take note of price changes, all these monetary assets are later deflated by the respective wholesale price indexes of these countries. Taiwan, among all these three countries, had the most stable price level from 1961. Next in price stability would be the Philippines. Korea's price level has been, as we have pointed out, quite inflationary. The effects of deflating are shown in part B of Table 11.

Of the three major monetary assets, time and savings deposits increased fastest for Korea and next, Taiwan. In contrast, Philippine time and savings deposits are sluggish.

Since Korea's interest rate reform began only after 1964, some knowledge of the growth of savings and time deposits in contrast to other monetary instruments from that period is highly desirable. Time and savings deposits expanded by more than 10 times the expansion of cash currency in circulation, and about 1½ times faster than the growth of demand deposits. Using the last year of the old interest rate policy (1964) as the base for measuring the effectiveness of the new interest rate policy, we observe that by 1968, the total volume of time and savings deposits grew by 17.6 times the volume of time and savings deposits in 1964. In contrast, the volume of money in circulation was only 3.3 times of the 1964 value and the volume of demand deposits was 2.9 times that of the value in 1964.

In Taiwan, time and savings deposits by 1968 were 13.3 times the volume of time and savings deposits in 1958. By comparison in the Philippines, the volume of savings and time deposits in 1968 was only 5.6 times that in 1958.

We took the ratios of time and savings deposits to demand deposits and to money in circulation in the three countries and compared them for 1964 and 1968. The contrast is again striking. Korea's time and savings deposits were only a little over half of demand deposits and currency in circulation. By 1964, the Philippines and Taiwan had relatively the same monetary ratios. Korea's 1968 time and savings deposits have also reached almost 4 times as much as demand deposits and exceeds 3 times that of currency in circulation of 1964 (Table 12).

The choice of asset structure by households depends on the available alternative asset instruments. It would seem from all of these statistics that Philippine households have not chosen to use time and savings deposits as a means of holding financial assets. This is obviously due to its relative unattractiveness compared to other financial and investment assets. Perhaps much has gone into real estate speculation or other forms of monetary instruments. Real estate speculation is a phenomenon not strange to Taiwan and South Korea. However, we venture to suggest that the interest rate policy in these two countries have mobilized savings away from some forms of socially unproductive asset holdings. It may therefore be argued that the mobilization of domestic savings for the whole banking system created a capacity for greater efficiency in channeling savings to correct investment instruments. Households, by voluntary choice through an interest-rate response, have chosen to hold their assets in forms that can now be manipulated by the monetary system.

Interest rate policy in Taiwan and South Korea is responsible for attracting savings funds towards industrial development and in creating a

Table 12. MONETARY ASSET STRUCTURE FOR THREE COUNTRIES

Year	Philippines		Taiwan		Korea	
	TSD/DD	TSD/C	TSD/DD	TSD/C	TSD/DD	TSD/C
1964	1.54	1.80	1.51	2.25	0.62	0.59
1968	1.98	2.34	1.72	3.06	3.82	3.18

DD = demand deposits

C = cash in circulation

TSD = time and savings deposits.

necessary pricing equilibrium for scarce capital assets. The second part of this statement is not yet elaborated upon (see section on wage and labor policies). If the rate of expansion of time and savings deposits is any indication of the rate of voluntary savings in Korea and Taiwan, then the Philippines can profit immensely from a similar interest rate reform.

VII. FOREIGN EXCHANGE LIBERALIZATION

That the dramatic progress in the field of export expansion among the industries of Taiwan and South Korea took place only after basic reforms unifying the exchange rate of the new Taiwan (NT) dollar and the Korean won is an evidence of the power of exchange rate policy. That, in the case of the Philippines, the foreign exchange reform undertaken in 1962 was more bold than any undertaken by both Korea and Taiwan should however present adequate warning that exchange rate liberalization does not represent the only policy needed to support rapid industrial and export progress. Therefore, while taken by itself, exchange rate liberalization may represent an important necessary condition for changing the sets of incentives needed to achieve progress as that attained in the two countries studied, other policies are required to support the rapid growth attained,

Having thus placed the context of foreign exchange liberalization in proper light, we review briefly the foreign exchange policies of Taiwan and South Korea.

Taiwan. Foreign exchange controls were practiced in Taiwan in the 1950's perhaps in the most extreme form. Multiple exchange rates were in effect. They differed not only in terms of rates of payments for imports but also for exports. In the mid 50's, there were (a) different export rates for different commodities and for government enterprises, (b) different rates for inward remittances of foreign exchange, (c) for the imports of government enterprises, (d) for specific raw materials, (d) for ordinary imports, (f) for imports of private industrial

enterprises, and so on.

The system became so bad that, by 1958-9, serious steps were undertaken to unify the exchange rate. In addition, many import controls were removed, administrative procedures covering exporters as well as raw material importers liberalized.[11] A consequence of these was a series of currency depreciations.

These exchange liberalization measures yielded many fruitful results, especially in the encouragement of export enterprises. There are still import controls in Taiwan, especially those covering consumer goods. The restrictive nature of current import policies, however, have not led to any currency overvaluation in view of the growing strength of the Taiwan dollar in the world market. The consumer goods controls have also provided a market for the new domestic consumer goods industries that have found world markets through the export expansion of these same industries.

South Korea. Foreign exchange controls in Korea are still stringent. Yet measures concerning foreign exchange rates have moved towards gradual liberalization. South Korea's currency has been subjected to a series of devaluations. All these devaluations were part and parcel of economic reforms designed to stabilize the inflation-ridden Korean economy.[12]

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[11]See S.Y. Dao, W.P. Chang, and M.S. Shih, "Industrial Development in Taiwan," especially section C, Conference on Economic Development (Taipei, Taiwan, June 19-28, 1967).

[12]For a more comprehensive description of the reforms, which also touch on a number of points stressed in this study, see S. Kanesa-Thasan, "Stabilizing an Economy -- A Study of the Republic of Korea," IMF Staff Papers, vol. XVI, no. 1 (March 1969), pp. 1-26. See especially pp. 13 et seq.

The following post-Korean war official exchange rates will tell their own story:[13]

Effective Date	Korean wons per US$
1955 (January)	18.0
1955 (August)	50.0
1960 (February)	65.0
1961 (January)	100.0
(February)	130.0
1964 adoption of fluctuating rate	

In 1964, a fluctuating exchange rate was adopted. The initial rates were 255.51 wons (buying rate) and 256.02 wons (selling rate). This rate instead of being supported fully by Bank of Korea resources (as the Philippine Central Bank has done since 1962) was allowed to move upwards. The rate has become fairly steady from 1965 to 1967, although it has risen again in recent years.

The story would be incomplete without reference to the strict import controls still in existence in Korea, as in Taiwan. There are imports which are banned, those which are importable on a quantity quota, and those which have to secure official approval. Import financing techniques like margin differential deposit requirements, which are familiar devices in the Philippines, are utilized to increase the cost of imports for domestic needs.

South Koreans have used this policy of controlling imports as an aid in their export expansion policy. Thus, whenever they gather around

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[13]There was another rate for Korean counterpart funds to foreign aid money which became unified with the official exchange rate by the 1960's. See Bank of Korea Economic Statistics Yearbook 1969 (Table 148, p. 298).

trade promotion conference tables, the list of restricted imports into South Korea constitutes part of their bargaining arsenals in opening preferences for imports of Korean export commodities.[14]

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[14]For instance, see the Bank of Korea, Review of the Korean Economy 1968, pp. 138-9. In their section on trade agreements, mention is made of the quid pro quos in the separate arrangements with Pakistan, Australia, New Zealand, and Taiwan.

VIII. INDUSTRIAL LOCATION POLICY: EXPORT PROCESSING ZONES

Taiwan and South Korea have adopted bold experiments in establishing industrial estates designed for specific manufacturing export industries. The story of their recent economic success, as described above, cannot be attributed to these industrial estate projects. These projects are relatively recent. Much of the success of these two economies is the result of the basic policy changes already described above. However, the future expansion of manufacturing industries will probably depend on policies related to these industrial estate projects as they gain momentum and wider acceptance to new industrial investors. They however provide only major support for the general climate of economic policy favorable to exports and industrialization.

The most outstanding industrial location policy in Asia is perhaps the Kaohsiung Export Processing Zone (KEPZ). The KEPZ is different from a simple industrial estate or a free trade zone. However, it incorporates the advantages found in both concepts. In addition the KEPZ has other functions of a more specific nature. The KEPZ as conceived in Taiwan is independently managed. Its major advantage is

> "... the centralized management and administration of all affairs pertaining to the establishment and operation of productive enterprises located in the zone. There are very few places, if any at all, in the world where an industrial investor can solve his problems relating to land, labor, registration, payment of taxes, construction of plant, supply of water and power, settlement of foreign exchange, customs inspection and clearance procedures, import and export licenses, etc. with one single organization. The administrative body of an export processing zone in Taiwan is vested with full authorities to handle these affairs. It is the

> representative of practically all the government agencies which an industrial investor has to deal with. This unique feature of operation is the most valuable asset of an export processing zone."[15]

The KEPZ was established only in the mid 60's. Its impact on the growth of the export industries and on foreign investment attraction into Taiwan is an impressive story. No doubt, the basic idea behind it must have come from the examples of the progress of Hongkong (a free trade zone by itself) in the 1950's and of other export zones in Western Europe notably in the Netherlands. It was first conceived by planners in Taiwan in 1956. Not until 1963 was the concept approved in principle by the government. In January 1965, it was legally proclaimed. But not until September 1966 was the export processing zone finally organized. The KEPZ is located in the Kaohsiung harbor in southern Taiwan at the opposite end of the island from Taipei (in the north).

The benefits available to investors at the area are the same as those available in the export enterprises in Taiwan with the added advantages of having

(a) low power and water rates,
(b) ease in the acquisition of industrial land provided with all the public utilities required,
(c) availability of standard factory buildings which may be paid for in installments over a period of ten years,
(d) simplified administrative procedures,
(e) transportation and warehousing services, and
(f) liberalized foreign exchange and trade controls.

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[15] "The Story of KEPZ" (authorship unsigned), Industry of Free China, Vol. XXVII, No. 1 (January 1967), p. 1. The historical background of KEPZ as narrated below is taken largely from this source.

We quote again from the account on KEPZ:[16]

> "However, the largest benefit offered by the zone, and perhaps the greatest attraction as well, is an ideal environment in which an industrial investor can most quickly translate his investment plan into reality. There are very few places, if any at all, in the world where an industrial investor can solve his problems relating to land, power and water supply, plant building, time-consuming and complicated administrative procedures, etc. with one single organization."

The success of the zone only after 3 years of operation is well summarized in a recent paper.[17] As of August 1969,[18] the number of export enterprises that have been allowed to set up activities in the KEPZ is (153) enterprises. This involves an estimated investment of US$33 million, with a target annual export sales of US$182 million and a total direct employment of 40,291. Of the total investment, domestic (Taiwan) investment is US$3.7 million, overseas Chinese investment US$4.97 million, foreign investments US$17.8 million and joint ventures US$6.7 million.

Of the above enterprises, (109) export enterprises were in operation by August 1969 with a total of US$23.4 million projected investment and projected annual export sales US$119.9 million. Considering that the

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[16]"Story of KEPZ," op. cit., p. 6.

[17]See M.T. Wu, "The Kaohsiung Export Processing Zone: Its Current Situation and Its Contributions to the Economy," Industry of Free China, vol. XXX, No. 3, September 1968.

[18]All the recent statistics quoted here are taken from KEPZ Essential Statistics, August, 1969. Mr. Wu's paper has statistics only up to August, 1968.

above enterprises were only attracted after 1966 when KEPZ began operations, only a proportion of these targets is reached. In 1969 (up to August), the exports from KEPZ have reached US$37.4 million.

Table 13 shows the approved export enterprises by industrial categories. Electronics products accounted for the greatest volume of export sales followed by garments, knitted woven goods, metal products and handicrafts. Many of these industries are fairly labor-intensive at the same time that they require hand-skills.

Table 14 shows the sources of investment distributed by country sources as of August 1969. Japan and American investments dominate foreign direct investments. Of the overseas Chinese, the Hongkong Chinese have contributed the most sizable investment. Chinese overseas investments from the Philippines are nil so far.

As we have already said, the success of the export processing zone does not mean that most of the exports of Taiwan come from the KEPZ. In 1967, US$8.2 million of exports originated from the Kaohsiung Export Processing Zone. This is about 2.9 per cent of the total exports of processed industrial goods. In terms of the total exports, KEPZ exports are still a much smaller proportion, only a little over 1.2 per cent. In terms of the performance of the KEPZ in relation to total exports of Taiwan, the performance is still smaller. But in view of the investments being undertaken and those yet to come, this share will continue to rise in the future.

Table 15 shows KEPZ exports cumulated since September 1966 to August 1969 and from January to August 1969 by export commodity. The

Table 13. APPROVED EXPORT ENTERPRISES BY CATEGORY IN KEPZ
(as of August, 1969)

Category of Enterprises	Approved	In operation	Investment Amount (in thous. US$)	Per Cent Distribution	Project Annual Sales Volume (in thous. US$)	Per Cent Distribution	Number of employees
Precision machinery and instrument	1	1	150	0.46	198	0.11	63
Electronics products	30	23	13,594	41.11	75,293	41.33	11,516
Metal products	17	10	2,957	8.94	14,978	8.22	2,470
Plastic products	15	10	2,481	7.50	11,659	6.40	3,404
Machinery manufacturing	3	2	365	1.11	3,802	2.09	183
Furniture manufacturing	3	2	525	1.59	2,540	1.39	470
Handicrafts	20	13	2,024	6.12	13,026	7.15	3,974
Electrical Appliances & products	3	3	860	2.60	6,152	3.38	827
Rubber products	3	3	175	0.53	2,391	1.31	538
Printed matters	2	1	302	0.91	1,706	0.94	411
Packing material & repairing	2	2	285	0.86	756	0.40	304
Leather products	8	6	836	2.53	6,836	3.75	2,055
Paper products	2	1	398	1.20	1,314	0.72	294
Toy manufacturing	4	3	694	2.10	2,218	1.22	1,017
Yacht products	1	1	50	0.15	525	0.29	47
Knitted & woven goods	24	17	2,735	8.27	16,581	9.10	5,586
Garments	14	11	4,588	13.87	21,494	11.80	6,992
Chemical products	1	-	50	0.15	720	0.40	140
TOTAL	153	109	33,069	100.00	182,189	100.00	40,291

Source: KEPZ Essential Statistics, August 1969.

Table 14. COUNTRY SOURCES OF INVESTMENTS IN THE KEPZ
(Cumulated up to August 1969)

	Sources of Capital	Number of Enterprises	Amount of Investment (in thous. US$)
Investment by Overseas Chinese	Domestic Investment	34	3,743
	From Hong Kong	16	2,898
	From Japan	3	923
	From Indonesia	1	150
	From Ryukyu	2	650
	From Malaysia	1	213
	From Viet Nam South	1	60
	From US	1	75
	Sub-total	25	4,968
Foreign Investment	From US	8	6,209
	From Netherlands	1	2,150
	From Turkey	1	170
	From Japan	38	8,508
	From England	2	751
	Sub-total	50	17,788
Joint Venture	Sino-American	7	1,302
	Sino-Japanese	20	2,215
	Sino-Overseas Chinese	11	1,511
	Sino-British-American	2	273
	Hong Kong, Phils., British	2	400
	Canadian, British, Japanese	1	800
	Canadian, American	1	70
	Sub-total	44	6,570
	Total	153	33,069

Source: KEPZ Essential Statistics, August 1969.

Table 15. KEPZ EXPORT PRODUCTS BY COMMODITY CLASSIFICATION
(In Thousand US Dollars)

Category	Jan.-Aug. 1969		Sept. 1966-Aug.1969	
	Amount	Per Cent Distribution	Amount	Per Cent Distribution
Electronics products	17,426	46.58	32,059	44.31
Metal products	1,153	3.08	2,251	3.11
Plastic products	1,540	4.11	3,230	4.47
Handicrafts	1,816	4.85	3,920	5.42
Rubber products	285	0.76	1,050	1.45
Leather products	1,751	4.68	3,316	4.58
Knitted and woven goods	3,251	8.67	5,823	8.05
Garments	7,673	20.50	16,851	23.29
Furniture manufacturing	522	1.41	882	1.22
Machinery manufacturing	362	0.97	499	0.69
Electrical products	536	1.43	666	0.92
Precision machinery & instrument	115	0.30	230	0.31
Toy manufacturing	782	2.09	1,362	1.88
Others	215	0.57	215	0.30
TOTAL	37,427	100.00	73,354	100.00

Source: KEPZ Essential Statistics, August 1969.

patterns of these exports are similar to those we have already shown in Table 1. Table 16 shows these exports classified by country of destination. We note again the preponderant role of the United States market. Hongkong, Japan, the Netherlands and Canada play secondary roles. But there is a long list of customers.

We have, thus far, only described the magnitude of achievements within the KEPZ.

The transformation of Kaoshiung into a major industrial city in Taiwan is therefore of recent origin. There are industries in the region which thrive outside the export processing zones. The most important among these are the wood processing industries, which have accounted for a significant portion of exports in the wood products manufacturing industries. So far, the industries in KEPZ are relatively small-scale. But they have an impact on the whole industrial development of Taiwan because Kaoshiung has created a major counter-pull to the labor migrations from the farm, which in earlier years were only being attracted to Taipei.

The opening of the KEPZ has created effects which spill over to a larger segment of the Taiwanese economy. For one thing, direct employment opportunities are expanding in view of expanding investment opportunities. Because these investments are basically skill- and labor-intensive, they absorb a much larger direct employment impact per new dollar of export revenue generated. A great proportion of the employment is male, but many women are drafted into the industrial labor force. About 30 per cent of employment is female. Chinese economists realize that since this pro-

Table 16. KEPZ EXPORT PRODUCTS BY COUNTRY OF DESTINATION
(Thousand US dollars)

Country	Jan.-Aug. 1969		Sept. 1966-Aug. 1969	
	Amount	Per Cent Distribution	Amount	Per Cent Distribution
United States	22,836	61.01	45,060	62.27
Japan	3,493	9.33	6,675	9.23
Hong Kong	4,888	13.06	9,112	12.60
West Germany	979	2.62	1,715	2.37
Canada	1,365	3.65	3,658	5.06
Kuwait	232	0.62	591	0.82
Netherlands	1,339	3.58	2,249	3.11
Sweden	70	0.19	115	0.16
New Zealand	-	-	11	0.02
Belgium	93	0.25	168	0.23
Israel	-	-	1	-
Spain	-	-	0.16	-
France	30	0.08	46	0.07
Australia	121	0.32	184	0.26
Switzerland	5	0.01	30	0.04
United Kingdom	352	0.94	561	0.78
Kenya (Africa)	6	0.02	54	0.08
Italy	194	0.52	291	0.40
Viet Nam, South	394	1.05	505	0.70
Korea, South	-	-	0.18	-
Nigeria (Africa)	0.27	-	28	0.04
Lebanon	34	0.09	43	0.06
Philippines	76	0.20	108	0.15
Venezuela	-	-	29	0.04
Puerto Rico	83	0.22	132	0.19
Mexico	6	0.02	14	0.02
Iran	84	0.23	102	0.14
Ireland	166	0.44	259	0.36
Indonesia	-	-	30	0.04
Brazil	0.37	-	3	0.01
Norway	-	-	1	-
Ecuador	1	-	1	-
Singapore	78	0.21	78	0.11
Pakistan	138	0.37	138	0.19
Libia	3	0.01	3	-
Greece	50	0.14	50	0.01
Congo	7	0.02	7	0.01
Bolivia	10	0.03	10	0.02
Haiti	1	-	1	-
South Africa	278	0.74	278	0.39
Export to the domestic customs territories for processing export	11	0.03	11	0.02
TOTAL	37,427	100.00	72,354	100.00

Source: KEPZ Essential Statistics, August 1969.

portion of female industrial employment is still less than that for the same labor force in the US and Japan, they can expect a greater female participation as more job opportunities are opened up by increased investments and increased exports. About 50 per cent of laborers in the zone have finished primary schooling. The demands for greater skills and the expansion of free elementary schooling recently to nine years in Taiwan is anticipated to bring in a greater flow of skilled labor.

The second major impact of the KEPZ zone is the provision of a primary base for indirect employment. The increase of permanent industrial opportunities in a major city opens new industries which depend on the directly generated incomes. Thus, commercial and other service industries are inevitable. Complementary activities necessary to support an industrial population are inevitable. The laws of economics would reveal patterns concerning demand for industrial and service industries as incomes rise.

A third impact is the linkage towards other industrial and raw material supplies industries within Taiwan itself. The evidence of this is not yet completely analyzed, but the preliminary impressions at the KEPZ seem to show this.[19] This should dispel the argument that export processing zones tend to become "re-export" enclaves, with little effects on local raw material and capital goods supplying industries. The trick, of course, is that domestic sales to KEPZ enterprises are treated like

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[19]See M.T. Wu, op. cit., p. 33.

imports (which are given liberal terms) by the same enterprises. That is, domestic sales to KEPZ are like exports to KEPZ! There are savings effected in terms of time transport, and production costs by KEPZ enterprises by buying locally. Since imports of raw materials and equipment, which are also available at cheap rates from abroad, competitive efficiency among raw materials and industrial equipment suppliers is assured and comparable quality is maintained. Thus, the KEPZ industries have provided a source of indirect exports of the Taiwan economy, although these do not enter the export trade statistics.[20]

There are other important effects of the KEPZ on Taiwan's economy, but the one related to technological progress should not escape mention. For this, it will be sufficient to quote Mr. Wu's observations without any further elaboration on my part:[21]

> "... As originally envisaged, investors in the Zone have brought in with them the know-how and managerial techniques needed in the more competitive export trade. The plants in the Zone engaged about 200 technicians from abroad to train the workmen in new technology. The local industries can learn a lot from the examples of the plants in the Zone, thereby to improve their levels of technology and management. This is a kind of benefit that cannot be measured by figures."

South Korea, briefly. The government has already begun establishing industrial export zones. These industrial estates are located between

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[20] See my paper, "A Design for Export-Oriented Industrial Development," IEDR Discussion Paper 67-5 (June 20, 1967), on an elaboration of these points, esp. p. 20-21 and pp. 39-42.

[21] Wu, op. cit.

Seoul and the port of Inchon. These are the Bupyung and Kurodong industrial estates. Many new enterprises, especially foreign investments, are finding their locations in these estates. Industries that are being set up in these zones are those in electronics, electric appliances, metal products, plastics, textiles, wood products, glass products, rubber products, chemicals, agricultural processing, etc. Like the KEPZ in Taiwan, they provide cheap utilities, land, and reasonable construction costs. In addition, of course, they enjoy the advantages given to all export-enterprises. Like in KEPZ, too, the industries in these regions have not accounted only for a small part of exports. This is due to the fact that industries in other locations have benefited from the export incentive policies as much as those within the zones, like in Taiwan.

We conclude this section with the observation that the concept of the export processing zone is an interesting experiment in helping to promote exports. It is also an effective instrument for conscious locational development policies. It is therefore gratifying that in 1969 the port of Mariveles in Bataan was approved as the site of an export processing zone. If effectively managed and if given enough encouragement to flourish, it may thrive well as an export zone, perhaps approaching the impressive success of KEPZ.

It must be repeated here in making this assessment of export zones in the Philippines that Taiwan has given enormous support to export promotion policies. Many other policies outside the range of pure export zone policies have accounted for the impressive economic success of the KEPZ. These sets of policies favorable to industrial export de-

velopment must exist. In short, while it is gratifying to note that in 1969, the Philippines has enacted into law the creation of an export zone, it has to take care of major national policies before it can achieve the same measure of success. Moreover, the fact that the export performance of industries outside the export zones has been very rapid both in Taiwan and South Korea should dispel any anticipation that "the export zone is the answer" to truly export-oriented industrial success achieved by the national economy.

IX. OTHER ASPECTS OF ECONOMIC POLICIES IN TAIWAN AND KOREA

Agricultural policies. Taiwan and South Korea are not unknown for their land reform programs which have been in the Japanese tradition -- the breakdown of large landholdings into smaller ones operated by owner-farmers. In addition, support for agriculture has been a major ingredient of their agricultural policies, through the successful encouragement of farmers cooperatives (to overcome the small land-unit problem), irrigation investments, credit and agricultural extension work.

We have already mentioned that agricultural productivity in these two countries is among the highest in Asia. The productivity per hectare of rice agriculture in Taiwan and South Korea is 4/5 that presently attained in Japan. These three countries are continually raising their agricultural productivity. By contrast, Philippine productivity in rice agriculture is only a little over 1/5 of the rice productivity achieved in Japan. In a world of technological progress, Japanese agriculture cannot be said to have reached any productivity peak. Thus, if Japanese expe-rience is any indication, these two countries can still push their agricultural productivity growth. Also, the experience of Taiwan, South Korea, and Japan implies that the Philippines is still far away even in reaching the standards of modern agriculture.

Moreover, in the case of Taiwan, emphasis on agricultural development has linked major agricultural industries with the food processing industry. We have already noted that mushroom and asparagus canning industries have become important in the total export trade structure in Taiwan.

We do not wish to extend our discussion of agriculture. It would seem obvious now that agriculture is too important a part of the total framework of the economy to be neglected. The point of issue with respect to Philippine agriculture of course is to what extent the government has to rely on increasing the incentives to adopt highly productive methods among farmers without draining all of her scarce resources into agriculture.

The agricultural experience of the Philippines in the last four years is beginning to show some signs of promise ("green revolution", as the term begins to be known) to the extent that agriculture has in fact been claimed as a leading sector of the economy in recent years. These problems do not end in themselves right now. The growth of productivity in Philippine agriculture due to the rapid diffusion of highly productive rice varieties seems to pose new problems of great consequence, for instance, the question of expanding industries complementary to agricultural development.

Wage and labor policies. South Korea does not have any minimum wage legislation. Therefore the price of labor as an input to production is cheap. The Koreans have taken full advantage of the cheapness of labor in the same way that Taiwan and Hongkong have. Taiwan has minimum wage legislation but its minimum wage has been so truly near the going rate for labor that it has not distorted the price of labor as an input to industrial enterprises.[22] One major cause of the availability of cheap labor

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[22]Before 1968 the minimum wage in Taiwan was only about $10 per month for work reaching from the minimum working day of 8 hours; in 1968 the minimum wage rate was raised to $15 per month. We can of course com-

is the productivity of agriculture, which has not caused food scarcities as more labor is absorbed into industry.

There are protective laws for labor. They cover child and female employment, social security, labor standards, industrial accident compensation, and labor dispute adjustments. But in spite of these laws, and especially in view of other policies, notably equilibrium exchange rate policies, there are no distorting effects on the price of industrial labor. If there is, they would not be in the same context as this is found in the Philippines.

Taiwan as well as Korea have adopted additional policies that have nourished the supply of vocationally trained labor force. Their school systems are based on the European-oriented idea of restricting schooling in universities to those who are only qualified. In the meantime, vocational skills are learned in the secondary schools. In Taiwan, compulsory and free schooling has recently been raised from six years to nine years.[23]

Aspects of public finance. Some features of taxation are of interest to industrial policy and fiscal reform in the Philippines.

First, the state tobacco monopolies of Taiwan and South Korea (like those of Japan and Thailand) have been the instruments for taxing tobacco

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pare this with Philippine minimum wage legislation which is about 4 times as much, and we can conclude that the Philippines with all her abundant labor resources is a high wage country relative to Taiwan and South Korea.

[23]This statement must be qualified if it should suggest anything to Philippine educational policy. J.G. Williamson and D. DeVoretz have recently raised important issues related to investment in Philippine education. See their "Education as an Asset in the Philippine Economy," in M. Concepcion (ed.), Philippine Population in the Seventies (Manila, 1969), esp., pp. 153-168.

consumption. The state monopoly profits in these operations are sizable and are equivalent to general government tax revenues. They represent an interesting alternative to tobacco excise taxation in the Philippines. The tobacco monopolies have precluded the importation and the domestic production of "foreign" brands into these countries. This monopoly policy has closed a naturally profitable industry to private investors and, consequently it has defined other lines of investments to foreign and domestic investors. The first industries which were stimulated in the Philippines as soon as the government instituted import and exchange controls were the tobacco "import substituting industries" using American brands. (These, of course, required royalty payments to the owners of brand copyrights.) A study of comparative public finance comparing the tobacco monopoly to excise taxation of competitive tobacco industries from the standpoint of resource allocation and revenue-effectiveness should be of interest to the Philippines.

Another implication of this policy is the petroleum industry control by the government, which is significant in scope. South Korea and Taiwan have not allowed private petroleum refineries to be set up in the fashion they have been encouraged in the Philippines. Their governments have controlled the petroleum refinery industries, as in a complete monopoly. (The respective governments have participated in joint ventures with some foreign petroleum companies.)

The point of this observation is that the foreign investment climate in both South Korea and Taiwan has depended on other factors, notwithstanding monopoly policies on tobacco and petroleum refining. In fact,

this policy defined more clearly the areas open to foreign investors.

Second, the Philippines can learn from recent reforms in company income taxation. In South Korea, for instance, there is a higher income tax rate on "closed" corporations. The following corporation tax rates are used in South Korea:

CORPORATION TAX RATES

Taxable Income	Corporation	
	"Open"	"Closed"
Up to 1 million won	20%	25%
1 million to 5 million won	30%	35%
Over 5 million won	35%	45%

Taiwan's approach to company taxation is different. Dr. Ta-chung Liu, Taiwan's Tax Reform Commissioner and Professor of Economics (on leave) at Cornell University in conversation, explained the loopholes of the South Korean solution. Having as insight the sociological aspects of economic enterprise within the extended family system common among Chinese (perhaps Asians?), he feels that it is easy to give a "closed" family corporation an "open" appearance by including many other members of the same extended family. In order to tax hidden income among these corporations, Taiwan has undertaken reform by taxing undistributed profits of corporations across-the-board. This tax hurts "open" as well as "closed" corporations. But this solution is at least currently deemed as the best manner of dealing with closed corporations.

The Philippines has not addressed itself to this problem of differentiating company taxation among "closed" and "open" corporations. It is one area of reform which has immediate payoff in encouraging a change in the equity structure of the new industrial enterprises. Perhaps a more objective definition is to differentiate those corporations whose stocks are traded at the exchanges. Those listed in the stock exchanges are "open" and those not listed, "closed". Since at the Philippines at present has more developed stock exchange institutions compared to either South Korea or Taiwan, this scheme can help to apply discriminating policy in favor of the "open" stock company.

Of further interest is the recent personal income taxation reform in Taiwan, which consisted of raising the tax rates at the first marginal tax groups. Like in the Philippines, the marginal tax rates in Taiwan on the first income group used to be very low -- 3 per cent. On the advice of the Tax Reform Commission, Taiwan doubled this rate. To overcome the political unacceptability of raising the tax burden on the poor families, the concept of minimum tax deductions for households was introduced as candy to sweeten the blow. This assured that poor families hugging close to the first income tax group would be able to avoid the new tax rates if really poor enough. However, those belonging to higher income tax brackets would be taxed a little more heavily at their earlier income levels. The revenue returns from the recent personal income tax reform show that the early estimates of the Tax Reform Commission were too conservative.

This tax rate adjustment would be of great interest to tax reform students in the Philippines, in view of the great difficulty of politically

justifying higher tax rates. The Philippine Congress always recoils into extreme conservativism, as congressmen are always afraid of the next congressional elections. Recent 1969 changes in the income tax increased the marginal tax rates on the very rich, reduced the marginal tax rates on the "medium rich", and increased the deductions of the "poor". The net result is that the changes led to a reduction of tax burden to most income tax payers when the object of the reform was to raise them. If anything, the tax revisions have decreased the relative proportion of the population of citizens covered by personal income taxation.

Statistical policies. One remarkable feature of the statistical systems of South Korea and Taiwan is the short lag in the reporting of statistical information.

Take the case of the statistical yearbooks which are made available annually. (I shall not mention the monthly and quarterly series of statistics which are released more quickly than in the Philippines and which contain elaborate and up-to-date statistical information on various aspects of the economy.)

The South Korea 1969 statistical yearbook published by the Bank of Korea is an example. It contains a variety of social and economic statistics. This yearbook carries data until the end of 1968 (the previous year). The contents of the financial statistics, for instance, would immediately answer important questions concerning the history of foreign exchange policies and of interest rates. In the Philippines, this information will be hard to get from any statistical source and a researcher will be hard put trying to secure this information from published sources.

Much can be learned by our statistical agencies, for instance, from the tabular layout of the statistical yearbook. It includes extensive data on: (a) national income accounts, (b) flow of funds, (c) money and banking (including a history of a variety of interest rates, rediscount rates, etc., accounting statements of the Bank of Korea and other banks), (d) public finance, (e) production figures in all sectors including the services and construction, (f) data on business, including industrial profit rates, aggregated asset and liability statements, and industrial productivity, (g) extensive data on foreign exchange and balance of payments, (h) foreign trade and foreign aid with an elaborate description of the content of US aid, (i) prices and wages, (j) income and expenditure of farmers, (k) inter-industrial input-output relations. Without passing any judgment on the quality of these statistics, no statistical compilation in the Philippines can compare with the scope of this statistical annual.

As a researcher who had experienced the rough and tumble of looking for scattered data on the Philippine economy, it is interesting to learn that some neighboring countries are able to compile data of wide scope which are made available to users within, roughly, a few months on a regular basis, that is, with a much shorter lag.

X. WHAT WENT WRONG WITH PHILIPPINE DECONTROL?

The Philippines was ahead of South Korea in liberalizing foreign policies, but proceeded almost at the same pace as Taiwan. In 1969, measures towards gradual decontrol were already in effect in the Philippines. After two years of gradual decontrol beginning in 1960, complete decontrol (except for the 20 per cent retention scheme for export proceeds) was undertaken in the Philippines at the beginning of 1962. Thus, the Philippines moved much more boldly by 1962. Yet, the Philippines pushed in a direction which led her to more balance of payments difficulties by 1968. The rate of growth of the economy was relatively unimpressive in the range of 5 per cent per year. The industrial sector had failed to gain sufficient push, even below the average growth for the gross national product, when it should be leading it. As we have seen already, Taiwan and South Korea consistently improved their economic conditions at impressive rates of expansion.

Exchange decontrol had overpowering effects on the readjustments of domestic prices with the rest of the world. Many of these effects were nullified however by other policies which restored the incentive patterns to industry prior to decontrol. John H. Power has already called attention to the fact that the postdecontrol structure of tariff protection had restored almost the same biases of industrial policies which worked against intermediate import-substituting industries as well as against industrial exports during the period of foreign exchange controls.[24] We would be re-

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[24] J.H. Power, "Import Substitution as an Industrialization Strategy," Philippine Economic Journal (Second Semester 1966), Vol. V, No. 2, pp. 167-204. See also his recent paper, "Industrialization in the Philippines, The Need for New Directions," Discussion Paper 69-14 (August 8, 1969), Institute of Economic Development & Research, University of the Philippines.

miss if we did not point out that the same tariff biases do not exist in Taiwan and South Korea.[25] Their trick to get out of this situation was to push exports by direct and indirect subsidies, by liberalized financing and generally through favorable policies vis-a-vis all other highly protected industries.

The attempts of the Philippine government to define industrial policy more clearly are expressed in the investment incentives act of 1967, which created the Board of Investments. I have argued in my analysis of the Philippine investment incentives act that the generous incentives granted to qualified industries fail to discriminate fully where it counts, for instance, as between export-creating industries and import-substituting industries.[26]

The investment incentives act is a necessary condition for creating an orderly institutional framework for carrying out industrial development policies in the Philippines. The Board of Investment (BOI) is however handicapped by the overgenerosity of the instruments it has under its control, in addition to the fact that the instruments are generally capital-use biasing in their incentives effects.

The sufficient conditions for attaining rapid industrial progress are two-fold. The first is the manner in which BOI resolves basic

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[25]Estimates of the "effective" rates of industrial protection by Dr. I-Shuan Sun, deputy governor of the Central Bank of China, confirm this for Taiwan.

[26]G.P. Sicat, "An Analysis of the Investment Incentives Act of 1967," Discussion Paper 67-10 (August 31, 1969), Institute of Economic Development & Research, University of the Philippines.

policies (within its powers) in order to enable it to exercise discriminating ability in the choice of industries and the choice of techniques (as between labor and capital-use). The powers the BOI has are largely microeconomic in nature in the sense that they refer to decisions concerning enterprises that are qualified to receive, and which avail of, the incentives under the law. (Luckily, some of these basic points are realized by the present Board and it is competently managed and staffed.) But all these are insufficient still.

The second set of sufficient conditions depend on how general economic policy resolves all the major policies related to resource pricing, tariff structure, foreign exchange rate, and incentives legislation, in general. These sets of policies are macroeconomic in character. Thus, they refer to the set of policies that are within the decisions of Congress, the economic planning agencies, and the Central Bank.

We shall review the missing sufficient conditions in the Philippines below.

Interest rates. Philippine interest rates have been generally low, whether these are in the area of discount rates by the Central Bank as well as rates on savings and time deposits or on the maximum ceiling for interest rates charged by the commercial banking system. In other words, while there is some history of favorable rediscounting of export papers on this,[27] the interest rates have been so low as would be completely in-

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[27] G.P. Sicat, "Two Proposals for Expanding Industrial Exports Through Central Bank Action, Without Legislation," Discussion Paper 68-4 (January 5, 1968), Institute of Economic Development and Research, University of the Philippines.

effective in resource allocation. High interest rates may reduce consumption if income owners decide to save rather than consume their additional resources. It will reduce the demand for investment funds among those who would normally profit from the windfalls derived from a "low interest rate",

The Philippines is constrained by the usury law, which was passed in 1916, or more than 50 years ago in undertaking interest rate reform. This law sets upper limits on interest rates at 12 per cent per annum on secured loans and 14 per cent on unsecured loans. Designed as a protective law (like the minimum wage law), it cuts both ways. It hurts savers, for they are unable to get equilibrium market rate on their savings. Thus, it makes attractive other forms of asset holdings, like landownership and stock exchange and real estate speculation. (I am not suggesting that the last two types of asset holdings will be eliminated by a more rational interest rate policy. It will make them, however, less attractive.) On the other hand, by devious means, banks, professional money lenders, and finance companies are generally able to squeeze out more "interest" returns on their loans. The experience of Korea and Taiwan suggests that, at higher levels of interest rates, there is a positive response among savers.

The failure to enforce interest rate reform makes it more difficult for the government to use interest rate differentials in encouraging more socially productive investments. At least, one can argue that more socially desirable activities can benefit from interest rate subsidies. All other investments of low priorities can be subjected to the market rate of interest.

Wage legislation. Moreover, Philippine labor policies, especially the raising of the minimum wage law from 4 pesos to 6 pesos a day, have negated some of the advantages derived from the exchange depreciation following decontrol. Definitely, Philippine economic reforms should pay more attention to interest rate policy as well as to a closer examination of wage policy. Reform in interest rate policy should begin firstly with the repeal of the anti-usury law. The minimum wage need not be repealed, because there are many possible tricks that can be used in cheapening wage rates, especially with respect to encouraging export industries.[28] Of course, one sweeping change in exchange rates or inflation can restore this wage rate to "equilibrium".

Foreign investments. A major lesson should also be learned concerning foreign investment policies. The Philippines has not succeeded during the years under consideration in attracting foreign investments because (a) it lost out to its neighboring countries in attracting similar investments, and (b) enunciated policies have been unwittingly attracting the "wrong" foreign investments, those that went into import substitution in manufacturing and no further. (The outstanding exceptions are the pineapple industries.) Those that the Philippines succeeded in inviting are largely import-substituting primarily because the strongest incentives were in this field.

General reforms along foreign investment attraction policies are needed in the Philippines despite the investment incentives act. There

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[28] See my proposals in G.P. Sicat, "Towards Industrial and Employment Expansion: Alternative Proposals for Economic Incentives Legislation Applied to Export and Industrial Promotion," Discussion Paper 68-22 (July 5, 1968), Institute of Economic Development & Research, University of the Philippines.

is no reason why the Philippines would not be able to attract foreign investments in export enterprises if policies were directed towards supporting export-oriented industries. They can be liberal in equity ratios for foreigners in these industries, but restrictive in others. At the moment, with all the restraints imposed by recent legislation which restricts the ratios of domestic equity participation, export-oriented foreign investments are prevented from expanding their operations or, if they are yet to be attracted, from coming in. The loss of potentially good export earners is a loss to the economy in terms of foregone employment and higher earnings from the laboring class. These costs show themselves in terms of social tensions associated with low income and poverty. Legislators should be able to think of ways to correct these unfortunate legal restraints.

The unfavorable aspects of Philippine economic policy are self-reenforcing: there is a problem of resource pricing which prices the most scarce resource (savings and capital) cheaply and the most abundant resource (labor) expensively. Policies still have to be worked out which should reemphasize new industries in the tariff structure and which should promote a push for exports beyond the lipservice that has become so current recently. The key to raising the rate of growth to the magnitudes achieved by Taiwan and South Korea recently is to restore the country to correct pricing strategies. Of course, it is also to be stressed that efforts in increasing agricultural productivity and infrastructure facilities are raised.

All these strategies call to mind what I have called elsewhere as a push for vigorous "internal policies" and the curing of the

"UNCTAD syndrome" from the minds of policy makers and technicians.[29] It is not within the realm of impossibility to have the rate of industrial growth rise by 20 to 25 per cent per year and to have the total economy grow by 10 to 15 per cent. At least South Korea and Taiwan have achieved these rates of progress in recent years.

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[29]See my "Inventory of Philippine Exports, 1961-1967," Discussion Paper 69-5 (February 5, 1969), Institute of Economic Development and Research, University of the Philippines..

CONTINUING PROBLEMS: SHORT- AND LONG-RUN

The economies of South Korea and Taiwan have flourished in recent years because of greater reliance on the use of correct pricing policies with respect to foreign exchange, interest rates, wages, and, in addition, liberal policies of investment attraction from abroad.

We put the Philippines in a comparative context in the previous section so as to show the missing ingredients of economic policy which hindered the expansion of the economy at rates as favorable as the performance of Korea and Taiwan.

It is important to be reminded that economic development always brings continuing problems. It is a platitude to say that successful development breeds new problems and the character of these problems change as one moves from lower to higher levels of development. This is one fact of economics. Happiness is never at hand. The following brief notes are intended to bring out new problems current to both South Korea and Taiwan, which may or may not have been mentioned in the previous discussion.

Short-run Problems

(1) Dangers of disequilibrium between interest rates and other prices.

It was pointed out the Korea's interest rate policy has yielded an impressive response among domestic savers. The attempt of the banking system to maintain interest rates at a very high rate has led to some structural problems with respect to debt structure as well as to the allocation of the domestic savings that has been generated by the banking

system.[30]

In view of the large difference between domestic interest rates and the world interest rates, there has been an increase in the dependence of new as well as established enterprises on external debts as a mean of financing their long-run capital requirements. Not all of the domestic savings thus being generated have been correctly channelled into long-term investments. The relatively high interest structure has, of course, been channelled into the financing of our commercial savings of short-run. This would suggest that a greater problem of redirection of savings into long-run capital investments is in order for short-run policy.

The above statements seem to be most relevant in the case of South Korea. Taiwan has already corrected high interest rates to relatively lower ones (but of course not as low as those obtained in the Philippines) as price stability was attained by the monetary authorities. The policy implications of this requires a reduction in interest rates, but one might add, the reduction required should probably be nearer to Taiwan, but not lower.

(2) Dangers of Overenthusiasm

Because of the high rates of growth recently experienced, certain policies which need correction may be shelved until the tide is un-

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[30]These remarks are second thoughts and are therefore a qualification to the section on interest rate policy. I am indebted to David C. Cole for enlightening me further on this point in conversation, but he is not responsible for my errors.

favorably turned. This can follow from a feeling that things have been going on very well.

South Korea's experience is useful again. The early years of South Korea's industrial success were based on the liberalization of foreign exchange and the complementary support from industrial policies. After a series of changes in exchange rates, the won became fairly stable. In recent years, however, the exchange rate became overvalued because of the increasing import requirements of the industrialization as well as the expansion of externally borrowed money. The overvaluation of the exchange rates became relatively more severe in the last year or so. Measures designed to impose more severe import quota restrictions are signs of the growing disparity of the equilibrium exchange rates from the exchange rate supported by the government. Yet, the overvaluation of the won has already began to pinch the export industries, including potential ones. (As of this writing, however, the South Korean government seemed to have decisively acted on this problem. They devalued the won during the first week of November 1969).

In Taiwan, the same may be said. Although there seems to be a fair amount of exchange rate stability, the still extensive use of foreign exchange and import controls in Taiwan (except for export-oriented industries) is an indication that further liberalization is possible, which would relax policies on imports, without necessarily causing any harm on other policies. But the highly successful development of the recent period has probably concealed the presence of these types of distortions.

(3) Vietnam War.

The growth of the South Korean and Taiwanese economies coincided with the rapid escalation of Vietnam War in the early 60's. These two economies have been among the two greatest beneficiaries of the war procurement policy related to the American war effort in Vietnam. The expected termination of the war effort and the shift of priorities that are inevitable when peace is finally reached will require short-run adjustments to compensate for the reduction of demand for South Korean and Taiwan exports. Thus, these economies will have to find a basis for development which is directly linked to the growth of world demand for goods that both economies are selling or expect to sell as exports under peacetime conditions.

Long-Run Problems.

(1) New Directions in International Cooperation.

Even with the rapid industrialization of South Korea and Taiwan, it is still important to pose a question concerning the directions needed by sustained industrialization. This is related of course to the nature of industrial development which is being pursued, but there are limitations to this development posed by the level of demand as a result of limited market size, even when many industries are possible candidates as potential exportables.

In view of the relatively small sizes of these two economies, ventures into much heavier industries depend a lot on the nature of expansion of the export markets as well as the growth of the domestic mar-

kets. Here, efforts at economic cooperation between South Korea and Taiwan have been more than helpful in trying to overcome the limited markets of both countries. The two countries have attempted "harmonize" their industrial plans so that they complement each other's industries. Their projected excess capacities are swapped as exports to each country. This industrial "harmonization" is largely in terms of initial specialisation in some heavy industries.

Two other long-run problems concerning the expansion of exports market and the new direction of import substitutin industries ought to be specified.

(2) Expanding export markets.

The experience of both countries in early export success is helpful to them in further expanding towards more diversified export markets. Much has been said about the relative importance of the American market in the export growth of these two countries. The efforts to diversify depend on the scale of production that may be attainable with the growth of exports to the American market as a base. It also depends on the nature of long run world economic development as well as competition from new sources of supplies of labor-intensive manufactures that South Korean and Taiwan have moved into much earlier, for instance, Singapore, India, Pakistan, the Philippines and even the new industrializing countries in Africa.

In a world of international trade, the rate of progress of other countries determine just as well the rate of internal domestic progress that may be achieved by Taiwan and South Korea, because their export industries are affected both ways -- as a source of new demand (world buyers) and as a potential source of new competition (competing exporters of the same product lines). In terms of the latter possibility these two countries should be able to move into more sophisticated export-lines (Taiwan has recently shown this capacity) so that they are able to edge out the competitive advantage of now developed countries already engaged in these product-lines. As their labor supplies get exhausted and wage income rises, they will eventually lose to the low-wage countries with still enormous supplies of labor in areas of export manufactures which have originally propelled them into high rates of industrial expansion.

(3) Expansion of the import substituting industries.

To what extent will Taiwan and South Korea rely on relatively more foreign trade is of great importance to the economies of these two countries. What would be a rational strategy towards imports? Their attempts in imposing quotas and exchange controls have encouraged some import substituting industries which may in fact be noneconomic in character. Whether with successful export growth these policies of import substitution, even in lines of production that might not be profitable, should be relaxed to allow for a greater flow of traded goods, without distinction as to whether they are capital goods, raw materials, or consumption goods. With or without quotas, more economic development generates a greater de-

mand for import substituting industries. And attempts to distort the incentives (prices) available to natural lines of import substitution might push them into establishing costly import substituting industries.

(4) Foreign investment policy: equity structure.

The structure of ownership of foreign investments that have been attracted into Taiwan and South Korea in the early years of their industrialization will eventually pose questions concerning what to do with the resulting equity structure of enterprise as between foreign and domestic investors. It is, in my view, a very wise strategy for these countries to have allowed a very liberal foreign investment policy at an early phase of their industrial development. Foreign direct investments have brought with them relatively important sources of technological know-how, supplemented domestic savings, and increased the rate of expansion of domestic employment in manufacturing much faster than would have been attained.

In the long run, however, South Korea and Taiwan will be faced with the problem of trying to restructure the ownership patterns of equity in industrial enterprises. It would be welcome when it comes in the future, when the economic progress and standards of living attained are already very high. But at present, when the major economic problems are poverty, unemployment, and income expansion, it is well that these economies have put these questions aside. In contrast, the Philippines is so engrossed with this question. Thus, the employment absorption of industry and the rate of expansion of [illegible] industrial sector is far from satisfactory.