

Automobile Insurance in Korea

Fact Book 2020

Automobile Insurance
in Korea

Fact Book
2020



KIDI

Korea Insurance Development Institute

보험개발원

Forewords



Seventeen years have passed since the Fact Book was first published in 2003. The Korea Insurance Development Institute (KIDI) believes the Fact Book has successfully introduced trends and changes in the Korean automobile insurance industry to our readers across the globe. I am deeply honored to announce the publication of this year's Fact Book, with the hope that it will continue to shed light on the Korean automobile insurance market.

In Korea, automobile insurance is considered one of the core business lines in the non-life (general) insurance sector, accounting for 17.6 percent of the entire non-life market.

The Korean automobile insurance premiums written totaled KRW 16.6 trillion (USD 14.0 billion) in 2019. The written premiums of automobile insurance increased by 5.1 percent.

In the meantime, the loss ratio of automobile insurance was 91.4 percent in 2019, increased by 5.5 percentage points compared to 2018, mainly due to the increase in medical expenses, specifically the cost for trivial injuries.

Meanwhile, market competition became more competitive in 2019. For example, online market is growing steadily due to the growth of direct channels. The number of mileage-based personal vehicles accounted for 62.7 percent in 2019, increased by 14.2 percent compared to the previous year.

Fact Book 2020 contains various statistics that show current situation of the automobile insurance in Korea. We are confident the Fact book will provide you with a comprehensive understanding of the Korean automobile insurance market.

KIDI always strives to provide specialized and professional service for insurers, customers and supervisory authorities in Korea. We also want to become a responsible member of the global insurance industry.

Khang, Ho

Chairman & CEO

Korea Insurance Development Institute

© Korea Insurance Development Institute (Published September 2020)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publishers and copyright owners.

Contents

Chapter 1 : The Korean Insurance Industry	1
Chapter 2 : The Non-Life Insurance Market	6
1. Written premiums and Incurred Losses by Line of Business	6
2. Non-Life Insurance Expenses by Line of Business	9
Chapter 3 : The Korean Automobile Insurance Market	11
1. Number of Registered Vehicles	11
2. Written premiums and Incurred Losses	12
3. Written premiums and Incurred Losses by Line of Automobile Insurance	16
4. Accident Statistics	18
4-1. General Accident	18
4-2. Insurance Accident by Coverage	22
5. Losses	25
5-1. Bodily Injury Losses	25
5-2. Property Damage Losses	27
5-3. Physical Damage Losses	28
6. Expenses and Expense Ratio	29
7. Underwriting Results	30
8. Residual Market	31
9. Acts Related to Automobile Insurance	32
9-1. Guarantee of Automobile Accident Compensation Act	32
9-2. Act on Special Cases concerning the Settlement of Traffic Accidents	33

9-3. Insurance Business Act	34
9-4. Automobile Insurance Plan(AIP)	35
10. Ratemaking System	36
10-1. Ratemaking	36
10-2. Improvement in Ratemaking System	37
10-3. Deregulation on Insurance Rate Approval System	38
APPENDICES	41
Appendix I. Korea's Automobile Insurance	43
Appendix II. Glossaries	44
Appendix III. Special Clauses	47
Appendix IV. KIDI's Brief History & Members	48
Appendix V. KIDI Organizational Chart	51

Chapter 1 : The Korean Insurance Industry

In 2019, the Korean insurance industry reported a 5.4 percent increase in written premiums while GDP grew by 2.0 percent. Life insurance showed a 5.8 percent increase and non-life insurance increased by 4.9 percent in written premiums compared to 2018.

GDP and Insurance Industry Growth Rate

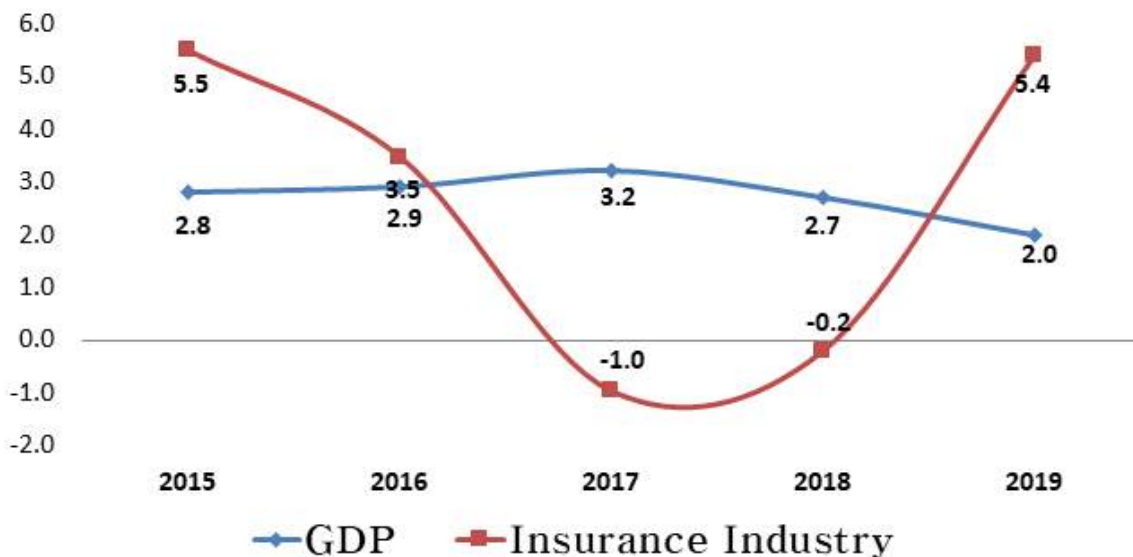
	2015	2016	2017	2018	Percent 2019
GDP	2.8	2.9	3.2	2.7	2.0
Life ₁	6.0	2.2	-4.9	-2.7	5.8
Non-Life ₂	4.7	5.3	4.6	3.1	4.9
Insurance	5.5	3.5	-1.0	-0.2	5.4

Note: ₁Written premiums in life Insurance, ₂Written premiums in non-life insurance

Source: KIDI, Monthly Insurance Statistics

Bank of Korea, Economic Statistics Yearbook

GDP and Insurance Industry Growth Rate, 2015-2019



Life insurance premiums to GDP ratio in 2019 was 6.1 percent, while non-life insurance premiums to GDP ratio had been stable for five years, reaching 4.9 percent in 2019.

Premiums as a percentage of GDP

	2015	2016	2017	2018	Percent 2019
Life	7.1	6.9	6.2	5.8	6.1
Non-Life	4.8	4.8	4.8	4.7	4.9
Total	11.8	11.7	11.0	10.6	11.0

Sources: KIDI, Monthly Insurance Statistics

Bank of Korea - Main Annual Indicators (reference year 2015, 2000~)

In 2019, premiums per capita (insurance density) was 4,093 thousand won, increased by 5.2 percent compared to the previous year. It is mainly due to the increase in the insurance density of life insurance, increased from 2,148 to 2,268 thousand won. The total amount of premiums per capita started to increase owing to the increase in written premiums of both life and non-life insurance.

Premiums Per Capita

	2015	2016	2017	2018	Thousand won 2019
Life	2,298	2,339	2,219	2,148	2,268
Non-Life	1,553	1,629	1,699	1,743	1,825
Total	3,851	3,968	3,918	3,891	4,093

Note: Estimated population by Korea National Statistical Office

Source: KIDI, Monthly Insurance Statistics

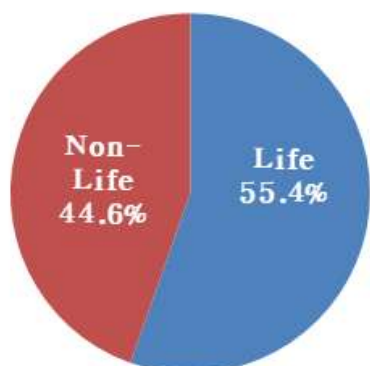
In 2019, written premiums in life insurance grew by 5.8 percent and written premiums in non-life insurance grew by 4.9 percent.

Written premiums

	2015	2016	2017	2018	Billion won 2019
Life	117,214	119,811	113,974	110,843	117,262
Non-Life	79,229	83,439	87,282	89,971	94,386
Total	196,443	203,250	201,256	200,814	211,648

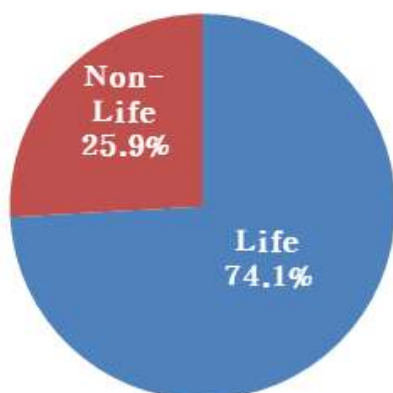
Source: KIDI, Monthly Insurance Statistics

Written premiums of Life & Non-Life Insurance



- In 2019, share of written premiums for life insurance was 55.4 percent and share of written premiums for non-life insurance was 44.6 percent.

Total Asset of Life & Non-Life Insurance



- In 2019, share of total asset size of life insurance was 74.1 percent and share of total asset size of non-life insurance was 25.9 percent.

The total asset size of insurance had grown by 6.8 percent per annum for the past five years. In 2019, it recorded 1,239 trillion won, of which life and non-life insurance accounted for 918 trillion won and 321 trillion won each.

Total Asset

	Trillion won, %				
	2015	2016	2017	2018	2019
Life	725 (9.5)	782 (7.9)	833 (6.5)	857 (2.9)	918 (7.1)
Non-Life	226 (13)	252 (11.5)	277 (9.9)	298 (7.6)	321 (7.7)
Total	951 (10.3)	1,034 (8.7)	1,110 (7.4)	1,155 (4.1)	1,239 (7.3)

Note: Figures in the parentheses indicate annual growth rate

Source: General Insurance Association Of Korea, Monthly Insurance Statistics

Life Insurance Association Of Korea, Monthly Insurance Statistics

There are 25 life insurance companies and 32 non-life insurance companies in Korea. 20 out of 32 non-life insurance companies are not involved in the automobile insurance business (the majority of them are reinsurers).

Number of Insurance Companies

Life Insurance	Non-Life Insurance	Auto	Non-Auto
Hanwha Life Insurance Co., Ltd.	Meritz Fire & Marine Insurance Co., Ltd.	○	○
Samsung Life Insurance Co., Ltd.	Hanwha Non-life Insurance Co., Ltd.	○	○
Heungkuk Life Insurance Co., Ltd.	Lotte Non-life Insurance Co., Ltd.	○	○
Kyobo Life Insurance Co., Ltd.	MG Non-life Insurance Co., Ltd.	○	○
Hyundai Life Co., Ltd.	Heungkuk Fire & Marine Insurance Co., Ltd.	○	○
Shinhan Life Insurance Co., Ltd.	Samsung Fire & Marine Insurance Co., Ltd.	○	○
DGB Life Insurance Co., Ltd.	Hyundai Marine & Fire Insurance Co., Ltd.	○	○
KDB Life Insurance Ltd.	KB Insurance Co., Ltd.	○	○
Mirae Asset Life Insurance Co., Ltd.	DB Insurance Co., Ltd.	○	○
KB Life Insurance Ltd.	Seoul Guarantee Insurance Company	×	○
DB Life Insurance Co., Ltd.	Korea Maritime Guarantee Insurance Co.,	×	○
Dongyang Life Insurance Co., Ltd.	Korean Re Insurance Company	×	○
Orange Life Insurance Ltd.	American Insurance Group, Inc.	×	○
BNP PARIBAS CARDIF Life Insurance Co., Ltd.	ACE American Fire & Marine Insurance Company Korea	×	○
The Prudential Life Insurance Company	First American Title Company Korea Branch	×	○
Hana Life Insurance Co., Ltd.	Mitsui Sumitomo Insurance Co., Ltd.	×	○
ABL Life Insurance Co., Ltd.	DAS Legal Expenses Insurance Co., Ltd.	×	○
MetLife Insurance Company of	AXA General Insurance Co., Ltd.	○	○
PCA Life Insurance Co., Ltd.	HANA Non-life Insurance Co., Ltd.	○	○
Chubb Life Insurance Korea Co., Ltd.	CARROT Non-life Insurance Co., Ltd.	○	○

LINA Life Insurance Co., Ltd.	BNP PARIBAS CARDIF General Insurance Co., Ltd.	×	○
American International Assurance	General Re Insurance Company Korea	×	○
IBK Pension Insurance	Swiss Re Insurance Company Korea	×	○
NongHyup Life Insurance Co., Ltd	Munich Re Insurance Company Korea	×	○
Kyobo Lifeplanet Insurance Company	Tokio Marine & Nichido Fire Insurance Co., Ltd.	×	○
	SCOR Re Insurance Company Korea	×	○
	RGA Re Insurance Company Korea	×	○
	Hannover Re Insurance Company Korea	×	○
	Pacific Life Re Limited Korea Branch	×	○
	Asia Capital Reinsurance Group Co Korea Branch	×	○
	NongHyup Property & Casualty Insurance Co., Ltd.	×	○
	Allianz Global Corporate & Specialty South Korea	×	○

Note : ○ → In business, × → Not in business

The number of employees and solicitors hired by non-life insurance companies is approximately 1.6 times more than the number of those hired by life insurance companies. Moreover, non-life insurance companies have 4.3 times more agencies than life insurance companies.

Employee and Distribution Channel by Insurance Business

	Branch Offices	Employees	Solicitors	Agencies
Life	3,017	25,362	109,322	6,429
Non-Life	2,891	34,314	174,410	27,769

Note: Number of dependent sales agents on the basis of registration

Source: Financial Supervisory Service(FSS), Financial Statistics

Chapter 2 : Non-Life Insurance Market

1. Written premiums and Incurred Loss by Line of Business

In the non-life insurance market, the total amount of written premiums had grown from 79,229 billion won in 2015 to 94,386 billion won in 2019. The growth of written premiums in 2019 was mainly due to the expansion of Others² insurance.

Written premiums By Line of Business

	Billion won												
	Automobile	%	Long-term	%	Guarantee	%	Marine	%	Fire	%	Others	%	Total
2015	14,258	10.6	50,596	4.3	1,310	3.0	705	-3.3	301	-1.8	12,060	1.3	79,229
2016	15,620	9.6	51,646	2.1	1,348	2.9	603	-14.5	297	-1.2	13,925	15.5	83,439
2017	16,063	2.8	52,785	2.2	1,509	11.9	640	6.1	293	-1.3	15,992	14.8	87,282
2018	15,839	-1.4	54,086	2.5	1,701	12.7	591	-7.7	272	-7.2	17,482	9.3	89,971
2019	16,649	5.1	56,386	4.3	1,641	-3.5	598	1.2	269	-1.0	18,844	7.8	94,386

Note: 1. Annuity is included in long-term insurance

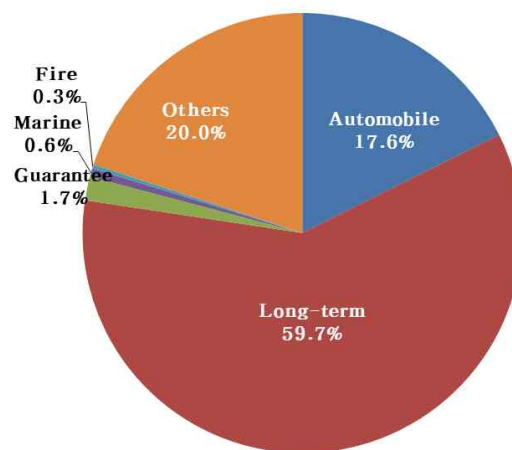
2. Others include casualty, personal accident, retirement insurance and etc.

3. % refers to annual change

Source: KIDI, Monthly Insurance Statistics, Monthly Auto Insurance Statistics(Automobile)

Written premiums by Line of Business

- In 2019, the amount of written premiums in long-term insurance reached 56.4 trillion won, which accounted for 59.7 percent of the non-life insurance market.
- Automobile insurance came second with 16.6 trillion won (17.6%), followed by Guarantee insurance with 1.7 percent and Marine with 0.6 percent.



In 2019, long-term insurance and automobile insurance recorded high loss ratios of 85.2 percent and 91.4 percent each, while guarantee and fire insurance showed relatively low incurred loss ratios of 60.7 percent and 64.4 percent each. Loss ratios of long-term insurance had been stable, ranging from 84 to 87 percent for the past five years compared to the ones in guarantee, marine and fire insurance.

Automobile

	Billion won, %		
	EP ₁	IL ₂	L/R
2015	13,437	11,756	87.5
2016	14,862	12,293	82.7
2017	15,721	12,697	80.8
2018	15,721	13,512	85.9
2019	16,094	14,709	91.4

Long-term

	Billion won, %		
	EP ₁	IL ₂	L/R
2015	49,831	43,381	87.1
2016	50,805	43,985	86.6
2017	51,752	44,066	85.1
2018	52,764	44,421	84.2
2019	54,902	46,787	85.2

Guarantee

	Billion won, %		
	EP ₁	IL ₂	L/R
2015	1,240	656	52.9
2016	1,308	548	41.9
2017	1,341	590	44.0
2018	1,415	663	46.8
2019	1,502	911	60.7

Marine

	Billion won, %		
	EP ₁	IL ₂	L/R
2015	317	232	73.1
2016	301	218	72.4
2017	295	164	55.5
2018	284	187	65.6
2019	277	198	71.6

Fire

	Billion won, %		
	EP ₁	IL ₂	L/R
2015	272	136	49.8
2016	275	155	56.4
2017	255	122	48.0
2018	259	132	51.0
2019	240	155	64.4

Others

	Billion won, %		
	EP ₁	IL ₂	L/R
2015	6,500	4,487	69.0
2016	7,027	4,921	70.0
2017	7,454	5,269	70.7
2018	8,112	5,903	72.8
2019	8,917	6,556	73.5

Note: ₁Earned premiums, ₂Incurred Losses

Annuity / Retirement insurance is included in the Long-term insurance

Source: FSS, Financial Statistics, Monthly Auto Insurance Statistics(Automobile)

The "Big Four" companies (Samsung, Hyundai, DB and KB) accounted for 67.3 percent of the total written premiums in the non-life insurance market. In 2019, Samsung F&M took the largest market share, 24.0 percent, followed by Hyundai M&F with 15.7 percent, DB Insurance with 15.4 percent and KB insurance with 12.2 percent.

Written premiums and Market Share by Non-Life Insurance Company

Company	Written premiums	Share(%)
Samsung	22,634	24.0
Hyundai	14,815	15.7
DB	14,554	15.4
KB	11,482	12.2
Meritz	8,000	8.5
Hanwha	5,924	6.3
Lotte	5,536	5.9
Heungkuk	3,023	3.2
Nonghyup	3,222	3.4
SGIC	1,635	1.7
MG	1,090	1.2
AXA	724	0.8
AIG	590	0.6
The-K	486	0.5
Others	673	0.7
Total	94,386	100.0

Billion won

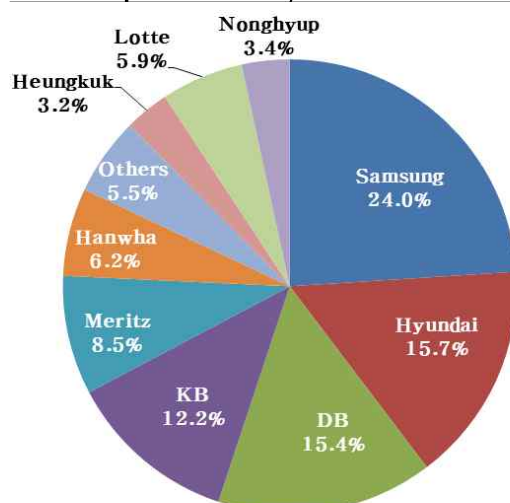
Note: 1. Others include BNP PARIBAS CARDIF, Ace American, First American Mitsui Sumitomo and Korean Re

2. Ceded and assumed premiums are excluded in Written premiums

3. The-K was renamed Hana in 2020

Source: KIDI, Monthly Insurance Statistics

Written premiums by Insurance Company



Note: Others include BNP PARIBAS CARDIF, Ace American, First American, Mitsui Sumitomo, Korean Re, MG, AIG, SGIC and The-K

2. Non-Life Insurance Expense by Line of Business

In 2019, as shown in the table below, expenses incurred by automobile, guarantee, marine and fire insurance decreased by 1.3 percent, 17.3 percent, 2.9 percent, 5.0 percent each, compared to the previous year, while expenses of long-term and others insurance increased by 12.9 percent, 11.4 percent accordingly.

Expenses by Line of Business

	Billion won												
	Automobile	%	Long-term	%	Guarantee	%	Marine	%	Fire	%	Others	%	Total
2015	2,716	7.1	8,912	6.9	306	63.2	93	-13.5	139	10.4	1,556	8.7	13,722
2016	2,875	5.8	9,457	6.1	243	-20.7	97	4.8	119	-14.2	1,630	4.7	14,421
2017	2,998	4.3	10,454	10.5	261	7.3	98	0.8	123	3.2	1,768	8.5	15,701
2018	2,845	-5.1	11,514	10.1	295	13.4	104	6.0	119	-2.7	1,862	5.3	16,740
2019	2,807	-1.3	12,995	12.9	244	-17.3	101	-2.9	113	-5.0	2,075	11.4	18,334

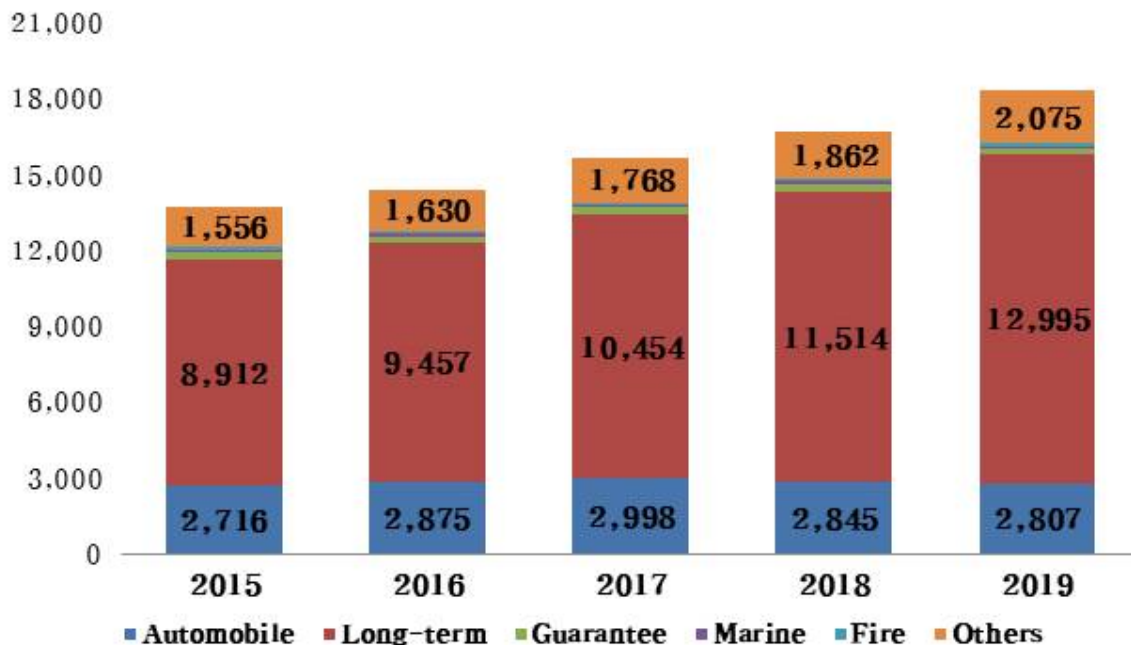
Note: 1. Long-term insurance includes Annuity

2. % refers to annual growth change

3 Claim survey fee is excluded in operating expenses in accordance with IFRS basis

Source: FSS, Financial Statistics

Trends in Expense by Line of Business



Among non-life insurances, long-term and automobile insurances had constantly been in deficit for a long time. Especially, the underwriting result of the automobile insurance had deteriorated compared to the previous year, recorded -1,655 billion won in 2019.

Underwriting Results by Line of Business

	Billion won												
	Automobile	%	Long-term	%	Guarantee	%	Marine	%	Fire	%	Others	%	Total
2015	-1,071	2.8	-2,462	-6.5	278	-40.2	-8	-145.2	-2	67.8	457	-0.5	-2,808
2016	-349	67.4	-2,637	-7.1	517	86.1	-14	-89.5	1	152.6	476	4.2	-2,006
2017	-0.4	99.9	-2,767	-4.9	490	-5.3	33	328.5	10	880.0	417	-12.4	-1,818
2018	-725	-181,150.0	-3,171	-14.6	457	-6.7	-6	-119.1	7	-25.5	347	-16.8	-3,091
2019	-1,655	-128.3	-4,879	-53.9	347	-24.1	-22	-266.7	-28	-300.0	287	-17.3	-5,951

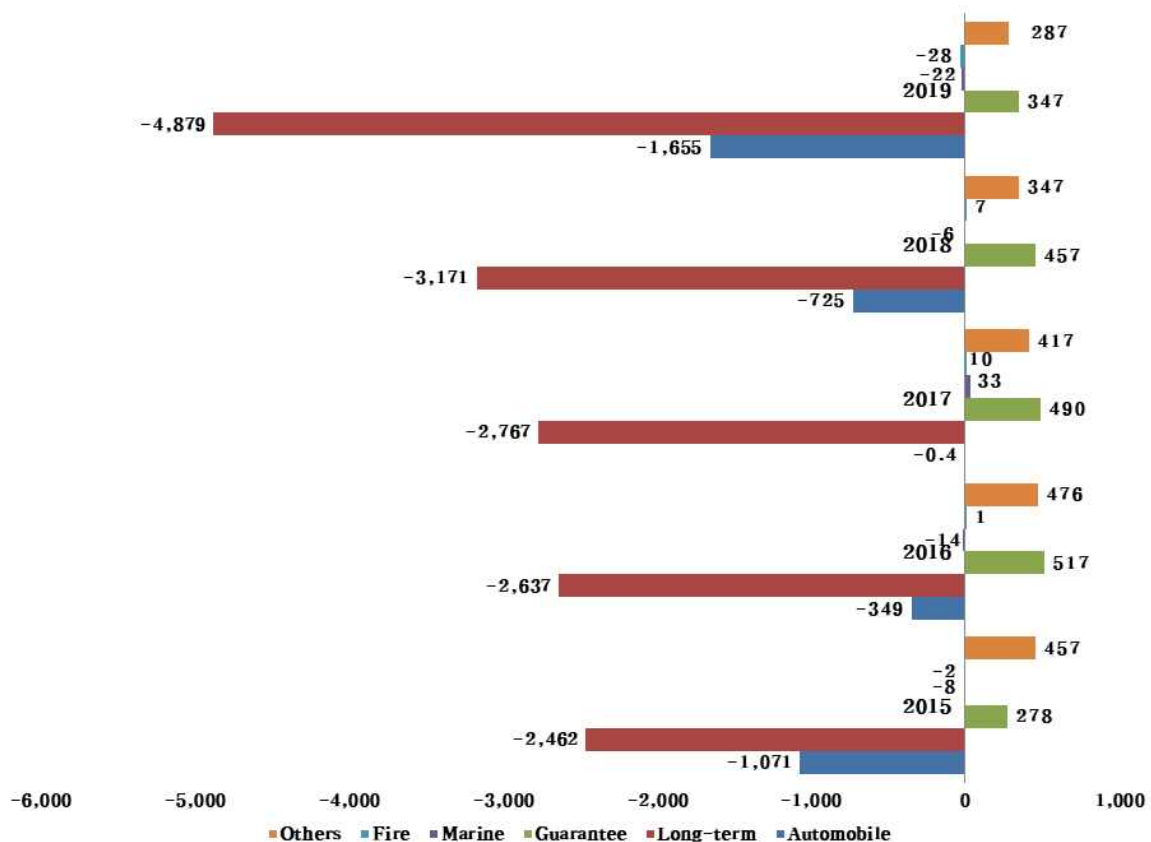
Note: 1. Long-term insurance includes Annuity

2. Underwriting results(Operating income) = earned premiums - incurred losses - net expenses

3. % refers to the annual growth rate

Source: FSS, Financial Statistics, KIDI, Automobile Insurance Yearbook

Trends in U/W Results by Line of Business



Chapter 3 : The Korean Automobile Insurance Market

1. Number of Registered Vehicles

The number of vehicle registration had constantly increased for the past five years. Last year, the number of vehicle registration grew by 2.0 percent, 1.7 percent for personal vehicles and 6.6 percent for commercial vehicles respectively. However, its growth rate had declined since 2015 due to economic uncertainty.

Number of Registered Vehicles

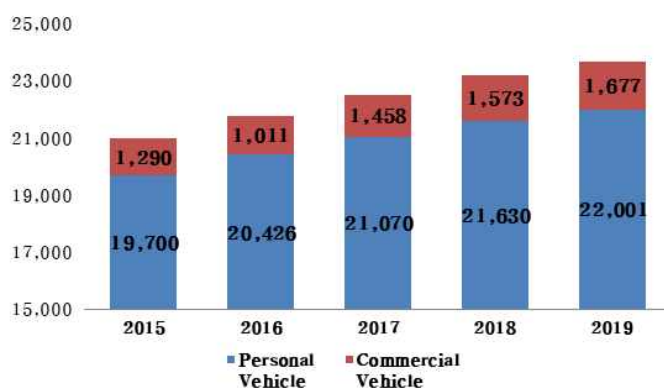
	2015	2016	2017	2018	2019
	Thousand, %				
Personal Vehicle	19,700	20,426	21,070	21,630	22,001
	4.2	3.7	3.2	2.7	1.7
Commercial Vehicle	1,290	1,378	1,458	1,573	1,677
	6.3	6.8	5.8	7.9	6.6
Total	20,990	21,803	22,528	23,203	23,677
	4.3	3.9	3.3	3.0	2.0

Note: 1. Numbers in each second rows of the vehicles indicate the annual growth change
2. Motorcycles are excluded

Source: Ministry of Land, Infrastructure and Transport(MOLIT)

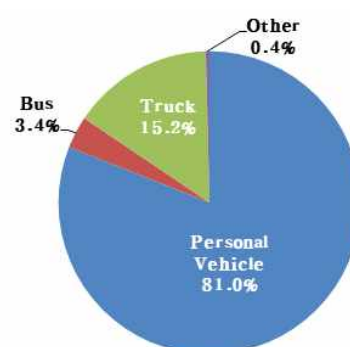
As shown in the pie chart below, personal vehicles took the largest market share with 81.0 percent in 2019, followed by trucks with 15.2 percent, and buses with 3.4 percent.

Trends in number of registered vehicles



Note: Motorcycles are excluded
Source: MOLIT

Types of Vehicles

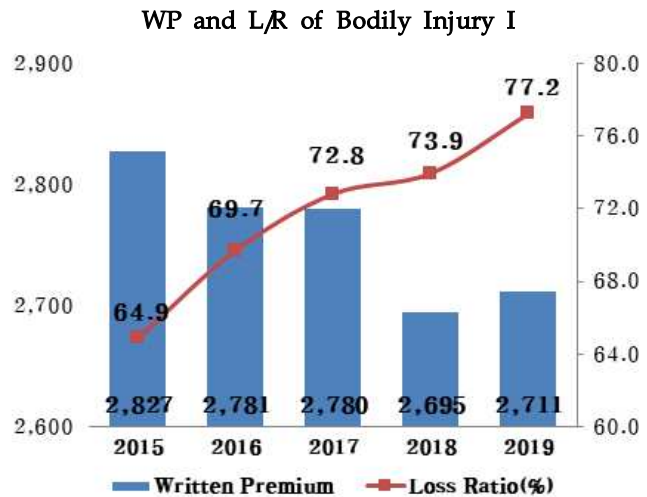


Note: Motorcycles are excluded
Source: MOLIT

2. Written premiums and Incurred Losses

In 2019, written premiums of Bodily Injury Liability Coverage I recorded 2,711 billion won. The loss ratio increased from 73.9 percent to 77.2 percent in 2019.

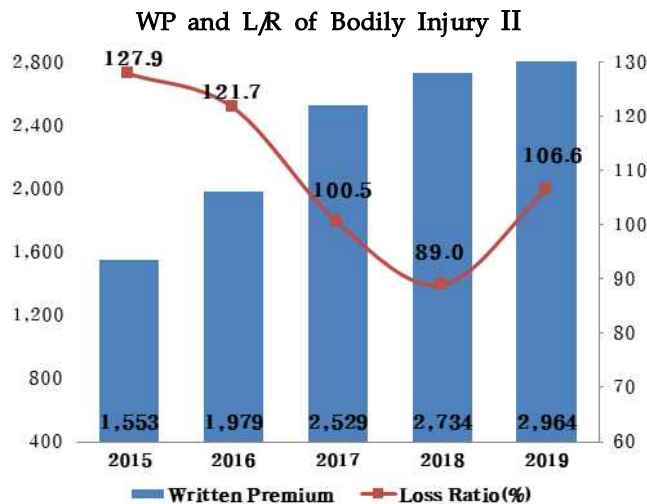
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
Bodily Injury Liability Coverage I				
2015	2,827	2,877	1,866	64.9
2016	2,781	2,797	1,949	69.7
2017	2,780	2,744	1,997	72.8
2018	2,695	2,698	1,994	73.9
2019	2,711	2,677	2,066	77.2



Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

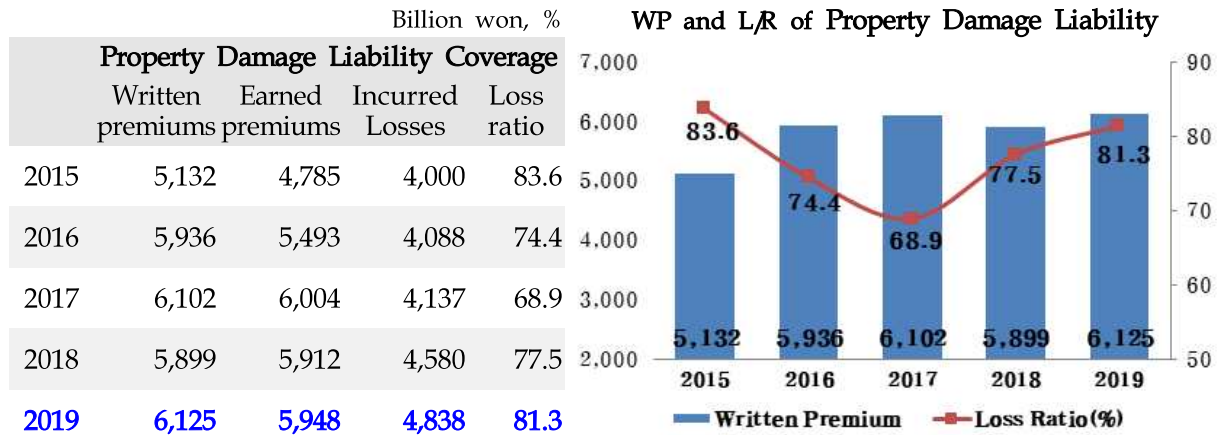
Written premiums of Bodily Injury Liability Coverage II were 2,964 in 2019. The loss ratio also increased in 2019, reached 106.6 percent.

	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
Bodily Injury Liability Coverage II				
2015	1,553	1,403	1,795	127.9
2016	1,979	1,714	2,086	121.7
2017	2,529	2,220	2,231	100.5
2018	2,734	2,618	2,330	89.0
2019	2,964	2,815	3,000	106.6



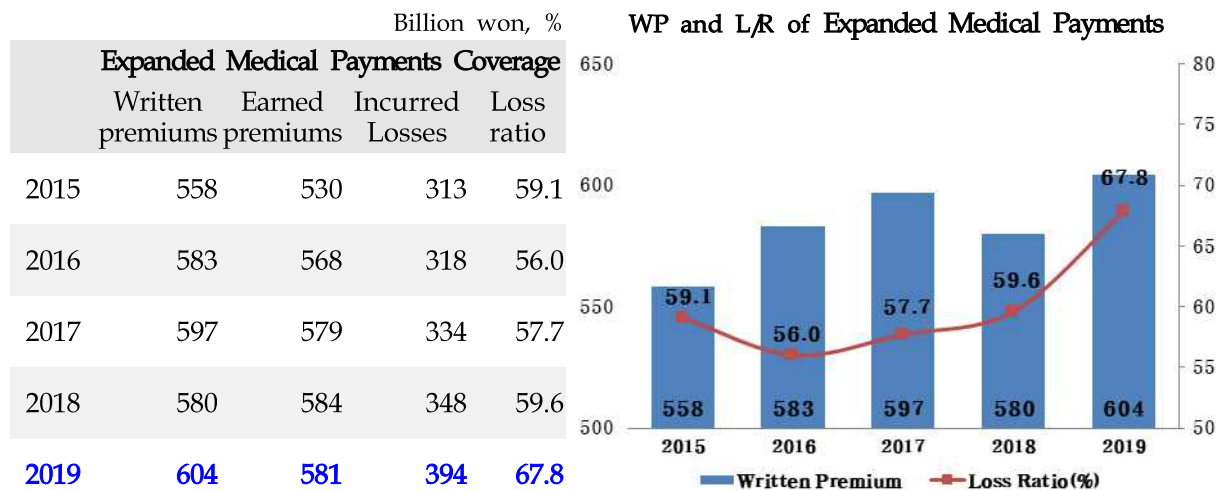
Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

Written premiums of Property Damage were 6,125 billion won, increased by 3.8 percent compared to the previous year. The loss ratio of property damage liability had improved from 2015 to 2017 due to the efforts put into stabilizing highly recorded losses in the previous years. However, it turned into an increase due to the increase in repair labor rates and in cost for auto parts.



Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

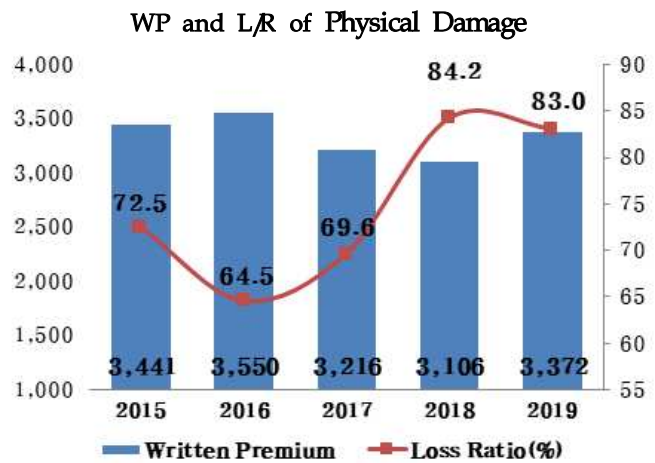
Earned premiums of Expanded Medical Payments Coverage increased by 24 billion won and loss ratio increased by 8.2 percentage points in 2019. The loss ratio had shown an upward trend since 2016.



Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

Written premiums for Physical Damage Coverage were 3,372 billion won, increased by 266 billion won compared to the previous year, but the loss ratio slightly decreased by 1.2 percentage points in 2019.

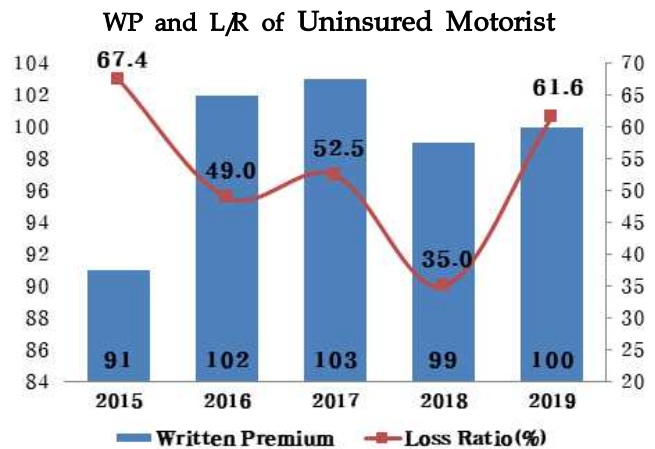
Physical Damage Coverage				
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2015	3,441	3,137	2,274	72.5
2016	3,550	3,518	2,270	64.5
2017	3,216	3,347	2,329	69.6
2018	3,106	3,091	2,602	84.2
2019	3,372	3,213	2,668	83.0



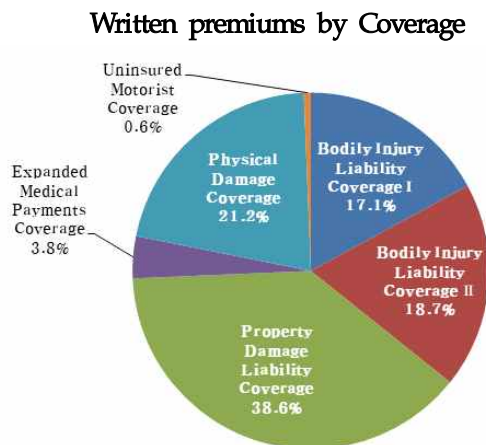
Note: Loss Adjustment Expenses are excluded
 Source: KIDI, Monthly Automobile Statistics

Written premiums for Uninsured Motorist Coverage had been stable for the last four years. The loss ratio increased from 35.0 percent to 61.6 percent in 2019.

Uninsured Motorist Coverage				
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2015	91	86	58	67.4
2016	102	96	47	49.0
2017	103	101	53	52.5
2018	99	100	35	35.0
2019	100	99	61	61.6



Note: Loss Adjustment Expenses are excluded
 Source: KIDI, Monthly Automobile Statistics



- Property Damage, being 38.6 percent, took the largest share of written premiums by coverage, followed by Physical Damage with 21.2 percent, and Bodily Injury II with 18.7 percent.
- The sum of ratios for Property Damage Liability Coverage and Physical Damage Coverage is 59.8 percent, accounting for more than half of its total loss.

Written premiums by Insurance Company, 2015~2019

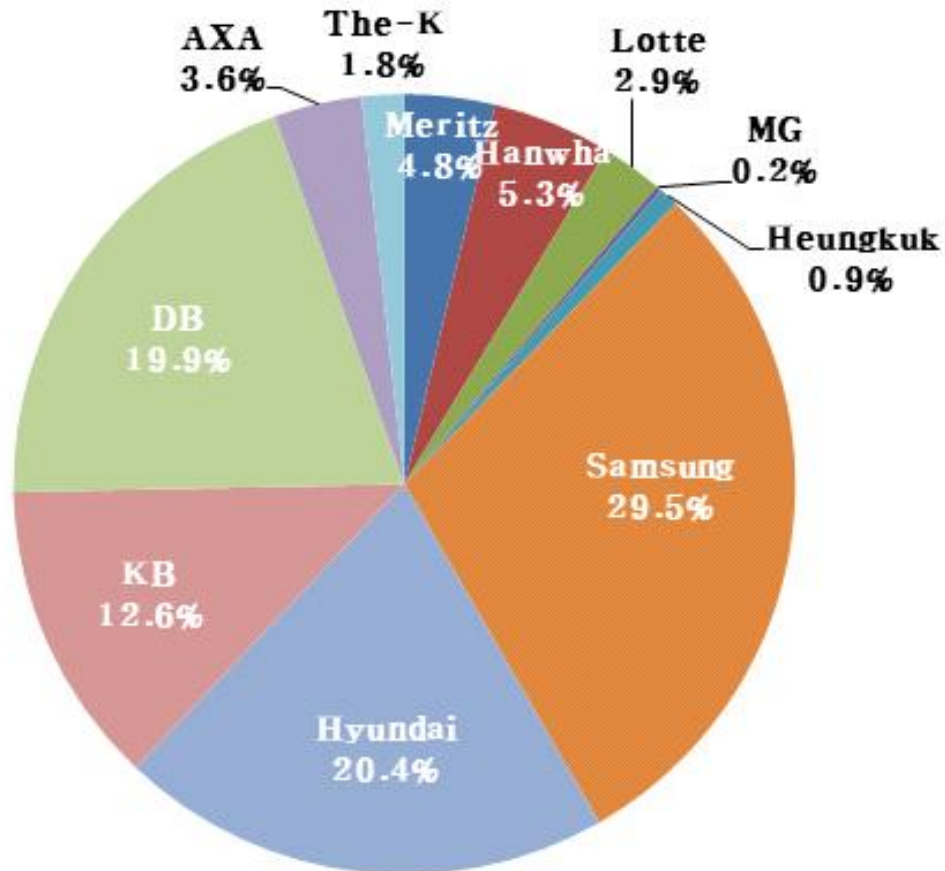
Billion won, %

Company	2015	M/S	2016	M/S	2017	M/S	2018	M/S	2019	M/S
Meritz F&M	705	5.0	707	4.6	772	4.8	747	4.8	618	3.7
Hanwha Non-life Insurance	655	4.6	796	5.2	831	5.2	827	5.3	812	4.9
Lotte Non-life Insurance	481	3.4	461	3.0	434	2.7	454	2.9	417	2.5
MG Non-life Insurance	73	0.5	45	0.3	39	0.2	32	0.2	39	0.2
Heungkuk F&M	272	1.9	237	1.5	156	1.0	134	0.9	134	0.8
Samsung F&M	4,020	28.4	4,544	29.5	4,555	28.6	4,485	28.5	4,871	29.5
Hyundai M&F	2,584	18.3	2,977	19.3	3,162	19.9	3,186	20.3	3,366	20.4
KB Insurance	1,730	12.2	1,911	12.4	1,982	12.4	1,925	12.2	2,086	12.6
DB Insurance	2,432	17.2	2,799	18.2	3,054	19.2	3,056	19.4	3,295	19.9
American Insurance Group	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
AXA Non-life Insurance	656	4.6	631	4.1	636	4.0	589	3.7	598	3.6
The-K Non-life Insurance	307	2.2	314	2.0	308	1.9	287	1.8	291	1.8
Hyundai Hicar Direct	231	1.6	-4	0.0	0	0.0	0	0.0	0	0.0
Total	14,146	100.0	15,418	100.0	15,929	100.0	15,721	100.0	16,527	100.0

Source: KIDI, Monthly Automobile Insurance Statistics

Note: Written Premiums do not cover Driver's Insurance, Insurance in Foreign currency and etc.

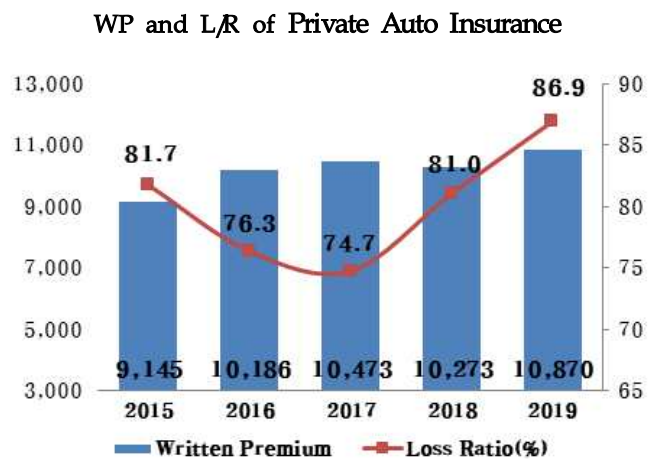
Market Share : Written premiums



3. Written premiums and Incurred Losses by Line of Automobile Insurance

Written premiums in private automobile increased by 5.8 percent, recorded 10,870 billion won in 2019. The loss ratio in private automobile insurance kept increasing in 2019, recorded 86.9 percent, which was an increase of 5.9 percentage points compared to 2018.

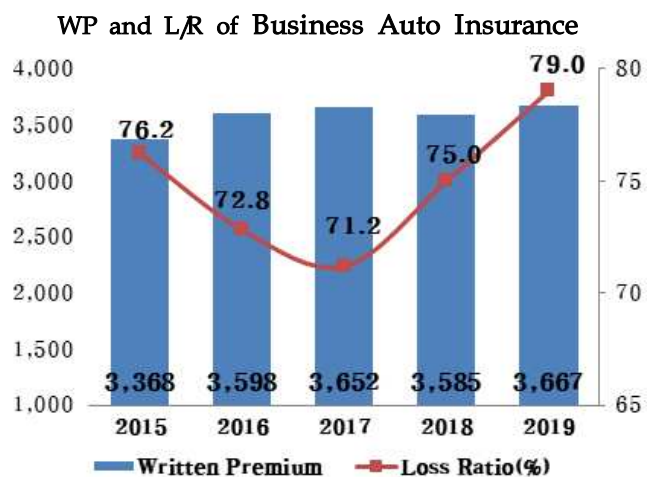
	Billion won, %			
Private Automobile Insurance				
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2015	9,145	8,523	6,960	81.7
2016	10,186	9,562	7,300	76.3
2017	10,473	10,190	7,616	74.7
2018	10,273	10,189	8,255	81.0
2019	10,870	10,437	9,073	86.9



Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

Written premiums in business automobiles also increased by 2.3 percent, recorded 3,667 billion won in 2019. The loss ratio increased by 4.0 percentage points compared to the previous year, recorded 79.0 percent in 2019.

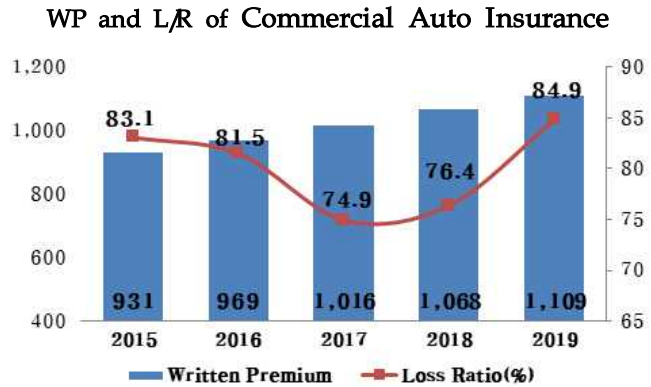
	Billion won, %			
Business Automobile Insurance				
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2015	3,368	3,222	2,457	76.2
2016	3,598	3,499	2,546	72.8
2017	3,652	3,632	2,586	71.2
2018	3,585	3,598	2,698	75.0
2019	3,667	3,607	2,851	79.0



Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

Written premiums in commercial automobile insurance recorded 1,109 billion won in 2019, which is a 3.8 percent increase compared to the previous year. The loss ratio increased by 8.5 percentage points, recorded 84.9 percent in 2019.

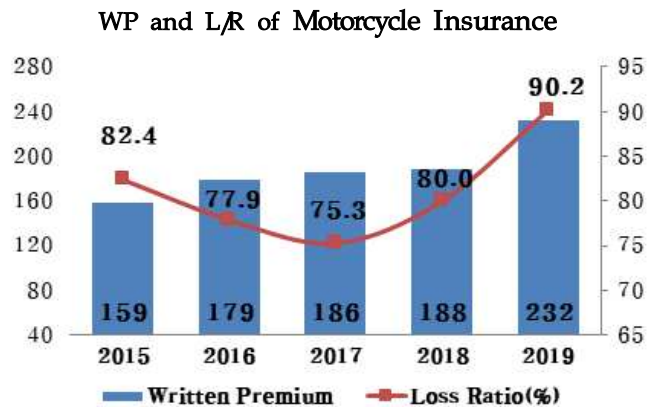
Commercial Automobile Insurance				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2015	931	920	764	83.1
2016	969	955	779	81.5
2017	1,016	989	741	74.9
2018	1,068	1,030	787	76.4
2019	1,109	1,081	918	84.9



Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

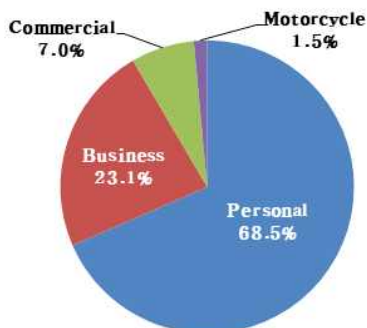
Written premiums in motorcycle insurance recorded 232 billion won, and loss ratio of motorcycle insurance was 90.2 percent in 2019.

Motorcycle Insurance				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2015	159	151	124	82.4
2016	179	171	133	77.9
2017	186	184	138	75.3
2018	188	186	149	80.0
2019	232	207	186	90.2



Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

Written premiums by Line of Automobile insurance



- Private automobile insurance, total of 68.5 percent, took the largest share of written premiums, followed by business automobile insurance with 23.1 percent, commercial automobile insurance with 7.0 percent, and motorcycle insurance with 1.5 percent.

4. Accident Statistics

4-1. General Accident

The number of car accidents increased by 5.7 percent and the number of registered vehicles increased by 2.5 percent in 2019. As a result, the accident rate increased from 0.9 to 1.0 percent in 2019.

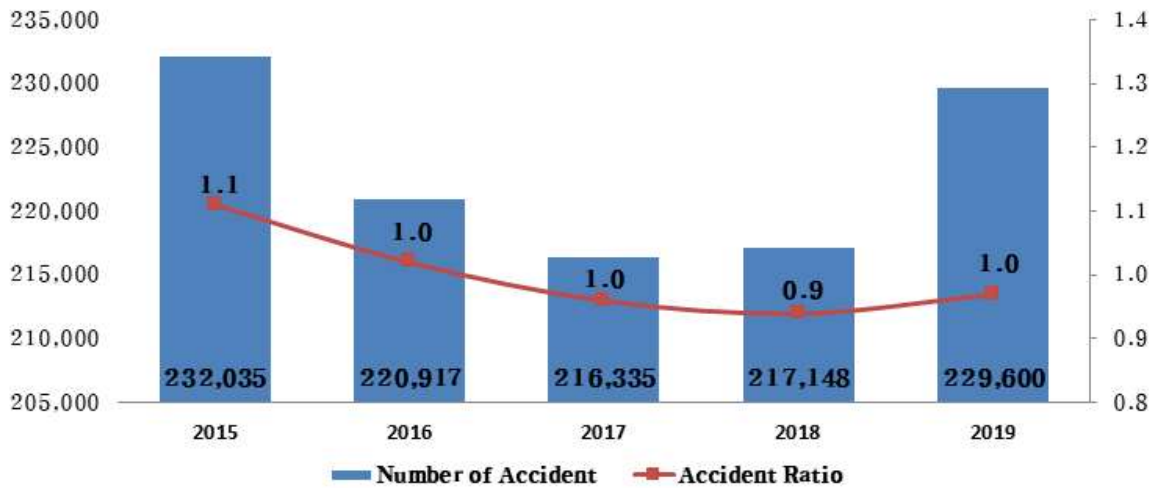
Accident Number and Accident rate

	Number of Accidents	Annual change	Accident rate	Number of Registered Vehicles	Annual change
2015	232,035	3.8	1.1	20,989,885	4.3
2016	220,917	-4.8	1.0	21,803,351	3.9
2017	216,335	-2.1	1.0	22,528,295	3.3
2018	217,148	0.4	0.9	23,202,555	3.0
2019	229,600	5.7	1.0	23,677,366	2.5

Note: 1. Annual change refers to the growth rate compared to the previous year
 2. Motorcycles are excluded from the number of registered vehicles
 3. The number of registered vehicles is accumulated at the end of the year

Source: National Police Agency(NPA), Traffic Accident Statistics

Trends in Number of Accident and Accident Rate



Source: NPA, Traffic Accident Statistics

The number of accidents per 10,000 registered vehicles was 83.5 cases in 2019, which is an increase by 3.9 percent compared to the previous year.

Accident Numbers per 10,000 registered vehicles

	2015	2016	2017	2018	Cases, % 2019
# of Accidents	93.7 (0.0)	86.4 (-7.8)	85.9 (-0.6)	80.4 (-6.4)	83.5 (3.9)

Note: 1. Figures in the parentheses indicate annual growth rates
 2. Motorcycles are included
 3. Construction machinery and farm machinery are included since 2005
 Source: NPA, Traffic Accident Statistics

The number of deaths by traffic accident was 3,349 and the number of injuries was 341,712 in 2019. The number of deaths by traffic accident had shown a downward trend since 2015. Fatalities per 100,000 residents continued to fall from 9.1 persons in 2015 to 6.5 persons in 2019. The number of injuries per 100,000 residents also declined to 660.8 in 2019.

Number of Deaths and Injuries

	Number of Deaths	Persons Number of Injuries
2015	4,621	350,400
2016	4,292	331,720
2017	4,185	322,829
2018	3,781	323,037
2019	3,349	341,712

Source: NPA, Traffic Accident Statistics

**Number of Deaths and Injuries
per 100,000 Population**

	Number of Deaths	Persons Number of Injuries
2015	9.1	692.3
2016	8.4	653.0
2017	8.1	627.5
2018	7.3	625.6
2019	6.5	660.8

Source: NPA, Traffic Accident Statistics

As shown in the table below, the total number of accident for traffic violations increased slightly in 2019 to 229,600 cases. Careless driving was a major reason for traffic violation, accounting for 54.9 percent. In 2019, most cases of traffic violation went up compared to 2018, especially 9.9 percent increase in safety distance not abide.

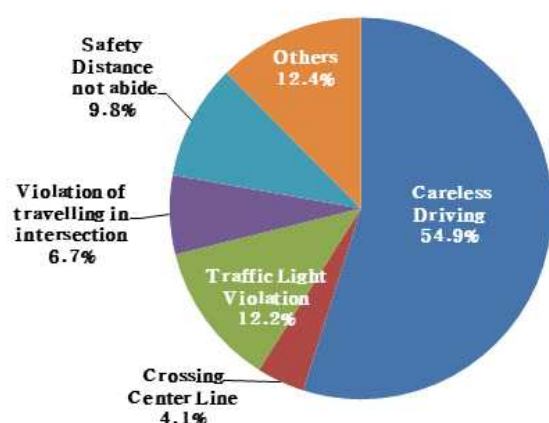
Accident Number by Traffic Violation

	Careless Driving	%	Crossing Center Line	%	Traffic Light Violation	%	Violation of travelling in intersection	%	Safety Distance not abide	%	Others	%	Cases Total
2015	130,551	56.3	11,998	5.2	26,551	11.4	14,671	6.3	21,708	9.4	26,556	11.4	232,035
2016	124,399	56.3	10,712	4.8	24,408	11.0	14,671	6.6	20,660	9.4	26,067	11.8	220,917
2017	121,322	56.1	10,184	4.7	24,358	11.3	14,229	6.6	20,053	9.3	26,189	12.1	216,335
2018	121,797	56.1	9,559	4.4	24,725	11.4	14,064	6.5	20,453	9.4	26,550	12.2	217,148
2019	126,006	54.9	9,344	4.1	27,921	12.2	15,372	6.7	22,473	9.8	28,484	12.4	229,600

Note: % indicates the share of accidents by the traffic violation

Source: NPA, Traffic Accident Statistics

Share of Accidents by Traffic Violation



- In 2019, Careless Driving was the major cause of traffic violations, accounting for 54.9 percent.
- Traffic Light Violation came second with 12.2 percent, followed by Safety Distance not Abide with 9.8 percent, and Intersection Violation with 6.7 percent.

In 2019, the number of traffic accidents by drunk drivers was 15,708, a decrease of 19.0 percent from the previous year. The percentage of drinking and driving accidents was 6.8 percent of total traffic accidents.

Accident Number of Traffic Accidents by Drunk Driver

	2015	2016	2017	2018	Cases, % 2019
Number	24,399	19,769	19,517	19,381	15,708
Rate ₁	10.5	8.9	9.0	8.9	6.8

Note: ₁Share of accidents by drunk drivers

Source: NPA, Traffic Accident Statistics

The number of traffic accidents by unlicensed drivers was 5,177, 2.3 percent of the total number of traffic accidents in 2019. Share of traffic accidents by unlicensed drivers had increased from 1.8 percent in 2016 to 2.3 percent in 2019.

Number of Traffic Accidents by Unlicensed Drivers

	2015	2016	2017	2018	Cases, % 2019
Number	6,035	3,993	5,134	5,203	5,177
Rate ₁	2.6	1.8	2.4	2.4	2.3

Note: ₁Share of accidents by unlicensed drivers

Source: NPA, Traffic Accident Statistics

The number of traffic accidents by hit-and-run drivers was 7,129 accounting for 3.1 percent of the total number of traffic accidents in 2019. Share of traffic accidents by hit-and-run drivers had decreased from 4.1 percent in 2015 to 3.1 percent in 2019.

Number of Traffic Accidents by Hit-and-Run Drivers

	2015	2016	2017	2018	Cases, % 2019
Number	9,513	8,326	7,883	7,601	7,129
Rate ₁	4.1	3.8	3.6	3.5	3.1

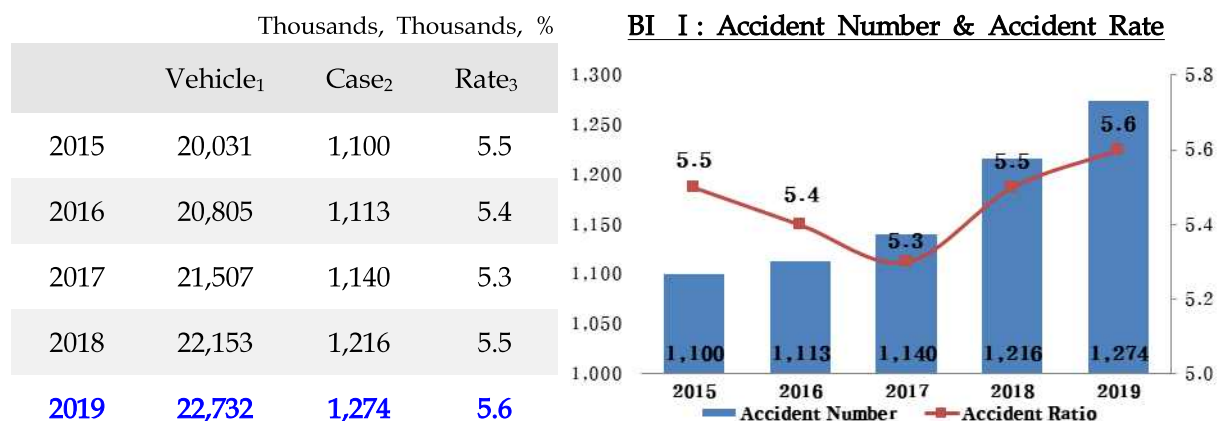
Note: ₁Share of accidents by hit-and-run drivers

Source: NPA, Traffic Accident Statistics

4-2. Insurance Accident by Coverage

Both accident rate and the number of accidents in Bodily Injury I (BI I) increased compared to the previous year. Especially, the number of accidents increased by 4.8 percent in 2019, which is considered to be one of the main reasons for underperformance.

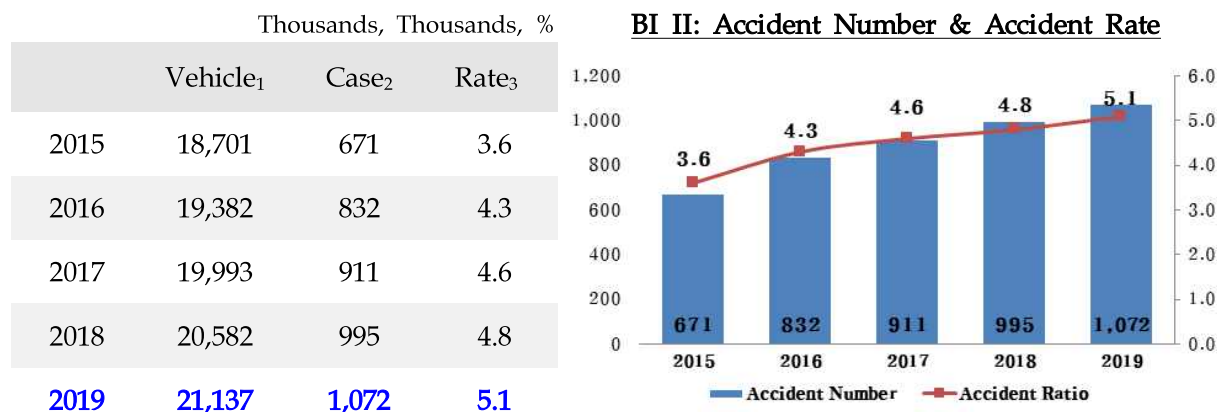
Bodily Injury I Accident Rate



Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate
Source: KIDI, Annual Automobile Insurance Statistics

Both accident rate and the number of accidents in Bodily Injury II had increased continuously for the past five years.

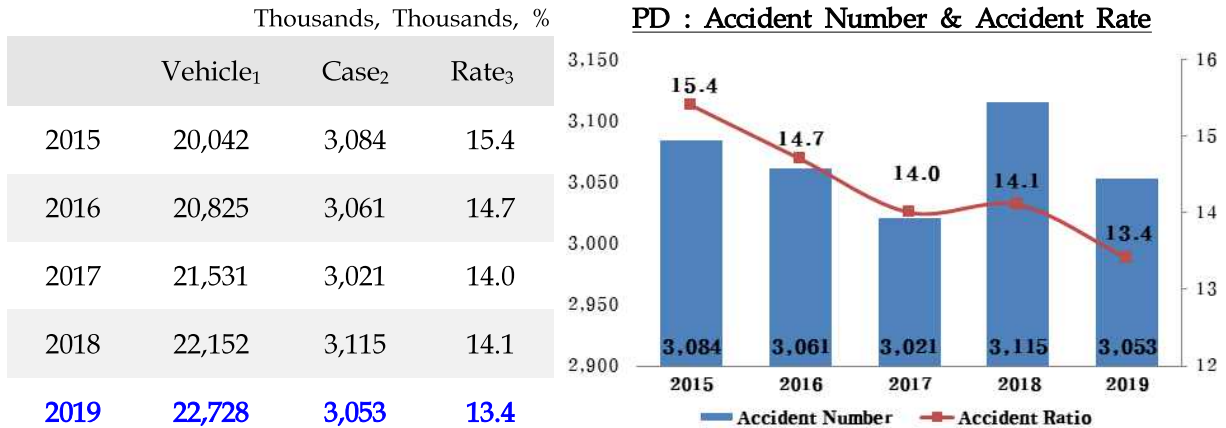
Bodily Injury II Accident Rate



Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate
Source: KIDI, Annual Automobile Insurance Statistics

The accident rate of Property Damage decreased by 0.7 percentage points in 2019. The number of accidents recorded 3,053 thousand cases, a decrease of 2.0 percent compared to the previous year.

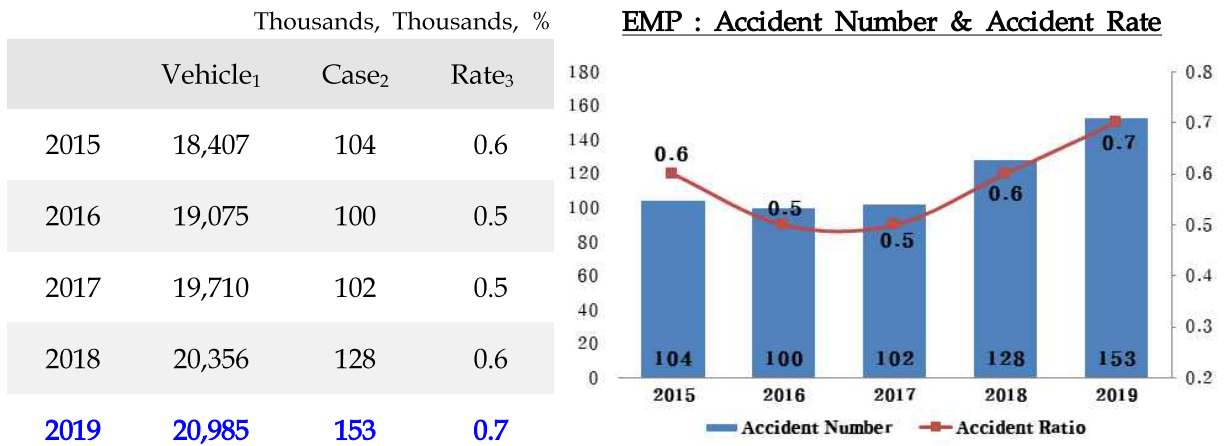
Property Damage Accident Rate



Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate
 Source: KIDI, Annual Automobile Insurance Statistics

The number of accidents increased by 19.5% and the accident rate increased by 0.1 percentage points in 2019.

Expanded Medical Payments Accident Rate

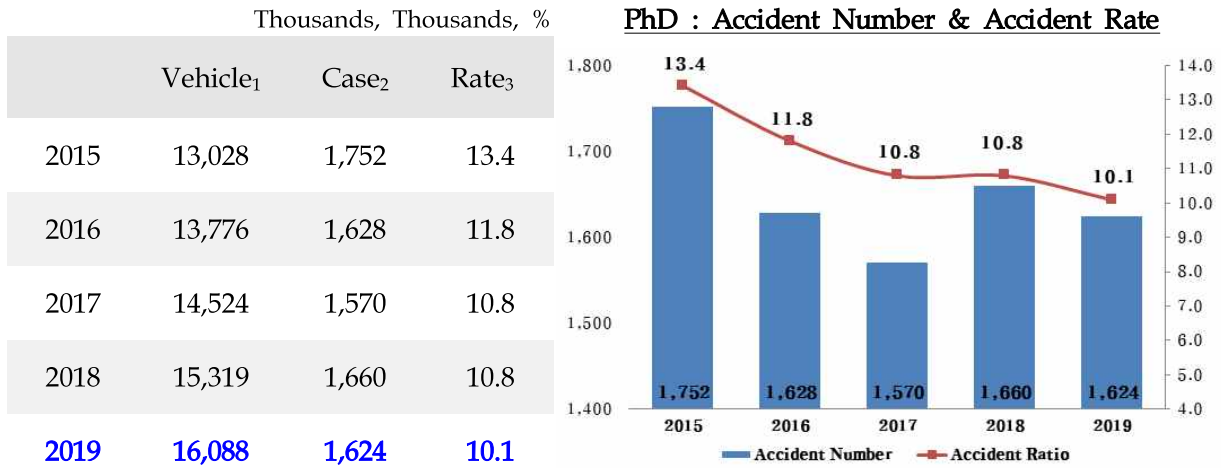


Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate
 Source: KIDI, Annual Automobile Insurance Statistics

The number of accidents of physical damage decreased by 2.2 percent, recorded 1,624 thousand cases in 2019. The accident rate decreased by 0.7 percentage points in 2019.

In most coverages, the number of accidents increased except for Property Damage, which tremendously increased the losses generated in 2019 by 9.4 percent in total.

Physical Damage Accident Rate

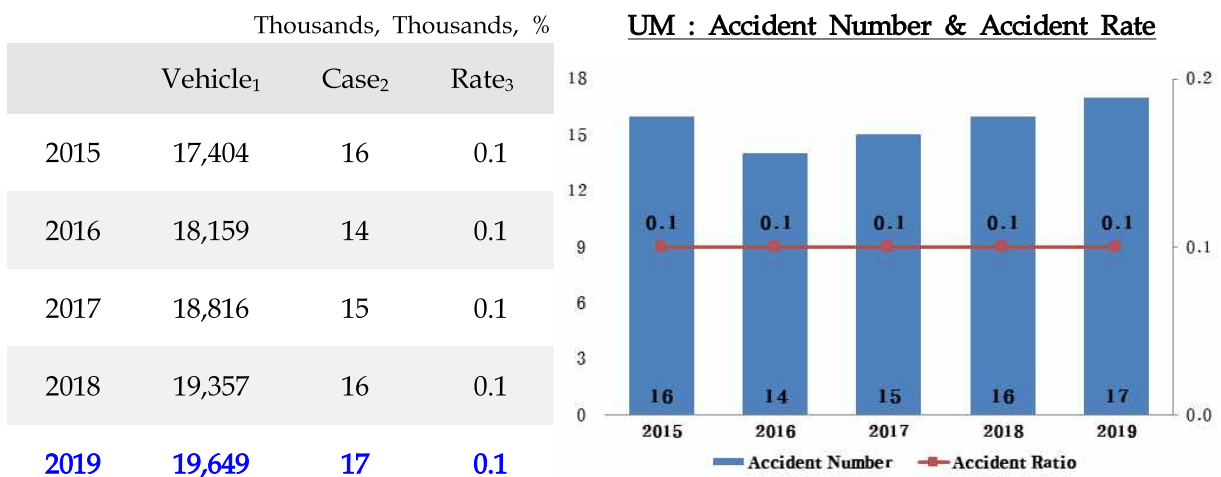


Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate

Source: KIDI, Annual Automobile Insurance Statistics

The accident number of uninsured motorists recorded 17 thousand cases in 2019, which had been fluctuating a little for the past several years, whereas the accident rate of uninsured motorists had stayed the same at 0.1 percent for the past five years.

Uninsured Motorist Accident Rate



Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate

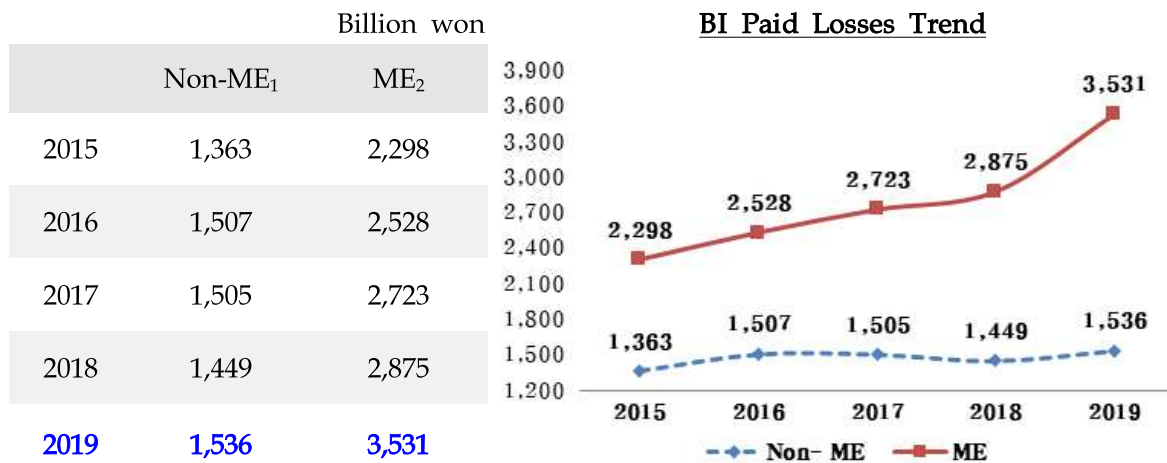
Source: KIDI, Annual Automobile Insurance Statistics

5. Losses

5-1. Bodily Injury Losses

Medical expenses for bodily injury loss accounted for 69.7 percent of the total paid losses. Meanwhile, non-medical expenses such as Solatium and Lost Earnings accounted for 30.3 percent. Details of the paid losses for death, injury and disability are as follows.

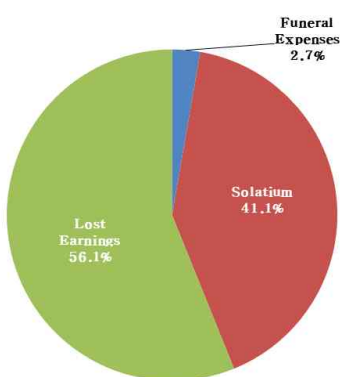
BI Paid Losses Trend



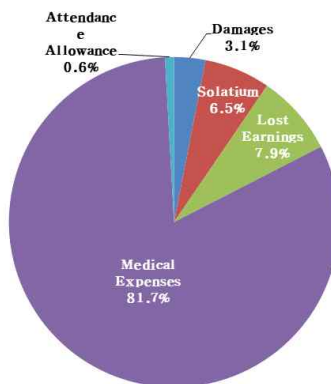
Note: 1. ₁Non-Medical Expenses, ₂Medical Expenses
 2. Non-Medical expenses include Solatium, Lost Earnings and etc.
 3. Paid Losses are based on the payment of closed claims
 Source: KIDI, Annual Automobile Insurance Statistics

Paid Losses by Type of Payment

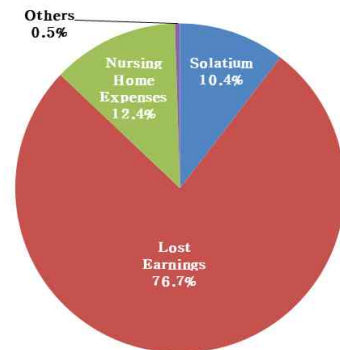
Paid Losses for Death



Paid Losses for Injury



Paid losses for Permanent Disability



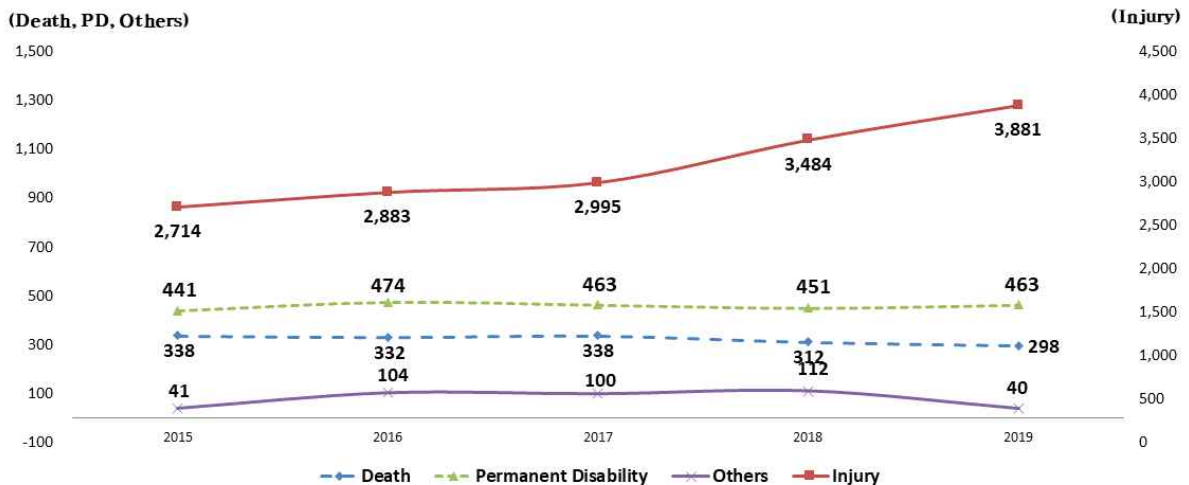
Injury in Bodily Injury paid losses accounted for 82.9 percent of the total paid losses, which is a 3.0 percentage points increase in a single year. On the other hand, share of Death and Others decreased as a result of the increase in the share of injury. It claims that car accidents has occurred more frequently, while its severity has lessened.

Bodily Injury Paid Losses Trend

	Billion won, %								
	Death Share		Injury Share		Permanent Disability Share		Others Share		Total
2015	338	9.6	2,714	76.8	441	12.5	41	1.2	3,533
2016	332	8.8	2,883	76.0	474	12.5	104	2.7	3,793
2017	338	8.7	2,995	76.8	463	11.9	100	2.6	3,895
2018	312	7.2	3,484	79.9	451	10.3	112	2.6	4,359
2019	298	6.4	3,881	82.9	463	9.9	40	0.9	4,682

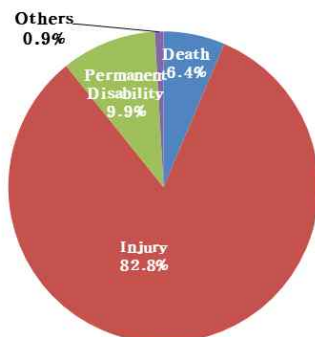
Note: Paid Losses are based on the payment of closed claims

Bodily Injury Paid Losses Trend



Source: KIDI, Annual Automobile Insurance Statistics

Bodily Injury Paid Losses



- Among the total paid losses of Bodily Injury, share of Injury, Permanent Disability, and Death was 82.8 percent, 9.9 percent, and 6.4 percent respectively in 2019

5-2. Property Damage Losses

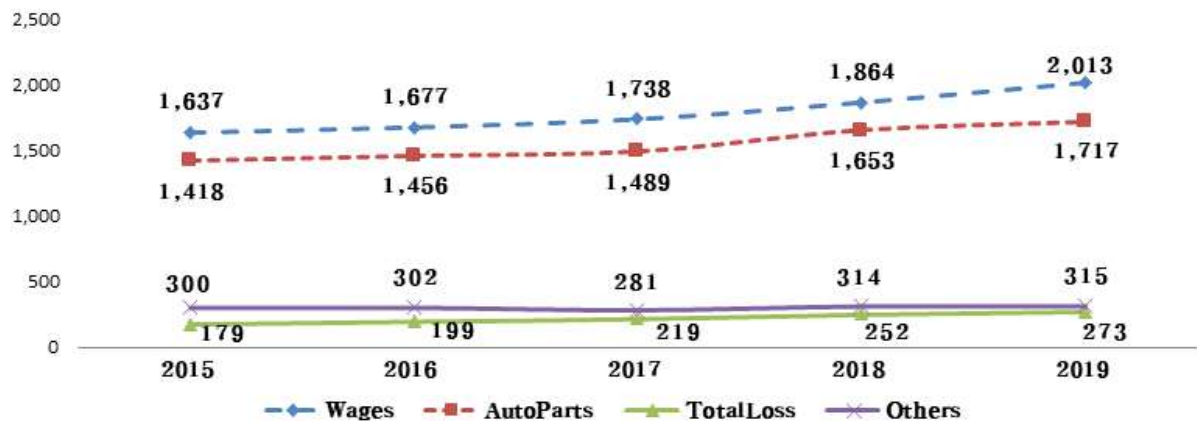
Property damage paid losses of 2019 was 4,316 billion won, an increase by 5.7 percent compared to the previous year, and more than 1.22 times increase during the past four years. Share of wages was 46.6 percent and share of auto parts was 39.8 percent of the total losses.

Property Damage Paid Losses Trend

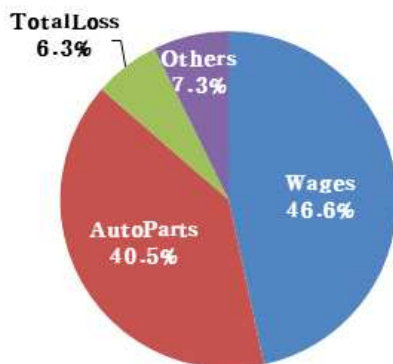
	Billion won, %									
	Wages	Share	Auto Parts	Share	Total Loss	Share	Others	Share	Total	
2015	1,637	46.3	1,418	40.1	179	5.1	300	8.5	3,533	
2016	1,677	46.1	1,456	40.1	199	5.5	302	8.3	3,634	
2017	1,738	46.6	1,489	40.0	219	5.9	281	7.5	3,726	
2018	1,864	45.7	1,653	40.5	252	6.2	314	7.7	4,084	
2019	2,013	46.6	1,717	39.8	273	6.3	315	7.3	4,316	

Note: Paid Losses are based on the payment of closed claims

Source: KIDI, Annual Automobile Insurance Statistics



Property Damage Paid Losses



- Wages (46.6 percent of losses in Property Damage), and auto parts (40.5 percent of losses in Property Damage) accounted for 87.1 percent of the total amount in 2019.

5-3. Physical Damage Losses

Physical Damage Paid Losses amounted to 3,274 billion won in 2019, increased substantially by 3.0 percent compared to the previous year. Share of Wages increased from 41.4 percent in 2018 to 43.5 percent in 2019.

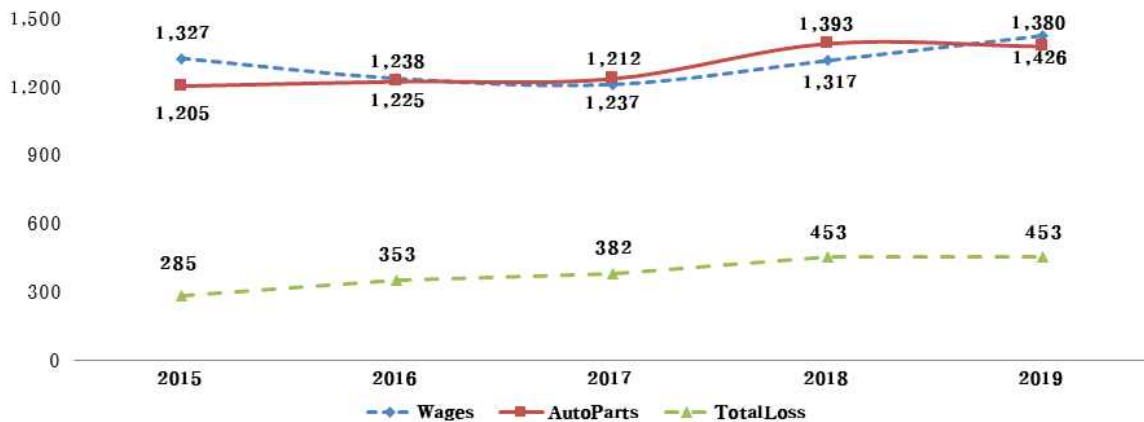
Physical Damage Paid Losses Trend

	Billion won, %									
	Wages	Share	Auto Parts	Share	Total Loss	Share	Others	Share	Total	
2015	1,327	46.8	1,205	42.5	285	10.1	19	0.7	2,835	
2016	1,238	43.7	1,225	43.3	353	12.5	15	0.5	2,832	
2017	1,212	42.6	1,237	43.5	382	13.4	13	0.5	2,844	
2018	1,317	41.4	1,393	43.8	453	14.3	15	0.5	3,178	
2019	1,426	43.5	1,980	42.1	453	13.8	15	0.5	3,274	

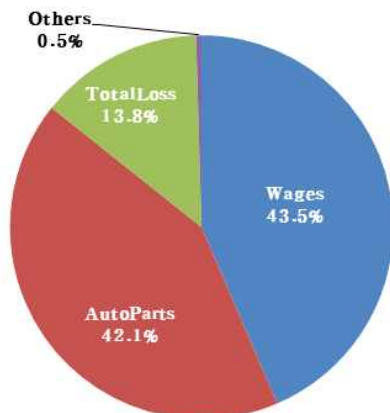
Note: Paid Losses are based on the payment of closed claims

Source: KIDI, Annual Automobile Insurance Statistics

Physical Damage Paid Losses Trend



Physical Damage Paid Losses



- Wages (43.5 percent) and AutoParts (42.1 percent) in Physical Damage accounted for 85.6 percent of the total paid loss amount in 2019.

6. Expenses and Expense Ratio

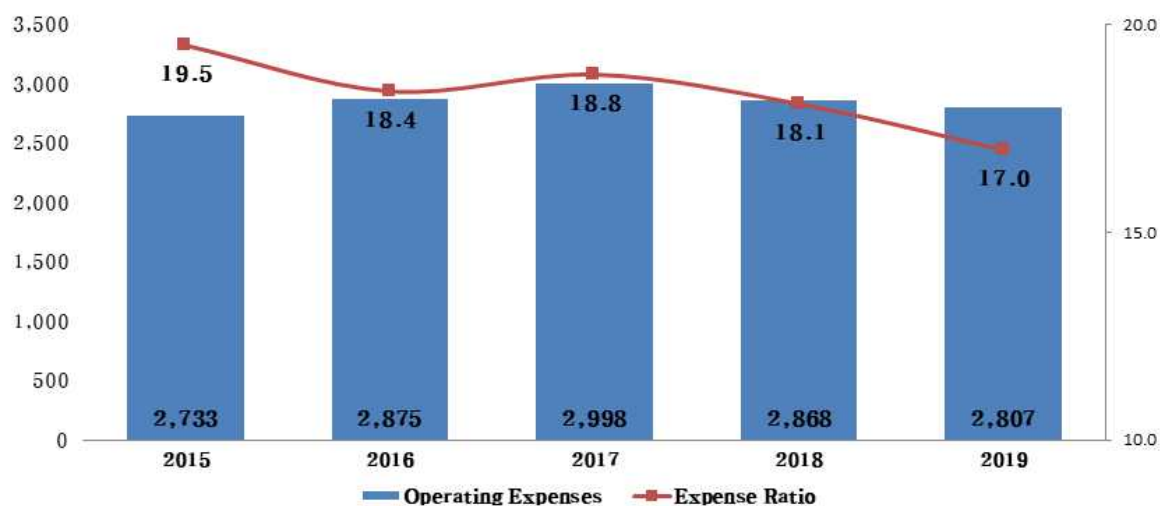
Operating Expenses recorded 2,807 billion won and expense ratio was 17.0 percent in 2019, which is an 1.1 percentage points decrease compared to the previous year.

Trends in Expenses and Expense Ratio

	2015	2016	2017	2018	2019
Operating Expenses	2,733	2,875	2,998	2,868	2,807
Expense Ratio	19.5	18.4	18.8	18.1	17.0

Note: Claim survey fee is excluded from Operating Expenses in accordance with IFRS basis
 Source: FSS, Monthly Financial Statistics

Expenses and Expense Ratio in Automobile Insurance



7. Underwriting Results

Underwriting results of automobile insurance reached high as -1,656 billion won in 2019. It had improved until 2017, but turned to a deficit by 1,655 billion won in the past two years. It is due to the increase in the number of accidents and the rise in the cost of labour rates and auto parts.

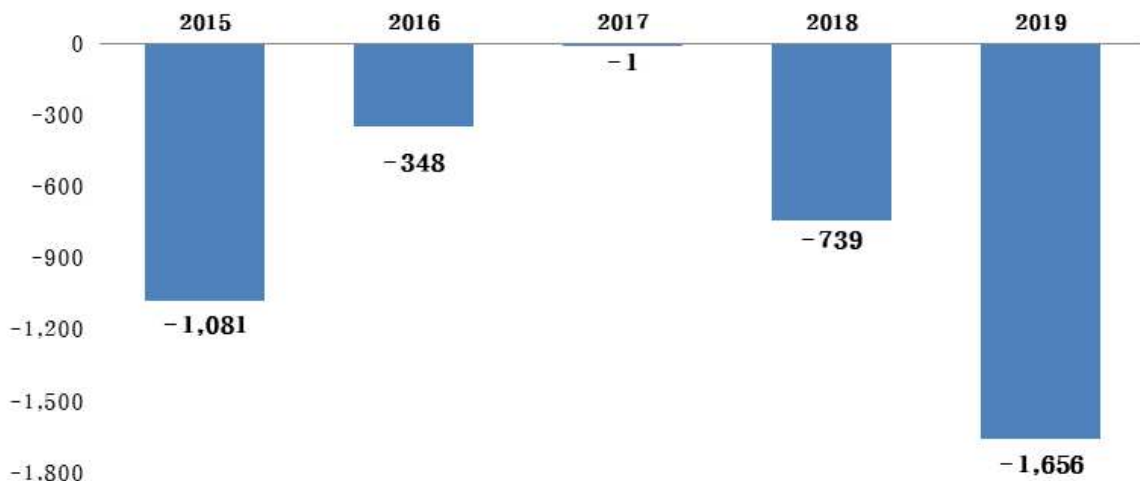
Trends in Underwriting Results

	Billion won, %	
	Underwriting Results	Annual % change
2015	-1,081	3.4
2016	-348	67.8
2017	-1	99.6
2018	-739	-56,434.0
2019	-1,656	-124.1

- Underwriting results had usually been in negative figures, and the fluctuations in annual underwriting results have been wide and irregular.
- As shown from the left table, in 2019, the result worsened compared to the previous year.

Note: Annual % change refers to the growth rate compared to the previous year
Source: FSS, Monthly Financial Statistics

Trends in Underwriting Results of Automobile Insurance



8. Residual Market

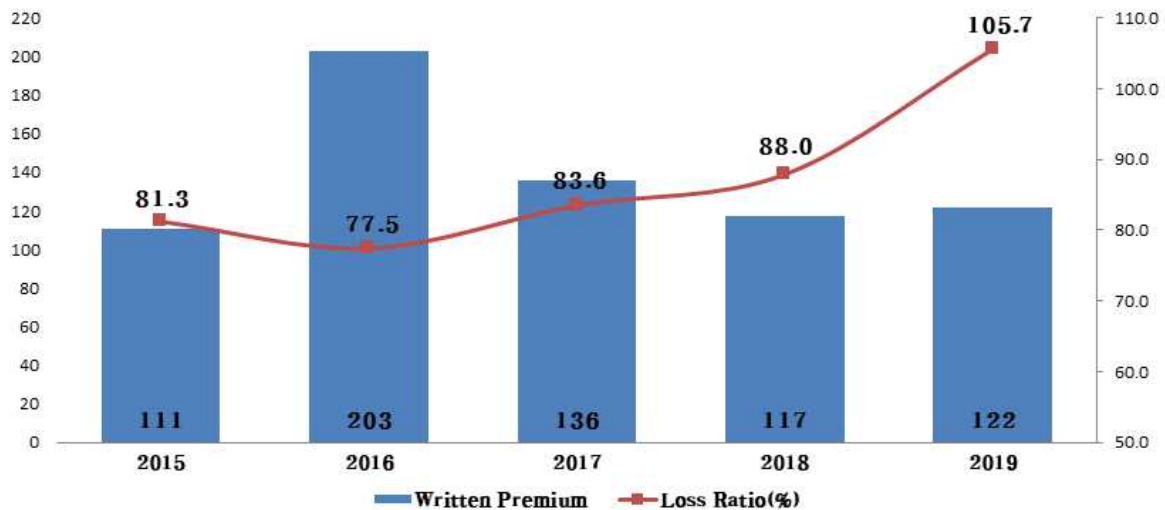
The residual market continues to provide coverage for those who cannot purchase insurance in the regular market. Written premiums for residual market had shrunk until 2018, and increased in 2019. The loss ratio went up to 105.7 percent, which was a 17.7 percentage points increase compared to the previous year.

Residual Market : Written premiums, Earned premiums, Incurred Losses, loss ratio

	Written premiums	Earned premiums	Incurred Losses	loss ratio(%)
				Billion won
2015	111	75	61	81.3
2016	203	163	126	77.5
2017	136	176	147	83.6
2018	117	119	105	88.0
2019	122	117	124	105.7

Source: KIDI, Monthly Automobile Insurance Statistics

Trends in Written premiums, L/R of Residual Market



9. Acts Related with Automobile Insurance

9-1. Guarantee of Automobile Accident Compensation Act

- o The Guarantee of Automobile Accident Compensation Act was firstly enacted in April 1963(Act No. 1314) and lastly amended in December 2016(Act No. 14450) to protect victims of motor vehicle accidents by which compensation for loss resulting from the death or injury of any person and the destruction or damage of any property caused by motor vehicle accidents.
- o The law provides that if any person who operates a motor vehicle for personal use injures or kills another person or damages any property of a third party by such operation, he/she shall be liable to compensate the damages therefrom. To ensure this, the law provides that any motor vehicle owner shall purchase a liability insurance policy which covers an amount that shall be paid to a third party who has died or been injured or whose property is destroyed or damaged due to the operation of the motor vehicle.
- o Business of Guaranteeing Motor Vehicle Accident Compensation allows the Government to conduct investigations ex officio and compensate for damage sustained by the victim to the extent and amount covered by liability insurance if the victim had died or been injured by an accident that the owner of a motor vehicle is unidentified or a person other than a policyholder is liable to compensate for damage except for any accident that occurred during the operation of any motor vehicle in any places other than on a road.
- o On Feb. 22, 2005, Insuring Coverage for Property Damage became compulsory and liability limit of Bodily Injury was raised.

Bodily Injury Liability Coverage	Death/Permanent Disability (1st Degree)	80 mil. won → 100 mil. won
	Injury(1st Degree)	15 mil. won → 20 mil. won
Property Damage Liability Coverage	Liability for paying an amount up to 10 million won to a third party whose property is destroyed or damaged	

* There are standards for grading Injury and Permanent Disability each. The standards have 14 levels of injury and permanent disability categories for each one.

- o On April 1, 2016, Limit of liability of Bodily Injury and Minimum liability for Property Damages were raised.

Bodily Injury Liability Coverage	Death/Permanent Disability (1st Degree)	100 mil. won → 150 mil. won
	Injury(1st Degree)	20 mil. won → 30 mil. won
Property Damage Liability Coverage	Minimum Liability	10 mil. won → 20 mil. won

9-2. Act on Special Cases concerning the Settlement of Traffic Accidents

- o Act on Special Cases concerning the Settlement of Traffic Accidents was firstly enacted in December 1981(Act No. 3490) and lastly amended in December 2016(Act No. 14277) to facilitate a prompt recovery of damage caused by traffic accidents and to promote convenience of people’s everyday life by providing for special cases on criminal punishment of drivers of a vehicles involved in traffic accidents caused by occupational or gross negligence.
- o According to the Act, a victim cannot file a lawsuit with the court in accordance with Article 4 of the Act as long as a person has insured oneself for all amounts the victim can fully be compensated. In other words, the person must insure oneself for Bodily Injury Liability Coverage I, Bodily Injury Liability Coverage II that can indemnify the victim for unlimited amount of liability. The exceptions are as the following: death of the victim, hit-and-run accident, and ten cases of severe violation of traffic law; traffic light violation, crossing the center line, speed limit violation, violation of overtaking prohibition, violation of traveling in intersection, violation of pedestrian protection, unlicensed driving, drinking and driving, encroaching upon the sidewalk, and starting a vehicle with the door open (violation of passenger protection)
- o On December 22, 2009, the Act was amended. There was an addition to exceptions for indemnification; namely, "School Zone Accident". A driver who causes an injury to a child at the zone of Child Protection(School-zone)

can not be indemnified for his behavior.

- o On December 3, 2017, the Act was amended. There was an addition to exceptions for indemnification; namely, "Violation of loading freight". A driver who fails to prevent freight from falling off while driving can not be indemnified for his behavior.

9-3. Insurance Business Act

- o The purpose of this Act is to guide and supervise the insurance business, efficiently protect the rights and interests of the policyholder, the insured and other interested persons concerned and thus to contribute to the sound development of the insurance business and the balanced growth of the national economy.
- o Insurance Business Act was enacted and promulgated on Jan. 15, 1962.
- o Paid-in capital raised (Life Insurance : 0.2 billion won → 10 billion won, Non-life Insurance : 0.3 billion won → 30 billion won) and Insurance Guarantee Fund established on Dec. 31, 1988
- o Qualification of shareholder limited in order to actively cope with the trend in globalization and to strengthen competitiveness in the financial industry, and paid-in capital raised to 30 billion won from 10 billion won on Aug. 28, 1997.
- o In the past, the Advisory Organization (KIDI) had calculated premiums by adding expenses on top of pure premiums. After the Act was amended on Feb. 5, 1999, the Advisory Organization (KIDI) provided only pure premiums, and the insurers added their own expenses to pure premiums in order to set their own loadings.
- o On Jan. 21, 2000, the Act provided that an insurance company, intending to perform part of the insurance business among the types of insurance business, could select a different paid-in or foundation fund within the limit of not less than 10 billion won.

- o On May 29, 2003, the Act provided that paid-in capital of tele-marketing insurance companies was set at two thirds of that of other general insurance companies.
- o On Sep 1, 2008, the solicitors were permitted cross-selling of insurance under a new sales scheme. It allowed non-life insurers to sell life insurance products and life insurers to sell property and casualty insurance schemes.

9-4. Automobile Insurance Plan (AIP)

- o Comprehensive automobile insurance is voluntary so that the insurers can select whether or not to underwrite a policy based on their underwriting policies and procedures. (Insurance companies normally evade those who have excessively high loss ratios.)
- o As a result, automobile insurance companies denied auto insurance coverage to people they consider high-risk drivers. And those with high-risk will eventually increase the total premiums that will divide equally among even the bona-fide third party.
- o Accordingly, non-life insurance companies concluded an agreement, 「Agreement of Joint Underwriting」, to provide automobile insurance coverage to those who are unable to obtain coverage in the voluntary market and to protect the victim. This plan became effective on April 24, 1987.
- o As the number of people who are unable to obtain coverage in the voluntary market had rapidly increased, the Detailed Operational Directives for the Implementation of Agreement of Joint Underwriting were made on Feb. 10, 1995. Since May 1, 1995, the distribution was automatically conducted by KIDI's computer network.
- o In a view of the application of premiums, KIDI has made premiums for the residual market that extra percentage is added compared to other premiums in the voluntary market, considering the risk of accident and the features of joint underwriting.

10. Ratemaking System

10-1. Ratemaking

- o The Applied premium of automobile insurance is calculated by the base premium and various rates that depend on characteristics of the automobile and the insured. Base premium is determined by usage, type of automobile, coverage and the limit of liability for each of the coverage. In addition, there are many kinds of rates considered to calculate the insurance price, merit-demerit rate, insured characteristic rate, rate on particular contract, special rate and etc. The applied premium is calculated as follows.

$$\boxed{\text{Applied premium}} = \boxed{\text{Base premium}} \times \boxed{\text{Insured characteristic rate}} \times \boxed{\text{Merit-Demerit rate}} \times \boxed{\text{Special rate}} \times \boxed{\text{Other rates}}$$

- o Merit-demerit rate is applied to fleet risk and non-fleet risk respectively. This rate is determined by accident records and loss records of the insured. The rate starts from class 11 and ranges from class 1 (surcharge) to class 29 (discount).
- o Insured characteristic rates reflect previous auto insurance records and traffic violation records. Rate for previous auto insurance experience is the highest for a beginner. Rate for traffic violation is determined by traffic violation records of the insured during the valuation period. Surcharge rates applied to each traffic violation type is as follows.

Group		Traffic Violation Type	Rate
Surcharge Group	1	1. Unlicensed Driving	20%
		2. Leaving the Scene of Accident	20%
	2	3-1. Driving under the influence (1 times)	10%
		3-2. Driving under the influence (more than 2 times)	20%
		4-1. Traffic light violation, Failing to Yield Right of Way, Speeding over posted limit (2 ~ 3 times)	5%
		4-2. Traffic light violation, Failing to Yield Right of Way, Speeding over posted limit (more than 4 times)	10%

- o Rate on a particular contract reflects coverage characteristics such as who is qualified to drive or who will drive. When the policy excludes drivers under the age of twenty-one or twenty-six, lower premium will be applied. Furthermore, when drivers are limited to named insured and relatives, the premium will be discounted. Especially, special clauses for a family or a married couple are usually selected.
- o Special rate applies to the special risk which has different automobile safety devices or different characteristics based on use or type of car. For example, there are rate for cars equipped with ABS, sports and sports-type cars and so on.

10-2. Improvement in Ratemaking System

- o The improved Bonus-malus system has been applied since January 2007. The period that merit-demerit rate reaches the highest (200%), and the lowest (40%) is liberalized to each company according to the risk of the insured. And safeguards like 'Guard grade system on long non-accident' are established to prevent policyholders' confusion. It is expected to enhance the degree of equity among insureds and solve the problem of non-acceptance of high discounted group.
 - * In 2011, classes of Bonus-malus system were subdivided into 23 classes and the number of classes will grow to 29 from 2012 to 2017. The rate for the 29th class will be 30%. In case the policyholder makes an insurance contract in condition of the 23rd class in 2011, the person is subject to 38%, and the policyholder in condition of the 24th class in 2012 is subject to 36%.
- o Classification based on a model of car was adopted for physical damage of private automobile in April 2007. Private automobiles were sorted to 262 models and grouped into 21 levels on the basis of relative loss ratios. Each company can freely determine one's rate. But size of the entire written premiums must be kept unchanged. This will improve the degree of equity and make manufacturers to reduce the prices of auto parts.

- o The policyholder can purchase the mileage rider charging insurance fees according to mileage from December 2011. The policyholder can get a maximum discount rate of 13 percent.
- o There is no classification based on territorial area. But there have been significant differences in loss ratios by territorial area, and KIDI collected many data to apply them in premium rating.

10-3. Deregulation on Insurance Rate Approval System

- o Before April 1st 2000
 - Prior approval system
 - Insurance companies can use the rates provided by KIDI
- o Since April 1st 2000
 - File & use system
 - Insurance companies can calculate additional premiums determined according to their own business results. But they shall use the pure premiums provided by KIDI
- o Since August 1st 2001
 - File & use system
 - Every insurer can make their own premiums. The pure premiums provided by KIDI is only reference rate for insurance companies.
- o Since September 2003
 - Use & report system
 - Insurance companies can use the changed rates freely. After using the rates, they must report the information concerning rate revision to the authorities on a quarterly basis. But in some limited cases, such as a highly fluctuated rate change or newly introduced rating factor, should have the file & use system for the new rates.

< The Annual Plan of Insurance Rate Liberalization >

(Unit : %)

Year	Bonus-Malus Rate				Diriving Experience Rate		Base Premium			
	Non-Fleet		Fleet		Liability	Comprehensive	Liability	Comprehensive		
	Liability	Comprehensive	Liability	Comprehensive						
'94.4		10		20					Flex Rate (±α%)	
'96.8		Abolished		20		10		3~10		
'97.8				20		10		3~10		
'98.8				20		Abolished		6~20		
'00.4				Abolished				Abolishing Flex Rate	Abolishing Flex Rate	
								Liberalization of Loading Charge	Liberalization of Loading Charge	
'01.1								Liberalization of Pure Premium of Multi-personnel Vehicle		Liberal Rate
'01.4								Commercial Auto Policy		
								Liberalization of Pure premium	Liberalization of Pure premium	
'01.8								Personal & Business Auto policy		
								Liberalization of Pure premium	Liberalization of Pure premium	

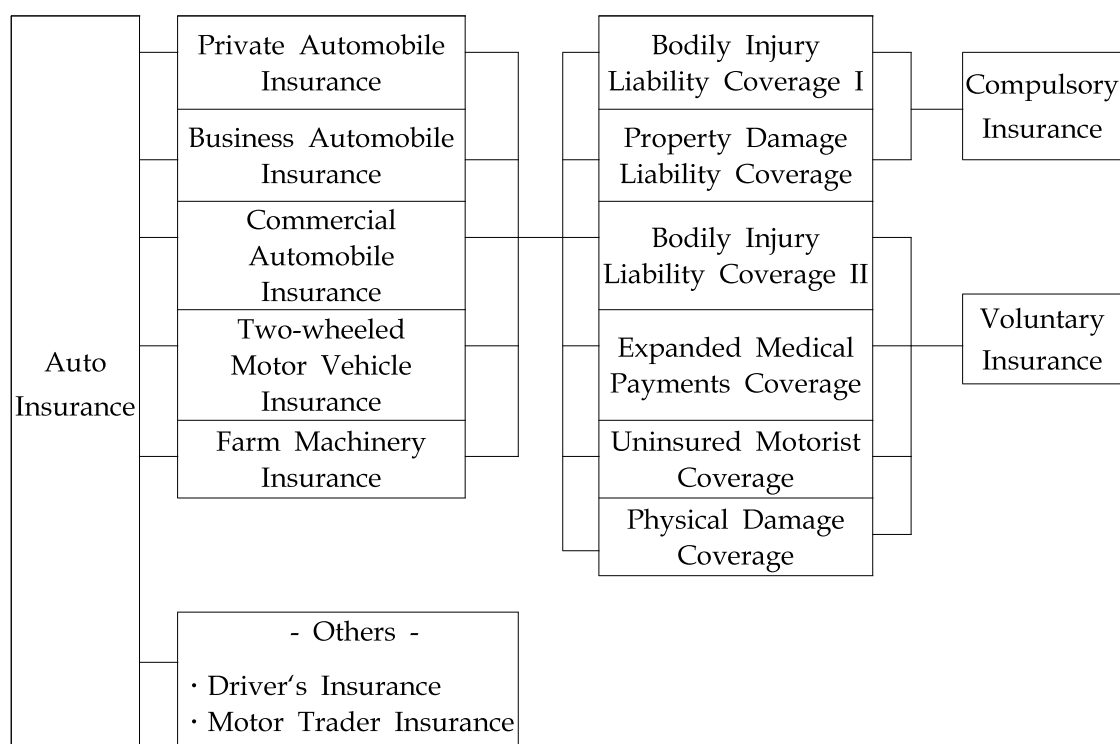
【APPENDICES】

- Appendix I. Korea's Automobile Insurance
- Appendix II. Glossaries
- Appendix III. Special Clauses
- Appendix IV. KIDI's Brief History & Members
- Appendix V. KIDI Organizational Chart

APPENDICES

Appendix I. Korea's Automobile Insurance

Automobile Insurance Products



Motor Vehicle to be Insured by Insurance Product

o Private Automobile Insurance	All private passenger vehicles owned by an individual or a self-employed person
o Business Automobile Insurance	All passenger vehicles, official vehicles, and construction machinery except for private automobiles
o Commercial Automobile Insurance	All commercial vehicles, construction machines, and rental vehicles
o Two-wheeled Motor Vehicle Insurance	All two-wheeled motor vehicles and motorbikes
o Farm Machinery Insurance	Cultivators, farm tractors, and combines

Appendix II. Glossaries

Private Automobile Insurance

Privately-owned motor vehicles with a seating capacity of ten or less persons can be insured. A policyholder can select one or more of six types of coverage(Bodily Injury Liability Coverage I, Bodily Injury Liability Coverage II, Property Damage Liability Coverage, Expanded Medical Payments Coverage, Uninsured Motorist Coverage, and Physical Damage Coverage) and insure oneself or the person's property. Bodily Injury Liability Coverage I and Property Damage Liability Coverage are compulsory to all automobiles.

Private Automobile Insurance Plus

Private Automobile Insurance Plus is a high quality product that expands the scope of indemnification for bodily injury of the insured and damage of the insured vehicle.

Business Automobile Insurance

All non-commercial motor vehicles except for privately-owned motor vehicle with a seating capacity of ten or less persons can be insured. A policyholder can select one or more of six types of coverage(Bodily Injury Liability Coverage I, Bodily Injury Liability Coverage II, Property Damage Liability Coverage, Expanded Medical Payments Coverage, Uninsured Motorist Coverage, and Physical Damage Coverage) and insure oneself or the person's property. Bodily Injury Liability Coverage I and Property Damage Liability Coverage are compulsory to all automobiles.

Business Automobile Insurance Plus

There are four types of motor vehicles that can be insured; privately-owned motor vehicle of the third class van, light-weight van, privately-owned motor vehicle of the fourth class truck, and light-weight truck. This is a high quality product that expands the scope of indemnification for bodily injury of the insured and damage of the insured vehicle.

Commercial Automobile Insurance

All commercial vehicles can be insured. A policyholder can select one or more of five types of coverage(Bodily Injury Liability Coverage I, Bodily Injury Liability Coverage II, Property Damage Liability Coverage, Expanded Medical Payments, and Physical Damage Coverage). Bodily Injury Liability Coverage I,

Bodily Injury Liability Coverage II and Property Damage Liability Coverage are compulsory.

Two-wheeled Motor Vehicle Insurance

Two-wheeled motor vehicle and motor bike can be insured. A policyholder can select one or more of six types of coverage (Bodily Injury Liability Coverage I, Bodily Injury Liability Coverage II, Property Damage Liability Coverage, Expanded Medical Payments Coverage, Uninsured Motorist Coverage, and Physical Damage Coverage) and insure oneself or the person's property. Bodily Injury Liability Coverage I and Property Damage Liability Coverage are compulsory.

Farm Machinery Insurance

Farm machinery such as cultivator, farm tractor, and combine can be insured. A policyholder can select one or more of four types of coverage (Bodily Injury Liability Coverage, Property Damage Liability Coverage, Expanded Medical Payments Coverage, and Farm Machinery Damage Coverage) and insure oneself or the person's property.

Driver's Insurance

A person who drives a vehicle irrespective of owning a vehicle can be insured. The insured receives indemnification for damage caused by a car accident.

Motor Trader Insurance

A motor trader, who is a person or persons actively operating a formal business on a full or part-time basis for profit, either selling (used) vehicles or providing a service relating to repair or maintenance of motor vehicle, can insure the person's property. This insurance compensates for damage caused by the motor trader during the use or management of vehicle.

Bodily Injury Liability Coverage I

This coverage insures the insured for all amounts which the insured may have to pay as a result of the person being legally liable for an individual's death or injury, or damage to an individual's property resulting from a car accident. This coverage is compulsory to those who want to insure oneself.

Bodily Injury Liability Coverage II

The coverage insures the insured for all amounts exceeding the limit of liability of the compulsory automobile liability insurance.

Property Damage Liability Coverage

The coverage indemnifies the insured against property damage of the third party resulted from a car accident.

Expanded Medical Payments Coverage

The coverage insures the insured or the person's family member(s) for the insured's or the person's family member's death or bodily injury.

Physical Damage Coverage

The coverage insures the insured vehicle for all damages resulted from physical damage, car theft, fire, or flood.

Uninsured Motorist Coverage

The coverage can be insured as long as the insured already has Bodily Injury I, Bodily Injury II, Property Damage, and Personal Accident Coverage. The coverage insure the insured for one's death or bodily injury caused by an uninsured vehicle.

FY (Fiscal Year)

The fiscal year for the Korean insurance industry begins on January 1 and ends on December 31.

Appendix III. Special Clauses

Special Clauses for Family Driving only

An insurer shall indemnify if the insured limited the drivers of the automobile specified in the policy to the insured and one's family members only. However, this will not apply to the Bodily Injury Liability I Coverage.

The term 「family members」 refers to ① parents or foster parents, ② parents or foster parents of the spouse of the named insured, living together, ③ legal spouse, or spouse in a real marital relationship, ④ child born in a legal or real marital relationship, foster child, or ⑤ daughter-in-law

Special Clauses for Married-couple Driving only

An insurer shall indemnify if the insured limited the drivers of the automobile specified in the policy to the insured and one's spouse only. However, this will not apply to the Bodily Injury Liability I Coverage.

The 「term spouse」 refers to legal spouse, or spouse in a real marital relationship.

Special Clauses for Driving by age of drivers

For example, in case that the insured limits the drivers of the automobile specified in the policy to those of age 21 or older only, the insurer shall indemnify as prescribed in the clauses. However, this will not apply to the Bodily Injury Liability I Coverage.

Special Clauses for Driving Other Automobile

In case that the insured suffers a loss incurred by the legal liability against another party arising out of the bodily injury accident or property damage accident occurred, or that the insured suffered bodily injury while the insured was driving another automobile (except for the accident occurred while parking or stopping the automobile), the insured shall consider the other automobile driven by the insured as the insured automobile covered by Bodily Injury Liability II Coverage, Property Damage Liability Coverage or Expanded Medical Payment Coverage of General Clauses, and indemnify as prescribed in the clauses.

Appendix IV. KIDI's Brief History & Members

1983. 12. 16.	Established Korea Non-life Insurance Rating Association
1988. 12. 31.	Insurance Business Law amended to include a provision regarding the legal background for the establishment of an insurance rate-making organization
1989. 11. 18.	Officially authorized to establish Korea Insurance Development Institute (KIDI)
1989. 11. 27.	Established Korea Insurance Development Institute (Korea Non-life Insurance Rating Association dissolved)
1992. 03. 11.	Established Korea Automobile Insurance Repair Research & Training Center as a subsidiary of Korea Insurance Development Institute
1992. 05. 06.	Designated a business partner responsible for managing Insurance Information Network
1995. 09. 01.	Insurance Research Center established
1999. 10. 03.	Held jointly EEAC (East Asia Actuarial Committee)
2000. 02. 01.	Opened KIDI Digital Management System
2000. 03. 10.	Designated as an organization to provide the insurance statistics (published Annual Insurance Statistics, Insurance Statistics Yearbook)
2000. 05.	Designated 「Insurance Development Research」 as an academic journal
2000. 06.	Designated as the organization operating insurance examinations for actuary and claim adjuster
2000. 08. 01.	Opened KIDIPOOL (Knowledge Management System)
2003. 12. 01.	20th Anniversary of Korea Insurance Development Institute
2005. 10. 04.	Opened KIDI Consortium Retirement Payment System (DB type)
2005. 12. 01.	Opened KIDI Consortium Retirement Payment System (DC & IRA type)
2007. 12. 07.	Korea Insurance Research Institute (KIRI) established (Insurance Research Center is developed and specialized)
2010. 11. 25.	Korea Insurance Research Institute (KIRI) was founded as a new corporation
2011. 04.	Established ICPS (Insurance Claims Pooling System) Claims Map system
2012. 02.	Opened AIPIS (Auto Insurance Premium Integrated check System)
2013. 09.	Opened Dormant Insurance Claims Inquiry System

2014. 02. 27. MOU with CAPA (Certified Automotive Parts Association)

2015. 03. 24. Opened Automobile Accident Investigation System

2017. 04. 06. Opened INCOS (INSurance statistics CONsumer Service)

2018. 08. Established KIDI-ESG (Economic Scenario Generator) Pro Solution

2019. 06. Established Korean Catastrophe Model

2019. 10. Established IFRS17 Settlement System ARK (Agile, Reliable, Keen)

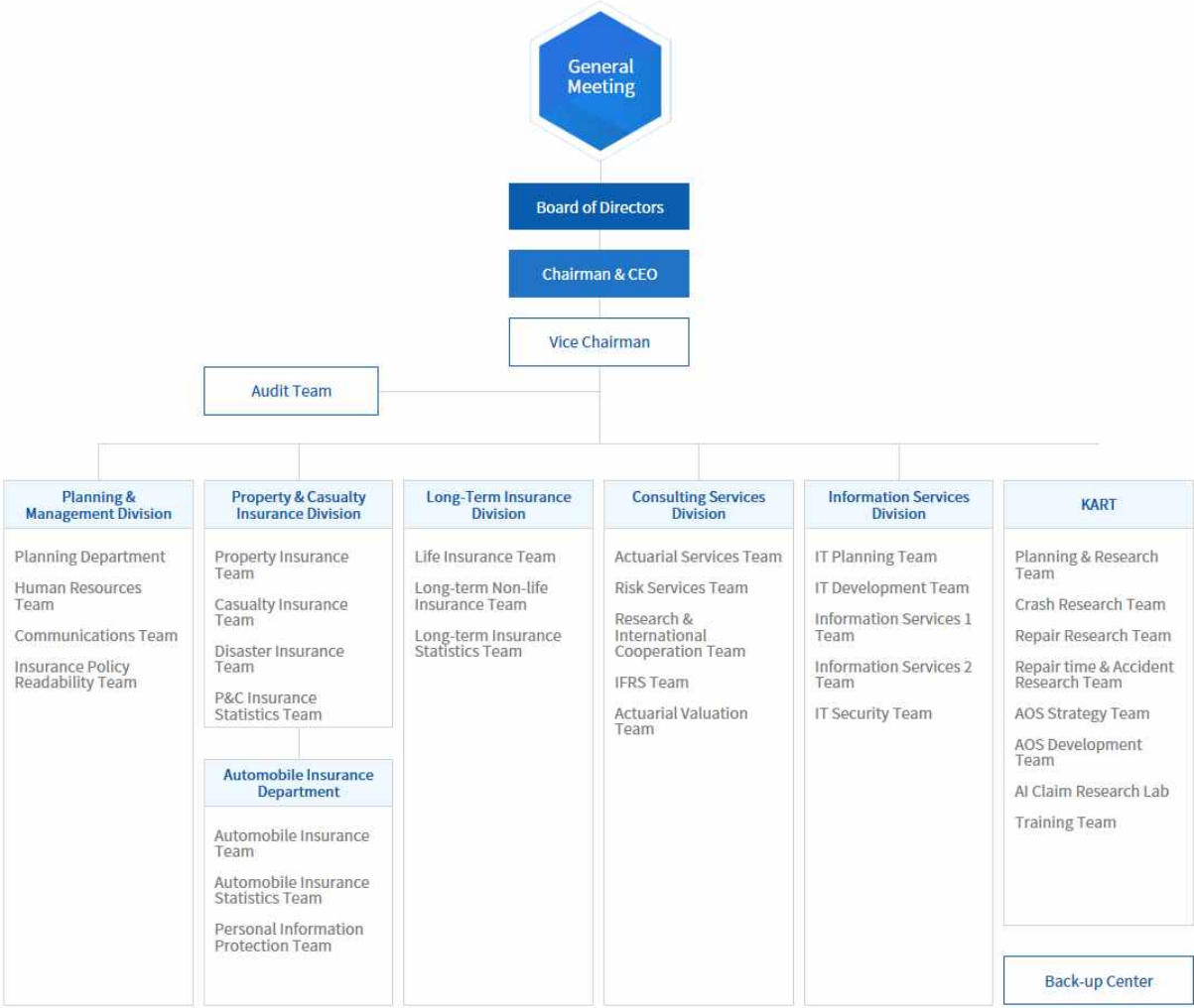
2020. 05. Opened AOS^a (Automobile repair cost On-line Service)

Member Companies

Life Insurance	Non-Life Insurance
• Hanwha Life Insurance Co., Ltd.	• Meritz Fire & Marine Insurance Co., Ltd.
• ABL Life Insurance Co., Ltd.	• Hanwha Non-life Insurance Co., Ltd.
• Samsung Life Insurance Co., Ltd.	• Lotte Non-life Insurance Co., Ltd.
• Heungkuk Life Insurance Co., Ltd.	• MG Non-life Insurance Co., Ltd.
• Kyobo Life Insurance Co., Ltd.	• Heungkuk Fire & Marine Insurance Co., Ltd.
• Hyundai Life Insurance Co., Ltd.	• Samsung Fire & Marine Insurance Co., Ltd.
• Shinhan Life Insurance Co., Ltd.	• Hyundai Marine & Fire Insurance Co., Ltd.
• DB Life Insurance Co., Ltd.	• KB Insurance Co., Ltd.
• Dongyang Life Insurance Co., Ltd.	• DB Insurance Co., Ltd.
• MetLife Life Insurance Co., Ltd.	• American Insurance Group, Inc.
• Chubb Life Korea, Ltd.	• Seoul Guarantee Insurance Co., Ltd.
• DGB Life Insurance Co., Ltd.	• AXA General Insurance Co., Ltd.
• KDB Life Insurance Co., Ltd.	• HANA Non-life Insurance Co., Ltd.
• Mirae Asset Life Insurance Co., Ltd.	• CARROT Non-life Insurance Co., Ltd.
• KB Life Insurance Co., Ltd.	• BNP Paribas Cardif General Insurance Co., Ltd.
• LINA Life Korea, Ltd.	
• AIA Life Korea, Ltd.	• ACE American Fire & Marine Insurance Company Korea, Ltd.
• Prudential Life Insurance Co. of Korea, Ltd.	
• Orange Life Insurance Co., Ltd.	• Mitsui Sumitomo Insurance Co., Ltd. Korea Branch
• HANA Life Co., Ltd.	• Nonghyup Property & Casualty Insurance Co., Ltd.
• BNP PARIBAS CARDIF Life Insurance Co., Ltd.	• Allianz Global Corporate & Specialty Co., Ltd.
• IBK Pension Insurance Co., Ltd.	
• Nonghyup Life Insurance Co., Ltd.	
• Kyobo Lifeplanet Life Insurance Company	

Appendix V. KIDI Organizational Chart

Introduction to KIDI	Executives	Organization	Member Companies	KIDI NEWS	Directions
----------------------	------------	--------------	------------------	-----------	------------



Korea Insurance Development Institute

38, Gukjegeumyung-ro 6-gil, Yeongdeungpo-gu, Seoul, 150-606, Korea

TEL 82-2-368-4199

FAX 82-2-368-4046

www.kidi.or.kr