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**The South Manchuria Railway Company:  
an accounting and financial history,  
1907-1943\***

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# **The South Manchuria Railway Company: an accounting and financial history, 1907-1943**

## **Abstract**

This study examines aspects of the accounting and financial history of the South Manchuria Railway Company (SMR) from its formation in 1907. In particular we focus on the 1930s, a period in which the activities of the SMR became increasingly dominated by the demands of the Kwantung Army which effectively controlled Manchuria. As a special company, the SMR had always faced the dilemma of pursuing the private interest of shareholders as a business enterprise against the backdrop of the requirement to serve the national interest. Following the formation of the State of Manchuria in 1932, the Kwantung Army placed significant and growing financial demands on the SMR while at the same time wishing to alter the juridical personality of the company. Such demands were repelled by the SMR's management for fear that the change in its legal status would cause problems in obtaining the finance necessary to carry out the army's requirements for new lines and improvements to the existing railway network in Manchuria. This problem, and its eventual resolution through the State of Manchuria taking an equity stake in the company in 1940, provides important insights into the impact of military power and wartime conditions on the operation of special companies. In this way, this study contributes to filling a gap in Japanese accounting and financial history research by examining the motives, commitments and (inter)actions of the various parties concerned – the company's management, the Japanese government, the Kwantung Army and the State of Manchuria – and the interaction of such factors with the social, political and economic conditions surrounding the SMR's operations in Manchuria.

**Keywords:** the South Manchuria Railway; special company; the Kwantung Army; the State of Manchuria; juridical personality

## **1. Introduction**

'Special companies' (*tokusyu kaisha*) were semi-private, semi-public institutions which took part in enterprise management and exerted a significant influence on Japan's east Asian colonialism during the early years of the twentieth century. Examples include the Oriental Colonization Company, the South Sea Colonization Company and the South Manchuria Railway (SMR). Charged with leading Japan's economic growth and protecting, and if possible expanding, the area of its empire, special companies were engaged in national policy activities of important public interest. While the pre-World War I accounting and financial practices of special companies, including the SMR, have been researched by Yamaguchi (1998; 2000; 2001), Takahashi (1986), Kaneko (1991), Yasutomi (1995) and Kurose (2003), the relationship of such companies with the Japanese army in general, and the implications thereof have not been comprehensively addressed. One feature which was the subject of major debate after the establishment of the State of Manchuria in 1932, and which impacted on the finances of the SMR, was that of its juridical personality. The debate surrounding this issue reveals the changes in the balance between serving the national interest and that of private-sector investors that

were faced by the managements of special companies during times of military uncertainty and war.

By examining the case of the SMR and the changing nature of the relationship, from the late 1920s, between the company's management and the Kwantung Army (*Kanto Gun*), that part of the Imperial Japanese Army stationed in the northeast part of China, this paper answers the call of Funnell (2009:575) for research into 'the influences that the military might have had on business accounting' in 'non-Anglophone settings'. In examining the case of the Louisville and Nashville Railroad during the American Civil War, Heier (2010: 200) notes that '[o]ne of the most significant technical innovations [brought about by the war] was use of the railroads for the rapid deployment of troops and supplies'. In providing the infrastructure needed for military operations, Funnell and Chwastiak (2010:150-151) argue that, during periods of war, railway company managements face 'a number of challenges that may not have been experienced with [simple] commercial uses'.

In analyzing the financial and accounting features of the SMR, it is necessary to recognise the dualistic nature of the task facing the company's management: the execution of 'national policy' on the one hand and the pursuit of 'self-interest' on the other (Kurose 2003:2). In general, if the former is continuously sacrificed in favour of the latter, the enterprise is in danger of failing, while attempts to avoid such an outcome may mean compromising on national policy goals. However, the pursuit of 'national interest' and 'self-interest' by a special company need not be mutually exclusive; indeed, the motivation for the establishment of special companies was to establish an institution which could reconcile the two aims. However, the balance between the pursuit of self-interest and that of the national interest can vary, and during times of military uncertainty and war can change in numerous ways. In the case of the SMR, an important issue of concern, both to the company's management and the Kwantung Army, especially after the outbreak of the second Sino-Japanese war in July 1937, was the juridical personality of the SMR. The Army sought to transform the corporate entity of the SMR from a special company with a legal basis in Japan to one based in the State of Manchuria (*Manchukuo*), but such changes were resisted by the company's management since it was recognised that this could have a serious impact on the company's financial position, especially its reliance on private sector capital. While ultimately the SMR's juridical personality remained unchanged, a study of the company's finances and the debate surrounding the issue, reveal the nature of the pressures faced by Japanese special companies and how these changed during war times, as a result of changing social, political and economic conditions.

The study is organized as follows. The next section examines the formation and development of the SMR as part of Japan's east Asia colonialism, covering the entire period of the company's life starting its formation in 1906 through to its demise following Japan's defeat in World War II in 1945. Having thus provided the background context for this study, Section 3 examines the data sources used in this paper, explaining the nature of the accounting information generated by the SMR from 1933 and how this was influenced by its relationship with the Kwantung Army. Section 4 analyses the performance of the SMR, highlighting the factors affecting the operation of the company's core business – the railway. Section 5 examines the financial features of the

company, in the context of ever increasing intervention by the army, especially its reliance for funding on the issue of corporate debentures. Section 6 clarifies key factors that conditioned and influenced the debate surrounding the issue of the change in the juridical personality of the SMR and how this was linked to the issue of financing the company's activities. The final section summarizes the key insights gained from this study.

## **2. The South Manchuria Railway (SMR)**

### *The Kwantung Leased Territory and the establishment of the SMR*

In 1898, the Russian Empire obtained a lease for 25 years of territories in the Liáodōng peninsula from China, a region which included the port of Lüshun (renamed Port Arthur by the Russians and later Ryojun by the Japanese). The Russians immediately developed the town of Dal'niy to the north, and then constructed a railway northwards from Port Arthur, through Dal'niy (Dalian) to link with the China Far East Railway at Harbin.

Under the Treaty of Portsmouth (September 1905) resulting from the Russo-Japanese War of 1904-05, Japan then acquired (1) the leasehold rights to the tip of the Liáodōng Peninsula, (2) ownership of the Chinese Eastern Railway's southern branch line connecting Changchun and Lüshun, (3) ownership of all the properties located in the southern part of Sakhalin, and (4) the fishing rights around the maritime provinces and the Kamchatka coast (Motoki Yamazaki's South Manchuria Railway related documents, R-82, management archives of the South Manchuria Railway, part 1 - hereafter MY SMR R-82, part 1). This territory, which became known as Kwantung, comprised an area of 3,462 sq. kms. and to administer it the Japanese government established the Governor-General's Office of Kwantung (Kwantung Agency from 1919, following the creation of the Command of the Kwantung Army<sup>1</sup>) (MY SMR R-82, part 1).

To operate the acquired railway, and the 62-metre wide strip of land on either side of the tracks, the Japanese government, through decree No.142 promulgated on 7 June 1906, established a special company called the South Manchuria Railway Company. In return for handing over the railway assets in Kwantung to the SMR, the Japanese government was allotted 100m. yen of the 200m. yen share capital in the SMR, with the Imperial Household holding a further 1% stake (Litvin 2003: 93). Article 9 of the decree setting up the SMR empowered the Japanese government to appoint the top executives, thereby providing an element of state control of its actions, whether this be financial, economic or political. The SMR, which formally commenced operations on 1 April 1907, was placed in control of railway routes totalling 1,142.3 kilometres (MY SMR R-82, part 1), and a total land area of 250 square kilometres, on which it was required to establish settlements and economic activities. In effect, the SMR became responsible for the management of the Kwantung territory, and securing and protecting the special rights and interests which Japan held there.

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<sup>1</sup> This was the garrison of the Governor-General's Office of Kwantung which was formed to undertake the defence of the Kwantung Territory.

The headquarters of the SMR were established in Dalian (renamed Dairen) and Count Goto Simpei, formerly Japanese Governor of Taiwan, was appointed as first president of the company. The SMR converted the track to standard gauge (4ft. 8½ ins.), imported US rails, signalling equipment and locomotives, and quickly set about improving its network and developing repair shops for the purpose of ensuring the maintenance of the locomotives, rolling stock and tracks. Warehouses were built for freight storage, additional harbour facilities were added, and Japanese immigration was encouraged through the building of townships complete with schools, libraries, hospitals and public utilities. The employment of Japanese and Chinese workers by the SMR increased rapidly from 9,000 and 4,000 respectively at the end of 1907, to 35,000 and 25,000 respectively by 1910.

During the next 20 years, as part of its mission to enhance the economic power of Japan through developing Kwantung, the SMR became involved in a number of activities in addition to operating the railway network, including the establishment of electricity-generating plants, the manufacture of oil and fat, flour milling, sugar refining, glass and chemical manufacture, shale oil plants, coal mines and the manufacture of iron and steel. From time to time some of these activities were spun off as wholly-or partly-owned subsidiary companies. Between 1908 and 1930, as a result of the expansion of its railway and other operations, the company's assets rose from 163m. yen to over 1 billion yen, making the SMR by far the largest corporation in Japan.

Between its founding in 1906 and 1928, when the Huanggutun Incident occurred, in which the local Chinese warlord, Zhang Zuolin, was assassinated by members of the Kwantung Army, who blew up the SMR train on which he was travelling, the SMR had 'managed to conduct its business by relatively peaceful means' (Litvin 2003: 87). Thereafter, however, the company became embroiled in the battle within Japanese political circles between those who wished to enhance the Japanese Empire through cooperative diplomacy and trade, which included the majority of the SMR's directors, civilian bureaucrats and the Japanese foreign ministry, and those who favoured a more assertive approach, not least some members of the Japanese military and, in particular, the leaders of the Kwantung Army (Litvin 2003: 100). In September 1931 the army took matters into its own hands, embarking on a takeover of the region. The so-called 'Manchurian Incident' led to the army establishing the puppet State of Manchuria in 1932.<sup>2</sup> This was nominally ruled by Pu Yi, the Chinese emperor who had been deposed in 1912, but was, in effect, controlled by the Kwantung Army, which not only controlled Manchuria but increasingly attempted to assert its authority over the SMR (Litvin 2003: 108). An economic plan drawn up for Manchuria in 1932 stated: '[i]n view of the evils of an uncontrolled capitalist economy, we will use whatever state power is necessary to control that economy' (quoted in Litvin 2003: 108).

The supervisory mechanism was also transformed in 1934 with the Kwantung Agency being replaced by the Kwantung Bureau, which was newly established under the power

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<sup>2</sup> As a result of the unilateral declaration of the foundation of the state of Manchuria, Japan subsequently seceded from the League of Nations in March 1933. There was a rapid expansion of military expenditure to build up the country's armaments, resulting in the Japanese economy in general experiencing a boom which brought about rapid inflation and a sharp fall in the exchange rate.

of the Ambassador Extraordinary and Plenipotentiary resident in Hsinking, capital of the State of Manchuria. The Ambassador Plenipotentiary was, in fact, an additional post held by the Commander of the Kwantung Army (Mantetsu-kai 1986: 100-101), and he assumed responsibility for supervising the work of the Kwantung Bureau, whose activities included supervision of the operations of the SMR (Mantetsu-kai 1986, 101). With the power of the Kwantung Army increased, the SMR came to operate the whole of the railway network in Manchuria from 1933 (see next section), while in December 1937 many of the SMR's other activities and subsidiaries, including its industrial holdings, with the exception of coal, were transferred to the newly created Manchuria Heavy Industry and Development Co., Ltd. (Litvin 2003: 108). This completely separate special company was established as part of the revision of the five-year industrial plan for Manchuria undertaken following the outbreak of the Second Sino-Japanese War (see below).<sup>3</sup>

#### *The development of the railway network*

From its inception, the SMR controlled not only the trunk line connecting Changchun and Lüshun but also the Anpo line connecting Andong and Mukden (present-day Shenyang) and other branch lines, covering 1142.3 kms. in total (MY SMR R-82, part 1). The extent of the railway network controlled by the SMR remained largely unchanged up to 1933, but major developments were to occur thereafter (see Table 1).

**[insert Table 1 about here]**

Following the Manchurian Incident in 1931 and the foundation of the State of Manchuria in 1932, the Empire of Japan requisitioned all Chinese railways and postal administration services within the territory, in order to establish a national railway system for the new state (Mantetsu-kai 1986: 34). The task of managing and expanding the main transportation systems of the State of Manchuria, consisting mainly of 2968.5 kilometres of the National Railway of Manchuria (NRM), were consigned, through the mediation of the Kwantung Army, to the SMR in 1933 (Yasutomi 1995: 164). In addition, later the same year the management of the North Korean Railway (NKR), including the harbours of Ch'öngjin and Yuki (Sönbong), were entrusted to the SMR, this time through a consignment made by the Korean Governor-General's Office (Mantetsu-kai 1986: 22). With the addition of the NKR lines to the network, and the simultaneous development of the port of Rajin, the SMR gained a connecting route, through the eastern part of Korea, to Japan (Mantetsu-kai 2007: 178). The development of this route through the Sea of Japan led to a decline in the importance of Dairen, which had been the main port of entry into Kwantung since the company's foundation in 1906 (Mantetsu-kai 2007: 137).

Over the years to 1939 more than 400 kms. of new line were added to the NRM's network each year under 'a direct command from the army' (Mantetsu-kai 1986: 163; Jilin Province, the Academy of Social Science, the Archives of the South Manchuria Railway, 20083 - hereafter JP, ASS, SMR 20083). When the North Manchuria Railway

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<sup>3</sup> Amongst the most significant of the activities handed over was the Showa Steel Works, which had been originally established in 1918 as the Ansan Steelworks. It had been reformed and spun-off in June 1933 and was subsequently transferred from the SMR to the Manchuria Heavy Industry and Development Co. Ltd.

was acquired in March 1935 from the Soviet Union in exchange for a payment of 170 million yen, a further 1,721.4 kms was added (Mantetsu-kai 1986: 255). This was incorporated into the system of the NRM and immediately consigned to the SMR for management purposes. As a result, the SMR came to control the whole of the railway network in Manchuria, which continued to expand up until 1945 when Japan's military defeat, following the bombings of Hiroshima and Nagasaki, led to the SMR's ultimate demise. At the time of Japan's defeat, the SMR managed a total distance of 12,493.2 kilometres of lines (Mantetsu-kai 1986: 168), more than 10 times the original distance which it had controlled when established in 1906. Under the occupying forces of the allied powers, the SMR, like many other special companies, was designated as a close-down institution and its assets and the railway network were returned to China and North Korea.

### *The SMR's relationship with the military*

As in the case of other special companies, the decree under which the SMR was established contained provisions through which the Japanese government could exert influence over the management of the company. Thus, the decree setting up the company included the following clauses:

Article 7: The company shall have one president, two vice presidents, four or more directors, and three or six inspectors...

Article 9: The government appoints the president and the vice presidents of the company by decree. The term of office is assumed to be five years. The government also appoints the directors of the company. The term of office is assumed to be four years.

(South Manchuria Railway Company, Establishment Decree No. 142, 7 June 1906 - hereafter SMR decree)

From its commencement, the SMR was required, under instructions from the ministries of Communication, Finance and Foreign Affairs, to have its business plan for the forthcoming year approved by the Japanese government (SMR decree, Article 20). The Ministry of Finance was specifically concerned with the financial aspects of the SMR's operations, as set out in its annual budget plans and financial accounts, whereas the Ministry of Communication and Transport was concerned with the practical aspects of the company's railway operations, especially the maintenance of an effective and secure transportation network. Legally, supervision of the company's operations came under the Prime Minister's jurisdiction, but the primary supervisory role was in fact carried out by the Governor-General's Office of Kwantung (thereafter the Kwantung Agency and subsequently the Kwantung Bureau) as the direct supervisor of the colony (Mantetsu-kai 1986: 97). In 1919, a revision to Article 13 of the SMR's decree was made, in which it was provided that 'the Commander [of the Kwantung Army]...can issue instructions relating to the operation of the company for military purposes, and can issue military orders relating to the operation of the company when at war or in relation thereto'.

Despite such revision, for much of the company's first 20 years of existence, SMR was managed at arms-length from both the Japanese government and the Kwantung Army. The ability of SMR's management to act autonomously, however, became increasingly difficult from the late 1920s, not least because of the impact of the Great Depression and the growing power of the Kwantung Army in Manchuria. As the establishment of a war regime progressed, the army made ever-increasing demands of the SMR and exerted a



growing influence over its affairs. This created something of a conflict for SMR's management: on the one hand, as a business enterprise there was the need to satisfy the shareholders' demands for dividends but, on the other hand, as a special company it was required by the army to carry out activities which ran somewhat counter to this aim. In particular, the need for increased capital expenditure on lines required by the army raised issues of financing, while at the same time undermining the company's ability to finance such expenditure, both internally and externally, since such lines increased operating costs without necessarily generating a concomitant increase in operating income. This undermining of net income from the railway department affected the company's ability to both maintain dividend and interest payments, while at the same time reducing the availability of funds for extending the railway network.

On handing over the management of the NRM's network to the company in 1933, the Kwantung Army instructed the SMR to establish, independently of the company's own headquarters in Dairen, the General Railway Bureau through which the NRM's operations would be controlled (Mantetsu-kai 1986: 153). Similarly, the SMR was required to establish a separate North Korean Railway Administration Bureau to oversee the operation of the NKR system. Having three separate administrative bureaus, however, was not conducive to the smooth operation of the entire network and so, in 1936, the SMR's management established the Total Railway Bureau in Mukden to form a single unified structure for overseeing the management, improvement and extension of the entire railway system of Manchuria (Mantetsu-kai 1986, 154). This not only enabled the railway operations to be streamlined but also helped the SMR's management counter attempts by the army to intervene in the operation of the network, something which increased following the drawing up of a five-year industrial plan for Manchuria.

#### *The five-year industrial plan for the State of Manchuria*

In August 1936 an 'outline of the economic construction for the State of Manchuria' was issued by the headquarters of the Kwantung Army, under which a joint defence system between Japan and the State of Manchuria was to be established. In this plan, the development of fundamental industries such as iron, coal, oil and electricity was stressed. Following deliberations between the Kwantung Army, the State of Manchuria and the SMR, the frame of a five-year plan was rapidly formed in October 1936. This made possible the release, on 25 January 1937, by the headquarters of the Kwantung Army 'The essentials of the five-year industrial plan of the State of Manchuria'. The section of the plan dealing with minerals and industry, while envisaging the establishment of munitions industries such as armaments, airplanes, cars and vehicles, also stressed the development of fundamental key industries such as iron, liquid fuel, coal and electric power. It was also noted that railways and ports would need to be improved if the industrialization envisaged in the plan was to occur. The plan foresaw a total expenditure of about 2,600m. yen, 1,400m. yen of which was earmarked for minerals and industry.

A key component of this plan to enhance the economic development of Manchuria was the strengthening of the economic connections between the state and Japan. To realise this plan, especially the movement of large quantities of coal, required a secure transportation system, and this had important implications for the railway network

controlled by the SMR. Following the outbreak of the Second Sino-Japanese War in July 1937 and a further increase in Japanese military expenditure, the operations of the SMR more than ever came to be dictated by military needs. The Japanese National Mobilization Law (*Kokka Sodojin Ho*), promulgated in April 1938, strengthened the government's control over the Japanese economy and a general mobilization plan was accordingly established in June 1938. In the following year a material mobilization plan was formulated for the State of Manchuria. As a result, the scale of the transportation of munitions between Japan and Manchuria, through both China and Korea, increased rapidly. Moreover, reflecting the 'Third Strategic Instruction' which had been issued in 1936 by the Commander of the Kwantung Army (JP, ASS, SMR 20083) for military purposes, the SMR was required to implement a programme of reinforcement of its railway facilities in order to enable a significant increase in the amount of military transportation. Although the SMR's management recognised that, as a special company, it had an obligation to observe such a 'supreme order of the nation' (JP, ASS, SMR 20083), the demands of the army significantly impacted on the ability of the company's management to dictate its own operations.

Before examining the impact of such demands on the financial history of the SMR, we first consider the accounting data sources available.

### **3. Data sources**

As a special company set up to operate railway lines in Manchuria on behalf of the Japanese government, the SMR was required to submit information to the government and the National Diet. At the end of the SMR's financial year on 31 March, the company's management was required to submit figures on its operations and performance, while financial accounts, together with a proposed dividend plan, normally had to be submitted by the end of June. In addition, the company was required to submit, normally by the end of November, a budget for the forthcoming financial year. This budget, which had to be approved by the government by the end of March, formed the basis of the company's operations for the forthcoming financial year commencing on 1 April. In the main, this study utilises the accounting information which has survived in various archives and which was prepared by the SMR and submitted to the government in fulfilment of these requirements. In addition, we utilise non-financial data such as the amount of freight carried and the number of passengers transported contained in the annual Statistical Yearbook produced by the SMR between 1907 and 1939. Thus the bulk of the data presented in this paper, whether financial or non-financial, are taken directly from the SMR's archives or the Statistical Yearbooks; percentage figures and other simple calculations found in the various tables presented in the paper have usually been added by the authors.

The changes to the administrative structure of the SMR following the consignment of the management of the NRM and NKR networks in 1933 complicate the interpretation of the financial data for the SMR. As previously noted, the SMR was required to set up two additional administrative bureaus separate from the company's own headquarters: the General Railway Bureau for the NRM in Mukden and the North Korean Railway Administration Bureau for the NKR in Ch'öngjin. In part this reflected the fact that the

SMR was required to keep separate accounts for the NRM (from 1 April 1933) and for the NKR (from 1 October 1933). Separate budgeting procedures for each network also had to be conducted, although the methods used to construct the budgets appear to have been the same. Despite the similarities, the method by which the SMR managed the NRM differed from that employed in the case of the NKR. Management of the NRM was performed under authority from the Kwantung Army, and hence most of the profits earned from the operation of the NRM lines (after deducting interest accruing to the company on loans made to the State of Manchuria and other items) were transferred to the army to cover its own military costs (*see* Hirai (2012) for further details), while profits from the management of the NKR, entrusted to the SMR by the Korean Governor-General's Office, were incorporated into the accounts of the SMR itself as an item of 'other' income. In effect, both the NRM and the NKR remained separate entities with their own special accounts, the main difference being the transfer to the SMR's own accounts of the net income of the NKR, i.e. the difference between its operating income and expenses (Nagahiro 1933:351; Mantetsu-kai 1986: 330). In relation to capital expenditure, all construction expenses incurred in relation to the NRM system were processed as advances to the State of Manchuria. However, the bulk of the capital expenditure for the NKR was covered by the Korean Governor-General's Office, although a small part was incurred directly by the SMR itself and treated in its accounts alongside construction expenses for its own network (Mantetsu-kai 1986: 328).

Thus for the period from 1933 through to 31 March 1940, there are three sets of accounts: for the SMR's own network (hereafter CON); for the NRM; and for the NKR. From 1 April 1940, with the agreement of the Kwantung Army, the accounts and budgets of the entire network managed by the SMR, including the NRM and the NKR, were in large measure integrated into a single accounting system. Following this reform, current assets, debts, and operating income and expenses became unified, and thus net income of the NRM was consolidated into the SMR's accounts in exchange for the company paying annually a fee to the State of Manchuria of 15m. yen (Yasutomi 1995: 185-186).<sup>4</sup> However, capital expenditure on the NRM system, which continued to be processed as loans to the State of Manchuria, remained outside of this integration process (Mantetsu-kai 1986: 547). The basis of SMR's managerial control of the NKR was also changed in July 1940 from that of a commission into a management lease. Thus, from July 1940 (until finally becoming part of the SMR on 1 April 1945), all of the management and the construction work of the NKR became the company's own responsibility, in exchange for the company paying the Korean Governor-General a sum equal to a fixed fraction of the amount of investment already made in the NKR lines (Mantetsu-kai 1986: 328).

These changes mean that it is possible to obtain data for CON from 1907 through to 1939, but thereafter it is only possible to obtain data for the network as a whole. The existence of separate data for most aspects of the operation of each network between 1933 and 1939 enables us to reconstruct data for this period on the same aggregate basis as from

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<sup>4</sup> In addition, it was also agreed that the loans which the SMR had already provided to the State of Manchuria for construction of new lines and improvement of existing lines were assumed to be non-interest bearing and, if there remained any unpaid interest, the state was exempted from the need to repay any debt extending back to the date of agreement by which management rights over the NRM had been assigned to the SMR (Yasutomi 1995: 185-186).

1940, thereby providing evidence on the network's performance over a longer period of time. Unless otherwise indicated, Tables (e.g. 2, 5, 6a) containing data both before and after 1933, reflect the SMR as legally constituted in each particular year. Where data have been aggregated for 1933-39 (e.g. Tables 1, 4, 6b, 7), this will be so indicated. In some cases (e.g. Tables 3a-3c), for purposes of comparing the performance of the individual networks, we provide the same information for each network as available in the original sources. Although our main focus is on the railway operations of the SMR, we also present some data (Tables 8-11) relating to the financial structure of the entire company, while Table 12 examines the financial performance of each of the SMR's main operating departments.

#### **4. Operation and performance of the SMR and its railway department**

While the main activity of the SMR was running the railway, as already noted it was also engaged in numerous other activities connected with managing and developing the area of Kwantung on behalf of the Japanese government. Activities such as developing schools and hospitals, conducting colonial management, etc., were carried out by the SMR's local administration department. This involved the company in significant expense (see Table 12), which was largely paid for out of the net income generated by the railway department. Hence the success of the railway department was vital to the overall success of the company and the development of Kwantung and prior to the impact of the world slump in 1930 and 1931, which led amongst other things to a sharp fall in the value of silver coinage, the financial performance of the railway department was one of consistent success. Following the Manchurian Incident and the establishment of the State of Manchuria, the company's performance recovered quickly as the development of Manchuria gathered pace (South Manchuria Railway Company 1938: 575). However, the company's net income began to stagnate after 1937 and in 1941 was slightly below that recorded in 1937 (see Table 11). Following the outbreak of the Pacific War, however, net income grew sizably in both 1942 and 1943.

##### *Rates of return*

In this section we report two measures used to assess the performance of the SMR and its railway department: (1) the rate of return on invested capital (ROIC), calculated as net income divided by the accumulated capital (construction) expenses incurred by the company;<sup>5</sup> and (2) the rate of return on sales (ROS), calculated as the ratio of net income to operating income. As noted above, constructing financial data series for the whole period of the company's life is complicated by the changing nature of the arrangements by which the SMR was required to account for its activities, in particular the construction expenses of the NRM. Before considering the performance of the railway department we first provide an overview of that of the company as a whole.

##### (i) Performance of the SMR

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<sup>5</sup> Since the company inherited the existing assets of the railway, these figures do not reflect the return on the total investment in the railway from its inception, but simply the return on the investment carried out by the company following its taking over of those assets.

Figures for the ROIC of the SMR, as constituted at different dates, are presented in Table 11. As the business developed the ROIC rose to over 5% in 1917 and then fluctuated between 5% and 7.62% between 1917 and 1929. During the world slump ROIC fell to under 2% in 1931, but then fluctuated around the 4% level for the rest of the 1930s, before falling to under 3% in the 1940s. The fall in the 1940s is accounted for by the aggregation of the accounting figures which occurred in 1940, but it should be noted that the post-1940 figures, like those from 1933-1939, overestimate the ROIC since the total of fixed capital is understated since it does not include the loans made by the SMR to the State of Manchuria in connection with the expansion of the NRM network carried out from 1933.

Since the overall performance of the SMR depended crucially on the performance of the railway department, we focus in the remainder of this section on the latter.

(ii) Performance of the railway department

As Tables 2 and 3a and Figure 1 indicate, after the first few years of the SMR's existence the ROIC for the CON was remarkably constant between 1917 and 1929, averaging more than 28% per annum, and once the effect of the world slump was overcome it again averaged 26.5% per annum between 1933 and 1939. Table 3a suggests that the ROIC improved in the early 1940s, but this is a statistical illusion created by the fact that whilst the net income of the NRM has been added to that for the CON (including the NKR), the construction expenses of the NRM were still not integrated into the accounts of the SMR and continued to be treated as advances to the State of Manchuria. Table 4 indicates that if the construction expenses for the NRM were accounted for in the same way as were those for the CON, the ROIC of the entire network controlled by the SMR actually declined to below 10% after 1940. This reduction reflects the fact that the NRM and NKR systems recorded much lower ROICs than did the CON, that for the NRM being less than 5% (see Tables 3b and 3c). Accordingly, after the consignment of the NRM in 1933 the financial performance of the entire network operated by the SMR only averaged 11.6% over the period up until 1939 inclusive, before falling further in the early 1940s (see Table 4).

**[insert Table 2, Figure 1 and Tables 3a-3c and 4 about here]**

The high ROIC figures for the CON over most of its lifetime pale into insignificance when compared with the ROS figures, which averaged over 60% between 1908 and 1937, as indicated in Table 5 and Figure 1. From 1940, however, when the SMR figures include those for the NRM, the ROS figures fall dramatically to just over one-third of those exhibited up to 1937, mainly due to the fact that the NRM exhibited a much lower ROS than the CON during the 1930s (see Tables 3a and 3b).

**[insert Table 5 about here]**

The above data relating to the performance of the SMR's railway department, as measured by ROIC and ROS, clearly indicate that its overall performance, which was very good until the world slump, deteriorated after the company was required to take over the management of the NRM and NKR systems from 1933. The key influence here was

the much lower performance levels returned by the NRM system.<sup>6</sup> Despite the fact that the performance of the SMR's railway department never recovered its previous levels, the CON nevertheless performed exceptionally well over its lifetime, and continued to generate, after 1940, an ROS for the entire network in excess of 20%.

### *Income structure*

The figures for the operating income and expenses of the railway department of the SMR, especially those for the CON, presented in Tables 3a-3c and 5 indicate that, when measured in terms of operating income, the railway operation grew steadily between 1907 and 1939, save for the problems experienced during the world slump of 1929-32. Until the late 1930s the growth of net income mirrored the trend of operating income, but this link became increasingly tenuous following the outbreak of the Second Sino-Japanese War in 1937 (see Figure 2). The effects of the war were to cause a rise in accumulated capital and operating income. Although net income in 1943 was almost triple that of 1936, it had grown much less rapidly than operating income due to the much faster increase in operating expenses. This picture of developments in the later 1930s and early 1940s is, however, not only complicated by the wartime conditions but also, as already noted, by the method of presenting accounting data on the company's operations. The separate figures for the CON, the NRM and the NKR networks from 1933 to 1939 indicate clearly that the last of these was very small by comparison with the other two (see Table 3c). Moreover, it can be seen that the relative sizes of the two former systems changed dramatically between 1933 and 1937. In 1933 the total operating income of the NRM was less than 50% of that of the CON but by 1937, as a result of the expansion which the SRM was required to undertake by the Kwantung Army, the NRM's operating income came to exceed that of the CON (see Tables 3a and 3b). Thereafter it continued to grow more rapidly, so that in 1939, the last year for which separate figures are available, the NRM's total operating income, at almost 300m. yen, was almost 30% greater than that of the CON.

**[insert Figure 2 about here]**

The rapid growth in the scale of the NRM following its coming under the management of the SMR also had an impact on the relative importance of different sources of income. The income of the SMR's railway department emanated from three sources: passengers, freight transport and 'other' miscellaneous sources, including dining cars, hotels and hospitals. Prior to 1924 it is not possible to determine the breakdown of the operating income for the SMR's own lines between freight and passenger transport due to the lack of data, but throughout the 1920s and early 1930s freight was clearly dominant, accounting for 80% or more of total operating income, with passenger transportation accounting for up to 16% and 'other income' for less than 7% (see Table 6a).

**[insert Tables 6a and 6b about here]**

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<sup>6</sup> The NKR, due to its very much smaller size than either the CON or the NRM, had little effect on the overall performance ratios.

In contrast, the contribution of passengers and freight to the income of the NRM was somewhat different, over 25% of operating income coming from passengers and only around two-thirds from freight (see Table 3b). The rapid expansion of the NRM network in the late 1930s therefore resulted in a rise in the proportion of the aggregate operating income of the SMR provided by passengers from 22.52% in 1938 to more than 30% by the early 1940s (Table 6b). With the onset of the Pacific War it grew even faster, reaching 42% in 1943. With 'other' income also rising to between 15.8% and 16.2% between 1940 and 1943, the relevance of freight as a source of income had declined by 1943 to under 42%, in marked contrast to the 80% exhibited in the 1920s and early 1930s. Thus the impact of the SMR taking over the NRM network, together with that of the Sino-Japanese and Pacific Wars, resulted in the relative importance of passenger and freight traffic being reversed.

The share of income represented by passenger transportation is, of course, the result of a combination of passenger numbers and the average fare paid by each class of passenger, while that of freight transport is a combination of the amount carried, the distance it is carried and the rates charged. The growth in the railway network, especially that belonging to the NRM, led to a rapid increase in the number of passengers and amount of freight transport carried by the SMR: freight carriage increased over 50% from 42.11m. tons in 1936 to 64.51m. tons in 1940, while the number of passengers transported rose by almost 200% over the same period, from 34.68 million persons to 97.82 million (Mantetsu-kai 1986: 163). In addition to the Renkyo line (connecting between Dairen and Hsinking via Mukden), the trunk line of the CON, increases in the Hosan line (connecting Mukden and Shanhaiguan), the Keito line (connecting Hsinking and Tumen) and the Hokitsu line (connecting Mukden and Jilin), all of them being in the system of the NRM, were particularly remarkable, providing a trunk line connecting the northern end of Korea through Manchuria, especially Mukden, to the northern part of China (Mantetsu-kai 2007: 198, 200).

Tables 3a-3c indicate, for 1933-39, the average income per passenger and average income per ton of freight carried for each of the three networks operated by the SMR. On the CON, where average income per passenger had fallen between 1928 and 1930, it then remained fairly constant until 1938, with the exceptions of 1932 and 1933, at between 1.4 and 1.5 yen. In 1938, following the outbreak of the Second Sino-Japanese War, it increased rapidly and between 1940 and 1943 average income per passenger rose from less than 2 yen to more than 2.6 yen (see Table 3a). The increase between 1939 and 1940 (1.67 to 1.99 yen) is accounted for by the integration of the accounting systems in 1940, the NRM recording an average income per passenger of over 2 yen for most of the late 1930s.<sup>7</sup> By contrast, the average income per ton of freight of the CON, which had declined from 5.967 yen in 1926 to 4.588 yen in 1931, stayed below the level of 5 yen for most of the remaining period, except for sporadic jumps in 1932, 1941 and 1944 (see Table 3a). Interpreting the data is complicated by the fact that the pre-1940 figures are only for the CON, not the whole network, but since the average income per ton of freight

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<sup>7</sup> The NRM had passenger numbers in 1939 which were 50% above those of the CON. If we consolidate the data for 1939 for the whole network, it is found that the average income per passenger rose only marginally between 1939 and 1940 from 1.973 to 1.992 yen.

on the NRM was slightly lower than that of the CON before integration in 1940, it probably imparted a downward bias on aggregation of the data in 1940.

### *Performance under war conditions*

Strengthening economic ties with Japan was an indispensable condition for economic development in Manchuria and securing the means of transportation was an important factor for the purpose, which naturally affected the management policy of the SMR, not least decisions concerning freight rates. A fundamental revision of freight rates was made in February 1936 reflecting concerns over the cost of transportation. Instead of the conventional method of charging for agricultural products, such as soya beans, on the basis of a certain amount per kilometre transported, a system was introduced by which the unit price per kilometre declined with distance. A specific freight rate system for farm products was also enacted at this time to promote the development of the hinterland in the northern part of Manchuria. These changes caused the operating income of the SMR to fall in 1936 compared with the previous year, despite an increase in traffic volume. Thus, the ROS declined from 62.39% in 1935 to 59.49% in 1936 for the CON and from 42.45% to 38.28% for the entire system including the NRM.

The five year industrial plan for the State of Manchuria originally put in motion in January 1937 was soon subjected to a major revision, as the demand for supplies in Japan increased sharply after the outbreak of the Second Sino-Japanese War in July. In response, a revised plan, which doubled the targets of the original plan, was set out initially in December 1937 and finalised in May 1938.<sup>8</sup> A key component of the revised plan for the SMR was a further change in the system by which freight rates were determined. Under the revised plan, the SMR in October 1938 adopted a uniform long distance reducing fare structure for freight transport on both the CON and the NRM, an action which resulted in a further significant decrease in operating income per ton in 1939 (see Tables 3a-3c). The ROS figures for the CON fell to 50.3% in 1938 and 46.6% in 1939, while those for the entire network fell to 34.7% and 29.2% respectively (see Tables 6a and 6b). Moreover, the specific freight rate system was vastly extended by the 1938 reforms to cover products such as cereals, livestock, wood, coal and ore (Mantetsu-kai 2007: 51), with a significant reduction in the rates for coal and ores being made in order to promote their production (Mantetsu-kai 1986: 218-219). This led to a remarkable jump in the carriage of coal and ores, in contrast to that of farm products, including soya beans, which stagnated after 1937 (see Table 7).<sup>9</sup> Following the outbreak of the Second Sino-Japanese

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<sup>8</sup> The revised plan greatly differed from the original in its size and nature. The total necessary funds were increased from about 2,600 m. yen to about 5 billion yen, with that available for minerals and industry being increased from 1,400 m. yen to about 4 billion yen. The revised plan also recognised the need for a business entity to administrate the overall development, the Manchuria Heavy Industry and Development Corporation being established in December 1937 for this purpose. The Nissan group, one of the emerging zaibatsu, played a key role in this process. Under the revised plan, the SMR was required to transfer many of its industrial enterprises, but excluding the railway and coal businesses, to the newly established company.

<sup>9</sup> The transportation of soya beans had been a major source of income for the SMR, half of the world's supply of soya beans coming from Manchuria by 1927. The SMR's attempts to encourage the expansion of production and transporting the produce to the ports for export prior to the 1930s represents a classic



War, the transportation of war materials also significantly increased, as did that of the company's own cargo (mainly consisting of coal as fuel) (see Table 7).

**[insert Table 7 about here]**

In order to respond to the increased demand for freight transportation and simultaneously to reduce operating expenses, enhanced efficiency was called for. In addition to the use of 'open wagons' and 'loading in bulk', 'increased loading' of 10% was performed from about September 1938 in order 'to load as much cargo as possible' but only 'as long as the loadable capacity of a freight car allows' (Manchuria Daily Newspaper 23.9.1938).<sup>10</sup> In spite of these efforts, the SMR was unable to suppress a sharp increase in operating expenses (see Table 5).

The material mobilization plan for the State of Manchuria, put into effect in January 1939, further influenced the operation of the SMR. With the initiation of this plan, the controlled economies of Japan and the State of Manchuria were even more closely linked with Manchuria being required to vastly expand the supply of materials, such as coal and iron, to Japan to aid the war effort. As a result, the general principle for economic development in Manchuria envisaged in the original five-year plan was abandoned and instead it was converted after May 1940 to the 'priority principle', giving top priority to increasing the production of steel, coal, water-power generation, nonferrous metals, etc. in order to increase the supply of basic materials to Japan. This switch of emphasis further enhanced the need for transporting coal and iron, which in turn severely affected the operating income of the SMR since, as indicated above, in October 1938 the company had adopted a uniform long distance reducing fare structure for specific priority items including coal and minerals.<sup>11</sup>

Since operating expenses tended to increase with the rise in the price of coal and other forms of energy, not to mention increases in personnel costs, the SMR increasingly felt the need to modify the decreasing system of long distance fares and instead increase tariffs (Chugai Commercial Newspaper 12.6.1941). Accordingly, a modification to limit the application of this system was implemented in December 1940 but because it was only minor in nature it proved insufficient to cover the damage that income from freight transport had suffered. Therefore, the SMR simultaneously revised passenger fares, the first time on the CON since 1917, with the aim of increasing its operating income (Mantetsu-kai 1986: 203). Such fare increases had to be agreed by the Japanese government, and the SMR used the budgeting process to justify such increases (see Noguchi and Boyns (2013)).

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example of an extractive colonial economy dependent on a single product (Young 1998: 31-32).

<sup>10</sup> According to Keijo Daily Newspaper (11.7.1942), 'reinforcement of transportation capacity is planned at the SMR through a supplementary budget of 30m. yen. The transportation is currently being carried out through a ten percent increase in the volume per freight car [of 30-ton loading], i.e., 3 tons'.

<sup>11</sup> It was reported in June 1940 that 'long distance transportation of specific goods (iron ore and charcoal) is congested by the 'priority principle' adopted in coping with the mobilization of resources executed in the State of Manchuria' (Chugai Commercial Newspaper 12.6.1941).

## 5. Financial structure of the SMR

### *Fund raising and use*

As indicated in earlier sections, capital expenditure during the 1930s was increasingly dictated by the needs of the Kwantung Army. Expansion of passenger and freight transportation from the mid-1930s was facilitated through an enlargement of the carrying capacity of each train, not least through the utilization of larger locomotives designed for long-distance transportation of freight (Mantetsu-kai 1986: 163). The use of such locomotives, however, necessitated increased capital expenditure for replacing and strengthening of the tracks (Mantetsu-kai 1986: 163).

From 1933 the SMR came to need large sums of money for two main purposes: the expansion of the railway network; and for the development of coal and other enterprises under the industrialization plans for Manchuria. Moreover, under the wartime conditions from 1937, the SMR came to be charged with strengthening the railway networks for military purposes and securing the network against enemy sabotage, besides undertaking the construction of double-track lines in specific regions and of new lines within Manchuria (Mantetsu-kai 1986: 164). In fact, as revealed in Table 8, the demand for funds by the SMR rapidly increased after the commencement of the Second Sino-Japanese War in 1937. Improvements to, and the expansion of, lines in operation were performed in response to instructions from the Kwantung Army which pushed the establishment of a war transportation system, the construction of new lines being advanced on a large scale (JP, ASS, SMR 20083). Of particular importance in this respect was the development of the lines belonging to the NRM system, the financial loans advanced to the State of Manchuria by the SMR for construction purposes increasing significantly, quickly reaching in excess of one billion yen in 1940 and exceeding 2.5 billion yen in total by the end of the war in 1945 (Mantetsu-kai 1986: 566).

**[insert Tables 8 and 9 about here]**

The principal part (48.3%) of the funds required for the above expansion was supplied through the issue of corporate debentures, as indicated in Table 9. Although the SMR was entitled to issue debentures up to the limit of twice the amount of paid-up equity capital,<sup>12</sup> from September 1937 the issue of corporate debentures in Japan was placed under state control through the promulgation of the Law for Temporary Funds Adjustment (*Rinji Shikin Chosei Ho*), necessitating government approval in advance. The issue of SMR debentures was initially underwritten by a syndicate comprising Japan's major first-class banks and trusts with a high credit capability and expertise, including the Industrial Bank, Yokohama Specie, the Bank of Korea, Daiichi, Mitsui, Mitsubishi, Sumitomo, Yasuda, etc. However, in March 1938, faced with the necessity of increasing the amount of funds raised annually from 300m. to 500m. yen, the SMR's management became uneasy about continuing to rely so heavily on corporate debentures. There were several reasons for such concern. First, the management of the SMR regarded the issue of debentures as uncertain in nature 'since debentures do not have legal force unlike the collection of payment of equity capital' and because an issue 'could succeed or not depending on the

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<sup>12</sup> The limit was raised to three-fold in January 1945 (Mantetsu-kai 1986: 543).

conditions of the financial market' (JP, ASS, SMR 20260). Indeed, in 1937 sales of the company's debentures were very low (see Table 9).

Second, although the bond flotation market had recovered due to the monetary easing measures taken by the Japanese government after the outbreak of the Second Sino-Japanese War, dependence on the issue of debentures and underwriting by the first-class syndicates was not something limited to the SMR but also applied to other special companies recently formed in connection with the administration of the State of Manchuria, such as Manchuria Colonization (formed in 1935) and Manchuria Heavy Industry and Development (1937). The debentures of these companies, together with the national bonds of the State of Manchuria, were also underwritten by almost the same syndicate as those of the SMR. Furthermore, while the payment of both the principal and interest of the debentures of these companies was guaranteed by the state, this was not the case for those of the SMR (JP, ASS, SMR 20344; 105835). As long as their activities were consistent with the aims of the Law for Temporary Funds Adjustment, i.e. they met war purposes, the allocation of funds was preferentially assigned to the debentures of these companies, regardless of their financial performance, with the result that the issue of debentures by the SMR was to some extent constrained (JP, ASS, SMR 20344).

To cope with the uncertainty surrounding the issue of corporate debentures, the management of the SMR sought to undertake two important measures. One was to strengthen the system of underwriting: the SMR sought to avoid reliance on the main banks and trusts alone by adding regional banks and savings banks to the existing syndicate, while simultaneously planning to set up a more comprehensive organization of underwriting, through incorporating credit unions and Treasury deposits based on postal savings (JP, ASS, SMR 20344). The other measure was to seek another source of funds, i.e. equity capital.

### *Equity capital*

Initially the SMR examined the possibility of raising equity capital directly from the Japanese government, not least because the state continued to be a major shareholder in the company. However, as Table 10 shows, by 1934, the paid-up equity held by private investors exceeded that held by the government. Moreover, due to the large number of other special companies which had been established in the second half of the 1930s, many related to the administration of the State of Manchuria, the SMR judged that little could be expected of the government (JP, ASS, SMR 20260). The SMR thus sought an increase in equity capital from the private sector.

**[insert Table 10 about here]**

In planning for an increase in its capital, the SMR was concerned about the company's share price. In March 1938 it was 59.10 yen (for a common share with a face value of 50 yen and an 8% payout ratio), below that of shares in all the other main railway companies in Japan which had similar payout ratios of between 7% and 10%. Thus, Hankyu shares traded at 90 yen while the price of Nankai Railway shares was 86.30 yen (JP, ASS, SMR 20260). Under such competitive circumstances the management of the SMR determined that it would be necessary to attain a share price of 70 yen or more if a successful issue of

new share capital was to be made. In its attempts to maintain and possibly enhance the share price, the SMR's management emphasised the importance of maintaining the level of dividend payments.

**[insert Tables 11 and 12 about here]**

Table 11 shows that dividend payments to the government and other shareholders were constant throughout much of the SMR's existence. After 1920, with the exception of 1931, the SMR paid a dividend of 4.3% or more to the government, and 8% or greater to other shareholders. Despite, as noted above, the entire business of the SMR suffering a declining ROIC after 1932, maintaining dividend levels was necessary to induce investors to continue purchases shares and debentures in the company (JP, ASS, SMR 20260). As the amount of paid-up equity capital rose, the maintenance of stable dividend payments required a steady growth of net income. As already noted, the overall performance of the SMR depended on the profitability of the railway department. This was where the bulk of the company's net income was generated (see Table 12), and hence the performance of the railway department formed the basis for the SMR's dividend payments.

Net income also played an important role as one of the principal financial sources for the SMR, totalling almost 1,400m. yen from 1932 to 1943 for the railway department. This sum more than covered the deficits of other departments, such as that of the local administration department, yielding a net income for the company as a whole of more than 800m. yen (see Tables 11 and 12; see also JP, ASS, SMR 20083). This figure was then used to cover total dividend payments of about 540m. yen during the same period of time, leaving a residual net income of 260m. yen.<sup>13</sup> Thus we can see how the net income generated by the railway department was important not only for covering the interest payments accrued on the increasing amount of debentures outstanding but also achieving the goal of maintaining and improving the share price.

In March 1938, the SMR's management was somewhat optimistic about the future profitability of the railway department, expecting operating income would increase with 'the active movement of goods' resulting from the implementation of the State of Manchuria's five-year industrial plan (JP, ASS, SMR 20260). However, the management of the SMR was anxious that investors would be distrustful of the company's ability to pay dividends as a result of the onset of the Second Sino-Japanese War. Many investors were concerned that, as a special company, the SMR would have to construct and operate unprofitable lines for military purposes, and might be subjected to fare reductions, thereby undermining its ability to continue to pay dividends at the traditional rate of 8% or more (JP, ASS, SMR 20260). To retain investor confidence, the SMR's management

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<sup>13</sup> A newspaper article emphasized the importance of net income as a source of funds as follows: '[i]n the SMR, two businesses of ammonium sulphate and steel will be started as new businesses, in addition to railway construction... Since the net income from most businesses will be appropriated for the cost of railway improvement next year, construction expenses for these, i.e. 79m. yen for railway, 5m. yen for ammonium sulphate and 13m. yen for steel (all are to be continuing operations for two to three years), totaling 97m. yen for all, will be divided between 3 separate enterprises, and will all be financed by the issue of debentures' (Osaka Asahi Newspaper 13.10.1932).

determined to try to maintain recorded net income at a level sufficient to maintain dividend payments.

It was against this complicated background that the issue of a possible change in the juridical personality of the SMR began to develop amongst the three key stakeholders: the company's management, the Kwantung Army and the State of Manchuria.

## **6. The issue of change in the juridical personality of the SMR**

Following the establishment of the State of Manchuria in 1932, all special companies subsequently formed within Manchuria were set up, on the joint initiative of the Kwantung Army and the bureaucrat of the State of Manchuria, as corporations having the juridical personality of Manchukuo, rather than Japan (Manchurian Newspaper 28.8.1934; 22.9.1934). As a special company established in Japan, the position of the SMR was therefore at odds with that of the other special companies operating in Manchuria from 1932. With the outbreak of the Second Sino-Japanese War, the company's position became further complicated since the extra-territoriality of Japan and the Japanese within the State of Manchuria was abolished in December 1937, while at the same time the army wished to strengthen its supervisory powers over the company (Manchuria Daily Newspaper 6.11.1937).

Recognising the importance of the SMR, the company was afforded temporarily the juridical personality of foreign citizenship under an exceptional provision of the Foreign Companies Act promulgated at the same time. Technically such status was to be reserved for corporations established under treaty, but it was extended to the SMR even though it had not been established in this way (Hochi Newspaper 10.10.1937). However, for the Kwantung Army, this solution was unsatisfactory:

The issue of change in the juridical personality of the South Manchuria Railway is a very important matter related to the preparation for war. It is an issue of whether the railway should be regarded as a strategic arm for war purposes or not.<sup>14</sup> Since the State of Manchuria (Manchukuo) was established and raised as a state for the national security of Japan and the railway has a close relationship indivisible from the politics and economics of Manchukuo, it is unnatural for it to remain outside the control of the Manchukuo government as a foreign corporation originating in Japan. The juridical personality [of the SMR] should be changed and put under supervision and instruction of both of the governments of Japan and Manchukuo as a joint corporation. (Kojima, 2007: 112)

The army was also of the view that:

The railway should be considered as a strategic arm to be integrated with the army. The railway, which executes operations in conjunction with the army under the supreme command of Japan, during times of peace should be instructed to, and should undertake preparations so that it can be used freely by the Japanese army. This is natural. (Kojima, 2007: 112)

In contrast, the management the SMR was opposed to the proposed change in the company's juridical personality, fearing that this would have direct and indirect

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<sup>14</sup> In fact, it was stated in 'the Fundamental Policy of the Greater East Asia Traffics' adopted by the Japanese cabinet on 1 July 1942 that 'transportation facilities need to be considered for conversion to war purposes, [because] the government should give priority to taking measures to enhance the national defense and secure the circulation of [military] goods' (Mantetsu-kai 1986: 164).

consequences on the financing of the company, which had become paramount following changes to the industrial plan for Manchuria and the move to the priority principle for transport movements (see sections 4 and 5 above). Of particular concern to SMR's management was that a change in its juridical personality would restrict access to funds. Given former clashes between the company on the one hand and the Kwantung Army and the bureaucrat of the State of Manchuria over the control effected by the General Railway Bureau between 1933 and 1936, the SMR's management was fearful that it would find itself in an inferior position in respect of access to funds compared with other special companies established in Manchuria (JP, ASS, SMR 20344). In particular, the SMR's management was apprehensive that economic control effected by the State of Manchuria would make it more difficult to raise the funds, both internally and externally, needed to carry out the construction of new lines and improvements to the existing network which it was being required to undertake.

As has already been noted, residual net income (i.e. net income after dividend and interest payments) was vital to the process of internal financing, and so the SMR's management was keen to avoid being subjected by the State of Manchuria to policies which might restrict net income, such as controls over fares. As a foreign corporation, the SMR remained outside of the price controls which were implemented by the State of Manchuria following the rapid rise of prices at the start of the Sino-Japanese War in 1937 (JP, ASS, SMR 20344). However, with railway fares having an important impact on prices throughout the economy, there was pressure to change the SMR's legal status, an action strongly resisted by SMR's management which recognised that both internal and external funding depended on maintaining high levels of residual net income. With freight transport still remaining as the most important source of net income it was important to avoid further reductions in freight rates, and hence the SMR's management resisted attempts to alter its juridical personality (JP, ASS, SMR 20344). The SMR's management was particularly fearful that any such change, leading to the operations of the company being subjected to government policy aims, would lead a fall in investor confidence and hence its ability to raise external funding, whether from debentures or equity capital (JP, ASS, SMR 20260).

The SMR's management was also concerned that any change in its juridical personality would affect the traditional remittance route by which the company received funding from Japan. Up to this time, the SMR had remitted funds raised in Japan to Manchuria through the Bank of Korea, using such funds to invest in both its own activities and those of its affiliated companies in Manchuria. However, a priority of the government of the State of Manchuria, in cooperation with the Kwantung Army (JP, ASS, SMR 105835), was to concentrate the remittance of funds between Japan and Manchuria through the Central Bank of Manchuria (JP, ASS, SMR 105835; JP, ASS, SMR 20344). If the SMR became a corporation of the State of Manchuria it would have been required to change its remittance route, thereby losing the preferential treatment received from the Bank of Korea, namely loan advances based on the security of the amount to be raised through the issue of debentures and low interest rates (JP, ASS, SMR 20344). Although the government of the State of Manchuria offered alternative preferential treatments to the SMR, comprising dividend guarantees and low interest rate loans, in compensation for losing its traditional funding route, the management of the SMR concluded that the benefits of the traditional route, built up over 30 years, more than outweighed the

potential benefits offered by the untried mechanisms proposed by the State of Manchuria (JP, ASS, SMR 105835). In particular, the SMR's management viewed the proposed changes as destroying the traditional relations with the banks, which would be detrimental to the company's plans to strengthen the syndicate organization which had to date underwritten the issue of the company's debentures (JP, ASS, SMR 20344).

All in all, the SMR's management concluded that 'no matter what opinion was currently indicated for change in the juridical personality it has serious defects. Since what is to be lost by this change would be greater than the gains to be obtained, the company should absolutely be opposed [to such an opinion]' (JP, ASS, SMR 105835). In the end, an arrangement was agreed between the SMR and the State of Manchuria by which a small portion of the company's equity was assigned to the government. This occurred in January 1940 when the company finally succeeded in increasing its capital, and provided the State of Manchuria with a means of being able to exercise some influence over the management and railway operations of the SMR through the appointment of one of the directors (Yasutomi 1995: 181; Osaka Asahi Newspaper 9.12.1939; 10.12.1939).

## **7. Summary and Conclusion**

This study has examined aspects of the accounting and financial history of the SMR, especially those during the 1930s, in the light of the shifting balance between the company, the Kwantung Army and the State of Manchuria. The formation of the State of Manchuria in 1932, the military uncertainties of the mid-1930s and the Second Sino-Japanese and Pacific Wars all impacted heavily on the operations of the SMR between 1932 and 1943. In examining these events and their impact on the financial history and juridical personality of the SMR, we fill a gap in Japanese accounting and financial history research.

Until it was hit by the deep slump of 1930 and 1931, the SMR, largely as a result of the performance of its railway department, had returned consistent and successful financial results. Prior to the late 1920s, SMR's management had largely been able to keep itself at arms-length from the Japanese government and the Kwantung Army, but such autonomous management became increasingly difficult from this time, especially following the Manchurian Incident and the declaration of the State of Manchuria. The growing power of the Kwantung Army in Manchuria, together with the consignment of the management of the NRM and NKR networks to the SMR from 1933, not only reduced the overall performance of the SMR's railway operation but also brought about the transformation of its income structure. Transportation of minerals, industrial products and military goods increased, while that of agricultural products fell. However, due to state control of freight rates, operating income from freight transportation did not increase, with the result that passenger transportation became increasingly important to the SMR.

As military conditions worsened, the Kwantung Army required the SMR to undertake construction work and make improvements to the railway network, in particular the NRM network, for military purposes. This pressure grew particularly following the outbreak of the Second Sino-Japanese War in 1937. Since it heavily relied on the issue of debentures for financing construction, the SMR's management was worried by controls on the bond market introduced through the promulgation by the Japanese government of the Law for

Temporary Funds Adjustment in September 1937. To overcome such difficulties, the SMR attempted to reinforce the system of underwriting its bond issues by increasing the number of members of the syndicate used for such purposes. However, government profit controls worried investors with the result that the company's share price remained at a low level. To help dispel investor fears, the SMR needed to keep recording high levels of net income in order to maintain dividend and interest payments.

It was against this background that the issue of a change to the juridical personality of the SMR arose, potentially impacting on the balance between the company's activities as a private business enterprise and its public duties as a special company. The Kwantung Army wished to place the operation of the SMR under its sole control by transforming the SMR into a corporation with a juridical personality in Manchuria. However, the SMR's management was concerned about the potential harmful effects, direct and indirect, of such a move on the financing of the company. Against the background of the Second Sino-Japanese War, a resolution to this issue was of great importance, and intensive exchanges took place. In the end, the matter was settled through the State of Manchuria taking an equity stake in the SMR in 1940.

Despite the uncertainties faced by the company during the period from 1932, it was able to undertake substantial investment in the railway network which it controlled. The SMR required funds for construction works on the CON and the NRM, the expenditure on the latter being treated as loans to the State of Manchuria, for investment in non-railway activities and the payment of dividends. As Table 8 shows, the amounts required annually for these purposes more than doubled between 1934 and 1943, from 261.9m. yen to over 609m. yen. Despite the financial and other pressures it faced during this period, the SMR was able to raise large amounts of finance between 1934 and 1943 (see Tables 9 and 11) mainly due to the continued growth in net income of the SMR's railway department, which increased from 73.2m. yen to 229.6m. yen between 1934 and 1943. This enabled the company to increase its paid-up equity capital from 548.2m. yen to 1,216.2m. yen over the same period, while maintaining dividend payments at traditional rates (the payments rose from 33.3m. yen to 72.3m. yen between 1934 and 1943). The growth in net income from the railway department also enabled the amount of debenture capital outstanding to increase even more rapidly from 537.6m. yen in 1934 to 2,167.1m. yen in 1943, over 200m. yen being added to the total annually from 1939 to 1943.

In this way, the SMR's management was able to fulfil its responsibilities, both to the private sector investors in the company and to the Japanese state. The case of the SMR illustrates how the balance between national and private interests, an important feature of Japanese special companies, could be a source of conflict and create particular problems, especially under war conditions. Nevertheless, it also shows that it was possible to resolve such conflicts successfully and enable a sufficient inflow of funds into the business to satisfy the requirement of all stakeholders.



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Table 1. Average length of lines operated by the SMR and open to traffic during the years 1925-1943

Year	Kilometres	Year	Kilometres	Year	Kilometres	Year	Kilometres
1925	1118.2	1930	1122.1	1935	7758.4	1940	10848.5
1926	1116.1	1931	1125.1	1936	8962.6	1941	10975.6
1927	1111.7	1932	1127.1	1937	9814.4	1942	11366.1
1928	1111.7	1933	4621.0	1938	9943.1	1943	11941.2
1929	1111.8	1934	5210.5	1939	10099.9		

*Source:* South Manchuria Railway Company 1929: 81; Mantetsu-kai 1986: 171; 257-261; Mantetsu-kai 2007: 258-259.

Table 2. Construction expenses and ROIC of the SMR's railway department (CON), 1907-1941

Year	Amount of expenditure	Shared amount of administration costs	Amount of increase (yen)			Conversion from other accounts	Total	Amount of abolition	Amount of removal	Amount of decrease (yen)			Total	Amount at the date of closing accounts	Accumulated amount	Net income
			Amount of government investment property	Amount of property arrangement (revaluation of property, etc.)	Amount of property arrangement (revaluation of property, etc.)					Amount of depreciation	Amount of property arrangement (revaluation of property, etc.)	Conversion to other accounts				
1907	9099914.08	—	—	—	—	9099914.08	—	612.75	—	—	—	612.75	9099301.33	9099301.33	3600756.5	
1908	2171596.22	805878.54	331.92	—	—	2977806.68	7479.44	2084.49	—	—	1851.38	11415.31	22510759.38	31610060.70	7375734.8	
1909	7925152.61	437157.10	421522.21	—	9648.32	8793480.24	416409.00	100401.32	—	—	—	516810.32	8276669.92	39886730.62	9808706.7	
1910	14088657.91	656766.49	1507.38	—	44387.45	14791319.23	243641.79	450960.54	—	—	—	694602.33	14096716.91	53983447.53	8805510.9	
1911	11082502.20	622579.62	1087398.68	—	—	12792480.49	744924.64	222188.64	—	—	15421.19	982534.47	11809955.02	65793402.55	10240595.9	
1912	4778056.07	248469.63	-62490.86	—	—	4964034.85	227357.29	194283.79	—	—	—	36015.68	457656.76	4506378.09	70299780.64	11245113.0
1913	2276820.23	116037.58	8325.56	—	—	2401183.37	213318.41	160150.58	—	—	65123.96	438592.96	1962590.41	72262371.05	13390906.4	
1914	1431350.55	86200.58	397.70	—	8590.90	1526539.73	79058.17	211553.68	—	—	—	290611.85	1235927.89	73498298.94	13752940.7	
1915	1098842.30	73267.11	173794.71	—	—	1345904.12	74092.80	99422.37	—	—	478477.88	651993.05	693911.07	74192210.01	14639549.1	
1916	2082021.64	86497.61	9364.33	—	207735.51	2385619.09	45860.41	569984.08	—	—	—	615844.49	1769774.61	75961984.62	18212035.5	
1917	1471593.94	171380.99	1633742.20	—	41134.69	3317851.82	66790.23	629448.67	—	—	—	696238.90	2621612.92	78583597.53	22001956.1	
1918	5931555.81	229407.79	22263210.82	—	—	28424174.43	71813.92	766460.93	—	—	4551.65	842826.51	27581347.92	106164945.46	26095444.2	
1919	26068976.59	947011.19	—	—	—	27015987.78	403859.45	224491.70	—	—	494167.31	1122518.46	25893469.32	132058414.78	33881053.2	
1920	26338575.70	1500732.27	—	—	7537070.28	35376378.25	674716.49	534613.00	—	—	—	1209329.49	34167048.76	166225463.54	47350106.5	
1921	12826938.87	855611.50	—	—	—	13682550.37	33217.35	109369.13	—	—	917903.30	1060489.78	12622060.59	178847524.13	46337477.2	
1922	9832248.91	833229.25	—	—	323527.65	10989005.81	58920.50	161305.72	—	—	—	220226.22	10768779.59	189616303.72	55962258.1	
1923	8429633.13	1091400.91	—	—	—	9521034.04	6254.56	133921.90	—	—	874135.87	1014312.33	8506721.71	198123025.43	58121452.8	
1924	11796117.95	1114732.24	—	—	591000.42	13501850.61	42995.93	124788.56	—	—	—	167784.49	13334066.12	211457091.55	59386685.0	
1925	8942295.36	554196.19	—	—	—	52380.17	9548871.72	26257.52	190842.08	—	—	217099.60	9331772.12	220788863.67	62448994.9	
1926	9425785.13	—	—	—	108915.93	9534701.06	824935.70	3152298.96	1306961.04	—	—	5284195.70	4250505.36	225039369.03	67876905.2	
1927	18502827.74	—	—	33794455.43	—	52297283.17	464949.92	2772952.06	3294893.03	30944767.73	341163.69	37818726.43	14478556.74	239517925.77	68008345.2	
1928	17374955.40	—	—	—	1294349.38	18669304.78	1012144.90	3426632.96	4045223.63	—	—	8484001.49	10185303.29	249703229.06	74281024.4	
1929	19054060.16	—	—	—	1179310.30	20233370.46	504162.17	3213065.95	4336993.35	—	—	8054221.47	12179148.99	261882378.05	74890234.9	
1930	13228051.57	—	—	23383.17	—	13251434.74	523721.86	2366431.75	199431.40	—	1813267.20	4902852.21	8348582.53	270230960.58	58562153.0	
1931	8002614.75	—	—	—	—	8002614.75	86040.32	1237072.59	4609759.37	105931.27	89414.69	6128218.24	1874396.51	272105357.09	48185482.2	
1932	4683164.59	—	—	48158.59	2629041.79	7360364.97	105745.46	673787.06	5022949.27	—	—	5802481.79	1557883.18	273663240.27	65050664.8	
1933	10256409.27	—	—	28428.21	—	10284837.48	2908084.55	1403663.55	5348418.23	—	40106.15	9700272.48	584565.00	274247805.27	75766354.0	
1934	27572187.53	—	—	62317.60	144593.43	27779098.56	837794.75	2513720.59	8898851.56	—	—	12250366.90	15528731.66	289776536.93	73243744.2	
1935	23956201.49	—	—	114473.92	—	24070675.41	1231407.70	1126441.80	5605697.85	—	687094.20	8650641.55	15420033.86	305196570.79	84030381.9	
1936	17600939.92	—	—	56043.46	3382646.83	21039630.21	166821.73	768367.98	5202078.75	—	—	6137268.46	14902361.75	320098932.54	79597220.6	
1937	11358364.05	—	—	166201.59	—	11524565.64	304773.98	2055144.95	5561595.66	—	62362889.94	14157804.53	-2633238.89	317465693.65	89712967.4	
1938	22320625.73	—	—	462954.56	50337277.11	73120857.40	590725.13	6782315.14	6349796.83	—	—	13722837.10	59398020.30	376863713.95	97117065.7	
1939	37928656.90	—	—	204285.70	257535.58	38390478.18	354920.52	4551525.42	9242190.90	—	—	14148636.84	24241841.34	401105555.29	105922122.2	
1940	42250474.60	—	—	—	8052364.92	50302839.52	—	—	7297312.49	—	—	7297312.49	43005527.03	444111082.32	144944831.0	
1941	32776268.07	—	—	—	116617310.15	149393578.22	—	—	8872498.31	—	—	8872498.31	140521079.91	584632162.23	150589397.3	

Source: South Manchuria Railway Company, Yearbook of Statistics 1939: 50-53; Business Reports 1940-41; Mantetsu-kai 1986: 565.

Table 3a. Business performance (ROIC, ROS) of the SMR's railway department (CON), 1925-1943

Year	Construction expenses (yen)	Income from passenger transportation (yen)	Total number of passenger transportation (person)	Passenger transportation income per person (yen)	Income from freight transportation (yen)	Total number of freight transportation (ton)	Company's own lines		Other income (yen)*	Total operating income (yen)	Total operating expenses (yen)	Net income (yen)	ROIC (%)	ROS (%)
							Freight transportation income per ton (yen)	Freight transportation income per ton (yen)						
1925	220788863.67	14530941.59	9109004	1.595	80535820.25	13649089.0	5.900	2328465.70	97395227.54	34946232.59	62448994.95	28.28	64.12	
1926	225039369.03	15216352.54	8290085	1.835	89513059.01	15000728.0	5.967	3194154.98	107923566.53	40046661.28	67876905.25	30.16	62.89	
1927	239517925.77	16102953.35	8263089	1.949	94040818.67	16717678.0	5.625	3100408.13	113244180.15	45235834.93	68008345.22	28.39	60.05	
1928	249703229.06	17619293.34	9702119	1.816	97738146.93	17530324.0	5.575	3281649.32	118639089.59	44358065.16	74281024.43	29.75	62.61	
1929	261882378.05	17451585.31	10410579	1.676	101089474.20	18562959.0	5.446	3562683.13	122103742.64	47213507.72	74890234.92	28.60	61.33	
1930	270230960.58	11461175.32	8115808	1.412	77936687.75	15193272.0	5.130	5932867.24	95330730.31	36768576.44	58562153.87	21.67	61.43	
1931	272105357.09	9135663.19	6331760	1.443	70897755.74	15454213.2	4.588	5442878.79	85476297.72	37290815.48	48185482.24	17.71	56.37	
1932	273663240.27	14812045.02	8610159	1.720	85022314.40	16572815.7	5.130	4012152.41	103846511.83	38795846.98	65050664.85	23.77	62.64	
1933	274247805.27	18757363.98	11633875	1.612	94263019.12	18850840.2	5.000	6656357.92	119676741.02	43910387.01	75766354.01	27.63	63.31	
1934	289776536.93	20332876.15	13786403	1.475	101489276.22	21671341.7	4.683	4703223.68	126525376.05	53281631.83	73243744.22	25.28	57.89	
1935	305196570.79	22412222.40	15122922	1.482	103362261.44	20980701.3	4.927	8911692.14	134686175.98	50655794.08	84030381.90	27.53	62.39	
1936	313667457.54	22302298.56	15749786	1.416	103165249.11	21365653.1	4.828	7565242.01	133032789.68	53885245.03	79147544.65	25.23	59.49	
1937	300114129.65	24877527.35	17515000	1.425	115558375.07	24331000.0	4.749	9899849.18	150335751.60	61340050.12	88995701.48	29.65	59.20	
1938	357299551.57	33940296.53	21001612	1.616	135088530.64	26994205.8	5.004	23378011.94	192406839.11	95628871.81	96777967.30	27.09	50.30	
1939	379249287.81	50206761.29	30825386	1.629	153151204.99	32038198.3	4.780	26471724.57	229829690.85	122744282.13	107085408.72	28.24	46.59	
1940	444111082.32	194843000.00	97822000	1.992	318876000.00	64506000.0	4.943	96260484.42	609979484.42	465034653.45	144944830.97	32.64	23.76	
1941	584632162.23	223381000.00	103683000	2.154	391354000.00	74576000.0	5.248	108698448.62	723433448.62	572844051.28	150589397.34	25.76	20.82	
1942	627806000.00	307691000.00	132153000	2.328	418454000.00	84441000.0	4.956	137775702.00	863920702.00	667659835.00	199260867.00	31.74	23.06	
1943	684271000.00	436025000.00	163544000	2.666	429076000.00	84984000.0	4.931	167178539.00	1032279539.00	792643067.00	229636472.00	33.56	22.46	

Table 3b. Business performance (ROIC, ROS) of the NRM, 1933-1939

Year	Construction expenses (yen)	Income from passenger transportation (yen)	Total number of passenger transportation (person)	Passenger transportation income per person (yen)	Income from freight transportation (yen)	Total number of freight transportation (ton)	National Railway lines		Other income (yen)*	Total operating income (yen)	Total operating expenses (yen)	Net income (yen)	ROIC (%)	ROS (%)
							Freight transportation income per ton (yen)	Freight transportation income per ton (yen)						
1933	208434848.00	14711341.00	7869115	1.870	36081524.00	8917826.0	4.046	3212027.00	54004892.00	50350390.00	3654502.00	—	6.77	
1934	364417870.00	17851909.00	8814508	2.025	50513474.00	11873101.5	4.254	3784120.00	72152603.00	56209879.00	15942624.00	4.37	22.10	
1935	626949667.00	28678252.00	13279957	2.160	72833515.00	14956210.7	4.870	9119130.00	110630897.00	90531440.00	20099457.00	3.21	18.17	
1936	754744376.00	33539720.00	16758775	2.001	85475065.00	18658198.8	4.581	11633576.00	130648362.00	108852922.00	21795440.00	2.89	16.68	
1937	872640857.00	41561353.00	18731000	2.219	101804542.00	21050000.0	4.836	12837372.00	156203267.00	128016813.00	28186454.00	3.23	18.04	
1938	971706644.42	57217719.84	28893819	1.980	131105669.48	27792256.1	4.717	24079886.56	212403275.88	169066412.15	43336863.73	4.46	20.40	
1939	1157040761.84	100181693.68	45390000	2.207	167211924.47	37050640.9	4.513	30972182.23	298365800.38	250194128.44	48171671.94	4.16	16.15	

Table 3c. Business performance (ROIC, ROS) of the NKR, 1933-1939

Year	Construction expenses (yen)	Income from passenger transportation (yen)	Total number of passenger transportation (person)	Passenger transportation income per person (yen)	Income from freight transportation (yen)	Total number of freight transportation (ton)	North Korea Railway lines		Other income (yen)*	Total operating income (yen)	Total operating expenses (yen)	Net income (yen)	ROIC (%)	ROS (%)
							Freight transportation income per ton (yen)	Freight transportation income per ton (yen)						
1933	—	506500.62	746890	0.678	1134444.71	519238.0	2.185	102498.16	1743443.49	1641075.22	102368.27	—	5.87	
1934	—	1126757.26	1611337	0.699	2500987.39	1122588.0	2.228	327377.35	3955122.00	3842249.13	112872.87	—	2.85	
1935	—	1175059.74	1718170	0.684	3351435.30	1474439.0	2.273	478437.04	5004932.08	4485873.01	519059.07	—	10.37	
1936	6431475.00	1516619.16	2169513	0.699	4787019.27	2088842.0	2.292	416901.87	6720540.30	5435018.79	1285521.51	19.99	19.13	
1937	17351564.00	1789763.00	1991000	0.899	5842003.00	2432000.0	2.402	507871.00	8119636.00	6557092.00	1562544.00	9.01	19.24	
1938	19564162.38	2317288.79	3059678	0.757	8082161.84	3085369.2	2.620	570321.95	10969772.58	9461907.09	1507865.48	7.71	13.75	
1939	21856267.48	3736686.54	4509259	0.829	8894103.52	3957201.1	2.248	888810.79	13519600.85	13482812.36	36788.49	0.17	0.27	

*Note:* Other income comprises income generated by other non-railway operations of the SMR's railway department, e.g. income from dining cars, hotels and hospitals. The figures of net income for the CON during the period from 1936 to 1939 shown in Table 3a differ slightly from those indicated in Table 2. This is due to changes made in the classification of elements of operating income and operating expenses between departments. The figures of net income for the CON in Table 2 are based on the classification effective in each year while the figures of operating income and operating expenses in Table 3a are based on the classification in practice at the beginning of 1940. However, the differences are only minor.

*Source:* South Manchuria Railway Company, Yearbook of Statistics 1927: 34-35; 66-70; 1928: 54-55; 104-108; 1930: 54-55; 124-128; 288, 290-291, 295, 305; 1932: 62-63; 148-149; 292, 294-295, 299, 307; 1934: 60-61; 138-140; 278, 280-281, 284-285, 293, 947; 950-951; 952-953; 957; 960-961; 962-963; 1936: 68-69; 146-150; 276; 278-279, 282-283, 293, 983-4, 990-993, 1015; 1018-1023; 1939: 72-73; 142-148; 194-195; 198-199; 224-227, 290-295; 330-332; South Manchuria Railway Company, *The Third 10 years of the South Manchuria Railway* 1938: 462-464; 517-518; 576-577; ; 1156-1157; 1207; 1428; Mantetsu-kai 1986: 205, 211-212, 224; 275, 278, 336; Mantetsu-kai 2007:252; South Manchuria Railway Company, Explanatory notes for the Imperial Diet, 1938: 128-129.

Table 4. Construction expenses and net income of the entire network operated by the SMR 1925-1943 (yen)

Year	Construction expenses			Net income			ROIC (%)
	CON	NRM	Total	CON	NRM	Total	
1925	220788864		220788864	62448995		62448995	28.28
1926	225039369		225039369	67876905		67876905	30.16
1927	239517926		239517926	68008345		68008345	28.39
1928	249703229		249703229	74281024		74281024	29.75
1929	261882378		261882378	74890235		74890235	28.60
1930	270230961		270230961	58562154		58562154	21.67
1931	272105357		272105357	48185482		48185482	17.71
1932	273663240		273663240	65050665		65050665	23.77
1933	274247805	208434848	482682653	75766354	3654502	79420856	16.45
1934	289776537	364417870	654194407	73243744	15942624	89186368	13.63
1935	305196571	626949667	932146238	84030382	20099457	104129839	11.17
1936	313667458	754744376	1068411834	79597221	21795440	101392661	9.49
1937	300114130	872640857	1172754987	89712967	28186454	117899421	10.05
1938	357299552	971706644	1329006196	97117066	43336864	140453929	10.57
1939	379249288	1157040762	1536290050	105922122	48171672	154093794	10.03
1940	444111082	1415000000	1859111082	144944831		144944831	7.80
1941	584632162	1630000000	2214632162	150589397		150589397	6.80
1942	627806000	1797000000	2424806000	199260867		199260867	8.22
1943	684271000	N/A	N/A	229636472		229636472	N/A

*Note:* Data for the amount of construction expenses for the NRM are not available for 1943.

*Source:* As for Tables 2 and 3b; Yasutomi 1995: 211.

Table 5. Operating income and expenses of the SMR's railway department (CON), 1907-1943 (yen)

Year	Operating income	Normal expenses	Weight of normal expenses to total expenses (%)	Special salaries			Operating expenses						Net income or losses	ROS (%)
				Bonuses	Retirement service bonuses	Company houses expenses	Total	Depreciation expenses	Amount of removal	Extra depreciation expenses	Total	Total expenses		
1907	9768887.11	6101614.87	98.92	66515.54	—	—	66515.54	—	—	—	—	6168130.41	3600756.71	36.86
1908	12537142.42	4925118.65	95.42	233907.58	—	—	233907.58	—	2381.32	—	2381.32	5161407.55	7375734.87	58.83
1909	15916198.08	5789560.47	94.79	263450.66	25707.55	—	289158.21	—	28772.63	—	28772.63	6107491.31	9808706.77	61.63
1910	15671604.84	6092451.82	88.73	287631.55	35822.83	—	323454.38	—	450187.70	—	450187.70	6866093.90	8805510.94	56.19
1911	17526287.86	6690936.76	91.84	310927.44	66410.66	—	377338.10	—	217417.02	—	217417.02	7285691.88	10240595.98	58.43
1912	19907456.28	7653630.98	88.36	326894.16	62897.73	425628.46	815420.35	—	193291.87	—	193291.87	8662343.20	11245113.08	56.49
1913	22275132.04	7752437.27	87.26	350939.49	61291.98	558045.77	970277.24	—	161511.10	—	161511.10	8884225.61	13390906.43	60.12
1914	23216721.52	8133226.78	85.94	492384.33	71507.36	554602.85	1118494.54	—	212059.43	—	212059.43	9463780.75	13752940.77	59.24
1915	23894203.79	8074167.42	87.24	457737.48	75793.98	546602.77	1080134.23	—	100352.97	—	100352.97	9254654.62	14639549.17	61.27
1916	27815348.54	7864697.09	81.90	520532.25	98193.84	548647.61	1167373.70	—	571242.18	—	571242.18	9603312.97	18212035.57	65.47
1917	34457922.72	10568184.30	84.84	622553.82	306350.79	668327.89	1597232.50	—	290549.73	—	290549.73	12455966.53	22001956.19	63.85
1918	44992871.67	16273036.88	86.11	740179.49	309343.68	809747.32	1859270.49	—	765119.96	—	765119.96	18897427.33	26095444.34	58.00
1919	67060720.03	30218709.30	91.08	1195799.19	309699.34	1145230.67	2650729.20	—	310228.26	—	310228.26	33179666.76	33881053.27	50.52
1920	85316806.02	32119733.85	84.60	1823907.82	1496483.39	1577575.87	4897967.08	—	948998.51	—	948998.51	37966699.44	47350106.58	55.50
1921	78204132.38	25891138.58	81.25	2167058.49	242260.20	1845077.31	4254396.00	—	1721120.57	—	1721120.57	31866655.15	46337477.23	59.25
1922	87813029.33	26031280.60	81.73	2191163.48	791133.62	1749795.07	4732092.17	—	1087398.41	—	1087398.41	31850771.18	55962258.15	63.73
1923	92269703.67	26320438.18	77.08	2425539.49	2465283.83	1861385.11	6752208.43	—	1075604.19	—	1075604.19	34148250.80	58121452.87	62.99
1924	92561732.31	27002783.43	81.39	2385381.61	767102.01	2027915.59	5180399.21	—	991864.63	—	991864.63	33175047.27	59386685.04	64.16
1925	97395227.54	26860667.01	76.86	2009038.01	1817452.69	1695096.74	5521587.44	—	2563978.14	—	2563978.14	34946232.59	62448994.95	64.12
1926	107923566.53	29603887.35	73.92	2052603.98	1153759.00	1929491.87	5135854.85	3152298.96	2154620.12	—	5306919.08	40046661.28	67876905.25	62.89
1927	113244180.15	31674737.26	70.02	2181613.61	2921949.71	2335326.15	7438889.47	3280081.54	2297648.41	544478.25	6122208.20	45235834.93	68008345.22	60.05
1928	118639089.54	30832456.46	69.51	2345934.95	944884.30	2796056.66	6086875.91	3998747.19	2858442.97	581542.63	7438732.79	44358065.16	74281024.43	62.61
1929	122103742.64	33171800.82	70.26	2456578.59	1461349.05	2703577.97	6621505.61	4296212.95	2735433.40	388554.94	7420201.29	47213507.72	74890234.92	61.33
1930	95330730.31	27628471.91	75.14	2541282.39	2021795.65	2073051.05	6636129.09	142073.22	2361784.42	117.80	2503975.44	36768576.44	58562153.87	61.43
1931	85476297.72	26202838.83	70.27	1676721.90	1491345.64	2107127.69	5275195.23	4595524.55	—	1217256.87	5812781.42	37290815.48	48185482.24	56.37
1932	103846511.83	27942342.46	72.02	1794927.46	1852018.41	1816999.28	5463945.15	4714484.92	—	675074.45	5389559.37	38795846.98	65050664.85	62.64
1933	119676741.02	31955367.70	72.77	2326719.71	1824862.28	1962281.40	6113863.39	4729441.57	—	1111714.35	5841155.92	43910387.01	75766354.01	63.31
1934	126525376.05	36245906.22	68.03	2633590.56	1306275.76	3158679.08	7098545.40	7443004.43	—	2494175.78	9937180.21	53281631.83	73243744.22	57.89
1935	134686175.98	37269081.55	73.57	2881950.76	1027402.53	3551245.42	7460598.71	4857039.72	—	1069074.10	5926113.82	50655794.08	84030381.90	62.39
1936	133482465.69	39843952.27	73.94	3098715.87	1684155.32	3554469.08	8337340.27	4961834.29	—	742118.20	5703952.49	53885245.03	79597220.66	59.63
1937	151053017.54	45384867.23	73.99	3236273.25	1667309.62	3668585.73	8572168.60	5335379.48	—	2047634.81	7383014.29	61340050.12	89712967.42	59.39
1938	192745937.54	69327155.70	72.50	4472944.38	1723463.15	7423983.55	13620391.08	6121382.88	—	6559942.15	12681325.03	95628871.81	97117065.73	50.39
1939	229829690.25	92560995.35	74.70	8063301.67	1351859.85	8420729.11	17835890.63	8979896.69	—	4530785.32	13510682.01	123907567.99	105922122.26	46.09
1940	609979484.40	—	—	—	—	—	—	(19195421.80)	—	—	—	465034653.50	144944831.00	23.76
1941	723433448.60	—	—	—	—	—	—	(25446773.60)	—	—	—	572844051.30	150589397.30	20.82
1942	863920702.00	—	—	—	—	—	—	—	—	—	—	667659835.00	199260867.00	23.06
1943	1022279539.00	—	—	—	—	—	—	—	—	—	—	792643067.00	229636472.00	22.46

Note: The figures of net income for the CON during the period from 1936 to 1939 shown in Table 5 above differ slightly from those indicated in Table 3a. This is due to changes made in the classification of elements of operating income and operating expenses between departments. The figures of net income for the CON in Table 5 are based on the classification effective in each year while the figures of operating income and operating expenses in Table 3a are based on the classification in practice at the beginning of 1940. However, the differences are only minor.

Source: South Manchuria Railway Company, Yearbook of Statistics 1939: 108-109; Business Reports, 1940-43; Mantetsu-kai 1986: 568.



Table 6a. Income structure of the SMR's railway department (CON), 1925-1943 (yen)

Year	Income from passenger transportation	Percent	Income from freight transportation	Percent	Other income*	Percent	Total operating income	Net income	ROS (%)
1925	14530942	14.92	80535820	82.69	2328466	2.39	97395228	62448994.9	64.12
1926	15216353	14.10	89513059	82.94	3194155	2.96	107923567	67876905.2	62.89
1927	16102953	14.22	94040819	83.04	3100408	2.74	113244180	68008345.2	60.05
1928	17619293	14.85	97738147	82.38	3281649	2.77	118639090	74281024.4	62.61
1929	17451585	14.29	101089474	82.79	3562683	2.92	122103743	74890234.9	61.33
1930	11461175	12.02	77936688	81.75	5932867	6.22	95330730	58562153.8	61.43
1931	9135663	10.69	70897756	82.94	5442879	6.37	85476298	48185482.2	56.37
1932	14812045	14.26	85022314	81.87	4012152	3.86	103846512	65050664.8	62.64
1933	18757364	15.67	94263019	78.76	6656358	5.56	119676741	75766354.0	63.31
1934	20332876	16.07	101489276	80.21	4703224	3.72	126525376	73243744.2	57.89
1935	22412222	16.64	103362261	76.74	8911692	6.62	134686176	84030381.9	62.39
1936	22302299	16.76	103165249	77.55	7565242	5.69	133032790	79147544.6	59.49
1937	24877527	16.55	115558375	76.87	9899849	6.59	150335752	88995701.4	59.20
1938	33940297	17.64	135088531	70.21	23378012	12.15	192406839	96777967.3	50.30
1939	50206761	21.85	153151205	66.64	26471725	11.52	229829691	107085408.7	46.59
1940	194843000	31.94	318876000	52.28	96260484	15.78	609979484	144944831.0	23.76
1941	223381000	30.88	391354000	54.10	108698449	15.03	723433449	150589397.3	20.82
1942	307691000	35.62	418454000	48.44	137775702	15.95	863920702	199260867.0	23.06
1943	436025000	42.24	429076000	41.57	167178539	16.20	1032279539	229636472.0	22.25

For Note and Source see Table 6b below.

Table 6b: Income structure of the entire railway network operated by the SMR, 1925-1943 (yen)

Year	Income from passenger transportation	Percent	Income from freight transportation	Percent	Other income*	Percent	Total operating income	Net income	ROS (%)
1925	14530942	14.92	80535820	82.69	2328466	2.39	97395228	62448995	64.12
1926	15216353	14.10	89513059	82.94	3194155	2.96	107923567	67876905	62.89
1927	16102953	14.22	94040819	83.04	3100408	2.74	113244180	68008345	60.05
1928	17619293	14.85	97738147	82.38	3281649	2.77	118639090	74281024	62.61
1929	17451585	14.29	101089474	82.79	3562683	2.92	122103743	74890235	61.33
1930	11461175	12.02	77936688	81.75	5932867	6.22	95330730	58562154	61.43
1931	9135663	10.69	70897756	82.94	5442879	6.37	85476298	48185482	56.37
1932	14812045	14.26	85022314	81.87	4012152	3.86	103846512	65050665	62.64
1933	33468705	19.27	130344543	75.05	9868385	5.68	173681633	79420856	45.73
1934	38184785	19.22	152002750	76.51	8487344	4.27	198674879	89186368	44.89
1935	51090474	20.83	176195776	71.82	18030822	7.35	245317073	104129839	42.45
1936	55842019	21.18	188640314	71.54	19198818	7.28	263681151	101392661	38.45
1937	66438880	21.67	217362917	70.91	22737221	7.42	306539019	117899421	38.46
1938	91158016	22.52	266194200	65.76	47457899	11.72	404810115	140453929	34.70
1939	150388455	28.47	320363129	60.65	57443907	10.88	528195491	154093794	29.17
1940	194843000	31.94	318876000	52.28	96260484	15.78	609979484	144944831	23.76
1941	223381000	30.88	391354000	54.10	108698449	15.03	723433449	150589397	20.82
1942	307691000	35.62	418454000	48.44	137775702	15.95	863920702	199260867	23.06
1943	436025000	42.24	429076000	41.57	167178539	16.20	1032279539	229636472	22.25

*Note:* Other income comprises income generated by other non-railway operations of the SMR's railway department, e.g. income from dining cars, hotels and hospitals.

*Source:* The same listed for Table 3a-3c.

Table 7. Principal items of freight carried on the entire network under the control of the SMR, 1924-1941 (000 tons)

Year	Private cargo								Weight of private cargo (%)	Military cargo	Weight of military cargo (%)	Company's own cargo	Weight of company's own cargo (%)	Total
	Soya beans	Foxtail millet, wheat, and cereals	Wood	Coal	Iron ore	Minerals	Others	Total						
1924	1775	493	474	6380	87	141	3442	12792	93.73	19	0.14	837	6.13	13648
1925	2130	583	417	7269	78	227	3494	14198	94.65	8	0.05	795	5.30	15001
1926	2446	611	421	8011	80	277	3803	15649	93.61	14	0.08	1055	6.31	16718
1927	2566	539	557	8680	109	310	3656	16417	93.65	26	0.15	1087	6.20	17530
1928	2991	457	475	8937	163	351	3737	17111	92.18	14	0.08	1438	7.75	18563
1929	2002	356	291	7800	126	366	2875	13816	90.94	14	0.09	1363	8.97	15193
1930	2923	405	234	7326	125	289	2862	14164	91.65	275	1.78	1015	6.57	15454
1931	3142	377	292	7304	149	290	3580	15134	91.32	821	4.95	617	3.72	16572
1932	2558	445	480	8653	183	404	4726	17449	92.56	442	2.34	960	5.09	18851
1933	2768	529	657	9300	314	462	5558	19588	90.39	441	2.03	1642	7.58	21671
1934	2440	477	531	9571	383	735	5165	19302	92.00	349	1.66	1330	6.34	20981
1935	2139	459	490	9749	551	803	5604	19795	92.65	381	1.78	1190	5.57	21366
1936	2125	406	537	9512	591	1062	6276	20509	84.29	1834	7.54	1989	8.17	24332
1936	2643	1168	1706	11050	615	0	11460	28642	71.39	3968	9.89	7512	18.72	40122
1937	2952	1140	2090	11890	843	0	13984	32899	68.75	7070	14.77	7886	16.48	47855
1938	2207	1344	3189	12055	1052	874	16493	37214	63.12	9539	16.18	12208	20.71	58961
1939	1350	669	3572	13110	1229	1057	16523	37510	59.18	11898	18.77	13979	22.05	63387
1940	1406	1004	3438	15795	1783	820	15413	39659	53.18	20517	27.51	14400	19.31	74576
1941	1519	674	3414	17212	2563	1114	17853	44349	52.52	21968	26.02	18126	21.47	84443

*Note:* Data to 1936 apply just to the CON; following the creation of the Total Railway Bureau by in October 1936, data refer to the entire network operated by the SMR, i.e. including the NRM and the NKR.

*Source:* Mantetsu-kai 2007: 250-251.

Table 8. Major expenditure items requiring funding by the SMR, 1934-1943 (yen)

Year	Construction expenses	Percent	Annual increase in loans (including those to the State of Manchuria)	Percent	Annual increase in investments	Percent	Dividend Payments	Percent	Total
1934	70,270,632	26.83	131,746,565	50.31	26,583,892	10.15	33,270,014	12.70	261,871,103
1935	55,950,273	21.96	122,717,638	48.18	39,907,976	15.67	36,150,014	14.19	254,725,901
1936	51,749,004	26.39	103,872,056	52.97	1,433,006	0.73	39,030,014	19.90	196,084,080
1937	50,280,013	26.86	143,757,057	76.79	-49,285,291	-26.33	42,463,461	22.68	187,215,240
1938	79,583,615	25.72	179,794,227	58.11	5,128,968	1.66	44,901,121	14.51	309,407,930
1939	94,221,391	21.63	237,415,938	54.51	57,435,730	13.19	46,453,435	10.67	435,526,493
1940	115,971,706	28.06	202,512,545	49.00	43,672,614	10.57	51,104,749	12.37	413,261,614
1941	91,441,963	22.21	226,953,696	55.11	35,860,262	8.71	57,546,121	13.97	411,802,042
1942	128,810,000	26.30	257,631,722	52.61	38,484,995	7.86	64,758,782	13.22	489,685,499
1943	91,773,000	15.06	411,698,324	67.56	33,621,054	5.52	72,305,501	11.87	609,397,878
Average		24.10		56.52		4.77		14.61	

*Note:* Construction expenses are gross except for 1943, where they are the net increase after the deduction of depreciation.

*Source:* South Manchuria Railway Company, Business Reports, 1933-1943.

Table 9. Major sources of funds raised by the SMR, 1934-1943 (yen)

Year	Annual increase in the amount of paid in capital	Percent	Annual increase in the amount of debentures	Percent	Net income for the year	Percent	Depreciation	Percent	Annual increase in arears	Percent	Total
1934	36,000,000	12.88%	160,275,000	57.35%	46,467,457	16.63%	28,109,580	10.06%	8616500	3.08%	279,468,537
1935	36,000,000	16.12%	114,775,000	51.38%	49,624,142	22.22%	26,585,203	11.90%	-3614431	-1.62%	223,369,914
1936	36,000,000	14.89%	124,775,000	51.59%	50,173,971	20.75%	20,062,522	8.30%	10833583	4.48%	241,845,076
1937	56,000,000	32.03%	20,775,000	11.88%	73,929,495	42.28%	26,548,866	15.18%	-2406647	-1.38%	174,846,714
1938	20,000,000	6.93%	153,875,000	53.30%	72,875,185	25.25%	34,800,438	12.06%	7120970	2.47%	288,671,593
1939	40,000,000	9.46%	215,165,000	50.90%	77,848,456	18.41%	49,800,763	11.78%	39940559	9.45%	422,754,777
1940	120,000,000	25.99%	237,355,000	51.40%	76,711,108	16.61%	16,284,810	3.53%	11419489	2.47%	461,770,407
1941	100,000,000	21.44%	270,755,000	58.06%	72,131,419	15.47%	19,278,845	4.13%	4204410	0.90%	466,369,674
1942	130,000,000	26.84%	236,305,000	48.80%	84,888,309	17.53%	24,884,000	5.14%	8187570	1.69%	484,264,879
1943	130,000,000	24.60%	255,655,000	48.37%	92,956,889	17.59%		0.00%	49922279	9.45%	528,534,168
Average		19.12%		48.30%		21.27%				3.10%	

*Note:* The amount of depreciation for 1943 was offset against to the amount of construction expenses for the year as indicated in Table 10.

*Source:* South Manchuria Railway Company, Business Reports, 1933-1943.

Table 10. Composition of the paid-up equity capital of the SMR, 1909-1943 (yen)

Year	Payment made by the government		Payment made by the private sector		Total
	amount	percent	amount	percent	
1909	100,000,000	98.04	2,000,000	1.96	102,000,000
1910	100,000,000	98.04	2,000,000	1.96	102,000,000
1911	100,000,000	98.04	2,000,000	1.96	102,000,000
1912	100,000,000	91.74	9,000,000	8.26	109,000,000
1913	100,000,000	85.00	17,640,457	15.00	117,640,457
1914	100,000,000	80.86	23,666,663	19.14	123,666,663
1915	100,000,000	79.37	26,000,000	20.63	126,000,000
1916	100,000,000	76.92	30,000,000	23.08	130,000,000
1917	100,000,000	71.60	39,666,663	28.40	139,666,663
1918	100,000,000	65.79	52,000,000	34.21	152,000,000
1919	100,000,000	60.18	66,166,670	39.82	166,166,670
1920	147,186,568	62.35	88,876,710	37.65	236,063,278
1921	217,156,000	70.24	92,000,000	29.76	309,156,000
1922	217,156,000	68.04	102,000,000	31.96	319,156,000
1923	217,156,000	67.62	104,000,000	32.38	321,156,000
1924	217,156,000	67.62	104,000,000	32.38	321,156,000
1925	217,156,000	67.06	106,666,670	32.94	323,822,670
1926	217,156,000	64.41	120,000,000	35.59	337,156,000
1927	217,156,000	62.73	129,000,000	37.27	346,156,000
1928	217,156,000	60.55	141,506,845	39.45	358,662,845
1929	217,156,000	56.09	170,000,000	43.91	387,156,000
1930	217,156,000	56.09	170,000,000	43.91	387,156,000
1931	217,156,000	56.09	170,000,000	43.91	387,156,000
1932	217,156,000	53.78	186,666,663	46.22	403,822,663
1933	244,673,159	50.93	235,768,725	49.07	480,441,884
1934	256,207,991	48.32	274,000,000	51.68	530,207,991
1935	256,207,991	45.25	310,000,000	54.75	566,207,991
1936	256,207,991	42.54	346,000,000	57.46	602,207,991
1937	268,701,151	41.29	382,000,000	58.71	650,701,151
1938	291,221,693	42.13	400,000,000	57.87	691,221,693
1939	326,262,641	44.92	400,000,000	55.08	726,262,641
1940	386,235,395	47.61	424,931,513	52.39	811,166,908
1941	441,221,693	48.16	475,000,000	51.84	916,221,693
1942	513,742,257	49.46	525,000,000	50.54	1,038,742,257
1943	593,803,634	50.80	575,000,000	49.20	1,168,803,634

*Note:* The amounts in this table have been calculated on basis of dividend payments made to each category and the rate of such dividend.

*Source:* South Manchuria Railway Company, Yearbook of Statistics 1939: 48-49; Business Reports, 1940-43; Mantetsu-kai 1986: 573.

Table 11. Paid-up capital, corporate debentures, net income and dividend payments of the SMR, 1907-1943 (yen)

Year	Paid-up capital		Corporate Debentures		Total amount of fixed capital accumulated	Net income	Net income of railway department	Weight of railway department	ROIC of the entire SMR (%)	Dividend payments		Other shareholders	Total amount	
	Accumulated amount	Annual net increase	Accumulated amount	Annual net increase						Government	Rate of paid-up capital (%)			Amount
1907	102000000		39052000		141052000	2016585	3600757	178.56	1.43	0	0	120000	6	120000
1908	102000000	0	78104000	39052000	180104000	2113582	7375735	348.97	1.17	0	0	120000	6	120000
1909	102000000	0	78104000	0	180104000	5771699	9808707	169.94	3.20	2500000	2.50	120000	6	2620000
1910	102000000	0	136682000	58578000	238682000	3708316	8805511	237.45	1.55	1500000	1.50	120000	6	1620000
1911	102000000	0	117156000	-19526000	219156000	3667428	10240596	279.23	1.67	1800000	1.80	120000	6	1920000
1912	112000000	10000000	117156000	0	229156000	4926045	11245113	228.28	2.15	2000000	2.00	540000	6	2540000
1913	120000000	8000000	117156000	0	237156000	7167279	13390906	186.83	3.02	2500000	2.50	1234832	7	3734832
1914	124000000	4000000	117156000	0	241156000	7541091	13752941	182.37	3.13	2500000	2.50	1893333	8	4393333
1915	128000000	4000000	117156000	0	245156000	8080499	14639549	181.17	3.30	2500000	2.50	2080000	8	4580000
1916	132000000	4000000	117156000	0	249156000	10107608	18212036	180.18	4.06	2500000	2.50	2400000	8	4900000
1917	142000000	10000000	127356000	10200000	269356000	14925643	22001956	147.41	5.54	2500000	2.50	3173333	8	5673333
1918	154000000	12000000	137156000	9800000	291156000	22193171	26095444	117.58	7.62	3500000	3.50	5200000	10	8700000
1919	180000000	26000000	197156000	60000000	377156000	24374964	33881053	139.00	6.46	3500000	3.50	6616667	10	10116667
1920	309156000	129156000	145000000	-52156000	454156000	27391985	47350107	172.86	6.03	5445903	3.70	8887671	10	14333574
1921	309156000	0	175000000	30000000	484156000	31386139	46337477	147.64	6.48	9337708	4.30	9200000	10	18537708
1922	321156000	12000000	195000000	20000000	516156000	35080244	55962258	159.53	6.80	9337708	4.30	10200000	10	19537708
1923	321156000	0	219052000	24052000	540208000	34795592	58121453	167.04	6.44	9337708	4.30	10400000	10	19737708
1924	321156000	0	254052000	35000000	575208000	34552914	59386685	171.87	6.01	9337708	4.30	10400000	10	19737708
1925	337156000	16000000	243752000	-10300000	580908000	34865280	62448995	179.12	6.00	9337708	4.30	10666667	10	20004375
1926	337156000	0	268452000	24700000	605608000	34157884	67876905	198.72	5.64	9337708	4.30	12000000	10	21337708
1927	355156000	18000000	278152000	9700000	633308000	36274323	68008345	187.48	5.73	9337708	4.30	12900000	10	22237708
1928	387156000	32000000	277627000	-525000	664783000	42552861	74281024	174.56	6.40	11509268	5.30	15565753	11	27075021
1929	387156000	0	277102000	-525000	664258000	45505857	74890235	164.57	6.85	11509268	5.30	18700000	11	30209268
1930	387156000	0	296577000	19475000	683733000	21673462	58562154	270.20	3.17	9337708	4.30	13600000	8	22937708
1931	387156000	0	316052000	19475000	703208000	12598620	48185482	382.47	1.79	4343120	2.00	10200000	6	14543120
1932	412156000	25000000	389527000	73475000	801683000	61287725	65050665	106.14	7.64	9337708	4.30	14933333	8	24271041
1933	512208000	100052000	377350000	-12177000	889558000	42920554	75766354	176.53	4.82	10765619	4.40	18861498	8	29627116
1934	548208000	36000000	537625000	160275000	1085833000	46467457	73243744	157.62	4.28	11350014	4.43	21920000	8	33270014
1935	584208000	36000000	652400000	114775000	1236608000	49624142	84030382	169.33	4.01	11350014	4.43	24800000	8	36150014
1936	620208000	36000000	777175000	124775000	1397383000	50173971	79597221	158.64	3.59	11350014	4.43	27680000	8	39030014
1937	676208000	56000000	797950000	20775000	1474158000	73929495	89712967	121.35	5.02	11903461	4.43	30560000	8	42463461
1938	696208000	20000000	951825000	153875000	1648033000	72875185	97117066	133.26	4.42	12901121	4.43	32000000	8	44901121
1939	736208000	40000000	1166990000	215165000	1903198000	77848456	105922122	136.06	4.09	14453435	4.43	32000000	8	46453435
1940	856208000	120000000	1404345000	237355000	2260553000	76711108	144944831	188.95	3.39	17110228	4.43	33994521	8	51104749
1941	956208000	100000000	1675100000	270755000	2631308000	72131419	150589397	208.77	2.74	19546121	4.43	38000000	8	57546121
1942	1086208000	130000000	1911405000	236305000	2997613000	84888309	199260867	234.73	2.83	22758782	4.43	42000000	8	64758782
1943	1216208000	130000000	2167060000	255655000	3383268000	92956889	229636472	247.04	2.75	26305501	4.43	46000000	8	72305501

Source: South Manchuria Railway Company, Yearbook of Statistics 1939: 48-49; Business Reports, 1940-43; Mantetsu-kai 1986: 573.

Table 12. Operating income and expenses of major departments of the SMR 1907-1943 (yen)

Year	Railway			Ports			Mining			Local administration														
	Operating income	Operating expenses	Net income	Operating income	Operating expenses	Net income	Operating income	Operating expenses	Net income	Operating income	Operating expenses	Net income												
1907	9669	77,091s	6102	57.97%	3696	183.33%	573	4.57%	564	5.36%	154	7.64%	1484	11.83%	931	8.84%	553	27.43%	121	0.96%	251	2.38%	-130	-6.45%
1908	12537	71.17%	5161	33.29%	7622	360.72%	1021	5.80%	846	5.46%	175	8.28%	2703	15.34%	1675	10.81%	1028	48.65%	274	1.56%	400	2.58%	-125	-5.92%
1909	15017	64.97%	5818	33.55%	9198	159.38%	1381	5.97%	1134	6.54%	248	4.30%	4026	17.42%	2796	16.12%	1230	21.31%	371	1.61%	601	3.47%	-230	-3.99%
1910	15672	63.25%	6543	31.06%	9471	255.42%	1213	4.90%	1102	5.23%	111	2.99%	5749	23.20%	4082	19.37%	1667	44.96%	444	1.79%	941	4.47%	-497	-13.40%
1911	17526	62.25%	6908	28.21%	10618	289.48%	1257	4.46%	1160	4.74%	97	2.64%	6464	22.96%	4285	17.50%	2179	59.41%	468	1.66%	1083	4.42%	-615	-16.77%
1912	19907	59.34%	7847	27.42%	12060	244.82%	1689	5.03%	1489	5.20%	200	4.06%	9194	27.41%	7347	25.67%	1847	37.49%	633	1.89%	1401	4.90%	-768	-15.59%
1913	22275	52.51%	7914	22.45%	14361	200.38%	1912	4.51%	1729	4.90%	183	2.55%	14372	33.88%	12572	35.67%	1801	25.13%	901	2.12%	1952	5.54%	-1051	-14.66%
1914	23217	51.97%	8345	22.48%	14871	197.20%	2291	5.13%	1964	5.29%	327	4.34%	14076	31.51%	11859	31.94%	2217	29.40%	1779	3.98%	2864	7.71%	-1086	-14.40%
1915	23894	54.57%	8175	22.90%	15720	194.55%	2293	5.24%	1922	5.38%	371	4.59%	12648	28.89%	10641	29.80%	2007	24.84%	1518	3.47%	2492	6.98%	-974	-12.05%
1916	27815	53.08%	8436	19.95%	19379	191.74%	2502	4.77%	2138	5.05%	364	3.60%	15973	30.48%	13896	32.85%	2077	20.55%	1480	2.82%	2747	6.49%	-1268	-12.55%
1917	34458	49.63%	10859	19.92%	23599	158.12%	3500	5.04%	3107	5.70%	393	2.63%	20368	29.34%	15048	27.61%	5320	35.64%	1930	2.78%	3539	6.49%	-1608	-10.77%
1918	44993	46.74%	17038	23.00%	27955	125.96%	4533	4.71%	4494	6.07%	39	0.18%	32597	33.86%	25515	34.45%	7302	31.91%	2545	2.64%	4952	6.69%	-2407	-10.85%
1919	67061	43.79%	30529	23.71%	36532	149.87%	6070	3.96%	7405	5.75%	-1335	-5.48%	61201	39.97%	47779	37.11%	13422	55.06%	3446	2.25%	7662	5.95%	-4216	-17.30%
1920	85317	48.83%	36760	24.95%	48557	177.27%	7304	4.18%	7867	5.34%	-563	-2.06%	60670	34.72%	54868	37.24%	5802	21.18%	3991	2.28%	10150	6.89%	-6160	-22.49%
1921	78204	53.16%	33173	28.67%	45031	143.47%	7581	5.15%	6912	5.97%	669	2.13%	40004	27.19%	36708	31.72%	3296	10.50%	3954	2.69%	10386	8.98%	-6432	-20.49%
1922	87813	51.67%	34169	25.33%	53644	152.92%	8675	5.48%	7392	5.48%	1282	3.65%	53140	31.27%	46424	34.42%	6716	19.14%	3995	2.35%	10832	8.03%	-6836	-19.49%
1923	92270	49.69%	35788	23.72%	56482	162.33%	7893	4.25%	7819	5.18%	74	0.21%	63915	34.42%	59837	39.65%	4078	11.72%	4524	2.44%	12821	8.50%	-8298	-23.85%
1924	92562	47.67%	36553	22.90%	56008	162.09%	8763	4.51%	8687	5.44%	76	0.22%	68698	33.38%	60959	37.96%	8103	23.45%	4363	2.25%	14127	8.85%	-9764	-28.26%
1925	97395	48.31%	38801	23.27%	58595	168.06%	9656	4.79%	9023	5.41%	633	1.82%	68453	33.96%	61986	37.18%	6469	18.55%	4531	2.25%	15938	9.56%	-11407	-32.72%
1926	107924	50.05%	45952	25.32%	61972	181.43%	9931	4.61%	8937	4.93%	994	2.91%	76154	35.32%	70665	38.94%	5487	16.07%	5241	2.43%	17808	9.81%	-12567	-36.79%
1927	113244	49.12%	45236	23.28%	68008	187.48%	10276	4.46%	9306	4.79%	970	2.67%	82787	35.91%	73039	37.59%	9748	26.87%	6098	2.64%	19104	9.83%	-13006	-35.85%
1928	118639	49.34%	44358	22.42%	74281	174.56%	10785	4.49%	8324	4.21%	2462	5.79%	87168	36.26%	75565	38.19%	11603	27.27%	6230	2.59%	19425	9.82%	-13195	-31.01%
1929	122104	50.67%	47214	24.15%	74890	164.57%	12276	5.09%	8719	4.46%	3557	7.82%	84365	35.01%	72090	36.88%	12275	26.97%	4690	1.95%	18288	9.35%	-13599	-29.88%
1930	95331	50.68%	36769	22.09%	58562	270.21%	8559	4.05%	1821	8.40%	6241	8.40%	62441	33.19%	60628	36.43%	1813	8.37%	4586	2.44%	15305	9.20%	-10719	-49.46%
1931	85476	45.70%	37291	21.38%	48185	382.45%	8358	4.47%	7069	4.05%	1289	10.23%	52732	28.19%	52715	30.22%	17	0.13%	4489	2.40%	15366	8.81%	-10877	-86.33%
1932	103847	42.22%	38796	21.01%	65051	106.14%	11406	4.64%	8367	4.53%	3039	4.96%	55086	22.40%	54946	29.76%	538	0.88%	4824	1.96%	16511	8.94%	-11687	-19.07%
1933	119677	48.26%	43910	21.41%	75766	176.52%	13034	5.26%	9817	4.79%	3217	7.50%	70976	28.62%	65960	32.16%	5016	11.69%	6185	2.49%	16855	8.22%	-10670	-24.86%
1934	126525	46.75%	53282	46.66%	73244	157.63%	15730	5.81%	12150	10.64%	3580	7.70%	85526	31.60%	75134	65.79%	10391	22.36%	7274	2.69%	20950	18.34%	-13676	-29.43%
1935	134686	44.57%	50656	20.06%	84030	169.33%	14394	4.76%	10799	4.28%	3595	7.24%	92560	30.63%	79862	31.62%	12698	25.59%	9407	3.11%	23625	9.36%	-14218	-28.65%
1936	133482	44.64%	53885	21.65%	79597	158.64%	15229	5.09%	11282	4.53%	3946	7.86%	87944	29.41%	75694	30.41%	12250	24.42%	9473	3.17%	26107	10.49%	-16634	-33.15%
1937	151053	42.54%	61340	21.82%	89713	121.35%	17724	4.99%	12773	4.54%	4951	6.70%	91777	25.68%	80672	28.70%	10505	14.21%	9063	2.55%	20085	7.14%	-11022	-14.91%
1938	192746	49.75%	95629	30.40%	97117	133.27%	23084	5.96%	17189	5.46%	5895	8.09%	105785	27.31%	89206	28.36%	16579	22.75%						
1939	229830	52.13%	123908	34.13%	105922	136.06%	28974	6.57%	26031	7.17%	2943	3.78%	91350	20.72%	80090	22.06%	11260	14.46%						
1940	609979	76.31%	465034	64.36%	144945	188.95%	26174	3.27%	24504	3.39%	1670	2.18%	81646	10.21%	68159	9.43%	13487	17.58%						
1941	723433	77.15%	572844	66.18%	150589	208.77%	30046	3.20%	28683	3.31%	1364	1.89%	94343	10.06%	80322	9.28%	14021	19.44%						
1942	863921	78.09%	667660	65.37%	199261	234.73%	31806	2.88%	31850	3.12%	-44	-0.05%	111559	10.08%	97167	9.51%	14393	16.96%						
1943	1022280	78.85%	792643	65.86%	229636	247.03%	26887	2.07%	33132	2.75%	-6244	-6.72%	118294	9.12%	113190	9.41%	5105	5.49%						

Year	Oil			Iron			Total					
	Operating income	Operating expenses	Net income	Operating income	Operating expenses	Net income	Operating income	Operating expenses	Net income			
1907								12543	2016			
1908								17615	2113			
1909								23114	5771			
1910								24777	3708			
1911								28155	3668			
1912								33546	4926			
1913								42417	7167			
1914								44671	7541			
1915								43786	8080			
1916								52402	10107			
1917								69429	14925			
1918								96258	22193			
1919								153133	24375			
1920				1581	0.90%	8003	5.43%	-6422	-23.44%			
1921				3607	2.45%	6481	5.60%	-2874	-9.16%			
1922				3387	1.99%	6585	4.88%	-3198	-9.12%			
1923				3704	1.99%	5945	3.94%	-2241	-6.44%			
1924				4431	2.28%	7386	4.63%	-2955	-8.55%			
1925				3987	1.98%	7707	4.62%	-3720	-10.67%			
1926				6897	3.20%	10703	5.90%	-3807	-11.15%			
1927				9223	4.00%	9381	4.83%	-158	-0.44%			
1928				9741	4.05%	8525	4.31%	1216	2.86%			
1929				8940	3.71%	8397	4.30%	543	1.19%			
1930				6641	3.53%	7308	4.39%	-667	-3.08%			
1931				7709	4.12%	10689	6.13%	-2980	-23.65%			
1932				10711	4.36%	14611	7.91%	-3900	-6.36%			
1933	5277	2.13%	4452	2.17%	825	1.92%	3040	1.23%	3584	1.75%	-544	-1.27%
1934	3884	1.43%	3413	2.99%	472	1.02%						
1935	6962	2.30%	5911	2.34%	1051	2.12%						
1936	7957	2.66%	7035	2.83%	922	1.84%						
1937	8517	2.40%	7030	2.50%	1487	2.01%						
1938	11190	2.89%	8930	2.84%	2260	3.10%						



1939	10382	2.35%	9107	2.51%	1275	1.64%
1940	11427	1.43%	10407	1.44%	1019	1.33%
1941	18629	1.99%	16127	1.86%	2502	3.47%
1942	27476	2.48%	24369	2.39%	3105	3.66%
1943	91942	7.09%	30914	2.57%	1028	1.11%

440907	363059	77848
799328	722517	76711
937672	865540	72131
1106265	1021376	84888
1296423	1203464	92959

Source: Mantetsu-kai 2007: 244-249.

Figure 1: Performance of SMR's own network (CON), ROIC and ROS, 1907-1944 (%)

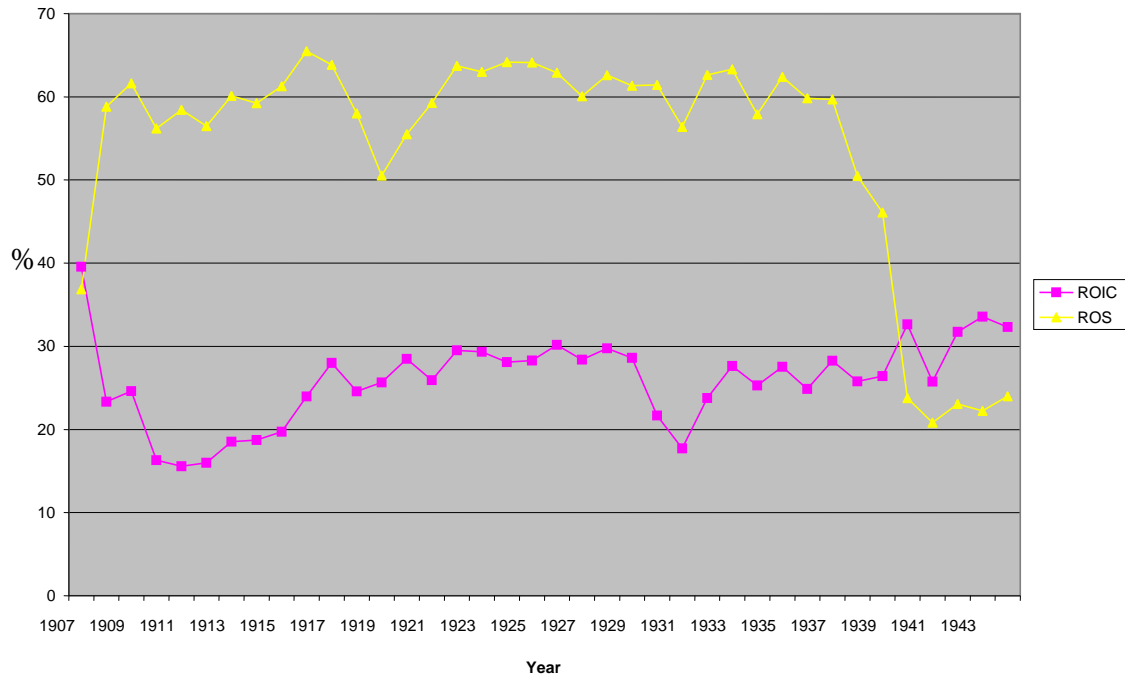


Figure 2: Operating and net income of the SMR's own network (CON), 1907-1943 (yen)

