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# ‘Working Rules for Financial Statements’ and Pre-WW2 Financial Reporting of Japanese Industrial Firms: The Case of Chemical Firms

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# ‘Working Rules for Financial Statements’ and the Pre-WW2 Financial Reporting of Japanese Industrial Firms: The Case of Chemical Firms

**Abstract**

The purpose of this study is (i) to explore how financial reporting was practiced under the condition of shareholders’ effective governance which operated in Japanese industrial firms in the pre-WW2 period and (ii) to investigate reasons why the Working Rules for Financial Statements issued in 1934 had no important impact upon financial reporting practice by examining empirical data for the pattern of reporting adopted by 18 chemical firms. The study demonstrates that the reason for the absence of practical impact of the Working Rules was not simply the lack of enforcement power, as suggested in prior studies, but that financial reporting practice was influenced by: an extreme concealment policy founded on the unfinished separation of management from ownership; the formation of the new business concerns in the Japanese chemical industry; and a prolonged industrial slump in the chemical industry during the 1920s and the early 1930s.

**Keywords**: the Working Rules for Financial Statements; financial reporting practice; chemical firms; concealment; new business concerns

## Introduction

The quality and quantity of historical research on Japanese accounting regulation in general, and in particular the first official accounting principles developed in the post World War 2 (WW2) period, i.e., ‘Business Accounting Principles’ (*Kigyo Kaikei Gensoku*) issued in 1949, have been enhanced through the work of McKinnon (1986), Kurosawa (1987 and 1990), Someya (1989 and 1996), Fujita (1991), Cooke and Kikuya (1992), Chiba (1995 and 1998) and others.[1] However, the accumulated research on accounting practices adopted by specific organizations in Japan is still limited, especially when compared with those of other, particularly western, countries. Japan-based studies that have been completed include those of Ogura (1962), Katano (1968), Takatera (1974), Takatera and Nishikawa (1984), Chiba (1987a and 1987b), Hisano (1987 and 1992), Nishikawa (1992), Yamashita (1995), Yamaguchi (1998, 2000 and 2001), Toyoshima (2000) and Sasaki (2001). Much of these studies, however, has focused on ‘*Zaibatsu*’, i.e., financial combines closely connected with the economic and political interest of the Japanese government, such as Mitsui, Mitsubishi, Sumitomo and Yasuda. *Zaibatsu*’s influence was undoubtedly important in Japanese society, but the number of firms involved was limited to a few hundred at most (Okazaki, 1994, p. 62), which implies that less high-profile firms have been ignored. The time periods examined to date have also concentrated on the Edo (1603-1867) and Meiji (1868-1912) Eras or the post-WW2 period in the Showa Era (1946-), whereas the period between these, particularly the inter-war period, was overlooked, in spite of it being a critical time in Japanese history. Kurosawa (1990, p. 190) has suggested that ‘signs of modernization of accounting regulation in Japan date back to this important period’. Indeed, it was in 1934 that the ‘Working Rules for Financial Statements’ (*Zaimu Shohyo Junsoku*), the first official guideline in Japan for financial reporting, were formulated.

[1] Others include: Cooke (1991); McKinnon (1994); Kawamoto (2001); Kikuya (2001); Chiba (1996 and 2001). For details on the development of ‘Business Accounting Principles’ and the US influence thereon, *see* Kurosawa (1979-80) and Chiba (1995, 1998 and 2001).

Even those studies which have examined the inter-war period, the focus has been placed on cost and management accounting rather than financial reporting. This study aims at filling the gap in the Japanese accounting history research.

**Analytical Object**

There was no effective legislative control in Japan for financial reporting in the pre-WW2 period (Yamaguchi, 1998, p. 3; Miyajima, 2004, pp. 169-70). The Commercial Code (originally enacted in 1890 and re-enacted in 1899) required publication of a balance sheet and presentation of both balance sheet and profit and loss account to shareholders in order to give them a means to monitor, and check if necessary, the behavior of the management. However, there was no rule governing the content to be disclosed. It has thus been argued that there existed a significant deficiency among business firms in levels of disclosure (Ministry of Commerce and Industry, 1934, p. 1; Kurosawa, 1987, p. 10; Chiba, 1992, p. 6; 1998, p. 31). The Working Rules for Financial Statements were published by the 'Financial Management Committee' (*Zaimu Kanri I-inkai*) of the Ministry of Commerce and Industry (*Shokosho*). These rules purported to protect the interest of investors by providing standardized financial information (Ministry of Commerce and Industry, 1934, p. 1) and, through that information, to provide firms with the means for rationalization (Chiba, 1998, p. 38).

Studies of 'Japanese Management' point to the fact that a large number of public firms, where shareholders effectively governed the management, existed in the Japanese financial system in the pre-WW2 period (Okazaki, 1994, p. 72; Miyajima, 1995, p. 77).[2] This situation may be contrasted with the post-WW2 period, when the major commercial banks provided, not only relief funds in the immediate postwar period, but also rationalization funds thereafter, thereby becoming the 'Main Bank' for and controller of industrial firms (Udagawa, 2004, p. 253; Miyajima, 1995, p. 111). Okazaki *et al*. (2005, p. 15) characterized corporate governance in the pre-WW2 period as market, rather than bank, oriented.

The purpose of this study is to explore how financial reporting was practiced under the condition of shareholder governance which operated in Japanese industrial firms in the pre-WW2 period and to analyze the impact of the Working Rules for Financial Statements upon reporting practices by examining empirical data for 18 industrial firms.

Prior research has examined accounting in banking (e.g., National Banks), insurance (e.g., Nihon Life Insurance), shipbuilding (e.g., Mitsubishi Shipbuilding), shipping (e.g., Japan Mail Steamer), railway (e.g., Japan National Railway), paper production (e.g., Oji Paper Manufacture), cement production (e.g., Onoda Cement), electronics (e.g., Shibaura Works), steel (e.g., Kobe Steelworks), flour (e.g., Nissin Flour) and spinning (e.g., Nissin Spinning). These firms were mainly *Zaibatsu* related firms that were

[2] According to Okazaki (1991, pp. 371-2; 1993, p. 180), the pre-WW2 corporations had established effective government structures through the shareholders' power to appoint the members of boards of directors, as originally designed in the Commercial Code regulation. The Commercial Code re-enacted in 1899 formulated a modernized legislation of affairs of business firms by liberalizing incorporation and equipping basic provisions for shareholders' meetings, directors and auditors. In particular, shareholders' meetings were given the highest authority and regarded as the omnipotent body able to resolve any matters, including appointment and dismissal of directors and auditors.

nationally regulated or strategically deployed as Japan's national interests. Thus, it is natural that the pattern of reporting was influenced by Japan's national interest, as suggested by Hisano (1987, pp. 9-10) and Chiba (1987a, p. 91; 1998, p. 11).[3]

This study of 18 chemical firms is designed to avoid the national and *Zaibatsu* related bias seen in the prior research and to shine a different light on the Japanese accounting scene in the pre-WW2 period by selecting an industry which was economically emerging but *relatively* insulated from Japan's national interest,[4] though some were later formed into large-scale industrial groups, called 'new business concerns (*Shinko Konzern*)' (Miyajima, 1995, p. 87), as represented by Nissan, Nicchitsu, Nisso *Konzern*. The selection is consistent with the purpose of the Working Rules for Financial Statements that assumed 'more general commercial and industrial companies' as its targets. The chemical industry, which produced, for example, oil and fat, ink and paint, celluloid, soda, oxygen and chemical fertilizers, had common features such as technologically intensive, scale economy (Nihon Nitrogenous Fertilizer, 1927, p. 455) and included public companies that were led by a managing director who was also the largest shareholder.

The empirical data contained in the 'Business Reports' (*Eigyo Hokokusho*) are utilized in this study. The reports were prepared, under the requirement of the Commercial Code, for each accounting period (normally a half year) and presented to shareholders, to which a set of financial statements, chiefly comprising balance sheet and profit and loss account, was attached. The original collections of the reports are kept in the National Diet Library and the Library of the Department of Economics at the University of Tokyo.

The remainder of this study is constructed in the following manner. Prior literature on the Working Rules for Financial Statements is reviewed in the next section, where the need to accumulate more empirical research on financial reporting practiced by specific firms is re-emphasized. The fourth section explains in more detail the analytical object in this study, i.e., 18 chemical firms. In the following section, financial reporting practiced by the chemical firms is analyzed. The findings gained and the implications derived are presented in the concluding section.

## Working Rules for Financial Statements

[3] Chiba (1998, p. 11), relying upon Hisano (1987, p. 4), attributes the characteristics of financial reporting practiced by Japanese firms to the way of construction of a modern nation in Japan and stated that 'In the case of National Banks, the accounts not only needed approval in the shareholders' meetings but were consistently submitted to the Chief Officer (after 1887 the Lord of Finance) of the Ministry of Finance and their approval was needed to be obtained…In a sense, this is a faithful expression of the fact that National Banks were established under the strong guidance and cordial protection of the Ministry of Finance as an indispensable institution for the construction of the modern state of Japan…The same structure applies to Japan Mail Steamer Co. Ltd. established in 1895 under the cordial protection, including the provision of subsidies, by the government for the enterprise bearing the future prospect of Japan's marine transportation…it [the accounts], transcending shareholders' meetings that should originally be the object for financial reporting, functioned as a form of application to the 'state', on which the authorization of profit appropriations or the supply of subsidies were requested'.

[4] It must be admitted that all the industries in the pre-WW2 period were more or less affected by Japan's national interest. The chemical firms were no exception; they occupied a corner of the munitions industries that made the army and the naval forces one of the main customers.

The Working Rules for Financial Statements originated in Japan's national movement of 'industrial rationalization' (*Sangyo Gorika*) which began in the 1920s, the essence of which was to rationalize, under the guidance of the state authority, private firms by introducing modern managerial instruments, generally identified as the 'scientific management' formulated in western countries (Kubota, 2001, p. 22). Under the movement, the state protected nationally important industries by restricting competition, both domestic and international, through the promotion of the creation of cartels and the amalgamation of industrial firms (Dainihon Celluloid, 1981, p. 4, 9). In exchange for this protection, it assumed powers for intervening in the management of companies in various ways. The guidance provided by the Working Rules for Financial Statements was one manifestation of such intervention. The rules, at the stage of initial issuance in 1934, consisted of standardized forms of balance sheet, profit and loss account and property inventory (for examples of the first two, see Appendix 1) that contained no instructions concerning profit/asset measurement, though 'Working Rules for Property Valuation' (*Zaisan Hyoka Junsoku*) and 'Working Rules for Production Cost Accounting' (*Seizo Genka Keisan Junsoku*) were later issued in 1936 and 1937. The preamble of the original rules outlined the financial reporting deficiencies that the new regulations were intended to address:

> Although, in specific industries such as banking, insurance, electricity and railways, a model form of financial statements is provided in each special law, there is no such standard for more general commercial and industrial companies. Therefore, a *wide variety of forms of financial statements are published* by these businesses. Many of these also appear to be too simplified or, in a worse case, window-dressed, with the result that the financial truth is not clarified in the statements. It would not be possible, under the circumstance, to expect the managerial improvement and the development of the industries, even if some modern tools are introduced for the purposes. We know many cases in which investors and creditors suffered significant losses from investing in firms issuing false financial statements. The preparation of proper financial statements is very important from the viewpoints of both the private economy and the national economic administration…First of all, a model form of financial statements should be prescribed by establishing rules aiming at standardizing the style, classification and names of items to be disclosed in the financial statements. (Ministry of Commerce and Industry, 1934, p. 1, *emphasis added*)

The idea of standardizing the form of financial statements was not unique to Japan; the British Joint Stock Companies Act, 1856, had already included a uniform balance sheet in its model articles, 'Table B', which individual firms were free to adopt or modify as they wished (Edwards, 1989, p. 214; Napier, 1995, p. 265), and standardized formats were imposed on companies operating in certain, high-profile, industries such as the railways from 1868. The Federal Reserve Board of the USA also had recommended that business firms adopt a uniform set of financial statements to be presented to banks for loans, by issuing *Uniform Accounting* (1917) drafted by the American Institute of Accountants (Previts and Merino, 1998, p. 232). It was allegedly a further document issued in 1929 by the American Institute, 'Verification of Financial Statements', that urged the consideration of the standardization of financial information (particularly balance sheet items) in Japan (Kurosawa, 1987, p. 18; 1990, p. 207).

Kurosawa (1990, pp. 222-3) recognized the significance of standardizing financial information and regarded the Working Rules for Financial Statements as 'an initiative in modernizing and enlightening accounting regulation in Japan'. He also emphasized the continuity of accounting regulation between the pre- and post-WW2 periods by stating that 'Business Accounting Principles was formulated in the post-WW2 period by systematically integrating, inheriting and developing the Working Rules for Financial Statements and the Working Rules for Property Valuation' (Kurosawa, 1990, p. 221).[5] Kurosawa's stand has been shared by others (Hisano, 1987, pp. 353-4; Kawano, 1987, p. 27; Chiba, 1987c, p. 31; 1988, pp. 132-3; Kubota, 2001, p. iii).[6] Chiba (1987c, p. 31; 1998, p. 32) points to the following, among others, as the contributions of the Working Rules for Financial Statements to the enhancement of the standard of financial reporting: (a) clearer separation from the proposed appropriation account, and purification, classification and specification of profit and loss account items;[7] (b) classification and ordering of balance sheet items; (c) clearer conceptualization of 'provisions'; (d) creation of the section of 'shareholders' accounts'. The improvement envisaged in the Working Rules for Financial Statements was thus the provision of detailed and standardized information through the increased and clearer classification of items to be disclosed in both balance sheet and profit and loss account.

As to the practical impact of the rules, negative views are predominant (Hisano, 1987, p. 353; Kawano; 1987, p. 27; Chiba, 1998, p. 35). Even Kurosawa (1987, p. 10; 1990, pp. 222-3), identifying contemporary opposition to the disclosure of performance information, questioned the Working Rules' practical impact. Significantly, Morita (1987, p. 48) quotes the following reminiscence by an officer responsible for the administration of the accounting system operated at Hitachi Works:

> I knew that the Financial Management Committee issued the Working Rules for Financial Statements in 1934. But it didn't have any *enforcement power* and we didn't consult it at all. We didn't have any difficulty in getting along with Hitachi's own way. (*emphasis added*)

The existing literature similarly attributes the absence of practical impact to the lack of enforcement powers. Moreover, it is known that the attempt to enforce the rules was persistently opposed by industrial members represented on the Financial Management Committee, as later clarified by Tetsuzo Ota (1968, pp. 118-9), a member of the committee. One of the reasons for the opposition was attributed, by Kubota (2001, p. 61), to the fact that the Working Rules for Financial Statements, from the beginning of the preparation, had been criticized as 'having no practical use because of the excessive remoteness from the existing practice due to requesting the disclosure of too much detail'. In this context, the minimal practical impact due to the lack of enforcement powers should have been foreseen. This revelation rather raises the need to empirically explore how financial reporting practiced by the firms deviated from the guideline

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[5] Kurosawa (1990, pp. 223-4) stated that 'almost all accounting texts in Japan were revised in accordance with the Working Rules for Financial Statements. It is safe to say that all professional experts specialized in accountancy…accepted the Working Rules for Financial Statements and its related accounting rules as the paradigms of accountancy'.

[6] For Kurosawa, *see* Chiba (1994).

[7] Pointing to the financial reporting in Japan having been influenced by British practice, Chiba (1998, pp. 34-5) argues that a dominant form of profit and loss account in a specific industry, particularly National Banks, was in fact a combined form of the profit and loss and the proposed appropriation accounts. According to Chiba (1998, pp. 32-3), 'In 19th century Britain, the so-called 'profit and loss account', even in the case of indicating summary and result of operating performance, was in its substance nothing but profit appropriation proposal…the fact that many profit and loss accounts that early Japanese business corporations issued since the Meiji era were named as the report of proposed appropriations or the combined statement of profits and losses and proposed appropriations, indicates that Japanese firms introduced in its financial reporting practice the above-mentioned British-styled 'profit and loss accounts'' (*see* also Kurosawa, 1990, p. 258; Katano, 1968, p. 155).

provided by the Working Rules for Financial Statements. Kawano (1987, p. 28) rightly indicates the need to accumulate more empirical evidence on financial reporting practiced by firms. Responding to Kawano's suggestion, this study widens the evidential base and examines the pattern of financial reporting adopted by 18 chemical firms. By so doing, it seeks to explore influences that conditioned the pattern to be practiced and to investigate more precisely why the Working Rules for Financial Statements had no significant impact upon the practice.

This study will demonstrate the following: as far as the disclosure of performance information is concerned, reporting practice adopted by large-sized public firms was uniformly, and consistently for the period from 1919 to 1939, marked by an extreme concealment policy, as Kurosawa (1987, p. 10; 1990, pp. 222-3) suggested, whereas the practice of private firms was variable. Among the latter, some companies that had long been established and financially independent of the new business concerns had taken a positive stance toward the disclosure, particularly early in the period, whereas the other recently established, and affiliated with the new business concerns, tended to follow concealment practices. The initial positive stance of some private firms also proved temporary because of the prolonged slump that continued through to the first half of the 1930s.

## Japanese Chemical Industry in the Pre-WW2 Period

### *Sample Selection*

Business Reports issued in the pre-WW2 period have been preserved only in part in the original collections. There are reports issued by 174 chemical firms in total, located in Japan and China, extending from 1910 to 1954, though there are gaps in the record. Among them, reports issued by 18 chemical firms have been selected as a sample, in accordance with the following seven criteria to secure relevance and completeness of the data.[8]

(1) reports issued by firms located in Japan;

(2) reports contain a full set of financial statements;

(3) companies having no financial connection with *Zaibatsu*;

(4) reports cover the inter-war period from 1919 (the end of World War 1 (WW1)) to 1939, except for a few firms newly established during that period;

(5) companies report on the basis of half-yearly accounting periods;

(6) run of reports suffer from no major gaps (i.e. less than 5 reports lacking);

(7) companies not closely involved with Japan's national interest (this test resulted in the removal of three dyestuff firms from 21 remaining through application of criteria (1) to (6)).[9]

In view of the small sample size, we acknowledge that this study does not comprise a comprehensive review on the pattern of financial reporting practiced by Japanese chemical firms. The incompleteness of available data creates a degree of bias in the

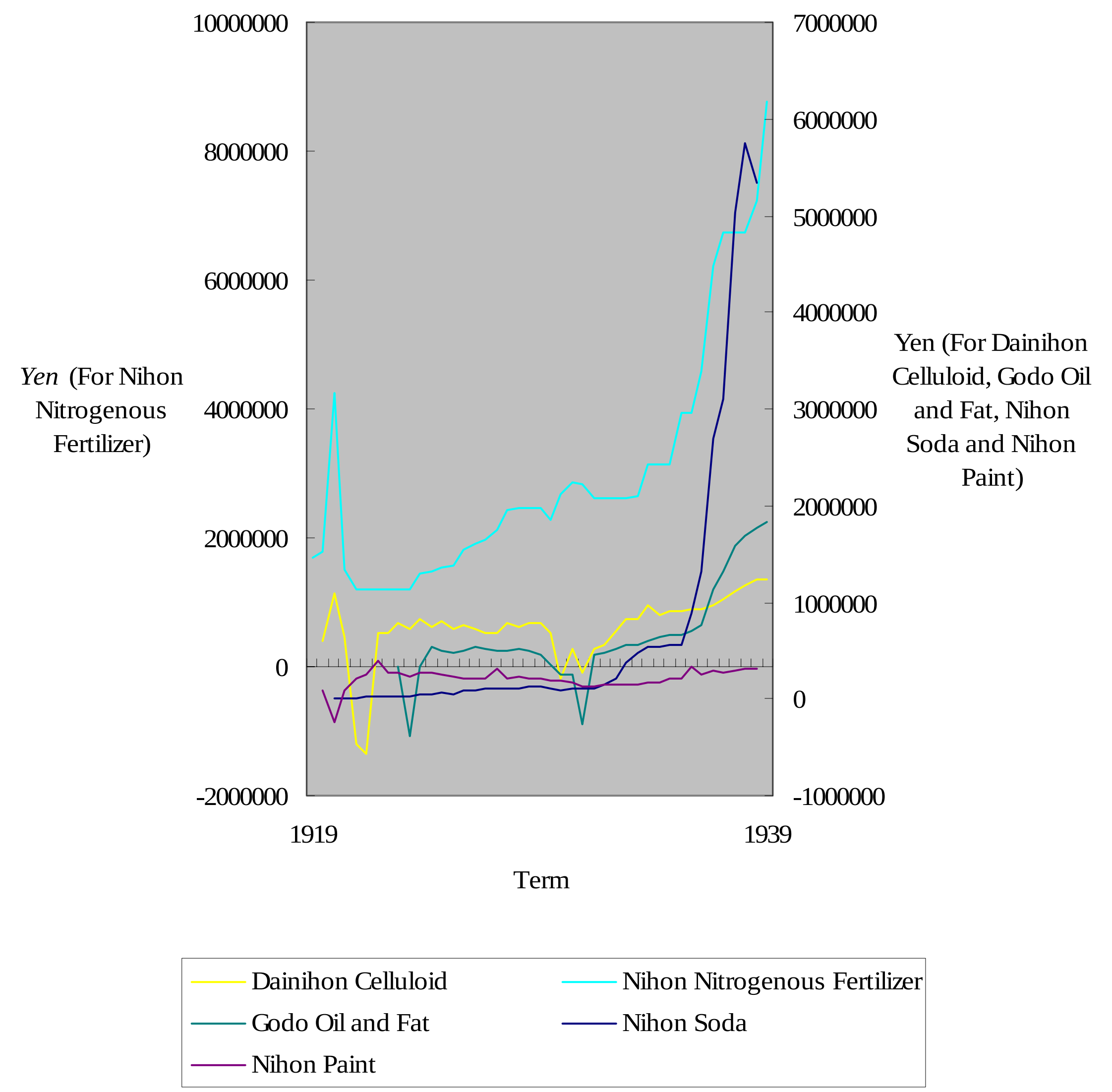
[8] Details of the sample are given in Appendix 2.

[9] The production of dyestuff was to a significant extent insulated from intensified competition with foreign countries, particularly Germany, by a highly protective policy adopted by the Japanese government intending to establish the industry, which included the imposition of a protective tariff, the introduction of import quota and even the guarantee of dividends to the shareholders.

sample but, in view of the nature of the research inquiry, this outcome is inevitable. It is also difficult to assess the impact of the Working Rules for Financial Statements, without access to the internal information sources of the firms. To rectify the last point, access to the minutes of meetings of the board of directors and interviews with relevant officers have been attempted and proved fruitful in two cases (Nippon Paint and Fukuoka Oxygen).

*Performance*

Figure 1. Half Year's Earnings of Large-sized Public Firms 1919-1939




(*Source*: Business Reports of Dainihon Celluloid, vols. 1-42; Nihon Nitrogenous Fertilizer, vols. 27-69; Godo Oil and Fat, vols. 1-39; Nihon Soda, vols. 1-40; Nippon Paint, vols. 40-82)

The outbreak of WW1 launched the Japanese economy into a period of constant boom. The price level of chemical products rose to 34.8 in 1913, 85.3 in 1919, when the level of 1920 is put as 100 (Miyajima, 2004, p. 326). The volume and amount of chemical products increased sharply and a number of new firms were established. For example, the annual output of domestic paints rose from 1,500 *tons* in 1911 to more than 20,000 *tons* in 1917 (Kansai Paint, 1979, pp. 7-8). For chemical fertilizers, the value of production rose from 72,406 *yen* in 1914 to 263,313 *yen* in 1919 (Miyajima, 2004, p. 26). The largest-sized (in terms of the amount of total assets) chemical firms formed in this period include Dainihon Celluloid (1919); Nihon Soda (1920) and Godo Oil and Fat (1920).

After WW1 Japan's economy plunged into a severe recession starting from about 1920. The chemical industry was no exception; all five large-sized public firms (those with more than 5,000,000 *yen*, on average, in the amount of total assets) within our database, tormented by excessive stocks and over-investment made during WW1, experienced heavy deficits or at least significant reduction of earnings (adjusted for 'reserves' for depreciation, employee retirement and taxes)[10] during the first half of the 1920s (Figure 1). The damage was severe for those firms in which the establishment of productive technology remained underdeveloped, such as soda producers (Nihon Soda, 1992: 14). To address the crisis, managers put a reconstruction program into force (Nippon Paint, 1982, p. 100), making their businesses concentrate on the production of a smaller number of products in which they were leaders, and disposed of the others. They cut back the work-force and made inventory control tighter and established accounting (budgetary) control.[11] Through drastic, but effective reform, they managed to escape the crisis and survived.

The Tokyo Earthquake that occurred in 1923 caused extensive damage over wide areas surrounding the capital and resulted in heavy losses to the firms located in those areas. The deficits some firms suffered in 1923 are set out in Table 1.

Table 1. Deficits in 1923

| Firm | Deficit (*yen*) | Percentage of the Total Asset | Firm | Deficit (*yen*) | Percentage of the Total Asset |
|---|---|---|---|---|---|
| Toa Celluloid | 105466 | 35.87% | Nagamine Celluloid | 127711 | 15.09% |
| Nihon Printing Ink | 109614 | 34.79% | Godo Oil and Fat | 1084431 | 11.38% |
| Toyo Ink | 232720 | 23.39% | Tokyo Sulfuric Acid | 153011 | 7.18% |

(*Source*: Business Reports of Toa Celluloid, vol. 8; Nihon Printing Ink, vol. 31; Toyo Ink, vol. 34; Nagamine Celluloid, vol. 13; Godo Oil and Fat, vol. 6; Tokyo Sulfuric Acid, vol. 37)

The Great Depression starting in 1929 dealt the Japanese economy another blow. The impact on performance is illustrated by sharp falls in the results reported for 1930-31 by large-sized public firms such as Dainihon Celluloid and Godo Oil and Fat, as shown in Figure 1.

The Japanese chemical industry, however, managed to project itself into a sharply ascending orbit, in parallel with munitions production, through increasing output under the rise of the military authorities in the second half of the 1930s (Nihon Soda, 1992, p.

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10 Most firms consistently charged the following items, *below* the line, in the proposed appropriation account: 'depreciation expenses of fixed assets', 'provisions for employee retirement', 'provisions for taxes'. In Figure 1, these items were, as far as recognizable, adjusted as 'expense', *above* the line. Although 'provisions for taxes' meant 'taxes unpaid', the other two items were in most cases charged, when available, at a proportionate amount of half year's earnings (around 10 per cent in total earnings).

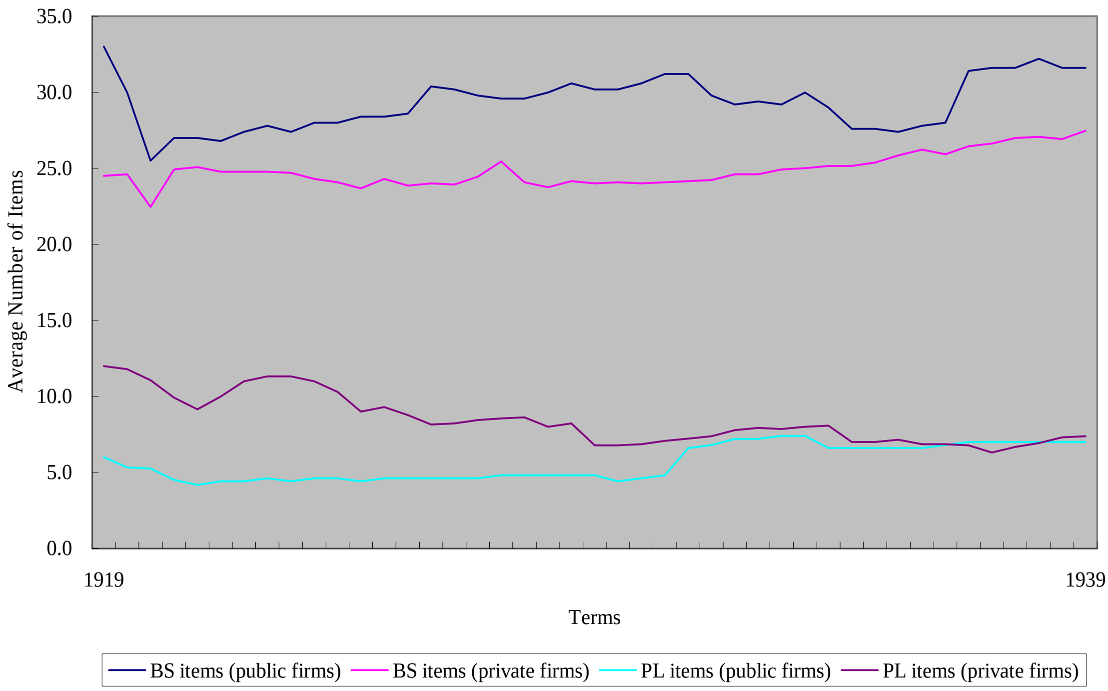
11 The reform program conducted in this recession by Gen-nosuke Obata (Managing Director at Nippon Paint) was appreciated in the Japanese business community and he was appointed as an industrial member of Financial Management Committee and thus participated in the preparation of the Working Rules for Financial Statements (Ministry of Commerce and Industry, 1934, p. 3).

47). Most firms recorded in this period their highest earnings (Figure 1).

## Pattern of Financial Reporting Practiced

To analyze the pattern of reporting practiced by the sample chemical firms, the number of items disclosed in the balance sheet and the profit and loss account was counted.[12] The research method is the same as that adopted by Arnold (1997) and Arnold and Matthews (2002). For analytical purposes, the 18 firms were classified into two categories: public and private. This difference was naturally reflected in the number of shareholders; public firms had over 900 shareholders on average for the period from 1919 to 1939, whereas private firms had an average of less than 350 shareholders.

Figure 2. Average number of items disclosed in Balance Sheet and Profit & Loss Account




(*Source*: Business Reports of Dainihon Celluloid, vols. 1-42; Fukuoka Oxygen, vols. 1, 3-8, 10-28, 30-40; Godo Oil and Fat, vols. 1-39; Kamishima Fertilizer, vols. 6-8, 10-46; Nagamine Celluloid, vols. 5-8, 10-39, 40-46; Nagoya Oxygen, vols. 15-55; Nihon Nitrogenous Fertilizer, vols. 27-69; Nihon Printing Ink, vols. 24-65; Nihon Soda, vols. 1-40; Niigata Sulfuric Acid, vols. 46-47, 49-88; Nippon Paint, vols. 40-82; Nitto Sulfuric Acid, vols. 2, 4-42; Osaka Printing Ink, vols. 1-41; Teikoku Fertilizer, vols. 1-41; Toa Celluloid, vols. 1-41; Tokyo Sulfuric Acid, vols. 28-68; Toyo Ink, vols. 27-67; Toyo Oxygen, vols. 2, 4-7, 9-43)

Most firms stipulated in the articles of association that 'reserves' for depreciation and other similar items should be treated as 'appropriations', i.e. with the deduction made 'below the line'. A factor having influenced the practice was the firms' desire to

[12] The count is based on items disclosed in the financial statements, excluding repeated items, arithmetic balances and totals. This study does not intend to examine the appropriateness of the accounting practices adopted by the sample firms, therefore the number of items disclosed is considered to be a reasonable indication for the informativeness of a company's financial statements (Arnold, 1997; Arnold and Matthews, 2002).

purposefully adjust the amount of earnings to meet shareholders' expectation for higher dividends. Miyajima (2004, pp. 176, 185) referred to the practice as resulting from 'shortsighted dividend pressure' from the shareholders.[13] The tax burden to the shareholders of the dividend distribution was alleviated by the low tax rates; between 1.0-5.5 per cent (progressive rates) for personal income (plus 40 per cent allowance for dividend income). For the purpose of exploring the pattern of financial reporting, 'reserves' for depreciation, employee retirement and taxes were, as far as recognizable, systematically re-classified as profit and loss account items. Summarized data indicating the number of items disclosed in the balance sheet and the profit and loss account, averaged and classified into public and private firms, is shown in Figure 2.

*Impact of the Working Rules for Financial Statements*

There is no important change recognizable in the pattern of reporting before and after the issuance of the Working Rules for Financial Statements in 1934. The number of items disclosed in the balance sheet increased, but the upward trend existed mostly throughout the period under review, rather than confined to the period after 1934. Indeed, the number of items disclosed in the profit and loss account slightly declined after 1934.

As illustrated in Appendix 1, the model form of the Working Rules for Financial Statements recommended 62 items to be disclosed in the balance sheet and 29 items in the profit and loss account. The average *compliance* rates of the entire sample are: 41.39 per cent (25.66 items) in the balance sheet and 27.28 per cent (7.91 items) in the profit and loss account on average for the period before 1934, compared with 43.84 per cent (27.18 items) and 24.24 per cent (7.03 items) after 1934. The adequacy of the information provided should not be simplistically judged, but the Working Rules for Financial Statements seems to have played a minor part, if any, in determining financial reporting practices. Moreover, almost all items disclosed in the financial statements across the period 1919-39 were shown in an 'unclassified form'[14] instead of complying with the categorized layout recommended in the Working Rules for Financial Statements.

*Effect of Secrecy*

It is recognizable from Figure 2 that there existed a common feature for the pattern of financial reporting practiced by the firms in that balance sheet information was disclosed in a detailed manner, whereas profit and loss account information was extremely brief. On average for the entire sample, balance sheet items occupied more than two-thirds of the total information disclosed in the financial statements issued during the entire period 1919-39. Information provided in the profit and loss accounts not only fell far short of the number of recommended items by the Working Rules for Financial Statements, but only occupied 18.19 per cent of the total information

[13] Takahashi's examination (1930, pp. 14-6) of the payout (including directors' rewards) ratio in 1928 of several Japanese public firms, such as Kanebuchi Spinning and Oji Paper Manufacture, reported around 70.0 per cent in average. See also Okazaki, 1994, p. 72, Miyajima, 1995, p. 86, Nihon Oxygen, 1966, pp.56-8, 80 and Toyo Oxygen, 1959, p.14.

[14] The only exception suggesting the possible influence of the Working Rules for Financial Statements were balance sheets issued after 1934 by Fukuoka Oxygen, where balance sheet items were shown in a categorized form.

disclosed.[15] This was significantly less than the proportion (29.59%) recommended for the disclosure in the profit and loss account by the Working Rules for Financial Statements. The pattern of stressing unilaterally balance sheet items had consistently been practiced for twenty years preceding WW2.

Kurosawa (1990, p. 258) attributed the scarcity of the profit and loss account information to the prevailing resistance to earnings reporting. The data presented in this study confirms that financial reporting of the sample firms was significantly affected by such a policy, but the situation differed between public and private firms. As reflected in Figure 2, the level of disclosure in the profit and loss account issued by public firms consistently remained at a significantly lower level than for private firms, normally consisting of only one revenue item under the title of 'Total Revenue' and a few expense items using general terms such as 'Production Expenses' and 'Operating Expenses'. Disclosure in the case of private firms at first averaged over 12 items, but then declined to just over 7 items – about the same as for public companies.[16]

*Public Firms*

Unlike the other public firms sampled, Nippon Paint originally started as a private firm in 1898 but then converted into a public firm in 1906 (*The minutes of meetings of the board of directors of Nippon Paint Co., Ltd.*, vols.1, 4). In parallel with this conversion, the number of items disclosed in the profit and loss account sharply declined from 15 to 3. Indeed, the expense section of the profit and loss account of 1905 had included items such as officers' rewards, promotion, transportation, revaluation losses, in addition to production expenses. These disappeared in the following year.

In addition, all the sample firms had the following common feature: the positions of directors were predominantly occupied by larger shareholders. The case applied to both private and public firms. In particular, the position of managing director was normally occupied by the largest shareholder, the examples included Gen-nosuke Obata (Nippon Paint), Shitagau Noguchi (Nihon Nitrogenous Fertilizer) and Tomonori Nakano (Nihon Soda). According to Miyajima (1995, p. 87), the control structure dominated by the owner-manager was a feature of Japanese business firms in the pre-WW2 period. Thus the interests of the larger shareholders and the management coincided, with the result that the need to monitor the behavior of management through published financial information would have been reduced to a minimum level. In spite of this domination, shareholdings by the directors of most public firms, as far as can be determined from the Business Reports, had already fallen to around 20% of total shares by 1933, with the result that the number of widely dispersed minority shareholders increased. Available data also suggest that the overall level of director-shareholdings among the public firms sampled continued to decline (to less than 16%) over the period 1934-39 (Table 2).

Table 2. Per cent of shares held by the directors of the large-sized public firms on average for the period from 1934 to 1939 in comparison with the period from 1919 to 1933

| Firm | Per cent of shares held by the directors (on average from 1919 to | Per cent of shares held by the directors (on average from 1934 |
|---|---|---|

[15] The other was concerned with information for profit appropriations.

[16] The difference in the level of disclosure in the balance sheet between public and private firms is due to the data of Nihon Nitrogenous Fertilizer, the single prominently largest firm in terms of the amount of total assets, over 24,000,000 *yen* on average for the period examined. When it was excluded from the sample, there was no significant difference left between the types of firms.

| | 1933) | to 1939) |
|---|---|---|
| Nippon Paint | 13.63% | 13.46% |
| Nihon Nitrogenous Fertilizer | 28.67% | 11.95% |
| Nihon Soda | 21.74% | 15.78% |
| Dainihon Celluloid | 5.66% | 4.15% |

Note: no systematic information was available for Godo Oil and Fat.
(*Source*: Business Reports of Dainihon Celluloid, vols. 1-42; Nihon Nitrogenous Fertilizer, vols. 27-69; Nihon Soda, vols. 1-40; Nippon Paint, vols. 40-82)

Although there is no hard evidence available, it is presumed that the existence of the dominant owner-manager of public firms significantly limited the level of disclosure of performance information, first because he did not need it and, second, because he wished to guard against other shareholders' intervention in, if not takeover of, the management (Miyajima, 2004, pp. 197-8). On the other hand, the management of such companies stifled possible dissatisfaction with the extreme concealment policy by making high dividend payments. In fact, the payout ratio of the large-sized public firms was much higher than the average for the entire sample (60.28 per cent); Nihon Nitrogenous Fertilizer recorded 83.80 per cent, Nippon Paint 79.42 per cent and over 63 per cent for the other three firms for the period from 1919 to 1939.

*Private Firms*

The domination by the owner-manager was also common to private firms (Toyo Ink, 1988, p.52). An obvious difference from the case of public firms was much higher percentage of shareholdings by the directors throughout the entire period from 1919 to 1939, as shown in Table 3 below.

Table 3. Per cent of shares held by the directors of private firms on average for the period from 1934 to 1939 in comparison with the period from 1919 to 1933

| Firm | Per cent of shares held by the board of directors (on average from 1919 to 1933) | Per cent of shares held by the board of directors (on average from 1934 to 1939) |
|---|---|---|
| Toyo Ink | 47.20% | 33.26% |
| Nitto Sulfuric Acid | 18.54% | 11.46% |
| Niigata Sulfuric Acid | 31.63% | 37.89% |
| Nagamine Celluloid | 36.15% | 38.88% |
| Nagoya Oxygen | 34.26% | 20.55% |
| Toyo Oxygen | 37.24% | 51.45% |
| Nihon Printing Ink | 39.66% | 78.20% |
| Osaka Printing Ink | 51.78% | 45.18% |
| Fukuoka Oxygen | 32.61% | 42.42% |

Note: No systematic information was available for Kamishima Fertilizer, Teikoku Fertilizer, Tokyo Sulfuric Acid and Toa Celluloid.
(*Source*: Business Reports of Fukuoka Oxygen, vols. 1, 3-8, 10-28, 30-40; Kamishima Fertilizer, vols. 6-8, 10-46; Nagamine Celluloid, vols. 5-8, 10-39, 40-46; Nagoya Oxygen, vols. 15-55; Nihon Printing Ink, vols. 24-65; Niigata Sulfuric Acid, vols. 46-47, 49-88; Nitto Sulfuric Acid, vols. 2, 4-42; Osaka Printing Ink, vols. 1-41; Toyo Ink, vols. 27-67; Toyo Oxygen, vols. 2, 4-7, 9-43)

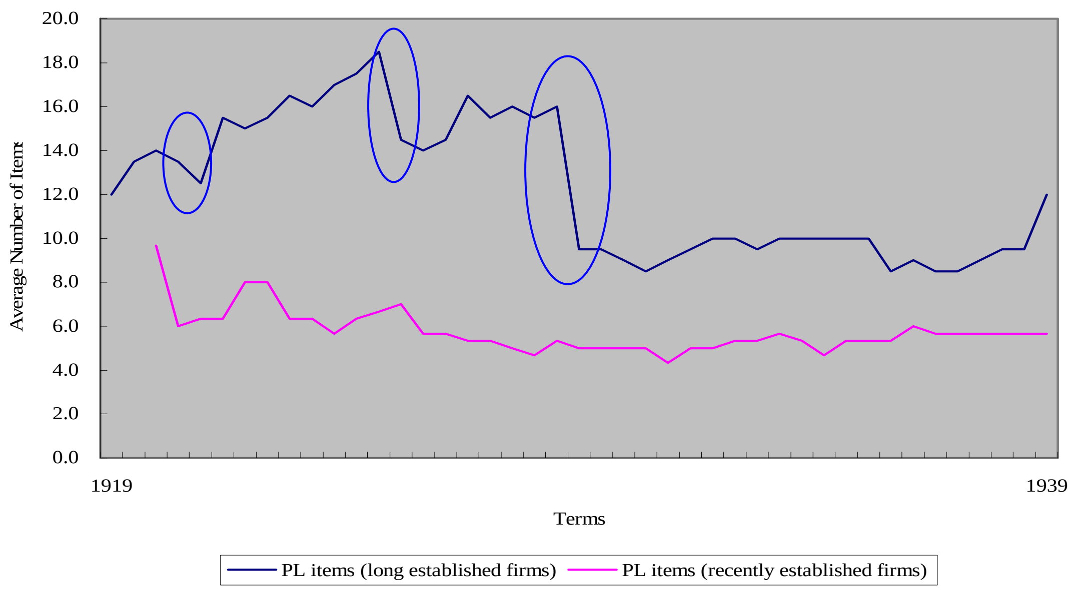
Shareholdings by the directors for the period from 1934 to 1939, when compared with the period from 1919 to 1933, declined in four of the nine firms. However, except Nitto Sulfuric Acid, the percentage still remained over 20 % of the total shares on average. Moreover, in five of the nine firms, shareholdings by the directors increased in the period from 1934 to 1939, in comparison with the period from 1919 to 1933, by further purchasing from other shareholders. In contrast to public firms, these firms had come to intensify the closed nature of shareholdings.

Not only was the position of director occupied by larger shareholders, even minority shareholders, normally local landowners, lived in the areas where the firms were located and were in fact friends or acquaintances of the management (Interview with Mr. Shichiro Homma, President-Director of Fukuoka Oxygen Co., Ltd.). In spite of the closed nature of shareholdings, private firms' level of disclosure of performance information, in the study sample, almost always (particularly early in the period) exceeded the level of public firms. In contradiction to the conventional view that widely held companies provide more information than closely held ones (e.g., Nobes, 1998: 167), the manager of private firms, under no threat of intervention founded on the stable shareholdings by the closed inner circle, might have been able to take a comparatively open stance towards disclosure.

The explanation is, however, only applicable to relatively long established firms such as Niigata Sulfuric Acid and Nihon Printing Ink. A different explanation is needed to explain a gap in levels of disclosure between the former and the other recently established firms, which include Kamishima Fertilizer, Teikoku Fertilizer, Nitto Sulfuric Acid and other companies operated in new industries such as celluloid and oxygen. The contrast is clarified, when the analytical object is restricted to chemical fertilizer firms.

*Chemical Fertilizer*

Figure 3. Average number of items disclosed in profit & loss account (private chemical fertilizer firms)




(*Source*: Business Reports of Kamishima Fertilizer, vols. 6-8, 10-46; Niigata Sulfuric Acid, vols. 46-47, 49-88; Nitto Sulfuric Acid, vols. 2, 4-42; Teikoku Fertilizer, vols. 1-41; Tokyo Sulfuric Acid, vols. 28-68)

As revealed in Figure 3, disclosure in the profit and loss accounts issued by long established firms was at a higher level, particularly early in the period, whereas that of recently established firms was mostly at a level of only around six items. The reason for the lower level of disclosure is attributable to the formation of the new business concerns. In addition to *Zaibatsu*, some chemical firms in the pre-WW2 Japan had grown to form a large-scale industrial group, the 'new business concerns' (Miyajima, 1995, p. 87). Nissan group, centering on the Nissan Chemical Industry (former Dainihon Fertilizer, a large-sized public firm), was one of the groups. It had a number of chemical firms as affiliated firms; Kamishima Fertilizer, Teikoku Fertilizer and Nitto Sulfuric Acid came under its control shortly after formation.

The financial reporting practice adopted by the affiliated firms closely followed the concealment reporting practice of the core firm, the reason for which is apparent from Table 4 below which reveals that directors of the parent firm were also directors of the affiliates (Dainihon Fertilizer, 1936, pp. 304-5, 314).[17] In common with other public firms, they disclosed only one revenue item and several expense items using general terms.

Table 4. Directors of the affiliated firms who were also directors of the parent firm of Nissan Group

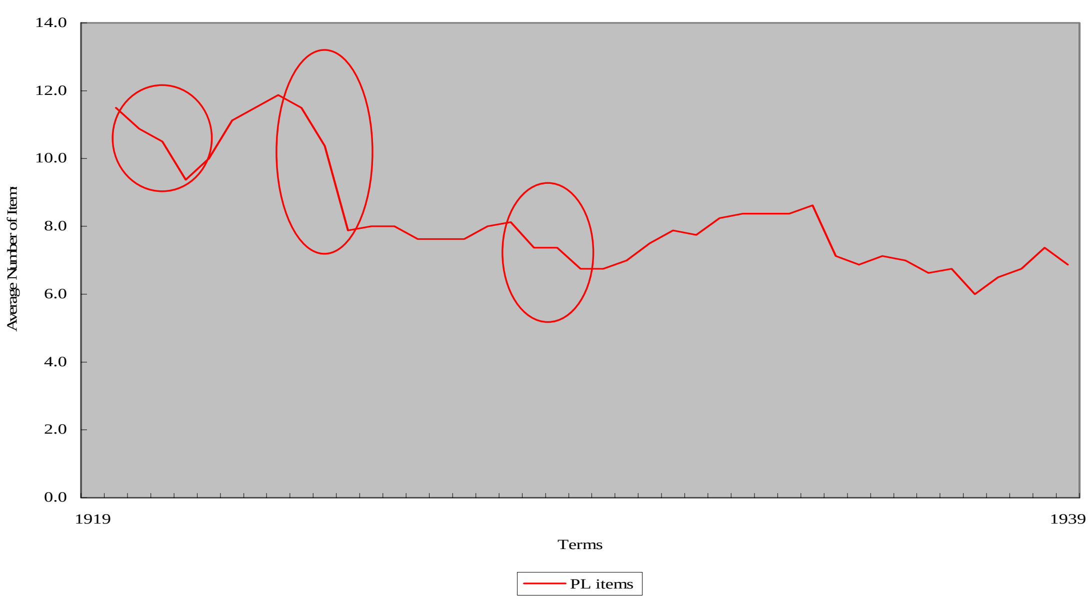
| Firm | Directors | Firm | Directors | Firm | Directors |
|---|---|---|---|---|---|
| Nitto Sulfuric Acid (from 1925) | Eihachiro Tanaka | Teikoku Fertilizer (from 1923) | Eihachiro Tanaka | Kamishima Fertilizer (from 1921) | Eihachiro Tanaka |
| | Ichiro Ishikawa | | Ichiro Ishikawa | | Shunkichi Futagami |
| | Shunkichi Futagami | | | | |
| | Gizo Tomabechi | | | | |

(*Source*: Business Reports of Kamishima Fertilizer, vols. 6-8, 10-46; Nitto Sulfuric Acid, vols. 2, 4-42; Teikoku Fertilizer, vols. 1-41)

*Trend of Disclosure*

A further significant trend in the level of disclosure in the profit and loss account issued by the long established firms is indicated by the circles shown in Figure 3. The level of disclosure sharply declined several times especially early in the period; the same pattern was recognizable for the other non-chemical fertilizer firms, as shown in Figure 4 below.

Figure 4. Average number of items disclosed in profit & loss account (non-chemical fertilizer firms)




[17] Godo Oil and Fat, though a large-sized public firm, was an affiliated firm of Nissan group and the directors, as with the same with Nitto Sulfuric Acid, included Eihachiro Tanaka, Ichiro Ishikawa, Shunkichi Futagami and Gizo Tomabechi (Business Reports of Godo Oil and Fat, vols. 1-39).

(*Source*: Business Reports of Fukuoka Oxygen, vols. 1, 3-8, 10-28, 30-40; Nagamine Celluloid, vols. 5-8, 10-39, 40-46; Nagoya Oxygen, vols. 15-55; Nihon Printing Ink, vols. 24-65; Osaka Printing Ink, vols. 1-41; Toa Celluloid, vols. 1-41; Toyo Ink, vols. 27-67; Toyo Oxygen, vols. 2, 4-7, 9-43)

The timing of the declines corresponds to the severe recession following WW1, the heavy losses caused by the Tokyo Earthquake in 1923 and the aftermath of the Great Depression that begun in 1929. In the prolonged slump which lasted until the first half of the 1930s, firms had suffered significant losses or reduction of revenue, which caused managers to reduce the level of disclosure by omitting the detail of profit and loss account items and instead utilizing general terms such as ‘Total Revenue’ and ‘Total Expenses’ to obscure the precise impact of the slump. As a result, the disclosure levels of private firms declined to achieve uniformity with the concealment practice of public firms. In contrast to the pre-WW2 period being regarded as the dawn of ‘modernization of accounting regulation’ in Japan, as depicted by Kurosawa (1990), the prolonged slump provided a serious setback for the development of financial reporting practice, at least in the Japanese chemical industry.

## Conclusion

The purpose of this study has been to explore how financial reporting was practiced under the condition of shareholders’ effective governance which operated in Japanese industrial firms in the pre-WW2 period and to investigate the precise reasons why the Working Rules for Financial Statements issued in 1934 had no significant impact, without enforcement powers, on financial reporting practices. This objective has been achieved by examining empirical data for the pattern of reporting practiced by 18 industrial firms in the chemical industry.

Although restricted to a small sample size, this study, as with the existing literature focusing on *Zaibatsu*, confirms that the Working Rules for Financial Statements had a limited effect, if any, on financial reporting. The study additionally indicates that, as far as performance information in the profit and loss account is concerned, the level of disclosure appears likely to have been limited by the fact that significant separation, between ownership and management, had not been achieved in pre-WW2 Japan. Therefore, the absentee owners’ need for financial information remained undeveloped. However, events leading to such a situation were different between public and private firms. In spite of an increasing number of widely dispersed minority shareholders, reporting practice adopted by large-sized public firms was uniformly, and consistently low for the entire period from 1919 to 1939, reflecting the extreme concealment policy of the owner-manager keen to avoid possible intervention form other shareholders. In contrast, the practice of private firms was variable. Relatively long established firms, that were financially independent of the new business concerns and who had increased the closed nature of shareholding-ownership, paradoxically assumed a comparatively positive stance toward disclosure, particularly early on. Recently established chemical fertilizer firms who were affiliated with the new business concerns, on the other hand, tended to follow the concealment practice of the parent firm. The initial positive stance taken by the long established private firms also proved to be temporary because of the prolonged slum which lasted until the first half of the 1930s.

The findings from this study suggest the need to re-examine the conclusions reached in certain prior research on accounting history. First, contrary to the conventional view that widely held companies provide more information than closely held ones (e.g., Nobes, 1998: 167), the level of disclosure of information in the profit and loss accounts issued by private firms, for the most part of the period examined, exceeded the level of public firms. Second, in contradiction to the conventional view that there existed a significant gap among firms in the level of disclosure before the issuance of the Working Rules for Financial Statements in 1934 (Ministry of Commerce and Industry, 1934, p. 1; Kurosawa, 1987, p. 10; Chiba, 1992, p. 6; 1998, p. 31), a more uniform pattern of financial reporting among firms came to be formed, in the sense that both public and private firms commonly came to adopt concealment practices towards the end of the time period studied. Finally, this study demonstrates that the reason for the absence of practical impact of the Working Rules for Financial Statements was not simply the lack of enforcement powers, as suggested in prior literature. Instead reporting practices were influenced by the concealment policy founded on the yet absence of significant separation between ownership and management, the formation of the new business concerns in the Japanese chemical industry, and the prolonged economic slump of the pre-WW2 period.

Recognizing the role played by the Working Rules for Financial Statements in establishing the accounting regulations subsequently embodied in the 'Business Accounting Principles' issued in the post-WW2 period, Kurosawa (1990, p. 221) emphasizes the continuity of accounting regulation between the pre and post-WW2 Japan. However, when we focus on the pattern of financial reporting actually practiced by industrial firms, a clear discontinuity existed; accounting information disclosed in financial statements had, if any, little importance in monitoring the behavior of management in the pre-WW2 period and it was not until the post-WW2 period that such a role for accounting information was clearly recognized in the Japanese financial system.

The findings from this study help to fill an important gap in the Japanese accounting history research literature, i.e., the scarcity of research on the inter-war period (Kurosawa, 1990, p. 190) utilizing empirical data for financial reporting practiced by specific firms. Employing a similar research strategy, a more comprehensive investigation should be conducted into this important period in order to enable more definitive findings to be presented.

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**Appendix 1**. The Model Form of the 'Working Rules for Financial Statements'

Table a. The Model Form of Balance Sheet provided by the 'Working Rules for Financial Statements'

| Debtor | Amount (Yen) | Creditor | Amount (Yen) |
|---|---|---|---|
| **Fixed Assets** | | **Long-term Liabilities** | |
| Land (less accumulated depreciation ×××) | ××× | Secured bonds | ××× |
| Buildings and equipments(less accumulated depreciation ×××) | ××× | Unsecured bonds | ××× |
| Machinery(less accumulated depreciation ×××) | ××× | Loans | ××× |
| Tools and furniture(less accumulated depreciation ×××) | ××× | Advances from affiliated firms | ××× |
| Patents (less accumulated depreciation ×××) | ××× | **Short-term Liabilities** | |
| Trademarks (less accumulated depreciation ×××) | ××× | Accounts payable | ××× |
| **Investment** | | Obligations unpaid | ××× |
| Investments into affiliated firms | ××× | Wages unpaid | ××× |
| Advances to affiliated firms | ××× | Notes payable | ××× |
| Stocks issued by affiliated firms | ××× | Advances received | ××× |
| Loans for affiliated firms | ××× | Employees' deposits | ××× |
| **Properties for specific purposes** | | Bonds overdue | ××× |
| Deposits related to reserves for self-insurance | ××× | Deposits as warranty | ××× |
| Marketable securities related to particular provisions | ××× | Dividends unpaid | ××× |
| Marketable securities related to provisions for employees' deposits | ××× | **Provisions** | |
| **Inventories** | | For tax payments | ××× |
| Raw materials and supplies | ××× | For employee retirement | ××× |
| Works in progress | ××× | **Miscellaneous Accounts** | |
| Finished goods | ××× | Suspense accounts received | ××× |
| By-products | ××× | Deferred interests | ××× |
| **Current Assets** | | Securities owed | ××× |
| Accounts receivable | ××× | Securities deposited as warranty | ××× |

| | | | |
|---|---|---|---|
| Outstanding claims | ××× | **Contingent liabilities** | |
| Notes receivable | ××× | Notes discounted | ××× |
| Short-term loans | ××× | Debt warranties | ××× |
| Cash in bank | ××× | **Subtotal** | |
| Postal transfer deposits | ××× | **Shareholders' accounts** | |
| Cash on hand | ××× | Paid-up capital | ××× |
| **Miscellaneous accounts** | | Reserves legally required | ××× |
| Suspense accounts paid | ××× | General reserves | ××× |
| Accrued premiums | ××× | Reserves for self-insurance | ××× |
| Advanced securities | ××× | Reserves for dividends | ××× |
| Expenditures for R&D | ××× | Profits carried forward from the previous year | ××× |
| Costs for bond issuance and discounts | ××× | Net profits for the year | ××× |
| Securities provided for guarantee | ××× | | |
| Securities maintained as deposits | ××× | | |
| **Retroactive rights for contingent liabilities** | | | |
| For notes discounted | ××× | | |
| For debt warranties | ××× | | |
| **Subtotal** | | | |
| **Shareholders' accounts** | | | |
| Outstanding paid-up capital | ××× | | |
| | ××× | | ××× |

Table b. The Model Form of Profit and Loss Accounts provided by the 'Working Rules for Financial Statements'

| Loss | Amount (Yen) | Profits | Amount (Yen) |
|---|---|---|---|
| **Section for Production Costs** | | | |
| Works in progress carried forward from the previous year | ××× | Costs of finished goods | ××× |
| Raw materials consumed | ××× | Costs of by-products | ××× |
| Wages charged to production | ××× | Costs of works in progress on hand | ××× |
| Direct costs charged to production | ××× | | ××× |
| Indirect costs allocated to production (including depreciation ×××) | ××× | | ××× |
| | ××× | | ××× |
| **Section for Gross Profits** | | | |
| Goods and by-products carried forward from | ××× | Sales for goods and by-products | ××× |

| | | | |
|---|---|---|---|
| the previous year | | | |
| Costs of goods and by-products | ××× | Goods and by-products on hand | ××× |
| Sales expenses | ××× | | |
| Subtotal | ××× | | |
| Gross profits | ××× | | |
| | ××× | | ××× |
| **Section for operating profits** | | | |
| Operating expenses | ××× | Gross profits | ××× |
| Provisions for tax payments | ××× | Interests received | ××× |
| Provisions for employee retirement | ××× | Dividends received | ××× |
| Interests paid and discounts | ××× | Miscellaneous incomes | ××× |
| Amortization of costs for bond issuance and discounts | ××× | | |
| Provisions for bad debts | ××× | | |
| Subtotal | ××× | | |
| Operating profits | ××× | | |
| | ××× | | ××× |
| **Section for net profits** | | | |
| Raw materials written down | ××× | Operating profits | ××× |
| Marketable securities written down | ××× | Profits for sales of marketable securities | ××× |
| Reappraisal of fixed assets | ××× | | |
| Loss from disposal of fixed assets | ××× | | |
| Subtotal | ××× | | |
| Net profits for the year | ××× | | |
| | ××× | | ××× |
| **Section for profit appropriation** | | | |
| Reserves legally required | ××× | Net profits for the year | ××× |
| General reserves | ××× | Profits carried forward from the previous year | ××× |
| Dividends payable | ××× | | |
| Officers' bonuses | ××× | | |
| Subtotal | ××× | | |
| Profits carried forward to the next year | ××× | | |
| | ××× | | ××× |

(*Source*: Ministry of Commerce and Industry, 1934, pp. 21, 37)

**Appendix 2.** Details of the Sample Selected

| Firm | Category of Main Business | Vols. of Business Reports | Term | Average number of shareholders |
|---|---|---|---|---|
| Dainihon Celluloid | Celluloid | 1-42 | 1919.9.8-1940.5.31 | 1,127.33 |
| Fukuoka Oxygen | Oxygen | 1, 3-8, 10-28, 30-40 | 1919.11.26-1940.5.31 | 330.00 |
| Godo Oil and Fat | Oil | 1-39 | 1920.12.1-1940.5.31 | 2,274.14 |
| Kamishima Fertilizer | Fertilizer | 6-8, 10-46 | 1919.12.1-1940.5.31 | 20.67 |
| Nagamine Celluloid | Celluloid | 5-8, 10-39, 40-46 | 1919.5.21-1940.5.15 | 111.45 |
| Nagoya Oxygen | Oxygen | 15-55 | 1919.12.1-1940.5.31 | 90.15 |
| Nihon Nitrogenous Fertilizer | Fertilizer | 27-69 | 1919.1.1-1940.5.31 | 3,822.71 |
| Nihon Printing Ink | Ink | 24-65 | 1919.5.1-1940.4.30 | 32.92 |
| Nihon Soda | Soda | 1-40 | 1920.2.1-1939.12.31 | 3,132.30 |
| Niigata Sulfuric Acid | Fertilizer | 46-47, 49-88 | 1919.1.1-1940.5.31 | 221.67 |
| Nippon Paint | Paint | 40-82 | 1919.1.1-1940.1.31 | 908.41 |
| Nitto Sulfuric Acid | Fertilizer | 2, 4-42 | 1919.6.1-1939.12.31 | 190.00 |
| Osaka Printing Ink | Ink | 1-41 | 1919.6.1-1940.5.31 | 91.18 |
| Teikoku Fertilizer | Fertilizer | 1-41 | 1919.12.22-1940.5.31 | 316.15 |
| Toa Celluloid | Celluloid | 1-41 | 1919.12.26-1940.5.31 | 53.90 |
| Tokyo Sulfuric Acid | Fertilizer | 28-68 | 1919.1.1-1939.6.30 | 343.82 |
| Toyo Ink | Ink | 27-67 | 1919.12.1-1940.5.31 | 77.29 |
| Toyo Oxygen | Oxygen | 2, 4-7, 9-43 | 1919.6.1-1940.4.30 | 70.23 |