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Trade and economic development in Taiwan

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Taiwan’s remarkable growth record has been the result of an outward-looking, export propelled development strategy. Recently unfavourable political and economic events have adversely affected Taiwan’s economy. This article analyses the country’s economic development and appraises its future prospects.

Taiwan’s economic performance during the past two decades has been widely hailed as an example of successful take off into sustained growth. Even as late as 1961, its per capita income in current prices was a mere US $128, but by 1975 this was reported to have reached US $700, despite the fact that population during that period increased by 45 p.c. to 16.1 mn. From 1953 (the year when Taiwan launched its first Four-Year Plan) to 1975, its Gross National Product (GNP) grew at an average annual rate of 8 p.c. in real terms. The total value of foreign trade (exports plus imports) increased from only US $289 mn in 1950 to US $11,253 mn in 1975. Even though the latter amount represented a decline of 10.7 p.c. on 1974, it was still much higher than that of many a larger country, such as the People’s Republic of China and India. Exports per head rose from US $15 in 1953 to US $330 in 1975, while imports per head rose from US $23 to US $368 during the same period.

The remarkable growth record has been the result of an outward-looking, export-propelled development strategy adopted in the early sixties. While credit must be given to efforts made in the earlier period of post-war rehabilitation and stabilisation, there can be no doubt that the new strategy has ushered in an era of accelerated expansion in national income, industrial production, and foreign trade. Moreover, until 1972 this rapid growth had been accompanied by negligible inflation. Since 1971, however, the island has been shaken by a number of external events over which it has little control. One group of events, non-economic in nature, has led to Taiwan’s isolation from the world scene. In addition to being expelled from the United Nations, Taiwan has had to sever diplomatic relations with many countries which have recognised Peking as the sole legitimate government of China. The second group of events has to do with world economic disorder: “stagflation”, oil crisis, rising protectionism, and currency tumults, which in one way or another have adversely affected Taiwan’s economy. In view of such uncertainties, the question naturally arises as to whether Taiwan can successfully cope with the new challenges in a rapidly changing world. This article analyses briefly the course of economic development in Taiwan and appraises its future prospects.

The early post-war years were devoted to the rehabilitation of the war-ravaged economy under Japanese rule. The task was vastly complicated by the defeat of the nationalist government on mainland China and its evacuation, together with a large number of troops and civilian refugees, to Taiwan in 1949. The island was then also engulfed by a vicious hyper-inflation. Thanks to US aid and a series of stabilisation and reform measures (including currency reform and land reform), the economy gradually settled down. By 1953, hyperinflation had been brought under control and real income per head had reached the pre-war peak despite a 60 p.c. increase in population. Moreover, a formal US defence commitment gave a tremendous psychological boost to the government and people of Taiwan, and effectively ensured a prolonged period of peaceful economic development.

Developments during the Fifties

The development strategy during the fifties can be characterised as basically one of import-substitution. The overriding aim was to build up infant industries to cater for a domestic market hitherto dominated by foreign suppliers. This strategy was accompanied by the usual paraphernalia of import
controls, high tariff walls (with effective rates much higher than the nominal rates), overvalued multiple exchange rates and exchange controls, undervalued and discriminatory interest rates, credit rationing, and direct controls on industries. For a time this policy resulted in rapid growth of light industries such as textiles, apparel, wood products and furniture, printing, and leather manufactures. But towards the latter half of the fifties it became evident that the easy phase of import-substitution was over. Industrial growth slowed down while balance-of-payments difficulties persisted.

There are many reasons why an inward-looking import-substitution strategy, however necessary during the transitional period, ceased to be appropriate if the economy was to maintain its sustained growth. The complex system of controls and discriminatory rates gave rise to distortions in the price structure which no longer reflected relative scarcities, and also inefficient allocation of resources. Protected industries which outgrew the infant stage had become high-cost producers without benefiting home consumers. Exports were discouraged because of the over-valued domestic currency and high tariffs on intermediate goods required as inputs for export industries. The terms of trade favoured the import-substituting sector at the expense of the export sector, then still dominated by primary products. The divergence between official and market exchange rates was so glaring that businessmen devoted most of their time and energy to the acquisition of official foreign exchange and import quotas. More serious, the small size of the domestic market inhibited future growth, as plants of minimum optimal scale could hardly be established. The same market consideration, plus the high capital-output ratio, also precluded the extension of import-substitution from light consumer goods to intermediate products, machinery, and consumer durables. Moreover, reduced demand for sugar, rice and other primary products in traditional markets such as Japan made it unprofitable to continue reliance on the exports of agricultural products.

Faced with this dilemma, an export-promotion strategy, with emphasis on labour-intensive light manufactures, making use of Taiwan's abundant, cheap and highly literate labour force, appeared to be the only logical answer. Taiwan's compara-
tive advantage could then be fully exploited. In addition, by exposing the hitherto protected industries to the full rigours of international competition, production would be made more efficient through the operation of the "learning curve", and incentives would be provided for more product innovations and technological progress.

**Facilitation of Export-led Growth**

Aided and abetted by its American advisers, the Taiwan Government in the late fifties and early sixties carried out a series of reforms to facilitate export-led growth. It is impossible in this brief article to discuss them in detail, suffice it to say that they fell under the following main categories:

- **Exchange Rate Reforms** — The multiple exchange rate system was first simplified and finally abolished, while the overvalued domestic currency was adjusted in several steps downward to bring about a more realistic exchange rate. Thus the New Taiwan Dollar (NT $) was devalued, during 1958-61, by 50-80 p.c., depending on the type of transaction. By 1963 a single official rate was in force, and the discrepancy between official and market rates virtually disappeared.

- **Import Quota and Tariff Reforms** — Tariffs were gradually reduced and import restrictions liberalised. The price of domestic goods was not allowed to exceed their "import costs" by a certain margin, which was in turn cut from 25 p.c. in 1958 to 10 p.c. in 1969. A large number of import items were also removed from the control list.

- **Export Promotion** — This took the form of tax rebates on raw materials, foreign exchange entitlements for importing essential inputs, low-cost export loans to the private sector (hitherto enjoyed only by the public sector).

- **Encouragement of Foreign Investment and Establishment of Export-Processing Zones** — A new investment law was enacted in 1960 to encourage direct investment by foreign and overseas Chinese capital through tax incentives and foreign exchange entitlements. Export-processing Zones (EPZ) were set up, first in the port of Kaoshiung, then in Nantze and Taichung, to provide cheap land and infrastructural facilities as well as tax benefits to approved export industries with a minimum of red tape. The EPZ' s have been particularly effective in attracting multinational corporations which possess worldwide marketing facilities, and overseas Chinese entrepreneurs seeking a stable and favourable investment climate.

**Favourable Effects of the New Strategy**

The favourable effects of the new strategy and its associated reforms on trade and economic growth have been dramatic. As shown in Table 1, the growth rates of real GNP, per capita income, exports and imports accelerated after 1960. The rapid expansion of exports was especially noticeable, the growth rate having quadrupled to an average of 25 p.c. during 1960-75. Industrial output also grew at a high rate, though here it has to be noted that for different reasons the manufacturing sector also expanded rapidly during the "easy" phase of import-substitution during 1952-55. Inflation, as measured by the implicit GNP deflator, decelerated sharply during 1960-65, but showed signs of acceleration in recent years due to exogenous pressures.

**Table 1**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GNP</td>
<td>8</td>
<td>5</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Real Per Capita Income</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Manufacturing Output</td>
<td>17</td>
<td>11</td>
<td>15</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Exports</td>
<td>6</td>
<td>6</td>
<td>22</td>
<td>27</td>
<td>29</td>
</tr>
<tr>
<td>Imports</td>
<td>8</td>
<td>8</td>
<td>14</td>
<td>22</td>
<td>31</td>
</tr>
<tr>
<td>Implicit Deflator for GNP</td>
<td>11</td>
<td>9</td>
<td>2</td>
<td>5</td>
<td>11</td>
</tr>
</tbody>
</table>

**Source:** Derived from Taiwan Statistical Data Book and Monthly Statistics of the Republic of China.

Much of the success in accelerated growth after 1960 can be attributed to the export-propelled mechanism. As value added by exports is a part of GNP, any increase in the former implies an increase in the latter, particularly when the ratio of exports to GNP is increasing, as it did in Taiwan. From 1951 to 1975 this ratio rose from slightly less than 10 p.c. to 37 p.c. Exports also affect growth of course through the familiar multiplier and linkage effects on other sectors of the economy. A study based on input-output tables shows that through the inter-industry repercussion effect, one dollar's worth of exports gave rise to an increase in Gross Domestic Product (GDP) of $ 1.65 in 1964, $ 1.69 in 1966, and $ 1.72 in 1969. Such increases expressed as fractions of GDP amounted to 16.8 p.c. in 1964, 21.3 p.c. in 1966, and 26.2 p.c. in 1969. No less important is the fact that exports are the primary source of foreign exchange which is widely regarded as a critical development constraint. In Taiwan's case, the proportion of imports financed by exports increased sharply from an average of 54 p.c. in the fifties to 75 p.c. in the sixties and well over 90 p.c. in the seventies. Since the pre-

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dominant proportion of imports has consisted of capital goods and raw materials essential for industrial production, the importance of exports as a financing agent as well as a determinant of growth can hardly be over-emphasised. Last but not least, an export-oriented strategy means that domestic industries are subject to the discipline, pressures and incentives of an international competitive market which are conducive to efficiency, innovations and technical progress. All these would be lacking if industries only produced for a captive home market. Economies of scale can also be more effectively exploited under export-led growth. Thus it is not surprising to find that the index of labour efficiency, which remained relatively stagnant during the fifties, doubled during the period 1960-69.

**Structural Changes**

The structure of trade also underwent important changes. Under the Japanese rule and during the early post-war period, exports almost consisted solely of crude primary products (mainly rice, sugar, bananas, and tea) and processed agricultural products (mainly canned pineapple, mushrooms and asparagus). In 1952, such products accounted for no less than 95 p.c. of total exports. By the first nine months of 1975, their share had fallen to 10.2 p.c. The share of manufactured products, on the other hand, rose dramatically from 4.8 p.c. to 76.9 p.c. during the same period. Among the leading export industries now are textiles, clothing, electronics, plywood and wood products, metal products, and light machinery. On the import side, the share of capital goods had more than doubled from 13.1 p.c. in 1952 to 33.2 p.c. in the first nine months of 1975. Capital goods and raw materials (both agricultural and industrial) now regularly account for over three-fourths of total imports. The changing structure of external trade is itself an indicator of the success of industrialisation.

This outward-looking trade-oriented development has also been accompanied by important structural changes in the whole economy. Taiwan used to be a basically agricultural country dependent on only a few primary products. The past two decades have seen its steady transformation into an industrial economy, with its national income derived principally from the industrial and service sectors. This can be shown clearly in Table 2. Thus, the share of the primary sector (agriculture, forestry, fishery and livestock) in net domestic product fell from 35.7 p.c. in 1952 to 16.8 p.c. in 1974, while that of the manufacturing sector rose from 10.8 p.c. to 30.9 p.c. during the same period. The shares of construction, transportation and communication, and public utilities also showed appreciable growth.

### Table 2

**Industrial Origin of Net Domestic Product**

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture, forestry, fishery &amp; livestock</th>
<th>Manufacturing</th>
<th>Public Utilities</th>
<th>Construction</th>
<th>Transportation and Communication</th>
<th>Mining</th>
<th>Commerce</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>35.7</td>
<td>10.8</td>
<td>0.6</td>
<td>4.4</td>
<td>3.8</td>
<td>2.1</td>
<td>18.7</td>
<td>23.9</td>
</tr>
<tr>
<td>1955</td>
<td>32.5</td>
<td>13.7</td>
<td>0.7</td>
<td>4.8</td>
<td>4.0</td>
<td>1.7</td>
<td>16.8</td>
<td>25.8</td>
</tr>
<tr>
<td>1960</td>
<td>32.5</td>
<td>16.7</td>
<td>1.3</td>
<td>4.4</td>
<td>4.1</td>
<td>2.3</td>
<td>14.4</td>
<td>24.3</td>
</tr>
<tr>
<td>1965</td>
<td>27.0</td>
<td>19.9</td>
<td>1.8</td>
<td>4.6</td>
<td>4.8</td>
<td>1.9</td>
<td>14.9</td>
<td>25.1</td>
</tr>
<tr>
<td>1970</td>
<td>17.6</td>
<td>25.9</td>
<td>2.2</td>
<td>4.6</td>
<td>5.8</td>
<td>1.5</td>
<td>13.2</td>
<td>29.3</td>
</tr>
<tr>
<td>1974</td>
<td>16.8</td>
<td>30.9</td>
<td>2.3</td>
<td>5.5</td>
<td>5.1</td>
<td>1.2</td>
<td>11.5</td>
<td>26.7</td>
</tr>
</tbody>
</table>

*Source: Taiwan Statistical Data Book, 1975.*

The rapid growth of labour-intensive manufacturing industries has also resulted in an above-average performance in labour absorption — a task which many development economists regard as of overriding importance to the less developed countries (LDCs). Thus from 1965 to 1975, total employment in Taiwan grew at an annual rate of 4.5 p.c., while manufacturing employment grew at an annual rate of 9.4 p.c.

Another favourable consequence of the export promotion strategy and the associated programme of exchange reform and more liberalised investment climate has been the steady improvement in Taiwan's balance of payments. In the fifties, Taiwan's development efforts were severely constrained by chronic shortage of foreign exchange, which had to be relieved mainly by US aid. From 1963 onwards, Taiwan has been able to achieve overall surplus during the major sub-periods. Even though it normally runs a deficit on merchandise trade account, this has usually been more than offset by capital inflow and other invisible income. Tourism for example has been greatly helped by the exchange rate reform. Thus Taiwan's overall balance changed from a deficit of US $34 mn during 1960-62 to a surplus of US $184.2 mn during 1963-65, US $396.9 mn during 1966-70, and US $1,084 mn during 1971 to 1974. Currently Taiwan's foreign exchange reserves have been estimated at about US $2,200 mn. Because of its much improved payments situation, Taiwan has ceased to receive US aid, except for some military credits, since 1965.

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3 [Liang and Lee, loc. cit., p. 279.](#)

4 The export and import figures are based on the latest available data released by the Inspectorate-General of Customs.


6 The balance of payments data are taken from Taiwan Financial Statistics Monthly, published by the Central Bank in Taiwan.
As mentioned at the beginning of the article, several developments in the seventies have cast a shadow of uncertainties over Taiwan's future. Particularly disconcerting for Taiwan was China's rapprochement with the United States and Japan. For a short time there were signs of unease, reflected mostly in the decline of foreign investments in 1971-72. There were also some emotional attempts to launch an economic boycott against Japan, such as the termination of air services between Taipei and Tokyo, and government directives to the private sector to switch their imports from Japan to other sources. However, when the initial shocks were over, the Taiwan authorities began to adopt a much more realistic and flexible approach to the changed international situation. The current policy is to promote and strengthen trade and economic ties even with those countries with which Taiwan has severed diplomatic relations. The rationale for this policy is that Taiwan can survive and prosper as a sovereign entity so long as its economy remains strong. Symbolic of this approach was the restoration of air links between Taipei and Tokyo after an 18-month ban, in October 1975.

**Damaging World Economic Crisis**

Given the emphasis on economic viability, the worldwide economic crisis, which reached its peak in the "slumpflation" of 1974-75, has proved to be more damaging for Taiwan. The rapid industrialisation during the sixties had been accompanied, as we had seen, by a remarkable price stability. However, inflation, largely transmitted from abroad, raised its ugly head once again in 1973-74. As measured by consumer price index, the rate of inflation shot up to 8.1 p.c. in 1973 from only 3 p.c. in 1972. In early 1974 the Government had to abandon its price control scheme and resorted to tighter monetary and fiscal policy. Initially, the decontrol of prices resulted in an across-the-board upward adjustment, and the inflation rate for 1974 rose to as high as 47.5 p.c. The Government's stabilisation programme began to work in 1975, and the inflation rate for that year fell sharply to 5.4 p.c., though this was probably accomplished at the expense of considerable slow-down. Thus although during 1970-75 Taiwan's real GNP still had an average growth rate of around 8 p.c., the rate was only 0.6 p.c. for 1974 and 2.8 p.c. for 1975. On a per capita basis, however, there was actually a negative growth for both 1974 and 1975. In foreign trade, the continuous upturn of exports, on which Taiwan's economic development has been so heavily dependent, was rudely interrupted, and the total value of exports for 1975 declined by 5.6 p.c. as compared with 1974.

Because of the world economic crisis, Taiwan's sixth Four-Year Economic Plan was scrapped at the end of 1975 before its completion. Instead, a new Six-Year Plan for 1976-81 has been outlined. According to press reports, the Economic Planning Council, the highest economic planning body in Taiwan, has set a target growth rate of 7.5 p.c. per annum in real terms for the next six years. It has been also forecast that by 1981, Taiwan's per capita income will reach US $ 1,300 and exports will reach US $ 11,500 mn, both measured in constant 1975 prices. Salient features of the Plan include the completion of ten infrastructural projects (six on transport, the others on shipyard, integrated steel mill, nuclear power plant, and petrochemical complex), rural modernisation and mechanisation, and search for oil and gas, both onshore and offshore. The overall aim is to diversify and strengthen the economic base by a gradual shift from labour-intensive to capital- and technology-intensive industries. However the export-led development strategy, which has proved so successful in the past, will be continued. The Government will also encourage the establishment of bigger trading companies to promote export marketing to counter increasing competition from other low-wage countries, particularly South Korea.

The announcement of the new Plan came at a time when there were growing signs of economic recovery in Taiwan. However, the Government has wisely resisted the temptation to follow South Korea in devaluing its currency, for fear that any short-term gains from increased exports will not compensate for the losses that may emanate from yet another inflationary spiral.

In sum, Taiwan's development experience during the past two decades is a vivid example of how a dualistic economy can successfully modernise and industrialise itself through an outward-looking development strategy. To be sure, no policy is ever perfect, and one price which has to be paid for such a strategy is the dependence on overseas markets and hence the vulnerability on the economy to cyclical fluctuations abroad. But all things considered, this price has been shown to be very small compared with the stagnation or even retrogression of those LDCs adopting an inward-looking strategy. With the world economy at last showing signs of recovery and ability to adjust to the energy crisis, the prospect is reasonably good for a sustained growth of the Taiwan economy, though the rate of growth will in all probability be much lower than that in the halcyon days of the sixties.

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7 There have been a number of studies comparing the development experience of Taiwan and South Korea, which follow more or less the same strategy. See for example B e l a B a l a s s a, Industrial Policies in Taiwan and Korea, Weltwirtschaftliches Archiv, 106, 1971, pp. 55-76; and J. C. H. F e i and G. R a n i s, A Model of Growth & Employment in the Open Dualistic Economy: The Case of Korea and Taiwan, Journal of Development Studies, Jan. 1975, pp. 30-63.