



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.*



Occasional Paper

CHUNG-HUA INSTITUTE FOR ECONOMIC RESEARCH

75 Chang-Hsing St., Taipei, Taiwan 106

Republic of China

This paper is intended to provide economic information and stimulate further research. Any opinions expressed within are solely those of the authors and not those of the Chung-Hua Institution for Economic Research.



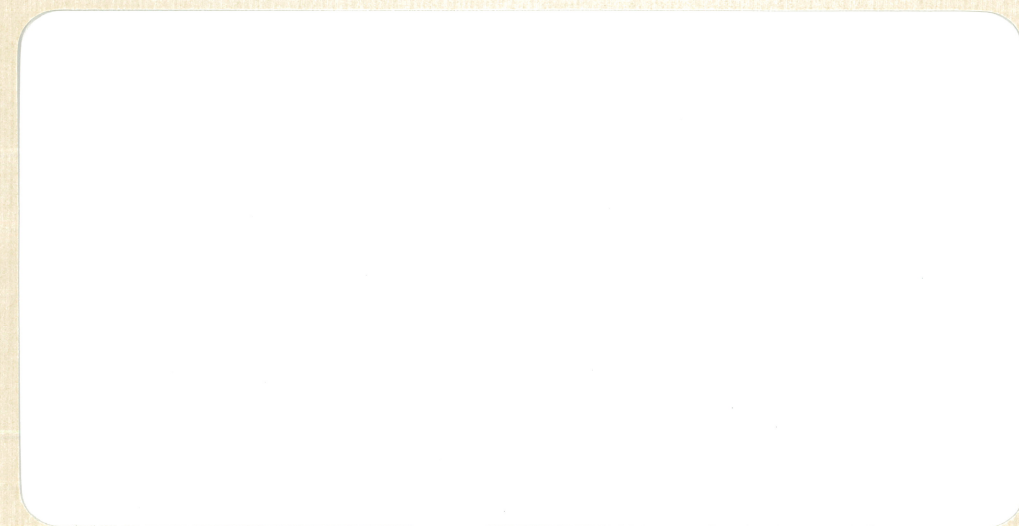
Occasional Paper



CHUNG-HUA INSTITUTION FOR ECONOMIC RESEARCH

75 Chang-Hsing St., Taipei, Taiwan 106

Republic of China



This paper is intended to provide economic information and stimulate further research. Any opinions expressed within are solely those of the authors and not those of the Chung-Hua Institution for Economic Research.

**Challenges and Responses:
An Overview of Taiwan's Economic Development**

by

Tzong-shian Yu

No.9206

September 1992

Challenges and Responses:

An Overview of Taiwan's Economic Development*

Tzong-shian Yu**

I. Introduction

It is indeed a great pleasure and privilege for me to be here today to address such a distinguished audience on the topic "Challenges and Responses - An Overview of Taiwan's Economic Development". As an economist, I am very glad to have been given this opportunity to visit such a great country as the Commonwealth of Independent States. Up till now, I had dreamed of coming here but your country seemed to be so far away from mine.

As I understand it, the Commonwealth of Independent States is seeking to transform its economy from a centrally-planned one into a market-driven one. While this is of course an extremely difficult undertaking for a country that encompasses

* Delivered at the Bilateral Conferences on Trade and Investment, on August 27, 1992 in Kiev and on September 2, 1992 in Moscow.

** President, Chung-Hua Institution for Economic Research.

such a large geographical area and has a huge population, it may, nevertheless, be useful to refer to the experiences of the countries which have successfully transferred themselves from the developing- to the developed-country stage.

In the space of just forty years, my country, Taiwan, the Republic of China, has been successfully transformed from a poor economy into a prosperous one and its society has been thoroughly modernized. Taiwan's economic achievements are more or less unique, and it is for this reason that many developed countries have recently paid a great deal of attention to the "Taiwan economic miracle" and developing countries have also been eager to learn from Taiwan's economic development experience.

With these considerations in mind, I would like to focus attention today on the process of Taiwan's economic transformation, which will hopefully help to shed some light on the experiences of Taiwan's economic development. To this end, the last four decades may be divided into two periods. The first is the period of high growth with external challenges (1951-80) and the second is the period of uneven growth with internal challenges (1981-90). After examining their causes and effects, I would then like to analyze the way in which the government and enterprises have responded to these challenges. Finally, I shall briefly discuss the prospects for Taiwan's economic development in the future.

II. The Period of High Growth with External Challenges

(1951 - 80)

1. The Background to Taiwan's Early Economy

Taiwan is a tiny island that covers a total area of only 36,000 square kilometers and of which only one-fourth of the land is arable. In 1951, Taiwan not only had a large population of 8.1 million, but was also rather poor in terms of natural resources. While there were several rivers, they tended to be short and hence of little use for transportation and fishing. During the summer months, as is still the case, there were several typhoons that frequently caused serious damage to crops and transportation facilities. Taiwan did have supplies of coal, but it was poor in terms of quality, and, since there were no supplies of petroleum, most of Taiwan's energy requirements had to be imported.

In addition, hyperinflation prevailed and unemployment was serious. In particular, around 1950, some 1.7 million people emigrated to the island from the Chinese mainland, and in the initial stages had nowhere to live and insufficient food to eat. The whole economy was dominated by agriculture which accounted for 36 percent of GDP while the industrial sector accounted for only 18 percent. Foreign

trade was insignificant and Taiwan had no foreign exchange reserves. During the 1950s, Taiwan seemed to be an island without hope in so far as its economic development was concerned. As a consequence, most people in the 1950s led a poor life.

2. External Challenges

During the first three decades (1951-80), Taiwan experienced many diplomatic shocks. In addition to military attacks and threats of attacks from Mainland China, for instance, the Battle of Kinmen that took place in 1949, an Artillery Duel in Kinmen in 1958 and the Air Conflicts in the Taiwan Straits in the 1960s, Taiwan lost most of its diplomatic recognition and support. In 1971, the representatives of the Taipei government were forced to withdraw from the United Nations, and, after that, many Western European countries broke diplomatic relations with Taiwan. In particular, Taiwan's two major trading partners, Japan and the United States, recognized the Beijing government in the 1970s, and this had an unfavorable influence on Taiwan's international position.

Following the breakdown in relations with the United States, all of the countries in East Asia, apart from Korea and Singapore, recognized the Beijing government. From the early 1970s on, Taiwan was no longer a member of many important

international organizations, and this led some people to refer to Taiwan as an "Asian orphan" in view of its isolation from the rest of the world. In addition, Taiwan had also heavily suffered from two oil crises in 1970s, which had caused hyperinflation in 1973-74 and 1979-81. The external challenges had shaken many people's confidence in Taiwan's future.

3. Economic Achievements

Clearly, the early background of Taiwan's fledgling economy and the external challenges were both unfavorable to Taiwan's economic development. However, as a result of the persistent endeavors of the people and the government on Taiwan, many of the obstacles created by these two factors were overcome. Between 1951 and 1980, Taiwan achieved a high rate of economic growth coupled together with an equitable income distribution, moderate inflation, low unemployment and sound public finance.

(1) Sustained High Economic Growth with Equity

From 1951 to 1980, Taiwan's average growth rate of GDP was 9.1 percent, the highest recorded rate over such an extended period in the world. The average growth rate of per capita GDP over the same period was 6.4 percent. At the same time,

Taiwan's economic gains tended to be fairly evenly distributed. This can be observed from the decline in the Gini coefficient from 0.321 in 1964 to 0.277 in 1980.

(2) Moderate Inflation

When the inflation rate is measured in terms of the rate of change in the consumer price index, the average annual inflation rate from 1952 to 1980 was 7.8 percent. If the years in which the two oil crises (i.e. 1974 and 1980) are not included, then the inflation rate was 5.4 percent.

(3) Low Unemployment

In the early period of Taiwan's economic development, the unemployment rate was higher, but, as a result of the rapid economic growth, was drastically reduced. For instance, it was 4.37 percent in 1952 and 1.23 percent in 1980.

(4) Sound Public Finance

The government in Taiwan has maintained a sound public finance system. Between 1952 and 1964, there were some years in which a budget deficit was recorded, but, between 1964 and 1980, the government recorded a budget surplus in every year which was used to support the so-called Ten Major Development Projects of the 1970s (See Table 1).

Table 1. Achievements of Taiwan's Economic Development

	Economic Growth Rate (GDP) %	Income Distribution (Gini Coef.)	Inflation rate % (consumer price index)	Unemployment rate (%)	Public finance surplus (NT\$ Million) (F.Y.)	Foreign debt (US\$ Billion)	Trade surplus (deficit) (NT\$ Million)	Foreign exchange reserves (US\$ Billion)
1952	12.0	-	-	4.37	50	-	-1053	-
1960	6.3	0.321*	18.4	3.98	-82	-	-4702	-
1970	11.4	0.294	3.6	1.70	2062	-	-114	-
1980	7.3	0.277	19.0	1.23	23526	4.107	-17854	2.205
1952-80 Average	9.1	-	7.8	2.84	-	-	-	-
1981	6.2	0.281	16.3	1.36	4486	4.796	36217	7.235
1982	3.6	0.283	3.0	2.14	-2974	5.661	97797	8.532
1983	8.5	0.287	1.4	2.71	2996	6.290	181425	11.859
1984	10.6	0.287	0.0	2.44	15105	5.535	262430	15.664
1985	5.0	0.290	-0.1	2.91	12310	4.765	341483	22.556
1986	11.6	0.296	0.7	2.66	3543	3.236	565176	46.310
1987	12.3	0.299	0.5	1.97	45708	1.860	561443	76.748
1988	7.3	0.303	1.3	1.69	100700	1.529	385726	73.897
1989	7.6	0.303	4.4	1.57	142979	1.146	303619	73.224
1990	4.9	0.312	4.1	1.67	36424	0.898	230383	72.441
1981-90	7.8	-	3.2	2.11	-	-	-	-
1952-90	8.9	-	6.5	2.65	-	-	-	-
1991	7.3	0.308	3.6	1.51	10599	-	248262	82.405

* 1964 Gini coefficient

Sources: 1. Quarterly National Economic Trends Taiwan Area, the Republic of China, No.57

2. Taiwan Statistical Data Book, 1991

3. Yearbook of Financial Statistics of the Republic of China, 1991

4. Report on the Survey of Personal Income Distribution in Taiwan Area, the Republic of China, 1991

4. Factors Attributable to Economic Achievements

As compared with any other developing country, Taiwan's economic achievements are impressive, in particular given the unfavorable conditions that existed at the time. Since many people have attempted to find explanations as to why these remarkable achievements came about, the following may help shed some light on the matter.

(1) Social and Political Stability

Although hostile elements attempted to destabilize the social and political fabric of Taiwan so as to prepare the way for an easy takeover, the government on Taiwan made use of Martial Law to maintain social order and made allowance for open-minded measures to ensure political stability. Between 1952 and 1980, only two movements were strictly forbidden, namely, Communist activities and the independence movement. These activities were deemed to be dangerous for national security reasons and hence have been strictly controlled. In fact, social and political stability are essential cornerstones for the creation of a favorable investment climate.

(2) Effective Use of Manpower

Whether a country's labor force is an asset or a liability to economic growth depends on whether it has been well-educated and effectively employed. Before 1950, there was an influx of trained personnel from the Mainland. It was these people who initiated the economic plans and saw to it that they were realized.

When the Central Government moved to Taipei in 1949, elementary education was strongly emphasized and the literacy rate rose dramatically from 57.9 percent in 1952 to 83.6 percent in 1968. From 1968 onwards, the government instituted nine-year compulsory education programs and also emphasized the development of professional education programs. Consequently, the quality of labor in Taiwan has improve greatly and workers find it easy to accept and operate new technology and equipment.

(3) Appropriate Strategies and Policies

During the early stages of Taiwan's economic development, the government implemented key strategies and policies to accelerate economic growth and improve income distribution. This it did by means of the following:

a. Land Reform

Land reform in Taiwan has been successful in promoting agricultural development. Since it was based on a redistribution of land to the tiller, farmers'

income increased and this had a great social and political significance in the early 1950s. Land reform increased agricultural productivity by 21.5 percent between 1950 and 1955. It was also helpful in improving income distribution in the sense that the rent reduction policy transferred the income from the landlord to the tenant, and the transfer of land to the tenant also meant that the ownership of land was equalized. The successful implementation of land reform became integral to Taiwan's agricultural development and helped stabilize social and political conditions.

b. Outward-looking Development Strategy

Since Taiwan is characterized by a high population density and limited natural resources, it is impossible to achieve self-sufficiency and rapid economic growth without the expansion of foreign trade. In the early stages of economic development, the major role of foreign trade was to use the foreign exchange earned from exports to finance the importation of raw materials and machinery which were then used to increase production and accelerate economic growth. From the 1960s on, the government has further adopted an open-door policy and has thus gradually eased its control over imports.

c. Development of Labor-intensive Industry

In the early stages of Taiwan's economic development, the country suffered from a serious shortage of capital and a surplus of labor. To cope with this situation,

the government wisely decided to develop labor-intensive, as opposed to capital-intensive, industries. Labor-intensive industries absorbed labor and eased the problem of unemployed and underemployed workers. As wealth increased and capital became more abundant, there was a natural transition towards more capital- and technology-intensive industries.

As a result of the above-mentioned strategies and policies, not only did economic growth accelerate, but income distribution also improved.

(4) The Role of Government

It cannot be denied that a country's government must play an important role in the process of economic development. A good government should be a government of the people and for the people. In the case of Taiwan, the government nurtured the private sector in its early stage of development and gradually left it alone as it grew in size and capabilities. Early measures assisting the private sector were often restrictive or protective in nature but were nevertheless effective.

Public enterprises also played a leading role in the early stages of Taiwan's economic development. They had three functions, an economic function, a financial function and a social function. However, with the rapid growth of the private sector, public enterprises no longer play a leading role because of their inefficiency as compared with private enterprises.

The existence of an adequate infrastructure is an important requirement for a solid investment climate. Since private enterprises are not interested in meeting public infrastructural needs, the government has played an obvious role in this respect.

III. The Period of Uneven Growth with Internal Challenges

(1981 - 90)

The 1980s were an unusual decade for Taiwan in the process of economic development in the sense that it was still able to achieve high economic growth, mild inflation and low unemployment in spite of the sluggishness of the world economy and the unfavorable impacts of social and political chaos and financial "high fever". Moreover, public finance remained sound, the foreign debt burden became insignificant, the trade surpluses in favor of Taiwan continued and foreign exchange reserves rapidly accumulated.

In the early 1980s, under the shadow of the breakdown in Sino-American diplomatic relations and the lingering impact of the second oil crisis, the growth rate of the Taiwan economy became rather low. After a short period of adjustment, Taiwan's economic development resumed its consistent growth trend. The salient fact

was that, during the 1980s, Taiwan's foreign trade increased rapidly and a trade surplus resulted in every year. Due to the continued accumulation of foreign exchange reserves, the government decided to implement a strategy of economic liberalization and internationalization in 1985. However, this did not reduce the pressure that had already built up on the NT dollar to rapidly appreciate against the U.S. dollar, not did it serve to avoid the occurrence of the so-called financial "high fever" that resulted in many speculative activities.

The most important event in the 1980s, however, was the lifting of Martial Law in 1987 and its profound and adverse effect on social order and political stability. Society as whole suffered for a while from social disorder and political conflicts which in turn led to a deterioration in willingness to invest in Taiwan. By 1991, however, Taiwan seemed to have overcome the challenges posed by these new developments, and had resumed its growth trend.

1. Financial "High Fever"

In 1987, Taiwan's foreign exchange reserves rose to as much as US\$76 billion and the gross saving to GNP ratio was 38.5 percent. However, there were few avenues along which to channel this massive amount of funds. As a result, the rate of interest dropped sharply and many banks became reluctant to accept deposits. Many underground investment companies took advantage of this opportunity to attract

private savings with high interest rates. These illegal investment operations usually engaged in speculative activities involving real estate or the stock market. Consequently, the price of real estate skyrocketed and the stock market became extremely volatile. Between 1987 and 1989, the price of real estate increased by three to five times and the price of land rose from ten to one hundred times. The prices of stocks rose by as much as fifteen times in only three years.

Ironically, at the peak of trading activity, one-fifth of Taiwan's population was engaged in the trading of stocks and the daily value of stock transactions rose to as high as 5 percent of GNP. In addition, from north to south, the island was swept with betting activities. These activities have resulted in a deterioration of the work ethic and the investment climate and have worsened the income distribution.

Due to the accumulation of a large trade surplus, successive increases in the prices of stocks and the sluggish economic performance of certain major trading partners, the NT dollar appreciated rapidly against the U.S. dollar -- by 53 percent between January 1986 and January 1989. This reduced the competitiveness of Taiwan's products in the world market and many export-oriented enterprises faced crises in the late 1980s.

2. Social and Political Chaos

Prior to the ending of Martial Law, Taiwan's society was much more stable and

safer. When Martial Law was lifted, there were many social movements, which took the form of labor-management disputes, environmental protests, farmers' movements and student demonstrations. These movements have no doubt served to reduce the willingness to invest in Taiwan.

(1) Labor-Management Disputes

The disputes between labor and management mainly originated from the implementation of the Labor Standards Law and had the backing of ambitious politicians. From 1986 through 1989, labor disputes frequently took place in both public and large private companies and were focused upon retirement and severance payments, overtime pay and the distribution of year-end bonuses. The disputes resulted in strikes that forced many enterprises to invest outside Taiwan.

(2) The Environmental Protection Movement

In the early stages of Taiwan's industrial development, environmental pollution was ignored, so that pollution became a serious problem and environmentalist sentiment grew very strong. Consequently, many plants and factories were unable to be established as intended due to local residents' protests, and many public works projects could not be finished by their expected completion dates due to local opposition.

(3) Political Conflicts

The lifting of Martial Law resulted in a time of great difficulty for the government. The government seemed to lose control over the changes occurring in society and illegal activities such as strikes, street demonstrations and protests were common. The crime rose dramatically. The most serious problem, however, was the political conflict which came about. A small group of people initiated a separation movement which, if successful, would not only divide the people on the island but would also provoke military action from Mainland China.

Comparatively speaking, the financial "high fever" has brought about a deterioration in the work ethic of many people and the social and political chaos has resulted in political instability which has led to a worsening of the investment climate and forced many enterprises to move off the island.

IV. An Analysis of Responses and Rapid Adjustment

Faced with so many internal challenges, how did the government and enterprises respond to them and adjust?

In order to cool down the financial frenzy and eliminate speculative activities

in real estate and the stock market, the government adopted a tight monetary policy which entailed controlling the money supply, raising the required reserve ratio and imposing constraints on the supply of credit to real estate traders. The government also adopted effective measures to check the activities of these traders. To deal with pollution concerns, the Environmental Protection Administration was established in 1987 and factories were encouraged to purchase pollution control equipment by means of fiscal incentives. To improve the investment climate, the government initiated the Six-year National Development Plan which aimed to improve the infrastructure and also social and political conditions by means of a series of effective measures. As a result, the social and political chaos has gradually been diminished.

Many small and medium-scale enterprises, in order to survive, moved their operations off the island and invested in ASEAN countries and Mainland China since these areas have offered preferential treatment and have abundant supplies of cheap labor and low-cost land. Between 1987 and 1991, the volume of Taiwan's exports to ASEAN and Mainland China has greatly increased, and this has resulted in big trade surpluses with these areas.

As we move into the 1990s, Taiwan has overcome many of the difficulties caused by the various internal challenges. The financial "high fever" has cooled down in the sense that underground investment activities have disappeared, the price of real estate has fallen by between 20 and 30 percent and the stock market has resumed more "normal" operations. However, what is most important is that the

social and political chaos has subsided. There are no longer labor-management disputes, the political conflicts have become more peaceful and the environmental protection movement, while still making its presence felt sometimes, has become less radical.

The exceptionally quick adjustment may be attributable to four factors. The first is the wealth of the people. Taiwan society has grown richer and a large middle class has emerged. People are happy and preoccupied with today's achievements and wealth and do not want to have a radical change. The second is the absence of an unemployment problem. In the 1980s, the average unemployment rate in Taiwan was a mere 2.1 percent and many industrial sectors have in fact suffered from a shortage of labor. Third, there is no debt problem. Many people, when engaging in stock market or underground investment activities, are used to utilizing their own savings rather than borrowing money. Fourth, Taiwan's many small businesses are resilient and flexible. During tough financial times, small businesses are quick to adapt to new conditions.

V. Prospects for Future Economic Development

As mentioned above, during the 1980s, even in spite of suffering from many

economic impacts and political disturbances, Taiwan still achieved a high average economic growth rate of 8 percent, mild inflation of 3.2 percent and an unemployment rate of only 2.1 percent. Foreign debt became negligible and a trade surplus consistently occurred in every year resulting in foreign exchange reserves totalling US\$82 billion in 1991.

In view of the recent developments that have taken place in respect of Taiwan's internal and external conditions, many people are worried about the deteriorating investment climate and the "hollowing out" problem in Taiwan's manufacturing sector. But we are still optimistic about the future. This optimism is based on two assumptions. First of all, the relationship between the two sides of the Taiwan Strait can be further improved since the achievements stemming from the Mainland's economic reforms over the last twelve years have enhanced the confidence of policy-makers and any form of economic cooperation is likely to be very helpful to the Mainland's economic development. Secondly, political and social stability in Taiwan can be further improved, in view of the fact that the people of Taiwan realize that these must be maintained for further economic growth.

As for Taiwan's economy in the 1990s, it is unlikely that Taiwan will maintain a high growth rate, but it should be able to achieve a moderate growth rate of, say, 6 to 7 percent. This is due to the fact that production costs must include social costs which will reduce the competitiveness of Taiwan's exports. In addition, the

formation of regional blocks, such as the North American Free Trade Zone and the European Single Market, may also become a threat to free trade. It can be expected that the implementation of the Six-year National Development Plan will substantially improve the investment climate and that the enforcement of the Statute for the Upgrading of Industries will increase Taiwan's ability to compete in the world market. A mild rate of inflation will probably remain, however, but it will only be slightly higher than that recorded in the 1980s. Unemployment is not likely to be a serious problem, but the government's ability to raise finance may well become one because the Six-year National Development Plan will need a large amount of money to support its implementation.

Selected References

1. Yu, Tzong-shian, "An Analysis of the Present Taiwan Economy", Occasional Paper, No. 9102 (March 1991), Chung-Hua Institution for Economic Research.
2. Yu, Tzong-shian, "Achievement in Taiwan's Economic Development -- A Miracle?" Occasional Paper, No. 9107 (September 1991), Chung-Hua Institution for Economic Research.
3. Yu, Tzong-shian, "A Quick Adjustment of Taiwan to an Enhanced Economic Position in the World," delivered at the 1992 East Asia Petrochemical Industry Conference, (May 21-22, 1992), Taipei.

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)