Title
Housing and Economic Development in Taiwan

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Publication Date
1988-06-01

Peer reviewed

Working Paper 483

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June 1988

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(Ho,S. 1979: 81). Thus, the colonial enterprise set in motion the pattern of broad-based development which characterizes the economy of Taiwan today. Secondly, the division of labor between the Japanese and the Taiwanese in the colonial economy shaped the public-private collaborative framework in postwar Taiwan. Unlike many other post-colonial countries, nearly all private foreign companies in Taiwan were nationalized at the end of colonial rule. Replacing the Japanese commanding role in agricultural organization and industrial structure, the KMT state acquired a predominant position in the postwar economy, which set Taiwan apart from other market economies. In the next chapter, we will analyze how the KMT state and the Taiwanese peasant sector related to each other and how these sociopolitical relationships shaped the strategies they used in transforming Taiwan's economy.

To my Berkeley teachers who opened my eyes

and my people who opened my heart.

Acknowledgements

A thesis not only records what one learns from one's teachers but also provides a great chance for a shy student to thank his mentors. I am most indebted to Professor Castells whose advice and example has guided my whole study at Berkeley. By teaching me how to think globally and work sequentially, he enabled me to undertake this thesis. If not for his unreserved trust and support, I simply could not present this tentative work to you. I feel very grateful to Professor Hall for his tolerance of my crude ideas and encouraging guidance. If the following pages seem intelligible, it is because he has attentively helped me through several drafts and corrected my numerous mistakes. I owe a great deal to Professor Gold whose leading work on Taiwan is the basis of this thesis. It was through his writing and teaching that I learned to understand my native country in a comprehensive manner. I am also indebted to Professor Michael Watts, Professor Fernando Kusnetzoff, Professor Cynthia Kroll, and Jose Curbelo for their thoughtful comments on my papers which led to the present work.

Many friends have wholeheartedly helped me through the research process. Allowing me to use his computer, Wen-Liang Kuo made many of my sleepless nights also his. Hou-Nan Tsai and Fei-Yue Kuo arranged my internship in the Council for Economic Planning and Development whose data this study depended on. Chi-Jong Ea and Jing-Shen Chang collected and mailed many crucial references for me. To them, I offer my best thanks.

This study is motivated by my respect of and obligation to the common people in Taiwan. They treated me as brother in my college field trips and their labor allows me to study abroad. I hope they will receive more fair treatment from the academy and that their experience will be of some use for other peoples.

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PREFACE

Only twice during the last decade has the Institute of Urban and Regional Development taken the unusual step of deciding to publish a thesis by a Master's student. The first, in 1981, was AnnaLee Saxenian's study of *Silicon Chips and Spatial Structure: The Industrial Basis of Urbanization in Santa Clara County, California*, which appeared as IURD Working Paper 345 in 1981. We think that our decision then proved fully justified: Saxenian's work immediately became one of the most frequently quoted sources for the development of Silicon Valley, and formed the basis of several equally celebrated papers by the author in subsequent years. We hope and expect that the same will be true of Pei-Hsiung Chin's thesis.

The reason is that there is now an intense interest in the nature of the development process that has guided the remarkable economic growth of the "Four Tigers" of Southeast Asia: Hong Kong, Korea, Singapore, and Taiwan. But there has been a dearth of good research, based on intense study of local sources and written with intimate knowledge of the social and cultural background. Professor Manuel Castells and I, as thesis advisers, agreed that Pei-Hsing Chin's paper represents a significant early contribution to the filling of this black hole.

It deals with a specific but crucial element: the role of Taiwanese housing policies in the process of development there. This is significant, because it appears that -- not merely in Taiwan but also in Singapore and Hong Kong -- housing policies have been very specifically used as the basis of a welfare policy that has greatly contributed to social harmony and rapid industrialization. Yet the Taiwanese model is significantly different from that of the other two cases, which have relied on massive public intervention. It deserves to be better appreciated.

In the process of analyzing it, the author gives us a wealth of contextual material about the Taiwanese development process. He shows how, as in the other "Tigers," the state has played a significant and so far under-appreciated role. His Ph.D. dissertation, which will deal with this role on a larger comparative scale, will undoubtedly tell us much more. Meanwhile we felt that this contribution deserved to be known among the community of interested scholars.

Peter Hall
Associate Director
Institute of Urban and Regional Deveopment

INTRODUCTION

Both housing and economic development in postwar Taiwan are exceptional in international experience. While the large amounts of informal housing in developing countries and rental housing in developed countries demonstrate the "imperfection" of the housing market, people in postwar Taiwan have managed to attain one of best housing conditions of all developing countries and one of the highest home ownership rates in the world, predominantly through the market. Despite the prevailing belief that integration into the capitalist world economy leads either to underdevelopment or growth at the initial cost of inequity, island China has relied heavily on international trade and realized simultaneously rapid growth and substantial reduction of income differentials.

This thesis combines the studies of Taiwan's housing and economic development with the belief that the understanding of either process is crucial for the other. Equitable growth and broad-based development underlie Taiwan's mass housing market. Widespread family saving and premises form the foundation of Taiwan's state-guided family-firm-based market economy. By analyzing the interactions of the housing and economic processes within one framework, this tentative paper aims at illuminating the particular logic of the Taiwan experience.

Except for <u>Far Eastern Economic Review's</u> reports on Taiwan's real estate market, the housing study has to depend exclusively on Chinese sources. But whenever Chinese expressions or local peculiarities are encountered in the discourse, every effort has been made to reduce the distortion in translation while maintaining the simplicity of the text. As for the economic process, Taiwan has been studied by all major schools of development as a contending case in the literature. Some researchers emphasize the external context and highlight the importance of Japanese and American hegemonic power in Taiwan's development (e.g. Cumings,1984; Crane,1982). Some other analysts focus on the internal system and show the central roles of the developmental state and Chinese families (e.g. Amsden,1985; Gates,1979; Gold,1986; Wade,1984,1985). Specific issues in the development process, such as trade regime and industrial location, are best articulated by economists (e.g. Galenson,1979; Ho,S.1978,1979; Lin,1973). Based on all these studies, this paper attempts to integrate the various and complex causal explanations into a unifying and simplifying framework.

The sociopolitical structure which united the economic agents of postwar Taiwan, state and families, is the overriding framework we use. By studying the initial conditions, external contexts, economic objectives, and development strategies of these agents, previous research findings are organized together. As for the sociopolitical structure itself, we rely heavily on the works of China scholars and anthropologists (e.g. Greenhalgh,1984; Stites, 1982,1985). The following diagram displays the basic outline and chapter

```
                     #^^^^^^^^^^^^^^^^^^^^^^^^# 1  ------ number
                     # physical manifestation #           of
                     #   of equitable growth  #          chapter
                     #------------------------#
                     #    HOUSING PROCESS     # 2
                     #------------------------#
     *---------------#--> rectifying market   # 3
     |               #    popular capital <---#-----------------*
     |               #........................#                 |
     |                                                          |
     |                     *-------------*                      |
     |                     |   Japanese  |                      |
     |                     | Colonialism |                      |
     |                     *-------------*                      |
     |                            v     5                       |
     |     *-------------*  #^^^^^^^^^^^^#  *----------------*  |
     |     |  Chinese    |  #  Economic  #  | State-Society  |  |
     |     | Revolution  |  #  Position  #  |    Conflict    |  |
     |     *-------------*  #............#  *----------------*  |
     |              *------>#            #<-------*             |
     |                      #   Socio-   # 6.1                  |
*----------------*  #^^^^^^^#  Political #^^^^^^^^^#   *--------------*
| Modernization  |<--# STATE #  Structure # FAMILY #-->| Traditional  |
| Paradigm       |   #.......#...........#.........#   | Institution  |
*----------------*                                     *--------------*
     |                                                          |
     *--------------->#^^^^^^^^^^^^^^^^^^^^^^^^^^^#<------------*
                  6.2 # Development | Mobility    # 6.3
         *------------# Strategies  | Strategies  #------------*
         |            #             |             #            |
         |            #^^^^^^^^^^^^^^^^^^^^^^^^^^^#            |
         |            #      ECONOMIC SYSTEM      #            |
         |            #---------------------------#            |
         |            #  public-private D of L    #            |
         |            # internal capital circuit  #            |
         |            # external exchange regime  #            |
         |            # private sector formation  #            |
         |            #     market structure      #            |
         |            #     Social Mobility       #            |
         v            #...........................#            v
 *--------------*                                     *--------------*
 | Situational  |  #^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^# 7 | Spontaneous  |
 |   policies   |-->#     STAGES OF ECONOMIC        #<--| Adaptations  |
 *--------------*  #     STRUCTURAL CHANGES        #   *--------------*
    *------------*  #-------------------------------#
    | U.S. Aid   |--#->  rectify colonial economy   #
    *------------*  # labor-intensive industrializ  #
                    #     backward integration      #
                    #     forward extension         #
                    #...............................#
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organization. The logic of this explanatory scheme will be articulated in the beginning of studies on housing and economic development, (Chapters One and Four). The last chapter concludes the thesis by relating and addressing both topics.

HOUSING AND ECONOMIC DEVELOPMENT IN TAIWAN

1. HOUSING THE MASSES THROUGH THE MARKET

Taiwan's housing condition in the 1950s was not very different from those of other Third World countries. At that time, the island's degree of urbanization was still low. In 1958, only 34 percent of Taiwan's population lived in cities or rural towns with more than 2,500 residents.[1] A 1953 sampling survey documented well the island's rural and urban housing condition during this period (Table 1). Of the 1,176 rural households surveyed, 82 percent lived in houses with earth floors, 60 percent used earth or straw walls, and 44 percent had straw roofs. With an average size of 6.1 persons, one-third of these rural households had only one or two rooms and three-quarters of them had no more than four rooms. Urban houses were more crowded and in very bad shape. Of the 1,383 households surveyed, 43 percent had serious roof leakage problems and 63 percent had at least some leakage problems, at a time when 37 percent of their floors were made of earth and 15 percent of wood or straw.

Since the date of that survey, there has been substantial improvement in Taiwan's housing condition. Dwelling space per capita expanded 2.7 times in the two decades after 1966 from 7.2 to 19.7 square meters. As Table 2 suggests, this was a general trend for homes of all sizes. Housing facilities, such as electrification, piped water, and private restrooms, have continuously and generally improved. And the soaring volumes of electricity consumption per capita reveals the rapidly growing numbers and kinds of home appliances found in Taiwan's houses. Figures 1 and 2 demonstrate the most prevalent housing type in Taiwan's metropolitan areas. Home-ownership also increased considerably (Table 3). In Taipei city, owner-occupied houses as a percentage of total housing stock rose from 40.5 to 66.5 percent between 1966 and 1980. In 1980, the percentage of owner-occupied dwellings in Taiwan was 79.1 percent, one of the highest in the world.

TABLE 1 URBAN AND RURAL HOUSING CONDITIONS IN TAIWAN, 1953

	RURAL HOUSEHOLDS[3]						URBAN HOUSEHOLDS[3]					
Number of Rooms	1-2	3-4	5-6	7-8	9+		1-2	3-4	5-6	7-8	9+	
%	33	42	16	5	4		46	33	13	3	5	
Wall Material	Brick	Wood	Bamboo	Earth[1]	Straw	Other	Brick	Wood	Bamboo	Earth[2]	Straw	Other
%	10	14	6	51	9	11	17	48	0	29	1	5
Roof Material	Tile	Straw	Slate	Bamboo	Other		Tile	Straw	Slate	Bamboo	Other	
%	43	44	2	2	9		70	12	11	3	4	
Roof Leakage	None	Some	Serious	Didn't Answer			None	Some	Serious	Didn't Answer		
%	38	44	16	2			36	20	43	1		
Floor Material	Earth	Brick or Cement	Wood or Straw	Other			Earth	Brick or Cement	Wood or Straw	Other		
%	82	13	2	3			37	42	15	6		
Lighting	Electrical	Mineral	Oil	Other			Electrical	Mineral	Oil	Other		
%	37	39	16	8			84	8	7	1		
Water	Piped	Well	Channel	Spring or Creek	Other		Piped	Well	Channel	Spring or Creek	Other	
%	11	61	17	10	1		63	29	2	4	2	

Note: 1. Including 29% earth block and 22% earth and bamboo.
2. Including 25% earth block and 4% earth and bamboo.
3. A Sampling survey of 1,176 rural households (average size: 6.1 persons) and 1,383 urban households (average size: 5.4 persons).

Source: U.S. Mutual Security Agency and National Taiwan University, 1954, Cities and Industries in Taiwan

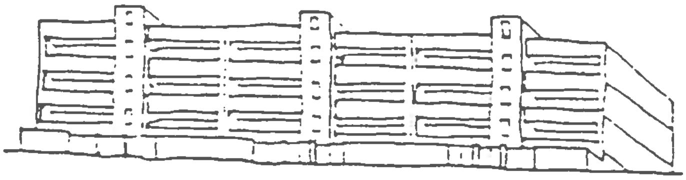
TABLE 2 HOUSING IMPROVEMENT IN TAIWAN, 1953-1985

% of Occupied Dwelling Units with	1953	1960	1965	1970	1975	1980	1985
Piped water	28.2	29.7	38.3	43.7	50.3	75.1	80.2
Private restroom			33.3	-	68.3	86.4	94.1
Electric lighting	35.3	56.8	72.6	86.5	99.3*	-	-
Electricity per capita (KWH)	28	44	76	163	273	513	638

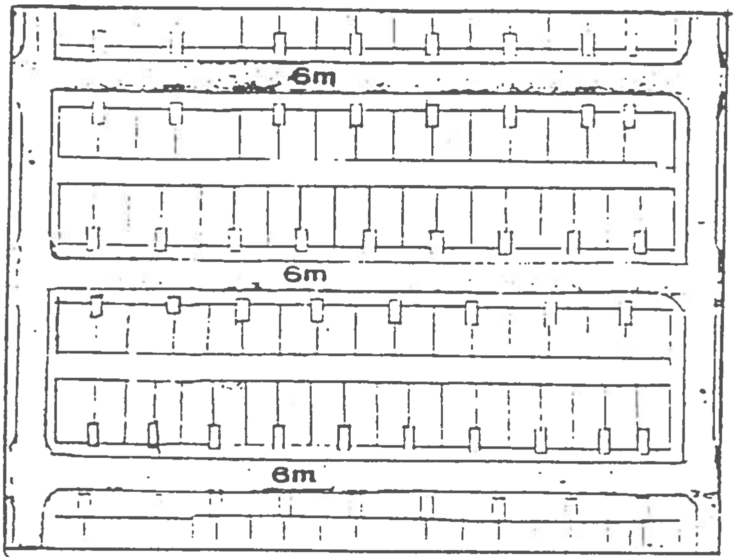
SIZE DISTRIBUTION OF ALL DWELLING UNITS (in percentage)	1966	1970	1975	1980	1986
Below 30 m^2	43.3	33.9	16.1	7.2	
31 - 60 m^2	37.7	39.6	35.6	24.3	
61 - 80 m^2	10.9	13.6	20.7	21.0	
81 - 100 m^2	4.9	7.0	14.4	23.1	
Above 100 m^2	3.2	5.8	13.3	24.5	
Dwelling space per capita (m^2)	7.2	9.0	12.3	15.3	19.7

Source: * Note: 1974

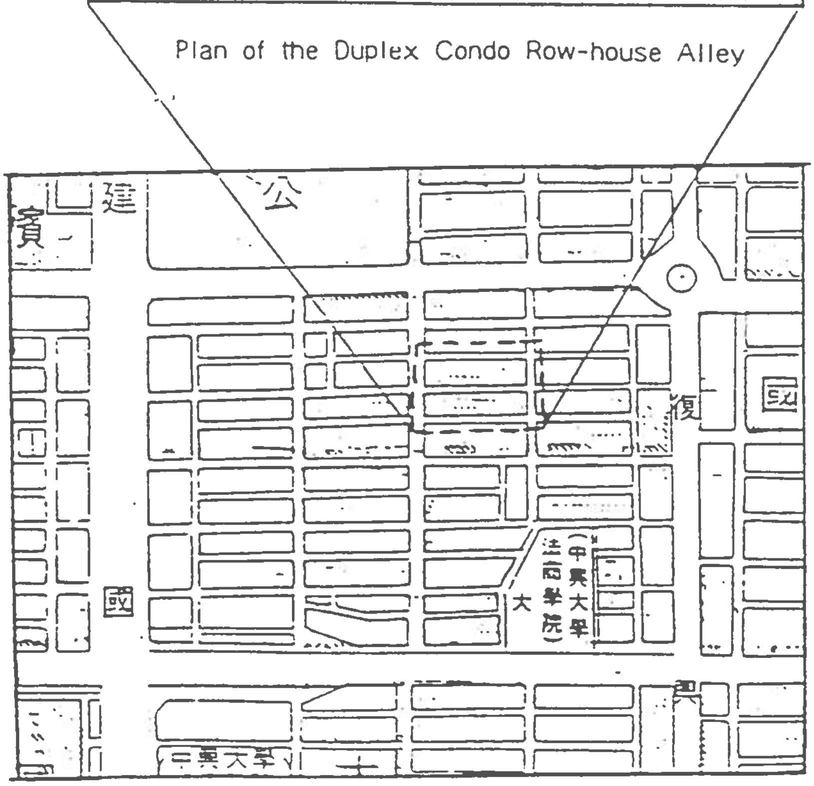
1. 1965 figure of restroom: Directoral General of Budget, Accounting and Statistics. 1965. Experimental Housing Survey
2. 1975 and 1980 figures of electricity consumption and restroom: Council for Economic Planning and Development. 1981 Urban and Regional Development Statistics
3. Figures of water after 1975 and all data after 1980: DGBAS. 1986. Report on the Housing Survey in Taiwan Area
4. Other upper half figures: Council for Economic Planning. 1976. Social Welfare Indicators cited in Galenson (1979, table 6.31).
5. Lower half figures up to 1980: DGBAS. 1966-80. Population and Housing Census cited in CEPD. 1985. A Study of Housing Stock and Housing Condition in Taiwan



Elevation of the Duplex Condo Row-house



Plan of the Duplex Condo Row-house Alley



A Superblock in Taipei

Fig. 1 The Prevailing Urban Tissue Type in Taiwan's Metroplolitan Areas

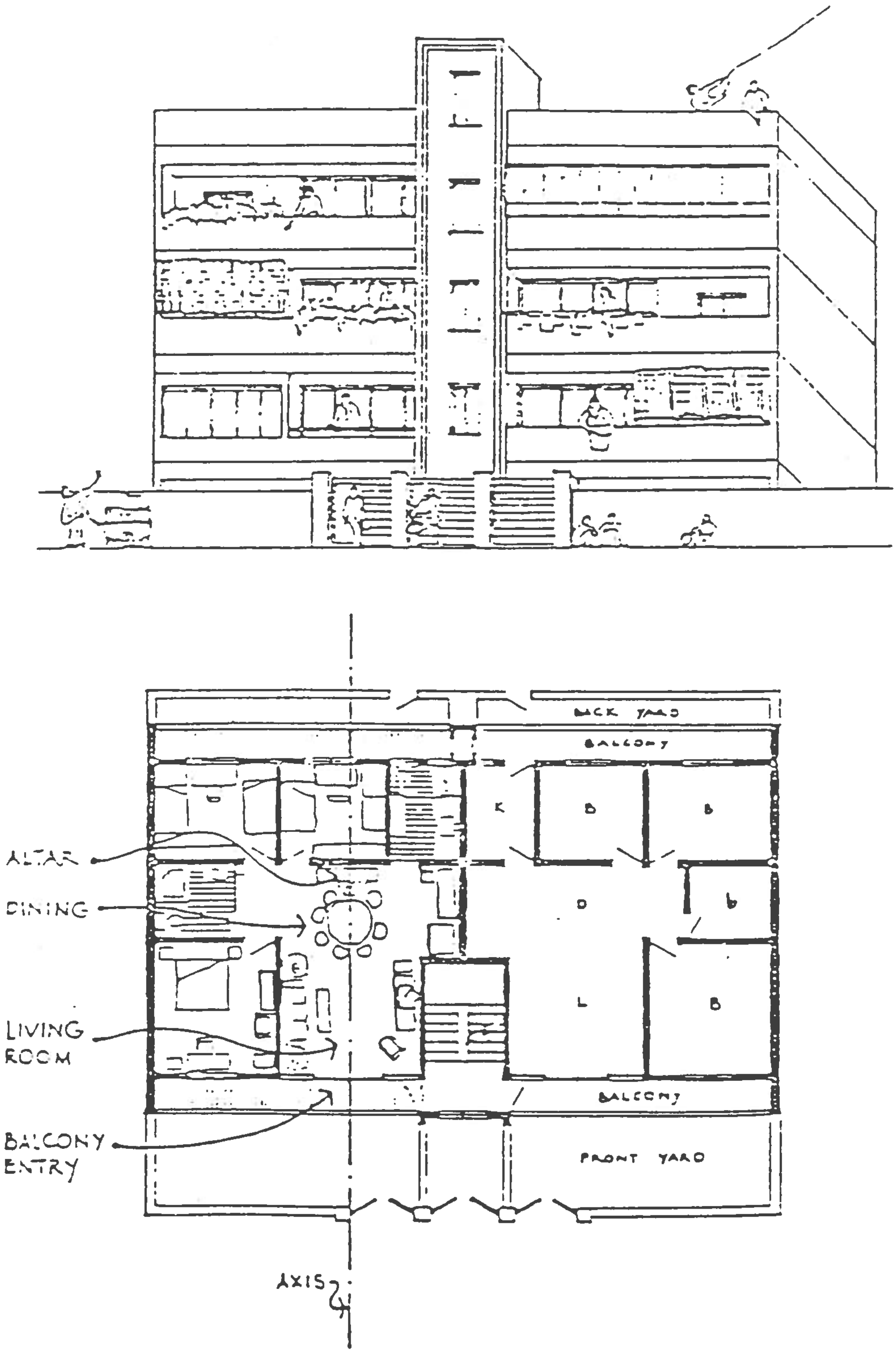


Fig.2 Elevation and Plan of the Taiwan's Typical Duplex Condo
From John K.C. Liu <u>Housing Transformation: A Study of Family Life and Built Form in Taiwan</u> Dissertation U.C. Berkeley (1980)

TABLE 3 HOUSING OWNERSHIP IN TAIWAN, 1966-1980

	ENTIRE TAIWAN AREA				THE CITY OF TAIPEI			
Year	Rental	Owner-Occupied	Rationed	Other	Rental	Owner-Occupied	Rationed	Other
1966	20.3%	66.3%	10.4%	3.0%	-	40.5%	-	59.5%
1970	20.2%	66.1%	11.2%	2.5%	-	46.3%	-	53.7%
1975	19.4%	70.1%	9.3%	6.4%	30.7%	55.1%	12.6%	1.6%
1980	11.8%	79.1%	6.4%	2.7%	20.1%	66.5%	9.0%	4.4%

Source: DGBAS, Population and Housing Census 1966, 1970, 1975, 1980

TABLE 4 BUILDING CONSTRUCTION IN TAIWAN, 1961-85

PERIOD	(in 1000 m^2) Total Floor Area Built	Percentage as Previous Period	Average Annual Growth Rate
1961-65	3,690		
			43.1%
1966-70	22,101	599%	
			17.6%
1971-75	49,803	225%	
			19.2%
1976-80	120,059	241%	
			4.0%
1981-85	146,348	122%	

Source: calculated from DGBAS, 1985, 1986, Statistic Yearbook of the Republic of China

These improvements were realized through a dramatic process of resource mobilization after the mid-1960s. Table 4 shows how impressive the acceleration of construction activity was. Measured by five-year period, since 1966, total floor area built in Taiwan first jumped by 6, then 2.25, then 2.4 times. The effects of this resource mobilization in virtually rebuilding Taiwan's settlements

TABLE 5 OCCUPIED UNITS BY YEAR OF COMPLETION IN TAIWAN, 1980

YEAR OF COMPLETION	Before 1945	1946-60	1961-70	1971-75	1976-80	Total
Taiwan Area	434,361	442,800	1,340,111		944,977	3,162,249
Taipei Municipality	32,437	49,232	211,659		132,239	426,107
Taipei Prefecture	29,995	28,074	195,860		183,038	436,967
			(PERCENTAGE)			
Taiwan Area	13.7	14.0	25.3~	17.1~	29.9	100
Taipei Municipality	7.6	11.6	32.8~	17.0~	31.0	100
Taipei Prefecture	6.9	6.4	22.6~	22.2~	41.9	100

~ Note: The 1980 census treats 1961 to 1975 as one single category. To estimate the scale of construction in subperiod, the category is broken into two based upon the 1975 census. The estimation assumed that the relative size of the categories of 1961-70 and 1971-75 remained the same in 1980.

Source: DGBAS, Population and Housing Census 1975, 1980, cited in CEPD, Urban and Regional Development Statistics 1976, 1982.

were especially strong in the decade after 1970 for the absolute amount of construction involved. Table 5 discloses the scale of this rebuilding. In 1980, 56 percent of the occupied housing units in Taipei (including the city and the enclosing prefecture) were built during the decade before. If we consider the total housing stock (vacancy rates were 14 percent and 13 percent in Taipei and all

Taiwan respectively), the ratio will go beyond 60 percent. For Taiwan as a whole, of the occupied units, the ratio was 47 percent.

This dramatic resource mobilization and massive physical transformation involved a fundamental institutional change, the emergence and dominance of a new mode of housing provision in Taiwan. To the Taiwanese people, the most distinct change of Taiwan's housing since the mid-1960s is not the physical form or the ownership arrangement but the mode of provision, as they did not call the new type of housing "apartment" or "condominium" but "sale house" (Huan Chu). Commodity production of housing was a new phenomenon in 1960s Taiwan. Before then, few people produced houses mainly for sale. To have a new home, one had to buy the land and find the artisan-contractor himself. The housing market was restricted to the sphere of exchange.

The burgeoning and expansion of a housing market which included the sphere of production was the force underlying Taiwan's creditable housing development in the postwar period. Based on this new mechanism, Taiwan's private housing sector has supplied a predominant share of those upgraded and "affordable" houses which led to the widespread improvement of housing conditions in Taiwan. As Table 6 shows, during the period of accelerated commodity housing production, the amount of informal housing has decreased, especially in Taipei city. And the supply of public housing was so small that private sector housing had actually increased its already large share of Taiwan's total housing stock. Based on data of different dates. we have estimated that, in 1980, of all the occupied dwelling units in Taiwan, only 4.8 percent were supplied by the public sector and about 3.9 percent was informal housing. Taipei city had the highest ratio of public housing and the largest number of informal housing in Taiwan. Still, private sector housing accounted for about 89.5 percent of the total.

TABLE 6
SECTORAL DISTRIBUTION OF HOUSING STOCK IN TAIWAN, AN ESTIMATION

Year	(1) All Dwelling Units	Year	(2) Informal Sector Housing Units	As % of (1)	Year	(3) Public Sector Housing Units	As % of (1)	Estimated Private Sector Housing Percentage
(TOTAL TAIWAN AREA)								
1956	1,476,943	1958	106,259	7.2%	1958	13,697	0.9%	91.9%
1966	2,291,191	1967	130,436	5.7%	1967	90,024	3.9%	90.4%
1980	3,162,249	1979	121,837	3.9%	1980	152,558	4.8%	91.3%
(THE CITY OF TAIPEI)								
1956	147,140	1958	46,649	31.7%	1958	2,735	1.9%	66.4%
1966	244,996	1967	49,075	20.0%	1967	14,676	6.0%	74.0%
1980	485,201	1979	20,783	4.3%	1980	30,008	6.2%	89.5%

Sources:
(TOTAL DWELLING UNITS)
1. The 1956 figures are estimates by Han-Yu Chang, in his "The Economic Analysis and Planning of Housing Problems in Taiwan", in Quarterly of the Bank of Taiwan, 28,4 (Dec. 1977).
2. All other: DGBAS, 1966, 1980, Population and Housing Census.

(INFORMAL HOUSING)
1. The 1958, 1967 data of informal housing and Taipei's public housing are from Council for International Economic Cooperation and Development, Public Housing Data, 1970.
2. The 1979 data of informal housing are from CEPD, The Study of the Demand and Distribution of Public Housing, 1980.

(PUBLIC HOUSING)
1. The 1958, 1967 data of Taiwan's public housing are from Pu-Ying Ju, "Urban Housing Development in Taiwan" in Quarterly of the Bank of Taiwan 3,24 (Sep. 1973).
2. The 1980 data of Taipei City's public housing is from Agency of Construction. 1982. Proceedings of the Seminar on Public Housing

This extraordinary expansion of private housing was neither adequately guided by public land use management nor sufficiently equipped with public amenities. Without suitable regulations, family shops and factories cause serious externalities in Taiwan's mixed-use neighborhoods. With government provision outpaced by private construction, park area per capita in Taipei city was only 2.0 square meters in the early 1980s.[2] In a survey of residents in Taiwan's metropolitan areas, environmental nuisances and the lack of playgrounds and parks were by a large margin the leading concerns of the residents. In short, most families in Taiwan's cities own decent homes without having a suitable living environment. This situation has made government policy analysts consider that, in the 1980s, Taiwan's central housing problem has shifted from quantitative shortage to environmental quality.[3] This change in the nature of the housing problem symbolizes Taiwan's housing improvement in the postwar period, since the housing shortage remains far from resolvable for most other Third World countries.

The fact that housing improvement in Taiwan was realized essentially through the development of a commodity housing market demands explanation, for in international experience, market mechanisms seldom generated such high percentage of upgraded owner-occupied housing. On this, a comparison with South Korea can be informative, because of the two countries' similarity in the level and speed of development. With the emergence of a rapidly growing housing market, both South Korea and Taiwan had increased their housing investment in relation to their gross product in the latter half of the 1960s (Table 7).

But while in South Korea, the population grew less rapidly and its housing investment increased faster, the growth of the country's dwelling space per capita was actually slower. In the decade after 1970, South Korea's dwelling space per capita increased 1.53 times from 6.6 to 10.1 square meters and that of Taiwan increased 1.7 times from 9.0 to 15.3 square meters.[4] Much more importantly, while Taiwan basically resolved its housing shortage problem in the 1970s, the housing shortage in South Korea was actually exacerbated.[5] Between 1970 and 1975, dwelling units with more than one household increased from 20.4 percent to 24.4 percent of total units, while owner-occupied units decreased from 69 percent to 63.5 percent.[6]

TABLE 7 HOUSING INVESTMENT IN SOUTH KOREA AND TAIWAN

Housing Investment as Percentage of Gross National or Domestic Product

YEAR	S.Korea~	Taiwan*	YEAR	S.Korea	Taiwan	Five Year Average	
1960	2.2	2.3				1971-1975	
1961		1.8	1971	3.2	2.9		
1962		1.6	1972	2.7	2.6	S.Korea	Taiwan
1963		2.2	1973	3.2	3.1		
1964	1.6	1.4	1974	4.4	2.8	3.88	2.93
1965		1.7	1975	4.5	3.2		
1966		1.8	1976	3.4	3.3	1976-1980	
1967		2.3	1977	4.3	3.5		
1968	3.1	2.7	1978	6.0	4.2	S.Korea	Taiwan
1969		2.5	1979	5.1	4.5		
1970	3.4	2.0	1980	4.8	4.5	4.88	4.07

~ Housing investment as percentage of gross national product
* Housing investment as percentage of gross domestic product
Source: CEPD, Urban and Regional Development Statistics 1982. Bank of Korea, Economic Statistics Yearbook 1977, 1981 cited in Edwin S. Mills and Byung-Nak Song, Urbanization and Urban Problems, Studies in the Modernization of the Republic of Korea 1979 and CEPD, Housing Policies and Housing Development Structure Plan of the Republic of Korea 1983.

Although the South Korean government rapidly expanded its housing investment, in the four five-year periods after 1961, the shares of public sector in housing investment were 8.8 percent, 13.8 percent, 24.7 percent, and 31.6 percent sequentially, South Korea's housing shortage continued to worsen.[7] Between 1970 and 1980, the per dwelling household number increased from 1.34 to 1.46. Owner-occupied units shrunk to a low of 58.1 percent of total units in 1980.[8]

Since there is no definite relationship between a booming real estate market and housing improvement, it becomes important to ask what kind of market is responsible for Taiwan's relatively more benign result and what has makes this mass housing market possible. Before answering to these two central questions, we need first to review the rapidly changing historical realities in Taiwan's housing process. In the following chapter, we have divided our study of the history of Taiwan's housing development into four stages according to major changes in its housing supply. In the first decade between 1949 and 1958, the informal sector was the major supplier of new units. From 1959 to 1969, private sector housing gradually became the predominant form of housing supply, especially after the rise of commodity housing since the mid-1960s. In the years before and after the first Oil Crisis, the private sector supply swiftly expanded in the low-end housing submarket. Then, between 1978 and 1985, the resulting mass housing market experienced a dramatic increase of supply which has led to a housing glut in Taiwan.

In the historical study, we will examine how the housing supply was shaped by the population's economic capacity, the state's policies, the behavior of the housing investors and speculators, and their interactions. The particular mechanisms of private and public housing supply will also be analyzed in order to understand Taiwan's unusual housing process. In Chapter Three, we will summarize and supplement the historical study in our efforts to identify the defining features of Taiwan's housing market. After that, the major underlying conditions of Taiwan's mass housing market will be pointed out. Further inquiry of these conditions leads us to the study of Taiwan's economic development.

Notes:

1. Chen, Cheng-Siang. (1959, Ch.7).

2. Chen, L. (1986:241).

3. op. cit.

4. Economic Planning Board, the Republic of Korea, 1970, 1980 Report on Population and Housing Census

5. See Chung, Joseph H. 1983. Housing Crisis in Korea: Analysis and Policy Orientation Korea Research Institute for Human Settlements, Working Paper No. 8301 and Chen, Li-Chuen. 1986. "Changes in the Nature of Housing Problems in Taiwan and Correspondent Strategies." Bank of Taiwan Quarterly 37,2 (June):228-62.

6. Economic Planning Board, the Republic of Korea, 1970, 1975 Report on Population and Housing Census cited in CEPD, 1983, Housing Policies and Housing Development Structure Plan of the Republic of Korea

7. For the statistics, see Korea National Housing Corporation (1983: 315), for an scholarly study of South Korea's housing shortage problems, see Chung (1983).

8. Chung (1983).

2. THE HISTORY OF HOUSING DEVELOPMENT

2.1 Refugee Influx, State Policies, and Informal Housing, 1949-1958

During the decade after 1949, self-help informal housing was the foremost form of housing supply in Taiwan as the result of a huge refugee influx and the island's difficult economic situation. In the few years following 1949, before Taiwan recovered its pre-World-War-II production level, about one and a half million mainlanders, following the Kuomintang government, fled to the island (Table 8, Figure 3, 4). Without any roots in Taiwan and in a hostile social environment, the mainlander refugees flocked to large cities. In 1955, 66.8 percent of the civilian mainlanders in Taiwan lived in metropolitan and industrial areas, while the figure for the islanders was 23.3 percent.[1] The poor and overloaded economy fell short of providing employment opportunities to the population. Striving to survive, people engaged in all kinds of informal economic activities. Subsistence production was widespread in Taiwan's cities. In the afore-mentioned 1953 survey, 47 percent of the urban households raised poultry and livestock in or around their crowded small homes.[2] In all of Taiwan's eight major cities, at least 10 percent of the households worked in petty commodity production and commerce. And at least another 10 percent of them worked in petty transportation and service.[3]

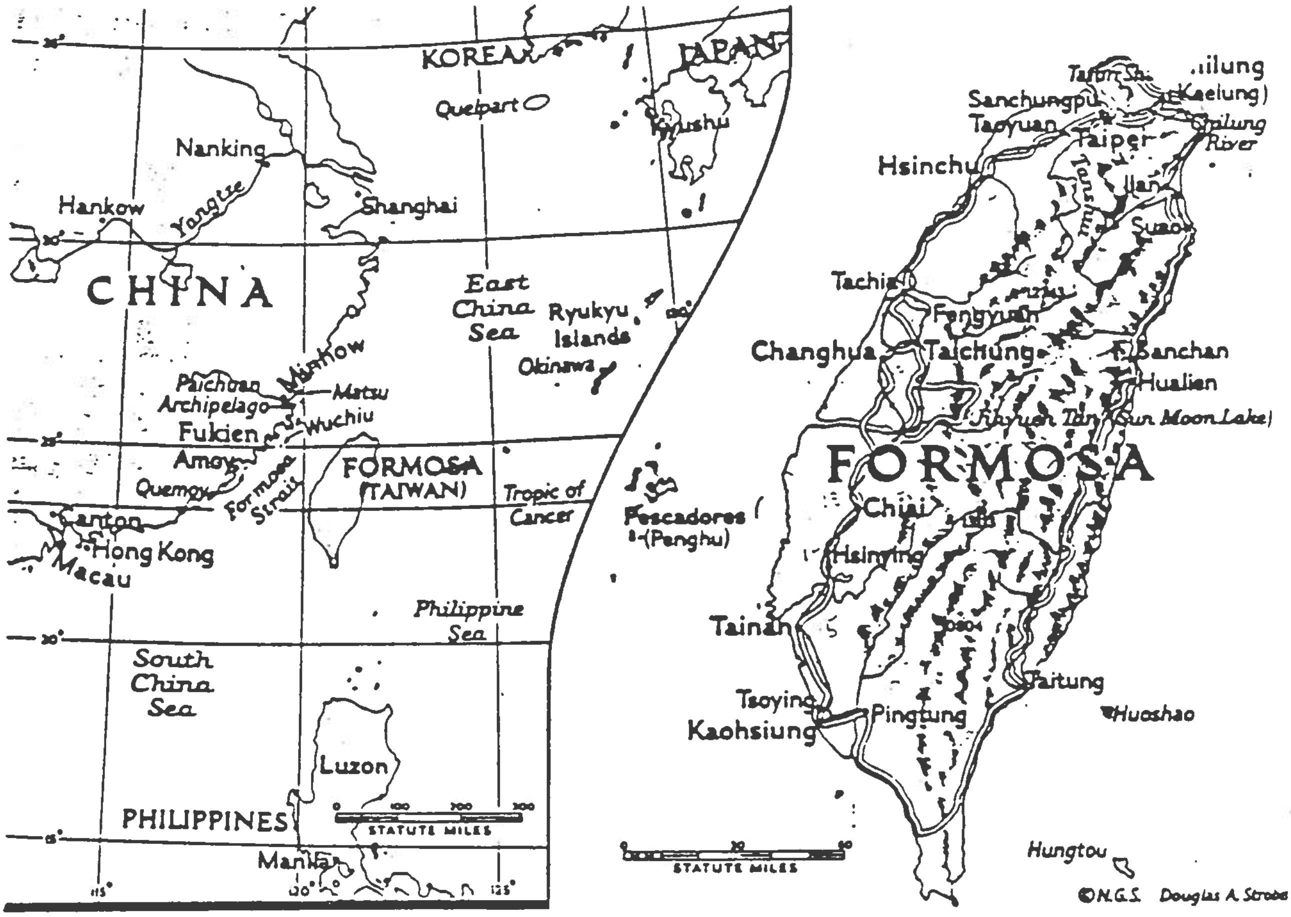


Figure 3 Map of Taiwan

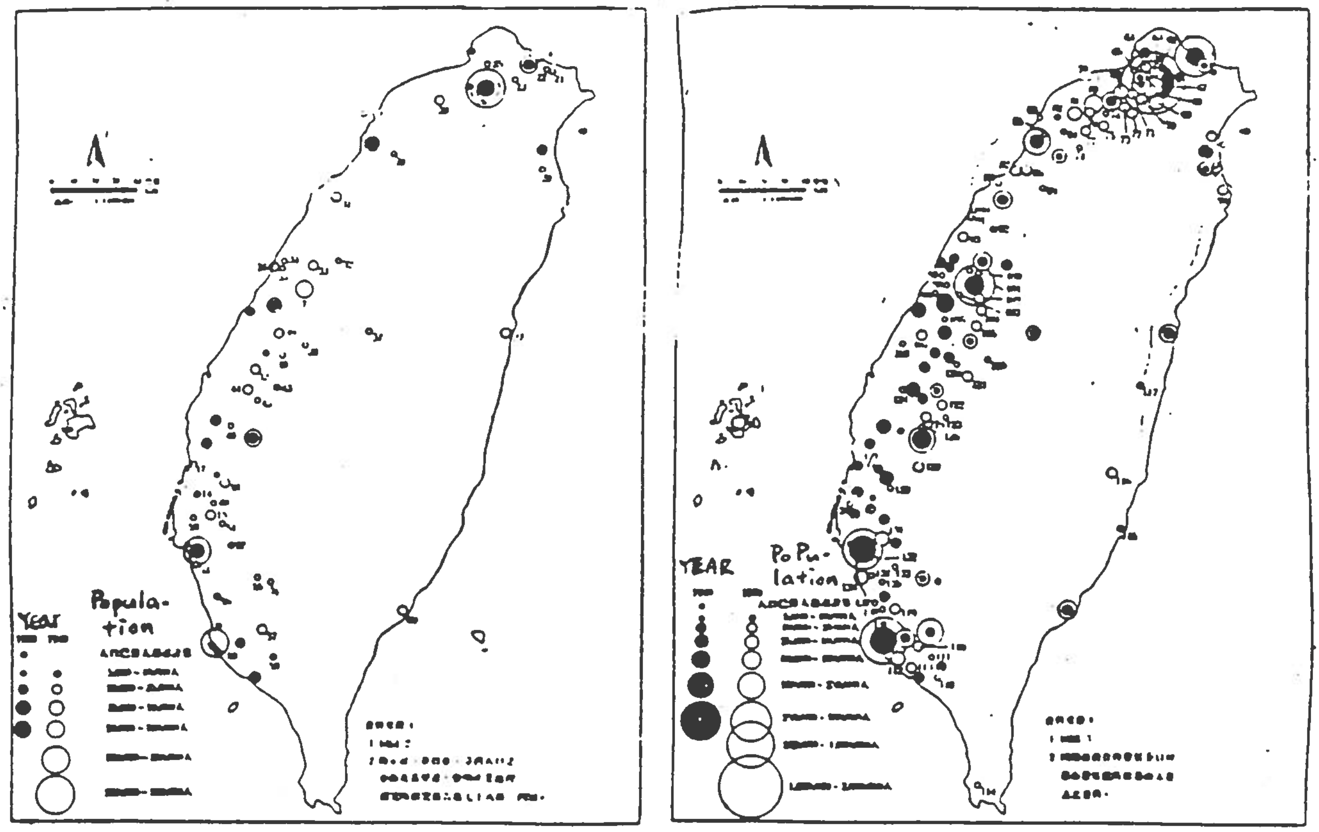


Figure 4 Distribution of Cities in Taiwan

Source: Y. L. Lee, 1973, "The Formation and Development of Cities in Taiwan" in <u>Journal of the Bank of Taiwan</u> 24,3 (September) pp.1-29.

TABLE 8 POPULATION, VITAL RATES, AND DENSITY IN TAIWAN, 1948-1985

Year	(in 1000) Year-end Population	Average Annual Growth Rate	Vital Rates (in %) Natural Increase	Birth Rate	Death Rate	Persons per sq. km. of Land	Cultivated Land	% in Localities with more than 50000 residents
1948	6,853		2.54	3.97	1.43	190	-	20.6%[1]
		6.2%						
1952	8,730		3.67	4.66	0.99	243	966	29.1%
		3.1%						
1962	12,122		3.02	3.74	0.64	336	1,389	43.1%
		2.5%						
1972	15,289		1.94	2.41	0.47	425	1,701	57.4%
		1.8%						
1985	19,258		1.32	1.80	0.48	535	2,181	69.5%[2]

Note: 1. 1947
2. 1983

Source: calculated from Samuel P. S. Ho, 1978, Economic Development of Taiwan, 1860 - 1970: Table A11; and CEPD, 1986, Taiwan Statistical Data Book: Table 1-1b, 2-2, 2-3, 4-1; CEPD, 1985, A Study of Urban and Regional Development in Taiwan: Table 2-2.

Moving into the same areas, the mainlander refugees and the migrant islanders produced very severe housing shortage problems in urban Taiwan. Numerous squatter settlements were established in large cities. In 1958, 44 percent of Taiwan's 106,259 informal housing units were in Taipei city and 79 percent of them were in the five major cities.[4] The informal housing increased rapidly and became a large part of the cities' housing stock. In 1958, squatter settlements accounted for nearly one-third of total dwelling units in the city of Taipei (Table 6). These shelters were crowded and ragged. In 1963, 63 percent of them had only one room and more than half of them had no toilet.[5] During this initial decade, the KMT state practically allowed squatting for it was the only way to provide enough shelter for its followers. According to a 1963 general survey, 71.3 percent of the informal housing units in Taipei city were built on public land. The refugees erected shelters wherever they could find the space, from the principal avenue in downtown Taipei to Taiwan's finest garden. Except in a few cases, the government offered no assistance to the squatters in addition to releasing public land.

At this initial stage, the emigre KMT state was still engaging in warfare with the Chinese communists on China's other offshore islands and under strict fiscal constraint. Besides military activities, the government concentrated its resources and U.S. aid in stabilizing and developing the economy. Owning the country's banking system, the government channeled investment funds into the productive sectors in its efforts to secure basic self-sufficiency and tackle the balance of payment problem. Because of this and the poor and unstable economic conditions, the supply of both private and public formal housing was very limited. According to Tong-Ming Lee's study, formal housing supply did not even offset the loss in formal housing stock. Between 1956 and 1959, Taiwan's total formal housing stock decreased continuously from 49.3 to 45.9 million square meters (Table 9).[6]

The small amount of public housing units built before 1955 were funded by the U.S. Mutual Security Agency with military concern

(Table 10). Building started in 1953 after a mighty typhoon swept through Taiwan and made thousands of people homeless. The Agency provided aid to a small group among the homeless, the pier workers in Keelong, Taiwan's most important port at that time. With this assistance and their own labor, the workers built 108 houses which then became Taiwan's earliest public housing.[7]

TABLE 9 Housing Supply in Taiwan, 1956 - 1985

	Annual Percentage Change of			(in 1000m^2)		(in units)	
YEAR	Gross National Product	Consumer Prices	Floor Area Built	Total Floor Area Built	Total Formal Housing Stock	Public Housing Annual Supply	Total Informal Housing Stock
1956	5.5	10.5			49,312	3,280	
57	7.3	7.5			48,183	3,501	
58	6.6	1.3			47,187	1,943	106,259
59	7.7	10.6			45,933	0	
1960	6.5	18.5			45,989	18,579	
61	6.8	7.8			45,448	9,795	
62	7.8	2.4		433	44,834	7,839	
63	9.4	2.2		499	43,907	842	135,733
64	12.3	-0.2	17	586	43,880	13,955	
1965	11.0	-0.1	206	1,795	44,207	876	
66	9.0	2.0	60	2,867	45,976	12,352	
67	10.6	3.4	29	3,706	48,616	16,816	130,436
68	9.1	**7.9**	24	4,600	52,137	10,406	(decreased
69	9.0	5.1	18	5,411	56,212*	1,513	to
1970	11.3	3.6	**1**	5,457	59,783*	4,225	121,837
71	12.9	2.8	58	8,640		4,316	in 1979)
72	13.3	3.0	**-9**	7,844		1,340	
73	12.8	**8.2**	29	10,139		1,503	
74	**1.1**	**47.5**	13	11,444		6,829	
1975	**4.3**	5.2	**3**	11,736		9,420	
76	13.5	2.5	35	15,870			
77	10.1	**7.0**	**5**	16,695			
78	13.9	5.8	42	23,631			
79	8.5	**9.8**	18	27,953			
1980	7.1	**19.0**	28	35,910			
81	**5.7**	**16.3**	**9**	39,138			
82	**3.3**	3.0	**-31**	26,919			
83	7.9	1.4	**-7**	24,987			
84	10.5	0.0	**9**	27,191			
1985	**4.7**	-0.2	**3**	28,113			
Bold if	*<6	*>6	*<10				

Public Housing Six-Year Plan

Fiscal Year	Units Started	Units Completed
1976	10,554	-
77	5,978	2,375
78	2,234	8,492
79	7,940	4,876
80	15,108	6,058
81	30,852	9,536
82		12,659

Sources: GNP and prices: CEPD, 1986, Taiwan Statistical Databook; Floor area built: DGBAS, 1986, Statistical Yearbook of the Republic of China; Formal housing stock: Lee, Tong-Ming. 1970. "The Estimation and Study of Taiwan's Urbanized Population." 21,2 The Bank of Taiwan Quarterly; Public Housing: Agency of Construction. 1982. Proceedings of the Seminar on Public Housing and Wang, Hwung-Kai et

TABLE 10 EARLY PUBLIC HOUSING IN TAIWAN, 1953 - 1969

YEAR CON-STRUCTED	MAJOR GOVERNMENT AGENCIES INVOLVED	SOURCES OF FINANCE	TYPES OF RESIDENT	UNITS
1953 -55	U.S. Mutual Security Agency, and Local Governments.	U.S. Aid	Typhoon & War Refugees	4,677
1955 -58	Public Housing Construction Committee, Central Government.	NT$ 31 million Bank of Taiwan Loan	Congressmen & Central Government Officials	1,723
	PHCC, Central Government. Local Governments.	NT$ 33 million U.S. Loan	Farmers	1,596
			Workers	3,139
			Urbanites	1,442
			Subtotal:	(7,920)
1959 -67	PHCC, Taiwan Provincial Government. Local Governments.	1. NT$ 1,734 million Loan Central Bank of China 2. NT$ 665 million Land Tax Revenue 3. NT$ 113 million U.S, Grant	General Public	34,287
			Disaster Refugee	32,169
			Squatter Resettlement	4,555
			Low-income Hsg	274
			Other	5,042
			Subtotal:	(76,327)
1967 -69	Department of Public Housing, Taipei City Government	Loan from Central Bank of China	Squatter Resettlement	3,060
			General Public	1,472
			Low-income Hsg	
1950-1969	TOTAL (Taipei Low-income Housing not included)			94,557

Source: Pu-Ying Ju, "Construction of Urban Housing in Taiwan" in Quarterly of the Bank of Taiwan 3,24 (September, 1973).

In 1954 after the typhoon disaster, congressmen elected on the mainland, the living basis of the KMT's claim as the "legitimate" government of all of China, pressed the government to ease housing

In 1954 after the typhoon disaster, congressmen elected on the mainland, the living basis of the KMT's claim as the "legitimate" government of all of China, pressed the government to ease housing problems, especially theirs. A Public Housing Construction Committee was established in the central government in 1955. This Committee managed to build houses for the congressmen and central government officials with domestic funding and general public housing with U.S. loans (Table 10). Only 7,920 units were built before the central government Committee was dismissed by Chiang Kai-Shek in the end of 1958 for arbitrary occupation and mortgage foreclosure involved in the congressmen's housing.[8] Immediately after the dismissal of the central government's Public Housing Construction Committee, a new institution with the same title was established in the provincial government, which was virtually governing the same territory before 1967, to substitute its function.

2.2 Squatter Control, Mortgage Supply, and the Commodity Housing, 1959-69

During the decade before 1958, under the government's ambiguous attitude toward informal housing, surplus rural labor and increasing industrialization had led to the proliferation of urban squatter settlements of all sorts. According to 1963 statistics, 50.3 percent of the squatting households in Taipei city were islanders and 26.6 percent of them were renters. The increase of squatter settlements and the continuous absolute decrease of formal housing stock exacerbated Taiwan's poor housing condition. However, by the late 1950s, Taiwan had already built up a viable domestic economy. The island's agricultural sector was passing through the most rapidly growing decade in its history and the industrial sector was starting its continuous two-digit growth. After restoring the economy, the KMT government changed its policy toward informal housing and put increasing energy into improving the island's housing condition. In the late 1950s, it started to regulate urban development with strict squatter control and develop formal housing by increasing mortgage supply. The support for formal housing began with a public housing mortgage program for moderate and low income households. The government further allowed the expansion of general mortgage credit to the private housing sector after 1964. In the mid-1960s, the growth of squatter settlements was stopped and the supply of formal housing, in the new form of commodity housing, began to take off. However, as soon as the housing market became overheated and the economy faced renewed inflation in the late 1960s, the government imposed strict restriction on mortgage credit to both the private housing sector and its public housing program.

The government's squatter control efforts took more than half a decade before they were effective enough in stopping the growth of informal housing. In late 1957, the central government promulgated the "Procedure for Illegal Building Management" which set forth the principle of resettling old informal housing and demolishing new ones as a measure of feasibility. The provincial government then set February 10, 1958 as the dividing date. Depending only on the existing administrative system, the implementation of the legislation was limited in its result. Squatting continued to happen, especially in large cities. After the dividing date and before the end of 1963, total informal housing stock increased from 106,259 to 135,733 units.[9]

In response to the situation, a system of government organizations capable of dealing with the complex and harsh issues of squatter clearance and resettlement was gradually developed. A high-level coordinating body, headed by the deputy commander of Taiwan Garrison Command and commissioner of the provincial government, was established in 1962 to direct and oversee the Taipei city government's implementation. Between 1964 and 1969, 87 percent of the 15,135 newly built units were demolished.[10] In 1966, special commissions were established at other local governments under the provincial government's surveillance.[11] After the mid-1960s, the total amount of informal housing in Taiwan largely stabilized and decreased to 130,436 units in 1967.

In consideration of the original means and location of the squatters' livelihood, the processing of old informal housing had two guidelines: "Building before Demolishing" and "Resettling On-Site".[12]

The squatters were granted the choice between monetary compensation or government resettlement, and were given high priority when they applied for public housing and a market stall. Initially, resettlements were limited to those on sites of needed public facilities. Large-scale processing of old informal housing began only after 1966. Up to 1970, 18,912 households were processed in Taipei city. A majority of them chose not to participate in government resettlement and small-scale resistance to demolition was not uncommon.[13]

Before 1958, public housing in Taiwan was scant and in an ad hoc situation. The central government Committee had pushed through the Public Housing Construction Mortgage Act in 1957, which ruled that public housing mortgage interest rate should be no higher than 6 percent and mortgage term no shorter than 10 years. But this Mortgage Act and the large-scale public housing program based on it were put into practice only after 1959 under the provincial Public Housing Construction Committee. Between 1959 and 1968, there were two major purposes in Taiwan's public housing program. First on the agenda was to assist victims of disaster (mainly typhoons), low-income people, and displaced squatters in their housing needs. Second was to support the development of formal housing for moderate-income people. In the two decades before 1975 when the Mortgage Act was replaced, of the 125,534 public housing units built, 44.7 percent were general public mortgage housing, 26.5 percent were disaster housing, 10.2 percent were squatter resettlement, 8.4 percent were low-income housing, 6.2 percent were public employee housing, and 4 percent were developer-provided public housing.[14]

In practice, Taiwan's early public housing program was mainly a state-subsidized mortgage program for moderate and low income people to build owner-occupied houses. While some projects involved public management and construction, the foremost part of public housing during this period involved only subsidized loans to needy individuals or groups (such as labor unions, public agencies, and farmers' associations) who would manage to build their own houses. The Taiwan government has built very little public rental housing. In Taiwan, poverty households who received welfare payment were divided periodically into three levels according to their economic situation. Only the households in the lowest level in that division could qualify for public rental housing. Other low-income and moderate-income households could apply for subsidized loans to build their own houses. Since the mortgage regulations were written before the commodification of Taiwan's housing production, the financing package was not designed for developers. Because the program assumed that the needy private individuals or organizations would manage the construction themselves, before securing public housing loan, the applicants were required to first acquire the building lot.[15] After the households repaid the mortgage, they were allowed to sell the units.

Thus, the major thrust of Taiwan's early public housing program was not to develop public housing projects but to support the low-end private sector housing. While gradually stopping the informal housing supply, the government used the mortgage program to increase the supply of affordable formal housing. This support was needed because the private sector housing supply remained stagnant before 1964. Since 1959, after the housing responsibility was delegated to the provincial government, a portion of the land capital gain tax revenue has been earmarked as a public housing fund. With this new funding, annual public housing supply jumped to 18,579 units in 1960 and for the first time stopped the decline in Taiwan's total formal housing stock (Table 9). Because of the very limited supply of private sector housing, public housing had a relatively substantial role in Taiwan's total housing supply in the early half of the 1960s.[16] However, public housing supply was in decline between 1960 and 1963. The public supply only slowed down the decrease in total formal housing stock and Taiwan's formal housing supply was still not large enough to compensate for the loss caused by frequent typhoons and other forces (Table 9).

The fluctuation in public housing supply reflected the fact that, at this stage, housing was still a secondary issue in the government's development priorities. Because of this and the indirect way of public housing provision, the provincial government's public housing executive body was very loosely organized. In the provincial government proper, it was scattered among secondary offices of different departments. In the local governments, it was a part-time responsibility of some branches.[17] The mortgage program did not have steady funding. When things of higher priority emerged on agenda, the funding for public housing was reduced and the program shrank. U.S. loans, a minor funding source for the program, stopped in 1963 (Table 10). A taxation change in 1964 further reduced the revenue source of public housing. In 1967, the earmarked funds were halved for the alternative use of the new nine-year compulsory education program.[18]

After one and a half decades of stagnation, Taiwan's private sector housing started its rapid growth in the mid-1960s. General economic progress and continued urbanization were the bases of this growth. Between 1962 and 1967, Taiwan's GNP grew at an average annual rate of 10.4 percent, while the inflation rate was 1.4 percent. Besides accelerating the growth of family income, this unprecedented non-inflationary boom greatly enhanced investors' confidence in Taiwan. Under squatter control, more and more new migrants to the cities now looked for formal shelters. This rising demand for formal urban housing in Taiwan was met by a new type of housing, the multi-storied condominium. Besides a few city-states, Taiwan has the world's highest population density in relation to flat land. Increased urbanization and the corresponding rise in land prices gradually made single-family houses prohibitively expensive in Taiwan's major cities, especially Taipei. Starting in the mid-1960s, the duplex walk-up condo, as shown in Figures 1 and 2, became the foremost housing type in the Taipei metropolitan area.

This change in housing type brought with it a reorganization of Taiwan's traditional housing institution. Previously, the dweller was the central agent who managed the housing production process. The artisan-contractor only built the house for his client. With the rise of the walk-up condo, the artisan-contractor gradually became the central agent who organized dwellers into a group housing project.

A predominant number of Taiwan's "sale house" developers originated from this transition of artisan-contractors. These developers started as small family businesses and produced most of Taiwan's small- to medium-size commodity housing projects.[19]

Large enterprise groups, which generally grew up in Taiwan's import-substitution industrialization in the 1950s, were the other major origin of Taiwan's developers. In 1964, the Cathay enterprise group established Taiwan's first and largest development company. Subsequently, many other enterprise groups attracted by the high profit margin also set up their development branches. These companies, with financial support from the enterprise groups and access to bank credit, mainly engaged in large-scale development and also produced high-rise housing and office buildings. They generally had a better reputation for the quality of their products and were the major builders of high-priced housing.[20]

The central government's decision to expand housing mortgages had an important role in the genesis of Taiwan's commodity housing market. In 1964, after the continued decrease of formal housing stock and in the middle of the non-inflationary boom, the central government decided to support the provincial government's public mortgage program and to encourage private housing investment. The Central Bank bought in secondary mortgages from the provincial government, which then subsidized the interest differential of the public housing mortgage. The terms of the mortgage were extended from ten to fifteen years and from 50 percent to 80 percent of the building cost. A building lot mortgage program was created to assist those who could not afford to acquire the lot themselves. This arrangement expanded the annual units of public housing supply to the five-digit level (Table 9). To encourage private investment in housing, the government also allowed the expansion of general mortgage credit. Taiwan's conservative public banking system preferred to lend against properties as lien. During the boom, developers increasingly applied bank loans to acquire land, which was then used as security for further credit. Because at this stage the government still did not put any ceiling on the percentage of lien credit in the banks' outstanding loans, real estate investments financed by the banking system multiplied rapidly.[21]

With demand, entrepreneurs, and capital in place, Taiwan's formal housing supply took off in 1965. Total floor area built measured by thousand square meters jumped from 586 to 1,795 to 2,867 to 3706 between 1954 and 1967, thus totally reversing the decline of Taiwan's formal housing stock (Table 9). This dramatic rise was also fueled by surplus private capital and overseas Chinese capital. Taiwan's GNP reached its first two-digit growth in 1964. During that year, after a bull market started to decline, surplus domestic capital flew into the real estate market.[22] After 1966, overseas Chinese capital driven out of Hong Kong by the repercussion of the Chinese Cultural Revolution further fueled this real estate boom.

The mortgage extension and the escalating construction played an important part in generating Taiwan's renewed inflation in 1968 (Table 9). Mortgage extension had been a major contributor to the rapid increase of money supply. Construction materials and housing led in the price increase. Striving to restore hard-won economic stability, the central government swiftly changed its housing policies. The government ordered its banks to shrink mortgage credit and the Central Bank stopped its financing of public mortgage programs. This policy change had an immediate impact on the speculative real estate market and public housing supply. Between

1968 and 1969, although Taiwan's total new construction still had a moderate increase (Table 9), in Taipei city, where speculation was most rampant, total housing floor area built dropped from 1,223 to 842 thousand square meters. And the speculation left many vacant housing units in Taipei.[23] At the same period, Taiwan's public housing supply plunged from 10,406 to 1,513 units. After the state's actions, the inflation rate dropped continuously from the decade high of 7.9 percent in 1968 to 2.8 percent in 1971.

The 1968 policy change was more than a short-term measure. As private housing investment turned from stagnation to escalation, the government decided to change the housing financing structure. With abundant private capital increasingly flowing into the housing sector, the government now turned to assure that the productive sectors would not be crowded out. It restricted the banks' supply of mortgage credit to developers and stopped subsidizing the low-end private sector housing. While maintaining the small welfare-type public housing program, it put an end to the large general public mortgage program. The government decided that housing financing should rely more on popular capital (Min Jen Zhe Zhin) rather than on the banking system and insurance companies.[24]

2.3 Inflation, Stabilization, and the Mass Housing Market, 1970-77

Popular capital became abundant in Taiwan during the decade-long noninflationary boom after 1962. Between 1966 and 1970, household savings accounted for 57.5 percent of net national savings in Taiwan, while the percentage of private corporations and the public sector were 9.6 and 32.8 respectively. "If the rate of household saving is expressed as a proportion of consumers' disposable income, and the figure for Taiwan compared to that of Korea, the difference is tremendous: 17.6 percent for Taiwan between 1965 and 1980, 7.6 percent for Korea." (Wade,1985: 164-5).

The government's decision to rely on popular capital for housing financing led to the prevalence of the adapted traditional housing mechanism, cooperative construction. When Taiwan's artisan-contractors became developers, they depended on the new pre-sale system to manage the group projects. In this arrangement, the prospective dwellers first paid the developer 20 to 30 percent of the house price which alone provided enough capital to build the condominium. This was possible because the developer typically formed a partnership with the landowner, who generally would obtain 40 to 60 percent of the finished units. The 20 to 30 percent down payment was enough to cover the material and labor cost. The prospective dwellers would pay the proportionate percentage of the house price in installments according to the advancement of the construction. In increasing cases, the developers sought homebuyer mortgages from the bank, which accounted for at most 40 percent of the total house prices. Before they moved into the houses, the homebuyers generally put forth a self-prepared fund (Zhe Bei Kua) of more than 60 percent of the house price.[25]

There were two types of cooperative construction. In the first type, the developer and the landowner signed a "joint construction contract" to share the finished units. After Taiwan's 1953 agrarian reform, agricultural land holding was restricted to small lots which were further split by family division. As urbanization proceeded, this situation led to the proliferation of cooperative construction. The second type of arrangement, entrusted construction, was a direct extension of the traditional housing mechanism. The prospective dwellers acted legally as the initiators of the project. On paper, they bought the land from the owner and employed the developer to build their houses. Although the two types were identical in practice, the entrusted construction prevailed on paper because it was not subject to business contract tax.[26]

Because it was not established and specifically regulated by legislation, the adapted traditional housing mechanism worked only when the developers could really be entrusted. With strong demand before 1980, Taiwan's housing developers generally had a profit margin of 20 to 30 percent. Many entrepreneurs moved into this area for, with the pre-sale system, it required little capital but offered high return. Ambitious developers could rapidly multiply their businesses by using the funds obtained from one project to initiate other projects. While these risky ventures enabled the spectacular expansion of housing construction in the Taiwan of the 1970s, it also led to many linked financial failures, leaving homebuyers desperate with unfinished projects.[27]

The pre-sale system gradually became the norm in Taiwan's housing market. Because of the difficulty of obtaining construction loans from the banks, large developers also increasingly used the mechanism in their projects and to set up high-rise high-income housing, a growing housing type in inner Taipei city where the land price became too high for the walk-up condo. This development was pushed further in 1974 when the government specifically and totally terminated loans to developers in its efforts to combat imported inflation after the first Oil Crisis.

In prospering and crowded Taiwan, land was the most sought-after resource. In the 1970s, the strong demand of real estate speculation and the government's counteractions had caused many large fluctuations in Taiwan's housing market (Table 9). High income families formed the final demand of speculation in housing. Whenever inflation took off, they responded swiftly by buying excess houses to minimize the loss in their wealth. Large developers were the foremost players in land speculation. By controlling huge amounts of land they had the power to manipulate the real estate market and drove up housing prices for their benefits. General inflation and real estate price surges worked in tandem. Taiwan's insecure international position put a downward pressure on the final demand of real estate speculation. When political incidents threatened Taiwan's future, real estate transactions stopped and prices stagnated. In Taiwan, these speculative forces grew stronger and stronger in the 1970s. In counteracting, the KMT government took increasingly aggressive actions to check the market forces and to strike the speculators.

Taiwan's real estate market started to fluctuate wildly after the early 1970s. The early 1970s was the golden age of Taiwan's economy. Between 1970 and 1973, GNP grew continuously at an average rate of 12.6 percent and per capita GNP increased by nearly a half in four years. After the mortgage supply shrank in the late 1960s, private capital restored rapid real estate growth in 1971. But when Taiwan was expelled from the United Nations at the end of that year, the market immediately went into recession. Annual total floor area built in Taiwan escalated by 58 percent in 1971 then dropped by 9 percent in 1972. However, spectacular economic growth proceeded in spite of the political blow. GNP growth rate reached an unprecedented 13.3 percent. Restored confidence after the downturn created a even more drastic surge in real estate investment.

In the early half of 1973, with the repercussions of the breakdown of the Bretton Woods system, imported inflation occurred in trade-dependent Taiwan. Wholesale prices rose 22.9 percent in that year. Real estate led in the price increase. Facing with rampant inflation, the government resorted to the National Mobilization Act and announced in June 1973 eleven price stabilization measures. Two central measures concerned the real estate sector. The government stopped the construction of all entertainment buildings and any buildings above four stories. Building materials, including cement, steel bar, and plate glass, were put under price control. The quadrupling of oil prices in the end of 1973 soon made the existing measures ineffective. In January 1974, the government promulgated a comprehensive economic stabilization program, hoping it would settle the price surge all at once. The program picked out real estate developers and prohibited their access to any bank credit.[28]

The impact of these stabilization measures was very selective. The ban on higher-rise building suspended the high-end housing submarket, in which speculative buyers concentrated. The fourth floor was the dividing height in Taiwan's housing market. Because building regulation required houses above four stories to install elevators, there was a quantum jump from four-story walk-ups to seven-story or higher high-price housing. In the face of rampant inflation, a rising number of the middle to low income families sought to buy their own and better houses. With the selective ban, the government channelled housing supply to the low-end submarket and, in the case of Taipei, the outer ring of the metropolitan area. Inflation and the government's action thus accelerated and supported the development of a mass housing market. After the government successfully stopped the inflation in the end of 1974, the height limit was lifted in an overall program to stimulate the economy. But the reopened submarket faced weak demand.[29] The ban on loans to developers caused little impact on the small developers, who generally did not receive credits from the banks anyway.

The ban on higher-rise building also increased the urban sprawl, which had long caused serious government concerns. In Taiwan, land use control was connected with land taxation. Before 1977, Taiwan had only implemented the Urban Land Right Equalization Act and urban land use zoning. The regulations of development outside planned areas were ad hoc and not very effective in taxing windfall profits and guiding land use. The preparation of an all-encompassing Land Right Equalization Act and the regional building regulations caused a construction rush before the end of 1976. In 1977, after the real estate market stabilized, the government extended a very limited credit access to the developers.[30] To ensure that the land use regulation would not impede the housing supply, the walk-up height limit was lifted to five stories.

Since the 1973 to 1974 inflation, the government became very concerned with the housing problems of the low to moderate income families, as their housing needs were threatened by the rising speculative demands. Besides rectifying the market, the government decided to engage itself in the construction of public housing. This was a swift policy change, because in 1973 just before the inflation agitated the market, the government cancelled the county government public housing committees. In 1975, the Mortgage Act was replaced by the Public Housing Act. And the government announced its Six-Year Public Housing Construction Project, which was later included in the top-priority Twelve Major Projects.

The project planned to build at least 25,000 units annually between 1976 and 1981. Main funding was provided by the land capital gain tax revenue. In 1976, 10,544 units were started. During the following few years, the project slowed down. Only 2,234 units were started in 1978. Two major problems caused this slowdown. First, land acquisition was very difficult. Most of the public land around the major cities was sold to the peasants in the 1950s land reform. And the public housing project could not afford to buy the increasingly expensive private land. Secondly, private sector construction started a extraordinary surge in 1978. The public housing projects faced labor shortages and rising building material prices. Before we further examine the public housing project, an account of the 1978-80 raging market is in order.

2.4 Speculation, State Action, and the Housing Glut, 1978-85

After the stabilization program, Taiwan's property prices remained relatively stable between 1974 and 1978. Beginning in the latter half of 1978 and as a response to the OPEC price increase in 1978-9, property values took off again. With the experience of the first Oil Crisis, more high income families sought to buy excess houses and other families tried to upgrade or buy their own homes. The former group formed the largest demand in inner Taipei.[31] In the 1978-80 period, 50 to 60 percent of home-buyers in Taipei city bought residential property for investment rather than occupation. In 1980, when Taiwan's total housing vacancy rate reached a record high of 13.4 percent, the higher-rise housing had the highest rate of 28.7 percent.[32] A circle of trust and investment companies helped raise the bid for property prices in Taipei 150 percent between mid-1978 and the end of 1980, a property price spiral unprecedented in the city's history.[33]

The villains behind the price surge were the investment and trust companies, especially the giants such as the Cathay and the Asian Trust and Investment Companies. Since the government banned bank loans to development firms, property development has become the province of trust companies and enterprise groups. The Cathay enterprise group was the foremost speculator. A survey in 1980 showed that three of the five largest private landowners in the Taipei metropolitan area were members of the Cathay Enterprise group. Together they held 81 pieces of land totalling 48,000 hectares, approximately the size of the City of Taipei.[34]

This widespread speculation headed by the Cathay and other large trust companies ran against the KMT government's central concerns. Inflation rose from 5.8 percent to 19 percent between 1978 and 1980. While the public housing project was lagging hopelessly behind its schedule due to land problems, the trust companies and other landowners sat on their property waiting for windfall profits. The government decided to break the back of land speculation, especially the land-rich trust companies, in mid-1980. Using measures in the Land Right Equalization Act, it announced that vacant lots not built in inner Taipei and Kaohsiung cities by July 1981 would be eligible to be bought up by the government at the low public-assessed price. The Ministry of Finance declared that it would investigate the source of funds of high-price and excess house buyers to combat land speculation. The Ministry of Interior raised the empty lot tax rate to 10-25 times higher than the land price tax rates.

The government's aggressive actions had immediate results. By investigating the funding sources of buyers of high-price and excess units, it pressed down speculative demand with income taxation power. The sales of housing in the following three months fell 20 percent.[35] Through enforced construction of vacant lots, the state engineered an oversupply. As a consequence, in the first ten months of 1981, property values in Taipei's business and residential areas plunged 20 percent. This trend continued into the mid-1980s.[36] In the same month when the government began the strike on speculation, it offered home mortgage saving accounts in its banks to assist average homebuyers.

When compared with its policy in 1973-74, the government's new market-rectifying strategy acted in just the opposite direction. While in 1973-4, the government suspended the supply of high-end housing and offices, it engineered an oversupply in these submarkets in 1980-81. This strategy hit hard on the trust companies who held a vast amount of vacant lots. Enforced construction locked their capital in real estate properties whose prices were suppressed by the decreasing demand and oversupply. Due to this reason, these leading speculators all went into serious financial troubles. As investors started a run on these trust companies, the government ordered its banks and a loyal overseas Chinese bank to take over. The Asian, the Cathay, and the Overseas Chinese trust companies reached this situation in 1983, early 1985, and late 1985 respectively. Through shrinking and then expanding the Overseas Chinese company's assets, the government legally dispossessed its original owner. When real estate prices rose again in 1986, the Asian and the Cathay enterprise groups requested the return of their trust companies. The government refused the requests and decided to dispossess them with the same method. In Taiwan's financial authority's words, this is because the legal measure "will make everybody happy".[37]

Soon after the state-engineered oversupply, financial failures also prevailed in the development industry. Many development companies, especially the riskier ones, had resorted to the high-interest curb market credit after the ban on bank loans. In the trend of decreasing demand and dropping prices, they could not repay the high-interest debts and went bankrupt.[38] This situation continued into the mid-1980s, as the government put more effort into establishing the needed regulations than to giving immediate assistance to the distressed industry.

The situation of the public housing project was also worse. The project itself was troubled by all kinds of bureaucratic problems. To fulfill the targets set by the central government, the local governments built public housing wherever they could find the land, even on sites with difficult access. In many cases, inefficient and ineffective management led to high final prices, making the units less attractive than equivalent private sector units. Corruption also existed in some cases. The chief of Taipei City's Public Housing Department was jailed for accepting bribes from the contractors. The original plan also greatly underestimated the private sector housing supply, which rose much more rapidly than the planners' projection based on the early 1970s trend.

In 1981, the final year of the project, only 30 percent of the planned units were completed. Faced with the unexpected general housing glut and decreasing prices, large amounts of the public housing units, with the afore-mentioned problems, remained unsold. At the end of 1983, 13,870 completed units stayed empty; 2.5 billion U.S. dollars of capital were trapped. The public housing policy, under severe criticism and very heavy financial burden, turned to a much more cautious position after 1985. Priority was shifted from constructing new units to the sale and maintenance of existing units. The provision of public housing turned to rely mainly on incentives to private developers. And the supply of public housing in all localities was limited to under 10 percent of the total housing supply.[39]

With all these tumults, Taiwan's housing conditions continued to improve substantially in the 1980s. As the housing glut led to decreasing prices, an unprecedented phenomenon since the emergence of Taiwan's commodity housing market, many families moved to buy and upgrade their homes. Between 1980 and 1987, per capita dwelling space in Taiwan grew from 15.3 to 19.7 square meters. Home ownership continued to increase as well.[40]

Notes:

1. Kuznet (1979:31).
2. U.S. Mutual Security Agency and National Taiwan University (1954:274).
3. op. cit. Chapter 7, The Function of Petty Commerce.
4. CIECD (1970:224).
5. Hsiao, J. (1970:Chapter 3).
6. Lee, T. (1970).
7. Ju (1973:76).
8. Ju (1973:76), Young (1982:21).
9. Council for International Economic Cooperation and Development, (1970:222-3).
10. Hsiao, J. (1970:Chapter 3).
11. Council for International Economic Cooperation and Development, (1970:222-3).
12. Hsiao, J. (1970:Chapter 3).
13. op. cit.
14. Huang, J. (1976:65).
15. Chang, L. (1986).
16. Yeh, M. (1972:32).
17. Young (1982).

18. Ju (1973:79).

19. Huang, Kwang-Kuo and Huang, Sheng-Li. (1978:17).

20. op. cit.

21. Chen, C. (1972:28-31).

22. op. cit. p.40.

23. Ju (1973:70).

24. CIECD (1970:49), Ju (1973:69).

25. Lin, Sheng-Jei. (1982:44-45).

26. Chang, L. (1986:32).

27. Lin, Sheng-Jei. (1982:35-37).

28. Yuan (1979:27-31).

29. Housing Market 1983, "Decade Chronicle of the Housing Market", (July:44-55).

30. op. cit.

31. Tanzer (1981a:80).

32. Lin, Y. (1982:19).

33. Tanzer (1981a:80).

34. Tanzer (1981a:80).

35. Tanzer (1981a:80).

36. Tanzer (1983:54).

37. Central Daily News April 15, 1987; April 18, 1987.

38. Chow, Y. (1981); Hsui, M. (1981).

39. United Daily May 13, 1985.

40. DGBAS, (1986).

3. MASS HOUSING MARKET, COMMUNITY NETWORK, AND STATE GUIDANCE

The overwhelming predominance of private sector housing and the very high percentage of home ownership in Taiwan is very unusual in international experience. In market economies, high-income families and institutional investors have often opted to invest in the real estate sector rather than in the productive sectors when the former offers higher return. In the housing marketplace, this speculative demand has too often crowded out the basic needs of lower income people. The generally large informal housing sector in peripheral countries and the high percentage of rental households, either in public or private housing, in core countries demonstrate this crucial market "imperfection" in most market economies. Therefore, we have set forth two central questions in the beginning chapter: (1) What are the defining features of Taiwan's mass housing market? and (2) What have made the development of such a market possible in Taiwan?

To address the first question, Taiwan's housing market is distinct for its heavy reliance on a community network. Popular capital is the foremost source of housing financing in Taiwan. Before moving into the units, homebuyers generally need to secure over 60 percent of the total house price by themselves (Table 11). How did the average people in Taiwan so quickly mobilize the huge amount of capital that fueled the spectacular construction that began

TABLE 11 SELF-PREPARED FUNDS AS PERCENTAGE OF HOUSE PRICE BY TIME OF MOVE-IN, TAIPEI METROPOLITAN AREA

Down Payment as % of House Price	0-20%	21-40%	41-50%	51-60%	61-80%	81-100%	No. of Samples
Before 1945	2.4%	2.4%	2.4%	2.4%	4.9%	85.4%	41
1946-61	3.7%	2.5%	2.5%	7.4%	4.9%	79.0%	81
1962-71	2.6%	3.4%	5.5%	9.8%	22.1%	56.6%	235
1972-75	2.0%	10.2%	9.5%	14.1%	20.7%	43.4%	304
1976-77	5.1%	15.4%	8.7%	14.6%	23.7%	32.4%	253
1978-80	3.3%	12.8%	12.6%	17.6%	27.3%	26.3%	483
All Periods	3.2%	10.2%	9.2%	14.0%	22.4%	41.0%	1,397

Source: Calculated from CEPD, 1981, Analytical Report of the Housing Condition Sampling Survey of the Taipei Metropolitan Area, p.120.

TABLE 12 THE PRIMARY MEANS OF GATHERING SELF-PREPARED FUNDS BY TIME OF MOVE-IN, TAIPEI METROPOLITAN AREA

Primary Means of Gathering Self-Prepared Funds	Bidding Groups	Saving Deposits	Selling Assets	Gifts & Heritages	Other	No. of Samples
Before 1945	17.2%	29.3%	6.9%	41.4%	5.2%	58
1946-61	34.4%	29.2%	9.4%	15.6%	11.5%	96
1962-71	38.5%	38.1%	6.7%	7.9%	8.7%	252
1972-76	34.4%	39.5%	12.6%	9.2%	4.4%	413
1977-78	36.3%	32.7%	18.6%	7.2%	5.3%	361
1979-80	35.1%	31.6%	19.6%	10.5%	3.2%	285
All Periods	35.0%	34.9%	14.0%	10.4%	5.6%	1,465

Source: Calculated from CEPD, 1981, Analytical Report of the Housing Condition Sampling Survey of the Taipei Metropolitan Area, p.124.

in the 1970s? Table 12 shows the primary means they used. In this Taipei metropolitan area sample, the high percentage of the traditional mechanism of a rotating credit group or bidding group (Biao Hui) and family savings make clear the importance of a community network with the family as its basic unit in organizing demand in Taiwan's housing market.

Family ties are strong in Taiwan. Parents typically buy houses for their newlywed children with the savings which their children have often contributed to. This collective savings thus reduces young homebuyers' dependence on a mortgage. Bidding groups can be found among all kinds of acquaintances. A participant can obtain the discounted amount of periodical contributions from other participants once in the whole cycle, if he offers the highest discount rate in that bid. Unlike applying for institutional credit, to be admitted into the group, one is not judged by some universal criteria but by her or his personal credit in the community. This mechanism links average individuals and families in Taiwan together and provides them with additional power in mobilizing financial resources, as manifested by the homes they own.

The community network has also been central in organizing supply in Taiwan's housing market. As we have observed in the historical study, Taiwan's spectacular surge of housing supply has been realized through the expansion capacity of the adapted traditional housing mechanism, cooperative construction. As for the suppliers themselves, the majority of Taiwan's developers are small and medium family firms. In 1983, only 2.7 percent of Taiwan's developers had assets more than US $1,250,000 while 68.4 percent of them had assets less than U.S. $125,000.[1] In Chapter Four, we will analyze how important the community network was in the emergence and development of these family firms.

The other defining feature of Taiwan's housing market is the state's forceful guidance through its capital allocation and market-rectifying policies. The state in Taiwan, which owns the country's banking system, has rigorously allocated the flow of investment funds according to the changing development priorities of the economy. Chapter Two has shown the role of the state in regulating the amount and source of capital that went into the real estate sector. Initially, by freeing its land to self-help shelters, the government saved and channelled scarce funds into the productive sectors. Once the country achieved basic self-sufficiency, it actively supported the development of formal housing by effective squatter control and substantial credit supply. But when Taiwan's private housing investment went from stagnation to escalation, it soon altered Taiwan's housing financing structure to ensure that the productive sectors would not be crowded out. When real estate speculation became rampant in 1974, it totally terminated developers' access to bank credit.

In the real estate sector itself, speculative demand is checked by the KMT state's basic policy of equalizing land rights, which was written into elaborate legislation. While granting no tax credit for home mortgage interest, the government taxes excess houses much more severely than owner-occupied houses. And the revenue from land capital gain tax has been the foremost fund for Taiwan's public housing. While land capital gain taxation, in varying intensity, also exists in many other countries, the KMT state's aggressive market-rectifying actions have no comparison in international experience. We have analyzed how, by affecting supply and demand, the government used flexible strategies to combat speculation during the two Oil Crises. By the forceful measures provided by the Land Rights Equalization Act, it has successfully checked Taiwan's foremost speculative private capital, the trust and investment companies. The Far Eastern Economic Review has reported the state's role as follows: "Many see the government as playing the role of Robin Hood, taking from the rich and giving to the poor."[2] Thus, although the government's public housing project was a big failure, its potent market-rectifying actions had secured the fulfillment of the housing needs of the general public.

But the successful development of a mass housing market in Taiwan and the state's and community network's roles in it cannot be adequately understood just by the study of housing. In the most general terms, broad-based development and equitable growth are the underlying conditions of Taiwan's mass housing market. If Taiwan's rural-to-urban migration was more of a rural push than an urban pull, the government very possibly would be unable to control the growth of squatter settlements. If Taiwan did not have equitable growth, the families could not have the popular capital that financed and shaped Taiwan's housing market. Moreover, only through the study of these general issues can we understand how the government capital allocation policies worked to secure long-term housing progress and how the community network functioned to fulfill its members' needs, including housing. To have a broad enough perspective, we need to undertake a study of Taiwan's economic development.

Notes:

1. Chang, L. (1986).
2. FEER. October 23, 1981. p.99.

4. DEVELOPMENT THROUGH INTEGRATION INTO THE CAPITALIST WORLD ECONOMY

Taiwan's equitable growth and broad-based development in the postwar period have drawn increasing attention from the outside world. Since 1952, the island's gross national product has been growing at an average annual rate of 8.6 percent for 33 years (Table 13). And the economy is still continuing its two-digit growth. More importantly, this rapid growth was accompanied by a substantial reduction of income differentials. Taiwan's income distribution now stands as one of the most equitable in both the market and the planned economies (Table 14).[1]

TABLE 13 MAJOR INDICATORS OF TAIWAN'S POSTWAR ECONOMY

(average annual growth rate in %)

MAJOR STAGES~		Agriculture Promotion & Import Substi-tution	Domestic Investmt & Export Pro-motion	Backward Integra-tion & Stabilized Growth	Stalled Investmt & High-Tech Growth
INDICATORS	1953-85	1953-62	1963-72	1973-79	1980-85
Real GNP	8.6	7.5	10.8	9.1	6.5
Population	2.6	3.5	2.9	1.9	1.6
Real GNP Per Capita	6.0	4.0	8.1	7.0	4.8
Agricultural Prod.	3.5	4.8	4.1	2.9	1.0
Industrial Production	12.7	11.7	18.5	12.0	6.1
Manufacturing Prod.	13.5	12.5	19.8	12.1	6.6
Exports	22.6	19.5	29.9	25.3	13.3
Imports	19.1	17.0	23.5	26.9	7.0
Money Supply	21.8*	-	22.5	26.8	15.1
Consumer Prices	7.1	8.7	2.9	11.5	6.3

* 1962-1985
~ For periodization, please see the end of this chapter.
Source: calculated from Council for Economic Planning Development, 1986, Taiwan Statistical Data Book

TABLE 14 TAIWAN'S INCOME DISTRIBUTION IN COMPARISON

COUNTRY	YEAR	Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile
Taiwan	1953*	3.0	8.3	9.1	18.2	61.4
	1964	7.7	12.6	16.6	22.0	41.1
	1972	8.6	13.3	17.1	22.5	38.7
	1984	8.5	13.7	17.6	22.8	37.4

COUNTRY	YEAR	(1)Lowest quintile	Three Middle quintiles	(2)Highest quintile	(2)/(1) Ratio
Taiwan	1971	8.7	52.1	39.2	4.5
Japan	1969	7.9	51.1	41.0	5.2
Sweden	1972	6.6	56.4	37.0	5.6
Sri Lanka	1969-70	7.5	49.1	43.4	5.8
Australia	1966-67	6.6	54.6	38.8	5.9
Norway	1970	6.3	56.4	37.3	5.9
Yugoslavia	1973	6.5	53.5	40.0	6.2
U.K.	1973	6.3	54.9	38.8	6.2
Netherlands	1967	6.5	50.6	42.9	6.6
Spain	1974	6.0	51.8	42.2	7.0
West Germany	1973	6.5	47.3	46.2	7.1
India	1964-65	6.7	44.4	48.9	7.3
South Korea	1976	5.7	50.0	45.3	7.9
Canada	1969	5.0	53.0	41.0	8.2
Italy	1969	5.1	48.4	46.5	9.1
U.S.	1972	4.5	52.3	42.8	9.5
France	1970	4.3	48.8	46.9	10.9
Argentina	1970	4.4	45.3	50.3	11.4
Chile	1968	4.4	44.2	51.4	11.7
Philippines	1970-71	3.7	42.4	53.9	14.6
Costa Rica	1971	3.3	41.9	54.8	16.6
Turkey	1973	3.4	40.1	56.5	16.6
Malaysia	1970	3.3	40.1	56.6	17.2
Venezuela	1970	3.0	43.0	54.0	18.0
Mexico	1977	2.9	39.4	57.7	19.9
Honduras	1967	2.3	29.9	67.8	29.5
Peru	1972	1.9	37.1	61.0	32.1
Brazil	1972	2.0	21.4	66.6	33.3

* The small size of the 1953 sample makes it unrepresentative, and is likely to exaggerate the actual degree of inequality. But the trend toward higher equality resulting from the land reform and agriculture promotion is unmistakable (Ho,S.1978:142-3).

Over the last four decades, Taiwan has also made impressive progress in resolving its industrial, financial, and technological dependencies. The island started its postwar development with a typical colonial agrarian economy. In 1952, only 12.3 percent of the island's total output was generated by manufacturing, while agriculture and processed agriculture products accounted for 95.2 percent of its total exports. With little capacity to produce fertilizers and textiles, when Taiwan became a self-governing economic unit in 1949, its foremost economic problem was how to feed and clothe its people. But three and a half decades later, the island has built up a comprehensive industrial structure comparable to those of OECD countries. And in the 1980s, only behind some larger advanced capitalist countries, Taiwan has become the world's fourth biggest producer of synthetic fibers, the fourth biggest producer of machine tools, and the seventh largest informatics producer.[2]

In the first decade of its postwar development, with a huge influx of refugees and a heavy defense burden, Taiwan relied heavily on U.S. aid, which financed 38 percent of its gross domestic capital formation. But between 1965 and 1980, entirely out of domestic savings, Taiwan achieved what was "perhaps the highest rate [of gross domestic capital formation] of any country in the world over that extended period...[T]he share of domestic saving in GNP over 1965 to

1980 was 28.7 percent, slightly more than the share of investment...28.4 percent." (Wade,1985b:107) While many other Third World countries are suffering from huge debt burdens and depleting foreign exchange reserves, Taiwan's government is actually troubled by its escalating reserve, which stands only behind Japan.

Taiwan has rather effectively narrowed the technological gap between itself and the OECD countries. Taking the crucial sector of electronics, for example, local firms without any experience began in the mid-1960s by supplying such things as television cabinets to foreign companies. Gradually, they learned how to make various components and eventually became assemblers of final products of their own design. Today, Taiwan has the ability to design automobiles, computer-numerical-controllers, and flexible manufacturing systems. According to Jim Dykes, founder of General Electric's Semiconductor Division, Taiwan's booming Application-Specified-Integrated-Circuit design houses pose a real challenge to their American counterparts.[3]

To be sure, Taiwan's postwar development has its serious social and human costs, such as high worker injury rates and severe pollution.[4] The statistics of equitable growth means little to the island's indigenous peoples who, after the collapse of their economic systems, have been relentlessly exploited by the Chinese. Moreover, the political and social stability that underlay Taiwan's economic growth was maintained by authoritarian rule and labor control. However, mainly because of its past equitable growth and future development potential, Taiwan's insurmountable problems lie outside these typical developing country issues. This year, the most polluted river in Kaohsiung, Taiwan's largest industrial city, the Love River, has been purified and become a wedding site. While street combats and factory strikes in South Korea were shown on television across the world, a corner in Time magazine reported peaceful demonstrations as "Quiet Victories in Taipei" for both the government and the opposition movements. After workers expressed their dissatisfaction in an election, the KMT state moved to lift the ban on strikes and encourage the existing trend of turning workers into shareholders.

Taiwan's success in peripheral development was realized through a high degree of integration into the capitalist world economy. The ratio of the island's total value of exports and imports to GDP rose from 23.3 percent to 92.0 percent between 1952 and 1984. Precisely because this is exceptional rather than common in Third World experience, textbooks in development economics have been quick to single out Taiwan as an example for other developing countries to emulate. However, for scholars engaged in more in-depth studies, the island has been a very troublesome case in their theorizing efforts. In the development literature, Taiwan has been called a "counter-example [of] the dominant school of 'trade-off pessimist'" in neoclassical economics, "a challenge of dependency theory", and "a gadfly for world-systems analysts".[5] In George Crane's words, this is because "Taiwan's economic 'miracle' of the last thirty years has eluded both the prescriptions of neoclassical economics and the predictions of the more extreme versions of dependency theory. From either side of the dialectic, Taiwan is interpreted as a 'special case'; it has not been adequately explained."[6]

In the following chapters, we will analyze how Taiwan achieved goals considered impossible by extreme dependency theorists with means unconceived by neoclassical economists through a study of Taiwan's special economic system. Taiwan is a market economy, but a very particular type of market economy. At the top, the ruling Kuomintang state and its financial and industrial capital dominates both local and foreign private capital. Wade has ruefully noted the position of the KMT state:

"[In Taiwan], the whole of the public sector is substantially bigger than in such putatively more 'socialist' countries as India and Tanzania...Public sector final demand as a share of GDP was 30 per cent in Taiwan over 1975-78, only 20 per cent in India, 25 per cent in Tanzania...Individual public enterprises are typically amongst the largest firms in their respective sectors. In 1980, the six biggest industrial public enterprises had sales equal to the 50 biggest private concerns. The public enterprises cover the whole range of sectors, but are concentrated on the commanding heights to which European socialists wistfully aspire: petroleum and petrochemicals, fertilizer, steel and other basic metals, shipbuilding, and heavy machinery (in addition to the standard electricity, gas, water, railway and telephone utilities)." "[And] the banks are still today virtually all government-owned."[7]

At the basis of Taiwan's economic system, family businesses form the predominant majority of Taiwan's local private capital stock. Most of these businesses are small. In 1981, 99 percent of Taiwan's enterprises employed less than 100 persons (Table 15). But, in aggregate, they have the largest share of the island's economy. Also in 1981, small and medium enterprises (manufacturing and mining firms with less than 300 employees, other firms 50) produced 55 percent of

TABLE 15

TAIWAN NON-AGRICULTURAL ENTERPRISES BY NUMBER OF EMPLOYEES, 1981

	Number of Firms by Number of Employees					Total Employees	
SECTOR	1 -19	20-39	40-99	100-499	500 +	(1,000) Number	%total
Mining	67.5	14.1	9.1	7.3	2.0	46	1.1
Manufacturing	82.4	7.7	6.0	3.5	0.5	2,203	50.7
Construction	77.8	10.4	6.9	3.9	0.9	376	8.6
Commerce	98.6	0.9	0.4	0.1	0.01	990	22.8
Service	97.3	1.5	0.7	0.4	0.1	423	9.7
Transport & communication	82.3	10.9	5.5	1.0	0.3	308	7.1
TOTAL	94.47	2.76	1.74	0.88	0.15	4,345	100.0

Source: DGBAS, 1983, General Report on Industrial and Commercial Census of Taiwan, 1981

Taiwan's non-agricultural output, employed 70 percent of total employees, and accounted for 65 percent of Taiwan's export.[8] In a survey of small and medium enterprises in 1980, 70 percent of the owners interviewed considered their enterprises to be strict family business.[9] In addition, Taiwan's large private enterprises generally started as small or medium enterprises in the postwar period and are still organized along familial lines. Few of them go public.[10]

In Taiwan's postwar economic history, the state and families have always been the central agents of development. At the beginning, nearly all corporate capitals are in the state's hands, while small family farms and firms accounted for virtually the rest of the economy. In 1949, public enterprises accounted for 72.5 percent of total industrial production. And the average number of employees in private enterprises was 4.4 in 1946.[11] Later development of capitalist relations in Taiwan was basically absorbed into this state-families system. As a result, in general terms, Taiwan's domestic corporate capital and industrial labor do not have their independent existence, but are parts of the island's two overriding institutions. Most domestic corporations in Taiwan are various forms of state and family enterprises. And most industrial workers are the economic sojourners of Taiwan's numerous family farm-firms. These structural particularities make the functioning of Taiwan's economic system very different from those of other market economies. For example, the state has exceptionally strong power in directing and checking private capital. And as families protect and exchange labor with each other, the notions of proletariat and "rational" individual become elusive. Because this particular nature of Taiwan's economic system is central for its development success, below we will use state and families as the basic units of our analysis, rather than the conventional analytical frameworks of government-firm-household or state-capital-labor.

The next two chapters are a background study. In Chapter Five, we will analyze the island's colonial economic structure in order to understand the historical origin of the state's and families' positions in Taiwan's economic system. Chapter Six has three sections: the sociopolitical structure of postwar Taiwan, the strong state and its development paradigm, and the diligent families and their mobility strategies. State and families are much more than economic units and their economic activities cannot be adequately understood without reference to their political and social interests. The first section will deal with the external contexts that have decisively shaped the agents' economic objectives. The two other sections will examine the ideological heritages of the KMT state and the Chinese families in Taiwan for these ideologies have crucially guided the agents in their choice of economic means.

Taiwan's economy has been developed by the successive actions of its state and families. After the review of these agents' initial economic position, external context, and inherent agenda, we can then analyze Taiwan's economic development through historical study. In

Chapter Seven, we have divided Taiwan's postwar history into four stages by structural changes in the economy.

The first period started in 1949 when Taiwan became a self-governing economic unit through the introduction of monetary and trade reforms, industrial production control, and land reform. During this stage, Taiwan developed a prospering rural sector which subsidized the import-substitution of essential goods. Then, between 1958 and 1960, the government put forth a series of tariff, foreign exchange, and tax reforms, which made the industries built in the former stage outward-looking. Through a decade of rapid labor-intensive industrialization and a non-inflationary boom, Taiwan resolved its financial dependency and achieved full employment. In the few years before and after the first Oil Crisis, the government reversed the subsidy from the agricultural to the industrial sectors, launched a backward integration of heavy and chemical industries, and implemented a firm stabilization program. These measures successfully consolidated Taiwan's trade-dependent economy against external instability. The last stage is the 1980s, during which the government espoused the informatics and machinery industries as strategic sectors, which, also due to the forward linkage effects of the economy at large, have experienced phenomenal growth. Electronics replaced textiles as the island's largest sector in terms of output. At the same time, the KMT state's resistance to needed political reforms led to stalled investment and, in 1985, a confidence crisis. Thereafter, a total reform fundamentally changed the country's sociopolitical structure; thus ending the first era of Taiwan's postwar development.

Such a historical study is indispensable for situating the changing policies and practices within the context of an economy which has undergone successive structural changes during the postwar period. For all four stages, we will start by presenting the major economic problems of the period. Then, we will analyze the actions taken by the state and families, why their efforts could overcome those problems, and how these actions transformed the country's economic structure. The examination of how this resulting structure faced new problems in distinct context will lead us to the next stage. The roles of other economic agents, such as U.S. AID and foreign capitals, will be introduced at appropriate stages.

The background and the historical studies are strung together by the development and mobility strategies discussed in Chapter Six. These strategies, on the one hand, reflect the political and social situations of the economic agents and, on the other hand, embody the unchanged essence of the agents' changing economic policies and practices. This approach results from our recognition of two related issues central to the explanation of Taiwan's postwar development. First, the Taiwan experience demonstrates the fundamental importance of political struggles, up to the global level, in determining the context of peripheral development. Second, postwar Taiwan exemplifies that technical policies do matter and local actions can make a difference. With technically sound policies and average people's efforts, a poor and small peripheral country can exploit the capitalist world market to the benefit of its autonomous development. These we will clarify in the concluding chapter.

Notes:

1. These statistics were confirmed by outsiders' personal observations. See Little (1979:498). The comparison in Table 2 is made by listing all the 28 countries documented in the 1980 World Development Report. After 1980, when Taiwan was expelled from the World Bank upon the entry of the People's Republic, the Report stopped including any information about the "non-nation", who now stands as the world's tenth largest exporter and fifteenth largest trader.

2. Financial Times July 3 1983; Wade (1985a:66).

3. Chen, H. (1987).

4. For the worker's condition in Taiwan see Galenson (1979), Yang (1977).

5. Ranis (1978:397), Amsden (1979:341), Barrett and Whyte (1982:1064), Crane (1982:94).

6. Crane (1982:93).

7. The first quotation from Wade (1984:69). The second one from Wade (1985:109).

8. Bai, (1983:1-2).

9. Wang, Rue-Cheng. (1980).

10. See Diao, Min-Fang. 1982. "Why large enterprises refuse to sell their stocks on market?" Commonwealth (October):89-93.

11. Li, (1961:30-2).

5. TAIWAN'S ECONOMIC STRUCTURE UNDER JAPANESE COLONIALISM

To defend itself against the imperialist threat from the Western Powers, Japan started its state-led economic development in the late 1860s. In a predatory world where most good territories had already been colonized, Taiwan and Korea became the resources needed for Japan to build up its power in the global struggle. In a war to win the influence over Korea, Japan defeated China in 1894 and exacted from the latter its first colony, Taiwan.

Japan's late-comer status and poor domestic resources made it commit much more effort to modernizing its colonies than the Western powers did. For the Japanese, Taiwan served not only as surplus supplier and market but also as the outpost for the defense of home islands and the bridgehead for future expansion. In other words, Taiwan was to be integrated into the Japanese empire in its overall posthaste development effort.[1] Taiwan's colonial education is a good example. In the early years of the colonial period, a modern school system was established mainly for Japanese youth in Taiwan. The colonial state discriminated against the Taiwanese by restricting them to certain levels, qualities, and types of education.[2] But since the 1930s, as the threat of a world war loomed large, Japan began its aggression against China and initiated an intensive program to assimilate the Taiwanese into Japanese citizenship for war-time mobilization. As part of this effort, primary education was introduced throughout the island. In 1944, 71 percent of the Taiwanese children between the age 6 to 14 were already in school.[3] Thus, at the end of Japanese rule, Taiwan had a much better educated population than most other post-colonial countries.

The colonial economic strategy was to develop Taiwan as an agricultural appendage of Japan, to release Japanese labor to its growing industrial sector and to feed these workers. For this purpose, the typical colonial trade pattern of exchanging primary with manufactured goods was established and a two-crop agriculture (rice and sugar) was encouraged in Taiwan.[4] However, unlike most other colonies, "Taiwan's agricultural structure in the colonial period was more or less a continuation of the traditional structure... Colonization did not dramatically disturb Taiwan's rural organization. The unit of cultivation remained the small family farm."(Ho,S.1978:42-3)

The Taiwanese were already producing the rice the Japanese needed in a way similar to that of traditional Japan.[5] The colonial state only remodeled the three-tier tenure system into a two-tier one by expropriating the already diminishing "great" landlords. With the clarification of ownership and the replacement of a proportional tax with a flat tax on output, the state gave landlords and owner-farmers incentives to increase the production.[6] As for sugar, "[a]lthough sugarcane is frequently cultivated on large plantations in some Third

World countries, in Taiwan, it was grown by small owner-operators and tenants as well as on large land tracts owned by Japanese sugar manufacturers." (Amsden,1985: 79)

While the traditional peasant sector was preserved, Taiwan's agriculture was modernized with active state participation. A network of agricultural associations was established throughout the island and linked the state directly with every farmer in Taiwan. Memberships and fees were made compulsory for all farm households. This arm of the state performed research, disseminated information, offered extension services, managed warehouses, and supplied the farmers with non-agricultural inputs, such as fertilizer, seed, and equipment.[7] "When persuasion failed, the police were employed to force modern techniques onto rural communities that refused change...Thus, the colonial state set in motion the application of science to farming, which characterizes the rural economy of Taiwan today." (Ibid:81) The colonial government also invested heavily in physical infrastructure, especially irrigation and transportation. The resulting extensive transport network penetrated most of Taiwan's arable lands and connected them with the island's two natural seaports, Keelong-Taipei in the north and Kaohsiung in the south (Figure 3). As late as the 1970s, many Third World countries still did not have a transport network as developed as that of the prewar Taiwan.[8]

To expropriate the export surplus and to keep economic power in Japanese hands, the colonial government on the one hand devised a tax structure that discriminated against the Taiwanese rural sector and consumer, and on the other hand issued an order that forbade Taiwanese to organize or operate corporations without Japanese participation (Table 16).[9] As a result, industry in colonial Taiwan was divided into a modern corporate sector owned, managed, and operated by Japanese, and a traditional family-based sector made up of small Taiwanese manufacturing establishments and handicraft shops. In terms of production, the modern corporate sector was by far the more important, but in terms of employment the traditional sector was at least equally important.[10] Both of these two industrial sectors were essentially the extension of Taiwan's agricultural development.

For the Japanese sector, in 1930, food processing accounted for 76 percent of the gross value of factory production.[11] Since the mid-1930s, as part of the war mobilization efforts, metal product and industrial chemical industries were started in Taiwan to produce intermediary goods for final processing in Japan.

TABLE 16 TAIWANESE AND JAPANESE CAPITAL BY SECTORS, 1929

SECTOR	Japanese	Taiwanese	Other	Total Share Capital
	(in percentage)			(1,000 Yen)
Industry	90.7	8.5	0.8	198,941
Mining	71.6	20.1	8.3	17,107
Agriculture	47.2	52.8	0.0	9,399
Commerce	43.4	52.7	3.8	53,242
Transportation	55.1	44.5	0.4	5,781
Marine	65.1	34.3	0.6	3,417
Total	78.4	19.8	1.8	287,939

Source: Chang, Han-Yu. 1955. "Evolution of Taiwan's Economy During the Period of Japanese Occupation." in Collection of Papers on Taiwan's Economic History No.2, Taipei: Bank of Taiwan, pp.219-51.

Some of the new factories were of substantial size, but in general, "the last minute efforts... achieved little in the way of changing Taiwan's industrial struc-ture." (Ho,S.:1978:75) Agro-industries, especially sugar-refining, remained the dominant sector.[12] Because these agro-industries relied on Taiwanese family farms for raw materials and unskilled labor and were diversely located in rural areas, functionally and spatially, the corporate industrial sector was still largely an integral part of Taiwan's generally modernized agrarian economy.

Under colonial rule, the Taiwanese, although exploited, were still able to sustain their social fabric and economic vitality. "[I]ndeed, the welfare of Taiwanese peasants in the first half of the twentieth century may have exceeded that of Japanese peasants - according to such welfare indices as type of wearing apparel, housing, local bank deposits, and the like." (Amsden,1985: 81-2) A significant amount of agricultural saving actually helped finance the traditional non-agricultural sectors.[13] Restricted by the colonial state, Taiwanese invested their capital mainly in traditional commerce, transportation, and manufacturing, which includes rice milling, handicraft, apparel, textile, and wood and bamboo products.[14] The imported factory-made goods, although suppressed, did not ruin the family-based traditional industries in Taiwan's agrarian economy.[15]

Japanese colonialism had two major consequences for Taiwan's postwar development. First, because of the preservation and modernization of the traditional peasant sector and the relatively balanced growth of agriculture and industry, it did not create the sharp dualism that has afflicted most post-colonial development efforts. Colonial rule did not divide Taiwan's economy into a modern export enclave based on a plantation system and traditional agriculture reduced to a subsistence sector. Instead, the traditional peasant sector in Taiwan was generally modernized and became the basis of both the Japanese agro-industrial sector and the Taiwanese non-agricultural sector. "In 1930, when only 30 percent of Taiwan's labor force was engaged in non-agricultural activities, two-thirds of all non-agricultural workers were located in rural areas."

(Ho,S. 1979: 81). Thus, the colonial enterprise set in motion the pattern of broad-based development which characterizes the economy of Taiwan today. Secondly, the division of labor between the Japanese and the Taiwanese in the colonial economy shaped the public-private collaborative framework in postwar Taiwan. Unlike many other post-colonial countries, nearly all private foreign companies in Taiwan were nationalized at the end of colonial rule. Replacing the Japanese commanding role in agricultural organization and industrial structure, the KMT state acquired a predominant position in the postwar economy, which set Taiwan apart from other market economies. In the next chapter, we will analyze how the KMT state and the Taiwanese peasant sector related to each other and how these sociopolitical relationships shaped the strategies they used in transforming Taiwan's economy.

Notes:

1. Cumings (1984:8-9).

2. Gold (1986b:section 4) and Ho (1978:99-100).

3. Ho,S. (1978:99-100).

4. Amsden (1985:79).

5. Ho,S. (1978:249).

6. Ho,S. (1978: 44-5, 249).

7. Ibid, p.63.

8. For an international comparison, see Table 3.9 in Gustav Ranis, 1979, "Industrial Development" in Galenson ed. Economic Growth and Structural Change.

9. Although this restriction was rescinded in 1924, Taiwanese were still reluctant to seek entry to the modern corporate sector because of its domination by Japanese capitalists. See Ho,S. (1978:38).

10. Ho,S. (1978:89).

11. Ho, Samuel. (1978:71-2).

12. Ibid:74-5.

13. Ibid:85.

14. Ho,S. (1978: 87-8) and Gold (1986b: section 4).

15. Samuel Ho has carefully documented the significant role of the traditional sector in colonial Taiwan. But by defining handicraft shops as private manufacturing establishments that employed no more than four workers and did not use power, he has probably underestimated the scale of the traditional manufacturing sector.

6. THE STATE, THE FAMILY, AND THE ECONOMIC SYSTEM OF POSTWAR TAIWAN

6.1 The Sociopolitical Structure of Postwar Taiwan

Unlike Japan, China's response to imperialist oppression involved a prolonged and fundamental restructuring of the society. Immediately after the 1894 Sino-Japanese War, which exposed the inability of the Chinese empire and caused the separation of the mainland and the island China, Sun Yat Sen founded the Kuomintang. This first revolutionary party of China overthrew the dynastic rule in 1911 but thereafter faced the ascent of warlords. In the process of nominally unifying China, the Kuomintang first formed a coalition with the Chinese Communist Party, then purged it for the support of England, the U.S., and the Chinese comprador class. The Chinese Communist Party, through absorbing the peasants uprooted by the Japanese invasion, finally achieved a revolution from the grassroots of China in 1949. In response, immediately after it found refuge in Taiwan, the KMT state engineered a revolution from above, which bloodlessly removed the Taiwanese landlord class. The alliance of the KMT state and the Taiwanese peasant families then formed the sociopolitical structure in which the Taiwan economic "miracle" was generated.

Besides the threat from mainland China, this revolution from above was also caused by a full-scale conflict between the Taiwanese landlord class and the KMT state before it fled to Taiwan. Taiwan had eagerly welcomed the Chinese state when the Japanese Empire was defeated in 1945. To their dismay, the new rulers looted Taiwan's resources for China's civil war and for themselves. The military governor's policy of excluding Taiwanese from the government also caused strong resentment among the islanders. Long quiescent, an unorganized revolt broke out on February 28, 1947, as the Taiwanese masses turned their anger against all mainlanders on the island. Backed by this general sentiment, Taiwanese elites, with origins in the landlord class, made reformist demands on the government. The KMT state responded by sending troops to Taiwan and bloodily liquidating its social elites (20,000, according to some estimates), thus implanting a deep-seated antagonism among the Taiwanese in general and the landlord class in particular. This antagonism has posed a fundamental challenge to the KMT state's rule in Taiwan throughout the postwar period.[1]

Facing "the demise of the party", Chiang Kai-Shek established a Central Reform Committee in mid-1950 to consolidate the KMT's power in Taiwan. Internal reform was helped by natural selection: those members who were not loyal had already defected and those who were corrupt would not bring their money to the Doomsday island. To attain absolute control of the territory, all branches of the state and most key institutions of the society were brought under the party's command or surveillance.

Security agents ruthlessly suppressed dissent and communist suspects. Once the situation stabilized, it adopted less harsh measures. Learning from its traumatic defeat, the KMT knew that it must develop real bases in Taiwan to secure popular acceptance of its rule. The Central Reform Committee made two important decisions: to go further with the land reform and to grant local self-rule to the Taiwanese.

In 1945, 39% of Taiwan's farming families were full tenants and 31% of them part-tenants.[2] Competition for the scarce land was so ferocious that the average lease was less one year and rents were often higher than 50 percent of the anticipated harvest. "Contracts frequently were oral; rent payments had to be made in advance; no adjustments were made for crop failures. These conditions and practices left the typical tenant hopeless in any disputes with his landlord." (Fei et al.,1979: 38-9) "[Fearing] that the Communists might take the advantage of the rapidly deteriorating condition," (Chen,Cheng.,1961: 47-8), the new governor Chen Cheng introduced the first land reform program in 1949 to reduce the land rent and protect the security of tenancy. This immediately led to increasing production and decreasing land price. "With higher yields and lower rents, the average incomes of tenant farmers rose by 81 percent between 1949 and 1952. These rising incomes enabled tenants to purchase land put up by their landlords; about 6 percent of private farmlands changed hands." (Fei et al.,1979: 40)

After the decision of the Reform Committee, the KMT sold vast public lands, totaling about 20% of Taiwan's arable land, to former or landless tenants. The sale price was fixed at 2.5 times the annual yield of the main crop to be paid in 10 years without interest. Setting the example, the state took the final step in the 1953 Land-to-the-Tiller program. Through compulsory purchase of landlord's above-ceiling tenanted farmlands, the state resold the lands to the incumbent tillers. The state compensated the landlords with land-sale mortgage revenue bonds and stock shares of four public enterprises.[3]

Since the 2-28 incident, most of the KMT's dissenters came from the landlord class and their relatives in cities. With the land reform, the KMT undercut their economic base and fostered a new social force on its behalf.[4] "Traditionally the landlord class was the sole spokesman for the rural area. But since the early 1950s, it no longer enjoys this political monopoly. In the late 1950s, only 23 percent of the township representatives were landlords, while 69 percent were owner-cultivators (40 percent of whom were new owner-cultivators) and 7 percent were businessmen." (Ho,S.,1979: 174) "In all five [mayor and magistrate] elections held since 1950...the KMT was able to achieve almost total victory in the non-metropolitan areas...[b]ut faced serious challenges...in the metropolitan areas...[I]n the 1964 mayoral election the KMT won only two out of the five contested offices." (Tai,1975: 419-20).

Thus, through land reform, the KMT state created a coalition between itself and the Taiwanese popular class. As we will analyze in the next section, this coalition was later actively preserved by the state's development policies. The maintenance of the coalition enabled the state to grant local self rule while preserving a congress whose members were elected in all China. The KMT party-state's raison d'etre, dominance in Taiwan and "legitimate" claim over China, was thus maintained internally.

Externally, this raison d'etre was secured by the return of U.S. support. Besides peasant revolts, there were two key causes of the KMT's defeat on the mainland: the collapse of the financial system in particular and the economy in general, and the withdrawal of U.S. military support. When the KMT state and its one and half million followers fled to Taiwan, they overloaded the already chaotic economy. Inflation was 3,400% in 1949. The People's Liberation Army was landing on China's other islands, and the future of the KMT on Taiwan look bleak. The expansion of the Communist Bloc into South Korea in 1950 changed the whole situation. In the new containment policy of the U.S., Taiwan became strategically important. With American fleets cruising in the Taiwan Strait, the military threat from the mainland was blocked. "Free China" thus continued to sit in the Security Council of the United Nations as one of its five permanent members. With large inflow of U.S. aid, Taiwan's endangered economy gradually recovered.

Above, we have analyzed the genesis of the sociopolitical structure which postwar Taiwan's economic agents found themselves in. Here we will briefly review the agents' mutual expectation, the fulfillment of which is critical for the stability or maintenance of this type of structure. In traditional China, the state and families are connected in two basic ways: First, any man, if he excels on the humanity education and imperial servant examination, can join the state and acquire, for the rural-based clan that has supported him, the most admired social status and economic income. Second, if a state thus formed cannot secure average people's livelihood, it is subject to legitimate peasant revolution. The 1949 revolution and its counterpart in Taiwan, although involving global struggles and modern ideologies, is essentially a repetition of this traditional practice. As we will elaborate in Section 6.3, in traditional China, the concerted ideal was not the civil liberty of the urban bourgeoisie but the social mobility of average people.

With all the external threats, Taiwan's spectacular economic and investment growth has taken place in a highly stable political milieu. Political tranquility prevailed until the mid-1970s, and the opposition movements formed since then are far from radical by international standard. Besides the 2-28 incident and the extensive state control and oppression mentioned above, the source of this stability has to be found in the high degree of social mobility in postwar Taiwan, for the KMT state is positively not the most oppressive state in the world, and is more stable than other oppressive states. Equal and adequate opportunities for economic prosperity and education advancement are the foremost concerns of average Chinese families in Taiwan. Until the 1980s, most people were willing to live with the "benevolent" state that provided such opportunities. The society has tolerated election scandal but never college entrance examination scandal. In the following sections, we will examine how the KMT state provided fully such opportunities through a set of persistent development strategies and how the families in Taiwan exploited these opportunities through a set of generally followed mobility strategies.

6.2 The Strong State and Its Development Strategies

Postwar Taiwan is a thorough case of intentional economic development. While many politicians in the Third World have preached the development goals of equitable growth and economic autonomy without much real commitment or success, the KMT state in Taiwan has had not only the commitment, but also the power, the theory, and the techniques to attain these goals. The KMT state's strong commitment derived mainly from the geopolitical situation and sociopolitical structure in which it found itself. To maintain its domination of national politics, as entailed by the KMT's raison d'etre, the attainment of equitable wealth is a necessary condition for mass support. Threats from mainland China and the abandonment experience by the U.S. made economic autonomy imperative. The KMT state in Taiwan thus put economic development and the attainment of these goals as its top priority. As importantly, the KMT state has an exceptionally strong power in leading and changing the economy according to its will, as a result of the Japanese heritage and initial U.S. aid. The latter we will articulate in the next chapter.

What makes the KMT state even more distinct from other peripheral states is that it has been decisively guided by a development paradigm specifically designed for Third World countries. Leading China's modern revolution at the turn of this century, Sun Yat Sen set forth the Three Principles of Peoples' Autonomy, People's Power, and People's Livelihood. Well read and well travelled, Sun proposed in the Principle of People's Livelihood a strategy for poor peripheral countries to achieve affluence while simultaneously avoiding the inequity found in the advanced capitalist countries. To attain this goal, Sun provided two guidelines: equalizing land rights and regulating and checking capital (jie zhi zi ben). According to Sun, equalizing land rights is needed because, in "developing" countries, capitalists generally emerged from the landed class. As land prices rise in the process of development, landlords effortlessly expropriate the value generated by people's labor. Windfall profits turn landlords into capitalists. The two exploitations of labor develop in tandem. Equalizing land rights from the start of development is crucial for "developing" countries to prevent the inequity that was already in place in the "developed" capitalist countries.[5] For implementation, Sun proposed "Land to the Tiller" in the countryside and designed an urban land taxation system.

To mitigate the other exploitation, Sun proposed to regulate and check capital for the service of people's livelihood. This is to be done by both developing state capital and regulating and checking private capital. In the Principle, the purpose for developing state capital is to establish a developmental state capable of initiating peripheral economic development and preventing capitalist domination. The state should own monopolistic sectors and set up needed industries that are too large or too risky for private capitals.[6] With a potent state capable of regulating and checking capital for the service of people's livelihood, Sun foresaw cooperative relationships among state, local and foreign private capitals. Viewing poverty rather than inequity as China's foremost economic problem, Sun considered it possible to prevent capitalist domination by equalizing land rights and developing state capital. Recognizing the positive contribution of capitalists to society,[7] he proposed to leave "all matters that can be and are better carried out by private enterprise...in private hands."[8] Sun questioned China's ability to develop modern enterprises by itself. He proposed to utilize capital already accumulated in the advanced countries to "make capitalism create socialism in China so that these two economic forces of human evolution will work side by side in future civilization".[9]

It is not our intention to eulogize the Taiwan government's official ideology. Of course, official ideology could be very different from actual deed. The KMT state's inaction in turning "land to the tiller" on the mainland was a major cause of its traumatic defeat. By itself, ideology could do little to bring about revolutionary change or benign development. The only complete copy of the Three Principles that ever existed was destroyed by the canon of Sun's betrayers. The counter-revolutionary KMT state after Sun used the ideology mainly as slogans. But when the peasant revolution turned the KMT state's ideology into a survival means upon its retreat to Taiwan, it began to really implement the Principle and became again a de facto revolutionary state. As KMT's rivalry with the Chinese communists as a government of China shifted from military confrontation to a competition of development paradigms, its official goal became "developing Taiwan into the model province of the Three Principles of the People." Indeed, after the KMT state faced international isolation by communist China's design, its continued existence depended upon the realization of this official goal.

To be sure, the Principle provides only guidelines. As Sun says, the solution for social problems must derive from realities, not just from theories. To solve the problem of people's livelihood, theories must be tested and modified in practice. However, it is not an accident that the Principle does summarize well the practical and contingent economic policies which the KMT state has devised under ever-present political and economic challenges, and these policies did attain the Principle's goal, equitable wealth. One attentive observer has claimed that "Taiwan's spectacularly successful industrialization... is arguably the most successful (by the double criterion of income growth and equity) that the world has ever seen." (Wade,1985: 106)

We have already articulated how the KMT state carried out the tasks of equalizing rural and urban land rights. Below, we will analyze how the other guideline was turned into reality. Acknowledging economic debacle as one key cause of his defeat, Chiang Kai-Shek entrusted a group of generalist bureaucrats with full power in economic affairs and high position in the state apparatus. Former President Yen, the leading economic advisor to postwar Taiwan's two other Presidents, Chiang and his son, is a good example. Most of these generalist bureaucrats had degrees in natural sciences or engineering and learned economic affairs by doing. Taiwan's foremost economic policy designer, K. T. Li, was in the Cambridge Nuclear

Physics Laboratory before he gave up his degree for the Sino-Japanese war.

Li explicitly spelled out the KMT state's two development goals in his 1965 address, "Our National Economic Policy."[10] For equitable growth, it is "the establishment of Minsernist (phonetic translation of the Principle of People's Livelihood) economic system." For economic autonomy, it is "the development of [comprehensive] modern economic structure." Besides the public-private partnership strategy which underlies the two goals, Li articulates two other overriding strategies followed by the KMT state: full utilization of domestic resources and full utilization of foreign market and capital. Substantiating Li's outline, we have summarized and correlated the multi-faceted development strategies persistently followed by the KMT state in attaining its economic goals:

(1) Rational Combination of Public and Private Initiatives.

The most evident aspect of Taiwan's intentional development is the design of its economic system. Almost exclusively owning Taiwan's financial and modern industrial capital, when the KMT state took refuge in Taiwan, its concern was not the inadequacy of state control but how to build up a economic system that could be developmentally progressive. What troubled the KMT was not the prodding of private interest groups which barely existed but the dearth of private entrepreneurs. In the 1950s, it had faced difficulty in inducing the agrarian Taiwanese to join the venture of industrialization. Aloof from private elites and dominant in its economic power, the KMT state has rationally combined public and private initiatives to attain what it considers to be national economic interests.[11]

The central mechanism of Taiwan's state-guided development is its public banking system. The KMT state held tightly the control of the financial sector in the fear of another financial collapse while confronting the Chinese communists. "Stability as Basis of Sustained Development" has become the KMT state's overriding economic policy since 1949 and financial control is the master piece of this policy. This priority of stability over growth is in sharp contrast with the strategies of South Korea and many other developing countries. By avoiding the issue of banknotes for government deficits, maintaining high real interest rates, and virtually freezing foreign exchange rates, the KMT state has successfully prevented rampant inflation which transferred resources from the property-poor to the property-rich, thus preserving its mass support.[12] Besides its equity implication, this public control has a crucial economic rationale for guiding autonomous growth, best analyzed by Robert Wade in his pathbreaking article, "East Asian Financial Systems as a Challenge to Economics: Lessons from Taiwan." According to Wade, due in large part to its financial control, the KMT state successfully restored and maintained macroeconomic stability and mobilized the world's highest rate of private saving into its banks. The state then restricted this family saving for domestic use and steered it away from speculation, mergers, paper entrepreneurship, consumer borrowing into productive investment; and within the latter, into industries important for the entire economy's growth. The highly leveraged private firms, more anxious to reduce their risks than the mainly equity-financed Western firms, responded sensitively to the government's elaborate scheme of tax incentives for priority products. As for non-priority sectors, the success in mobilizing domestic saving has enabled the government to promote key sectors without severe rationing of other sectors or transferring resources from lenders to borrowers through inflation, thus leaving more space for adjustment according to market incentives than in the case of South Korea.

The other aspect of the KMT state's stability-sustained growth policy is its development sequencing. Well aware of the problems found in other developing countries, the policy makers have, from the start, followed a policy which based industrialization on agriculture and heavy industry on light industry.[13] And to secure this progressive development, they have rationally organized public and private initiatives into the economic system: In agriculture, land reform gave strong incentives to peasants to produce, while the state replaced landlords' management role and forced agriculture saving into the industrialization it initiated. Having fostered a private modern industrial sector, the state created an optimal saving and investment climate and left small-scale or down-and-middle-stream industries to private entrepreneurs. While light industries were booming around them, the policy makers prepared for the backward integration of heavy industries.[14] When the private sector was reluctant to join the venture, the state bore full responsibility. Foreseeing the strategic importance of high-tech industries, the state built up Taiwan's R&D capacity for later use by the private sector. When small and medium private firms blossomed in the high-tech industries, the state initiated high-risk huge-capital upstream factories, such as an advanced semi-conductor factory, in collaboration with foreign and domestic private capital. In brief, the fluctuating shares of public and private industrial investment in Taiwan are not swings between "statist" or "capitalist" policies, as depicted by some authors[15], but progressive alternation entailed by the establishment of a Minsernist economic system and a competitive modern economic structure. The public-private partnership in a market economy envisioned by Sun has prospered in Taiwan's financial system and the productive sectors of agriculture, old-line industry, and high-tech industry.

Before we analyze how this strategy actually worked in the historical study, it is important to clarify some basic conceptions. Taiwan's postwar development has too often been used as supporting evidence by the contending proponents of market freedom and state interventions. In their study of developmental states in East Asia, White and Wade have concluded that "the action of developmental states should not be seen merely in terms of a state 'intervening' in an economy, which is in some sense alien or discrete...Their real achievement has lain in their ability to both implement national planning priorities and expose their economies to market disciplines...They demonstrate the unsoundness of any simple counter-position of state/private, or plan/market."[16] Interestingly enough, this becomes even more evident when we compare Taiwan with other East Asian industrialized countries. On the one hand, the KMT state is in a significantly stronger position in Taiwan's market economy than the states in Japan, South Korea, and Singapore. Not only does it directly own the country's financial and upstream industrial capitals, but private interest groups also have much less influence in the state apparatus.[17] On the other hand, this stronger position has allowed the KMT state to rely more on market process in implementing national priorities. The latter point needs articulation. By excluding private control of monopolistic sectors, the KMT state has largely prevented the domination of large conglomerates. Using its predominant power, the state has also supported the proliferation of small and medium family firms by pursuing the broad-based development strategy discussed in the following paragraphs. Within such a "perfect competition" market structure, Taiwan's numerous "price-taker" firms have been very sensitive and flexible in responding to any profitable opportunities.

Guiding these private initiatives from an "aloof" position, the KMT state's actions have less often taken the form of "picking the winners" than other Asian developmental states, thus allowing more "market freedom". According to Wade, "the state of Taiwan has exerted less direct discretionary influence over private domestic firms than in Japan, South Korea, or Singapore...[W]ith the exception of quantitative import control, [the KMT state's industrial] policies are relatively non-discretionary with respect to private domestic firms. They aim to structure the incentive environment of private firms in such a way that the autonomous profit-seeking of private firms will lead them to behave in ways which aggregate up to national goals." (Wade,1985a: 69).

The above strategy embodies the KMT state's design of social division of labor for developing a competitive comprehensive economy in Taiwan. Conditioned by the island's natural endowment, this development entailed the transformation from a local-raw-material land-based economy into an imported-raw-material labor-based one. Below, we will analyze the KMT state's particular approach to this transformation by looking at two sides of the same coin: full utilization of domestic resources and full utilization of foreign markets and capital.

(2) Full Utilization of Domestic Resources

In K. T. Li's definition, this strategy entails the employment of all mobilizable domestic resources, which include natural and human resources and accumulated capital, in the national economic development efforts.[18] In practice, this has been realized by the KMT state's sectoral, education, and capital formation policies.[19] The former is most clearly put by President Yen in his address, "The Fundamentals and Conditions of Postwar Economic Development in Taiwan."

"At the initial stage of Taiwan's postwar economic development, deciding upon a strategy to develop Taiwan's economy and to generate mass prosperity was a difficult proposition. Given the abundant supply of manpower and the relatively favorable conditions found in agriculture, the government opted to develop human resources to counterbalance the shortage of natural resources, and therefore attached priority to labor-intensive industries in the overall development scheme. At this early stage, emphasis was placed on agricultural growth for two reasons: first, agriculture was the most effective labor-intensive industry; and second, the majority of the population was already engaged in agriculture...Agricultural development, reinforced by land reform, generated moderate but widespread affluence and helped to build up a viable economy.

The foundation for agricultural development being well established, the government shifted its focus to industrial development. Industrial development has adhered to the same line pursued by agricultural development in that the advancement of labor-intensive industries such as agricultural processing, handicraft, export processing, textiles, etc., received initial priority. Gradually, emphasis has shifted to developing technology-intensive industries; nevertheless, preference is still extended to promoting those technology-intensive industries which are also labor-intensive and those technology-intensive industries (up-and-mid-stream) which will induce the development of labor-intensive industries (down stream)." (Yen,1981: 35-39)

This sectoral policy has been complemented by education policy in Taiwan's human-resource-based development. To continuously upgrade and adjust the productive capacity of Taiwan's total labor force and to fulfill the aspiration of average Chinese families, the KMT state has made sound and selective efforts in developing Taiwan's education system. While the prospering peasant families became more willing to send their young children to school, the state strengthened the primary education left by the colonial rule. In addition, the government made impressive progress in establishing Taiwan's secondary and higher education systems (Table 17). Free compulsory education has been offered to the junior high level since 1967. And the government is planning a twelve-year universal education program. The Council for Economic Planning and Development made the final decisions about higher education expansion, leading to phenomenal growth of engineering and business students (Table 18). Equal opportunity of education was guaranteed by a rigorous and impartial joint entrance examination system and the government's insistence on low tuition policies. In a comprehensive empirical survey, Ranis found that the distribution of family ownership of human assets in terms of education characteristic is unexpectedly equal.[20]

Besides education policy, capital formation policy has also been central in the state's effort to promote Taiwan's labor productivity. By mobilizing domestic resources, it first successfully fostered the agrarian society's capacity to save in the 1950s. To stop reliance on foreign saving and to accelerate investment, the state adopted a saving and investment policy package in 1960 which has been instrumental in developing Taiwan's virtuous cycle of domestic capital accumulation. Lundberg's comment illustrates the policy's intensity: "Not only have average tax rates been kept low...but specific tax rebates and exemptions favored saving by private individuals as well as by firms and corporations...A favorable climate for capital formation exists in Taiwan, with a minimum of concern for the distribution of income and wealth." (Lundberg, 1979: 300-2) However, "[t]he decline of the Gini in Taiwan, from .46 in 1961 to .30 in 1980, is probably the largest decline in the Gini in any nonsocialist nation since 1900." (Barrett and Chin,1987: 29)

TABLE 17 Percentage of Graduates Enrolled in Next Higher Levels of Schools

Educative Year	% of School-aged Children Enrolled in Primary Schools	% of Primary School Graduates Enrolled in Junior High Schools*	% of Junior High School Graduates Enrolled in Senior High Schools*	% of Senior High School Graduates Enrolled in Schools of Higher Education*
1952	84.0	33.8	62.9	46.2
1962	96.5	54.4	80.0	72.7
1972*	98.1	83.9	70.6	83.4
1985	99.9	99.4	73.3	80.3

Source: CEPD, 1986, Taiwan Statistical Data Book

* Note: Figures before 1970 are number of students of graduating classes; those for 1970 and the ensuing years are the numbers of actual graduates.

TABLE 18 Number of Students Receiving Higher Education by Discipline

Discipline	1952	1962	1972	1982	Ratio 1982/1952
Engineering	2,590	7,821	65,944	128,771	50
Business & Social Science	1,939	11,787	78,745	121,695	63
Medical	325	3,871	21,626	29,352	90
Humanities	1,919	6,802	24,101	28,575	15
Natural Science	693	4,190	13,324	22,090	32
Education	479	3,470	25,482	21,460	45
Agriculture	1,231	3,621	10,431	9,974	8
Fine Arts	288	1,169	8,260	8,985	15
Law	372	1,489	3,235	4,794	13

Source: CEPD, 1986, Taiwan Statistical Data Book

The contradiction of the above two statements reveals a key difference between capitalist welfare states and Taiwan's developmental state, whose capital formation, sectoral, and education policies form a coherent development strategy. In Taiwan's reformed agrarian economy and equitable education system, land and labor were the two most evenly distributed factors of production. By promoting the utilization of agricultural and human resources, the state greatly enhanced the income of average families. By creating an optimal saving and investment climate, the state induced family saving for investment in priority sectors. Since the technology of these sectors is labor-intensive, rapid investment leads to rapidly rising wages. Implementing the afore-mentioned policies with its predominant power, the KMT state directly ensured an equitable distribution of income; it therefore has lesser need to re-distribute income than the capitalist welfare states, thus encouraging a higher level of saving and investment which led to more rapid growth.

The strategy, full utilization of domestic resources, however basic it may sound, is very unusual in Third World experience. Most developing countries, upon their independence, had their major resources in agriculture and labor. But many of them, accepting the originally European dichotomy between a backward traditional family-based rural sector and a progressive modern corporate industrial sector, have followed certain variations of the "growth pole" development strategy, which concentrated national resources to develop a few modern industries in major cities at the expense of the agrarian economy at large. In some cases, this strategy was justified by the priority of economic autonomy. Taiwan has broken this dichotomy by following a broad-based development strategy, which has gradually modernized its family-based sector into numerous private firms capable of competing in the world marketplace. The entrance into the capitalist world economy is indispensible in providing the labor demand for Taiwan's human-resource-based development. But the KMT state has successfully managed this integration without sacrificing the autonomous development of a comprehensive national industry. The techniques involved are outlined below.

(3) Full Utilization of Foreign Markets and Capital

Economists have often divided economies of developing countries into two groups: import-substitution regimes maintained by state control and export-led growth under free market conditions. Advocating free-market principles, some authors have implied that the Taiwan "miracle" emerged largely because, around 1960, the Taiwan government replaced a typical import-substitution regime with free trade policies. This presentation, though not totally wrong, is misleadingly superficial. In fact, throughout Taiwan's postwar development, the KMT state has consistently followed an export-oriented import-substitution industrialization strategy.[21] As discussed above, economic autonomy is no less important for Taiwan than for any other developing countries. But, from the very beginning, the policy makers realized that, for a small island like Taiwan, the goal of establishing a comprehensive national industry could not be attained without resorting to exports.[22] The development sequencing policy and the strategy of full utilization of domestic resources entailed the promotion of labor-intensive manufactured exports. Therefore, from the start, the bureaucrats have kept searching for ways to promote the export of "mature" manufactures while maintaining "appropriate" protection for fledgling national industries. Import substitution and export of manufactures was not conceived as a dichotomy but as a continuing sequence of development.[23]

In the beginning, the only "mature" manufactures that had export competitiveness were handicrafts. To provide employment opportunities for rural working hands and to earn foreign exchange, in 1951 the bureaucrats invented the now well-known rebate system. Under this system, tariff duty on Japanese fiber used in Taiwanese straw hats export will be returned to the exporters, thus enabling them to obtain intermediates at world market price without affecting the overall import-substitution regime. As manufactures with export potential proliferated, the rebate system's coverage was expanded and its tedious procedures improved every one or two years. In 1954, all export goods became eligible and, in 1964, most indirect taxes were exempt.[24] This system was later adopted by South Korea and, to a lesser degree, other developing countries.[25]

The rebate system was absolutely crucial because, at earlier stages, traded inputs made up an overwhelming part of the total costs of Taiwan's exports. Exportation was possible only when the exporter could buy intermediates used for export production at a price close to or below those paid by his competitors.[26] On the other hand, under the system, the final exporter can buy inputs, which he might have imported, from a domestic producer, who is then entitled to claim the amount of tariff duty which the exporter would have paid if he had imported instead. Thus, the domestic producer of the inputs remains protected despite selling to the exporter at world prices.[27] As for capital goods, exporters do have to pay duty (typically of 20+ percent in the late 1970s), unless they are concerned with products which appear on a list of specific items to be encouraged and unless a domestic substitute for the capital good is not available.[28]

Besides general tariff protection, the KMT state uses quantitative import control to promote local production of designated capital and intermediate goods, even if these goods are used for export production. According to Wade:

"In principle, items can only be put on the list subject to this control if the price of the domestic substitute is equal to the cif price of imports when the imports are to be used for export production, or the cif price plus all tariffs and other charges when the imports are to be used for domestic market production. In practice, [when the importers apply] for a license (required for all imports and exports), there is scope for negotiation in favor of the domestic producer...The government certainly allowed the pressures of the international market to bear down on the domestic economy, by using international prices to discipline the price-setting of domestic producers protected by quantitative restrictions on imports -- an important difference with the textbook case of import substitution." (Wade,1985a: 67-8)

The logic of Taiwan's export-oriented import-substitution trade regime can be summarized as such: With the rebate system, on the one hand, Taiwan could start exporting manufactured goods at competitive prices, derived from its lower labor cost, even though it could only produce a small part of the final goods. On the other hand, more advanced domestic production capacity could still be fostered under tariff protection. Early exportation of lower local-content goods not only enlarges the domestic market on which fledgling import-substitution industries depend but also develops the foreign market into which those industries could later expand. Competitiveness in one item or sector thus helps to increase it in others.[29] In cases of priority products, the government's selective import control ensured that the market was captured. Such has been the strategy of full utilization of the foreign markets.

As for foreign capital, the KMT state has actively solicited it not only for the new technology and foreign market needed for sectors that had no roots in Taiwan, mainly electronics, but also for international support against the threats from communist China. Under the overall import-substitution regime, capital goods tariffs and administrative red tape formed significant obstacles to foreign investors looking for export platforms. To attract needed foreign capital, the KMT state therefore established the first export processing zone in the Third World, which went into operation in 1965. Facing the attacks that he was recreating the treaty port, K. T. Li made the difference clear in the opening address:

"Most other countries in Asia had exempted all tariff on the import of industrial machinery to encourage investment and to increase employment opportunities. Our country could not afford this measure at present. Therefore, we have to establish the special zone and use this measure only for export...This is the important meaning of the Kaohsiung Export Processing Zone... Although we have established the special zone today, it is still in experimentation...We shall not allow failure and must succeed in advancing it." (Li,1966: 265)

Because the KMT state had conscripted foreign (Japanese) investment and developed a national industrial base before it actively invited the multinationals, it had much stronger bargaining power versus foreign investors than most other Third World states. As Thomas Gold put it: "Taiwan's triple alliance is dominated by the state."(Gold,1981: 313). Besides imposing product ranges, local content and export ratios, "the government has been active in reducing the enclave nature of foreign firms by performing a matchmaking function -- scrutinizing the flow of imports going to foreign firms, seeing which could feasibly be produced in Taiwan, encouraging local suppliers (always with the lever of import controls in the background), and doing the same with exports to see what could be further processed in Taiwan." (Wade,1985a: 68-9)

The KMT state's approach of market-guiding entailed elaborate bureaucratic efforts, as in the cases of "matchmaking", tariff rebate, import controls, and fiscal incentives. These policies are all highly product-specific. Wade has given a good example:

"What is unusual about Taiwan's fiscal incentives is not their content...What is unusual is the degree of selection between products which is entailed in the specification of eligible items: in heavy electrical machinery, for example, six types of product are identified as eligible for a reduction in business income tax from 25 to 22 per cent; one of which is transformers -- but not all transformers, only those of 154 kv class or above; in electronics, not any semi-conductor devices, but only those equipped with diffusion facilities or ion implantation facilities." (Wade,1984: 68)

Moreover, these incentives are highly dynamic. To ensure that subsidies will remain "appropriate", Taiwan's economic bureaucracy has been entrusted with the power of frequent tax credit revisions. By making the eligibility requirements ever more stringent, they have kept the incentives continuously pushing on the national technology frontiers.[30]

We have examined the KMT state's development policies from the design of the economic system to the specification of priority products for their equal importance in Taiwan's economic planning.

The KMT state represents Taiwan as a "planned free economy." Paradoxical as it might seem, our ending discussion of the first strategy should make clear that this statement has substance. Although formal economic plans in Taiwan were just indicative,[31] the country's economic development has been, in the fundamental sense of the word, planned. Planning, by generic definition, is the rational choice of means to attain designated ends. In Taiwan's postwar development, even the economic system itself has been a collective choice. The three development strategies have been chosen since the initial stage by the policy makers who have led and are still leading Taiwan's postwar economic development. With both ultra-macro and ultra-micro policies, the generalist bureaucrats "think globally and act locally." Going in the ways pointed out by the ultra-macro policies, the planners examined in detail whatever obstacles they found in front of them and corrected practical problems by specifically designed measures, thus generating numerous ultra-micro policies which often led to institutional innovation, as in the case of the rebate system.[32] When micro-adjustments proved inadequate, proponents of bold actions gradually received enough support among contending parties, such as the 1958 exchange rate unification. Such structural adjustments sometimes led to destructive results, as in the case of trust and investment companies (the latter two cases will be examined in the historical study). And lessons were learned from the failures. This trial-and-error process guided by unusually long-term perspectives characterizes the strong state's planning in

Taiwan's market economy. Our post facto substantiation of the strategies is but a summary of the generalist bureaucrats' experimentation results.

6.3 The Diligent Families and Their Mobility Strategies

We can not adequately understand why the state's policies worked without examining the society. Taiwan is a market economy, and its development depends on private initiatives. Learning from its past failures and responding to its current challenges, the KMT state launched an agrarian reform and a set of "benevolent" development policies which provided Taiwan's numerous peasant families with economic autonomy and development opportunities. The spontaneous adaptation of Taiwan's traditional economic organization, a system of economic families tightly interconnected by community networks, to their modern environment has generated a very particular private sector in Taiwan. In this section, we will examine the ideological background of this family-based economic organization, how this ideology gave rise to the mobility strategies of the families, and how these strategies shaped the particular pattern of Taiwan's private sector, especially the labor-capital, and capital-capital relationships.

The initiatives of average people in Taiwan were so strong that some foreign observers called them "self-exploitating".[33] While our analysis above should clarify why postwar Taiwan could become a land full of opportunities,[34] we need to know the particular ways through which these opportunities were fully realized. Many researchers have studied why average individuals in Taiwan worked so hard and found their explanations in the Chinese family.[35] And Wong's assertion that "[t]he essence of Chinese economic organization is familism" fully applies to the private sector in Taiwan.[36] Because of their fundamental importance, we need to briefly review the two major roles of family in Chinese civilization.

First, China is a secular culture. For three millennia, except in eras of prolonged warfare, the behavior of Chinese in this world has not been guided mainly by images of "the other world". Without an after-life in the other world, the family become the Chinese individual's after-life in this world. After death, one continues to be remembered by one's offspring and worshipped in one's ancestral hall, not religious hall (Chinese translation for church).[37] Second, there was no caste system in imperial China, in which the dynastic rule depended on the availability of social and economic mobility for all its subjects. Family and clan were the basic social, political, and economic unit through which this mobility was organized. In contrast to autonomous urban communes in medieval Europe, autonomous rural clans formed the basic units of imperial China. The ancestral hall housed not only the clan's private court but also its private school. Sending its members to take the imperial servant examinations and to conduct regional commerce were the clan's two most common mobility strategies. And both the mandarins and the merchants returned to their rural homes in old age.[38] Successful families usually expanded their land holdings and gradually class struggles undermined dynastic rule. It is mainly because of the above two factors that "Chinese have been socialized...not just to work hard, but to work hard for the long-term benefit of the family." (Harrel,1985: 224)

"The same kind of society, based on the jia (family) as the economic unit and on the possibility of social and economic mobility theoretically open to all, has carried over into modern-day capitalist Taiwan." (Harrel,1985: 219) Following the time-honored mobility strategies, families in Taiwan actively and fully exploited the opportunities made available by the state's management.[39] In her anthropological study, Greenhalgh has described the pervasiveness of the traditional mobility strategies among the families in urban Taiwan:

"From close study of about 75 families, the picture that emerges is a urban society marked not by cultural cleavages along class lines, but by cultural uniformities that tend to blur class lines. Both what people say and what they do suggest that families in all classes are using essentially the same strategies to move up the same ladders of aspiration." (Greenhalgh,1984: 542)

While Greenhalgh reminds her readers that China's "'organic unity of rural and urban'...is perhaps nowhere so true as on contemporary Taiwan", other studies reveal that the mobility strategies also prevailed in the countryside.[40] These strategies aim to enhance the family's long-range communal security, economic well-being, and social status. In terms of ideal types, the strategies could be conceived as: (1) consolidating the family economy into an independent unit; (2) diversifying the family economy into an interdependent network; (3) and acquiring higher education for upward mobility.

(1) Consolidating the Family Economy into An Independent Unit

Economic relationships in Chinese society are essentially particularistic. Without the common belief in a transcendental authority impartial to all individuals, Chinese generally behave with the assumption that being partial to one's affinities is a basic of human nature. This world view has been institutionalized by Confucianism which advocated a social order based on mutual responsibilities in particular relationships and overlapping networks of personal preferential relationships. The individual stands in the center of each of these networks with a preference gradient falling from family members, to relatives, to acquaintances, and to strangers.[41]

The family business is the basic unit of this particularistic socio-economic structure. The family as an inheritance economic unit and all-encompassing support for individuals gives incentives for both parents and children. The children are willing to work hard and contribute to the family saving. The parents devote themselves to the children and family business to ensure the communal relations and material security they need in old age. Unlike cash wages, the family business provides secure employment and has possibilities to expand and to pass down to descendants, the after-life of the Chinese. Land reform and agriculture promotion made Taiwanese peasant families viable independent units. In the non-agricultural sectors, not only did enterprises typically start as family businesses, even when they became large corporations, they were still organized around the family nucleus. Taiwan's conglomerates generally take the form of "enterprise groups"(Qi Yeh Ji Tuan), groups of companies related by managerial, capital, and/or production linkages.[42] Of the 100 of these groups sampled in 1978, the bases of organization are described as follows:

61 percent	family firms
15 percent	family and friends
13 percent	classmates and/or friends
11 percent	others

(Greenhalgh,1987)

In Taiwan's particularistic economy, hiring of labor relied mainly on community networks. "At least, 70-75 per cent of the migrants to Taiwan's cities find jobs through relatives and friends." (Greenhalgh, 1984: 535) And fledgling factories in the rural areas typically relied on neighborhood labor.[43] As families protecting and exchanging labor with each other, the class division between labor and capital was blurred. Generally speaking, Taiwan's industrial workers did not constitute a self-reproducing class, but were the daughters and sons of the small farm-firm families. In 1973, 56% of workers in manufacturing were between the ages of 15 and 24. Anthropologist Hill Gates was told repeatedly by these workers "No one wants to make factory work a career!"[44] Young female laborers "sell their youth" to the company mainly to contribute to their family's financial resources and to improve their own education and career skills.[45] They generally leave the job upon marriage. Some go back after their children become independent enough, if they need to work and still do not have a family business. Male laborers typically look at factory work as an entrepreneurial strategy.[46] After recognizing this motivation through participation, Stites realized why his co-workers in a small Taiwan factory "labor tirelessly under poor conditions and have little interest in unions."

> "[When factory] work is viewed as a temporary part in a career and a means to eventual entrepreneurship, [to] eschew the opportunity to work overtime...would be to condemn oneself to a longer term of factory employment...[The] temporary nature of the work makes [the workers] less likely to organize around [safety standard] issues...assuming that the safety hazard is more a nuisance than life-threatening...[The] fact that many of the workers aspire to be entrepreneurs makes them less likely to see matters exclusively from a worker's perspective." (Stites,1985: 242)

The critical point is that workers' expectations to become entrepreneurs could actually be realized. Statistics reveal that this is often the case (Table 19). Family histories show that the mobility from industrial workers to small entrepreneurs, or even large industrialists is not "simply folklore, but also common practice."(Greenhalgh,1985: 541) "[O]ccasional stories of spectacular success fuel the popular imagination." (Stites,1985: 240)

TABLE 19 TAIWAN MALE WORK FORCE BY AGE AND EMPLOYMENT STATUS, 1975

AGE	Number (1000)	Self-employed or Employer	Family Worker	Government Worker	Non-Government Worker
15-24	1103	5%	19%	35%	41%
25-34	1428	26%	12%	15%	46%
35-44	887	44%	4%	19%	33%
45-54	808	40%	1%	23%	35%
55+	408	60%	2%	17%	20%

Source: Population Census Office (1976: 226) reproduce from Stites (1985: 239).

(2) Diversifying the Family Economy into Interdependent Network

Families' aspiration to establish their own enterprises was realized through the economic diversification strategy. In 1958, 66% of Taiwan's population lived in settlements with less than 2,500 residents. As Table 20 demonstrates, rapid industrialization in Taiwan did not uproot the peasant families but only diversified their economies. Holding very limited land, Taiwanese peasant families actively exploited various income opportunities by both working in local sidelines and sending sojourners to cities. For them and small proprietor families in cities, factory work allowed the acquirement of savings, skills, and connections needed for setting up family firms.

TABLE 20 HOUSEHOLD ECONOMY COMPOSITION OF TAIWANESE FARMERS

		(Percentage of Total Farm Households)			
			With Sideline		
YEAR	No. of Total Farm Households	Full-time Farm Households	Sub-Total	Agriculture as main pursuit	Sideline as main pursuit
1960	807600	47.6%	52.4%	29.8%	22.5%
1965	873000	31.9%	68.1%	40.9%	27.1%
1970	915966	30.2%	69.8%	40.6%	29.2%
1975	886005	17.7%	82.3%	47.6%	34.6%
1980	891263	10.2%	89.8%	34.4%	55.4%

Source: Calculated from DGBAS, 1982, Statistical Yearbook of the Republic of China

In the factory, it is true that the distribution of profits between the employer and the employees often is not equitable, and this in part gives workers the motivation to leave factory work. Yet they are not necessarily impoverished. The state's labor-based development strategy led to shortages in the labor market. "Despite the rarity of collective action, wages in Taiwan have been rising, even relative to living costs." (Stites, 1985: 235) The wages, together with other income, are substantial enough for the families, with the support of community networks, to enter into business and compete with other family firms. The community network among families is crucial for the entry of family firms. In his study of small-scale industry in a town in northern Taiwan, Stites has analyzed how fledgling entrepreneurs depend heavily on community networks and personal reputation to meet the problems of capital, space, labor, and marketing.

The studies of Stites and Hu have both shown that some employers, as members of similar community networks, have been willing to help employees to establish their own factories in order to establish a center-satellite firm system. By subcontracting its orders to the satellite firms, a center firm could expand its output when demand is high and still secure the full utilization of its production capacity when demand is low. The center firm thus acquires the flexibility needed to survive in a competitive and volatile world market.[47]

Such center-satellite systems organize Taiwan's predominantly small and medium private enterprises. Shouldering the burden of business uncertainty, satellite firms, more often newly established and informal than the center firms, are in a more risky position. Hu's study indicates that only those who can offer better quality and supply on time could obtain contracts from the center firms during recession. Frequent firm failures in such a creative destruction process are absorbed by the diversified family economies.

Families in Taiwan have been reluctant to give up their often unprofitable farms partly for the security they provide. Commercial and service establishments in Taiwan are still almost exclusively small family businesses (Table 15). And Stites has observed the importance of the steady income of these establishment in cushioning business risks. As in the case of these establishments, DeGlopper has shown that modern economic growth only expands the clientele of traditional artisans, a major sideline of Taiwanese peasant families.[48] As families of different occupations and classes in the same community network diversify their economies, they also share the risks and profits of business ventures. This is demonstrated by a popular capital-gathering method, the selling of shares to acquaintances, which serves not only to gather capital, but also to pool skills, land, and to establish a system of center-satellite firm. As exemplified by Stites' observation: "The wide occupational background of Yingee factory shareholders reflects broad access to capital throughout the society. Factory owners listed among their shareholders workers, government employees, teachers, and farmers, as well as other businessmen." (Stites,1982: 271).

The picture presented by the above anthropological studies is supported by Ho's study of Taiwan's business census data from 1961 to limited to the role of supplying domestic demand. For example, even though the steel industry was quite successful, the government did not want to use it as an export sector, saying to export steel would be a waste of the country's resources. Full efforts were put on the technology-intensive industries. Informatics and machinery were designated as strategic sectors. It pushed the society's attention to these sectors of the future through various extension activities, supported the private firms with large-scale R&D, and reproduced the upstream-downstream private-public partnership. The state required the foreign companies to set aside a proportionate revenue for R&D, otherwise they would not be able to enjoy general fiscal incentives. It moved to recruit the numerous scientists and engineers in the U.S. that were send out by Taiwan's families. With spontaneous development of private firms and government support, informatics and machine tools industries experienced phenomenal growth in the 1980s. And Taiwan became one of the world's major producers in these sectors, after only much larger OECD countries. As exports led by high-tech products continued to expand and domestic investment continued to decline, the resulting huge foreign exchange reserve loomed large in the government and the society.

The situation became critical in early 1985 with the development of two major events, the assassination of Henry Liu, a Chinese American writer, and the Cathay Scandal. These two incidents challenged fundamentally the legitimacy of the KMT's authoritative rule. The rise of Cathay enterprises group was associated with the KMT state's effort to invigorate the state-dominated financial sector. In Li's design, the private trust and investment companies should provide long and mid-term investment channels. But many of these companies illegally absorbed short-term saving and channelled funds to related businesses and invested in land speculation. These practices destabilized the whole economic system. On the one hand, state financial guidance was undermined. On the other hand, land right equalization, one major pillar of Taiwan's equitable growth was threatened. The Cathay group covered its illegal practices by an alliance with the KMT state against the rising opposition movements in elections. After one member of the Cathay family entered the legislative Yuan with their ability to mobilize enterprise employees and campaign funding, the family connected itself with many high-ranking officials. Nevertheless, the effects of the state's strike on land speculation analyzed in Chapter Two, together with other factors, finally led to the financial collapse of the Cathay group in 1985. The whole financial system and economy were stunned. Mass media and scholars urged the government to face up to the unprecedented Confidence Crisis that was shaking the country's stability.

One month after the arrest of responsible Cathay members and the trial of the Liu murder, the government established the Economic Reform Commission of leading officials, scholars, and businessmen.

Although it was the most open and comprehensive economic reform meeting in Taiwan's history, the Commission could not resolve the political causes of Taiwan's dismal economic prospects. The Confidence Crisis persisted with the conclusion of the commission. The two incidents had demonstrated to the general public a party-state without checks and balances could be detrimental to Taiwan's modernized economy and society. The opposition movement that was challenging the KMT's political oppression and unaccountable economic and social policies received increasing sympathy from Taiwan's conservative majority.

Facing the loss of public appreciation of his authoritative rule, Chiang Ching-Kuo established a twelve-person commission in the Central Standing Committee of KMT to formulate polices concerning the nullification of martial law and restrictions on the establishment of new parties and newspapers. CCK faced strong resistance from conservative factions within the party. Still, he insisted on the reforms and the imperative need of the party-state to "accept the challenges of constitutional democracy."

The most critical issue was the establishment of an authentic opposition party which would pose a real formidable challenge to the KMT. Before facing this crisis, "the [Kuomintang] leadership in Taiwan has never intended to implement democracy in the sense of permitting a loyal opposition to replace the [Kuomintang] leadership and gain control of the reins of government through election" (Jacobs, 1981 21). The institutionalization of an opposition party could threaten the mainlander-dominated party's leadership.

In September 1986, major opposition groups established the Progressive Democratic Party with implicit recognition from the Kuomintang. After the critical hurdle was jumped over, the KMT pushed forward a series of linked fundamental reforms in order to compete in a democratic system. The scale and depth of these reforms surprised all concerned parties. The already non-radical opposition movement became even more moderate in an effort to win the support from the masses. As the political restructuring was on its way, the economy's full potential was starting to surface. In 1986, Taiwan's GNP growth rate, after a low of 4.8% in the crisis year, jumped to 10.8%, the highest in the world that year.[21] The reforms in the economic field have also been fundamental. The foreign exchange control that underlay the government's financial guidance, trade regime, and industrial policy was lifted. And comprehensive liberalization is under way to mitigate the rising protectionism in Taiwan's trading partners. Thus, considering both the socio-political structure and economic system that generated the Taiwan "miracle", 1986 marked the beginning of a new era of Taiwan's postwar history.

NOTES:

1. Lin (1979), chapter 2 and 3.

2. op. cit.

3. The words of the U.S. Congress, see Jacoby (1966: 39).

4. Wang (1978: 14).

5. Wade (1985: 106-7).

6. Ho,S. (1978: 105).

7. Ho,S. (1978: 233).

8. Amsden (1985: 86).

9. Amsden (1985: 85).

10. See Amsden (1979: 357).

11. Amsden (1985: 86).

12. Amsden (1979: 353).

13. Amsden (1985: 87-8).

14. Lin,B. (1969).

15. Lin (1978).

16. Thompson (1984: 553).

17. Ho (1979).

18. Gold (1986: 82).

19. Hofheinz and Calder (1982: 57).

20. See Kraar (1986: 89-90).

21. Copper, John F. 1987. "Taiwan in 1986: Back on Top Again".

8. HOUSING, DEVELOPMENT, GLOBAL STRUGGLES, AND LOCAL ACTIONS

Housing makes people's life situations concrete. Taiwan's housing progress manifests the widespread and rapid improvement of its people's material conditions of life. Trying to learn from this exceptional experience, our study in the early half of this paper shows that the masses in Taiwan were housed through a market actively organized by community networks and forcefully checked by the state. After analyzing the underlying conditions of Taiwan's mass housing market in the later half, we now come to a straightforward conclusion: the best housing policy is development. The Taiwan experience substantiates and rectifies our understanding of the word, "development". In Taiwan's modern economic history, through the efforts of its strong states, the momentum of its development has always been diffused throughout its population. Such a broad-based development has allowed the people in the agrarian economy to spontaneously adapt and utilize their traditional social fabric for the modernization of their family economies. The resulting decentralized industrialization and equitable growth not only substantially improved the families' material, including housing, conditions, but also led to one of the most successful national developments the world has ever seen.

Housing underlies Taiwan's state-families economy. In Chapter Six, we have analyzed how family economies blanket the center-satellite factory system and fund the state-steered financial system. The families' will to buy homes for both the first and second generations, together with education and other factors, causes them to put the world's highest rate of saving into the state's banking system. Without this huge saving, the KMT state's macroeconomic management and industrial policy can hardly work. Housing financing, utilized by the developmental state, thus contributes significantly to the country's development.

In Taiwan, families buy houses not just for consumption but also for production. The island's numerous commercial and service establishments are home-shops. And small manufacturing firms generally started in the living quarters of family premises. For a fledgling firm in the center-satellite system, the family's houses provide not only working space but also insurance against business failures. The exceptionally high home ownership rate in Taiwan has to be understood in this light. The KMT state's land rights equalizing policy has an explicit aim to protect and encourage these owner-operators. By accommodating and insuring the new entrants, Taiwan's housing thus underlies the creative destruction which is central to the country's development.

Since development must be treated as a whole, it is crucial to understand the structural factors of Taiwan's development. One must be cautious when drawing lessons from the Taiwan experience for other developing countries. Taiwan is an anomaly of Third World development for good reasons. The Third World emerged with the expansion of Western imperialism. And Taiwan had very particular relationships with the three largest struggles against this expansion. Japan's posthaste development efforts modernized Taiwan's agriculture and society without creating sharp dualism. China's peasant revolution terminated traditional class exploitation in Taiwan and ensured the emigre state's commitment to equitable economic growth. The U.S.'s efforts to contain communist movement provided the resource and technology for Taiwan to rectify its colonial economic structure. With this exceptional historical conjuncture in mind, one is inclined to agree with Bruce Cumings' comment: "There can be one Japan and one Taiwan, but not two or many of either, in the world economy." (Cumings,1984, abstract)

But this is not to say that the Taiwan experience is irrelevant. On the contrary, it confirms the fundamental importance of socio-political struggles in realizing long term economic development. On this, one tends to endorse Peter Evans' assertion: "Cuba and Nicaragua might be in some respects in better position than America's clients in the[ir] region to follow the Taiwanese example." (Evans,1987: 223)

Although global struggles provided the opportunities, the Taiwan "miracle" was nevertheless realized by local actions. The realization of Sun's modernization paradigm should remind Third World leaders of the importance of breaking ideological dependency and devising development approach according to the situations of ones' home country. The common challenge, in Sun's words, is how to make capitalism and socialism work side by side in future civilization. And this challenge has to be met with ingenuity in translating national priorities into technically sound policies.

The concrete results of the labor of Taiwanese families force us to think twice about the mechanical dichotomy between the modern or formal and the traditional or informal sectors. The average Third World people's struggles for livelihood should not be treated just as obstacles to national modernization or support for global exploitation. In their struggle to compete with each other, the families in Taiwan simultaneously seek support from each other through community networks. Our study above reveals that this struggle is the ultimate drive behind Taiwan's economic progress. The tireless labor of Taiwan's families realized not only their own mobility but also the mobility of the whole country in the world system. This fact endorses Sun's assertion that people's struggle for livelihood rather than class struggle per se is the driving force of history. For educated persons who accept this view, it is their responsibility not only to criticize but also to help this struggle.

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1966. Ho concludes: "in summary, the evidence from Taiwan lends some support to the belief that (1) the death rate of small manufacturing establishments is high, (2) there is a great deal of mobility (upwards and downwards) among firms with fewer than 100 workers, and (3) a considerable share of the growth in the largest size category (500+) comes from movements of firms from small size categories." (Ho,S.1980: 34)

The uneven distribution of the burden of uncertainty makes the center-satellite firm relationship an exploitative one, thus parallelling the formal-informal sector relationship in world system theories.[49] However, the mobility that existed between the formal and informal sectors in Taiwan makes their inter-relationships more than exploitative. As far as the system allows the more capable exploited satellite firms to become center ones while eliminating the incompetent ones, the exploitation is constructive to the competitiveness of the whole center-satellite system in particular and the national economy in general.

(3) Acquiring Higher Education for Upward Mobility

The mobility of small family businesses in Taiwan was helped by the families' heavy investment in their human capital. This development of the productive capacity of family members includes sending children to acquire trade skills from artisans or merchants, attaining career-oriented training from night schools, and supporting talented members for higher education. The time-honored respect for education in the society pushes families and individuals to seek education beyond the extent justified by short-term economic calculation. A common but deeply moving scene in Taiwan is when one see groups of young female assembly workers, after a whole day's work, moving hastily to their night schools, which offer high school degrees after three to four rigorous years.[50] In a electronics assembly factory surveyed by Arrigo, "32 percent of the women [workers] were presently attending formal schooling, and 35 were learning career-oriented skills such as sewing, accounting and foreign languages." (Arrigo,1980: 27)

The importance of educational efforts by individuals and families for Taiwan's mobility in the international division of labor can hardly be overstated. The diffusion of high technology into Taiwan's society is perhaps the most thorough in all developing countries. Stokes has vividly described the situation: "In [an ordinary] crowded lane [in Taipei]...the storekeepers who bid the passersby to come in...are not selling vegetables...but computers, software...and other sophisticated electronics. Entering the storefront, it is apparent to even the casual shopper that these are not just any vendors, for in the back of the stores, their sons are building and refining much of what their fathers sell." (Stokes,1985: 2696)

If their children, especially sons, can succeed in school entrance competitions, families in Taiwan generally will do whatever they can to support the children's education to the highest level. Domestically, Taiwan has developed the largest pool of scientists and engineers of all Asian NICs. Abroad, the largest group of foreign students and Ph.D. graduates in the U.S. is originally Taiwanese. The rapidly developing bridge between the Chinese engineers in Silicon Valley and in Taiwan is paying back the families' previous investment.

Notes:

1. For a comprehensive sociological analysis, see Chen (1987).
2. Hsiao (1981: 46).
3. Hsiao (1981: 46-9).
4. See Gates (1981: 269) and Chen,Y., (1987).
5. Sun (1979: 198-200).
6. op. cit. pp. 185, 207-10.
7. op. cit. pp.181-193.
8. Sun (1920: 1).
9. Sun (1920: 165).
10. Li (1965).

11. For the KMT state's aloofness from the business elites see Gold (1986:5).

12. Li (1976: 155), Wade (1985: 110-1).

13. For example, see Yin (1960), and Ho, Yhi-Min (1980).

14. Wade, (1985a: 66).

15. For example, see the book edited by Deyo (1987).

16. White, Gordon and Robert Wade (1985: 3).

17. Hofheinz and Calder (1982:57-8).

18. Li (1965: 8).

19. Li (1965:Section 4).

20. Ranis (1978: 402-3).

21. Hsui (1985).

22. Yin (1953).

23. Lin (1973: 3).

24. Ibid, pp.100-101.

25. Little (1979: 475).

26. Scott (1979: 358).

27. Little (1979: 475).

28. Wade (1985a: 68).

29. See also Scott (1979: 358-9).

30. Wade (1984: 68).

31. See Little (1979: 485).

32. See Li (1987: 24-56), "My Learning Process and Experience".

33. For example, Gates (1979).

34. For similar comments, see Gold (1986: 125), and Stites (1985: 240).

35. Stites (1985), Harrell (1985), Greenhalgh (1984), Gates (1979).

36. Wong (1985).

37. Interested readers are referred to Fei and Chang (1949).

38. Skinner (1976).

39. For a superb study on the strategies, see Skinner (1976).

40. For example, Thompson (1985), Gallin and Gallin (1982).

41. Fei and Chang (1949).

42. Greenhalgh (1987).

43. See Stites (1982), Hu (1984).

44. For the preceding statistics see Gates (1979: 395). For the remark page 401.

45. See Kung (1978) and Arrigo (1980: 27).

46. Stites (1985).

47. See Hu (1984), Stites (1985).

48. DeGlopper (1979).

49. Portes and Walton (1981).

50. Yang (1977).

7. THE HISTORY OF ECONOMIC DEVELOPMENT

7.1 Agriculture Promotion, Import Substitution, and Basic Self-Sufficiency, 1949-62

In Chapter Six, we have summarized the persistent strategies followed by the state and families in Taiwan and how these strategies decisively shaped Taiwan's economic system. Below, we will examine how these strategies translate into various policies and practices at different developmental stages and how such actions successively expand and upgrade Taiwan's economic structure. In the interim years between 1945 and 1949, Taiwan's economic structure and trade pattern remained largely unchanged. The role of Japan in Taiwan's foreign trade was replaced by mainland China. Japanese enterprises in Taiwan were confiscated by the KMT state from the mainland. Deficit financing for the restoration of these enterprises and military expenditure caused rapidly growing inflation. Speedy recovery from Allied bombing was marred by general economic instability.[1]

In 1949, the economy went into crisis with the economic collapse of the mainland and the defeat of the KMT state. On the one hand, the huge influx of mainlander refugees caused a sudden surge in demand. On the other hand, the end of the protected markets in mainland China and Japan meant Taiwan could no longer depend on trade to obtain the key inputs for its production. With little capacity to produce intermediates like fertilizers and textiles and without the foreign exchanges to buy them, Taiwan faced serious problems in clothing and feeding its population. Extreme material shortage caused rampant inflation, 3,400% that year. Unless it could become more independent economically, Taiwan could not exist as an independent political unit in the face of communist China.[2]

Starting from mid-1949, the KMT state put forth three major sets of reforms to fight rampant inflation and to establish basic self-sufficiency. A new monetary system and foreign exchange controls were established to restore financial stability. The Taiwan Production Control Board was set up to coordinate public industrial enterprises and concentrate resources for the expansion of fertilizers, textiles, and electricity production capacity. Land reform restructured and stimulated agricultural production. However, defense expenditures continued to drain resources and the shortage of foreign exchange still plagued the economy.

These two critical constraints on economic stability and development were resolved after the American government resumed its support for the KMT state in mid-1950. The role of U.S. aid in the early phase of Taiwan's postwar development was critical. "[T]o enable the recipient country to maintain an agreed level of military strength without regressing economically,"[3] between 1951 and 1965, U.S. economic aid financed nearly 80% of Taiwan's trade deficit. At its peak in 1955, the aid accounted for over half of Taiwan's gross investment. Without this huge inflow of resources, it seems nearly impossible that the war-threatened Taiwan could restore its economic stability and remain as an independent political unit. Moreover, in this initial stage, the U.S. AID also provided the resource and technological support for the import-substitution industries that had no roots on the island. Without this assistance, Taiwan simply could not have developed, within a single decade, the national industrial base from which its future export sectors emerged.

The strategies that characterize Taiwan's postwar economic history, "stability as the basis of sustained development" and "balanced agricultural and industrial development" were decided in 1949.[4] In this section, we will focus on how the KMT state utilized massive U.S. aid to realize its strategies. The KMT state's overriding economic concern at this stage was the restoration of stability as reflected in the name of its planning body, the Economic Stability Board. Between 1949 and 1953, prices rose by more than 600%. Against the conventional wisdom of the time which favored low interest rates as a means to promote investment, the KMT state introduced very high interest rates on bank deposits. This unprecedented policy in developing countries successfully attracted savings to flood into the banking system.[5] The government understood that to secure long-term stability, Taiwan had to attain basic self-sufficiency in essential goods. The KMT state's first economic development plan of 1952 was originally called the Self-Sufficiency

Plan. The approach adopted is best described by the government's own slogan "Developing agriculture by virtue of industry and foster industry by virtue of agriculture."[6]

This policy had both developmental and extractive implications for agriculture which was given initial priority. Between 1951 and 1955, agriculture received 25% of the total gross fixed capital formation, greater than that received by any other sector in the economy.[7] Most of the investment was used to repair war-torn rural infrastructure, mainly irrigation and flood control. To realize its double-edged policy, the state filled the functional vacuum left by the displaced landlords. It restored and strengthened farm associations, irrigation organizations, and research institutes, through which the state provided credit and inputs to the farming families in return for cereal outputs. Before Land Reform, private moneylenders accounted for 82% of credit. In 1965, government agencies or related credit institutions supplied 65% of all agricultural loans. The farmers repaid their Land-to-the-Tiller mortgages to the state with products and bartered fertilizer from the state with rice. Land taxes and loan repayments were all made in kind.[8] As shown in Table 21, while farmers kept a larger share of their product since 1950, agricultural surplus, instead of going to the landlords, was now directly collected by the state. This forced saving was then used for industrialization.

The state-family organization of Taiwan's agricultural production was crucial to its development. In many developing countries, when the new technology associated with the green revolution was introduced, only the bigger farmers with enough

TABLE 21 DISTRIBUTION OF RICE IN TAIWAN, 1911-1960

(unit = 1,000 metric tons of brown rice)

Period	Total production	Distribution: Landlords (1)	Distribution: Cultivators (2)	Collection by government (3)	Sale quantity of cultivators (4)	Total sale (5) = (1) + (3) + (4) (5)	Sale ratio of rice (× 100 = %)
1911–1915	659	182	477		137	319	48
1916–1920	682	225	458		114	339	50
1921–1925	794	267	527		204	471	59
1926–1930	965	324	641		314	638	66
1931–1935	1,229	418	810		500	919	74
1936–1940*	1,304	412	893		561	967	74
1950–1955	1,571	132	977	463	175	784	50
1956–1960	1,858	85	1,257	516	252	854	46

Source: Teng-Hui Lee, 1971. Intersectoral Capital Flows in the Economic Development of Taiwan, 1895-1960

capital and connections benefited. In Taiwan, the green revolution has transformed the life of almost every peasant. Fully aware of the high return to investment of technological improvements, the state put major efforts into promoting agricultural research, such as species renovation, with remarkable success. With one of the world's most advanced agriculture extension networks, the state distributed technology and resources to each and every peasant, something the market mechanism might not do.[9]

The fertilizer-rice barter system is the foremost implementation tool of the state's double-edged policy. Depending on its fertilizer monopoly, over half of the rice collected by the government in the 1950s and the 1960s resulted from the barter system.[10] On the developmental side, the system permitted all farmers to obtain the key modern input, chemical fertilizer. On the extractive side, the barter ratio was highly unfavorable to farmers in comparison with world market prices.[11] All in all, the double-edged policy generated a substantially enlarged agricultural surplus and divided it into two shares between the state and the peasant families. The former share funded the increasing supply of industrial outputs. Net real capital outflow from agriculture rose an average of 10% annually between 1951-1960.[12] The latter share provided an important source of demand for the increased industrial outputs, particularly chemicals and tools, and a mass market for consumption goods.[13]

The development of a national industrial base during this stage is best illustrated by the textile sector, Taiwan's largest industrial export before the 1980s. The very limited war-damaged textile production capacity left from the colonial period was expanded by an influx of firms from mainland China. From this start, the government planned to establish a full-fledged national industry. Cotton cloth imports were stopped in 1951 and cotton yarn in 1953. The government established an "entrustment" scheme whereby it supplied AID-financed imported cotton, paid wages to workers, and purchased the yarn, thus replacing both the factor and the commodity market. This risk-free arrangement greatly encouraged private investment in textiles within an environment of high economic instability. Gradually as the textile industry developed and the economy stabilized, the state allowed more and more free competition. Control on transactions, prices, and firm entries were lifted consecutively from 1953 to 1957.[14] During the same period, as the domestic market became saturated, the government acted to turn textiles from an import-substitution to export industry. In 1954, textiles were included in the rebate system. And foreign exchange entitlements for exporters induced firms to look outward. When the home market became fully saturated in the late 1950s, the state frowned upon domestic price fixing, but encouraged the sectoral association to operate a raw-material import fee system which subsidized exports with domestic sales and penalized above ceiling domestics sales. This arrangement which rationalized domestic competition and supported dumping in foreign markets also existed in many other sectors.[15]

As for totally new industries, such as plastics and plate glass, the state took full initiative by choosing and establishing whole factories with AID assistance, then handing it over to private entrepreneurs. Formosa Plastics, Taiwan's largest and best integrated conglomerate, emerged from such an arrangement.

Because the state was actually creating the modern private industrial sector, these early years were called the factory development stage by Taiwan's economic bureaucrats.

7.2 Export Promotion, Investment Encouragement, and Output and Employment Growth, 1959-72

Growth was slowing down after the mid-1950s since the domestic market for "easy" import substitutes was saturated. The export promotion efforts before the late 1950s had only limited results mainly because the multiple exchange rate system overvalued the Taiwanese dollar. With surplus labor released from the much more productive agricultural sector, Taiwan's unemployment rate remained high. Although previous efforts largely stabilized the economy and improved substantially people's livelihood, Taiwan's saving ratio was still low. The economy was still highly dependent on U.S. aid, which was rapidly decreasing. To resolve these problems, the bureaucrats carried out two bold reforms between 1958 and 1960, with the backup of the U.S. AID and the "self-reliance" principle given by Chiang Kai-Shek.

The first reform unified the multiple exchange rates and made the NT$ reflect its actual value. Between 1958 and 1959, the Taiwanese dollar was devalued from 25 to 40 against the U.S. dollar. This was a risky venture because inflation had only recently been controlled and no one could have dreamt how great the benefits might be to offset the dangers of again increasing inflation by devaluating. The second reform aimed at breaking away from the vicious cycle of "low income, low saving, and low investment." In

1960, the state promulgated the Investment Encouragement Act, which granted a five year tax holiday to newly established or expanded firms and exempted tax on saving interest. Initially, the Act was under serious attack for alleged effects of inequity, something we discussed in section 6.2. This legislation also established the foremost mechanism of Taiwan's industrial policy, for it delegated power to the administration to devise selective and dynamic fiscal incentives for priority products. After creating the market in the factory development stage, the state then guided it through this new mechanism.

The economy gradually returned to rapid growth and went beyond the record of the early 1950s. After floating between 5.5% to 7.8% from 1955 to 1962, real GNP annual growth rate reached beyond 9 percent in 1963 and never fell below that until 1974. Gross national savings, as a percentage of GNP, which hovered around 9% from 1952 to 1956, rose to 12.3% in 1962, jumped to 16.9% in 1963 and then rose rather steadily to 33% in 1973. Despite the 1958-59 devaluation, inflation was brought down by 1961. Between 1961 and 1963, the consumer price index rose at 2.3% per annum. From 1963 to 1972, it rose at an annual rate of 3.0%.

This decade-long non-inflationary boom was led by the export of labor-intensive goods (Table 22). "[T]he growth [of Taiwan's exports] was remarkably insensitive to world market conditions; this was possible because Taiwan's products were substituting for others at such a rate that minor fluctuations in the overall growth of world consumption of these products was scarcely noticed." (Little 478)

Without question, this competitiveness and Taiwan's export success derived mainly from its cheap labor. However, it is important to understand why Taiwan's comparative monetary wage level could be low. Labor control is certainly not the most

TABLE 22 INDUSTRIAL GROWTH AND CHANGES IN THE STRUCTURE OF TRADE

YEAR	Industrial Production index	10 year ave. Annual Growth Rate of Industry	Share of Industry in NDP	Share of Consumption Goods in imports	Share of Exports in GDP	Share of Industrial Products in Exports
1952	100		17.4	19.8	8.0	7.8
1957	174	11.7	23.6	6.6	9.5	12.8
1962	303		25.5	8.2	13.0	50.5
1967	626	18.5	30.3	4.7	21.6	61.6
1972	1370		38.9	5.7	42.7	83.3

Source CEPD, 1986, Taiwan Statistical Data Book

important factor, as revealed by our study in section 6.3. Instead, this low monetary wage level was made possible mainly by a strong agricultural sector which held down the price of food, a decentralized industrialization which held down the cost of housing, the state's anti-inflation policies which prevented real wages from decreasing, and a prevalent family economy pattern which produced a transient industrial labor force that did not demand the wages to support a whole family. The last two factors we have discussed in Chapter Six.

As for cheap food, in an examination of Taiwan's labor conditions, Galenson made the following comment "A visitor to Taiwan must be impressed by the abundance, quality, variety, and relative cheapness of food. At the present time, its food situation is at least equal to if not better than that of any Asian country, with the possible exception of Japan...The Taiwanese worker certainly eats well. This is a tribute to the nation's agriculture and to its distributive system." (Galenson,1979 436)

As for housing costs, Taiwan's postwar economic development has followed a very unusual spatial pattern. As Table 23 illustrates, during Taiwan's industrialization process, manufacturing actually grew faster in rural areas than urban areas. Although, large cities expanded their role as service and commerce centers, the countryside was developing at an equally rapid pace, as the figures for transportation, utility, and construction sectors show.

This decentralized industrialization has drastically reduced the island's urban-rural gap (Table 24). In present-day Taiwan, "rural" can no longer be equated with "agriculture."[16] Decentralized industrialization has enabled many people in the countryside to enter non-farm jobs without leaving their homes. Commuters played a more substantial role in intersectoral labor transfer than rural-urban migrants (Table 25). This spatial characteristic of industrialization, in sharp contrast with the experience of other developing countries, is due in large part to the state's labor-intensive sectoral policy. It not only minimized the inevitably high costs of urbanization but also avoided deterioration of the size distribution of income during early industrialization. In Taiwan, the share of income from non-farm sources in total farm household income increased from 25% in 1962 to 43% in 1975. In South Korea, which also has these conditions and has experienced rapid growth since the early 1960s, the same figure has remained constant at about 23% since 1962, partly as a result of its more concentrated industrialization pattern.[17]

TABLE 23 EMPLOYMENT GROWTH RATE BY SECTOR AND LOCATION IN TAIWAN

(average annual employment growth rate)

	1956 - 1966			1966 - 1980		
	Entire Taiwan	Urban Areas	Rural Areas	Entire Taiwan	Urban Areas	Rural Areas
TOTAL	4.5	5.7	3.8	3.4	5.1	2.1
Agriculture	0.7	-0.2	0.8	-1.1	-0.4	-1.3
Mining	3.6	3.9	2.4	-3.7	-5.2	0.3
Manufacturing	5.0	4.9	5.0	9.8	9.4	10.3
Utility	6.6	7.2	5.9	5.3	5.3	5.4
Construction	4.6	5.2	3.7	11.6	10.3	13.3
Commerce	7.2	7.4	6.9	5.6	6.8	4.0
Transportation	4.4	4.3	4.5	6.3	6.3	6.2
Service	9.6	9.1	10.2	2.9	3.3	2.3

Source C.C.Shih, 1983, "Decentralized Industrialization and Change of Rural Employment Structure in Taiwan" in C.H.Yu et. al. Economic Development in Taiwan and Hong Kong

Note 1. Definition A compound agricultural index derived from agricultural production, employment, and income is used to divide in two Taiwan's 21 administrative districts. The districts with an index value larger than the entire Taiwan average are classified as rural areas, the remaining districts urban areas. As a result, Taiwan's five Cities and three of their neighboring Prefectures are classified as urban.

2. The 1956 and 1966 employment figures used include persons twelve years of age or older; the 1980 figures, fifteen years or older.

3. The 1956 employment figures do not include armed forces on military bases.

TABLE 24 SHARE OF EMPLOYMENT BY SECTOR AND BY LOCATION IN TAIWAN, 1956, 1966, AND 1980

(in percentage)

	1956			1966			1980		
	Entire Taiwan	Urban Areas	Rural Areas	Entire Taiwan	Urban Areas	Rural Areas	Entire Taiwan	Urban Areas	Rural Areas
TOTAL	100	100	100	100	100	100	100	100	100
Agriculture	56	27	71	38	15	53	20	7	33
NON-AGRI-CULTURAL	44	73	29	62	85	47	80	93	67
Mining	2	4	1	2	3	1	1	1	0
Manufac-turing	12	20	8	13	19	9	29	33	26
Utility	0	1	0	1	1	0	1	1	1
Construction	2	4	1	2	4	1	7	7	6
Commerce	7	11	5	9	14	7	13	17	9
Transpor-tation	4	8	2	4	7	2	6	8	4
Service	16	25	11	26	34	20	24	27	21
Other	1	1	0	6	5	6	-	-	-

Source See TABLE 23

TABLE 25 AGRICULTURAL OUT-MIGRATION PATTERN IN TAIWAN, 1963, 1968, AND 1975

(Percentage of moved-out members of farm families by categories of migrants)

YEAR	True Migrants	Commuters	Seasonal Migrants
1963	17	26	57
1968	26	48	26
1975	46	37	17

Source T.L.Lin and H.H.Chen, 1971, "Labor Mobility in Taiwan" in Journal of Agricultural Economics 9 (June), 123-47. C.H.Liao, 1977, "A Study of Rural Mobility in Taiwan" in Journal of the Bank of Taiwan 28,4 (December), 151-91.

Foreign firms using Taiwan mainly as an export platform started to move in when the boom was well on its way. A U.S. electronics firm pioneered in 1964. Its success soon brought dozens of followers. To promote further export and foreign investment, the Koahsiung Export Processing Zone went into operation in 1966. "The state also channelled TNC investments into priority sectors such as electronics, intending for them to build the industry ex nihilo, and away from others such as textiles, to prevent denationalization." (Gold,1986 87) Exports as a percentage of textile production expanded rapidly, from 19.6% in 1961 to 80% in 1972.[18] The establishment of an electronics industry in Taiwan is the most important new industrial development at this stage.

"Electronics had virtually no base on Taiwan...Local firms began by supplying such things as television cabinets, but gradually they learned how to make various components so that the government could start to set local content requirements...[The state's] objective was to take what began as an enclave industry and use it to create in Taiwan an entirely new sector of parts-and-components makers and, eventually, assemblers of finished goods able to compete internationally...The process was not smooth...Japanese found numerous ways to evade local content requirements. The government took action on many complaints by local industrialists on tariffs and taxes, but it failed to redress fundamentally the local-content problem. Nonetheless, a new cohort of entrepreneurs emerged...based on various forms of cooperation with foreign interests." (Gold,1986 82-3)

7.3 Backward Integration, Stabilization Program, and the Consolidation of the Economy, 1973-79

After a decade of rapid export-led labor-intensive industrialization, Taiwan faced new domestic development hurdles and external challenges in the early 1970s. Domestically, incremental improvements in the infrastructure left by the Japanese were no longer capable of accommodating the much larger and rapidly growing economy. And with growing dependence on the import of intermediate goods and enlarged domestic demand, backward integration of heavy and chemical industries should and could be undertaken for both the international competitiveness of downstream export sectors and the potential economy of scale achieved in these upstream sectors. Having prepared plans for these infrastructure upgrading and backward integration since the mid-1960s, the government announced in October 1973 the Nine Major Projects needed to break the economy's bottleneck, including the upstream and/or defense-related industries of steel, petrochemicals and shipbuilding, and the construction of a superhighway, seaports, and electrified railroads. Supporting the island's industrialization for two decades, agricultural growth turned sluggish in the later half of the 1960s. After a series of minor measures since the late 1960s, the government put forth a comprehensive program in 1972 which abolished the fertilizer-rice barter system and established price support for staples, thus turning into the opposite direction the subsidy relationship between the agriculture and industry.

Externally, we have mentioned in Chapter Two how the government reacted to the threats of imported inflation, emerging since 1973, on Taiwan's trade-dependent economy. When OPEC made the quadruple price increase in the end of that year, the newly implemented more conventional measures were not able to constrain the sudden inflationary expectations. In January 1974, the government promulgated a comprehensive economic stabilization program, hoping it would settle the pressure all at once. This program had four guidelines (1) consolidating a national economic base, (2) strengthening fiscal condition, (3) protecting the needs of average people, (4) looking after public employees. To achieve these goals, the government decided to forego growth to secure stability. The exchange rate was held. Interest rates, oil prices, and utility rates were adjusted at one stroke to reflect their costs. Non-necessity consumption items were restricted and taxation of high income households was reinforced. The stabilization program was undertaken with important social considerations, priorities were given to protect the basic needs of the masses in price structure adjustment and the overall cut-down of consumptions. But the government reaffirmed its resolution to carry out the needed nine projects and decided to go with the prepared plan of nuclear power plants, in spite of their possible inflationary effect. To keep the industries competitive internationally and without devaluing the currency, the government held down the prices charged by public corporations in basic industry.[19]

The program was very effective and the population's inflationary expectation soon resolved. After inflation grew by 16.3% in February, it started to decline in March. Trade deficit soon turned into surplus. Although the 1974 growth rate was only 1%, the lowest since 1952, it recovered to double digits in 1976.
Ho summarized well the economy's performance after that

"Taiwan entered the 1980s in better economic shape than Korea. From 1976 to 1979, economic growth averaged 11.3% per annum, and... prices remained relatively stable and the current account in the balance-of-payments showed a surplus every year. Trade expanded rapidly and also diversified, both in terms of products and partners. Thus, despite the oil crisis and near total political isolation, Taiwan emerged from the 1970s with a surprisingly strong economy. Its financial and economic strength was such that the news of its expulsion from the IMF and the World Bank in mid-1980 caused little real concern either in Taiwan or among its foreign investors (Ho,1981 1190-1).

7.4 Technology-Intensive Industries, Stalled Investment, and Political Restructuring, 1980-86

Although its resolute economic programs of restructuring, upgrading, and stabilization successfully resolved the bottleneck and challenge Taiwan faced in the 1970s, the KMT state's limited political adjustments during the same period became the country's foremost development obstacle in the 1980s. In the previous decades, the KMT state's authoritarian rule in Taiwan was largely accepted by the general public mainly because it stood as an impartial government capable of attaining social stability and economic prosperity. The strong and "benevolent" state did, at different stages, break Taiwan's development bottleneck through responsive economic restructuring. However as Taiwan's economy and society became more and more diversified and sophisticated, the KMT's resistance to fundamental political changes would only undermine the island's future development. This problem became critical in the 1980s. The KMT's rigid attitude toward the changing China not only aggravated long-term uncertainty of the island but also caused immediate competitiveness problems for Taiwan's businesses[20]. Whether the KMT could pass through a smooth power transition after Chiang Ching Kuo's death was very unclear, since he was infirm and made no explicit arrangement. In the face of political uncertainty, local businessmen were hesitant in making the necessary capital investment.

On the other hand, Taiwan's human-resource-based development was beginning to exhibit its foremost edge. Electronics replaced textile as the island biggest export item in 1981. After the second Oil Crisis, the economy in general grew only moderately. The state's low fuel price policy made the firms insensitive to energy efficiency. In the preparation of a ten year plan, new sectoral policies were decided. Energy intensive and heavy industry was limited to the role of supplying domestic demand. For example, even though the steel industry was quite successful, the government did not want to use it as an export sector, saying to export steel would be a waste of the country's resources. Full efforts were put on the technology-intensive industries. Informatics and machinery were designated as strategic sectors. It pushed the society's attention to these sectors of the future through various extension activities, supported the private firms with large-scale R&D, and reproduced the upstream-downstream private-public partnership. The state required the foreign companies to set aside a proportionate revenue for R&D, otherwise they would not be able to enjoy general fiscal incentives. It moved to recruit the numerous scientists and engineers in the U.S. that were send out by Taiwan's families. With spontaneous development of private firms and government support, informatics and machine tools industries experienced phenomenal growth in the 1980s. And Taiwan became one of the world's major producers in these sectors, after only much larger OECD countries. As exports led by high-tech products continued to expand and domestic investment continued to decline, the resulting huge foreign exchange reserve loomed large in the government and the society.

The situation became critical in early 1985 with the development of two major events, the assassination of Henry Liu, a Chinese American writer, and the Cathay Scandal. These two incidents challenged fundamentally the legitimacy of the KMT's authoritative rule. The rise of Cathay enterprises group was associated with the KMT state's effort to invigorate the state-dominated financial sector. In Li's design, the private trust and investment companies should provide long and mid-term investment channels. But many of these companies illegally absorbed short-term saving and channelled funds to related businesses and invested in land speculation. These practices destabilized the whole economic system. On the one hand, state financial guidance was undermined. On the other hand, land right equalization, one major pillar of Taiwan's equitable growth was threatened. The Cathay group covered its illegal practices by an alliance with the KMT state against the rising opposition movements in elections. After one member of the Cathay family entered the legislative Yuan with their ability to mobilize enterprise employees and campaign funding, the family connected itself with many high-ranking officials. Nevertheless, the effects of the state's strike on land speculation analyzed in Chapter Two, together with other factors, finally led to the financial collapse of the Cathay group in 1985. The whole financial system and economy were stunned. Mass media and scholars urged the government to face up to the unprecedented Confidence Crisis that was shaking the country's stability.

One month after the arrest of responsible Cathay members and the trial of the Liu murder, the government established the Economic Reform Commission of leading officials, scholars, and businessmen.

Although it was the most open and comprehensive economic reform meeting in Taiwan's history, the Commission could not resolve the political causes of Taiwan's dismal economic prospects. The Confidence Crisis persisted with the conclusion of the commission. The two incidents had demonstrated to the general public a party-state without checks and balances could be detrimental to Taiwan's modernized economy and society. The opposition movement that was challenging the KMT's political oppression and unaccountable economic and social policies received increasing sympathy from Taiwan's conservative majority.

Facing the loss of public appreciation of his authoritative rule, Chiang Ching-Kuo established a twelve-person commission in the Central Standing Committee of KMT to formulate polices concerning the nullification of martial law and restrictions on the establishment of new parties and newspapers. CCK faced strong resistance from conservative factions within the party. Still, he insisted on the reforms and the imperative need of the party-state to "accept the challenges of constitutional democracy."

The most critical issue was the establishment of an authentic opposition party which would pose a real formidable challenge to the KMT. Before facing this crisis, "the [Kuomintang] leadership in Taiwan has never intended to implement democracy in the sense of permitting a loyal opposition to replace the [Kuomintang] leadership and gain control of the reins of government through election" (Jacobs, 1981 21). The institutionalization of an opposition party could threaten the mainlander-dominated party's leadership.

In September 1986, major opposition groups established the Progressive Democratic Party with implicit recognition from the Kuomintang. After the critical hurdle was jumped over, the KMT pushed forward a series of linked fundamental reforms in order to compete in a democratic system. The scale and depth of these reforms surprised all concerned parties. The already non-radical opposition movement became even more moderate in an effort to win the support from the masses. As the political restructuring was on its way, the economy's full potential was starting to surface. In 1986, Taiwan's GNP growth rate, after a low of 4.8% in the crisis year, jumped to 10.8%, the highest in the world that year.[21] The reforms in the economic field have also been fundamental. The foreign exchange control that underlay the government's financial guidance, trade regime, and industrial policy was lifted. And comprehensive liberalization is under way to mitigate the rising protectionism in Taiwan's trading partners. Thus, considering both the socio-political structure and economic system that generated the Taiwan "miracle", 1986 marked the beginning of a new era of Taiwan's postwar history.

NOTES:

1. Lin (1979), chapter 2 and 3.
2. op. cit.
3. The words of the U.S. Congress, see Jacoby (1966: 39).
4. Wang (1978: 14).
5. Wade (1985: 106-7).
6. Ho,S. (1978: 105).
7. Ho,S. (1978: 233).
8. Amsden (1985: 86).
9. Amsden (1985: 85).
10. See Amsden (1979: 357).
11. Amsden (1985: 86).
12. Amsden (1979: 353).
13. Amsden (1985: 87-8).
14. Lin,B. (1969).
15. Lin (1978).
16. Thompson (1984: 553).
17. Ho (1979).
18. Gold (1986: 82).
19. Hofheinz and Calder (1982: 57).
20. See Kraar (1986: 89-90).
21. Copper, John F. 1987. "Taiwan in 1986: Back on Top Again".

8. HOUSING, DEVELOPMENT, GLOBAL STRUGGLES, AND LOCAL ACTIONS

Housing makes people's life situations concrete. Taiwan's housing progress manifests the widespread and rapid improvement of its people's material conditions of life. Trying to learn from this exceptional experience, our study in the early half of this paper shows that the masses in Taiwan were housed through a market actively organized by community networks and forcefully checked by the state. After analyzing the underlying conditions of Taiwan's mass housing market in the later half, we now come to a straightforward conclusion: the best housing policy is development. The Taiwan experience substantiates and rectifies our understanding of the word, "development". In Taiwan's modern economic history, through the efforts of its strong states, the momentum of its development has always been diffused throughout its population. Such a broad-based development has allowed the people in the agrarian economy to spontaneously adapt and utilize their traditional social fabric for the modernization of their family economies. The resulting decentralized industrialization and equitable growth not only substantially improved the families' material, including housing, conditions, but also led to one of the most successful national developments the world has ever seen.

Housing underlies Taiwan's state-families economy. In Chapter Six, we have analyzed how family economies blanket the center-satellite factory system and fund the state-steered financial system. The families' will to buy homes for both the first and second generations, together with education and other factors, causes them to put the world's highest rate of saving into the state's banking system. Without this huge saving, the KMT state's macroeconomic management and industrial policy can hardly work. Housing financing, utilized by the developmental state, thus contributes significantly to the country's development.

In Taiwan, families buy houses not just for consumption but also for production. The island's numerous commercial and service establishments are home-shops. And small manufacturing firms generally started in the living quarters of family premises. For a fledgling firm in the center-satellite system, the family's houses provide not only working space but also insurance against business failures. The exceptionally high home ownership rate in Taiwan has to be understood in this light. The KMT state's land rights equalizing policy has an explicit aim to protect and encourage these owner-operators. By accommodating and insuring the new entrants, Taiwan's housing thus underlies the creative destruction which is central to the country's development.

Since development must be treated as a whole, it is crucial to understand the structural factors of Taiwan's development. One must be cautious when drawing lessons from the Taiwan experience for other developing countries. Taiwan is an anomaly of Third World development for good reasons. The Third World emerged with the expansion of Western imperialism. And Taiwan had very particular relationships with the three largest struggles against this expansion. Japan's posthaste development efforts modernized Taiwan's agriculture and society without creating sharp dualism. China's peasant revolution terminated traditional class exploitation in Taiwan and ensured the emigre state's commitment to equitable economic growth. The U.S.'s efforts to contain communist movement provided the resource and technology for Taiwan to rectify its colonial economic structure. With this exceptional historical conjuncture in mind, one is inclined to agree with Bruce Cumings' comment: "There can be one Japan and one Taiwan, but not two or many of either, in the world economy." (Cumings,1984, abstract)

But this is not to say that the Taiwan experience is irrelevant. On the contrary, it confirms the fundamental importance of socio-political struggles in realizing long term economic development. On this, one tends to endorse Peter Evans' assertion: "Cuba and Nicaragua might be in some respects in better position than America's clients in the[ir] region to follow the Taiwanese example." (Evans,1987: 223)

Although global struggles provided the opportunities, the Taiwan "miracle" was nevertheless realized by local actions. The realization of Sun's modernization paradigm should remind Third World leaders of the importance of breaking ideological dependency and devising development approach according to the situations of ones' home country. The common challenge, in Sun's words, is how to make capitalism and socialism work side by side in future civilization. And this challenge has to be met with ingenuity in translating national priorities into technically sound policies.

The concrete results of the labor of Taiwanese families force us to think twice about the mechanical dichotomy between the modern or formal and the traditional or informal sectors. The average Third World people's struggles for livelihood should not be treated just as obstacles to national modernization or support for global exploitation. In their struggle to compete with each other, the families in Taiwan simultaneously seek support from each other through community networks. Our study above reveals that this struggle is the ultimate drive behind Taiwan's economic progress. The tireless labor of Taiwan's families realized not only their own mobility but also the mobility of the whole country in the world system. This fact endorses Sun's assertion that people's struggle for livelihood rather than class struggle per se is the driving force of history. For educated persons who accept this view, it is their responsibility not only to criticize but also to help this struggle.

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