

The Great Kanto earthquake and the response of insurance companies: a historical lesson on the impact of a major disaster

Takau Yoneyama, Hitotsubashi University, Tokyo.

1. Introduction: Research questions and approach

The Great Kanto earthquake of 1923 was the first, and probably the last, major disaster in Japan¹. Payment of fire claims arising from the fire directly or indirectly caused by the earthquake became a political issue and social problem. Some insisted loudly on the invalidity of the earthquake exemption clause in fire policies, and others claimed that fire insurance companies should pay insurance money by extra-legal means. Although it is clear that the exemption clause was effective, public opinion at that time forced insurance companies to take some action towards payment.

There are two research questions in this paper. First, why were Japan's insurance companies obliged to pay a part of claims as a gift of money as a token of their sympathy with the victims, in spite of the validity of earthquake exemption clauses? Second, after the settlement of the problem, how was industrial organization changed by the burden of Government loans?

There are lots of records and surveys on the Great Kanto Earthquake. Political and social historians have focused on political and social problems caused by the earthquake, for example, the bloodbath of Koreans and socialists following immediately after it. Researchers of natural disasters explicated the mechanisms and factors determining damages after a severe earthquake. In the fields of economic and business history, historians have paid attention to the bad commercial notes that were circulated under the guise of relieving the losses, because such the non-performing loan was the most important factor behind the financial panic of 1927.

Few business historians have explored the Great Kanto earthquake. The consequences of the earthquake for the insurance business have already stated by In'nami². We cannot also overlook two studies by business historians. One is a paper by Mishima³. He examined the diary of Hachisaburo Hirao, an executive managing director of Tokio Marine, and emphasized that Hirao was a social-minded manager at the time of the disaster. Tamura published a serious of papers about the impact of the earthquake on the insurance business⁴. He freely used articles from contemporary newspapers, and clarified the process of why fire claims became such an issue. His papers also tried to make clear the factors obliging the insurance companies to make payments.

¹ Although huge economic losses were overtaken by the Kansai Great Earthquake of 1994, the number of houses and victims of the earthquake of 1923 was far greater than in the former disaster.

² In'nami, Hirokichi, ed., *History of Development of Japanese Industries Vol.27, Insurance*, Study Group on Development of Japanese Industries, 1966.

³ Mishima, Yasuo, *Great Kanto earthquake and Hachisaburo Hirao: A problem on fire insurance payment*, Konan Managerial Studies, 29-1, 1988.

⁴ Tamura, Yuichiro, Great Kanto earthquake and Disturbance of Fire Insurance Payment, (1)-(11), *Papers of Ryutu Kagaku University, Human, Society and Nature serious*, from 16-3, 2004 to 20-1, 2007.

In addition to the above research and papers, non-life insurance company histories provide lots of important information on the business impact of the earthquake, and the official insurance statistics are also important for an analysis of industrial organization. For this paper, we have made active use of other materials which previous studies did not depend on, and tried to solve the two research questions outlined above. The results, we hope, will broaden our views of the business impact of the Great Kanto earthquake of 1923, and will help explain the impact of the disaster on the organization of the insurance industry.

The structure of this paper is as follows: the main issues examined in the next section are the losses of the Earthquake of 1923 and the insurance companies' response to these losses. In section 3, we try to solve our first research question, and explain the reasons why insurance companies paid money to the insured victims as tokens of their sympathy. The second research question is discussed in section 4. The impact of the Great Kanto earthquake did not change the Tokio Marine's hold over national fire insurance market, but it transformed the mechanisms of market control. Finally, the conclusion sums up the historical lessons to be learnt from the study.

2. The Great Kanto earthquake and the insurance companies' response

2.1 Earthquake damage

The Kanto region was hit by a severe earthquake at two minutes before noon on 1st September 1923, and the earthquake almost entirely ruined Tokyo and Yokohama. Its most distinguishing feature was that the indirect damages and injuries were greater than direct ones. The Earthquake struck during lunch-cooking time. Most contemporary Japanese used small fire kitchen ranges for cooking. Triggered by these fire ranges, fires broke out everywhere in the central areas of Tokyo and Yokohama. Unfortunately, a gale was blowing due to a typhoon in western Japan. Consequently, about 212 thousand houses were burnt down by the disastrous fire, in other words more than the number of those directly damaged by the earthquake. People killed and missing numbered more than 105 thousand.

The estimated sum insured by the victims was 2.2 billion yen, which far exceeded available insurance assets⁵. Following an investigation, it was recognized that the actual sum insured by sufferers of the disaster was 1.494 billion yen, as table 1 shows⁶. Table 2 shows the sums reinsured on the affected policies. If all reinsurance claims had been paid to primary insurers, the amount would have exceeded by far the total solvency margin of insurance companies.

⁵ Contemporary newspapers reported the insured loss to be 2.2 billion yen. *The Osaka Daily News* stated that the solvency margin of all Japan's non-life insurance companies was less than 200 million yen. For the victims' sum insured, see *The Osaka Daily News*, 14 September 1923 and *The Osaka Sun News*, 15 September 1923. For the solvency margin, see *The Osaka Daily News*, 19 September 1923.

⁶ *The Chugai Commerce News* reported the sum insured against fire by the victims of the disaster. Cf. *The Chugai Commerce News*. 17 December 1923.

Table 1 The number and amount of fire policies held by victims of the disaster

1.1 Original fire insurance before earthquake

	the number of policies	insurance amount
Tokyo	504,156	2,472,143,000
Kanagawa	107,883	553,731,000
Etc	47,702	231,020,000
Total	659,741	3,256,894,000

1.2 Fire policies of victims

	the number of policies	insurance amount
Tokyo	217,989	1,123,791,000
Kanagawa	71,994	366,485,000
Etc	1,174	4,539,000
Total	291,157	1,494,815,000

1.3 Description of objects insured under damage policies

	Insurance amount
Movables	680,782,000
Real estate	814,033,000
Total	1,494,815,000

Source: Source: *Chugai Commerce News*, 17 December 1923.

Table 2 Reinsurance of fire damage policies

	Primary insurance companies	Reinsurance companies	Total
the number of policies	291,157	379,340	670,497
insurance amount	1,494,815,000	626,938,000	2,121,753,000
reinsured amount			
with home company	495,137,000	80,051,000	575,188,000
with foreign company whose office located in Japan	83,709,000	12,194,000	95,903,000
directly reinsured overseas	288,003,000	127,254,000	415,257,000
Total	866,849,000	219,499,000	1,086,348,000
Net insurance			

the number of policies	291,157	379,340	670,497
net insurance amount	627,966,000	407,439,000	1,035,405,000

Source: *Chugai Commerce News*, 17 December 1923.

2.2 The legal bases for insurance payments for fire damage, directly or indirectly caused by the earthquake

Legally speaking, the exemption clause in fire policies allowed non-life insurance companies to escape paying fire insurance claims caused by earthquake. However, this question did not always proceed without dispute. The Insurance part of the Commercial Law of 1898 did not clearly stipulate an exemption for fire caused by earthquake. Article 419 stipulated that the “Insurer is responsible to pay insurance money for losses caused by fire whatever be the causes, provided that the same shall not apply to articles 395 and 396.” Article 395 stated that the “Insurer has no responsibility for losses caused by wars and any disturbance, without a special contract.” In article 395 it was also added that the “Insurer has no responsibility for losses caused by the nature, defect or abrasion of the insurance object, or other losses provoked by malicious intent or gross negligence of the insured.”⁷ Under the Commercial Law, therefore, insurance companies were obliged to make payments for fire losses to insured parties who had suffered as a result of the earthquake.

Fire insurers, however, stipulated clearly in their insurance policies that the insurer was not responsible for losses caused by an earthquake or volcanic eruption whether directly or indirectly. The exemption clause was inserted in section 17 of the general fire insurance policy, which was used by all fire insurance companies⁸. The general fire policy was recognized as valid at the time, but if the provisions of the Commercial Law were to be regarded as binding, the exemption clause in the general fire policy would be invalidated. One newspaper reported that an authority on the Civil Law Act had declared that the exemption clause was not always to be held valid.⁹

Although the earthquake exemption clause was supported by legal judgment¹⁰, people became increasingly insistent on payment for fire losses under an extralegal action, in order to accomplish the restoration of the imperial capital. Businessmen who had lost their factories and offices through the fire caused by the earthquake were particularly eager to exert influence upon the Government to support their insurance payments. Public opinion and the Government had high hopes of fire insurers voluntarily doing their duty through a feeling of sympathy for the victims of the earthquake, and so the insurers were under pressure to do something to aid them.

⁷ Cf. *The Kobe Yushin News*, 4 October 1923.

⁸ Cf. *The Osaka Sun News*, 18 September 1923.

⁹ The authority was Dr. Izutaro Suehiro, a professor of Tokyo Imperial University. His opinion was not given on paper, but in a telephone conversation, but we may regard the latter as a formal expression of his opinion. Cf. *The Kobe Yushin News*, 4 October 1923.

¹⁰ There is considerable evidence for this. For example, see *The Osaka Sun News*, 26 September, 1923.

2.3 The problem of insurance payments for fire damage caused by the earthquake and fire insurers' countermeasures

The representative of the Japanese fire insurers was Mr. Kenkichi Kagami¹¹, a senior managing director of Tokio Marine. Accepting the direction of public opinion, he decided to pay a gift of money in token of the fire insurers' sympathy for the insured sufferers. It was not easy for him to do so, however, because he faced a problem with coordinating fire insurers whose head offices were located in the Kansai region. Fire insurers in the Kanto region and Kagami together proposed that the Government pay 10 % of the sum insured by victims as a gift in token of their sympathy, in exchange for a no-interest loan from the Government. If fire insurers had paid 10% of the sufferers' insured losses, almost all insurers would have financially collapsed, as we can see from table 3. As this matter became a political issue at the last stage in December 1923, the final solution of this problem postponed to the next year.

Table 3 The financial difficulties of fire insurance companies after payment for calamity benefits

Fire insurance companies whose headquarter was located in the Kansai region					
Company	Authorized capital	Paid-up capital	Reserved fund	10%Payment	Reserved after payment
Kobe Marine	15,000,000	3,750,000	7,890,000	5,355,000	6,285,000
Nippon Marine	10,000,000	2,650,000	4,420,000	1,797,000	5,273,000
Osaka Marine	10,000,000	2,790,000	5,680,000	4,800,000	3,670,000
Asahi Marine	10,000,000	2,500,000	560,000	1,300,000	1,760,000
Daifuku Marine	5,000,000	1,250,000	300,000	805,000	745,000
Taisho Marine	5,000,000	1,250,000	1,960,000	2,600,000	610,000
Hokoku Fire	3,000,000	750,000	2,890,000	4,700,000	-1,060,000
Fukujyu Fire	2,000,000	500,000	1,440,000	3,500,000	-1,560,000
Kyodo Fire	10,000,000	2,500,000	3,600,000	10,060,000	-3,960,000
Total	70,000,000	17,940,000	28,740,000	34,917,000	11,763,000
Fire insurance companies whose headquarters was located in the Kanto region					
Company	Authorized capital	Paid-up capital	Reserved fund	10%Payment	Reserved after 10% payment
Tokio Marine	20,000,000	20,000,000	56,796,000	3,200,000	73,596,000
Imperial Marine	10,000,000	2,500,000	4,820,000	3,600,000	3,720,000

¹¹ After graduating from Tokyo Commercial College, now Hitotsubashi University, Kagami entered Tokio Marine, and became a board member because he achieved good results on his London business at a time of his company's difficulties. He also made an effort to build tariffs for fire insurance after his Company's expansion into fire business and achieved magnificent results. He became a leader of the Mitsubishi Zaibatsu in 1930s.

Nippon Fire	10,000,000	4,000,000	11,220,000	12,000,000	3,220,000
Toyo Marine	3,000,000	750,000	2,050,000	740,000	2,060,000
Chuo Fire	5,000,000	1,250,000	310,000	650,000	910,000
Mitsubishi Marine	5,000,000	1,250,000	3,250,000	5,640,000	-1,140,000
Imperial Fire	10,000,000	2,500,000	2,480,000	6,300,000	-1,320,000
Toshin Fire	5,000,000	1,250,000	266,000	3,050,000	-1,490,000
Yokohama Fire	12,500,000	3,125,000	7,880,000	12,500,000	-1,495,000
Toho Fire	3,000,000	750,000	800,000	3,050,000	-1,500,000
Meiji Fire	1,000,000	1,000,000	12,083,000	15,670,000	-2,587,000
Tokyo Fire	10,000,000	2,500,000	9,300,000	12,300,000	-3,000,000
Chiyoda Fire	10,000,000	2,500,000	2,930,000	9,270,000	-3,840,000
Total	104,500,000	43,375,000	114,185,000	87,970,000	67,134,000

Source: *Osaka Asahi News Paper*, 6 November, 1923

Finally, Japan's fire insurers paid 10% of the amount insured by victims¹² and most of all insurers did so with financial assistance from the Government. A few insurers, including Tokio Marine, made a 10% payment out of own resources. Almost all Japan's fire insurers suffered an increasing financial burden because of the 4% interest on Government loans. This burden had a great impact on the changing industrial organization of the fire insurance business, as we will discuss in section 4.

3. Reasons why the problem of insurance payment occurred

If the earthquake exemption clause was valid, why did Japan's fire insurers pay 10% of the sufferers' insurance? Tamura supposed in his paper that the major causes were both the failure of the Government and poor knowledge of insurance contracts. Just after the earthquake, Prime Minister Gonbei Yamamoto made a statement in which he expressed the hope that fire insurers would make payments to the insured victims. The Minister of Agriculture and Commerce Kenjiro Den also expected fire insurers to pay any contribution to the insured. Tamura said that such slips of the tongue on the part of government ministers led fire insurers into financial difficulties, and that, in turn, poor knowledge of insurance contracts led to such mistakes on the part of the Government.

Tamura's views are reasonable in as far as he emphasizes that the Government's verbal lapse was an important factor behind the insurance industry's policy of making payments towards losses from the earthquake. A doubt, however, remains about the notion that knowledge of the insurance contract was poor. Although there is no doubt today about the validity of the earthquake exemption clause, contemporaries, including insurance men, could not be entirely sure. The

¹² A non-tariff company, Nippon Movable Fire Insurance, only carried out its own program of payment instead of following the other fire insurers. Cf. *70 History of Fuji Fire*, pp.32-35.

uncertainty about this is made clear in a letter from Kagami to Hirao.¹³

“Does fire insurance policy cover fires and the spread of fires caused by earthquake? For example, houses burnt after they were damaged by earthquake, or by definite incendiary fires started by Koreans. If the insured could prove these fires to be true, it amounts to loss in wars and civil disturbance, doesn't it? But will the insured victims insist that their losses are not the result of wars and disturbance but fall under the command for strict watch? We need readiness for facing the complicated legal problem of payment of insurance money.”

As the letter shows, Kagami was worried about the complicated problem of fire claims for damages caused by earthquake. Kagami and Hirao never thought that the earthquake exemption clause was invalid, but they recognized that it was not as easy a problem as a business matter.

To explain the reason why fire insurers were obliged to pay 10% of the victims' insured sums in spite of the validity of the exemption clause, we need to understand that the question became a social and political problem. As we have already said, this issue was about to be resolved at the end of 1923 by the Yamamoto Cabinet, when it was suddenly killed off by political strife¹⁴. This unresolved problem then moved into a more serious phase when demonstrations were held by the group of fire claimants¹⁵.

From the perspective of the fire insurers, we can discern three factors which made the issue complicated. The first was the delay of initial countermeasures. Second, Kagami was perceived as the only person with the competence to undertake complicated negotiations with the government authorities. Third, it was recognized that if claims settlement took a longer time than expected, fire insurers would lose the business confidence of their customers. We discuss these factors in detail below.

When the earthquake occurred on 1 September 1923, Kagami was staying at a hotel in Ikaho, a well-known hot springs. Ikaho is about 250 km northwest of Tokyo and was not damaged by the earthquake at all. Kagami, therefore, did not hurry back to Tokyo. In the meantime, businessmen who had sustained losses, and bankers worried about the insured buildings used as collateral for loans, took the initiative in approaching the Government. They forcefully argued that the Government should compel fire insurers to pay claims where damages were caused by the earthquake. As the Government did not at first know of the financial difficulties faced by the fire insurers, the Cabinet made the absurd proposal that claims payments should be made under an extralegal action.

¹³ The quotation is from *The Selected Diary of Hachisaburo Hirao*, Vol.1, Kyoto, 1990, pp.49-50. Mr. Hachisaburo Hirao graduated from Tokyo Commercial College, and entered Tokyo Marine. He was an executive managing director at that time. After his retirement, he took office as Minister of Education. He replied to Kagami that fire insurers had no responsibility for payment, but that this issue necessarily was a social, not an insurance, problem.

¹⁴ As for political problem, see In'nami, *Insurance*, 1966, p.320.

¹⁵ As for social problem, see also In'nami, *Insurance*, 1966, p.320.

If Kagami had come back to Tokyo quickly and explained the financial condition of fire insurers to high-ranking government officials, the Government may have adopted another policy. The most important thing was to let the responsible authorities know about the real financial statement of fire insurers. Hirao wrote to Kagami, "I recommend that each company draw up its balance sheet at 31 August, and present it to the Ministry of Agriculture and Commerce, and then the Ministry by itself will suggest the proper plan to fire insurers."¹⁶ But all insurers did not always agreed with Hirao's opinion¹⁷.

Second, a difficult problem for fire insurers was that the only recognized leader of the industry was Kagami, president of the Great Japan Fire Insurance Association. Kagami had tried hard to establish a tariff agreement among fire insurers. At the same time he had already achieved a rapid growth of fire business for Tokio Marine. Although it was true that he was regarded as competent to negotiate with the Government and to promote coordination among fire insurers, other fire insurance companies did not always abandon their caution with regard to any sign of the strengthening of market control by Tokio Marine.

The financial gap between Tokio Marine and larger fire insurers was one of the most important factors in Kagami's failure to persuade Kansai insurers to agree the conditions of payment and the Governmental loan. With the exception of some newly established companies, only Tokio Marine could pay 10 % of the insured losses. All larger fire insurers including Kansai companies were unable to pay such money without a Government loan. It was clear that the settlement would not only weaken the financial standing of most companies, but also widen the financial gap between Tokio Marine and other large fire insurers, and consequently strengthen its control of the market. In short, the different consequences faced by fire insurers made claims settlement more difficult.

Last but not least, we must not overlook the importance of claims settlement for the reestablishment of the fire insurance business. In one incident, a fire insurance representative was shooed away by a client who said that "fire insurance was useless unless the company could pay money."¹⁸ Especially in the Kanto region, the most important market, settlement was an urgent problem for the reopening of fire business. Although their payment of only a part of the insured losses caused by the earthquake could not be justified, it was natural that fire insurers thought that if they paid some money to the victims as a token of their sympathy, they would regain the business confidence of their clients. It is interesting that the payments were not only pressed by the Government as the result of its failure to understand the technicalities of insurance contracts, but they were also promoted by insurers intent upon re-establishing business confidence. It is probable that Kagami, when proposing the Government loan and the plan of payment as a token of the companies' sympathy, was hoping for the rebirth of the fire insurance business as well as the relief of

¹⁶ The quotation is from the diary at 29 September 1923. Cf. *The Selected Diary of Hirao Hachisaburo*, Vol1, 1990, p74.

¹⁷ The finally weaker companies especially did not want to disclose the amount of their insured losses and the exact amount of their assets.

¹⁸ Cf. Anbiru, *The Collection of True Stories on Insurance Sales*, 1932.

the heavy losses caused by the earthquake. From the beginning, he proposed a plan of part payment, instead of arguing for the full implementation of the earthquake clause. This suggests that his primary intention was to retain the business confidence of clients. The three factors noted above may, then, help to suggest the historical lessons for insurers from the great disaster.

4. The Impact of the Great Kanto earthquake on the industrial organization of non-life insurance.

4-1 The early fire market in Japan, 1888-1900

Japan's first fire insurance company was Tokyo Fire Insurance, established in 1888, which was a forerunner of Sampo Japan. As the company had financial difficulties from the beginning, Yasuda Bank transferred its ownership and increased its capital in 1893. Meiji Fire Insurance followed it. Meiji Fire was established by parties associated with Meiji Life, the first life insurance company in Japan. From its start, Meiji Fire was strongly supported by the Mitsubishi business group. In 1893 the Nippon Marine and Transport Insurance was organized by people associated with Nippon Life. In the same year, two other insurance companies, the Imperial Marine and the Osaka Insurance, established. Although the first mover Tokio Marine did not open a fire business until 1914, these challengers took fire business as well as marine¹⁹. Consequently, competition in fire business became stronger in the 1890s.

4-2 Attempts to build a tariff agreement, 1900-1917

In response, fire insurers groped for a way out of severe competition and to make a tariff agreement. The larger insurers established the Fire Insurance Association in May 1907, and the smaller ones united in the Federation of Fire Insurance in June 1907, so that two tariff agreements existed side by side. The two-tariff system, however, did not continue long, and severe price competition recurred. As a leader of Japan's fire insurers, Mr. Kingo Hara, a managing director of Meiji Fire, worked for building a tariff agreement among all insurers including foreign fire companies, and nearly achieved it in 1914, when his efforts came to nothing at the final stage of negotiations. After his failure, fire insurers reorganized the Fire Insurance Association and elected Kenkichi Kagami as president²⁰ in February 1916. In April that year this was renamed the Great Japan Fire Insurance Association, and it began to try to draft a tariff agreement to include foreign fire insurers. Finally, the Great Japan Alliance Fire Insurance Association was organized by 18 Japanese insurers and 24 foreign insurers, and a powerful tariff agreement came into existence in February 1917.

4-3 Tokio Marine's expansion of fire business, 1914-1924

Tokio Marine was established as a specialist marine insurance company in 1879. When Kagami accepted the presidency of the Great Japan Alliance Fire Insurance Association, he was managing

¹⁹ Cf. In'nami, *Insurance*, 1966, pp.266-269.

²⁰ As for a short history of the fire tariff agreement, see In'nami, *Insurance*, 1966, pp.303-304.

director of Tokio Marine, which had expanded its business into fire in 1914. The company's fire underwriting was very limited at the beginning, but it grew in 1917, and it came to have a significant share of the Japanese fire insurance market by 1923.

When Tokio Marine competed with its rival marine insurers, namely Nippon Marine and Transport, Imperial Marine, Nippon Marine in the 1890s, some marine insurers' business came to a standstill because of so-called London covers. While Kagami managed to resolve Tokio Marine's business difficulties in London, the managers of Nippon Marine and Transport failed to reconstruct its London business and the company was wound up in 1901. It was through the superiority of Tokio Marine in the Japanese marine insurance market that Kagami gained a reputation among London insurance businesses and he established a good relationship with London reinsurers, which meant that the rival marine insurers, Imperial Fire and Nippon Marine, despite strenuous efforts, failed to follow in Tokio Marine's wake. Consequently, when the company approached a wartime boom in maritime transport, Tokio Marine could almost monopolize the huge profits from marine business.

Tables 4, 5 and 6 respectively show the ranking of non-life insurance companies measured by gross premium income in 1908, 1914 and 1919. In 1908, when Tokio Marine was still a specialist marine insurer, it was followed by Tokyo Fire measured by net premium income. Tokio Marine was in the first place by both gross and net insurance income in 1914, when it decided to expand into fire business. Its significant share of business depended upon the sudden growth of marine insurance in the wartime boom. Even in 1919 when the wartime boom was almost over, the share of Tokio Marine remained significant in that it accounted for 30 % of total gross income and 25% of net income. This means that Tokio Marine enjoyed a favourable growth of its fire business based on its sound financial standing, which was brought about by its huge profits from marine business.

Table 4 Premiums of Top Non-life insurance Companies, 1908

		Premium income	% of Total	Reinsurance	Net Premium	% of Total
1	Tokio Marine	2,482,153,000	17.9%	1,283,063,000	1,199,090,000	11.8%
2	Tokyo Fire	1,670,223,000	12.0%	434,193,000	1,236,030,000	12.2%
3	Nippon Marine	1,605,116,000	11.6%	608,149,000	996,967,000	9.9%
4	Nippon Fire	1,390,756,000	10.0%	268,176,000	1,122,580,000	11.1%
5	Meiji Fire	1,305,325,000	9.4%	303,544,000	1,001,781,000	9.9%
6	Imperial Marine	1,243,602,000	9.0%	276,084,000	967,518,000	9.6%
7	Yokohama Fire	1,109,276,000	8.0%	192,196,000	917,080,000	9.1%
8	Naigai Fire	873,023,000	6.3%	0	873,023,000	8.6%
9	Kobe Marine	743,389,000	5.4%	230,899,000	512,490,000	5.1%
10	Kyodo Fire	673,648,000	4.9%	142,056,000	531,592,000	5.3%
11	Osaka Fire	404,422,000	2.9%	7,828,000	396,594,000	3.9%

All 16 companies	13,878,691,000	100.0%	3,757,579,000	10,121,112,000	100.0%
------------------	----------------	--------	---------------	----------------	--------

Source: *Hoken Nenkan (The Insurance Yearbook)*, Ministry of Agriculture and Commerce, 1909

Table 5 Premiums of Top Non-life insurance Companies, 1914

		Premium income	% of Total	Reinsurance	Net Premium	% of Total
1	Tokio Marine	6,825,714,000	33.6%	2,499,869,000	4,325,845,000	32.0%
2	Kobe Marine	1,619,680,000	8.0%	839,869,000	779,811,000	5.8%
3	Imperial Marine	1,593,367,000	7.8%	434,194,000	1,159,173,000	8.6%
4	Meiji Fire	1,271,480,000	6.3%	410,689,000	860,791,000	6.4%
5	Tokyo Fire	1,270,786,000	6.3%	312,108,000	958,678,000	7.1%
6	Kyodo Fire	1,236,181,000	6.1%	579,494,000	656,687,000	4.9%
7	Nippon Marine	1,174,287,000	5.8%	380,655,000	793,632,000	5.9%
8	Nippon Fire	1,067,173,000	5.3%	545,093,000	522,080,000	3.9%
9	Yokohama Fire	1,011,968,000	5.0%	394,740,000	617,228,000	4.6%
10	Toyo Marine	646,311,000	3.2%	94,284,000	552,027,000	4.1%
11	Hokoku Fire	472,896,000	2.3%	68,092,000	404,804,000	3.0%
12	Nisshin fire	348,322,000	1.7%	7,264,000	341,058,000	2.5%
13	Osaka Fire	297,797,000	1.5%	39,921,000	257,876,000	1.9%
All 22 companies		20,314,238,000	100.0%	6,812,890,000	13,501,348,000	100.0%

Source: *Hoken Nenkan (The Insurance Yearbook)*, Ministry of Agriculture and Commerce, 1915

Table 6 Premiums of Top Non-life insurance Companies, 1919

		Premium income	% of Total	Reinsurance	Net Premium	% of Total
1	Tokio Marine	44,595,323,000	30.2%	29,290,251,000	15,305,072,000	25.2%
2	Osaka Marine	16,930,107,000	11.5%	14,177,586,000	2,752,521,000	4.5%
3	Kobe Marine	10,612,016,000	7.2%	7,950,510,000	2,661,506,000	4.4%
4	Yokohama Fire	8,855,869,000	6.0%	5,424,588,000	3,431,281,000	5.7%
5	Tokyo Fire	6,636,082,000	4.5%	3,289,338,000	3,346,744,000	5.5%
6	Nippon Marine	5,375,976,000	3.6%	2,443,975,000	2,932,001,000	4.8%
7	Otaru Trans. Fire	5,295,807,000	3.6%	0	5,295,807,000	8.7%
8	Meiji Fire	4,987,856,000	3.4%	2,704,999,000	2,282,857,000	3.8%
9	Imperial Marine	4,880,556,000	3.3%	2,294,144,000	2,586,412,000	4.3%
10	Nippon Fire	4,438,644,000	3.0%	2,110,234,000	2,328,410,000	3.8%

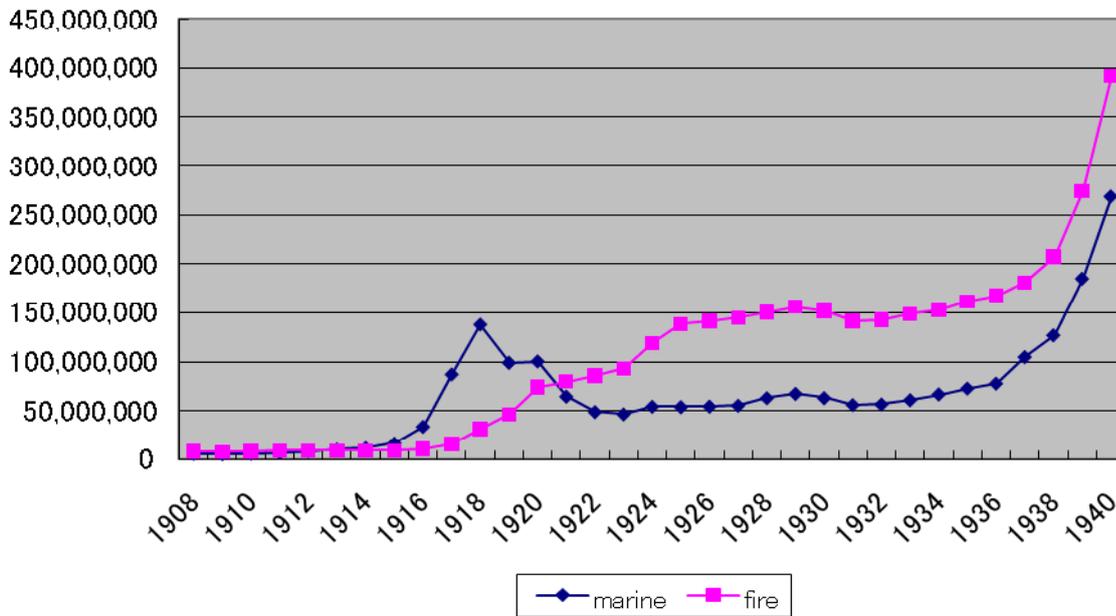
11	Kyodo Fire	4,013,305,000	2.7%	1,758,648,000	2,254,657,000	3.7%
12	Fuso Marine	3,577,174,000	2.4%	2,430,096,000	1,147,078,000	1.9%
All 25 companies		147,458,459,000	100.0%	86,794,476,000	60,663,983,000	100.0%

Source: *Hoken Nenkan (The Insurance Yearbook)*, Ministry of Agriculture and Commerce, 1920

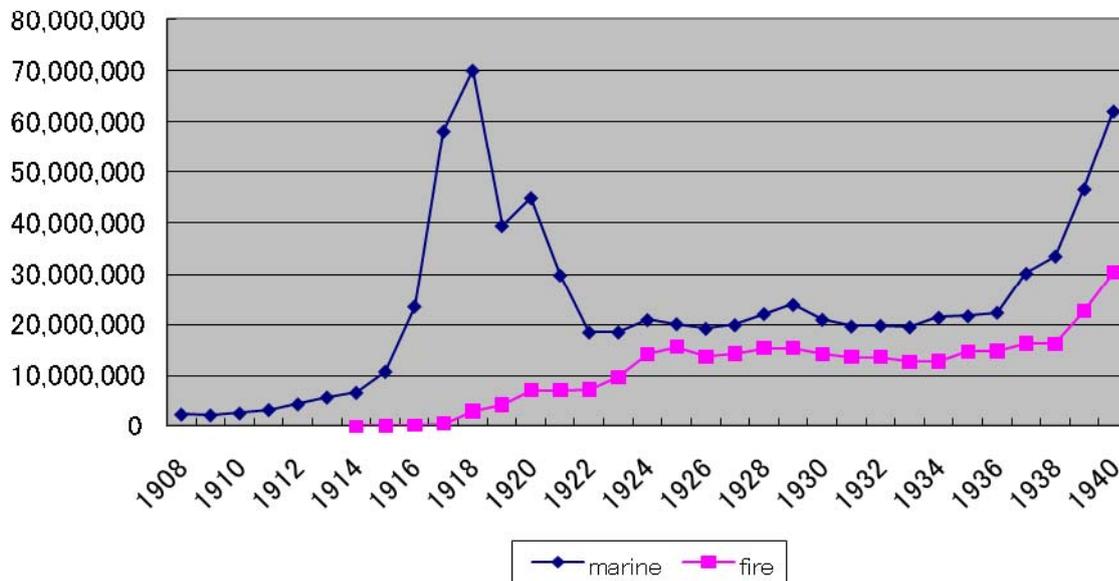
4-4 The effects of the Earthquake on non-life insurance organization after 1924

Graph 1 and 2 show the long-term change of gross premium income in all Japan's non-life insurance companies and in Tokio Marine. Across all insurers, marine business surpassed fire business until 1920, but the situation reversed in 1921. In the earthquake year of 1923, fire business became nearly twice as large as marine business. By contrast, fire never surpassed marine business in Tokio Marine.

Graph 1 Marine and fire insurance premiums of all companies, 1908-1940



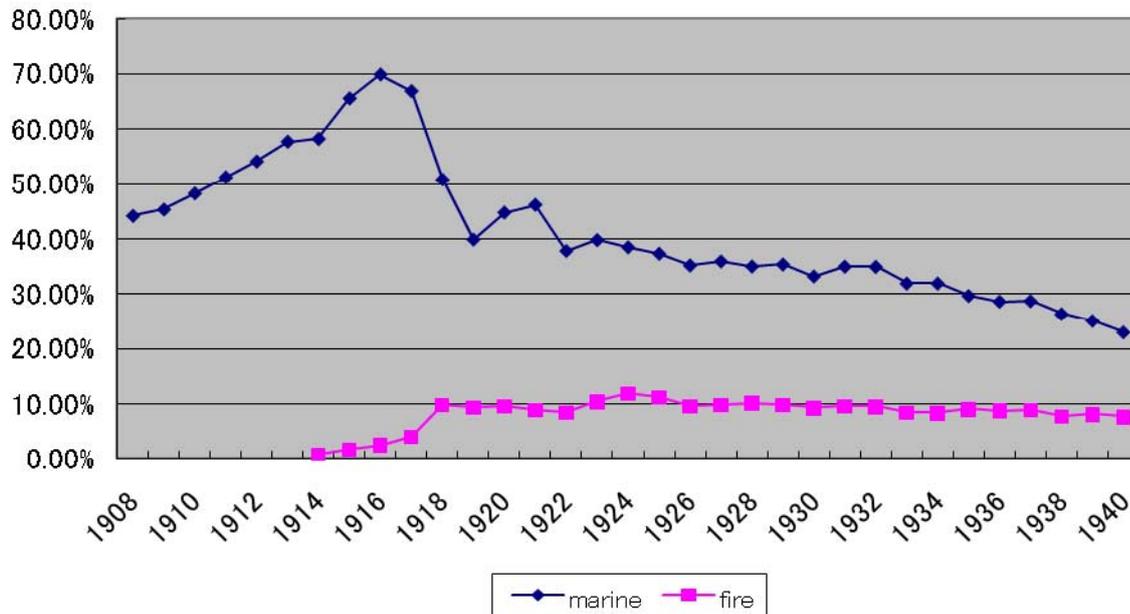
Graph 2 Marine and fire insurance premiums of Tokio Marine Insurance Company, 1908-1940



Tokio Marine not only retained a relatively small portion of fire business, but also a strong reserve accumulated by huge profits in the marine boom. As a result, Tokio Marine could pay 10% of the insured losses without the Government loan after the question of insurance payments had been settled. It is clear, however, that Tokio Marine was an exception. Almost all fire insurers, except for a few of recent foundation, were forced to borrow money from the Government at 4% interest. The difference of competitiveness between Tokio Marine and other large companies increasingly widened.

Graph 3 shows the change in the percentage of fire and marine business of Tokio Marine to all non-life insurance companies 1908-1940. It shows that the fire business of Tokio Marine grew rapidly in 1917/18, and the share became 10% of the market as early as in 1918. By contrast, while its marine business hit a peak of 70% in 1916, its share then gradually declined, partly because lots of insurance companies entered the marine business to take part in the marine boom. About 10% of the market in fire business after the Earthquake remained in the hands of Tokio Marine.

Graph 3 Market Share of Tokio Marine Insurance Company, 1908–1940



While fire business rose temporarily after the Earthquake but then soon dropped back to 10%, marine market share definitely declined in the long term. Focusing on the effect of the Earthquake, the significance of Tokio Marine in the market consistently declined in terms of its share of gross insurance premium income after the year of the Earthquake. Does this mean that Tokio Marine lost its competitiveness and capacity for market control?

As table 4 and 5 show, Tokio Marine had about 30% of the non-life insurance market and it overwhelmed other marine and fire insurers before the Earthquake of 1923. We have already seen that the difference between Tokio Marine and other large insurers widened after the settlement of claims, so it does not appear that Tokio Marine lost its competitiveness after the Earthquake.

While Tokio Marine showed a positive intention to increase its market share in fire insurance before the Earthquake of 1923, it abandoned this competition with financially weaker insurers after the Earthquake. As everybody recognized, Tokio Marine had strong financial reserves, and it was natural that it should prefer to seek out good risks rather than go for an all-out expansion of market share. Furthermore, Kagami was a leader of the tariff organization whose aim was to protect market discipline. This helps to explain why and how Tokio Marine changed its policy. At the same time, it was significant that Kyodo Fire, the powerful leader of the non-tariff insurers, suffered greatly from the Earthquake. Kingo Hara, who was a rival to Kagami, took command of Kyodo Fire, and the company had established its good position in the Japanese fire market under his quick decision-making before the Earthquake. The ordinary non-tariff fire companies comprised Kyodo Fire and Taisei Fire, the latter having been established in 1919 in colonial Taiwan, and extended its

business to the mainland just before the Earthquake. The other non-tariff companies were three specialist fire insurers for movable property, and they suffered heavy losses from the Earthquake claims settlements²¹. As a result, the cartel in Japanese fire insurance became stronger and more stable than before the Earthquake.

The most important impact of the Earthquake on the non-life insurance market was to strengthen the dominance of Tokio Marine, a trend that was a cause of great concern to the Kansai fire insurers, as was the possibility of excessive competition resulting from the breakdown of market discipline, although this did not in fact happen. Tokio Marine, as a leader of the tariff association, was able to maintain a powerful hold over market discipline after the Earthquake. As a result, the Japanese fire market remained stable until the onset of the war economy in 1937.

5. Conclusions: Historical Lessons of the Great Kanto earthquake for the Insurance Business.

The research questions posed by this paper were, first, to clarify the main factors behind the companies' 10% claims payment on insured losses in the context of no legal liability, and, second, to explain how the settlement of the Earthquake fire insurance issue changed the organisation of non-life in Japan. The first question was discussed in section 3, and the second was examined in section 4. To conclude this paper, I may summarise four historical lessons from the Earthquake for the insurance business.

First, it is important to note how industry leaders initially respond to disasters. When the Great Kanto earthquake happened, Kagami was staying at a health resort far from the Earthquake zone. It was fortunate for his life, but unfortunate for the fire insurance business, because the initial responses that the industry needed to make were delayed. Kagami finally decided to return to Tokyo after a week's stay. In the meantime, businessmen and bankers who had sustained losses had already insisted on fire claims being paid and had made an aggressive approach to the Government and politicians. Since the latter did not know the actual financial condition of the fire insurance companies, they failed to understand that their views on claims payments were not suited to the real state of the insurance business. In order to protect the insurance industry, its leaders had had to meet the authorities, and to explain to them their real financial position.

Second, the Kanto story provides us with a lesson about the earthquake exemption clause in fire insurance policies. Even if no one had any doubt at the time about the validity of the exemption clause, the possibility remained that a policy of paying claims would develop in order to address a complex problem, which, in this case, was what happened. It was natural that, once a disaster like the Kanto Great Earthquake occurred, people would call loudly for an extra-legal measure of relief for

²¹ Non-tariff insurers were not bound by the agreement to make a 10% payment, because they did not belong to the Fire Insurers' Association. Kyodo Fire and two specialist fire insurers for movable property, however, followed tariff companies and made the 10% payment. The newly-established Taisei Fire and Nippon Movable Property Fire did not follow suit. The latter, especially, paid some money by its own means to the insured victims. Cf. *30 Years History of Taisei Fire*, Taisei Fire and Marine Insurance Company, c.1958, mimeo., and *70 Years History of Fuji Fire*, Fuji Fire and Marine Insurance Company, 1989.

the victims. Insurance companies, therefore, should not admit any delay for countermeasures to address public opinion, even though the remedy was contractually unfair and payment for losses caused by the Earthquake was in legal terms an error. Theoretically speaking, in the case of such an emergency, insurance companies should recognize not only market risks but also so-called political risks. If the fire insurers had each declared that they would pay an amount of money to the insured victims as a gift in token of their sympathy, they would have suffered less damage to their corporate finances than they did. In fact, the payments for insured losses became very serious political and social problems. Fire insurers were obliged to pay quite substantial sums to the victims, and all of them agreed on a uniform measure to address this problem.

Third, it may be wise for fire insurers to pay considerable contributions towards the relief of all victims. Some contemporary newspapers expressed criticism that the payment for insured losses was not an aid for the poor but the rich. Hiraio also expressed the same opinion in his diary. If fire insurers had quickly resolved to pay a contribution for the relief of all victims, they would have fulfilled their social responsibilities in better way. Instead, it is noteworthy that fire insurers were forced to make the payment at the demand of the Government, and by the demonstrations of the pressure groups supporting the insured victims, as well as being driven by the wish to maintain the business confidence of their customers.

Finally, the structure of industrial organization is a key factor that influences the settlement of insurance issues after a disaster. While Kagami had established the tariff agreement among Japan and foreign fire insurers before the Earthquake, five non-tariff companies led by Hara of Kyodo Fire competed with tariff insurers. No one denied that Kagami should become a negotiator with the authorities and a coordinator among the fire insurers, but the Kansai companies were concerned about his actions because of the growing share and influence of Tokio Marine in the fire market. Because Kansai insurers hoped that Tokio Marine would fail to gain control over the fire market, they stubbornly refused to accede to a plan for claims settlement by which Kagami aimed to bring about agreement among the Kanto insurers. This was a factor that made the settlement problem worse. The actual outcome suggests that if the tariff companies had resolved together the payment problem at the end of 1923, they would have obtained better conditions for the settlement, for example, a loan at a far more favourable interest rate than the one they were left with.

In short, in considering the Great Kanto earthquake as the first and probably the last great disaster of its kind, we should pay attention to the optimal timing for the proper action, the consideration of countermeasures against so-called political risks, and the differences of intentions between insurers.

References, all Japanese except for a note of 'English' or 'French'

Articles and Books

Anbiru, Ganteisei, *The Collection of True Stories on Insurance Sales*, 1932.

In'nami, Hirokichi ed., *History of Development of Japanese Industries Vol.27, Insurance*, Study Group on Development of Modern Japanese Industries, 1966.

Kitazawa, Yusho, *A History of Establishment of Fire Tariff Agreement in Japan*, 2 Vols., Tokio Marine and Fire Insurance Company, 1944.

Mishima, Yasuo, *Great Kanto earthquake and Hachisaburo Hirao: A problem on fire insurance payment*, Konan Managerial Studies, 29-1, 1988.

Mishima, Yasuo, ed., *A Selected Diary of Hachisaburo Hirao: a footprint of non-life insurance men in Taisho era*, 2 Vols., Shibunkaku Publishers, Kyoto, 1990.

Suesaburo Inagaki, *Memos of Mr. Kagami and His Reports and Proposal from London*, Tokio Marine and Fire Insurance Company, 1951.

Tamura, Yuichiro, Great Kanto earthquake and Disturbance of Fire Insurance Payment, (1)-(11), *Papers of Ryutu Kagaku University, Human, Society and Nature serious*, from 16-3, 2004 to 20-1, 2007.

Yoneyama, Takau, *Évolution des assurance japonaises: l'improbable retour au modèle anglo-saxon*, *Risque* No.31, Juillet-Septembre 1997. (French)

Materials and Statistics

Collection of Historical Materials of Insurance in Meiji and Taisho Era, 9 Vols., The Association of Life Insurance Companies, 1934-1942.

The Ministry of Agriculture and Commerce ed., *Hoken Nenkan (The Insurance Yearbook)*, 1913-1921.

The Ministry of Commerce ed., *Hoken Nenkan (The Insurance Yearbook)*, 1922-1939.

The Ministry of Finance ed., *Hoken Nenkan (The Insurance Yearbook)*, 1940-.

The contemporary newspapers.

Company Histories

50 Years History of Meiji Fire and Marine Insurance Company, Meiji Fire and Marine Insurance Company, 1942.

80 Years History of Tokio Marine, Tokio Marine and Fire Insurance Company, 1964.

Centenary History of Tokio Marine and Fire Insurance Company, Vol.1, 1979, Vol.2, 1982.

125 Years History of Tokio Marine, Tokio Marine Nichido Fire, 2005.

A Short History of Osaka Insurance Company, handwritten copied in 1975, mimeo.

70 Years History of Fuji Fire, Fuji Fire and Marine Insurance Company, 1989.

Centenary History of Yasuda Fire, Yasuda Fire and Marine Insurance Company, 1990.

30 Years History of Taisei Fire, Taisei Fire and Marine Insurance Company, c.1958, mimeo.

A Short History of 50 Years of Imperial Marine, Company History Group of Yasuda Fire 1961, mimeo.

The Tokio Marine & Fire Insurance: The First Century 1879-1979, Tokio Marine and Fire Insurance Company, 1980. (English)

The Yasuda Fire and Marine Insurance 1888-1988: A Century of Achievement, Yasuda Fire and Marine Insurance Company, 1988. (English)

Building Protection: The Story of Mitsui Marine & Fire Insurance 1918-1993, Mitsui Marine and Fire Insurance Company, 1994. (English)