to practice the combination of physical planning, human resource development, and economic evaluation that is advocated in theory by American graduate schools. The principal deviation from theory—its slowness to develop community participation in the planning—has probably accelerated the rate of growth in regional income. Some leaders in Korea recognized that in a society with an Asian tradition, personal authority and responsibility combined with some charisma would gain more cooperation from the urban masses than the experience of full participation in policy choices. This means that other forms of feedback to the decisionmakers must take the place of community-generated support. In Seoul a comprehensive body of statistics covering behavior and performance of the population has provided such a substitute. Thus, despite the record-breaking growth in income in Seoul-Inchon (an annual increase in gross regional product in excess of 25 percent per year for the last three years, after six years at 13 to 20 percent growth levels!), the internal structure of the development is reasonably well-balanced. Every society has its developmental blind spots, but in the Seoul region these have been so small or trivial that they are not readily detected.

The recent acceleration in urban and regional development is ascribed to a "Japanization" stage superimposed on the American-led international influence on Korean affairs. That phase seems to be leading to a serious imbalance in international much greater initiative on the part of the Japanese than they seem willing thus far to take. Thus, the most serious factors governing the future of Seoul lie outside the control, or even influence, of its planners. If the Japanese delay as much as a year, Seoul is expected to experience a sharp crisis, along with loss of confidence, unemployment, and slowing of immigration.

Two policies, when taken together, seem to have potential for minimizing the impact on welfare and for stimulating a recovery. The first is large-scale capital investment by Japanese firms in Korea, particularly in capital-intensive manufacturing and services. These investments must have a lag of only

months between the time a decision is made and the time that the period of heavy investment begins. The second presumes a continuing labor shortage in Japan that allows its firms to subcontract in Korea on labor-intensive light manufacturing and services. No limitation can be found in the developing infrastructure of Seoul that prevents rapid adoption of these policies. The gravest foreseeable difficulty is the fervent nationalism in Korea, but this can be met by making small improvements in the organizational methods of holding companies of American and European transnational corporations that insure the relative independence of the Korean manager in day-to-day affairs. Though Seoul may pay a price for its record rate of expansion, problems on the horizon appear soluble.

Author's Note: This article is drawn from Working Paper 112 of the Center for Planning and Development Research, University of California, Berkeley, December 1969. That paper provided a comparison with Bangkok, where similar, less rapid development is taking place.

NOTES

¹ They were chided in this also by W. L. C. Wheaton in the Proceedings of the Third International Conference on Regional Development, Tokyo, September 1969, when he observed that the autonomous cities of Singapore and Hong Kong showed remarkable capabilities for development and proceeded to describe the implications of their success for other Asian cities, "Singkong—A Parable on Regional Planning." *Proceedings*, in press.

² One sees this synoptic quality, for example, in the writings of Karl Deutsch, John Friedmann, Ralph Gakenheimer, Dennis Livingston, Norton Long, Ernst Haas, and Anselm Straus. A large number of trends and events are marshalled, irrespective of their pertinence to a discipline, and a simple forecasting model with policy concerns is constructed and has persuasive force.

³ This conclusion is confirmed independently in the *Far East Economic Review*.

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