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The Bullinger Pool in Burma, 1921 to the mid-1930s

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One of the most important developments in the history of the rice trade of colonial Burma was the creation of the Bullinger Pool in 1921, a combination of four large British milling and export firms based on a common price policy for the purchase and sale of paddy and rice. These firms dominated the rice trade at a time when paddy was the "true currency" of the country [Binns 1948:50]: as the source of livelihood for the majority and the form of payment for rent, loans, and wages. The collective position of the four companies—Steel Bros. and Co., Ltd., Bulloch Bros. and Co., Ltd., Ellerman's Arracan Rice and Trading Co., Ltd., and Anglo-Burma Rice Co., Ltd.—reached such magnitude in the rice trade that by the 1930s, the conglomerate had become the subject of a legislative inquiry and the object of organized Burmese protest. The accusation against the Pool was that it manipulated prices in order to rake in huge profits, especially at the time of economic depression in the early 1930s. Even if the allegations of what one today might consider unfair trade practice were officially dismissed, as they were, the paper demonstrates that the Pool's primary advantage, especially its access to paddy supplies, was the cornerstone of its position in the rice trade, making any measure of control plausible at the least. Since the relationship between paddy and rice prices was crucial to the industry's pricing mechanism, the existence of a combination to set prices for both paddy and rice in the local market made the industry vulnerable to manipulation.

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1. Introduction

In *After the galleons* [1999], Benito Legarda demonstrates how foreign merchant houses connected the Philippines to nineteenth-century world trade. Focusing on Anglo-American firms such as Peele, Hubbell & Co. and Russell & Sturgis, both formed in the 1820s, Legarda examines their advantages over local

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companies and networks outside the colony as they faced three major variables in their business operations: commodity prices, freight rates, and exchange rates. This paper also looks at European firms in Burma, some of which were established in the 1870s, which linked the colonial economy to the outside world while Burma was still a province of India. The focus is on four British firms that dominated the rice trade, paddy being, in the government's words, the "true currency" of the country [Binns 1948:50]. Not only did the vast majority of the Burmese population rely on the sale of paddy for their source of livelihood; for many, rents, loans, and wages were paid in baskets of paddy.

In 1921 these four companies—Steel Bros. and Co., Ltd., Bulloch Bros. and Co., Ltd., Ellerman's Arracan Rice and Trading Co., Ltd., and Anglo-Burma Rice Co., Ltd.—agreed to follow a common policy for the purchase and sale of paddy and rice (except parboiled rice). They called themselves the Bullinger Pool, and their collective position in the rice trade reached such magnitude that by the 1930s, the conglomerate had become the subject of a legislative inquiry and the object of organized Burmese protest. The accusation against the Pool was that it manipulated prices in order to rake in huge profits, especially at the time of economic depression in the early 1930s. Even if the allegations of what one today might consider unfair trade practice were officially dismissed, as they were, the paper demonstrates that the Pool's primary advantage, especially its access to paddy supplies, was the cornerstone of its position in the rice trade, making any measure of control plausible at the least. Since the relationship between paddy and rice prices was crucial to the industry's pricing mechanism, the existence of a combination to set prices for both paddy and rice in the local market made the industry vulnerable to manipulation.

2. Character of western firms

Western investments in Burma had several features. Most were British and began modestly as individual proprietorships or as associations of two or three partners. Steel Bros. and Co., Ltd., for instance, began with William Strang Steel; Bombay Burma Trading Corp., Ltd., with William Wallace; Foucar Bros., with Ferdinand Foucar; and Burmah Oil Co., with David Some Cargill (Braund [1975:17-8]; Morehead [1944:46]; Lakshminarasiah (ed.) [1929:76]). In general, the firms operated on entrepreneur capital, in which investors directly controlled the business they had financed, as distinct from creditor capital, in which investors simply supplied the capital but had no part in directing their investment [Harvey 1946:67]. The firms were joint stock companies registered abroad or in India (of which Burma was a part).

Too, the major British firms engaged primarily in the extraction and processing of raw materials such as rice, teak, oil and other minerals—Burma's major exports. Although they possessed considerable amounts of capital, their methods of operation were not always capital-intensive [Aye Hlaing 1964:100]. The Bombay Burma Trading Corp., for example, which was the largest timber firm, had considerable capital outlay but used little mechanical power. The big rice companies, which required less working capital, used some degree of mechanical power but essentially were not capital-intensive. The petroleum industry, in contrast, was capital-intensive and also highly mechanized compared to the rest of the industries.

While primary resource production was their main concern, the large British firms branched out into other industries. In the mid- to the late nineteenth century, for instance, European investors provided capital for many improvements in transportation and rice-processing, which were essential to agrarian development, and installed the commercial and banking infrastructure necessary for global commercial exchange. European merchants in the port towns, such as T.D. Findlay and Son, Steel Brothers (whose founder was initially lured to Burma by prospects in the import trade), and Bulloch Bros., not only handled imports and exports but also shipping, insurance, and various agencies [U Khin Maung Kyi 1970:34]. The fusion of various interests was sometimes achieved through the managing agent system, whereby the managing agent—instead of merely directing a business he owned—promoted, partly financed, and completely managed other industrial interests in which the agent was probably, though not necessarily, a substantial shareholder [Griffiths 1952:453-457]. Furthermore, the nature of certain industries was such that two or three processes could be carried out during different seasons of the year using the same facilities. Some rice mills, for example, doubled as saw milling or oil pressing factories during the off-season, although the largest mills were generally confined to rice [ORGI 1923:265].

The chief European firms belonged to influential merchant associations, such as the (European) Burma Chamber of Commerce, which represented and protected European trading and mercantile interests. As such, and within the framework of the colonial system, they wielded not only economic but also political influence. The Burma Chamber, for example, had a seat in various government bodies, such as the Burma Legislative Council, Port Trust Board, Municipal Council, and government sub-committees on rice, timber, imports, shipping, and others. As a lobby group, they successfully blocked the passage of the Burma Alienation Land Bill of 1908 [Burma Chamber of Commerce 1914:30-32]. Sir Arthur Bruce, commercial adviser to the government of Burma, noted: "The [European] Group, though small, was compact and, on occasion, in the struggle for power between the Burmese political parties, might find itself holding the balance of power" [Bruce 1944:21].

Lastly, almost all the European firms depended on immigrant Indian and, to a smaller extent, Chinese labor, while for their administrative staff, they hired Europeans and Anglo-Asians. Although Indian immigrants could enter the province of Burma freely in search of labor, in certain sectors of the economy such as rice and saw milling and in the dockyards, labor was recruited mostly from Telegus, Uriyas, Tamils, Hindustanis, Bengalis, and Punjabis through a labor contracting system. The contractor (*maistry*) would pay for the fare of the laborer to Rangoon and advance him some money until he settled down and could begin to remit savings back home. In 1931 representatives of Indian labor in Rangoon claimed that there was "clear discrimination in favor of Europeans and Anglo-Indians or Anglo-Burmans as against Burmans or Indians" [Royal Commission on Labour 1931:75].

3. The Bullinger Pool

The oldest member of the Bullinger Pool, Bulloch Bros., began with James and George Bulloch, senior partners in the British firm of Halliday Bros. and Co., which owned one of the earliest rice mills in the colony. In 1870, James and George built a mill in Rangoon and another in Akyab, followed by one in Moulmein two or three years later, all of these being strategic port towns. Eventually the brothers formed their own firm, Bulloch Bros. and Co., and expanded their milling operations in these towns, while adding another in Bassein in Lower Burma. Halliday Bros. also gave rise to another offspring and Bullinger Pool member, the Arracan Co., after Halliday went into liquidation in the 1880s. The Arracan Co. then was owned and managed by Diekmann Bros. and Co., a German rice milling firm in Burma [Pearn 1939:210]. As a consequence of the First World War and the seizure of German property, Sir John Ellerman acquired a controlling interest in the firm and renamed it the Ellerman's Arracan Rice and Trading Co. in 1919. The new enterprise took over all the mills formerly owned by Diekmann Bros. in Rangoon, Akyab, Bassein, and Moulmein.

Like Bulloch Bros., Steel Bros. made an early entry into Burma's rice trade. Its founder, William Strang Steel, built his first cargo rice[1] mill in Rangoon in 1871, followed by two others in 1885. All three were soon equipped with white rice[2] milling machinery. Steel also built its first rice and saw mill in Moulmein about 1872 and entered the rice trade in Akyab some ten years later [Clark 1941a; 1941b]. Of the four members of the Bullinger Pool, Steel Bros. and Co. became the largest.

The last Pool member to enter the rice trade was the Anglo-Burma Rice Co. Registered as a joint stock company in Burma in 1918 [Government of India Central Publication Branch 1922:45], the company purchased the government mill in Rangoon that was formerly owned by another German rice milling firm, Mohr Bros.

The Pool's mills clustered around the port towns of Lower Burma, from where the bulk of Burma's rice exports was shipped. In 1929-30, for example, Rangoon alone exported 77 percent of Burma's total rice exports; Akyab and Bassein, about nine percent each; and Moulmein, five percent of the total [RGWB 5 October 1931:13]. Throughout the first three decades of the twentieth century, these port towns remained the stronghold of the Bullinger Pool. From 1917 to 1931, in the districts of Akyab, Bassein, and Rangoon, well over half of the total number of rice mill employees worked in mills owned by the Pool. Even after 1931, when as

1 Cargo rice is the mixture of husked rice and partially milled rice with up to twenty percent paddy.
2 White rice is rice milled to a high degree.

we shall see shortly, the Pool's share of the total number of mills and employees in all of Burma declined, the Pool nevertheless continued to enjoy a substantial share of rice milling in these districts [LIE 1917-35].

The position of the Bullinger Pool in the rice milling sector must be situated in the context of the ownership of rice mills in Burma, which the British government characterized by race. This was rather different from the case of the Philippines where, as Legarda points out, domestic and foreign ownership of business and industry was not built along racial or ethnic lines but on whether the owner had long established roots in the colony. Thus, domestic owners consisted of those born in the Philippines (indigenous Filipinos, Philippine-born Spaniards or *insulares*, and locals of mixed Spanish and Filipino parentage) as well as foreigners who "had clearly thrown in their lot with the country" [Legarda 1999:229]. In Burma the situation was complicated by the fact that Burma was administratively part of India, but Burmese were clearly not Indians and vice-versa.

Majority of the rice mills were, in fact, Burmese-owned, with Indian owners as the second largest group and European-owned mills, the fewest, and even declining both in number and as a share of the total number of rice mills by the mid-1930s.

TABLE 1. Ownership of rice mills by race, 1916-18 and 1935

Owner	1916-8		1935	
	Number	% of Total	Number	% of Total
European	49	15.4	31	4.8
Burmese	159	50.0	311	48.1
Indian	66	20.8	186	28.7
Chinese	44	13.8	119	18.4
Total	318	100.0	647	100.0

Sources: W.H.C. Prideaux, Inspector of Factories, Burma, Testimony before the Indian Industrial Commission, 1916-18 in *British Parliamentary Papers 1919*, Command Paper 238, vol. 20, p. 569; *Annual Report on the Working of the Indian Factories Act 1935* (Rangoon: Supdt., Government Printing, 1938), p. 30.

The small number of European-owned mills, however, belies their size. In 1935, when the number of European-owned mills had experienced a decline in numbers, the average size of the European-owned mill was 500 employees, while that of the Burmese was 38. Chinese- and Indian-owned rice mills were also considerably smaller than European mills (average of 65 and 53 employees, respectively), though larger still than Burmese-owned mills [Report of the Indian Factories Act 1935]. Among the large rice mills were those owned by the Bullinger Pool. Data about their size comes from the lists of *Large Industrial Establishments in India* (LIE), which were produced every other year and provided the names of owners, number of employees, and location of mills. Though not as comprehensive as the annual reports of the Indian Factories Act (IFA), the LIE series offered "a safe index of the extent and importance of the different classes of industries" [LIE 1917; 1920:i].

TABLE 2. Number and size of mills owned by the Bullinger Pool, 1917-35

Year	No. of mills	No. of employees	Average size
1917	34	17,753	522
1919	36	17,736	493
1921	35	18,873	539
1923	32	15,685	490
1925	35	18,569	531
1927	31	15,127	488
1929	28	14,838	530
1931	29	17,011	587
1933	21	13,058	622
1935	20	12,492	625

Sources: *Large Industrial Establishments in India*, 1917-35.Small Rice Mills

4. Small rice mills

In contrast, most of the up-country mills in Upper Burma and the mid-zone[3] were small units of production, situated close to the paddy farms, and were generally owned or managed by Burmese and possibly immigrant Asians [Solomon 1931:60]. The geographic factor is important here, for as the *Burma Trade Directory* of 1930 suggests (cited in U Khin Maung Kyi [1970:38-9]), the farther away the mills were from Rangoon, the more numerous the Burmese-owned enterprises, while the closer the mills were to Rangoon, the fewer the Burmese mills. Small mills, of course, possessed their own advantages. The IFA Report of 1927 noted, for example, that these mills had "the unfair advantage that their working hours are unrestricted" (p. 1) and so could compete with the larger mills. The small mills also did not require much organization. Their overhead expenses were minimal since millers lived on or close to the premises and probably obtained their paddy at a lower cost than if they were situated in Rangoon or some other port town. The government initially welcomed the upsurge in the number of small mills as a sign of prosperity in a burgeoning economy. The Indian Industrial Commission [1918:31] observed that:

[3] Upper Burma refers to the wet zone of Myitkyina, Katha, Bhamo, and Upper Chindwin, and the dry zone of Lower Chindwin, Shwebo, Yamethin, Minbu, Sagaing, Mandalay, Myingyan, Magwe, Kyaukse, Meiktila, Pakokku, and Thayetmyo; while the mid-zone covers Toungoo and Prome.

> Although the Burman does not compete with, or to any large extent invest in, the considerable organised industries of Rangoon, he is far from backward in establishing small rice, timber and oil mills further up country, a branch of development which may be expected to expand as more fertile waste areas come gradually under occupation.

As they increased in number, these mills tended to be smaller than formerly, employing as few as ten to twenty persons [IFA 1927:1-2], and thus falling outside the coverage of the Indian Factories Act. An agricultural survey in 1932 reported that the milling capacity of the large firms ranged from 200-500 tons of paddy a day, while small mills handled from 10-75 tons [Grant 1933:30]. The Officiating Commissioner of Pegu remarked: "The outturn of these small mills is insignificant in comparison with the outturn of large mills, and even if they were continuously working, they could not possibly enter into competition with the large mills" [Proceedings of the Department of Commerce and Industry 1919:9]. It comes as no surprise that Steel Bros. described the small mills as "the little smacks and trawlers of the rice milling industry with their output of ten, twenty, fifty, one hundred tons a day" [Clark 1941b:38], in contrast to Steels' mills in Kanaungtoe alone (close to Rangoon), which had a capacity for 1,500 tons of paddy and produced 1,000 tons of finished rice a day [ibid.]. The company's total daily milling capacity was no fewer than 5,500 tons as it proudly reported in its house magazine [*Steels House Magazine* 1973:19].

The small miller had several business options: to sell rice to export merchants in the seaport towns; to sell rice to local traders for domestic consumption; or to mill for hire only. A government study in the early 1930s showed the last to be the most common option: "as a large number of the small mills are engaged in milling grain on hire for local consumption entirely, they do not exercise so great an influence on the milling of rice for export as [their] numbers would indicate" [Grant 1933:30]. Small millers able to engage in the export trade did so indirectly, through large European firms that bought rice from them and exported it along with what the firms had milled themselves. The Rice and Paddy Trade Enquiry Committee [1931:36] estimated such purchases from small millers to be approximately ten percent of total rice exports.

Furthermore, in times of poor trade, small mills were often the first to fail. In 1923 the IFA reported that "bad trade and excessive competition hit many of the up-country mills very heavily and several have failed and been taken over by the mortgagees" [1924:1]. This was particularly true in Shwebo in north-central Burma, where the number of mills rose from nine in 1919 to twenty-three in 1921, only to drop to ten mills in 1925; and in Mandalay, from nine mills in 1919 to nineteen in 1921, and falling to fourteen in 1925 [LIE 1919-25]. In 1928, the IFA [1929:1] repeated a warning it had made six years earlier, that the rice milling capacity had vastly exceeded need, based on the level of crop production. As a result, many of the small mills worked irregularly and not at a profit. Such was the situation even before the onset of the depression.

The vulnerability of the small miller to the vicissitudes of trade arose from his lack of capital, much of which had been placed in land. A report published in the 1921 *Census* of India found that:

> The older mills which are not heavily in debt may continue to make a sufficient profit to maintain the miller and his family in comfort, but little more. Many of the new mills as well as such of the old mills as are heavily in debt, are likely to be worked at a loss. [ORGI 1923:266] This finding was confirmed by the IFA a year later [1923:1]).

It was generally accepted in official circles that the major source of capital for the small miller was the (Indian) Chettyar moneylender, who charged interest rates of 18 to 24 percent or higher, with land or the mill itself as security for the loan. Other sources of capital were private moneylenders, Chinese banks in Rangoon (English [1919:664]; *Report of the Burma Provincial Banking Enquiry Committee, 1929-30*, Vol. 1 [1930:105-106, 133]) and, as discussed below, some of the large milling firms themselves.

European millers, in contrast, had financial arrangements with the Imperial Bank of India and the exchange banks in Rangoon, and sometimes with the London money market. The Imperial Bank of India acted as the central government's banker while the exchange banks, such as the Chartered Bank of India, Australia, and China, the Hong Kong and Shanghai Banking Corp., and Lloyds, financed chiefly sea-borne trade, both import and export [Banking Enquiry Committee Report 1930:39-43]. The Rangoon banks (as well as the Indian and Chinese banks) "did for the rice trade (on the security of the milled rice) what the Chetties [Chettyars] did for the growing of paddy" [Bruce 1994:17]. Equally important, some of these firms financed small millers. In 1931 the Secretary of the Rice and Paddy Trade Enquiry Committee, E.H. Solomon, described what he called an "ingenious" system of advances made to small millers during the twenties by some export firms:

> These firms, early in the rice exporting season, entered into contracts for the purchase of rice with small millers. Possessing credit with banks in the port towns and with their foreign buyers, they used to advance money to millers on the strength of these contracts for future delivery even before seeing possession of the rice. With the help of these advances, the small millers were able to augment their scanty resources and buy paddy freely during the early months of the year, while later on when the extent of their advances diminished they were able to utilize the profits made in the earlier part of the season to continue their purchases. [Solomon 1931:61] Solomon hastened to add that for this system to benefit both the small miller and the exporter, certain conditions had to be present: first, that the forward prices of milled rice in the early part of the season were considerably higher than those for ready produce; and second, that small millers complied with their contracts and made regular deliveries of agreed sales [ibid.]. During the depression this

> system fell into shambles as prices dropped and contracts were consequently unfulfilled. The question of capital became acute in the early thirties, when Burmese leaders complained that the Bullinger Pool, with vast resources at its command, manipulated the local market for its own ends.

5. Export of rice

The export trade had two branches: the Asian branch, which included India and Ceylon (Sri Lanka), China, Japan, and parts of Southeast Asia; and the Western branch, which covered Europe and the Americas. Participation in the export trade tended to be roughly divided along racial lines, with European merchants as the chief operators in the Western branch, along with some Indian participation. Chinese traders were most active in the East and Southeast Asian markets, along with Indians and Europeans to a smaller degree, while Indian merchants figured prominently in the rice trade with India and Ceylon [Report of the Rice Export-Trade Enquiry Committee 1937:1]. The sources do not cite any Burmese interest group in the export trade, suggesting that the export trade was nearly completely in the hands of foreigners.

Until 1890 Europe was the principal importer of Burma rice; thereafter, the Asian branch absorbed the bulk of Burma's rice exports. The European market, which European firms controlled, accounted for only a little more than a fifth to less than one-third of the total tonnage from 1928 to 1934 [ibid.], and it was this market that the Bullinger Pool dominated [Interim Report of the Rice and Paddy Trade Enquiry Committee 1931:21]. If trade with Europe was not all that large, why did the operation of the Bullinger Pool upset local Burmese interests?

The main objection to the Pool was its capacity to influence local prices of paddy and rice owing to a combination of factors: the size of its mills, its access to capital, its control over shipping, and its dominant position in the Western branch of the export trade. Prior to the first World War, the European market was served by German and British millers in competition with one another. But after the loss of their mills in Burma during the First World War, German firms began to import rice from non-European millers, chiefly, Beng Hwat and Co. and Hoosain Hamadanee and Co. The presence of these two firms balanced the dominance of the Pool, and some believed that the competition maintained the prices of rice and paddy at an "easy level" [RGWB 29 December 1930:10]. Data from the London Rice Brokers' Association (LRBA), which handled Europe's purchases of Burma rice, show how competitive both firms were in the European branch of the rice export trade. At one point (in 1922), as Table 3 shows, the two firms accounted for slightly more than half of the total exports to Europe while the rest of the years, they represented about a third or more of the total trade.

TABLE 3. Share of total* rice shipments to Europe by Beng Hwat and Co. and Hamadanee and Co. and by the Bullinger Pool, 1921-28

Year	Total Shipments to Europe (Tons)	Beng Hwat and Co. and Hamadanee and Co.		Bullinger Pool	
		Tons	% of Total	Tons	% of Total
1921	315,415	89,142	28.3	162,549	51.5
1922	394,427	202,858	51.4	118,762	30.1
1923	400,576	155,830	38.9	143,733	35.9
1924	595,937	211,688	35.5	241,957	40.6
1925	701,865	217,141	30.9	339,055	48.3
1926	509,827	172,639	33.9	250,746	49.2
1927	539,690	174,363	32.3	271,433	50.3
1928	511,098	160,199	31.3	274,573	53.7

* Total shipments here and in Tables 4 and 5 include only those with complete data (inc. tonnage and destination).
Source: London Rice Brokers' Association (LRBA), Weekly Rice Circulars, 1921-28.

In the summer of 1928, Beng Hwat and Co. and Hamadanee and Co. collapsed and transferred their agencies to Steels, thus enabling the Bullinger Pool (consequently referred to as the "Anglo-German monopolists") to expand their share of the market. Because of this connection in 1928, certain trade sectors in Rangoon came to believe that the Pool was created years earlier precisely to recover from the non-European millers (mainly Beng Hwat and Co. and Hoosain Hamadanee and Co.) the German agencies that had threatened the British position in the trade. Mr. M. Eusoof, the representative of Moulmein to the Burma Legislative Council, alleged, for example, that the Pool "succeeded in doing so, with the result that the non-European firms ceased to exist, and thus the competitive element in the purchase of rice and paddy disappeared" [*Report of the Burma Legislative Council Proceedings* (BLCP) 17, no. 7 20 February 1930:246]. For its part, Steel Bros. explained that the two firms failed because they issued delivery orders when they had no stocks of rice, apparently on the belief "that the support of the small millers would be a cheaper mode of obtaining their requirements than buying from the older established big mills" [Clark 1941b:39-40]. Mr. T. Couper, the government's representative to the Legislative Council, asserted that Beng Hwat and Co. had "for a long time sold rice to Hamburg at a price below cost price and at a loss" [BLCP 13, no. 4 1929:164]. In his Note of Dissent, Solomon believed that the two firms had misread the market, for that summer of 1928, "contrary to their usual seasonal tendency, [prices] declined below the levels reached in the first quarter of the year" [Solomon 1931:77].

After the closure of the two 'proxy' German firms, the hold of the Bullinger Pool over the European trade grew steadily, from an average share of 39.1 percent in 1921-24 to 69.5 percent in 1934-37 (Table 4). Among the four members of the Pool, Steels dominated the export trade, accounting for an average of from 19 percent of the total European trade in 1921-24 or nearly half of the Bullinger Pool's average shipment during those years, to 50 percent in 1934-37 or 72 percent of the Pool's average exports to Europe. Steels' acquisition of Beng Hwat and Co. and Hoosain Hamadanee and Co. no doubt benefited the firm.

TABLE 4. Bullinger Pool's average share of Burma rice shipments to Europe, 1921-37*

Year	Average total shipment by all shippers	By Bullinger Pool		By Steel Bros.	
		Tons	% of Total	Tons	% of Total
1921-24	426,589	166,750	39.1	81,182	19.0
1925-28	565,620	283,952	50.2	121,596	21.5
1929-32	482,195	244,684	50.7	157,924	32.8
1934-37	360,170	250,261	69.5	180,390	50.1

* 1933 issues are missing.
Sources: LRBA, *Weekly Rice Circulars*, 1921-37.

After the Pool broke up in 1932 (because of the voluntary liquidation of Bulloch Bros. and Co.), Steels and the Anglo-Burma Rice Co. continued to dominate the rice export trade with Europe, accounting for more than half of Burma's exports of rice and rice products to Europe.

TABLE 5. Share of Steels and Anglo-Burma Rice Co. in total exports of rice and rice products to Europe, 1934-37

Year	Total exports in tons	Shipments by Steel Bros. and Anglo-Burma Rice Co.	
		Tons	Percent of total
1934	642,685	408,044	63.5
1935	540,182	304,940	56.5
1936	535,085	295,075	55.1
1937	682,096	407,349	59.7

Sources: LRBA, *Weekly Rice Circulars*, 1934-37.

One factor that enabled the Pool to assume a large hold over the European market was its connection to shipping companies. Steel Bros. was the joint managing agent of the two major shipping lines to Europe: Patrick Henderson and Co. (initially shared with Bulloch Bros. until the latter closed in 1932, with Steels taking over as sole agent) and the Bibby Line. In addition, Steels was the agent of the Indo-Natal Line and the Indo-China Steam Navigation Co., Ltd., which dealt in the Asian branch of the rice trade (Blake [1956:51]; *Burma Trade Journal* [1938]). Bulloch Bros. was the managing agent for the British India

Steam Navigation Co., Ltd., the most important line in the India trade and which also sailed to Singapore, Penang, China, and Japan [Andrus 1948:218]. For its part, Ellerman's Arracan Rice and Trading Co. managed the Ellerman City and Hall Line and the Nippon Yusen Kaisha Line (Japan Mail Steamship Co., Ltd.) [*Trade Directory of Burma and Ceylon* [1940-41:113]; *Commerce and Industry Proceedings (Commerce)* [1920:25]).

The Pool denied that it received preferential treatment from these shipping firms or that others were barred from obtaining space as a result of the Pool's managing agency of these lines. The system of "conferences" on freight rates, however, cast doubt on the Pool's claim. Under this system, freight rates on rice and rice products were determined not by open competition but by arrangements or "conferences" between the main shipping lines in the Rangoon export trade. The conference lines met regularly and fixed the rates on different types of cargo within their respective areas of business. The conference system applied to the Indian as well as the European trade.

Shipping lines also practiced a system of deferred rebates, usually ten percent of the nominal freight, which were returned to the shippers six months from the time of actual shipment. The rebates were granted not as a matter of right but of good will and on condition that shippers remained loyal to the conference line for the duration of the six months. As a result, regular exporters, fearful of losing their accumulated rebates, abided by this condition. As described by Solomon:

> So strong is the grip maintained by the "conference lines" on the carrying trade to and from Rangoon, and so large their resources, that it is difficult for any "outside" line, unassisted by specially favourable circumstances to cut in and secure a portion of the trade in the teeth of the competition to which it would be subjected by the "conference lines." Past experience has shown that attempts at "free competition" in the shipping trade have resulted either in the economic extinction of the intruder or, if it should have been possessed of exceptionally powerful resources, in its inclusion among the other conference lines. [Solomon 1931:72]Solomon added that Burma's case was different from the situation in other parts of Asia, such as Bangkok, Singapore, Hong Kong, Saigon, and the Dutch East Indies, where healthy competition existed among shipping firms engaged in the Asian trade. It was no surprise that the conference lines were called the "shipping pool" [Andrus 1948:218].

6. Burmese reactions

In 1923, just two years after the Bullinger Pool was formed and well before the onset of the Great Depression, Taw Sein Ko, a nominated representative to the Legislative Council, asked the government if it was true that European millers had "formed a combination to depress the price of paddy" purchased and milled by them for export. The Minister of Agriculture replied that the government had no definite information [BLCP 26 November 1923:29]. Six years later, the question was once again raised in the Council, this time at a precarious period for the rice industry. Rice prices were falling, resulting in mill closures and increased agrarian indebtedness. Tharrawaddy U Pu, representative of Toungoo South, then proposed that a committee of seven be chosen by the Council from among its elected members to investigate the rice and paddy trade in general, and particularly, "the freights, the actions of the Bullinger's Pool", and to suggest ways to improve the industry. The European representative, Mr. O. De Glanville, along with Mr. H.B. Prior of the Burma Chamber of Commerce and Mr. T. Couper, the official representative, objected to the exclusion of the nominated members of the Council from the proposed committee and to the specific reference to the Bullinger Pool. The Council resolution was thus amended accordingly; while the reference to the Pool was dropped, the investigation would nonetheless look into "freights and combinations to control prices" [BLCP 18 February 1929:154-69].

> The Committee's terms of reference were wide, but the fall in the price of paddy, rice, and rice products had just begun and the main reason why the Committee was appointed was in order that it might investigate the cause of this fall, especially in view of the belief widely current in Burma that it was due to the manipulations of the market by a group of millers in Rangoon [RGWB 30 November 1931:2].

The investigation became the occasion for Burmese to demonstrate their opposition to the Bullinger Pool. The Burmese Chamber of Commerce declared, for instance, that: "As far as this Chamber is aware, it is true that the British firms, in conjunction with German buyers, have been forcing down the price of rice and paddy in Burma" [RGWB 5 January 1931:9]. The Council of National Associations blamed the Pool for the price depression in 1930:

> There will or can be no objection to the Bullinger Pool as an ordinary business combine but when it goes to the extent of transgressing the natural law of supply and demand by taking undue advantage of its position as the sole buyer as it has done this year, its very existence has become a serious menace to the general well-being of Burma. [RGWB 1 December 1930:7]

The Council went on to warn the (European) Burma Chamber of Commerce that unless the latter exercised its influence over the Pool to ease the situation, the Council would be compelled to launch an economic campaign to counteract the decline in prices [ibid.]. On 23 November 1930, about 3,000 landowners, rice millers, and cultivators met in Insein and agreed to sell paddy at no less than Rs. 180, when the going price in the area was between Rs. 110 to Rs. 118. The group added that if lower prices were offered, the crop would be stored rather than sold [RGWB 24 November 1930:8]. A similar resolution was passed a month later by another group of millers, traders, and growers in Myoma, also under the auspices of the Council of National Associations [RGWB 29 December 1930:10]. In early January of the following year, the Burmese Chamber passed a resolution attributing the decline in paddy prices partly to the Bullinger Pool and called upon all paddy producers and sellers to create boards for the purpose of withholding the crop unless prices way above current ones were obtained for them [RGWB 12 January 1931:9]. Thus had the movement to hold out for higher paddy prices begun, prompting a correspondent of a Rangoon paper to warn the public that such action could only aggravate the already precarious decline in prices [RGWB 26 January 1931:12]). The Burma Chamber acknowledged the growth of this movement but maintained it would fail to arrest the fall in prices (RGWB [9 March 1931:9]; [7 March 1932:5]). The Assistant Director of Agriculture for the Irrawaddy Circle commented on the futility and adverse impact of the move by Burmese growers and millers:

> This advice has been to a great extent adopted by agriculturists, but the effect is just the reverse of what was foretold. The paddy market opened at about Rs. 84 per cent in the beginning of January and has now dropped to Rs. 70 per cent. This indicates that Burma is losing its hold in the market and unless she is prepared to dispose of her paddy at the available market price she will be saddled with a large stock of exportable surplus, which … will be difficult to get rid of. The result will be disaster to the economic life of the country. [RGWB 9 March 1931:21] Those opposed to the Bullinger Pool testified before the Rice and Paddy Trade Enquiry Committee that as a result of the Pool's manipulation of the paddy and rice market, small millers and merchants were gradually driven out of business. They further alleged that the Pool reaped enormous profits which it kept to itself [Interim Report of the Committee 1931:17-9].

It is difficult to evaluate the claim about profits in the absence of evidence that only the Pool could have provided, which the Committee itself acknowledged [ibid.:19]. The Committee was further handicapped by inadequate information on rice prices in Europe, which varied depending on the terms of sale: f.o.b. (free-on-board), c.i.f. (cost, insurance, and freight), or ex-warehouse (spot). Rice exported to Europe and other Western markets was commonly shipped at c.i.f. terms, under which the seller paid for the insurance and freight, the cost of loading the goods onto the ship, and delivering them alongside the jetty at the port of destination as well as port dues and brokerage fees in Rangoon and London. But some in Burma, such as Mr. Solomon, the secretary of the Enquiry Committee, claimed that the large millers sold rice in Europe at spot prices. Also, different qualities of rice were exported to Europe (Europe qualities super, 0, 1, 2, and 3), each at its own price. Of these, the accepted pricing standard was Europe No. 2 rice (also called Burma No. 2 or Rangoon No. 2) because the prices of other Europe qualities tended to follow its movement even if this particular quality did not form the bulk of rice exports to Europe [Solomon 1931:78].

In estimating profits earned from the rice trade, the government and the Burma Chamber could not agree on any item that went into the pricing of milled rice, from the purchase price of paddy, to the costs involved in rice production, the milling output (which varied according to the quality of paddy and the desired grade of rice; see Cheng Siok-hwa, [1968:105]), and the cost of c.i.f. shipment. These points of difference are summarized in the comparison below.

TABLE 6. Rice trade profits earned by large millers as estimated by the Government and the Burma Chamber of Commerce, 1931

<table>
<tr><th>Government</th><th>Burma Chamber of Commerce</th></tr>
<tr><td>1. The prevailing price of paddy in Rangoon was Rs. 75 per 100 baskets (of 46 lbs. each).</td><td>1. Accepted this figure but called it deceptive because only the best grain could be milled into Europe No. 2 rice quality, and it cost more than Rs. 75 per 100 baskets.</td></tr>
<tr><td>2. The costs of processing the paddy were:
• Rs. 4 for the brokerage fee, and
• Rs. 9 for actual milling.</td><td>2. Cost did not take into account the expense of maintaining a large fleet of gigs hired out to brokers, and the official figure on milling costs was too low. Brokerage fee was accepted in addition to revised figures:
• Maintenance of transport at Rs. 1;
• Milling at Rs. 10 for 100 baskets.</td></tr>
<tr><td>3. 100 baskets of paddy would yield:
• 28 baskets of No. 2 quality,
• 12 baskets of broken rice, and
• 10 baskets of bran (all at 75 lbs. each).</td><td>3. Yield of 28 baskets was the maximum possible and only from the highest quality grain. Average yield was:
• 26 1/2 baskets of No. 2 rice,
• 13 1/2 baskets of broken rice, and
• 10 baskets of bran.</td></tr>
<tr><td>4. Prevailing prices of the yield were:
• Europe No. 2 rice in Europe: Rs. 5-2 per cwt. (112 lbs.) or Rs. 96 for 28 baskets;
• Broken rice in Rangoon, Rs. 21-8 for 12 baskets; and
• Bran in Rangoon, Rs. 3-8 for 10 baskets.</td><td>4. Prices were accepted and adjusted based on the yield above:
• Rs. 89-7* for 26 1/2 baskets of No. 2 rice c.i.f. London;
• Rs. 24-3 for 13 1/2 baskets broken rice Rangoon; and
• Bran, the same.</td></tr>
<tr><td>5. Cost of shipping 28 baskets of No. 2 rice to London at c.i.f. terms was Rs. 28.</td><td>5. Cost of shipping 26 1/2 baskets of No. 2 rice to London at c.i.f. terms was Rs. 26-8.</td></tr>
<tr><td>Total expenditure = Rs. 116</td><td>Total expenditure = Rs. 116-8</td></tr>
<tr><td>Total revenue = Rs. 121</td><td>Total revenue = Rs. 117-2</td></tr>
<tr><td>Surplus = Rs. 5 per 100 baskets of paddy, from which office expenses still had to be deducted.</td><td>Surplus = 10 annas** per 100 baskets of paddy, from which the following still had to be deducted:
• Office expenses,
• Cost of depreciation of mill properties, and
• Interest on capital invested.</td></tr>
</table>

* There seems to be an error in the Chamber's calculation of the amount received for 26 1/2 baskets of No. 2 rice at the c.i.f. London price of Rs. 5-2 per cwt. The correct figure should be Rs. 90-4. The total revenue earned becomes Rs. 118-9, less expenses of Rs. 116-8, leaving a surplus of Rs. 2-1 for 100 baskets of paddy and not 10 annas as claimed by the Chamber.
** 1 rupee =16 annas
Sources: Government Communique on Paddy Price Control, RGWB 30 March 1931:4; RGWB 13 July 1931:23.

7. Impact of the depression

The question of profits was exacerbated by the drastic fall in paddy and rice prices in 1930-31, heightening the perception that the Pool was raking in enormous profits. In response to this view, Mr. Henry, Chairman of the Burma Chamber of Commerce, told the body in February 1930 that European millers were "not in a position to dictate to the world's markets what price they should pay for their rice", and that the country which produces rice most cheaply is the one that secures a position in the world market, referring to Saigon and Siam as competitors in the Asian region and to Spain, Italy, and Egypt as global competitors [RGWB 3 March 1930:3]. The exoneration of the Bullinger Pool was echoed by Governor Sir Charles Innes, who argued at the opening of the Legislative Council's session on the budget in 1931, that the decline in Burma prices of Big and Small Mills Specials (the quality of rice sold to India and other Asian markets) was not as bad as that of the major agricultural products of India.

> Surely, he insisted, this fact should make any one pause before he gives currency to the statement that the collapse of our rice market is not due to the causes that are depressing prices all over the world but to special local causes connected with the operation of what is known as the Bullinger Pool, and the need for caution is also shown by the fact that prices of rice and paddy have fallen as much in Saigon as in Rangoon and nearly as much in Siam. [RGWB 16 February 1931:3].

With regard to the Burma Chamber's claim, the Rice and Paddy Trade Enquiry Committee found that in Asia as a whole—which was the largest buyer of Burma rice—increased exports from Siam and Indochina were not effected at the expense of Burma, and that in India and Ceylon, the major markets, Burma still enjoyed a strong footing in the rice trade. However, lower freight rates to Singapore and Hong Kong from Saigon and Bangkok gave the latter two rice-producing centers an edge over Rangoon. As for the western section of the rice export trade, the Committee observed that Italy, Spain, the United States, and British Guiana were indeed growing competitors, and that Germany, Holland, the United Kingdom, and Italy re-milled and re-exported rice imported from Burma to other parts of Europe, the West Indies, and South America, thereby posing additional competition to Burma [Interim Report 1931:6-15]. The Burma Chamber of Commerce seized upon these findings to reiterate its position that cheap rice production was the key to Burma's competitiveness.

Mr. M. Eusoof, the Moulmein representative to the Legislative Council, disagreed. He presented a comparison of c.i.f. prices in Europe for Europe rice No. 2 and similar qualities from Saigon, Siam, North America, Spain, and Italy, and showed that Burma sold her rice at the lowest price along with Saigon [BLCP 20 February 1930:247]. The f.o.b. (free-on-board) price of No. 2 rice in London was also lower than that of Siam and the same as Saigon's in January 1930 [RGWB 26 January 1931:12]. Eusoof concluded:

It is clear that though Burma sends the largest exportable amount of rice to other countries, it really sells at the cheapest rate, and in spite of it the cultivators are suffering from the continuous fall in the paddy trade. [BLCP 20 February 1930:247] Solomon also pointed out that from 1929 to 1930, rice prices in Rangoon fell by 16 percent compared to the seven percent decline in London. The Burmese Chamber of Commerce believed that the decline in Rangoon paddy and rice prices in 1930, particularly from August to the end of that year, was caused by European rice firms that dumped milling notices without having enough paddy to mill—thus bloating, at least on paper, the available supply of both paddy and the expected outturn of rice—"and in many cases with no intention of milling and giving delivery according to these notices" [RGWB 5 January 1931:10]. With the expected oversupply suggested by the milling notices, prices dropped. The Chamber did not supply proof of dumping milling notices, although one such case landed in court in 1930-31 that demonstrates the practice of issuing milling notices even without paddy on hand. That case, between Steel Bros. (seller) and Tokarsee Mooljee and Co. (buyer), however, did not show an intent not to deliver the rice for it was, in fact, delivered but late (RGWB [30 November 1931:2]; [23 May 1932:7-8]).

Solomon advanced another explanation for the fall in paddy prices. He maintained that in the early part of 1930, the Pool pursued a policy of selling rice freely, thereby depressing the price of rice and, in effect, of paddy. In the meantime, district millers found few buyers for their rice. Unable to sell as freely as they wanted, local millers were not able to buy paddy at the scale they had previously done. Solomon claimed that the large mills took advantage of this situation to purchase large quantities of paddy during the first quarter of 1930, at prices they believed would produce profits later. In the end, the big millers were able to operate at full capacity and hence reduce their overhead expenses, while many small millers in the districts and in Rangoon, having obtained little paddy, thought it wise to shut down after the milling season started rather than operate with uncertain supplies of paddy [Solomon 1931:78].

In the final analysis the Enquiry Committee asserted that prices in Rangoon (which determined prices in the districts) were governed by the world market price. The latter, in turn, was determined by the demand from Asia, the largest consumer of rice. Since European and Western markets, in which the Pool had a dominant position, absorbed less than a third of Burma's total exports, the Committee believed it was unlikely that the Pool could influence the movement of prices [Interim Report: 1931:21-2].

Those opposed to the Pool remained unconvinced, however. They argued that even in the face of such situation, the Pool had room for maneuver. If the price of rice in Europe and India moved alongside each other, the market situation would remain quiet. But they alleged that if the demand from India became stronger than usual, thus raising the price of rice, the Pool would lose, for the increased demand for rice would push up the price of paddy. The Pool would then have to purchase paddy at higher prices even through there was no corresponding price increase in Europe (presumably because different qualities were sold on the European and Indian markets). To prevent an upsurge in paddy prices, it was believed that the Pool would sell rice locally at a lower price than that obtainable by Indian traders selling from Burma. These merchants would consequently suffer a loss. So would the cultivators because the price of paddy would fall. The Pool would also lose but could make up for its losses in the European trade, which it commanded [ibid.: 19]. The Pool denied this allegation.

8. Price manipulation and access to paddy

The relationship between rice and paddy set the framework for the industry's price mechanism. As discussed earlier, profits from the local rice trade came from the difference between the price at which paddy was bought and rice was sold, after deducting milling and other expenses. There had to be some parity between paddy and rice prices in order for the miller to produce rice and make a profit. The existence of a combination to set prices for both paddy and rice in the local market subjected the parity in both prices to manipulation. There were two methods by which the Bullinger Pool was believed to have manipulated prices. One method, given in evidence before the Enquiry Committee, was for the Pool to raise the price of paddy in the early part of the season slightly higher than the price it ought to be in comparison with the corresponding price of rice. Those wary of the Pool claimed that this was done so that the Pool could amass sufficient supplies of the crop and restrict its competitors by making the latter pay more for paddy than the local going price for rice would allow. The second was that the Pool would set rice at prices too low to allow small millers a profit, thereby discouraging other mills from entering the paddy market. Consider the hypothetical scenarios below, reckoned from Solomon's formula.

TABLE 7. Parity between rice and paddy prices per 100 baskets

	Market price of small mills specials rice	Parity price of paddy
Case 1:	Rs. 400	Rs. 159
Case 2:	Rs. 410	Rs. 163
Case 3:	Rs. 405	Rs. 161

Source: Calculated using Solomon's formula, on an average cash outturn of 41.5 percent for Small Mills Specials and a milling cost of Rs. 7.

Let us suppose that the market price of rice was Rs. 400 per 100 baskets (case 1), for which the parity price of paddy would be Rs. 159. It was alleged that if the Pool wished to sell rice abroad at Rs. 410 (case 2), it would not want the price of paddy to rise to Rs. 163 so that it could obtain a larger margin of profit. The Pool would then agree to buy paddy at Rs. 161 per 100 baskets but, not wanting the price of rice to go up to Rs. 405 (case 3) in order to maintain as large a spread as possible, the Pool would sell rice locally at Rs. 400. Thus by setting the buying price of paddy at Rs. 161, or two rupees above the parity price (case 1) and selling rice at Rs. 400 (instead of Rs. 405 as shown in case 3), other millers affected by these policies would end up milling at a loss. So would the Pool but since it planned to sell rice outside Burma at Rs. 410, it could easily recoup its losses. The cultivator or paddy seller would also be affected, for with the Pool's export price of rice at Rs. 410, he should receive Rs. 163 instead of Rs. 161.

But what volume of rice did the Pool handle locally and was it enough to affect the parity between paddy and rice? The Burma Chamber asserted that it was impossible for the Pool to control the trade:

> The British firms do not handle more than about one third of the exportable surplus of the Burma Rice crop, or little more than one sixth of the total crop…. It would be more logical to conclude that those other rice millers and exporters, who are handling the great bulk of the crop, have been responsible for forcing down prices. This Chamber, however, does not subscribe to such a view, being well aware that the fall in paddy prices is due to causes entirely beyond the control of those engaged in the trade. [RGWB 5 January 1931:9]
> The Enquiry Committee agreed, pointing out that the Bullinger Pool milled from 22 to 37 percent of the rice exported by Burma from 1925 to 1930.

TABLE 8. Percentage of total rice exports milled by the Pool, 1925-30

Year	Percentage of total
1925	36.9
1926	33.0
1927	31.0
1928	22.4
1929	28.7
1930	30.4

Sources: *Interim Report of the Committee Appointed to Enquire into the Rice and Paddy Trade* (Rangoon: Supdt., Government Printing, 1931), 17; *Report of the Burma Legislative Council Proceedings* 19, 6 (19 February 1931): 259.

Two members of the Committee, Mr. W. Richards of the Burma Chamber of Commerce, and Mr. A. Chandor of the Burma Indian Chamber, added in a separate note that since millers outside the Pool handled about 70 percent of total exports, their financial weakness did not hamper them from "competing effectively" with the Pool for supplies of paddy (Note attached to the Interim Report[1931:37]).

The Burmese Chamber of Commerce replied that first, based on its study of the daily export lists from 1 January to the end of September 1930, the British firms exported about 37 percent of the total exports from Rangoon alone. Most of the remaining 63 percent had "no mills and … [had] consequently to depend upon millers, including the British firms to get the rice required for export" [RGWB 5 January 1931:10]. Second, based on the daily market reports of boat and rail paddy arrivals, the Chamber estimated that British firms purchased about 65 percent of total paddy arrivals into Rangoon. This share, plus the fact that these firms bought additional rice from small millers which they resold locally to other exporters, formed the basis of the Burmese Chamber's estimate the the British firms actually handled no fewer than 50 percent of Burma's exportable surplus [ibid.].

Part of the Burmese Chamber's estimate can be verified. In the latter half of 1932, the "Money and markets" series of the *Rangoon Gazette Weekly Budget* (RGWB) included a section on rail and boat arrivals of paddy in Rangoon. The data shows that on a weekly basis during this period, large millers took in from 32 to 63 percent of the total number of baskets of paddy brought to Rangoon, by no means a small or insignificant share.

TABLE 9. Share of paddy arrivals in Rangoon held by big millers from the end of September to mid-December, 1932

Week ending	Total no. of basket arrivals	Share held by big millers	
		No. of baskets	Percent of total
24 September	34,800	12,900	37.1
1 October	20,600	6,600	32.0
8 October	43,600	25,600	58.7
22 October	30,300	18,200	60.1
5 November	17,000	9,000	52.9
19 November	42,500	18,500	43.5
26 November	27,800	16,700	60.1
3 December	14,500	5,100	35.2
10 December	16,900	5,400	32.0
17 December	13,600	8,600	63.2

Source: RGWB 26 September to 19 December, 1932.

The amount handled by the Pool was sufficient to enable its members to influence the market price of paddy (and rice) if they so chose, for they combined precisely to operate on a common price policy. Although the Enquiry Committee exonerated the Pool, the Committee report is peppered with implicit admissions of the Pool's influence. For instance, the Committee observed: "That the way in which the Pool handles this quantity has a temporary influence on local prices must be admitted, but that it is able to manipulate prices in face of world conditions is highly improbable" [Interim Report 1931:26]. In other words, the volume of rice in the hands of the Pool was sufficient to permit it to exercise influence over the market, albeit temporarily.

The Committee, moreover, found it justifiable that the Pool would compensate for any losses in the local trade with profits from its trade in Europe, adding that this was "not clearly unfair to the small miller".

The Pool cannot reasonably be expected to stand by and see its mills closed down and the capital sunk in them become a total loss. *It may be that is methods are not all that could be desired*. But it seems to us a sufficient answer that the competition, which it had to face, was intensive and forced on it. [ibid.: 22] (italics supplied)

In the end the Committee asserted that the Pool had no legal monopoly. Such dominating position as it has arises from the power to organise, hard work, fair dealing with its customers and loyalty of its members one to another. The small miller can attack the monopoly in so far as he shares these qualities and has adequate finance [Interim Report 1931:22]. In the eyes of the Enquiry Committee, matters would have been worse without the Pool. Paddy prices would have soared uncontrollably, given the competition in the rice milling sector. Cultivators would have benefitted, but only temporarily because mills would end up working at a loss, thus leaving room for others to organize a monopoly. In the end the paddy grower, the Committee stated, would end up worse off [Interim report 1931:26]. In effect the Committee was saying it was better to have 'controlled' competition that one that operated freely; that it was better to have a combination than none at all, and that the Pool's monopoly was the lesser evil given the circumstances in Burma. Uncannily the Committee acknowledged the very defects of the system and the real power of the Bullinger Pool.

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