From Competition to Constraint: The International Rice Trade in the Nineteenth and Twentieth Centuries

A. J. H. Latham
University of Wales, Swansea

To some, the rice trade was "The Devil's Business." To others, it was "The Grand National of Commerce." All agree that before the Second World War it was a trade marked by chiselling competition and ephemeral price levels [4, 14]. British rule in India, Singapore, and Hong Kong in the nineteenth century ensured a vast free-trade area in the East, and this provided the market base for an enormous expansion in the rice trade. Up to the 1860s, Bengal was a major exporter, particularly to Ceylon, but then Burma emerged as the leading exporter. To begin with, her rice went to Britain and to Europe. Britain consumed about half she imported and re-exported the rest to America, the Mediterranean, and Continental Europe. In Europe the rice was used for making alcohol, starch, and as animal feed. This Westward rice trade was a substantial one. In 1870, 545 ships carried 396,358 tons West and, in 1910, 579 much larger ships carried 1,521,181 tons [13]. But as the century progressed Burma's rice was increasingly diverted East. Population growth in Bengal meant that Calcutta could no longer export rice in such quantities and, as the Tamil communities in Ceylon preferred Indian qualities of rice, Burma rice came in instead. Similarly, Burma rice was used to supply the growing Indian population in Malaya, where they were working in sugar and rubber plantations. Rangoon rice was shipped to Penang and Singapore, and from there it was sent on up to the plantations. In Singapore, it met rice coming Westward from Siam and French Indo-China, which was being brought in to supply the Chinese working in the tin mines and plantations in Malaya and the Dutch East Indies. The Chinese favored the kinds of rice from these countries. So Singapore was a key re-distribution center in the world rice trade, handling rice coming East from Burma and West from Siam and Indo-China. Singapore, however, was not the only destination for rice from Bangkok and Saigon, for both supplied Hong Kong, the other focal re-distribution center. From there rice was sent to the rice-deficient provinces of Southern China, to Japan, Hawaii, and even California. The Philippines too were usually short of rice, but they were supplied directly from Saigon. The map shows the main flows in the international rice trade and confirms that there was a world market in rice [8].

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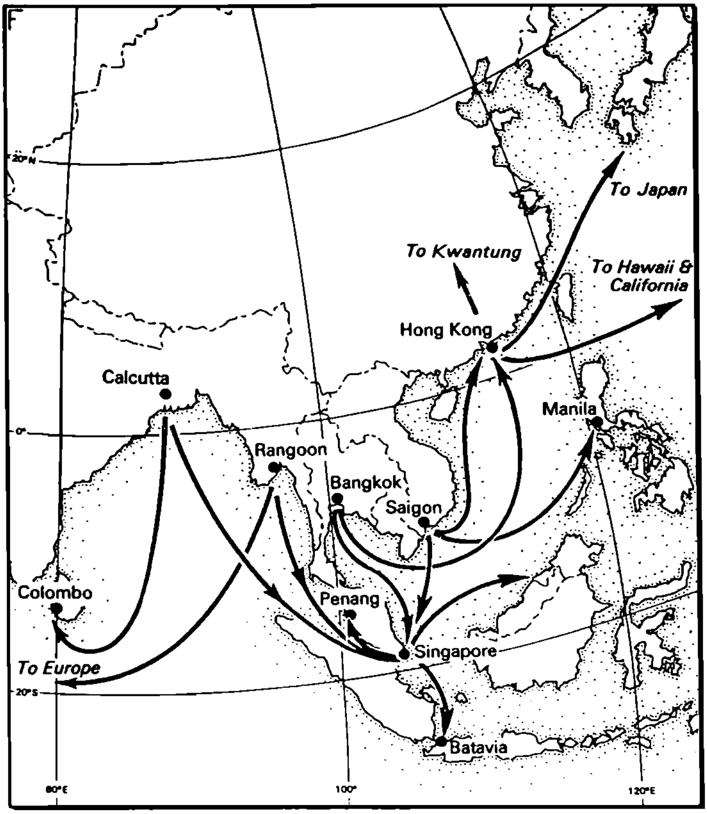
THE RICE TRADE c. 1910



Source: [9, p. 211]

The fact that rice was distributed widely does not prove it was allocated by market forces. For this to be true, it is necessary to demonstrate that prices of rice fluctuated in unison around the world. By examining the year-by-year changes in the average price of rice in the major importing and exporting countries, it can be seen that there was indeed a high Pearson correlation coefficient between each pair of series. This can be seen in the matrix given below. Interestingly, when similar price series for the world wheat market are examined, the correlation coefficients are similar but weaker. But when wheat prices are examined further, it emerges that they moved in line with rice prices too. The connecting link between the two markets was India, where both grains were produced, consumed, and exported. The correlation for wheat prices and rice prices across a spread of India's internal markets is 0.91. But India was supplying Britain with up to 18 percent of her wheat supplies in the early years of this century, hence it is not surprising to find there was also a close fit between wheat prices in Britain and rice prices in Rangoon, British India's major rice exporting port. Rangoon rice prices in London correlated with English wheat prices at 0.87, with American wheat in London at 0.84 and U.S. wheat exports at 0.81. So it seems that not only was there an Asian-wide market in rice, there was a world market in rice, and this dovetailed into the world wheat market, creating an international market in world food grains [12].

CORRELATION MATRIX FOR INTERNATIONAL RICE PRICES, 1868-1914

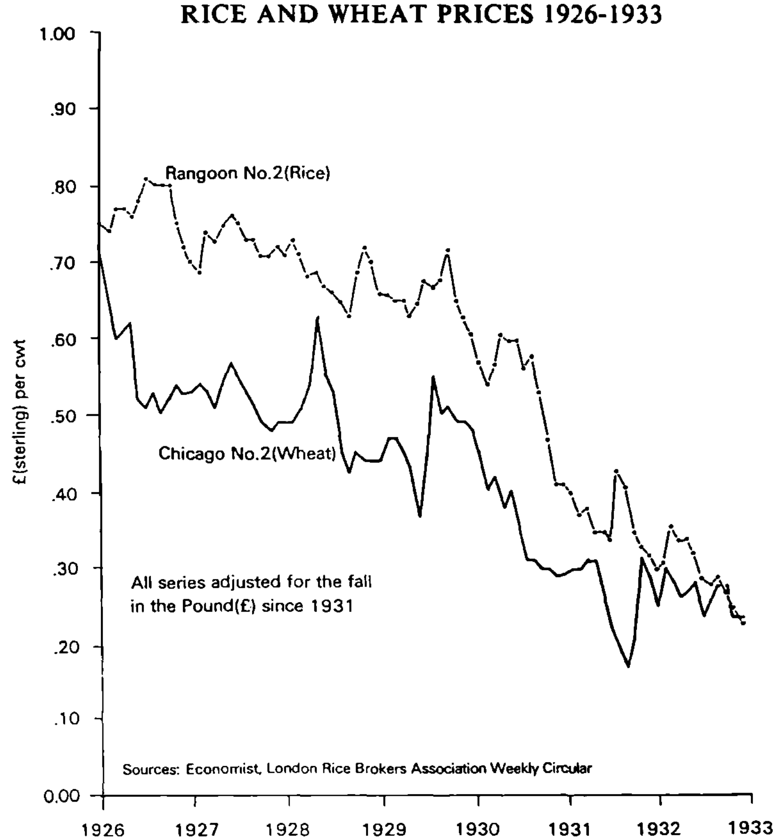
	Burma	Bengal	Singapore		Siam	China
	Exports	Exports	Imports	Exports	Exports	Imports
Bengal Exports	0.79					
Singapore Exports	0.69	0.37				
Singapore Imports	0.85	0.60	0.81			
Siam Exports	0.88	0.66	0.72	0.91		
China Imports	0.76	0.60	0.60	0.77	0.82	
Saigon Exports	0.73	0.52	0.86	0.85	0.80	0.72

Source: [12, p. 266].

This international grain market was very much a feature of the changes in the world economy in the late nineteenth century and the opening of the Suez canal and the coming of the ocean-going steamship were as much a part of this as the construction of transcontinental railroads in North America. Rice, however, was quite slow to shift into steam and some rice cargoes were still coming to Europe by sail at the end of the century. In the East, junks, *prahus*, and other local craft were also active. The coming of the submarine cable revolutionalized telegraphic communication and by 1871 a telegram could be sent directly to London from Singapore, Batavia (Djakarta), Saigon, Hong Kong, or Shanghai. New York and London had been linked since 1866 [7, pp. 26-37]. The other important development was the introduction of modern futures markets. The Chicago wheat futures market dates to 1848, but it was not until 1883 that a proper futures market operated in Britain. This was in Liverpool, Britain's major wheat importing port. From then up to the First World War the two great milling centers of the world, Liverpool and Minneapolis, dominated the wheat trade [16, pp. 133-46]. Futures markets were slower to make their appearance in the rice trade, but a futures market existed in Rangoon by about 1900, although there were no premises and dealings were done on the open payments of Mogul street, a notable saving in transaction costs [3, pp. 74-77]! In this way the late nineteenth century saw the integration of the world rice market and the world wheat market. Rarely were the two grains dealt with by the same brokers or trading houses, but at the consumer level one could easily be substituted for the other. In the East rice and chappattis were eaten together and could be substituted, and so could rice with noodles and dumplings. In the West, too, rice easily substituted with other grains, kedgeree being an acceptable alternative to devilled kidneys and toast!

But this integration was to have dire consequences in the inter-war years. In the early 1920s there was expansion of the land under wheat cultivation in the United States, Canada, Australia, and Argentina, whilst in Europe production resumed after the war. In the rice-growing regions of Burma, Siam, and Indo-China, there also was expansion, both grains initially responding to high prices. In these years it seems as if harvest fluctuations in the two grains were complementary, good years in wheat offsetting bad years in rice, and vice versa. But from about 1926 the price of both grains began to slide and in 1928 there was a bumper harvest in wheat. The following year, the ominous 1929, there was quite a good harvest too, and when the North American wheat crop came in the fall a quarter of the 1928 crop was still carried over in store. In the U.S. there was storage capacity for the 1929 crop, but not in Canada. The Canadians had to put their harvest straight on the market and, faced with this surge in supplies, prices collapsed. Exactly the same thing was happening in rice. No longer did a good harvest in one grain offset a bad harvest in the other; now both were in surplus together. The year 1928 saw a massive crop in rice too, and 1929 also was quite good. The combined effect of enormous grain surpluses in the temperate west and the tropical east brought the price of all grains down to pitiful levels. This can be seen on the graph. Once prices had fallen they remained low until 1933, underpinning the slump and depression the world experienced in these years [5, pp. 175-78]. Indeed, explanations of the depression may well find a sounder base here than elsewhere, for the collapse of farm incomes which resulted from the fall of prices bankrupted farmers, and when they could not repay the loans they had taken out, the banks that served them fell. More than 5,000 banks went bust in the U.S. alone in these years, many of them serving the farming community [9, pp. 216-18]. In Burma and the East a similar process was taking place. Much of the credit available to Burmese peasant farmers was provided by the Chettiars, Indian moneylenders who borrowed from great banks like the Chartered Bank and re-lent to the cultivators. Dawson's Bank was set up about the time of the First World War to compete with the Chettiars and was very successful. But when rice prices collapsed the farmers could not repay their loans and Dawson's had to distrain on land they had accepted as collateral. In these circumstances, the land was worth nothing as no one was buying or even renting land, and Dawson's, too, had to go into voluntary liquidation. The Chettiars were faced with the same problem and many had to pack up and return to India, spurred on by vicious race riots in which the Burmese set upon the local Indian and Chinese community. The integrated world grain market had been wrecked by a surfeit of both grains [8].

RICE AND WHEAT PRICES 1926-1933



Source: [8, p. 663]

But all this, interesting though it may be, does not tell us about competition in the rice trade. The major British companies operating in Burma were Bulloch

Bros., Steel Bros., Mohr Bros., and Joseph Heap and Co., the latter a Liverpool firm. Steel Bros. also had a Bangkok office from early in the new century. Bulloch Bros. and Steel Bros. were undoubtedly the two largest companies dealing with rice going to Europe, and if Steel's were the only company able to field its own fifteen-man rugby team, this was partly due to their diversification into timber and oil. Despite considerable camaraderie out of business hours, competition between these firms was intense and although Bullochs had been the leading firm in the late nineteenth century the depression stuck them down just as it had broken Dawson's Bank. Lord Inchcape, their owner, had to go out to deal with the liquidation. Steel's, however, survived by the ingenious scheme of setting up jungle paddy buying stations to buy direct from the producers and eliminating the Chinese middlemen. All this was brought to a halt by the Japanese invasion and many of Steel's personnel had to walk out from Burma to India through the jungle paths [4, 14, 15].

Even in Burma there were Indian and Chinese firms competing with the British, and the trade to the East was dominated by the Chinese. Until recently little was known about these Chinese companies, but now we can describe their activities in more detail. Several distinct clan and dialect groups provided migrants from Southern China in the late nineteenth century, of which the Hokkien or Fukien from Amoy and the Teochieu or Chaochow from Swatow were the most prominent in the rice trade. Others were the Cantonese, who were active in the rice trade, and the Hakka and Hailams who were not. Although the Teochieu and the Hokkien were two of the few dialect groups who could understand each other's spoken language, and perhaps because of it, they were very hostile to each other [10]. Even within each dialect group the firms were highly competitive. Although Chinese dealers operated at all levels of the trade, some as up-country buying agents, some as millers, some as brokers, and some as shippers, there emerged several key houses operating at the major ports, which could be described as multinationals. A few examples will illuminate the activities of these highly competitive market operators.

Tan Kim Ching, who operated under the "chop" or company name of Chin Seng, was a Hokkien, born in Singapore in 1829. When his father died he took over the family rice business, operating from Boat Quay on the Singapore river. As he prospered he bought rice mills in Bangkok and Saigon, which supplied him with his milled rice. A man of influence both in Bangkok and Singapore, Hokkien marriages were often solemnized in his office and the marriage certificates authenticated with the company rubber stamp! The British made him a Justice of the Peace in 1865 and he made donations to numerous charities. He diversified his activities by purchasing two steamships and promoted with others the Tanjong Pagar Dock Co. He also bought a large number of tin mining concessions up country, whose workers he could supply with his own rice.

Another early Hokkien firm was Khoo Cheng Tiong, chop Heng Chun. He arrived in Singapore with very little but by 1850 was dealing in rice from Boat

Quay, specializing in rice from Saigon where he owned five mills. When he died in 1896 at the age of 76 he was worth over a million Straits Settlements $. His two sons inherited about SS$700,000, but one speculated in land and property and lost everything and the other bought shares in the opium and spirits concession and lost money there. In 1907 both brothers were in the bankruptcy court.

A later Singapore-based Hokkien company was that run by Tan Kah Kee, called Kiam Aik and also Jit Sin. He came from Fukien province as a boy and after starting in his father's rice business was by 1904 working for himself. In 1917, when he was 43, he owned one of the largest rice mills in Siam and another in Singapore, these mills producing nearly 120 tons a day. He supplied rubber plantations and mines and had a large business with Shanghai and Hong Kong in both rice and sugar. To internalize his shipping costs he established a line of small coastal steamers, then bought two ocean-going steamships which plied between Amoy, Swatow, Hong Kong, and Singapore carrying cargo and passengers. He diversified into tinned pineapples, shipping his *Sultan* brand to Europe and the Eastern ports as far as Korea. His first canning plant employed 1,200 hands and turned out 500,000 cases a year, worth SS$3,000,000. Later he bought two more pineapple canning plants, supplying the fruit from his own 600 acre plantation. He had a rubber estate in Johore of over 3,000 acres, employing over 1,000 laborers. To process the latex he had his own factory, producing nearly 25 tons a day for export. He also owned an engineering workshop, a printing press, and was a partner in a brickworks in Amoy, supplying bricks to China and the Straits Settlements. He was an active member of the Chinese Chamber of Commerce in Singapore and made many donations to schools there. He also established a school in his old home town and when he died in the early 1950s he was buried back there. Mao Tse Tung is said to have attended the funeral!

The Chinese were also active in the Dutch East Indies and a key figure there was Oei Tiong Ham of Kian Guan, operating from Semarang. This was another Hokkien concern, Oei Tiong Ham's father having fled China after the Taiping Rebellion. He began work with his father but by 1883 established Kian Guan, exporting sugar and importing rice from Siam, Saigon, and Rangoon. He owned rice fields in Java and had a large mill at Krawang. One of his contracts was the Government contract to supply rice to the tin mines at Billiton and later at Bangka. In 1890 he cornered the Java sugar market, cut out his main rival, and established himself as the leading sugar dealer. He had several modern sugar factories, four of them in the Sourabaya district and in 1924 exported 120,000 tons of sugar. Spreading his interests away from rice and sugar, he bought the local opium concession and dealt in tapioca flour from his own mill, pepper, coffee, citronella oil (an insect repellant), kapok, hides and skins, and sundry Java products. He imported gunny bags for sugar, wheat flour, soya beans, machinery, building materials, and fertilizer. He also founded the Oei Tiong Ham Bank, which provided loans and mortgages. But his most important subsidiary was the Heap Eng Moh steamship line, which ran between Java, Rangoon, Singapore, and China. His first steamship line was the Semarang Steamship Navigation Co., but in 1912 this was merged with Heap Eng Moh, when he bought control. The headquarters were in Singapore and its six steamers had British officers and Chinese crew. Now he spent much of his time in Singapore and was a great benefactor there to both Raffles College and the University. Very western in outlook, he cut off his pig tail, the hated sign of subservience to Manchu China, and allowed his daughter to marry Mr. Caulfield Stokes, the American Consular Agent at Semarang. His firm was still flourishing in the 1980s long after his death, with branches in many of the world's major cities.

All the companies mentioned so far have been Hokkien, but the Teochieu or Chaochow companies were always prominent because they were the dominant group in Bangkok, source of the rice most favored by the Chinese. Possibly the greatest of all the Chaochow companies was Yuen Fat Hong, "The Premier Prosperity Company" of Hong Kong. This company was founded in Bangkok in the 1860s by Koh Mah Wah, who had arrived there by way of Swatow. To begin with he was just a coolie on the wharves, then a cook, but he put some money together and went into partnership with a "friend" to run a rice mill. The partner absconded with the funds and he had to begin all over again. By the early years of this century Yuen Fat Hong owned five modern mills in Bangkok and had shares in many others, producing all grades of rice and employing over 1,500 hands. Their rice was shipped to Hong Kong, Singapore, and Java. Complementary to this trade was their business in general merchandise, particularly silks, cotton goods, and woolens. They had connection with all the Eastern ports and did much to develop direct trade between Bangkok and Java. They had a branch in Singapore and another in Sampeng, specializing in the import of European goods from Singapore, and they were agents for several British and European shipping companies. In Bangkok the company's representatives were recognized leaders of the Chinese community for three generations. But Yuen Fat Hong too came to a sad end. When Koh Mah Wah died just after the turn of the century, four of his nine sons took over the business. The elder son died in 1909 and then the other three took to lives of debauchery, one in Bangkok, one in Singapore, and the other in Hong Kong, where they were supposed to be managing the local branches. This led to family squabbles and rows, and during the depression, when prices were at an all time low, Yuen Fat Hong suddenly closed on 7th Dec., 1933.

But of all the companies perhaps the most interesting was the Burma company run by Lim Chin Tsong, but bearing his father's name Lim Soo Hean. Lim Chin Tsong was born in 1867 soon after his father's arrival from China. They were probably Hokkien, and his father, himself a successful businessman, sent young Chin Tsong to the best English language schools so that he would not be hampered by his lack of English. When the old man died in 1888 Lim Chin Tsong took over the business, expanding from the rice trade into oil, and in 1891 he became the local agent for the Burma Oil Company, selling refined oil in Rangoon and other towns. Then he began to export the oil and bought his own steamers to carry it between Rangoon and Penang. He expanded his fleet and soon was running regular schedules between Rangoon, Penang, Singapore, Hong Kong, Swatow, and Amoy, carrying rice and general merchandise and bringing immigrants from Amoy to Rangoon. He too diversified into rubber plantations, cotton ginning, groundnut milling, and into tin, copper, lead, wolfram, and gold mining. For years he was the leading Chinese merchant in Rangoon and a great benefactor of schools and hospitals. In 1919 he was awarded the Order of the British Empire for his good work in fund raising during the war. He was also a successful racing stable owner in the Rangoon Turf Club and about 1918 built a magnificent edifice known locally as Lim Chin Tsong's Palace, where he entertained M. Clemenceau when he visited Rangoon in 1920. But everything went wrong for Lim. He seems to have tried to corner the rice market in 1921, causing a sudden increase in prices. The Government stepped in, banned sales of rice to anywhere but India, and the market collapsed. In 1922 Lim was borrowing wherever he could and he died on 5th November 1923. His estate was hopelessly encumbered and his palace, household, and office possessions had to be sold, including two Rolls Royce cars. It is of note that a Miss Hannah Boudeville challenged the powers of the Court, claiming that the house she was living in was not part of the estate but had been given her by Lim. So Lim Chin Tsong does seem to have come to a bitter end, but it is nice to report that the Lim Ching Tsong Polo Cup was still being competed for in 1927 [6].

The impact of the depression in the East was swift and devastating. Lee Teck Aw, chop Khoon Seng, failed in January 1930 although he was the leading Bangkok miller, with five mills and handling 60 percent of Bangkok's exports [18, p. 12]. Yuen Fat Hong, Dawson's, and Bulloch's were soon to follow. Rubber, tin, and sugar prices also plunged. Soon commodity control schemes became widespread and rice was not exempt. The Japanese had tried to control the rice market as early as 1921, seeking to increase production whilst keeping prices down. Now, in 1933, they imposed duties to keep out cheap foreign rice and grain and began a policy of Government purchasing to raise prices and increase domestic production. They were soon faced with a chronic ware-housing problem! In 1939 the Government took control of all rice markets, banned speculation, and licensed all brokers and dealers. Competition had given way to constraint. In the Philippines rice control was introduced in 1936, the Government Corporation buying paddy, milling it, and distributing it, thereby excluding the Chinese middlemen and millers and controlling prices to farmers and consumers. In China duties were raised to prevent imports, whilst in French Indo-China duties were raised to prevent exports. In Siam the Government bought from producers at one rate and sold to consumers at a higher rate, using the profits to establish new colonies of rice farmers free from debts to Chinese middlemen. As in the Philippines the Government was now the middleman. In

British Malaya the policy was to encourage rice production as the collapse of rubber and tin exports had made rice imports an intolerable burden. Cheap land, irrigation, and seed was provided. With the outbreak of war in 1939 rice prices were regulated and minimum prices offered in some states for rice delivered to Government mills. Rice imports became a Government monopoly. In the Dutch East Indies a similar policy was followed now that the price of her exports had collapsed; imports of rice were restricted and domestic production encouraged. With the outbreak of war a Commission was established to buy and sell rice to maintain prices and guarantee adequate supplies [19, pp. 165-87].

RICE EXPORTS (SELECTED COUNTRIES)

Metric Tons (000)

	Annual Average 1934-38	Annual Average 1948-52	1955	1965	1975	1985
Burma	3,070.0	1,231.3	1,640.5	1,335.0	286.0	470.2
Indochina*	1,320.2	381.9	75.5	475.8	22.0	nil
Thailand	1,388.0	1,293.5	1,236.5	1,895.2	951.0	4,061.7
China	1.9	nil	596.6	1,009.9	2,740.0	1,049.6
Pakistan	393.0	73.1	223.8	149.2	477.6	718.6
U.S.	71.9	536.8	516.3	1,549.3	2,138.7	1,939.9

Note: In 1985 Vietnam and Kampuchea together imported 400,000 metric tons.

Source: F.A.O. Trade Yearbooks

After the war competition and the free market did not return. Everywhere Governments continued control over rice. To begin with, Burma, Thailand, and Indo-China resumed their positions as major exporters, but in Burma after independence the Government maintained such low prices that all incentive to production was lost and gradually she ceased to be an important exporter. In Indo-China a combination of political turbulence and intervention turned this major exporter into a major importer. Only Thailand remained as a large exporter and there too the Government remained in control. China, however, once a deficit country, emerged as an exporter, using the hard currency thus obtained to buy wheat. Pakistan also became an exporter, but the big surprise of the post-war world was the arrival of the United States as a key exporter on the basis of subsidized production and aided sales. Vietnam was a major recipient!

Only about 5 percent of rice produced now reached international trade, and this after individual countries had supplied their own needs. Deals between countries were done on a government-to-government basis, as they controlled rice supplies in their own domestic markets. Whether this was done efficiently is open to question. The application of modern technology to wheat production has advanced faster than in rice, so wheat prices have dropped relative to rice. In consequence, imported wheat consumption has risen in many rice-producing countries, including Bangladesh, Vietnam, Indonesia, Malaysia, the Philippines, China, and even Japan. If the constraint of Government control has led to these rice-eating countries depending on cheap imported wheat, one may reflect upon the ultimate benefit of the elimination of competition and the free market [1, pp. 185-201; 11; 17]. Perhaps the last words on this issue should be left to two Chinese rice dealers who prefer to remain anonymous. One, summing up the situation in Singapore in the mid 1980's said "Anyone still in the rice trade is losing money." The other, in Hong Kong, commented "If Government's hands touch it, it is dead."

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