

A Study on Mergers and Acquisitions of Property and Casualty Insurers in Japan:
The Theory and Evidence on Extensive Mergers and Acquisitions

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Abstract

The property and casualty insurance industry in Japan underwent extensive mergers and acquisitions twice in the early part of 2000s and 2010s. During the first wave of the mergers and acquisitions which took place from 2001 to 2004, 15 companies were consolidated into 6 companies. In the second wave of mergers and acquisitions from 2006 to 2010, those 6 companies and one another company were integrated under the 3 holding companies. Now the 3 holding companies enjoy 86.15% of the property and casualty insurance market including reinsurance special companies. Those mergers and acquisitions are rather unique in that they were implemented only among the traditional companies and that there appeared to have been no strong purposes other than gaining competitive edge by expanding the market share. Because the industry had already been highly developed and matured, however, there are questions as to what are effects of them and whether they could fulfill such purposes to better compete under the very stable market and industry environment. The hypothetical answers are that they are mostly mere addition of the original existing companies without causing any fundamental qualitative changes of the market and industry and that the following companies have not been able to catch up or pass over the leading company. This paper will substantiate the hypotheses by examining the management indexes from 1997 through 2013.

Keywords: merger, integration, management index

1. Introduction

The property and casualty insurance industry and the life insurance industry had been strictly segregated by the law for almost 100 years until 1995 in Japan. As a result both industries have had quite different developments, compositions, structures, and features. While both have undergone tremendous changes during the recent two decades, their experiences have not been like one another. For instance, in the life insurance industry, the so called “20-company system“ does not exist anymore and there are 3 foreign companies in the top 10 life insurers. One of the main reasons for this was the “Heisei Life Insurance Crisis” where 7 major life insurers went bankruptcy during the four years between April 1997 and March 2001. On the contrary, the property and

casualty insurance industry did not encounter such crisis and only two medium and small companies were defunct after the war with majority of the traditional companies having not failed. Accordingly who have controlled the property and casualty insurance market are the large domestic insurers.

What has dramatically changed the property and casualty insurance industry was mergers and acquisitions among traditional major insurers which took place in the early part of the 2000s. There were two waves of mergers and acquisitions with the first wave of 2000 through 2002 and the second one of 2010 and now there are only three big insurance groups which enjoy some 86% of the property casualty insurance market share. MS and AD group consists of 6 traditional insurers, with SJNK group comprising of 5 traditional insurers and Tokio Marine group consisting of three traditional insurers. They are the holding companies with MS & AD having two property and casualty insurers, Mitsui and Sumitomo and Aioi Nissei Dowa, with NKSJ having two insurers, Nipponkoa and Sompo Japan, with Tokio Marine having two insurers, Tokio Marine and Nichido and Nissin Fire. Nipponkoa and Sompo Japan merged in October 2014 making the largest property and casualty insurer in Japan.

Although Nipponkoa and Sompo Japan had been united by the holding company already in 2010, their merger was a rather epoch making because Nipponkoa and Sompo Japan took the place of No.1 company from Tokio Marine and Nichido for the first time in the history. Now as a single property and casualty company, the ranking is Nipponkoa and Sompo Japan, Tokio Marine and Nichido, and Mitsui Sumitomo. As a group the ranking is MS & AD, Tokio Marine, and NKSJ. The ranking may not mean very much before the fact that the three groups are dominant and comparable in the property casualty insurance market. Furthermore the ranking is just by the amount of insurance premium. In terms of profit, Tokio Marine and Nichido surpasses the other two company. Then there is a big question as to what are the significance, results and effects of the extensive mergers and acquisitions.

One of the hypotheses to the question is that those mergers and acquisitions are merely accumulation of the numbers and they did not bring about so much efficiency, growth, and profitability etc, which are usually expected for mergers and acquisitions. As for Tokio Marine they have had always enjoyed the status of No.1 company in terms of size, profitability, financial conditions etc. After the mergers and acquisitions, they kept the position of the most profitable property and casualty insurers in Japan. That means they did not fail in the mergers and acquisition. On the other hand, MS &AD and NKSJ did not catch up or exceed the profitability of Tokio Marine. That is to say their mergers and acquisitions were not successful in competing with Tokio Marine. The

shareholders' value of Tokio Marine rose some 80 % although the value of MS &AD declined about 25 % after the mergers and acquisitions.

They are the mergers among the traditional insurers basically on the equal terms which are different from the mergers and acquisitions done so as to rescue the company in trouble or done by foreign insurers. The mergers and acquisitions are quite extensive in that they were the mergers by most of the major insurers. Out of top 10 insurers, 9 insurers are included in the 16 companies. In 2000, there were 36 insurers and other 20 insurers are mostly very small or newer companies and the market share of the 16 companies was 87.38% (Table 1). There were only two medium size companies which were not involved in the mergers and acquisitions. Their market share was 4.64% and 2.48% respectively. Nevertheless because of the nature of those mergers and acquisitions, they did not generate any fundamental qualitative changes of the market and industry

Under the above hypothesis, there must not have been so much restructuring, laying off, and cost reduction even after the mergers. This paper will examine management indexes of the original 16 insurers, 6 merged companies, and 3 holding companies during the time period from 1997 through 2013 so as to find any evidence to substantiate the hypotheses.

One of the most striking features of the property and casualty insurance industry in Japan has been the stability and maturity of the market. That remains the same before and after the extensive mergers and acquisitions. The result of this research will offer some implications in connection with any effects of deregulation and clarification on the characteristics and uniqueness of the industry.

2. Existing Study and Methodology

There are not many studies and researches have been done on effects of mergers and acquisitions or integration of property and casualty insurers. While this is especially true in Japan, there have been a few research papers presented in connection with unprecedented mergers and acquisitions as stated above. Some of them are Kubo (2007), Kubo (2011), Yanase (2007), and Yanase et. al. (2007) etc. The purposes of those studies were to find out whether or not the mergers and acquisitions resulted in any improvement of efficiency. The methodology taken in the studies was Stochastic Frontier Productivity Function, Data Envelopment Analysis, Malmquist Index. It is the conclusion of Kubo (2007) that the deregulation and mergers and acquisition generally brought about improved efficiency and that the extent of improvement was more significant in case of the large companies than the medium companies. Yanase et.al.

(2007) proposes a different conclusion that after the mergers and acquisitions there was no enhancement of efficiency, although it is the conclusion of Yanase(2007) that as a result of empirical study using the data of expense ratio, some economy of scale has been verified in the property and casualty insurance industry in Japan.

The purposes of this study are a little different from those existing researches in that this aims to substantiate the above hypotheses and that it is the question whether relative competitive positions of major insurers have been changed by the mergers and integration. Therefore this paper will analyze chronological development of various indexes for management performance over the period from 1997 through 2013. For instance, company A and company B merged into company C. If performance of A is better than B, comparison is made between A and C to see what was the change effected by the mergers and acquisitions. Among various indexes for management performance, what is more directly related to growth, efficiency, productivity, and profitability are (1) net premium, (2) total assets, (3) net profit, (4) expense ratio, (5) number of employees, (6) premium per capita, and (7) profit per capita.

The time period from 1997 through 2013 is divided into three divisions with the first one being 4 years (1997-2000) preceding the first wave of mergers and the second one being 4 years (2005-2008) between the first wave and the second wave and the third one being recent 4 years (2010-2013) after the second wave of integration. This is because 16 companies converged to 6 plus 1 companies during 2001 through 2004 and then ultimately 3 holdings companies during 2006 and 2010 (Table 1). The average number of 4 years is used for comparison purposes. As regards to Tokio Marine, the first period is from 2000 to 2003 with the second one being from 2004 to 2005, and the third one being 2010 through 2013 because Tokio merged with Nichido in October 2004 and made Tokio Marine Holdings, Inc. by integrating the management with Nissin in September 2006.

Data is taken from *Songai-Hoken Tokei Go* (The Statistics of Japanese Non-Life Insurance Business) for respective years.

Table 1. Mergers and Integration of Property and Casualty Insurers in Japan

The Dai-Tokyo Fire and Marine (6.08) ^{a)}	Aioi Insurance Company,Ltd. (2001.4)	MS & AD Insurance Group Holdings, Inc. (2010.4) Aioi ND (2010.10)
The Chiyoda Fire and Marine (5.38)		
The Dowa Fire and Marine (3.27)	Nissay Dowa General Insurance Co., Ltd. (2001.4)	
Nissay General Insurance (0.61)		
Mitsui Marine and Fire (8.88)	Mitsui Sumitomo Insurance Co., Ltd. (2001.4)	
The Sumitomo Marine and Fire (8.08)		
The Nippon Fire and Marine (5.96)	The Nipponkoa Insurance Co., Ltd. (2001.4)	NKSJ Holdings,Inc. (2010.4)→ existing Sompo Japan Nipponkowa Holdings, Inc. (2014.9)
The Koa Fire and Marine (3.82)		
Taiyo Fire and Marine (0.16)	(Taiyo, 2002.4)	
The Yasuda Fire and Marine (13.39)	Sompo Japan Insurance Inc. (2002.7)	
The Nissan Fire and Marine (3.66)		
The Taisei Fire and Marine (1.28)		
The Dai-ichi P. and C. (0.28)		
The Tokio Marine and Fire (18.95)	Tokio Marine & Nichido Fire Insurance Co., Ltd. (2004.10)	Tokio Marine (Milea) Holdings, Inc. (2006.9)
The Nichido Fire and Marine (5.45)		
The Nissin Fire and Marine Insurance Co., Ltd. (2.13)		

a) Parenthesis is the percentage of net premiums to the total of all companies including 2 reinsurance special companies in 2000 (2000.4.1-2001.3.31).

3. Data and Analysis

1) Net premium

MS & AD (Table 2)

The amount of net premium Aioi earned was lesser than the addition of Dai-Tokyo and Chiyoda all the time. Nissay Dowa always gained more premium than addition of Dowa and Nissay. Mitsui Sumitomo achieved better than addition of Mitsui and Sumitomo all the years. Thus Nissay Dowa and Mitsui Sumitomo were successful in increasing the percentage from 3.70 to 4.28 by 0.58 and from 16.72 to 17.43 by 0.71 respectively.

After the integration, Aioi Nissay-dowa decreased the percentage than the addition of Aioi and Nissaydowa from 15.52 to 15.02 by 0.50. Overall, MS & AD slightly increased the percentage from 32.05 to 32.68 by 0.63 during 1997 to 2013.

Table 2. Percentage of Net Premium to All Companies: MS &AD

Before Merger						After Merger					After Integration				
	1997	1998	1999	2000	Aver.	2005	2006	2007	2008	Aver.	2010	2011	2012	2013	Aver.
D	6.12	6.11	6.19	6.08	6.13	11.08	11.22	11.33	11.32	11.24	15.64	15.01	14.87	12.58	15.02
C	5.56	5.53	5.52	5.38	5.50										
					11.63										
D	3.27	3.23	3.19	3.27	3.24	4.27	4.30	4.23	4.31	4.28					
N	0.29	0.41	0.54	0.61	0.46										
					3.70					15.52					
M	8.82	8.89	8.70	8.88	8.82	17.70	17.47	17.43	17.10	17.43	17.57	17.68	17.70	17.66	17.65
S	7.82	7.81	7.88	8.08	7.90										
					16.72										
					32.05										32.68

NKSJ (Table 3)

The amount of net premium Nipponkoa gained was smaller than the addition of Nippon, Koa, and Taiyo. The percentage went down from 10.13 to 9.22 by 0.91. Sompo Japan also achieved less than the addition of 4 companies. The percentage did not surpass the addition of 4 companies all 4 years. After the integration with Sompo Japan, the percentage of Nipponkoa went down from 9.22 to 8.70 by 0.52. The percentage of Sompo Japan was barely the same before and after. The percentage was very slightly reduced from 17.98 to 17.92 only by 0.06. The percentage of NKSJ continued to decline through mergers and integration during the 12 years. The average of 1997-2000 was 28.63 with the average of 2005-2008 and 2010-2013 being 27.20 and 26.62 resulting in the reduction of 2.01. This might be attributable to the fact that Taisei, one of 4 original companies went bankruptcy.

Table 3. Percentage of Net Premium to All Companies: NKSJ

Before Mergers						After Mergers					After Integration				
	1997	1998	1999	2000	Ave.	2005	2006	2007	2008	Ave.	2010	2011	2012	2013	Ave.
N	6.07	5.98	5.96	5.96	5.99	9.40	9.27	9.16	9.05	9.22	8.85	8.81	8.61	8.51	8.70
K	4.09	4.01	3.94	3.82	3.97										
T	0.19	0.17	0.18	0.16	0.17										
Total of 3 companies					10.13										
Y	13.01	13.04	13.13	13.39	13.14	18.20	17.97	17.88	17.88	17.98	17.91	17.89	17.89	18.01	17.92
N	3.96	3.89	3.79	3.66	3.83										
T	1.38	1.36	1.33	1.28	1.34										
D	0.10	0.18	0.22	0.28	0.19										
Total of 4 companies					18.50										
Total of 7 companies					28.63					27.20					26.62

Tokio Marine (Table 4)

The average percentage of Tokio Marine Nichido(TMN) was 25.20 whereas the addition of Tokio Marine and Nichido was 25.12. After the integration with Nissin, the percentage went down from 27.19 to 26.85 by 0.34.

Table 4. Percentage of Net Premium to All Companies: Tokio Marine

Before Merger						After Merger			After Integration				
Year	2000	2001	2002	2003	Ave.	2004	2005	Ave.	2010	2011	2012	2013	Ave.
Tokio	18.95	19.73	20.05	20.09	19.71	25.26	25.13	25.20	24.84	24.90	25.19	25.04	24.99
Nichi	5.45	5.43	5.41	5.36	5.41								
Total of 2 companies					25.12								
Nissi	2.13	2.12	2.03	2.00	2.07	1.94	1.92	1.93	1.91	1.91	1.87	1.75	1.86
Total of 3 companies					27.19			27.13					26.85

2) Total Assets (Table 5)

If you will compare the total assets of the 3 holding companies with the addition of 7 or 3 original companies, only Tokio Marine increased the amount by 0.5% with MS & AD and NKSJ having decreased the amount by 1.04% and 1.87% respectively.

Table 5. Total Assets After Merger and Integration

Unit: million yen

Company	2000	2005	2013
Dai-Tokyo	1,625,746	Aioi (2001.4)	MS & AD Insurance Group Holdings, Inc. (2010.4) 3,257,180+6,098,017 =9,355,197
Chiyoda	1,328,166 (2,953,912)	2,761,116 (93.47)	
Dowa	1,243,372	Nissay Dowa (2001.4)	
Nissay	59,941 (1,303,313)	1350426 (103.61)	
Mitsui	3,713,926	M S (2001.4)	
Sumitomo	3,549,196 (7,263,122)	7,537,443(103.78)	
MS & AD Total	(11,520,347) < 33.14% >		(9,355,197) < 32.10%(△1.04) >
Nippon	2,067,286	Nipponkoa (2001.4)	NKSJ Holdings,Inc. (2010.4) 2,260,231+4,838,707 = (7,098,938) < 24.36%(△1.87) >
Koa	1,304,570	(Taiyo, 2002.4)	
Taiyo	95,679 (3,467,535)	3,477,787 (100.30)	
Yasuda	4,066,722	Sompo Japan (2002.7)	
Nissan	1,115,893	5,934,761 (104.91)	
Taisei	411,425		
Dai-ichi Life	56,841 (5,650,881)		
NKSJ Total	(9,118,416) < 26.23% >		
Tokio	7,670,181	Tokio (2004.10)	Tokio Marine(2006.9) 8,374,225+418,313 =8,792,538
Nichido	2,097,975 (9,768,156)	10,814,796 (110.71)	
Nissin	543,208		
	(10,311,364) < 29.67% >		(8,792,538) < 30.17%(0.50) >
Total(all cos)	34,757,802		29,146,287
Premium	¥6,917.1 billion		¥7,851.4 billion

3) Net Profits

If comparison is made between the average of 4 years before and after the mergers, only

3 companies accomplished profits larger than the addition of original 2 companies (Table 6). They are Nissay Dowa(ND), Mitsui Sumitomo(MS), and Tokio Marine Nichido(TMN). Nissay continued to record deficit through the 4 years making the added amount with Dowa minus. Both MS and TMN doubled the profit but the amount of TMN is twice of MS. On the contrary, the profit of Sompo Japan (SJ) is only ¥4,312 million after the mergers in comparison to ¥15,847 million before the mergers. These facts support the hypotheses that the level of profit is also the addition of profits of original companies. That is to say, the profit level of MS, SJ, and TMN is the reflection of the one of the original 6 companies respectively.

Regarding effects of integration, total profit for 4 years from 2010 to 2013 is compared among the 3 holding companies to see which company is more successful than others (Table 7). Five companies other than TMN experienced fairly large amount of deficit once or twice. Furthermore as evidence to show any competitive strength among the 3 holding companies, this paper worked out the percentage of the profit to the total of all companies.

In 2011, MS&AD and NKSJ recorded deficits of ¥66,755million and ¥60,102million respectively. Although the total of all companies was the deficit of ¥262,475, only Tokio Marine made surplus of ¥18,447million. In 2012 and 2013, the total of all companies were surplus of ¥170,126million and ¥217,662million, and the share and ranking of the 3 holding companies are shown in Table 7. If you will look at the total of 4 years, the ranking is 53.37% of Tokio Marine, 21.75 of SKNJ, and 4.33 of MS&AD.

Table 6 Net Profit Before and After Mergers

Unit : million yen

	Net Profit Before Mergers					Net Profit After Mergers				
	1997	1998	1999	2000	Average	2001	2002	2003	2004	Average
D	6,776	6,342	7,023	7,563	6,926	△83,41	10,304	27,322	16,132	△7,413
C	5,230	5,070	5,208	4,815	5,080	3				
					12,006					
D	343	161	5,055	5,688	2,811	4,160	△4,348	5,557	5,044	2,603
N	△4,209	△3,369	△8,476	△11,669	△6,930					
					△4,149					
M	10,903	9,807	9,850	13,046	10,901	23,607	32,362	72,955	60,765	47,422

S	12,649	11,290	12,636	14,097	12,668					
					23,569					
N	7,142	6,719	7,328	7,904	7,273	△19,06	△28,63	15,885	14,559	△4,314
K	4,850	5,015	5,329	5,652	5,211	7	7			
T	56	△5,632	△760	440	△1,474					
					11,010					
Y	12,237	12,035	12,866	15,122	13,065	△77,77	△26,94	64,174	57,801	4,312
N	4,071	3,959	4,320	4,878	4,307	8	8			
T	1,109	1,005	1,036	1,132	1,070					
D	△2,200	△2,001	△2,428	△3,753	△2,595					
					15,847					
T	33,763	31,964	30,614	43,140	34,870	39,181	97,277	87,895	96,857	92,458 ^a
N	9,880	8,929	9,775	10,154	9,684	8,192	11,869	28,562		
					44,554					
N	3,042	2,962	2,985	2,511	2,875	△11,58	2,317	3,010	2,659	△898
						1				

a) For the purpose of working out this average, it was regarded that Tokio and Nichido merged in 2001.

Table 7. Percentage of Net Profit to All Companies After Integration

Unit: million yen

	2010	2011	2012	2013	Total
Aioi ND	△11,417	△43,549	18,862	13,107	△22,997
Mitsui Sumi	12,124	△23,206	29,137	27,350	45,405
MS&AD	707 (0.55)	△66,755	47,999(28.21)	40,457(18.59)	22,408 (4.33)
Nipponkoa	△6,437	△22,584	33,332	22,173	
Sompo Japan	22,881	△37,518	42,654	58,047	
NKSJ	16,444(12.69)	△60,102	75,986(44.66)	80,220(36.86)	112,548(21.75)

TMN	100,713	23,206	58,650	90,823	
Nissin	1,520	△4,759	2,639	3,350	
Tokio M.	102,233(78.8)	18,447	61,289(36.03)	94,173(43.27)	276,142 (53.37)
All Compan	129,605	△262,475	170,126	217,662	517,393

4) Expense Ratio

[MS & AD] (Table 8)

The average ratio before the merger was 42.13 and 44.53 in case of Dai-Tokyo and Chiyoda, whereas the ratio after the merger was 37.64 resulting in the improvement of 4.49 (42.13-37.64)¹. The average ratio before the merger was 45.41 and 58.83 in case of Dowa and Nissay, whereas the ratio after the merger was 38.29 resulting in the improvement of 7.12 (45.41-38.29). The average ratio before the merger was 44.03 and 42.13 in case of Mitsui and Sumitomo, whereas the ratio after the merger was 37.14 resulting in the improvement of 4.99 (42.13-37.14). Thus in all three cases, the ratio was improved after the merger with the margin of 4.49 to 7.12. On the other hand, however, the ratio was aggravated after the integration by 1.97 (39.61-37.64) in case of Aioi ND and 1.66 (38.80-37.14) in case of MS. The merger of three groups had favorable effects and the integration did not have any significant effect upon the expense ratio.

Table 8. Expense Ratio of MS & AD

	Before Merger					After Merger					After Integration				
	1997	1998	1999	2000	Aver.	2005	2006	2007	2008	Aver.	2010	2011	2012	2013	Aver.
D	42.18	42.80	41.14	42.38	42.13	37.28	36.77	37.38	39.12	37.64	40.70	39.97	38.70	39.07	39.61
C	45.07	44.85	44.22	43.98	44.53										
D	47.20	46.61	44.81	43.02	45.41	37.03	37.04	38.78	40.31	38.29	40.70	39.97	38.70	39.07	39.61
N	67.02	64.66	54.94	48.71	58.83										
M	43.59	44.47	45.13	42.92	44.03	35.27	35.71	37.29	40.29	37.14	39.98	39.38	38.24	37.58	38.80
S	42.74	43.05	42.21	40.51	42.13										

[NKSJ] (Table 9)

The average ratio before the merger was 43.34, 43.36, and 54.59 in case of Nippon and Koa, and Taiyo, whereas the ratio after the merger was 37.64 resulting in the improvement of 4.49 (43.34-40.47). In this connection, the best ratio among the three companies is used for the comparison purpose. The average ratio before the merger was

41.48, 44.97, 49.65, and 72.28 in case of Yasuda, Nissan, Taisei, and Dai-ichi Life, whereas the ratio after the merger was 37.39 resulting in the improvement of 4.09 (41.48-37.39). Thus in both cases, the ratio was improved after the merger with the margin of 4.09 to 4.49. On the other hand, however, the ratio was aggravated after the integration by 0.53 (41.00-40.47) in case of Nipponkoa and 2.37 (39.76-37.39) in case of Sompo Japan. The merger of three groups had favorable effects and the integration did not have any significant effect upon the expense ratio

Table 9. Expense Ratio of NKSJ

Before Mergers						After Mergers					After Integration				
	1997	1998	1999	2000	Ave.	2005	2006	2007	2008	Ave.	2010	2011	2012	2013	Ave.
N	43.32	44.18	43.44	42.41	43.34	40.67	40.56	40.19	40.47	40.47	41.30	41.52	41.32	39.84	41.00
K	44.76	44.38	42.86	41.43	43.36										
T	55.09	59.62	51.06	52.58	54.59										
Y	41.33	42.15	41.49	40.93	41.48	35.01	36.00	38.21	40.32	37.39	41.09	40.27	39.79	37.88	39.76
N	45.43	46.08	44.73	43.62	44.97										
T	51.48	51.01	49.02	47.07	49.65										
D	55.73	52.52	51.74	129.1	72.28										
				2											

[Tokio Marine] (Table 10)

The average ratio before the merger was 37.24 and 40.37 in case of Tokio and Nichido, whereas the ratio after the merger was 34.59 resulting in the improvement of 2.65 (37.24-34.59). However, the ratio was deteriorated after the integration by 2.02 (38.61-34.59) in case of Tokio Marine Nichido. As for Nissin, the ratio was improved from 42.55 to 40.87. The merger of three groups had favorable effects and the integration did not have any significant effect upon the expense ratio.

As you will see from Table 5, 6, 7, the best ratio among all was 34.59 which Tokio Marine Nichido achieved after the merger. Tokio Marine or Tokio Marine Nichido recorded the best ratio in all three categories. They are 37.24 before the merger, 34.59 after the merger, and 36.61 after the integration. TMN was most successful in reducing the expense ratio as a result of the merger.

Table 10. Expense Ratio of Tokio Marine

Year	Before Merger					After Merger			After Integration				
	2000	2001	2002	2003	Ave.	2004	2005	Ave.	2010	2011	2012	2013	Ave.
Tokio	39.94	38.73	35.91	34.68	37.24	35.23	33.94	34.59	38.17	36.67	36.26	35.35	36.61
Nichi	41.78	41.96	39.26	38.46	40.37								
Nissi	45.15	44.78	40.34	39.94	42.55	40.93	41.52	41.23	42.67	41.50	40.16	39.15	40.87

5) Number of Employees (Table 11, 12)

If comparison is made between 2000 (before the mergers) and 2005 (after the mergers), the number of employees of 4 companies is lesser than the addition of the original 2 companies. The number of 2 companies is almost the same with the addition of original 2 companies. Thus it can be said that the majority of the companies were successful in reducing the number of employees after the merger. The ranking by reduction ratio is Tokio Marine Nichido (25.2%), Nipponkoa (20.0%), Aioi (16.5%), Sompo Japan (14.0%), Mitsui Sumitomo (0.0%), and Nissay Dowa (Δ 2.1%). It is notable that the number of Mitsui Sumitomo remained the same after the merger.

However, if you compare the number between 2000 (before the mergers) and 2013 (after the integration), the number of all 3 holding companies significantly increased after the integration. MS&AD increased the number from 29,324 to 39,433 (134.5%), NKSJ from 27,611 to 33,782 (122.3%), and Tokio Marine HD from 22,741 to 25,477 (112.0%). The increase of the net premium income from 2000 to 2013 is 113.51% (see Table 2).

Table 11. Reduction Ratio of Employees

Company	2000	2005	2013
Dai-Tokyo	5,558	Aioi (2001.4)	MS & AD Insurance Group Holdings, Inc. (2010.4) 16,654+22,230+549 =39,433
Chiyoda	4,842 (10,400)	8,683→1,717 (16.5%)	
Dowa	3,592	Nissay Dowa (2001.4)	
Nissay	405 (3,997)	4,082→ Δ 85 (Δ 2.1%)	
Mitsui	7,634	M S (2001.4)	
Sumitomo	7,293 (14,927)	14,923→ 4 (0.0%)	
	(29,324)		(39,433)
Nippon	5,700	Nipponkoa (2001.4)	NKSJ Holdings, Inc. (2010.4)
Koa	4,206	(Taiyo, 2002.4)	

Taiyo	217 (10,123)	8,174→1976 (20.0%)	10,440+23,342
Yasuda	11,499	Sompo Japan (2002.7) 15,053→2,435(14.0%)	=33,782
Nissan	3,895		
Taisei	1,774		
Dai-ichi	320 (17,488)		
	(27,611)		(33,782)
Tokio	13,294	Tokio (2004.10)	Tokio Marine
Nichido	6,764 (20,058)	15,011→5,047 (25.2%)	Holdings, Inc.(2006.9)
Nissin	2,683	2,660→23 (0.9%)	22,430+2,891+156
	(22,741)		=25,477
			(25,477)
Total(all cos)	96,436	79,565	118,174
Premium	¥6,917.1 billion		¥7,851.4 billion

Table 12. Reduction of Employees After Merger

Company	Before Merger (2000)	After Merger(2005)	Reduction(Ratio)
Aioi	5,558+4,842	8,683	1,717 (16.5%)
Nissay Dowa	3,592+405	4,082	△85 (△2.1%)
Mitsui Sumitomo	7,634+7,293	14,923	4 (0.0%)
Nipponkoa	5,700+4,206+217	8,174	1,976 (20.0%)
Sompo Japan	11,499+3,895+1,774+320	15,053	2,435 (14.0%)
Tokio Nichido	13,294+6,764	15,011	5,047 (25.2%)

6) Direct Premium and Profits Per Capita

Aioi decreased premium per capita from 110,052 to 108,607 and profits per capita from 1,356 to 1,098. Nissay Dowa slightly increased premium per capita from 86,743 to 87,861 and decreased profits per capita from 1,299 to 832. Mitsui Sumitomo decreased premium per capita from 111,518 to 99,660 and significantly increased per capita from 1,681 to 3,302.

**Table 13. Direct Premium and Profits Per Capita
(Average of 4 or 2 Years)**

Unit: 1,000 yen

Company	Before Merger (1997~2000)		After Merger (2005~2008)		After Integration (2010~2013)	
	Premium	Profits	Premium	Profits	Premium	Profits
Dai-Tokyo	110,052	1,356	Aioi 108,607	1,098	Aioi ND (MS&AD) 84,493	1,825
Chiyoda	90,195	951				
Dowa	86,743	1,299	Nissay Dowa 87,861	832	MS (MS&AD) 83,329	(-)285
Nissay	76,990	(-)14,727				
Mitsui	106,739	1,330	MS 99,660	3,302	Nipponkoa (NKSJ) 66,088	648
Sumitomo	111,518	1,681				
Nippon	99,630	1221	Nipponkoa 93,130	1,321	Sompo Japan (NKSJ) 70,394	269
Koa	92,601	1,204				
Taiyo	77,208	(-)4,281				
Yasuda	107,673	1,137	Sompo Japan 95,765	1,526	Tokio HD 99,882	3,392
Nissan	86,564	1,046				
Taisei	68,181	551				
Dai-ichi Life	38,311	(-)6,924				
		(2000~2003)		(2004 ~2005)		(2010~2013)
Tokio	141,436	5641	Tokio Nichido 141,676	7,242	Tokio HD 99,882	3,392
Nichido	91,211	2,752				
Nissin	69,608	(-)312	64,086	1,078	53,204	230

4. Conclusion

1) Growth

Among 6 companies which were given birth as a result of mergers and acquisitions of 15 companies, 3 companies increased the percentage of net premium and 3 companies decreased the percentage. Thus the results are mixed. However, the change is very nominal with the increase being from 0.08 to 0.71 and the decrease being from 0.39 to 0.91(Table 14). As for the 3 holding companies, only MS&AD increased the share by 0.63 with NKSJ and Tokio Marine having decreased by 2.01 and 0.34 respectively. Likewise the extent of increase and decrease is rather insignificant except for the decrease of NKSJ (Table 2, 3, 4). Furthermore, regarding developments of total assets, only Tokio

Marine narrowly expanded the amount by 0.5% and both MS&AD and NKSJ curtailed the amount by 1.04% and 1.87% as stated above (Table 5). These are the evidence to strongly support the hypotheses to the effect that the mergers and acquisitions were mere addition of the number and did not bring about so much value for the companies.

Table 14. Change of Share After Mergers

Increase of Market Share	Decrease of Market Share
	Aioi $\Delta 0.39$ (11.63→11.24)
Nissay Dowa 0.58 (3.70→4.28)	
Mitsui Sumitomo 0.71 (16.72→17.43)	
	Nipponkoa $\Delta 0.91$ (10.13→9.22)
	Sompo Japan $\Delta 0.52$ (18.50→17.98)
Tokio Marine 0.08 (25.12→25.20)	

2) Competitive Strategy

This paper assumes that one of the important reasons and purposes of the mergers and the integration was to gain competitive edge against other companies under the highly developed and very stable industry environment. Therefore it is the question whether companies could take advantage of the mergers and the integration in competing with their rival companies or whether there was effective competitive strategy in the mergers and the integration. To this end, comparison of the net profit is made during the three time periods.

As regards to Mitsui Sumitomo(MS), Sompo Japan(SJ), and Tokio Marine Nichido(TMN), both MS and TMN doubled the net profit after the mergers with SJ having decreased the profit to 27% of the preceding 4 years. Furthermore the profit of TMN is twice of MS both before and after the mergers. This seems to be a natural consequence that all 4 companies, that is to say, Mitsui, Sumitomo, Tokio, and Nichido, were profitable companies before the mergers, which is a good contrast with SJ. This implicates that the profit of the merged company is also the addition of profits which member company had made before the mergers.

After the integration, 5 companies other than TMN experienced fairly large amount of deficit once or twice. For instance, in 2011, MS&AD and NKSJ recorded deficits of ¥66,755million and ¥60,102million. Although the total of all companies was the deficit of ¥262,475 for the year, only Tokio Marine made surplus of ¥18,447million. Tokio Marine made the profit of ¥276,142 million (53.37%) with NKSJ and MS&AD having

recorded the profit of ¥112,548million (21.75%) and ¥22,408million (4.33%) during 2010 through 2013. The percentage in the parenthesis is the proportion of the amount to the total of all companies during the same 4 years. The profitability of Tokio Marine is overwhelming. Because it was the case well before the mergers, MS&AD and NKSJ did not effectively compete even through the mergers and the integration.

3) Efficiency

After the mergers, all of the 6 companies accomplished enhancement of efficiency (Table 14). The extent of improvement varies from 7.12 to 2.65. The highest number is the one of a smaller company. The lowest number is the one of the largest company. Because the Tokio Marine had already enjoyed the best expense ratio, the margin of improvement is smaller than other companies. On the contrary, the integration had rather unfavorable effects upon efficiency (Table 15). In other words, expense ratios of all five companies other than Nissin were slightly worsened. That is considered to be one of the reasons that Nipponkoa and Sompo Japan merged in October 2014.

Table 14. Expense Ratios After Merger

Company After Merger	Before Merger	After Merger	Improvement
Aioi	42.13+ 44.53	37.64	4.49
Nissay Dowa	45.41+58.83	38.29	7.12
Mitsui Sumitomo	44.03+42.13	37.14	4.99
Nipponkoa	43.34+43.36+54.59	40.47	2.87
Sompo Japan	41.48+44.97+49.65+72.28	37.39	4.09
Tokio Nichido	37.24+40.37	34.59	2.65

Table 15. Expense Ratios after Integration

Company After Integration	Before Integration	After Integration	Improvement
Aioi Nissay Dowa	37.64+ 38.29	39.61	△1.32
Mitsui Sumitomo	37.14	38.80	△1.66
Nipponkoa	40.47	41.00	△0.53
Sompo Japan	37.39	39.76	△2.37
Tokio Nichido	34.59	36.61	△2.02
Nissin	41.23	40.87	0.36

As a result of the merger, 4 companies reduced the number of employees (Table 12). The reduction ratios were from 25.2 % to Δ 2.1% (increase of employees). The ranking of the reduction ratio is 25.2% of TMN, 20.0% of Nipponkoa, 16.5% of Aioi, 14.0% of Sompo Japan, 0.0% of Mitsui Sumitomo, Δ 2.1% of Nissay Dowa. After the integration, however, all 3 holding companies recorded the significant increase of employees, which implies that the integration did not contribute to improvement of efficiency. This is consistent with the change of expense ratio which implies that although the mergers resulted in some improvement of efficiency, the integration have had rather unfavorable effects upon efficiency.

Among 3 holding companies, MS&AD, now the biggest company is mostly faced with needs to heighten efficiency after the integration. For instance, MS&AD hires 39,433 employees as against 25,477 employees of Tokio Marine, while the difference of market share is only 5.8% (Table 11, Table 2, 4).

4) Productivity

Results on productivity are mixed depending on whether they come from premium per capita or profit per capita. After mergers, only 2 companies very slightly enlarged their premium per capita and other 4 companies experienced curtailment of the percentage from 1.31% of Aioi to 11.06% of Sompo Japan (Table 16). These data suggests that mergers actually lessened productivity of those 4 companies and did not so much improve productivity of 2 companies. On the other hand, profits per capita of 4 companies highly or fairly rose by percentage of 96.43% of Mitsui Sumitomo, 34.21% of Sompo Japan, 28.83% of Tokio Nichido, 8.19% of Nipponkoa with only Nissay Dowa and Aioi having experienced decrease of 35.95% and 19.03% respectively (Table 16). While most companies lost some portions of premium per capita, they gained profits per capita. Therefore the mergers had some favorable effects upon productivity.

Table 16. Percentage Change of Direct Premium and Profits Per Capita After Merger

Company	Premium Increase (%)	Profit Increase (%)
Aioi	Δ 1.31	Δ 19.03
Nissay Dowa	1.29	Δ 35.95
Mitsui Sumitomo	Δ 10.63	96.43 ^a
Nipponkoa	Δ 6.52	8.19
Sompo Japan	Δ 11.06	34.21
Tokio Nichido	0.17	28.38

- a) While the increase ratio of Mitsui Sumitomo is more than triple, the increase of Mitsui Sumitomo is from ¥1,681,000 to ¥3,302,000 and the increase of Tokio Marine is from ¥5,641,000 to ¥7,242,000.

Table 17 shows the difference between the average figures of 1997 to 2000 (in case of Tokio Marine, 2000 to 2003) and 2010 to 2013 in connection with the direct premium and profits per capita of MS & AD, NKSJ, and Tokio Marine. It is apparent that the integration did not contribute to improve productivity generally. Although Tokio Marine also experienced decrease, their productivity is far beyond the others (Table 13).

Table 17. Percentage Change of Direct Premium and Profits Per Capita After Integration

Company	Premium Increase	Profit Increase
Aioi Nissay Dowa	△23.22	34.49
Mitsui Sumitomo	△25.28	△116.95
Nipponkoa	△33.67	△46.93
Sompo Japan	△34.62	△76.34
Tokio Marine	△29.38	△39.87
Nissin	△23.57	173.72

5) Overall Results

As stated above, there are enough evidences to support the hypotheses that the mergers and acquisitions of property and casualty insurers in Japan are mere addition of number and that they could not be fruitful in creating any added value or strengthening competitive edge. This is because they are the mergers and acquisitions only among traditional insurers in a very stable and highly matured industry environment. Indeed they are extensive mergers and acquisitions in the sense that they involved 16 insurers including top 9 insurers, but they are not the events which would fundamentally change the structure and nature of the industry. While a few smaller insurers might have been rescued, as far as some top ten insurers are concerned, their business environment and competitive conditions have not been so much different before and after the mergers and integration.

As for mergers, there are some evidences that they improved efficiency and productivity to some extent which is consistent with some of the preceding studies. On the contrary, as regards to integration, it has had only unfavorable or neutral effects on

all aspects of examination. Therefore there is a question as to what are purposes and significance of the integration. It is conceivable that the mergers and integration have been made so as to cope up with foreign insurers in the global market. If that is the case, it is a matter of future development and growth they can achieve in foreign countries.

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¹ The best (or better) ratio among the companies is used for the comparison purpose.