

L.5.2

RFD 349

Board of Governors of the Federal Reserve System

Division of International Finance

REVIEW OF FOREIGN DEVELOPMENTS

September 6, 1960

Inflation: Taiwan Revisited

6 pages

Reed J. Irvine

NOT FOR PUBLICATION

This Review is intended primarily for internal circulation and should in no case be cited or quoted. It consists of personal and informal contributions by the author, which in many cases represent tentative analyses of the subject considered.

September 6, 1960

Inflation: Taiwan Revisited

Reed J. Irvine

Inflationary pressures have manifested themselves in sharp price increases in Taiwan over the past several months. The wholesale price index rose 9 per cent in the first four months of 1960, while the cost-of-living index rose by more than 10 per cent. Both indexes declined a little in May and moved up again in June. By contrast, during the first half of 1959, the wholesale price index showed an increase of only 3 per cent, and in the previous year prices declined slightly in the first half. There had been an 8 per cent rise in wholesale prices in the second half of 1959, but this was generally attributed to the physical destruction and the psychological effects of the floods that occurred in August. The continuation of the price rise this year would seem to bring the validity of this explanation into question. However, there has been a persistent tendency to ascribe most of the blame to last year's flood and a drought which occurred early in 1960 which for a time interfered with the planting of this summer's rice crop.

The fact that rice prices have skyrocketed this year, rising in June to over 50 per cent above the level of December 1959, has tended to lend weight to the view that a shortage in the supply of rice has been responsible for the price rises.

The easy plausibility of this assumption has tended to divert attention from the fact that monetary factors have again been at work in Taiwan in building up pressure on prices.

The rice shortage mystery

The rice-shortage explanation is actually something of a mystery since available statistics do not confirm the existence of a decline in rice supply. The rice available for consumption in the first half of this year was harvested last November. The 1959 fall harvest was the second largest in history, amounting to 926,000 metric tons of brown rice. This was 3 per cent above the average of the previous five years; it fell short of the record November 1958 harvest by 34,000 tons, but it would be wrong to conclude from this that there was less rice available for internal consumption in the first half of 1960 than in the same period in 1959. Exports during January-June 1959 amounted to 89,000 tons, compared to net exports of only 11,000 tons in the first half of 1960. These figures indicate that there was actually 44,000 tons more rice available for domestic use from the 1959 fall harvest than there had been in 1958. It appears that the amount of rice drawn from stocks in the first four months of 1960 was about the same, or perhaps a little larger, than the amount drawn from this source in the same period in 1959. Clearly, the upsurge in rice prices this year cannot properly be attributed to reduced supplies.

The crop affected by the February drought was harvested in July 1960, and was not a factor in the supply situation this spring. Judgments about supplies in the latter half of this year might have affected the movement of private stocks, but even this seems unlikely. The area planted was only slightly smaller than normal,

and this was known early in the season. The July harvest, while not as good as those of the four preceding years, was only 3 per cent below the 1959 summer crop. Given the virtual cessation of exports, it appears that more rice will be available for domestic consumption from the 900,000 tons harvested in July 1960, than was available from the 930,000 tons harvested in July 1959.

The rise in rice consumption

Taiwan has a rapidly expanding population; at the present time the annual increase amounts to about 400,000 persons a year. This means that food supplies must increase to prevent a decline in per capita consumption. In determining whether or not the upsurge in rice prices has resulted from a failure of supply to keep abreast of population growth, we need to examine the figures of rice supplies per capita. It appears that this year the supply of rice is likely to reach 147 kilograms per capita, the highest figure in the last five years.<sup>1/</sup> This assumes no additional net exports and no build-up of official stocks above the end of April figure. If supplies were to be kept down to the per capita level of 1959, either stocks or exports could be increased by around 34,000 tons, and if 1956 were used as a parameter of domestic consumption, 113,000 tons could be spared. It cannot be said that the rising population has meant a decline in per capita consumption of rice.

The problem is rather one of an excessive expansion in per capita consumption. Per capita consumption of rice in Taiwan is higher than all but two other Asian countries. In the crop year 1955-56, the latest year for which comparative figures are readily available, per capita annual rice consumption in Taiwan was 138 kilograms, compared with 108 kilograms in Japan, 114 in South Korea, 115 in Malaya, and 93 in Indonesia. Only the Thais and Burmese consumed more rice than the inhabitants of Taiwan, viz., 152 and 148 kilograms respectively. Since 1956, per capita consumption in Taiwan has risen sharply, and even then it was well over a third above the 1938-39 level. This indicates that consumption levels today are not only high in relation to other neighboring countries but are very high in relation to the historical pattern for Taiwan. The logical conclusion from this observation, and it is one that has applied for several years, is that the people of Taiwan have been encouraged to increase consumption of rice at an excessive rate.

With consumption at such a high level, it seems reasonable to believe that a moderate reduction in the supply per capita would not cause a sharp price rise, other factors remaining constant. Thus, even if the estimates of the supplies available this year were way off and there were actually some diminution in supplies available per capita, it seems quite unlikely that this could explain the 50 per cent rise in the price of rice.<sup>2/</sup>

---

<sup>1/</sup> The computations on which this is based are appended.

<sup>2/</sup> It should be noted that the Taiwan rice price in no way reflects the world market price, which has shown little change in this period.

The monetary pressure on prices

If shortfalls in the supply of rice do not explain the price increase, what does? The answer appears to lie in the re-emergence of monetary inflation in Taiwan. Rice is by no means the only commodity that has risen in price, though its behavior has been the most spectacular. Cement prices rose even more than rice in the first four months of the year, but have since receded. Medicines have risen 35 per cent, while vegetable oil, beverages, tobacco and wine, metals and manufactures, and rubber and manufactures have all risen 10 to 15 per cent in the first half. The upward trend has not been uniform. There have actually been price declines in the fuel and electricity and miscellaneous categories, while clothing has been virtually unchanged. While special factors, such as a propensity to hoard rice when confidence is impaired, must explain the disparate rates of price increases, it seems clear that some strong general upward pressures have been at work in Taiwan.

Money supply quite clearly played a role in the price upsurge experienced in the early months of this year. From the end of November 1959 through January 1960, money supply rose 13 per cent. This compares with an increase of less than 7 per cent in the same period the previous year and less than 3 per cent in the comparable period in 1957-58. Clearly there was an extraordinary loosening of the reins in this period. Where the responsibility lies can be seen in the following breakdown of the factors influencing money supply.

<u>Factors increasing money supply</u>	<u>Millions of NT dollars</u>
Claims on Government	143
Claims on official entities	321
Claims on private sector	149
Unclassified assets	111
Government deposits (decrease)	13
Counterpart releases	417
Capital accounts (decrease)	83
Total	<u>1237</u>
 <u>Factors decreasing money supply</u>	
Foreign assets (decrease)	96
Time and saving deposits	29
Unclassified liabilities	403
Total	<u>528</u>
 Net increase in money supply	 709

It is interesting to note that the largest single factor swelling money supply during this two month period was the release of counterpart deposits. The

counterpart account had long performed a counter-inflationary function. Total counterpart deposits reached a peak of NT\$2.3 billion in September 1959, but by the end of January they had been reduced to NT\$1.76 billion. By April, the total was down to NT\$1.3 billion, the lowest in over 5 years.

Hand in hand with this heavy release of counterpart came a very substantial expansion of credit to the Government, government enterprises and the private sector. The excuse for the relaxation was the need for rehabilitation after the August flood, but it is very likely that this excuse was abused. The increase in credit extended to the Government and government entities in these two months exceeded total credit increase to these sectors in either of the two previous years. The rate of increase, which had been 14 per cent in 1959, rose to 48 per cent in these two months. Credit to the private sector, on the other hand, actually rose at a slower rate than had prevailed in the two previous years. Private credit has been expanding at a very high rate in Taiwan since 1953; in 1958 and 1959 it grew at a rate of 41 per cent a year. However, this was cut to an annual rate of 24 per cent during the two months in question, and it has remained at or below this rate during the first half of 1960.

The rate of increase of time and savings deposits has also been sharply reduced. This could reflect either diminished confidence in the currency or a switch of these assets to bonds floated by private firms, public enterprises and the government.

### Role of The Bank of Taiwan

It should also be noted that the credit expansion originated for the most part with the Bank of Taiwan. The other banks during the two month period actually reduced their loans to Government and government entities. They provided most of the increase to the private sector, but they were aided in this by a substantial expansion in their loans from the Bank of Taiwan. These banks increased their borrowings from the Bank of Taiwan by NT\$125 million, which was just the amount that they increased their loans to the private sector during this period. The Bank of Taiwan bears considerable responsibility for the rapid rate of credit expansion to the private sector in recent years, having greatly increased its direct lending to the private sector since 1953. At that time, it accounted for less than 10 per cent of the credit to this sector. At present, it accounts for more than 25 per cent of such credit. This is not a healthy situation; the Bank of Taiwan has become increasingly a competitor as well as regulator of the other commercial banks.

### "Tight Money"

The unusually heavy injection of new money into the system in November 1959-January 1960, following a period of several months in which prices had been moving upward, seems to have set the forces in motion that boosted prices sharply in the following months even though money supply was contracted. One important effect appears to have been a sharp increase in the velocity of circulation between January

and April, the deposit turnover rate rising by 13 per cent. Money supply declined slightly between January and May, chiefly because of a 20 per cent contraction in credit to government entities. At the same time, credit to the Government and to the private sector rose at annual rates of 11 and 16 per cent respectively, which is less than the rate of increase in the same period in 1959. The counterpart fund, on the other hand, had a net expansionary effect in this period. Over NT\$400 million was withdrawn from the fund in April alone. This was largely offset by net payments into the fund of NT\$380 million in May, and it is reported that large net receipts were also recorded in June.

The Bank of Taiwan contracted its loans to other banks sharply in February, reducing them from NT\$501 million to NT\$186 million. However, by the end of May the total was up to NT\$436 million.

During these months, complaints from the business community of tight money were frequently heard. Despite sharp price increases for many commodities, business was said to be sluggish and demand weak in some sectors. Mr. K. Y. Yin, the recently appointed Chairman of the Bank of Taiwan, has in effect publicly challenged businesses to disgorge their inventories, which he claims are very high.

It appears clear that the Government was striving in these months to squeeze out some of the excess liquidity that had been injected into the economy. That it has achieved some success is indicated by the leveling off of the rise in the wholesale price index since April. If the screws are kept on and if inventories are abundant, it is quite possible that liquidation may be forced and prices may recede as dramatically as they have risen. However, a large budget deficit is in prospect this year, and it remains to be seen whether the damage that has already been done can be repaired.

The retrogression from stability seen during the past year has not helped the plan to use Taiwan as a special showcase for economic development. Taiwan has persistently shown a propensity to channel increases in productivity into higher consumption rather than into less dependence on external assistance. The latest inflationary binge, which has virtually eliminated a major source of foreign exchange earnings, rice exports, has taken Taiwan further from the goal of self-sufficiency.

Taiwan's Rice Supply  
1956-1960

(Millions of kilograms of brown rice)

	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u> <sup>2/</sup>
Production					
Fall crop <sup>1/</sup>	904	883	907	960	926
Summer crop	907	932	934	930	900
Total	<u>1811</u>	<u>1815</u>	<u>1841</u>	<u>1890</u>	<u>1826</u>
Net exports	109	122	179	153	11
Retained domestically	1702	1693	1662	1737	1815
Withdrawn from stocks (- for addition to stocks)	-80	83	100	100	160 <sup>3/</sup>
Total available for use	1622	1776	1762	1837	1975
Uses <sup>4/</sup>					
Animal feed	72	74	74	74	74
Seed	39	39	39	39	39
Manufacturing	10	14	14	14	14
Waste	32	35	35	37	40
Sub-total	<u>153</u>	<u>162</u>	<u>162</u>	<u>164</u>	<u>167</u>
Rice available for human consumption (brown)	1469	1614	1600	1673	1808
White rice (92% of above)	1,351	1,485	1,472	1,539	1,663
Population (millions)	9.8	10.1	10.45	10.8	11.3
Kilograms of white rice per capita	137.9	147.0	149.9	142.5	147.2

<sup>1/</sup> Of preceding year.

<sup>2/</sup> Based on data available in August 1960.

<sup>3/</sup> Through April 1960.

<sup>4/</sup> Data for 1956-57 from Taiwan Food Balance Sheets prepared by JCRR; data for subsequent years estimated.