



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



CHUNG-HUA INSTITUTION FOR ECONOMIC RESEARCH

**TAIWAN'S ECONOMIC
DEVELOPMENT IN THE
CONTEXT OF GREATER CHINA**

JI CHOU

OCCASIONAL PAPER SERIES No.9701

April 1997



財團
法人 **中華經濟研究院**

CHUNG-HUA INSTITUTION FOR ECONOMIC RESEARCH
75 Chang-Hsing St., Taipei, Taiwan, 106
Republic of China
TEL : 886-2-735-6006
FAX : 886-2-735-6035

Occasional papers are intended to provide economic information and stimulate further research. The opinions expressed within are solely those of the authors and not those of the Chung-Hua Institution for Economic Research.

Any comment or communication, please write to: Publications Department, Chung-Hua Institution for Economic Research, 75 Chang-Hsing Street, Taipei, Taiwan 106, ROC.



CHUNG-HUA INSTITUTION FOR ECONOMIC RESEARCH

TAIWAN'S ECONOMIC
DEVELOPMENT IN THE
CONTEXT OF GREATER CHINA

JI CHOU

OCCASIONAL PAPER SERIES No.9701

April 1997



財團
法人 中華經濟研究院

CHUNG-HUA INSTITUTION FOR ECONOMIC RESEARCH
75 Chang-Hsing St., Taipei, Taiwan, 106
Republic of China
TEL : 886-2-735-6006
FAX : 886-2-735-6035

Occasional papers are intended to provide economic information and stimulate further research. The opinions expressed within are solely those of the authors and not those of the Chung-Hua Institution for Economic Research.

Any comment or communication, please write to: Publications Department, Chung-Hua Institution for Economic Research, 75 Chang-Hsing Street, Taipei, Taiwan 106, ROC.

Occasional Paper Series No. 9701

Taiwan's Economic Development in the Context of Greater China

by

Ji Chou

*Director, Center for Economic Forecasting
Chung-Hua Institution for Economic Research*

April 1997

Chung-Hua Institution for Economic Research

75 Chang-Hsing St., Taipei, Taiwan 106

Republic of China

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

RESEARCH REPORT

NO. 1000

JI CHOU*

Taiwan's Economic Development in the Context of Greater China

I. Introduction

The rapid growth of Taiwan, Hong Kong and mainland China, resulting from increasing economic interaction among these three economies, has caught the public's attention. In particular, recent trends in the formation or consolidation of regional trade and economic relations such as the North America Free Trade Agreement (NAFTA) and the European Union (EU) have aroused public interest in the potential for regional integration in East Asia. The term "Greater China" has been coined by scholars to describe the interaction among the ethnic Chinese economies.

Although the scope of "Greater China" could be defined in a broad sense incorporating Macao, Singapore and the overseas Chinese living in Southeast Asia, America and Europe; Taiwan, Hong Kong and mainland China are the main entities under consideration. Although "Greater China" implies that a common cultural identity provides a catalyst for economic ties and that economic interdependence may lay the foundation for political integration, it is largely an informal phenomenon, lacking institutionalization. Wei and Frankel (1994) adopted a gravity model to investigate the emergence of "Greater China", and found the reasons for the rapid increase in trade among three economies was that people in all three economies speak Chinese and that political reality caused trade between China and Taiwan to be rerouted through Hong Kong. When they controlled for these two factors, trade among

*Director, Center for Economic Forecasting, Chung-Hua Institution for Economic Research.

the three economies no longer seemed unusually high. The interaction emphasizes relatively spontaneous commercial activity rather than negotiation of formal trade arrangements. Ash and Kueh (1995) demonstrated extra trade and investment flows between China, Hong Kong and Taiwan are the result of the complementarity of different resource endowments and levels of development, and this complementarity generated an economic symbiosis between the constituent elements of Greater China.

There are volumes of literature dealing with this issue, but few discuss it from the perspectives of the individual members of the three economies, particularly that of Taiwan when Hong Kong reverts to Chinese sovereignty. The paper attempts to investigate recent developments in the Taiwan economy since 1978 when mainland China adopted economic reforms and an open policy. Both the macro and micro levels of Taiwan's economy are discussed, emphasizing the trade with and outward investment in China and considering the role of Hong Kong in both and their prospects.

II. Recent Development of Taiwan's Economy

Since mainland China initiated economic reform and an open door policy in 1978, many types of preferential treatment have encouraged bilateral trade between the two sides of the Taiwan Strait, inducing Taiwanese enterprises to invest on the mainland. But until the mid-1980s, the volume of trade and investment was not significant in terms of Taiwan's total trade volume and outward investment. In 1985, 8% of Taiwan's total exports were destined for Hong Kong and mainland China, while 48% went to the United States. The average annual growth of exports to the US was 17.4% from 1979 to 1985, while it was 14.5% for exports to Hong Kong and the mainland. Economic growth during the same period was 6.8%.

However, there was a sharp depreciation of the U.S. dollar against the currencies of its major trade partners in 1985. Since the New Taiwan dollar (NT dollar) did not appreciate as fast as the Japanese yen or Deutsche mark, Taiwan's exports increased in competitiveness. Furthermore, exporters perceived the distinct possibility of further appreciation of the NT dollar by the central bank. Although imports also increased due to currency

Table 1 Economic Growth, Export Structure and Their Growth

	Amount & Composition				Growth Rate		
	1979	1985	1990	1996	1980-1985	1986-1990	1991-1996
Economic Growth(%)					6.8	9.1	6.5
Exports							
Total Volume (million US\$)	16103	30726	67214	115982	11.4	16.9	9.5
Composition (%)	100.0	100.0	100.0	100.0			
by Area							
United States	35.1	48.1	32.4	23.2	17.4	8.0	3.6
Hong Kong & mainland China	7.1	8.3	12.7	23.1	14.3	27.5	21.0
Japan	14.0	11.3	12.4	11.8	7.5	19.2	8.6
ASEAN	8.3	6.0	10.1	12.3	5.4	29.9	13.1
Europe	14.3	9.8	18.2	14.6	4.5	32.5	5.6

Source: Council for Economic Planning and Development, Executive Yuan, *Taiwan Statistical Data Book*, 1996.

appreciation, the rate of increase was not as fast as for exports because domestic demand grew only moderately.

The large increase in net exports accelerated Taiwan's economic growth. It also raised personal income and wages. Taiwan's light industry, which relied heavily on low wages, lost its international competitiveness. Manufacturing in these industries could not make a profit and were forced to seek investment opportunities in neighboring Asian countries with lower wage costs. Because of the geographical proximity and similarities in culture and language, a large portion of outward investment went to mainland China.

This outflow of investment created trade opportunities for Taiwan because firms investing abroad used Taiwan's equipment products and intermediate goods. Economic growth accelerated to 9.1% in 1986-1990, the main driving force being fast expansion in exports. Customs exports grew at 17% during the same period. Exports to Hong Kong & mainland China, Japan, Southeast Asia, and Europe all grew very fast, while exports to United States grew relatively slowly.

Outward investment stimulated the host country economies by creating job opportunities, upgrading their technological level, and increasing government revenues. Therefore, foreign direct investment created an economic boom in Taiwan and East Asia. Even when the industrial countries experienced recession and the world trade volume was low in the early 1990s, Asian countries enjoyed buoyant intra-regional trade, stimulated by direct foreign investment from Japan and the Asian NIEs. Indeed, Taiwan's exports to the United States grew only 3.6%, while exports to Hong Kong and mainland China grew by 21% and to ASEAN by 13% from 1991-1996. The composition of exports also changed: the export share to Hong Kong and mainland China was also the same as exports to the United States.

III. Changes in Trade and Production in Recent Years

In order to show the upgrading of the industrial level from labor-intensive to capital- and knowledge-intensive, this section investigates the relationship between trade and domestic production for individual industries. Table 2 shows changes in domestic product, and exports and imports for Taiwan's manufacturers in 1990-1995. According to these changes as well as external and internal market orientation, three types of patterns can be distinguished. In Type 1, domestic production grows faster than exports; type 2 follows the same pattern but is domestic-market oriented; and for type 3, domestic production grows slower than exports.

Electrical and electronic products belongs to type 1, and have grown the fastest among all industries, attributing for 36% of total exports from Taiwan. The unit price grew 9.5% and the value of exports grew 14.9%. Imports also grew 11.5% in quantity, 7.32% in unit price, and 19.6% in value. Although the unit price of exports grew faster than imports, the value of exports grew more slowly than imports.

Type 2 consists of nonmetal and food products, in which the growth rates of export quantity and value are smaller than domestic production and imports, implying that these two industries have been domestic market oriented in recent years. The export unit price for food manufacturing grew at a rate of 9.9%, which is much higher than its import unit price, which may imply high value-added food manufacturing in Taiwan. Type 3 industries are trade activities that are more viable than domestic production. When sorting production growth in a descending sequence, we find that the more labor-intensive the industry, the less production growth there is and the more significant the difference between production and exports will be.

Type 3 can be further divided into three subtypes. First, products including chemicals, metal, machinery, transportation equipment and paper in which both production and exports grew with positive rates, although production grew slower than exports. In fact, most products in this subtype

Table 2 Average Annual Growth Rate of Domestic Production and Exports and Imports in Manufacturing 1990-1995

	Domestic				Unit: %				Share of Total Exports ³
	Industrial Production	Export Quantity	Import Quantity	Export Value	Import Value	Export Unit Price	Import Unit Price		
1. Domestic production growth faster than exports									
Electrical and electronic products ¹	4.8	4.3	8.6	10.3	13.3	4.2	4.3	102.4	
Domestic market oriented industries	11.2	4.9	11.5	14.9	19.6	9.5	7.3	36.2	1.6
Nonmetallic mineral products	5.2	-0.5	3.0	-0.6	9.8	-0.1	6.9	1.0	0.6
Food manufacturing products	3.3	-11.2	9.6	-2.4	14.2	9.9	4.2	58.3	23.5
3. Domestic production growth slower than exports									
(1) both production and exports grow positively:									
Chemicals and related products	10.6	19.9	9.4	20.0	14.4	0.1	4.5	2	9
Metals and related products	6.4	11.8	14.6	13.6	16.2	1.6	1.5	10.3	7.5
Machinery products	5.3	12.2	1.6	16.7	12.2	4.0	7.4	4.8	0.2
Transportation equipment	4.9	6.0	1.3	8.9	8.9	2.7	5.5	23.5	
Paper & printing	2.9	10.4	10.5	12.7	16.6	2.1			
(2) production growth negative, export growth positive:									
Precision instruments	-0.8	2.7	7.4	8.2	20.4	5.3	12.1	2.3	
Textile and garment products	-1.4	6.1	10.5	8.4	12.5	2.1	1.9	14	
Rubber and plastic products	-2.7	10.2	12.4	12.4	14.6	2.0	1.9	7.2	11.3
(3) both production and exports grow negatively:									
Miscellaneous products ²	-5.8	-1.0	17.4	0.9	19.6	1.9	1.9	9.3	
Leather and its products	-11.5	-1.4	7.5	1.6	6.4	3.2	-0.9	1.3	
Wood, bamboo and their products	-14.6	-8.1	4.4	-5.4	12.9	2.9	8.2	0.7	

Sources:

Directorate-General of Budget, Statistics, and Accounting, *Monthly Price Statistics*, various issues.
 Department of Statistics, Ministry of Finance, *Monthly Exports and Imports Statistics*, various issues.
 Department of Statistics, Ministry of Economic Affairs, *Monthly Industrial Production Statistics*, various issues.

Notes :

1. including electronic products, electrical machinery, information and telecommunication products, and household appliances.
2. including shoes, umbrellas, toys, and other miscellaneous products.
3. 3.4% of custom exports in agricultural products are not shown in the table.

grew at rates from 4.9% to 10.6%. Import quantities in machinery and transportation equipment grew slowly, but their unit price grew quickly. While import quantities in chemicals, metal and paper grew faster, their unit prices grew at a relatively slower rate. Therefore, values for both exports and imports have had higher growth rates than domestic production. Second, products including precision instruments, textiles & garments, and rubber & plastic products, in which production grew negatively but exports grew positively in terms of quantity and value, implies intra-industrial trade in this industry is vivacious. The first and second subtype industries are the major industries in which Taiwan spread its outward investment in mainland China and Southeast Asia. Products in the first subtype are capital-intensive industries and are the upstream products of the second subtype industries. The exports of type 1 products and first subtype products of type 3 constitute 60% of total exports and show that Taiwan has successfully upgraded its industrial level to a heavy industry-dominated structure. Third, products including leather, wooden and bamboo products, and miscellaneous show a decline in both production and exports with production declining faster than exports. This subtype of products is more or less labor-intensive. It is more sensitive to wage differentials, and were the first industrial groups to move abroad.

Since Taiwan's labor costs are much higher than those of mainland China and Southeast Asia, most factories cannot survive in Taiwan. Notwithstanding the fact that traditional labor-intensive industries lost their competitiveness in producing specific final products, they can either supply high value-added parts to their counterparts in mainland China and Southeast Asia to complete the production process, or they can keep control of product quality and the final process of production in Taiwan and raise the value of products through the import of semifinished products from mainland Chinese or Southeast Asian counterparts. While the production channels may initiate from Japan or one of the newly industrialized economies, the parts of various products will be manufactured in several countries, according to their factor endowment.

This new pattern of trade, reflecting the international division of labor, has been prevailing in Asia and will keep these economies prosperous. Meanwhile, such intra-regional trade has not necessarily been done by large-scale enterprises alone, but also by small- and medium-sized enterprises. The implication for Taiwanese industrial development is that when high-tech

industries expand to meet continuous international demand, small- and medium-sized enterprises, which constitute the majority of businesses in Taiwan, will also find niches to exploit international trade. Furthermore, a regional manufacturing operation center can be built up in Taiwan as long as intra-industrial and intra-regional trade prevails in the Asia-Pacific region and Taiwan retains its know-how and experience in handling export and import trade and production activities.

In this regard, although weak domestic demand, caused by the decline of asset prices and political disturbances, may have made the economy slow down in 1995 and 1996, the steady growth of the external sector will eventually perk the whole economy up. Efforts to upgrade Taiwan's industrial level in the face of sharp international trade competition during the early 1990s have begun to have some effect. Capital- and technology-intensive industries have outshined other industries with their comparative advantage and international competitiveness. In addition, buoyant intra-Asian trade and the intensity of the international division of labor has stimulated trade activities and induced more direct foreign investment in Taiwan.

IV. Outward Investment

As mentioned in the previous section, outward investment has played a very important role in Taiwan's economic development in the past ten years. It has facilitated the restructuring of Taiwan's economy by relocating abroad those industries and activities that have lost comparative advantage, thus freeing assets needed by industries having or acquiring comparative advantage. In this section, we examine Taiwan's outward investment, and indirect mainland investment, in particular. As we can see from Table 3, there were dramatic changes in outward investment before and after 1985. There were 13,562 cases and US\$15.6 billion involved for the ten years from 1986 to 1995, and only 218 cases and US\$0.2 billion in the 32 years from 1952 to 1985. This is an increase of 60 times in the number of cases and almost 80 times the dollar amount in the past ten years.

Table 3 Taiwan's Outward Investment¹

	1952-85			1986-95		
	cases	\$US mil	\$US m/case	cases	\$US mil	\$US m/case
TOTAL	218	214.9	1.0	13562	15683.9	1.2
ASIA	125	79.4	0.6	12424	9633.3	0.8
Hong Kong & China	12	8.1	0.7	11577	6340.4	0.5
Hong Kong	12	8.1	0.7	323	695.9	2.2
Mainland China ²	0	0.0		11254	5644.5	0.5
Southeast Asia	95	62.0	0.7	631	2707.0	4.3
Singapore	23	9.3	0.4	97	284.2	2.9
Thailand	26	9.5	0.4	187	611.5	3.3
Malaysia	19	7.3	0.4	171	1182.8	6.9
Indonesia	12	25.8	2.1	98	345.3	3.5
Philippines	9	10.1	1.1	84	283.2	3.4
Vietnam	6	1.4	0.2	93	412.2	4.4
Japan	7	1.0	0.1	84	111.2	1.3
S. Korea	1	0.4	0.4	14	6.3	0.5
Other Asian countries	10	6.5	0.7	19	56.1	3.0
AMERICA	74	123.9	1.7	921	5344.1	5.8
N. America	60	117.2	2.0	725	2648.8	3.7
United States	60	117.2	2.0	712	2588.8	3.6
Canada	0	0.0		13	60.0	4.6
Latin America	14	6.7	0.5	196	2695.3	13.8
Mexico	0	0.0		2	44.1	22.0
Other Latin American countries	14	6.7	0.5	194	2651.1	13.7
EUROPE	5	4.3	0.9	173	555.1	3.2
Germany	1	0.0	0.0	52	44.6	0.9
United Kingdom	3	3.2	1.1	42	294.3	7.0
Netherlands	0	0.0		34	55.0	1.6
France	0	0.0		14	12.7	0.9
Other European countries	1	1.0	1.0	31	148.5	4.8
Australia	2	1.2	0.6	15	39.6	2.6
Others	12	6.2	0.5	29	111.9	3.9

Source:

Investment Commission, Ministry of Economic Affairs, *Overseas Chinese & Foreign Investment, Investment, Outward Investment, and Indirect Mainland Investment.*

Notes:

1. All figures are approved investment.
2. Figures are indirect investment to mainland China.

Table 4 Taiwan's Outward Investment to Mainland China Comparison
of Statistics from the Two Sides of the Straits

	Taiwan			Mainland			Taiwan Capital Actually Utilized \$US million
	Approved Indirect Mainland Investment			Signed Contracts of Taiwan Capital			
	case	\$US million	\$US m/case	case	\$US million	\$US m/case	
1987					100.0 ¹		22.0 ¹
1988					400.0		155.0
1989					600.0		222.0
1990				2065	1000.0	0.5	466.0
1991	237	174.2	0.7	1735	3430.0	2.0	1051.0
1992	264	247.0	0.9	6430	5543.0	0.9	3139.0
1993	9329	3168.4	0.3	10948	9965.0	0.9	3391.0
1994	934	962.2	1.0	6247	5395.0	0.9	3162.0
1995	490	1092.7	2.2	4778	5777.0	1.2	11586.0
1986-95	11254	5644.5	0.5	32203	32110.0	1.0	
1995,1-10	406	911.3	2.2				
1996,1-10	311	1020.7	3.3				

Sources:

1. Investment Commission, Ministry of Economic Affairs, *Overseas Chinese & Foreign Investment, Outward Investment, and Indirect Mainland Investment*, October, 1996.
2. China Statistical Publishing House, *China Statistical Yearbook*, 1996.

Note:

1. These numbers should be regarded as accumulated investment.

Outward investment boomed after the sharp appreciation of the local currency and the dramatic increase in labor and land costs when the US dollar started to depreciate in the mid-eighties. In fact, this represented a change in the international economic environment. Japan and other Asian NIEs (Hong Kong, Singapore and South Korea) also experienced the same problems and were forced to invest abroad. Hong Kong and Taiwan outward investment was concentrated in mainland China. For Taiwan, the investment amount in mainland China accounted for 59% of total value, ASEAN and Vietnam for 20%, North America and Europe for 26%, and Latin America for another 17%. In terms of approved cases, 83% were for investment in mainland China.

There are discrepancies between the figures for Taiwan outward investment in the mainland and mainland FDI from Taiwan. The mainland's figures are usually higher than Taiwan's. For example, the mainland's actual utilized capital figure from Taiwan was US\$11.6 billion from 1986 to 1995, while Taiwan's was only US\$5.6 billion. The main reasons are overvaluation and round-tripping in Chinese FDI and missing cases in Taiwan's outward investment. For Chinese FDI, about 70% of FDI inflows into China are equipment and technology which have been overvalued to exaggerate the share of dividends *vis-a-vis* local partners, lower taxes arising from larger capital expenditure and depreciation credits, and more management control, reflecting the higher equity share of foreign dividends *vis-a-vis* local partners. Round-tripping involves the circular flow of capital out of China (in most cases to foreign affiliates of Chinese transnational corporations) and the subsequent "re-investment" of this "foreign" capital in China for the purpose of benefiting from fiscal entitlements accorded to foreign investors.¹ For Taiwan outward investment, projects contrary to these regulations may invest without approval². Nevertheless, actual Taiwanese investment in the mainland could be somewhere between these two figures. Taiwan's average annual investment on the mainland in 1986-1995 was around 1.6% to 9% of the island's total domestic fixed investment.

¹ See UNCTAD, *World Investment Report*, Box II.3, 1995.

² See Investment Commission, Ministry of Economic Affairs, *Analysis Report for Overseas Chinese and Foreign Investment, Outward Investment, and Indirect Mainland Investment*, 1995. May 1996.

Besides capital actually utilized, there is signed-contract capital. Although only about one-third of the contracted figure is later realized, it provides a number of contract cases which can be used to compare with Taiwan's outward investment. In both cases, the investment amount per case shows an increasing trend, which indicates that the size of Taiwan investment in the mainland has increased.

Primarily, the motivation for investing in mainland China is to cut down on labor and land costs, to utilize the firm's present capital and technology, and to access cheaper raw materials.³ Investment amount per case in mainland China was only US\$500 thousand, the lowest among all host countries. At the beginning, the investment was mostly in labor-intensive industries to manufacture consumer goods. Clothing, footwear and electronics predominated. The production process typically involved the simple assembly of imported raw materials and no extensive or highly specialized capital goods or labor skills were required. However, the main features of investment have changed in recent years. The scale of investment has changed from small-sized to medium- and large-sized. The average size in 1995 increased to US\$2.2 million per case from US\$0.7 million. The trend of investment changed from labor-intensive assembly and processing industries to capital-intensive industries, and from the simple transfer of old and outdated equipment and technology to the use of completely new production lines.

Ironically, the size of investment in industrial countries is not large either, because the motivation for investing in industrial countries is mainly to explore the potential foreign market, and to strengthen the ability to access information. The cost for setting up sales branches in host countries is not as great as for setting up a full-size factory. Therefore, we find the investment amount per case in Germany and France is less than US\$1 million, which is slightly higher than investment in the mainland China. However, average investment per case in the mainland, Southeast Asia and Latin America is the highest. The number of investment cases in Latin America are few, but the size of investment is relatively large.

³ See Department of Statistics, Ministry of Economic Affairs, *Survey Report of Diversification and Internationalization of Manufacturing*, 1995.

**Table 5 Deeping of Outward Investment
(by country)**

	Number of Sample Firms	Total share	Factories and Sales		Factories Only	Sales Branches Only	Outward Investment Deepening Coefficient
			Sales Branches	Factories Only			
Total	1680	100.00	40.65	46.31	13.04	63.81	
Singapore	15	100.00	53.33	33.33	13.33	70.00	
Thailand	119	100.00	52.10	35.29	12.61	69.75	
Mainland China	942	100.00	40.98	53.29	5.73	67.63	
Philippines	35	100.00	40.00	54.29	5.71	67.15	
Malaysia	124	100.00	46.77	40.32	12.90	66.93	
Indonesia	53	100.00	35.85	60.38	3.77	66.04	
Vietnam	49	100.00	28.57	63.27	8.16	60.21	
Hong Kong	59	100.00	40.68	32.20	27.12	56.78	
Japan	23	100.00	26.09	43.48	30.43	47.83	
United States	173	100.00	36.42	21.39	42.20	47.12	
Germany	14	100.00	35.71	14.29	50.00	42.86	
Latin America	6	100.00	16.67	50.00	33.33	41.67	
United Kingdom	7	100.00	14.29	28.57	57.14	28.58	
Others	26	100.00	44.05	33.33	22.62	60.71	

Source: Department of Statistics, Ministry of Economic Affairs, *The Survey of Diversification of Internationalization in Manufacturing*, August, 1995.

Note:

1. The Outward investment deepening coefficient is calculated by setting a country with both factory and sales branch at 100, with factory only at 50, and with sales branch only as 0, multiplied by their own proportion, then summed.
2. Others include Mexico, E. Europe, Netherlands, Oceania, Australia, Canada where the sample number is less than 5.

Investment in Southeast Asia, particularly in Singapore and Thailand, has a long history, and Taiwan's investment in this area is deepening because a high proportion of Taiwan investors established both factories and sales branches through their subsidiaries. In sum, the strategy of outward investment in industrialized countries is to explore the foreign market, with a high proportion of firms setting up sales branches as their subsidiaries; the strategy of investment in China and Southeast Asia is establishing subsidiaries to manufacture consumer final goods for industrial countries as a first step, and then to manufacture for and explore the local market as the next step.

V. The Problems and Prospects of the Three Economies

Interaction among the Three Economies

So far, Hong Kong and Taiwan are the two major sources of the mainland's foreign investment, and the economic interaction among the three economies has intensified. In terms of trade interdependency, Table 6A and 6B show the economic interaction among the three economies. In 1990, the share of Taiwan exports to Hong Kong was 12.7%, but there are no figures showing the export share to mainland China. Five years later, shares to Hong Kong almost doubled to 23.4%, with 0.3% of Taiwan exports going to mainland China directly. The sum of the export share to Hong Kong and the mainland is 23.7%, which is similar to the share of exports to the United States which shrank from 32.4% in 1990 to 23.6% in 1995. Therefore, part of the exports to the United States has been replaced by exports to Hong Kong and mainland China. In fact, actual exports to Hong Kong and the mainland are even higher than Taiwan's customs figures because some indirect exports have gone through Japan and Korea. On the other hand, Hong Kong has been an entrepôt for China; 33.3% of Hong Kong exports (including reexports and domestic exports) go to mainland China, and 24% of China's exports went to Hong Kong in 1995. The decline in the share of mainland exports to Hong Kong, from 42.9% to 24.1%, does not mean less exports from the mainland to Hong Kong. Rather, it reflects the increase in

China's exports and the increase in direct exports to the final market (such as the United States). In fact, the portion of Hong Kong's total imports from China is almost the same for 1990 and 1995, 36.8 and 36.2%, respectively, as shown in Table 6B.

On the other hand, mainland imports from Taiwan increased from 4.2% in 1990 to 11.2% in 1995. Therefore, the interaction among three economies can be stated thus: Hong Kong serves as an entrepôt for China to ship goods between the mainland and final markets (mainly including Taiwan, the United States, etc.), and Taiwan increased its exports to the mainland through Hong Kong which was induced by investment in the mainland. All have benefited from the complementariness formed by different stages of economic development and factor endowments among the three economies.

Another observation is worth noting: the trade structure is becoming more similar. The United States, Japan, Singapore, Germany and South Korea are major trade partners for all three economies. In fact, there was no trade between China and South Korea in 1990, but the proportion of China's exports to South Korea jumped to 4.5% and the import share jumped to 7.8% in 1995. Russia is another case. Russia used to be one of China's major trade partners, but China's exports to Russia shrank from 3.6% in 1990 to 1.1% in 1995, and the import share from 4% to 2.9% at the same period; meanwhile, Taiwan and Hong Kong both increased their trade with Russia slightly.

Taiwan

Recently, the news media in Taiwan reported the Council for Economic Planning and Development (CEPD)'s Transcentury National Development Plan for the next ten years (1997 to 2006)⁴. The average annual economic growth rate is expected to be 6.5%. The driving force is the Asia Pacific Regional Operations Center (APROC), which is aimed at turning Taiwan into a regional hub for multinational corporations within the next 15 years. Six industries are included: air transport, sea transport, finance, telecommunications, media and high-value manufacturing.

⁴ See *Commercial Times*, November 7, 1996.

Table 6A Trade Interdependency Among Taiwan, Hong Kong, and Mainland China by Export Destination

\ from to \	Taiwan		Hong Kong		Mainland China		% of total
	1990	1995	1990	1995	1990	1995	
	Taiwan	12.7	23.4	4.2	2.7	0.5	
Hong Kong	0.0	0.3	6	33.3	42.9	24.1	
Mainland China	32.4	23.6	24.1	21.7	8.3	16.6	
United States	12.4	11.8	5.7	6.1	14.5	19.1	
Japan	3.3	3.9	3.2	2.8	3.2	2.4	
Singapore	4.8	3.4	6.5	4.3	3.3	3.8	
Germany	2.8	2.9	1.7	1.6	1.5	2.2	
Netherlands	2.1	2.8	1.3	0.9	1.3	1.2	
Thailand	1.6	2.6	0.7	0.9	0.5	0.9	
Malaysia	1.8	2.3	2.3	1.6	0.0	4.5	
S. Korea	2.9	2.2	4.0	3.2	1.0	1.9	
United Kingdom	1.9	1.7	0.9	0.6	0.6	1.0	
Indonesia	1.9	1.6	1.5	1.4	0.7	1.3	
Australia	0.1	0.2	0.1	0.2	3.6	1.1	
Russia	100.0	100.0	100.0	100.0	100.0	100.0	
Total including other areas	67.2	111.7	639.9	1344.1	62.1	148.8	

Sources:

Taiwan: Department of Statistics, Ministry of Finance, *Monthly Statistics of Exports and Imports*, various issues.
 Hong Kong: Census and Statistics Department, *Hong Kong Trade Statistics*, various issues.
 China: Commission for China's Foreign Economic Relations and Trade, *Almanac of China's Foreign Economic Relations and Trade*, various issues.

Table 6B Trade Interdependency Among Taiwan, Hong Kong, and Mainland China by Import Origin

	% of total					
	Taiwan		Hong Kong		Mainland China	
	1990	1995	1990	1995	1990	1995
Taiwan	—	—	9.0	8.7	4.2	11.2
Hong Kong	2.6	1.8	—	—	26.7	6.4
Mainland China	0.0	3.0	36.8	36.2	—	—
United States	23.0	20.1	8.1	7.7	12.4	12.2
Japan	29.2	29.2	16.1	14.8	14.2	22.0
Germany	5.0	5.5	2.3	2.1	5.5	6.1
S. Korea	2.5	4.2	4.4	4.9	0.0	7.8
Singapore	2.6	2.9	4.1	5.2	1.6	2.6
Malaysia	1.8	2.9	1.3	1.9	1.6	1.6
Australia	3.0	2.5	0.9	0.9	2.5	2.3
Indonesia	1.7	2.1	0.7	0.8	1.5	1.6
United Kingdom	2.1	1.6	2.2	2.0	2.6	1.5
Russia	0.1	1.6	0.1	0.2	4.0	2.9
Thailand	0.8	1.4	1.3	1.4	0.7	1.2
Netherlands	1.3	1.3	0.8	0.9	0.7	0.6
Total including other areas	100.0	100.0	100.0	100.0	100.0	100.0
Total imports, US\$, billion	54.7	103.6	642.5	1491.1	53.3	132.1

Sources:

Taiwan: Department of Statistics, Ministry of Finance, *Monthly Statistics of Exports and Imports*, various issues.
 Hong Kong: Census and Statistics Department, *Hong Kong Trade Statistics*, various issues.
 China: Commission for China's Foreign Economic Relations and Trade, *Almanac of China's Foreign Economic Relations and Trade*, various issues.

In order to reach this goal, two major challenges must be tackled. First, a full liberalization of the finance, telecommunications and media sectors; and second, solution of the problem of direct links with mainland China in investment, shipping and communications. Each has its own historical background and requires government resolution. Due to the opposition of bureaucrats and domestic vested interests, the first will be a long, painful process. The second challenge deals with the mainland and Hong Kong, and is discussed further.

For security and pride, Taiwan's government continues to cling, in name at least, to its 46-year prohibition on "the three links" (*san tong*) as demanded by China: direct investment, shipping, and communications. But it pays a high price. To invest indirectly in the mainland, companies have to create a dummy company in Hong Kong or the US as an investment vehicle. For indirect shipping, exporters pay an extra US\$251 million per year in extra shipping costs. For indirect telecommunication, the extra cost of routing telephone calls through Singapore and the USA also runs in the billions of New Taiwan dollars.⁵

Recently, Taiwan offered to create "offshore transshipment zones" in Kaoshiung and Taichung which would allow direct access to mainland Chinese "foreign-flagged" vessels. But the mainland trumped that offer by permitting direct shipping by Chinese- or Taiwan-owned vessels between Taiwan ports and Xiamen and Fuzhou⁶. The main sticking-point now is that China's regulations treat the China-Taiwan routes as domestic, and as usual in the tortured China-Taiwan relationship, the final protocol for direct shipping will require that face-saving red tape be imposed. In the short run, shipping companies will probably resolve this dilemma by running vessels between Taiwan and Chinese ports under flags of convenience.

In sum, direct links with mainland China in investment, shipping, and communications is a trend that will move forward. Taiwan will continue seeking ways which both sides of the Strait will be able to accept with mutual benefit and respect. As a small open economy, Taiwan will diversify trade

⁵ See The Economist Intelligence Unit (EIU) *Country Report, Taiwan*, 1996.

⁶ Later, eight additional ports were added to the approved list, including Shanghai, Guangzhou, Dalian, Qingdao, Tianjin, Qinghuangdao, Yantai, and Ningbo.

and investment around the world to find better trade opportunities and higher investment returns. As long as China's economy remains prosperous and the tense relationship between the two sides is alleviated, economic interaction among Taiwan, Hong Kong and Mainland China will intensify.

Hong Kong

One possibility forcing the abandonment of Taiwan's *san tong* prohibition is Hong Kong's return to Chinese control on July 1, 1997. Taiwan now relies on Hong Kong as its chief shipping and investment intermediary to the mainland. After July 1997, China could, in theory, deny Taiwan access to Hong Kong and thus, in effect, to the mainland. It is not likely that China would take such a drastic step, but the two sides of the Strait seem to have taken this scenario into account.

In fact, indirect trade through a third location is costly. According to Sung's figures for Chinese goods reexported via Hong Kong, the final market's c.i.f. price is 50 percent higher than China's f.o.b. price⁷. For Taiwanese goods reexported via Hong Kong, the mainland's final market c.i.f. price should be similar to this figure.

However, there is substantial direct trade between Taiwan and the mainland *via* Hong Kong. This direct trade usually involves the switching of trade documents. Taiwanese exporters claim that their goods are destined for Hong Kong when the goods leave Taiwan. However, on arrival in Hong Kong, the trade documents are switched to claim that the goods are destined for the mainland. By switching trade documents, Taiwanese exporters save on the cost of going through Hong Kong customs. Although the monetary amount is quite minor as fees and taxes only amount to 0.1% of the value of

⁷ On average, the c.i.f. price should be 6 percent higher than f.o.b. prices, and two c.i.f. prices occur: one is Hong Kong's c.i.f. price for imports from China; another is the final market c.i.f. price for imports from Hong Kong. In addition, there is the reexport margin which is assumed to be 13 percent. Therefore, the final market c.i.f. price is 50 percent higher than China's f.o.b. price ($1.06 \times 1.33 \times 1.06 = 1.50$). See Yun-Wing Sung, "China's Exports by Country and Its Trade with the US", paper presented at *The 5th International Convention of the East Asian Association*, Bangkok, October 24-26, 1996, pp. 5-6.

goods traded⁸, they still pay the cost in the extra kilometers needed to ship goods to Shanghai or northern China. Therefore, direct shipping is a trend which should move forward. Since port-related industrial and commercial enterprises contributed to about 20% of Hong Kong GDP in 1995⁹, direct shipping between the two sides of the Taiwan Strait will affect Hong Kong's economy.

In tandem with increased economic interaction, financial relations between Taiwan and Hong Kong have developed rapidly. Every economic activity involves financial transactions. Trade (including entrepôt), investments, and tourism, all triggering flows of funds have greatly increased.¹⁰ After reverting to Chinese sovereignty, Hong Kong will continue to be a capitalist society with a free economic system. It will continue to act as a middleman in bilateral relations between mainland China and Taiwan because Hong Kong will still be the main shipping and financial hub of southern China. It will also continue to be one of the main gateways to the vast Chinese market. As long as the economies of China, Taiwan, and Southeast Asia continue to grow, Hong Kong will grow along with them.

Mainland China

After average real annual economic growth of 12% during the Eighth Five-Year Plan (1991-1995), a more sustainable 8% annual average growth in the five years to 2000 is targeted. Under the Ninth Five-Year Plan, Chinese authorities promise the reinvigoration of China's so-called pillar industries: machine building, electronics, petrochemicals, automobiles and construction. Light industry and textiles are singled out for development to meet domestic demand and to earn hard currency overseas.

The plan is to devote greater attention to the central and western areas of the country, with the introduction of policies to slow the rate of growth of and

⁸ See Sung (1996) Oct. cit, pp. 12-14.

⁹ See The Economist Intelligent Unit, *Country Report: Hong Kong*, 1996.

¹⁰ See Tzong-biau Lin, "Macroeconomics of the South China Growth Triangle," in Joseph S. Lee ed. *The Emergence of the South China Growth Triangle*, Chung-Hua Institution for Economic Research, August 1996, pp.59 and 66.

narrow disparities with the south and east. Measures include improving the investment climate and redirecting direct foreign investment towards the interior, and encouraging investment, personnel and talent to move inland.

Since China's 22% of total world population is fed off of 7% of the globe's arable land, agriculture is a priority in the Plan and the Chinese government is looking for foreign investment in this sector. It intends to direct loans on commercial terms to the most promising projects or to the modernization and reequipping of agricultural enterprises, while infrastructure, processing, and other agricultural projects will receive concessional loans and preferential government credit. Overseas aid will be injected into research, technology promotion, and projects in areas of poverty. Foreign direct investment (FDI) will support farming operations, aquaculture, and processing industries.

In this regard, besides the existing activities in the prosperous east, Taiwan could make a contribution in at least two aspects. First, to develop the central and western areas, Taiwanese investors might perform better than other foreigners because of the ethnic connection and expertise in labor-intensive production which is most suitable for areas in the initial stage of economic development. Therefore, Taiwanese investment might enter the central and western areas if the investment climate and basic infrastructure can be improved. Second, the experiences in transforming from an agriculturally dominated economy to an industrial economy and valuable agricultural R&D in Taiwan could be shared with mainland China to solve its agricultural problems.

V. Concluding Remarks

Since mainland China initiated its economic reforms and open policy in 1978, the interaction among the three economies has intensified. Basically Taiwan and Hong Kong are small open economies, trade activity is a driving force for economic growth, and outward investment is the catalyst for trade activity. When the mainland opened its doors to investment and trade, Taiwan and Hong Kong used this opportunity to switch their comparative advantage. Hong Kong moved its labor-intensive industries to southern China and developed its service sector. Taiwan moved some of its light industries to

the mainland, but upgraded its industrial level to capital- and knowledge-intensive industries. Mainland China benefited from the investment from Hong Kong and Taiwan to start its growth engine by injecting capital flows, absorbing its huge labor force, adopting better technology, and expanding trade activities. Following an outward growth strategy, the interaction among the three economies has created an economic boom that has lasted for more than ten years.

Now, the three economies are entering a new era. Hong Kong will become part of China, but has the Mainland's promise that it will keep its capitalist society for the next fifty years and act as an entrepôt for southern China. The mainland has more problems with regional disparities, state-owned enterprises, and agricultural challenges. In essence, China is a large economy with a huge domestic market. An inward-looking strategy is natural and has been a long-standing policy in China. But this does not necessarily mean the mainland will focus on its internal problems and ignore external trade, because external trade is an important factor in economic growth. It not only earns foreign exchange and induces foreign investment for domestic development, it serves as a channel to absorb advanced technology through the international spillover effect in trade. Therefore, external trade and inflows of foreign investment can be expected to continue in the mainland.

In the process of developing high-tech industries in Taiwan, trade as well as inward and outward investment are very important. Taiwan will keep looking for better trade opportunities and higher investment returns around the world. If the investment climate is good and infrastructure is sufficient in the mainland, Taiwan will inject more funds for various investment projects, ranging from small and medium investment in labor-intensive industries to large-scale projects such as power generating plants.¹¹ However, in the nine months of increasing tension beginning with President Lee's visit to the USA in June 1995, through democratic parliamentary elections in December and up to March 1996's presidential election on the island, it is not surprising

¹¹ For instance, the Formosa Plastics Group plans to build a 3.6m kw, US\$3.8 billion thermal power plant in Zhangzhou, and President Enterprises initiating a power station project in Wuhan. Both are pending because of cross-Strait tension. See The Economist Intelligent Unit, *Country Report: Taiwan*, 1996.

that the government in Taipei has had to act prudently to safeguard its security.

Incidentally, trade with the mainland was low in 1996. But tensions were not the only reason. Another was the extraordinarily large demand for Taiwan exports in 1995 which caused export growth in 1996 to be relatively slow. Two factors can be identified to account for the large export demand in 1995: first was the strong derived demand from the drastic increase in mainland exports in 1995; and second, the mainland announced it would lower the tax rebate for exporters in July 1995, so many Taiwan factories on the mainland crammed as much export volume as they could into the early months of 1995. Fortunately, there was an upward trend in the second half of 1996 and trade with the mainland is expected to recover.

Nevertheless, authorities on both sides seem to be expressing conciliatory sentiments to alleviate the tension. Direct shipping across the Strait is evidence of this, although the issue of vessel nationality is not settled. On the other hand, 1997, when Hong Kong is handed over to Chinese sovereignty, may be a demarcation point where issues of "Greater China" among the three economies are reshuffled. There are at least three issues that can be raised. First, whether the Beijing government keeps its promise to prosperous Hong Kong during political integration will be of international interest. Taiwanese will evaluate their future relationship with the mainland based on this performance. Second, until now, Hong Kong investment has been most concentrated in Guangdong province, especially the Pearl River Delta. When the mainland begins to pay more attention to the central and western provinces, what role will Hong Kong play? Third, Hong Kong is a commercial, transportation, and financial center for much of East Asia. When Taiwan attempts to establish a regional hub for multinational corporations, what will the division of labor between the two economies be?

References

- Ash, Robert F. and Kueh, Y. Y. (1995), "Economic Integration within Greater China: Trade and Investment Flows Between China, Hong Kong and Taiwan," in David Shambaugh ed. *Greater China: The Next Superpower?* London: Oxford University Press, 59-93.
- Chou, Ji (1995), "Old and New Development Models: The Taiwanese Experience," in Takatoshi Ito and Anne O. Krueger eds. *Growth Theories in Light of the East Asian Experiences*, Chicago: The University of Chicago Press, 105-127.
- Department of Statistics, Ministry of Economic Affairs (1995), *Survey Report of Diversification and Internationalization of Manufacturing*.
- The Economist Intelligent Unit (1996), *Country Report: China and Mongolia*. 2nd and 4th quarter.
- The Economist Intelligent Unit (1996), *Country Report: Hong Kong and Macau* 4th quarter.
- The Economist Intelligent Unit (1996), *Country Report: Taiwan*, 3rd and 4th quarter.
- Harding, Harry (1992), "The Emergence of Greater China: Hong Kong, Taiwan and South China - How U.S. Policy will have to Change," *The American Enterprise*, May/June, 46-55.
- Harding, Harry (1995), "The Concept of 'Greater China': Themes, Variations and Reservations," in David Shambaugh ed. *Greater China: The Next Superpower?* London: Oxford University Press, 8-34.
- Investment Commission, Ministry of Economic Affairs (1996), *Analysis Report for Overseas Chinese and Foreign Investment, Outward Investment, and Indirect Mainland Investment*, May, 1995.
- Kao, Charng (1994), "Economic Interaction between the Two Sides of the Taiwan Strait," in Chien-nan Wang ed. *Globalization, Regionalization, and Taiwan's Economy*, Taipei: Chung-Hua Institution for Economic Research, 141-170.

- Lin, Tzong-biau (1996), "Macroeconomics of the South China Growth Triangle," in Joseph S. Lee ed. *The Emergence of the South China Growth Triangle*, Taipei: Chung-Hua Institution for Economic Research, 25-70.
- Sung, Yun-wing (1996), "China's Exports by Country and Its Trade with the US," paper presented at *the 5th International Convention of the East Asian Association*, Bangkok, October 24-26, 1996.
- UNTCAD (1995), *World Investment Report.*, New York: United Nations Publications.
- Wei, Shang-jin and Frankel, Jeffrey (1994), "A 'Greater China' Trade Bloc?" *China Economic Review*, Volume 5(2), 179-190.
- Weidenbaum, Murray and Hughes, Samuel (1996), *The Bamboo Network: How Expatriate Chinese Entrepreneurs Are Creating a New Economic Superpower in Asia?* New York: The Free Press.
- Yu, Tzong-shian (1996), "Macroeconomic Conditions Leading to the Integration of the South China Growth Triangle," in Joseph S. Lee ed. *The Emergence of the South China Growth Triangle*, Taipei: Chung-Hua Institution for Economic Research, 9-24.

Occasional Paper Series

1. Jia-dong Shea & Ya-hwei Yang. "Financial System and the Allocation of Investment Funds," December 1990. (No.9001)
2. Li-min Hsueh. "The Development of Small and Medium Sized Enterprises in Taiwan," December 1990. (No.9002)
3. Jiann-chyuan Wang. "The Informal Sector and Public Policy in Taiwan," January 1991. (No.9101)
4. Tzong-shian Yu. "An Analysis of the Present Taiwan Economy," March 1991. (No.9102)
5. Jiann-chyuan Wang. "The Changing Role of Taiwan in Pacific-rim Regional Development," March 1991. (No.9103)
6. Tzong-shian Yu. "A Trade-oriented Economic Development Model -- The Case of Taiwan, R.O.C." April 1991. (No.9104)
7. Li-min Hsueh. "Land Policies Problems in Taiwan," June 1991. (No.9105)
8. Tzong-shian Yu. "Economic Policy-Making and The Stage of Economic Development -- The Case of Taiwan," June 1991. (No.9106)
9. Tzong-shian Yu. "Achievements in Taiwan's Economic Development -- A Miracle?" September 1991. (No.9107)
10. Tong-eng Wang. "Toward Regional Economic Cooperation in Northeast Asia," October 1991. (No.9108)
11. Cherng-shin Ouyang. "Some Policy Reflections on the Emergence of the Republic of China as a Newly Industrializing Economy," October 1991. (No.9109)
12. Chien-nan Wang. "The ASEAN Economic Co-operation -- Status and Challenges," November 1991. (No.9110)
13. Jiann-chyuan Wang. "Should Government Intervene in Civil Research and Development? -- The Case of Taiwan," November 1991. (No.9111)
14. San, Gee. "The Economic Development of Taiwan, R. O. C.: Experiences and Challenges," December 1991. (No.9112)
15. Cherng-shin Ouyang. "China's Rural Economic Reform - An Assessment," December 1991. (No.9113)
16. Lee-in Chen Chiu and Chin Chung. "An Assessment of Taiwan's Indirect Investment Toward Mainland China," January 1992. (No.9201)
17. Chin Chung. "Impacts on Domestic and Host Economies of Taiwan's DFI

- toward Mainland China," January 1992. (No.9202)
18. Tzong-shian Yu. "The Two Sides of the Taiwan Straits: Economic Interdependence and Cooperation," March 1992. (No.9203)
 19. Li-min Hsueh. "Taiwan's Industrial Development and Industrial Policies in the 1980s," June 1992. (No.9204)
 20. Tzong-shian Yu. "A Quick Adjustment of Taiwan to an Enhanced Economic Position in the World," August 1992. (No.9205)
 21. Tzong-shian Yu. "Challenges and Responses: An Overview of Taiwan's Economic Development," September 1992. (No.9206)
 22. Chyau Tuan and Yi Chou. "An Exploration on Patterns of Agricultural Cooperation between Mainland China and Taiwan," October 1992. (No.9207)
 23. Yi Chou and Chyau Tuan. "A Competition and Competitiveness between Taiwan and Mainland China in Major Agricultural Industries -- Shrimp-cultivation Industry and Swine-breeding Industry," October 1992. (No.9208)
 24. Charng Kao. "A Study of Economic Interdependence between Taiwan and Mainland China," November 1992. (No.9209)
 25. Tzong-shian Yu. "Taiwan's Economic Position in East Asian Regional Restructuring," April 1993. (No.9301)
 26. Tzong-shian Yu. "Current Economic Conditions of Taiwan," April 1993. (No.9302)
 27. Joseph S. Lee. "Taiwan's Economy and its International Role," May 1993. (No.9303)
 28. Cherng-shin Ouyang. "Creation of a Legal-Institutional Basis for Facilitating Trade, Economic, and Technological Ties between Russia and Taiwan," July 1993. (No.9304)
 29. Tzong-shian Yu. "The Price Paid for Accelerating Economic Growth," July 1993. (No.9305)
 30. Tzong-shian Yu. "Challenges Faced in Transforming from a Centrally Planned to a Market Economy," October 1993. (No.9306)
 31. Tzong-shian Yu. "Taiwan's Economic Development and Its Economic Relationship with Mainland China," November 1993. (No.9307)
 32. Jiann-chyuan Wang. "The Impact of the North American Free Trade Agreement on the ROC and Its Response," November 1993. (No.9308)
 33. Ji Chou. "The Taiwan Economy in the Year 2000," December 1993. (No.9309)
 34. Ya-hwei Yang. "A Study of the Small- and Medium-Sized Enterprises Financial System in Taiwan," January 1994. (No.9401)

35. Tzong-shian Yu. "Taiwan's Foreign Direct Investment and Economic Development," April 1994. (No. 9402)
36. Joseph S. Lee. "The Role of the State in Economic Restructuring and Development: The Case of Taiwan," April 1994. (No. 9403)
37. Tzong-shian Yu. "Does Taiwan's Industrialization Have Its Own Paradigm?" June 1994. (No. 9404)
38. Chien-nan Wang. "The Development and Strategy of Taiwan's Information Technology Industry," July 1994. (No. 9405)
39. Yi Chou, Shiu-nan Chen & Jyh-wei Shin. "Strategy and Environmental Evaluation of Foreign Investment by the Shrimp Culturing Industry," August 1994. (No. 9406)
40. Linda Weiss. "Government-Business Relations in East Asia: The Changing Basis of State Capacity," October 1994. (No. 9407)
41. Jiann-chyuan Wang. "Can APEC Become a Forum for Organized Economic Cooperation?" October 1994. (No. 9408)
42. Jiann-chyuan Wang. "The Prospects for Economic Integration among Three Chinese Economies," November 1994. (No. 9409)
43. Ya-hwei Yang. "The Financial System and Financial Policy in Taiwan — Lessons for Developing Countries," December 1994. (No. 9410)
44. Cherng-shin Ouyang. "System Reform of China's State-Owned Enterprises, 1978-1993 -- Review and Appraisal," March 1995. (No. 9501)
45. Tzong-shian Yu. "Taiwan's Perspective on Sino-American Economic Relations," July 1995. (No. 9502)
46. Tzong-shian Yu. "The Role of Government in Economic Planning and Development: The Case of the ROC on Taiwan," December 1995. (No. 9503)
47. George J. Y. Hsu. "The Restructuring of the Electric Power Industry in Taiwan," May 1996. (No. 9601)
48. Li-Ping Alfred Cheng. "Ownership, Control, and Privatization of Public Enterprises," August 1996. (No. 9602)
49. Michael Roemer and Chou Ji. "The Economic Development of Taiwan, 1980 to 1993 Macroeconomic Policy: Overzealous or Inflexible?" August 1996. (No. 9603)
50. Tser-yieth Chen. "Long-term Peak Electricity Load Forecasting in Taiwan: A Cointegration Analysis," December 1996. (No. 9604)
51. Ji Chou. "Taiwan's Economic Development in the Context of Greater China," April 1997. (No. 9701)