

Automobile Insurance in Korea

Fact Book 2019



KIDI

Korea Insurance Development Institute

보험개발원

Automobile Insurance in Korea

Fact Book 2019

Forewords



Sixteen 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 15.8 trillion (USD 13.3 billion) in 2018. The written premiums of automobile insurance were decreased by 1.4 percent mainly due to the increase of using direct channels even though vehicle registration grew by 3.0 percent.

In the meantime, the loss ratio of automobile insurance was 85.9 percent in 2018, a decrease by 5.1 percent point compared to 2017, mainly due to the increase in auto repair labor rates and in cost for auto parts.

Meanwhile, market competition had intensified in 2018. For example, UBI (Usage-Based Insurance) products have been introduced to the market in response to the upcoming 4th industrial revolution.

Fact Book 2019 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

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Chapter 1 : The Korean Insurance Industry

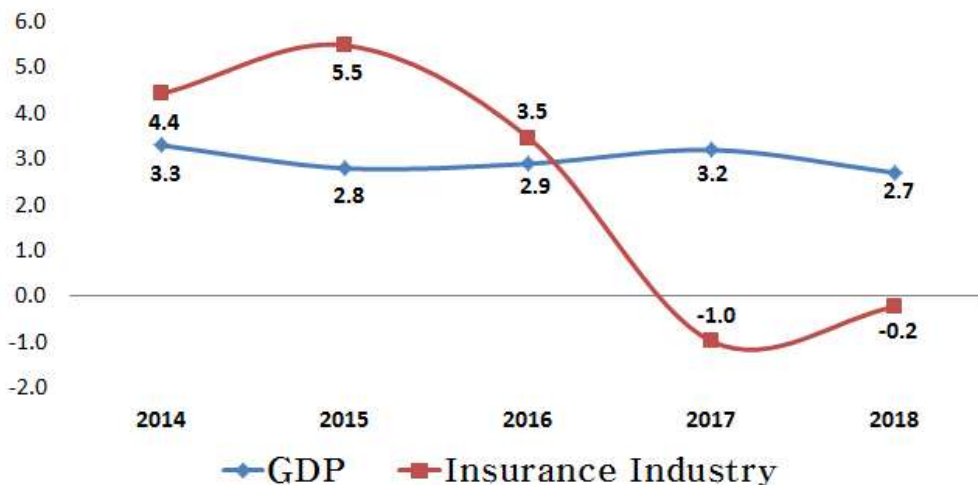
In 2018, the Korean insurance industry reported a 0.2 percent reduction of written premiums while GDP grew by 2.7 percent. Life insurance companies started to reduce the sales of endowment policies as a preparation of upcoming IFRS 17 and it was the major reason for the reduction of insurance industry in 2018.

GDP and Insurance Industry Growth Rate

	2014	2015	2016	2017	Percent 2018
GDP	3.3	2.8	2.9	3.2	2.7
Life ₁	1.9	6.0	2.2	-4.9	-2.7
Non-Life ₂	8.4	4.7	5.3	4.6	3.1
Insurance	4.4	5.5	3.5	-1.0	-0.2

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, 2014-2018



Life insurance premiums to GDP ratio in 2018 was 6.2 percent, showing a downward trend since 2015, while non-life insurance premiums to GDP ratio had been stable for four years, reaching 5.0 percent in 2018.

Premiums as a percentage of GDP

	2014	2015	2016	2017	Percent 2018
Life	7.4	7.5	7.3	6.6	6.2
Non-Life	5.1	5.1	5.1	5.0	5.0
Total	12.5	12.6	12.4	11.6	11.3

Sources: KIDI, Monthly Insurance Statistics

Bank of Korea - Main Annual Indicators (reference year 2010, 2000~)

In 2018, premiums per capita (insurance density) was 3,891 thousand won, decreased by 0.7 percent compared to the previous year. It was mainly due to the decrease in the insurance density of life insurance, declined from 2,219 to 2,148 thousand won while the insurance density of non-life insurance increased from 1,699 to 1,743 thousand won. It is showing a downward trend since 2016 as written premiums in life insurance started to decline in that year.

Premiums Per Capita

	2014	2015	2016	2017	Thousand won 2018
Life	2,179	2,298	2,339	2,219	2,148
Non-Life	1,491	1,553	1,629	1,699	1,743
Total	3,670	3,851	3,968	3,918	3,891

Note: Estimated population by Korea National Statistical Office

Source: KIDI, Monthly Insurance Statistics

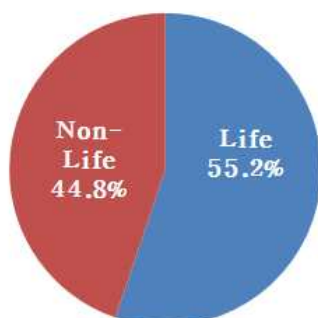
In 2018, non-life insurance in written premiums grew 3.1 percent while life insurance in written premiums declined 2.7 percent from the previous year.

Written premiums

	2014	2015	2016	2017	Billion won 2018
Life	110,575	117,214	119,811	113,974	110,843
Non-Life	75,656	79,229	83,439	87,282	89,971
Total	186,231	196,443	203,250	201,256	200,814

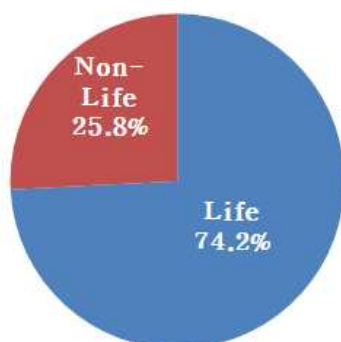
Source: KIDI, Monthly Insurance Statistics

Written premiums of Life & Non-Life Insurance



- In 2018, shares of written premiums for life and non-life insurance were 55.2 percent and 44.8 percent each.

Total Asset of Life & Non-Life Insurance



- In 2018, shares of total asset size of life and non-life insurance were 74.2 percent and 25.8 percent each.

The total asset size of insurance has grown by 7.6 percent per annum for the past four years. In 2018, it recorded 1,155 trillion won, of which life and non-life each accounted for 857 trillion won and 298 trillion won each.

Total Asset

	2014	2015	2016	2017	2018
	Trillion won, %				
Life	662 (10.9)	725 (9.5)	782 (7.9)	833 (6.5)	857 (2.9)
Non-Life	200 (17)	226 (13)	252 (11.5)	277 (9.9)	298 (7.6)
Total	862 (12.2)	951 (10.3)	1,034 (8.7)	1,110 (7.4)	1,155 (4.1)

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 31 non-life insurance companies in Korea. 20 out of 31 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.	The-K Non-life Insurance Co., Ltd.	○	○
Chubb Life Insurance Korea Co., Ltd.	BNP PARIBAS CARDIF General Insurance Co., Ltd.	×	○

LINA Life Insurance Co., Ltd.	General Re Insurance Company Korea	×	○
American International Assurance	Swiss Re Insurance Company Korea	×	○
IBK Pension Insurance	Munich Re Insurance Company Korea	×	○
NongHyup Life Insurance Co., Ltd	Tokio Marine & Nichido Fire Insurance Co., Ltd.	×	○
Kyobo Lifeplanet Insurance Company	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	x	○

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

The number of employees and solicitors hired by non-life insurance companies is approximately 1.4 times more than the number of those hired by life insurance companies. Moreover, non-life insurance companies have 4.4 times more agencies than life insurance companies.

Employee and Distribution Channel by Insurance Business

	Branch Offices	Employees	Solicitors	Agencies
Life	3,318	25,440	112,595	6,224
Non-Life	2,910	34,346	171,641	27,642

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, total written premiums have grown from 75,589 billion won in 2014 to 89,971 billion won in 2018. The growth of written premiums in 2018 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	
2014	12,886	5.4	48,497	5.2	1,271	-1.1	729	-2.0	307	-3.5	11,900	31.2	75,589	
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	

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

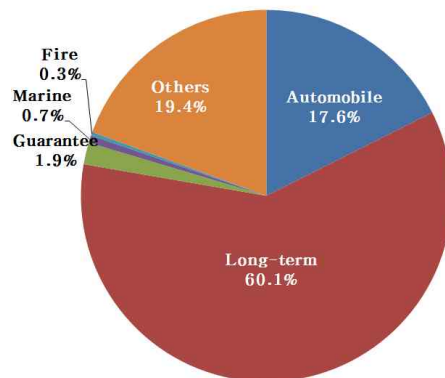
2. Others include casualty, personal accident, retirement insurance and etc.

3. % refers to annual change

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

Written premiums by Line of Business

- In 2018, the amount of written premiums in long-term insurance reached 54.1 trillion won, which accounted for 60.1 percent of the non-life insurance market.
- Automobile insurance came second with 15.8 trillion won (17.6%), followed by Guarantee insurance with 1.9 percent and Marine with 0.7 percent.



In 2018, long-term insurance and automobile insurance recorded high loss ratios of 84.2 percent and 85.9 percent each, while Guarantee and Fire insurance showed relatively low incurred loss ratios of 46.8 percent and 51.0 percent each. Loss ratios of Guarantee, Marine and Fire insurance seemed relatively stable, ranging from 40 to 70 percent for the past four years compared to the ones in automobile and long-term insurances.

Automobile

	Billion won, %		
	EP ₁	IL ₂	L/R
2014	12,477	10,970	87.9
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

Long-term

	Billion won, %		
	EP ₁	IL ₂	L/R
2014	47,834	41,813	87.4
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

Guarantee

	Billion won, %		
	EP ₁	IL ₂	L/R
2014	1,253	600	47.9
2015	1,240	656	52.9
2016	1,308	548	41.9
2017	1,341	590	44.0
2018	1,415	663	46.8

Marine

	Billion won, %		
	EP ₁	IL ₂	L/R
2014	309	184	59.8
2015	317	232	73.1
2016	301	218	72.4
2017	295	164	55.5
2018	284	187	65.6

Fire

	Billion won, %		
	EP ₁	IL ₂	L/R
2014	268	148	55.4
2015	272	136	49.8
2016	275	155	56.4
2017	255	122	48.0
2018	259	132	51.0

Others

	Billion won, %		
	EP ₁	IL ₂	L/R
2014	6,315	4,424	70.1
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

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 roughly 67.6 percent of the total written premiums in the non-life insurance market. In 2018, Samsung F&M had the largest share, 23.8 percent, followed by Hyundai M&F with 16.7 percent, DB Insurance with 14.7 percent and KB insurance with 12.4 percent.

Written premiums and Market Share by Non-Life Insurance Company

Company	Written premiums	Share(%)
Samsung	21,418	23.8
Hyundai	15,046	16.7
DB	13,193	14.7
KB	11,145	12.4
Meritz	7,043	7.8
Hanwha	5,562	6.2
Lotte	5,168	5.7
Heungkuk	3,051	3.4
Nonghyup	3,289	3.7
SGIC	1,694	1.9
MG	1,044	1.2
AXA	693	0.8
AIG	566	0.6
The-K	458	0.5
Others	600	0.7
Total	89,971	100.0

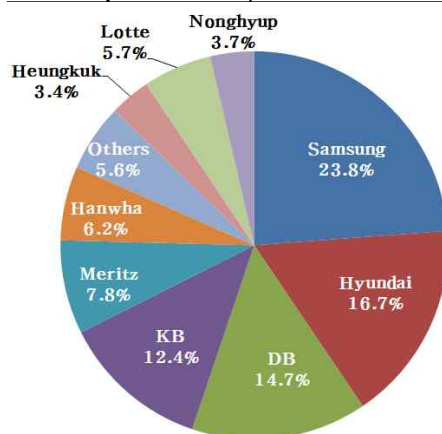
Billion won

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

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 2018, as shown in the table below, expenses incurred by automobile and fire insurance have decreased by 5.1 percent, 2.7 percent each, compared to the previous year, while expenses of long-term, guarantee, marine and others insurance have increased by 10.1 percent, 13.4 percent, 6.0 percent and 5.3 percent accordingly.

Expenses by Line of Business

	Billion won												
	Automobile	%	Long-term	%	Guarantee	%	Marine	%	Fire	%	Others	%	Total
2014	2,536	0.2	8,334	1.1	188	-26.5	107	-17.8	126	-8.9	1,431	-6.6	12,721
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

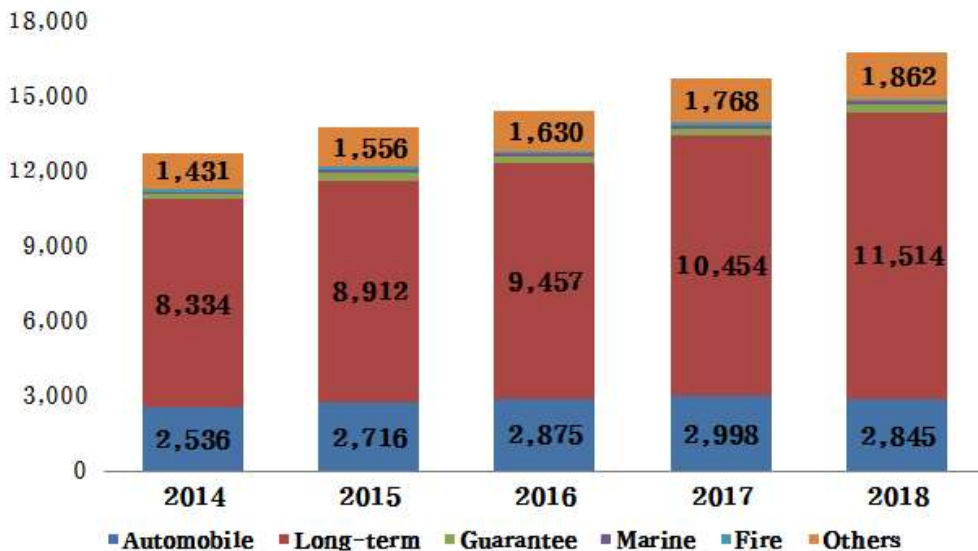
Note: 1. Long-term insurance includes Annuity

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 have constantly been in deficit for a long time. Especially, the underwriting result of the automobile insurance has deteriorated to the previous year, recorded -725 billion won in 2018.

Underwriting Results by Line of Business

	Billion won												
	Automobile	%	Long-term	%	Guarantee	%	Marine	%	Fire	%	Others	%	Total
2014	-1,103	-16.2	-2,313	-27.1	465	1,070.5	17	679.3	-6	-122.9	460	0.0	-2,480
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

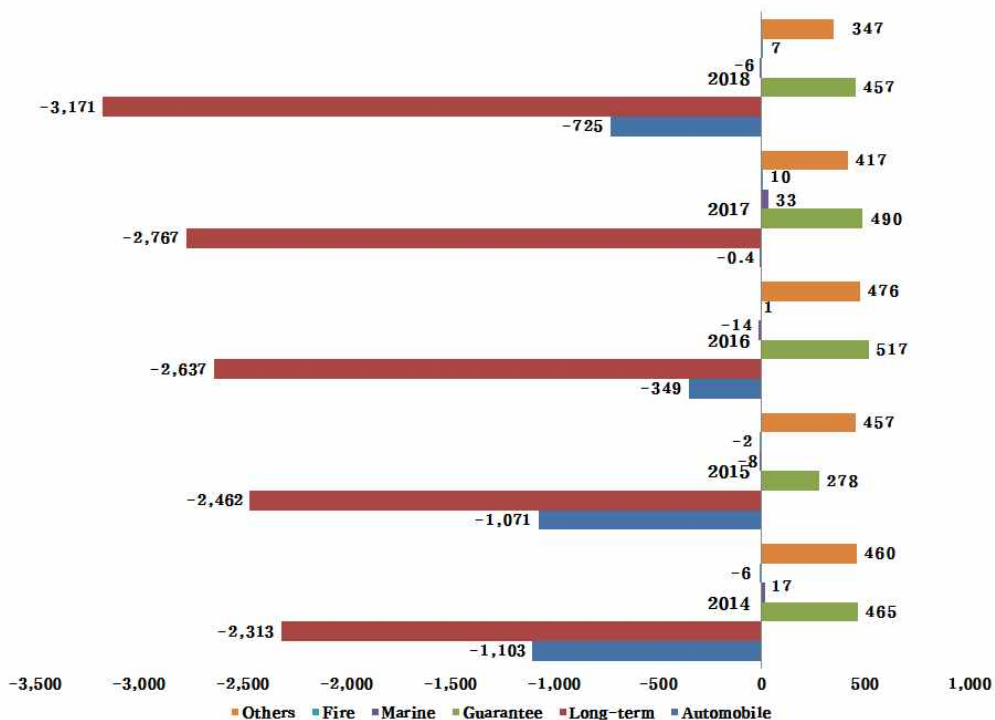
Note: 1. Long-term insurance includes Annuity

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 has constantly increased for the past four years. Last year, it grew by 3.0 percent, respectively 2.7 percent for personal vehicles and 7.9 percent for commercial vehicles. However, its growth rate declined since 2015 due to economic uncertainty.

Number of Registered Vehicles

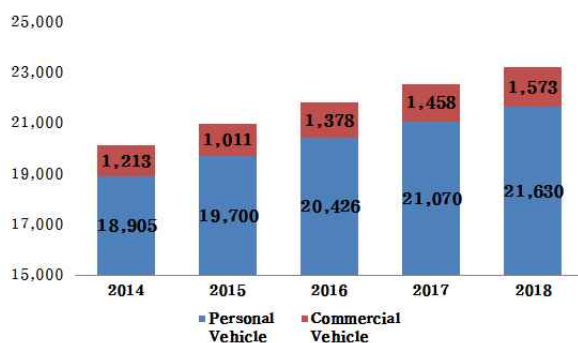
	2014	2015	2016	2017	2018
	Thousand, %				
Personal Vehicle	18,905	19,700	20,426	21,070	21,630
	3.4	4.2	3.7	3.2	2.7
Commercial Vehicle	1,213	1,290	1,378	1,458	1,573
	7.7	6.3	6.8	5.8	7.9
Total	20,118	20,990	21,803	22,528	23,203
	3.7	4.3	3.9	3.3	3.0

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)

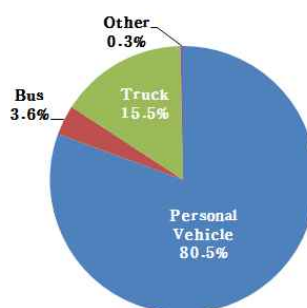
As shown in the pie chart below, personal vehicles had the largest share with 80.5 percent in 2018, followed by trucks with 15.5 percent, and buses with 3.6 percent.

Trends in number of registered vehicles



Note: Motorcycles are excluded
 Source: MOLIT

Types of Vehicles

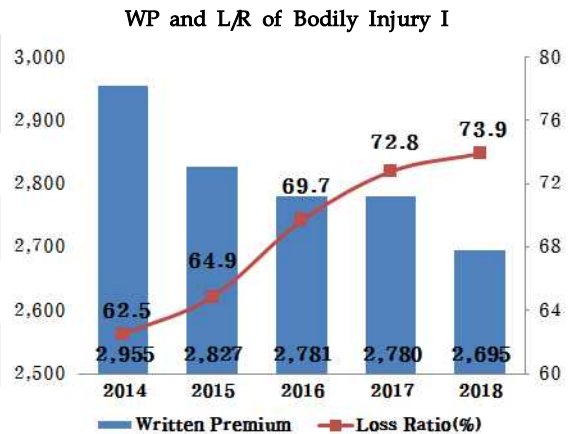


Note: Motorcycles are excluded
 Source: MOLIT

2. Written premiums and Incurred Losses

In 2018, written premiums of Bodily Injury Liability Coverage I recorded 2,695 billion won, slightly decreased compared to the previous year. The loss ratio slightly increased from 72.8 percent in 2017 to 73.9 percent in 2018.

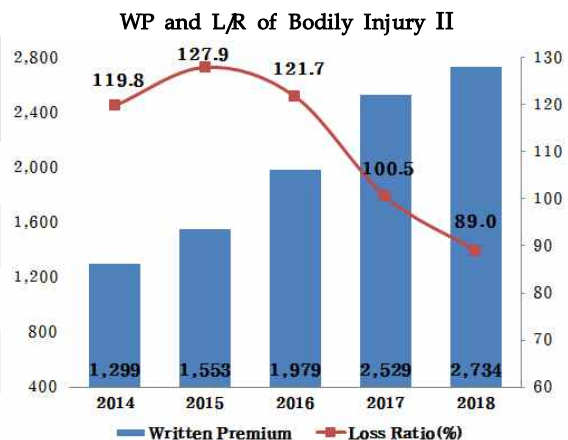
Bodily Injury Liability Coverage I				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	2,955	2,962	1,851	62.5
2015	2,827	2,877	1,866	64.9
2016	2,781	2,797	1,949	69.7
2017	2,780	2,744	1,997	72.8
2018	2,695	2,698	1,994	73.9



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

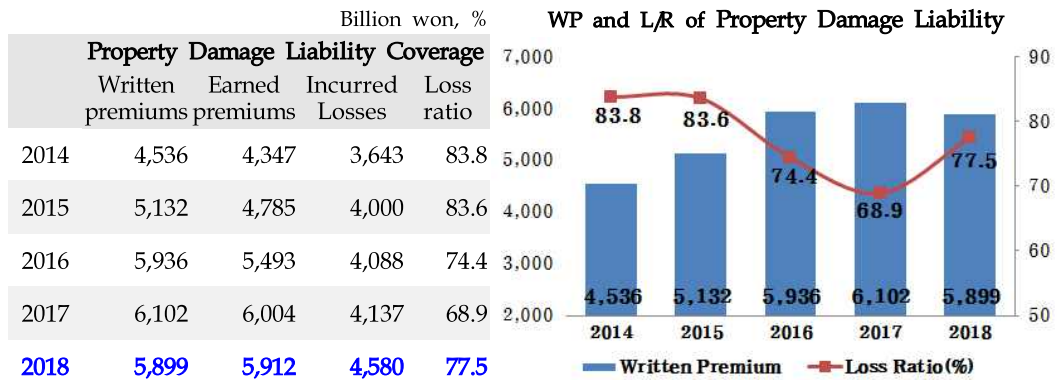
Written premiums of Bodily Injury Liability Coverage II were 2,734 billion won, which dramatically increased compared to the previous year. The loss ratio had improved since 2015, reached to 89.0 percent in 2018.

Bodily Injury Liability Coverage II				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	1,299	1,260	1,509	119.8
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



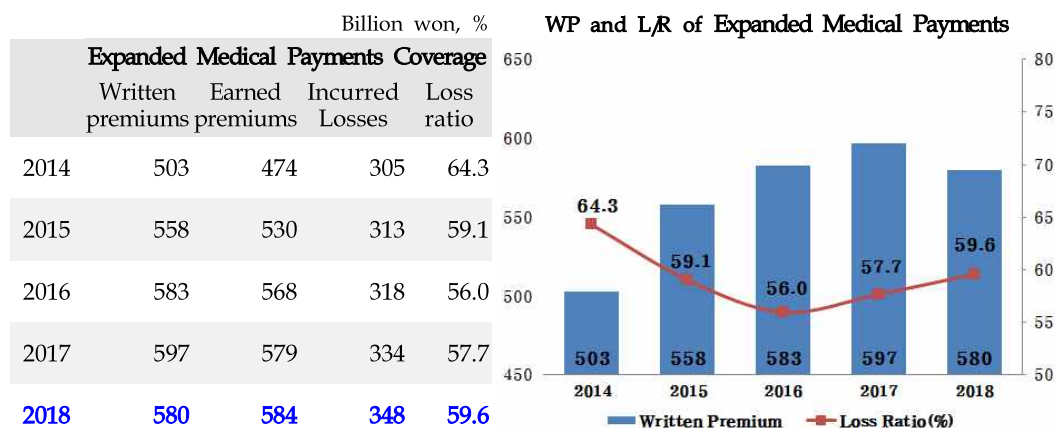
Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

Written premiums of Property Damage were 5,899 billion won, decreased by 3.3 percent compared to the previous year. The loss ratio of property damage liability had improved from 2014 to 2017 due to the efforts put into stabilizing highly recorded losses in the previous years. However, it was turned into an increase in 2018 again 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

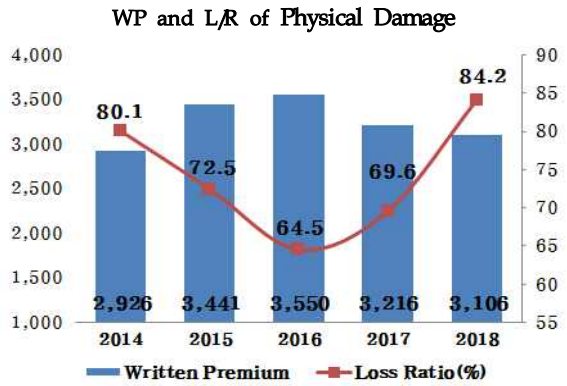
Earned premiums of Expanded Medical Payments Coverage decreased by 17 billion won compared to the previous year, whereas Incurred Losses increased by 1.9 point percent in 2018. The loss ratio is showing an increasing trend since 2016, but still not as high as the other coverages.



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

Written premiums for Physical Damage Coverage were 3,106 billion won, decreased by 110 billion won compared to the previous year, but the loss ratio tremendously increased by 14.6 percent point in 2018.

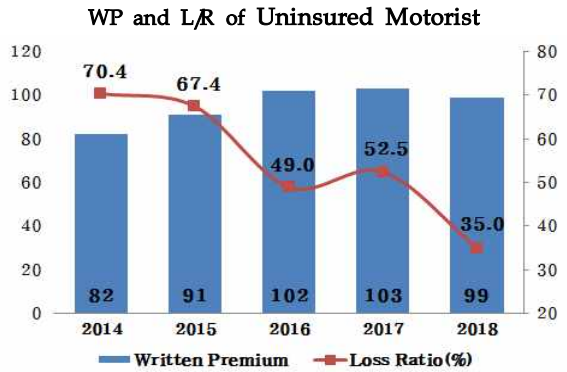
Physical Damage Coverage				
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	2,926	2,796	2,240	80.1
2015	3,441	3,137	2,274	72.5
2016	3,550	3,518	2,270	64.5
2017	3,216	3,347	2,329	69.6
2018	3,106	3,091	2,602	84.2



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

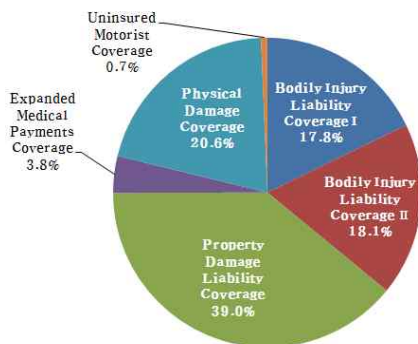
Written premiums for Uninsured Motorist Coverage have been stable for the last four years. The loss ratio decreased from 52.5 percent in 2017 to 35.0 percent in 2018.

Uninsured Motorist Coverage				
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	82	81	57	70.4
2015	91	86	58	67.4
2016	102	96	47	49.0
2017	103	101	53	52.5
2018	99	100	35	35.0



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

Written premiums by Coverage



- Property Damage, being 39.0 percent, accounted for the largest share of written premiums by coverage, followed by Physical Damage with 20.6 percent, and Bodily Injury II with 18.1 percent.
- The sum of ratios for Property Damage Liability Coverage and Physical Damage Coverage is 59.6 percent, accounting for more than half of its total loss.

Written premiums by Insurance Company, 2014~2018

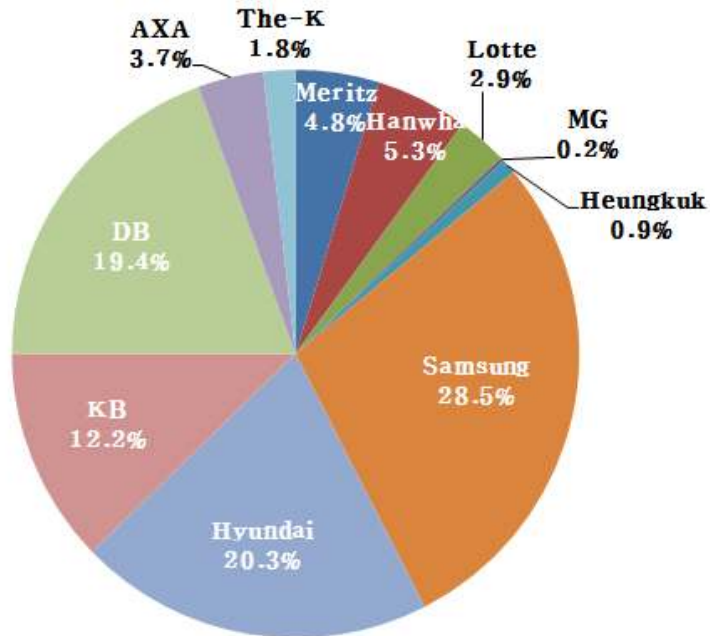
Billion won, %

Company	2014	M/S	2015	M/S	2016	M/S	2017	M/S	2018	M/S
Meritz F&M	663	5.2	705	5.0	707	4.6	772	4.8	747	4.8
Hanwha Non-life Insurance	571	4.4	655	4.6	796	5.2	831	5.2	827	5.3
Lotte Non-life Insurance	435	3.4	481	3.4	461	3.0	434	2.7	454	2.9
MG Non-life Insurance	67	0.5	73	0.5	45	0.3	39	0.2	32	0.2
Heungkuk F&M	250	1.9	272	1.9	237	1.5	156	1.0	134	0.9
Samsung F&M	3,614	28.1	4,020	28.4	4,544	29.5	4,555	28.6	4,485	28.5
Hyundai M&F	2,124	16.5	2,584	18.3	2,977	19.3	3,162	19.9	3,186	20.3
KB Insurance	1,630	12.7	1,730	12.2	1,911	12.4	1,982	12.4	1,925	12.2
DB Insurance	2,179	17.0	2,432	17.2	2,799	18.2	3,054	19.2	3,056	19.4
American Insurance Group	4	0.0	0	0.0	0	0.0	0	0.0	0	0.0
AXA Non-life Insurance	612	4.8	656	4.6	631	4.1	636	4.0	589	3.7
The-K Non-life Insurance	279	2.2	307	2.2	314	2.0	308	1.9	287	1.8
Hyundai Hicar Direct	416	3.2	231	1.6	-4	0.0	0	0.0	0	0.0
Total	12,844	100.0	14,146	100.0	15,418	100.0	15,929	100.0	15,721	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

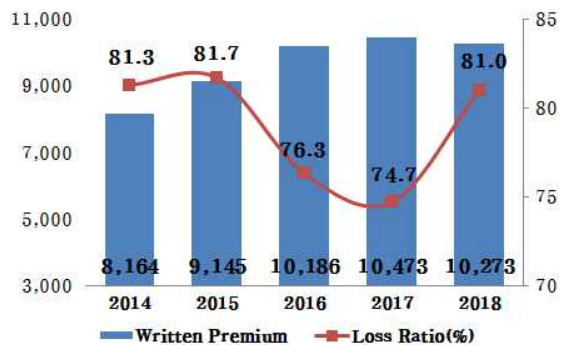


3. Written premiums and Incurred Losses by Line of Automobile Insurance

Written premiums in private automobile decreased by 1.9 percent, recorded 10,273 billion won in 2018. The loss ratio in private automobile insurance also turned into an increase in 2018, recorded 81.1 percent, which was an increase of 6.3 percent point compared to 2017.

Private Automobile Insurance				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	8,164	7,941	6,454	81.3
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

WP and L/R of Private Auto Insurance

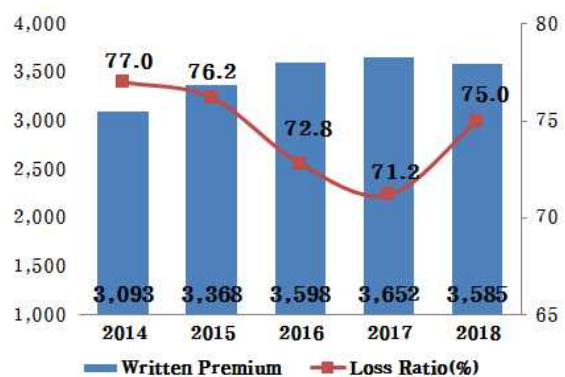


Note: Loss Adjustment Expenses are excluded
Source: KIDI, Monthly Automobile Statistics

Written premiums in business automobiles also decreased by 1.8 percent, recorded 3,585 billion won in 2018. The loss ratio increased by 3.8 percent point to the previous year, recorded 75.0 percent in 2018.

Business Automobile Insurance				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	3,093	2,992	2,303	77.0
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

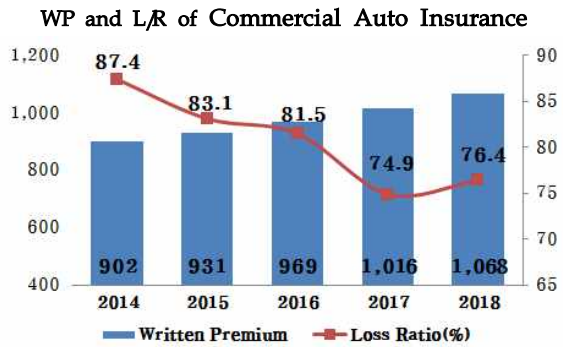
WP and L/R of Business Auto Insurance



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

Written premiums in commercial automobile insurance recorded 1,068 billion won in 2018, which is a growth by 5.1 percent compared to the previous year. The loss ratio slightly increased by 1.5 percent point, recorded 76.4 percent in 2018.

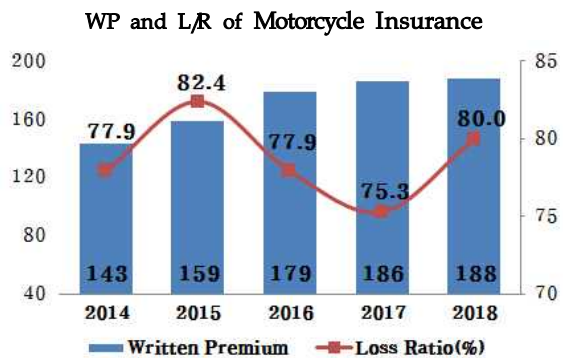
Commercial Automobile Insurance				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	902	848	741	87.4
2015	931	920	764	83.1
2016	969	955	779	81.5
2017	1,016	989	741	74.9
2018	1,068	1,030	787	76.4



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

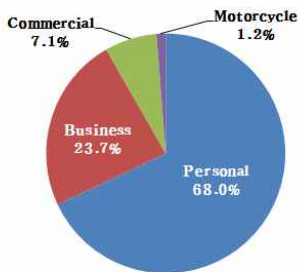
Written premiums in Motorcycle insurance recorded 188 billion, and loss ratio of Motorcycle insurance was 80.0 percent in 2018.

Motorcycle Insurance				
	Billion won, %			
	Written premiums	Earned premiums	Incurred Losses	Loss ratio
2014	143	140	109	77.9
2015	159	151	124	82.4
2016	179	171	133	77.9
2017	186	184	138	75.3
2018	188	186	149	80.0



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

Written premiums by Line of Automobile insurance



- Private automobile insurance, total of 68.0 percent, had the largest share of written premiums, followed by business automobile insurance with 23.7 percent, commercial automobile insurance with 7.1 percent, and motorcycle insurance with 1.2 percent.

4. Accident Statistics

4-1. General Accident

The number of car accidents increased by 0.4 percent to the previous year, while the number of registered vehicles increased by 3.0 percent in 2018. As a result, the accident rate dropped from 1.0 to 0.9 percent compared to the previous year.

Accident Number and Accident rate

	Number of Accidents	Annual change	Accident rate	Number of Registered Vehicles	Cases, % Annual change
2014	223,552	3.8	1.1	20,117,955	3.7
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

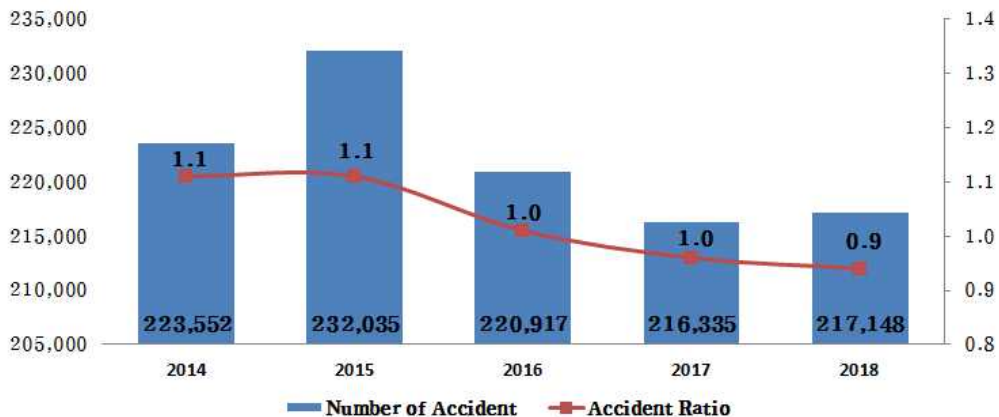
Note: 1. Annual change refers to the growth rate compared to the previous year

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 80.4 cases in 2018, which is a decrease by 6.4 percent compared to the previous year.

Accident Numbers per 10,000 registered vehicles

	2014	2015	2016	2017	Cases, % 2018
# of Accidents	93.7 (0.8)	93.7 (0.0)	86.4 (-7.8)	85.9 (-0.6)	80.4 (-6.4)

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 3,781 and the number of injuries was 323,037 in 2018. The number of deaths by traffic accident has shown a downward trend since 2014 with the decline of the number of injuries in 2018. Fatalities per 100,000 residents continued to fall from 9.4 persons in 2014 to 7.3 persons in 2018. The number of injuries per 100,000 residents also declined to 625.6 in 2018.

Number of Deaths and Injuries

	Number of Deaths	Persons Number of Injuries
2014	4,762	337,497
2015	4,621	350,400
2016	4,292	331,720
2017	4,185	322,829
2018	3,781	323,037

Source: NPA, Traffic Accident Statistics

Number of Deaths and Injuries per 100,000 Population

	Number of Deaths	Persons Number of Injuries
2014	9.4	669.3
2015	9.1	692.3
2016	8.4	653.0
2017	8.1	627.5
2018	7.3	625.6

Source: NPA, Traffic Accident Statistics

As shown in the table below, the total number of accident for traffic violations increased slightly in 2018 to 217,148 cases. Careless driving was a major reason for traffic violation, accounting for 56.1 percent. In 2018, most cases of traffic violation went down compared to 2016, especially 4.9 percent decrease in crossing center line cases.

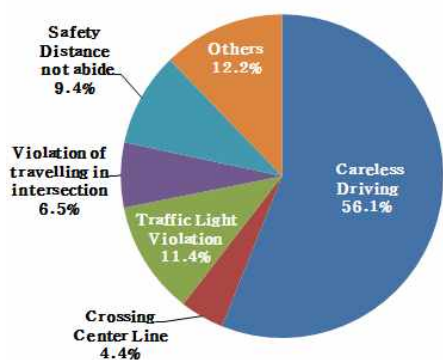
Accident Number by Traffic Violation

	Cases												
	Careless Driving	%	Crossing Center Line	%	Traffic Light Violation	%	Violation of travelling in intersection	%	Safety Distance not abide	%	Others	%	Total
2014	126,329	56.5	12,092	5.4	25,702	11.5	14,341	6.4	20,678	9.2	24,410	10.9	223,552
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

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

Source: NPA, Traffic Accident Statistics

Share of Accidents by Traffic Violation



- In 2018, Careless Driving was the major cause of traffic violations, accounting for 56.1 percent.
- Traffic Light Violation came second with 11.4 percent, followed by Safety Distance not Abide with 9.4 percent, and Intersection Violation with 6.5 percent.

In 2018, the number of traffic accidents by drunk drivers was 19,381, a decrease of 0.7 percent from the previous year. The percentage of drinking and driving accidents was 8.9 percent of total traffic accidents.

Accident Number of Traffic Accidents by Drunk Driver

	2014	2015	2016	2017	Cases, %
Number	24,043	24,399	19,769	19,517	19,381
Rate ₁	10.8	10.5	8.9	9.0	8.9

Note: ₁Share of accidents by drunk drivers

Source: NPA, Traffic Accident Statistics

The number of traffic accidents by unlicensed drivers was 5,203, 2.4 percent of the total number of traffic accidents in 2018. The share of traffic accidents by unlicensed drivers fell as low as 1.8 percent in 2016 and increased to 2.4 percent in 2018.

Number of Traffic Accidents by Unlicensed Drivers

	2014	2015	2016	2017	Cases, % 2018
Number	6,548	6,035	3,993	5,134	5,203
Rate ₁	2.9	2.6	1.8	2.4	2.4

Note: ₁Share of accidents by unlicensed drivers

Source: NPA, Traffic Accident Statistics

The number of traffic accidents by hit-and-run drivers was 7,601 accounting for 3.5 percent of the total number of traffic accidents in 2018. The share of traffic accidents by hit-and-run drivers had decreased from 4.1 percent in 2015 to 3.5 percent in 2018.

Number of Traffic Accidents by Hit-and-Run Drivers

	2014	2015	2016	2017	Cases, % 2018
Number	8,771	9,513	8,326	7,883	7,601
Rate ₁	3.9	4.1	3.8	3.6	3.5

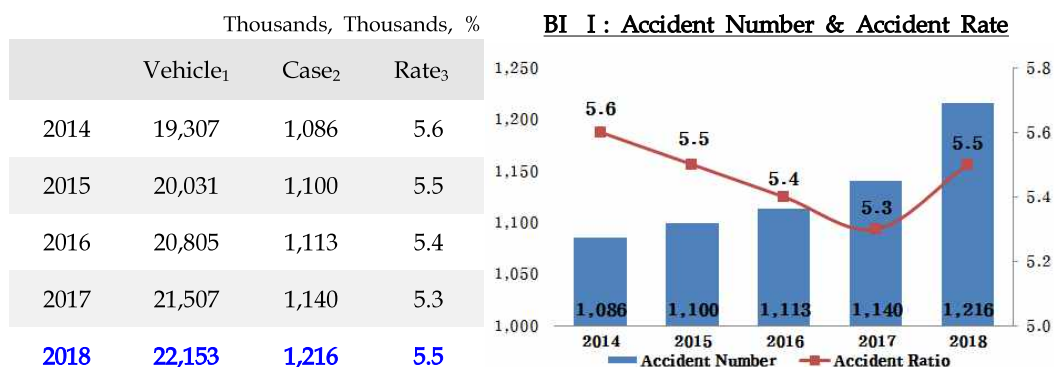
Note: ₁Share of accidents by hit-and-run drivers

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 dramatically increased by 6.7 percent in 2018, which is considered to be one of the main reasons for underperformance.

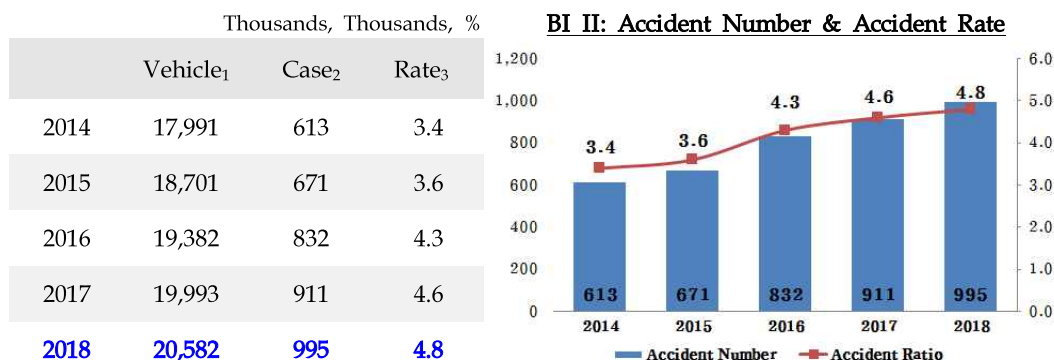
Bodily Injury I Accident Rate



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 have increased continuously for the past four years.

Bodily Injury II Accident Rate



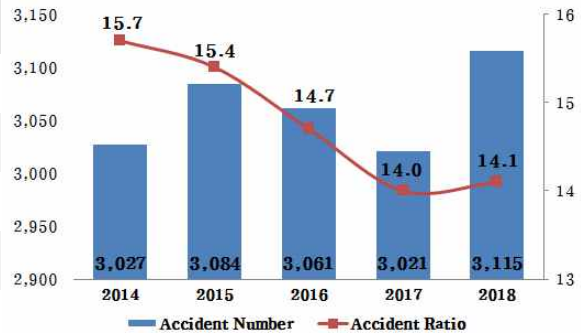
Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate
Source: KIDI, Annual Automobile Insurance Statistics

The accident rate of Property Damage increased by 0.1 percent point to 14.1 percent in 2018. The number of accidents recorded 3,115 thousand cases, an increase of 3.1 percent compared to the previous year.

Property Damage Accident Rate

	Thousands,	Thousands,	%
	Vehicle ₁	Case ₂	Rate ₃
2014	19,310	3,027	15.7
2015	20,042	3,084	15.4
2016	20,825	3,061	14.7
2017	21,531	3,021	14.0
2018	22,152	3,115	14.1

PD : Accident Number & Accident Rate



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

Both the number of accidents and the accident rate increased by 25.5 percent to 128 thousand cases and 0.1 percent point to 0.6 percent respectively.

Expanded Medical Payments Accident Rate

	Thousands,	Thousands,	%
	Vehicle ₁	Case ₂	Rate ₃
2014	17,720	109	0.6
2015	18,407	104	0.6
2016	19,075	100	0.5
2017	19,710	102	0.5
2018	20,356	128	0.6

EMP : Accident Number & Accident Rate

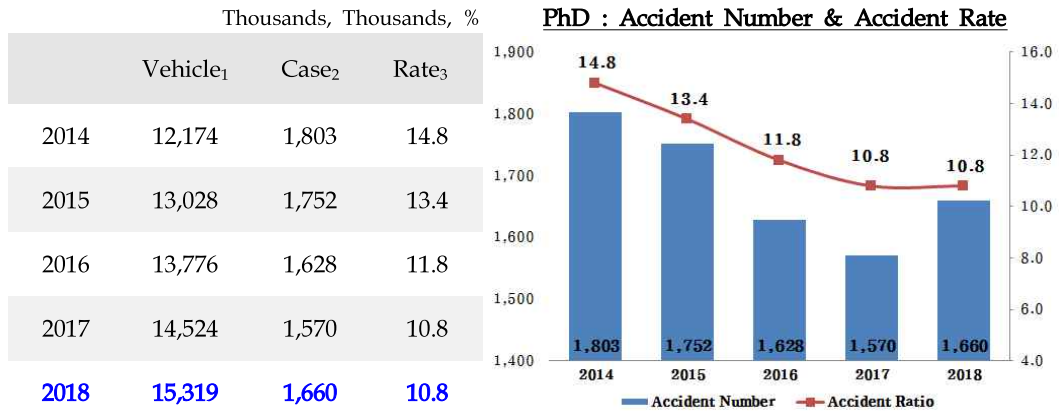


Note: ₁Number of insured vehicles per year, ₂Number of accidents, ₃Accident rate
Source: KIDI, Annual Automobile Insurance Statistics

The number of accidents of physical damage increased by 5.7 percent, recorded 1,660 thousand cases in 2018. The accident rate stayed at 10.8 percent in 2018.

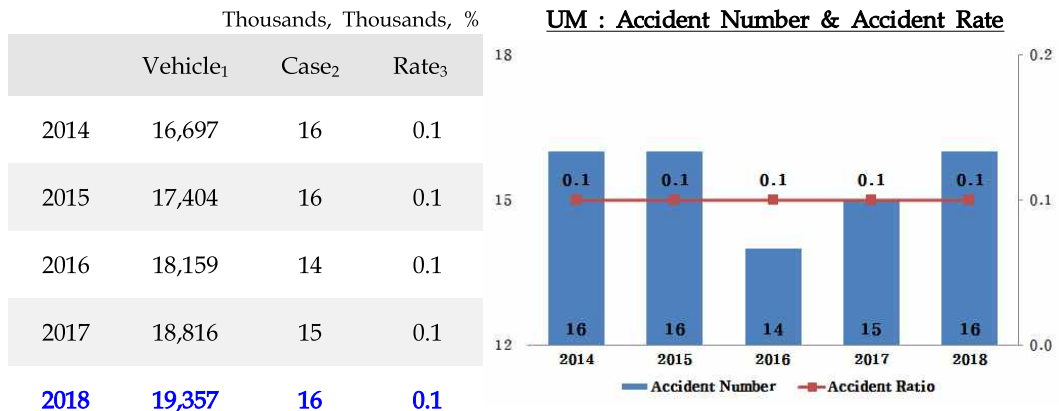
In every coverage, the number of accidents increased by 3.1 percent to 25.5 percent, which tremendously increased the losses generated in 2018 by 7.0 percent in total.

Physical Damage Accident Rate



The accident number of uninsured motorists recorded 16 thousand cases in 2018, which has been fluctuating a little for many years, whereas the accident rate of uninsured motorists stayed the same at 0.1 percent for the past four years.

Uninsured Motorist Accident Rate

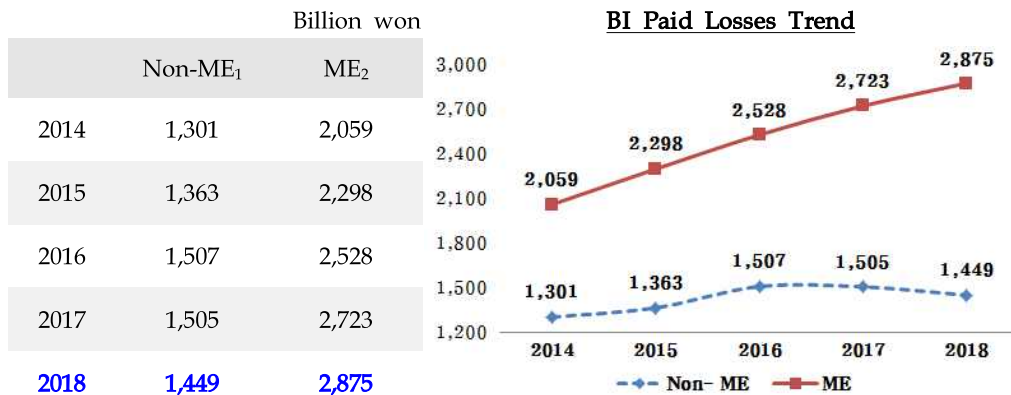


5. Losses

5-1. Bodily Injury Losses

Medical expenses for bodily injury loss accounted for 66.5 percent of the total paid losses. Meanwhile, non-medical expenses such as Solatium and Lost Earnings accounted for 33.5 percent. Details of the paid losses for death, injury and disability are as follows.

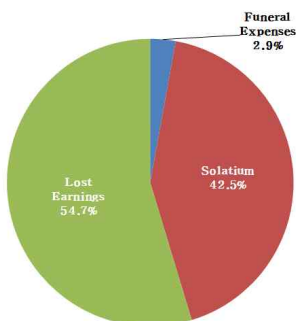
BI Paid Losses Trend



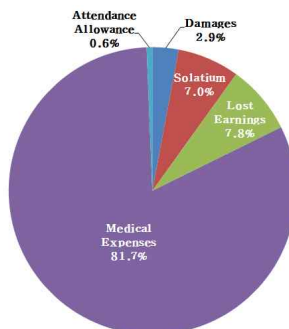
Note: 1. ₁Non-Medical Expenses, ₂Medical Expenses
 2. Non-Medical expenses include Solatium, Lost Earnings and etc.
 3. Paid Losses are based on the payment of closed claims
 Source: KIDI, Annual Automobile Insurance Statistics

Paid Losses by Type of Payment

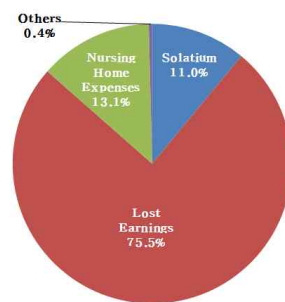
Paid Losses for Death



Paid Losses for Injury



Paid losses for Permanent Disability



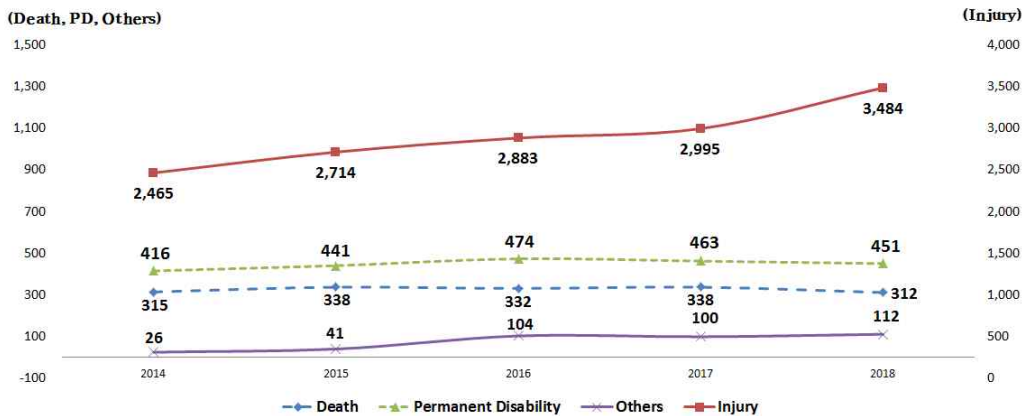
Injury in Bodily Injury paid losses accounted for 79.9 percent of the total paid losses, which is an increase of 3.1 percent point in a single year. On the other hand, both the shares of Death and Permanent Disability have decreased as a result of the increase in the share of injury. It claims that car accidents occurred more frequently, but its severity has lessened.

Bodily Injury Paid Losses Trend

	Billion won, %									
	Death Share		Injury Share		Permanent Disability Share		Others Share		Total	
2014	315	9.8	2,465	76.5	416	12.9	26	0.8	3,222	
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	

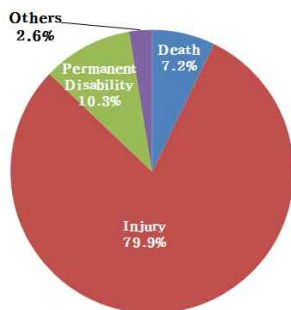
Note: Paid Losses are based on the payment of closed claims

Bodily Injury Paid Losses Trend



Source: KIDI, Annual Automobile Insurance Statistics

Bodily Injury Paid Losses



- Among the total paid losses of Bodily Injury, shares of Injury, Permanent Disability, and Death were each 79.9 percent, 10.3 percent, and 7.2 percent respectively in 2018

5-2. Property Damage Losses

Property damage paid losses of 2018 was 4,084 billion won, an increase by 9.6 percent compared to the previous year, and more than 1.26 times increase during the past four years. The share of wages and auto parts were 45.7 percent and 40.5 percent of the total losses each.

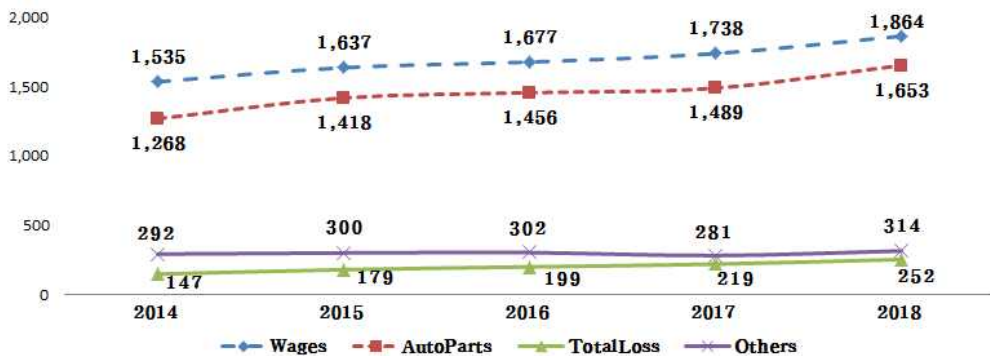
Property Damage Paid Losses Trend

	Billion won, %								
	Wages	Share	Auto Parts	Share	Total Loss	Share	Others	Share	Total
2014	1,535	47.3	1,268	39.1	147	4.5	292	9.0	3,242
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

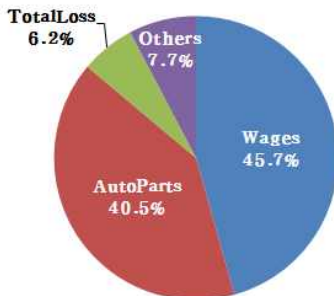
Note: Paid Losses are based on the payment of closed claims

Source: KIDI, Annual Automobile Insurance Statistics

Property Damage Paid Losses Trend



Property Damage Paid Losses



- Wages (45.7 percent of losses in Property Damage), and auto parts (40.5 percent of losses in Property Damage) accounted for 86.2 percent of the total amount in 2018.

5-3. Physical Damage Losses

Physical Damage Paid Losses amounted to 3,178 billion won in 2018, increased substantially by 11.7 percent compared to the previous year. Share of total loss has increased from 13.4 percent in 2017 to 14.3 percent in 2018 due to the heavy rain.

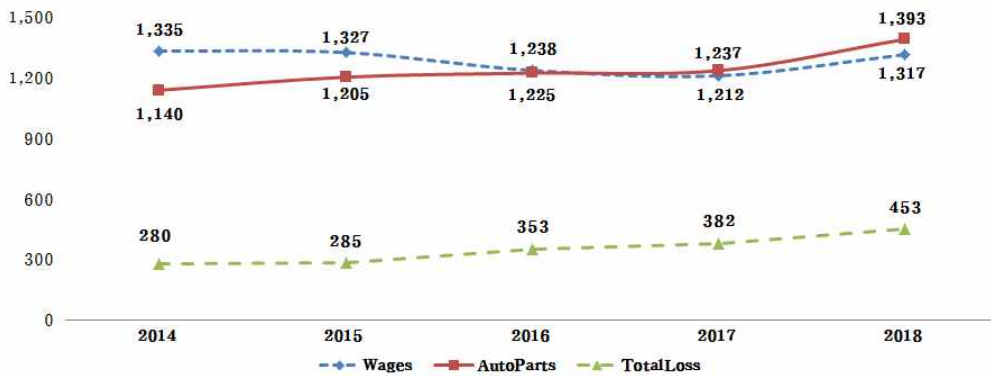
Physical Damage Paid Losses Trend

	Billion won, %								
	Wages	Share	Auto Parts	Share	Total Loss	Share	Others	Share	Total
2014	1,335	48.2	1,140	41.2	280	10.1	13	0.5	2,768
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

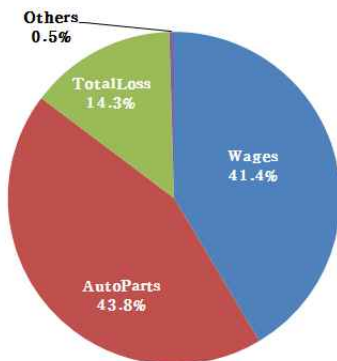
Note: Paid Losses are based on the payment of closed claims

Source: KIDI, Annual Automobile Insurance Statistics

Physical Damage Paid Losses Trend



Physical Damage Paid Losses



- Wages (41.4 percent) and Auto Parts (43.8 percent) in Physical Damage accounted for 85.3 percent of the total paid loss amount in 2018.

6. Expenses and Expense Ratio

Operating Expenses recorded 2,868 billion won and expense ratio was 18.1 percent in 2018, which is a decrease by 0.7 percent point compared to the previous year.

Trends in Expenses and Expense Ratio

	2014	2015	2016	2017	2018
Operating Expenses	2,536	2,733	2,875	2,998	2,868
Expense Ratio	19.9	19.5	18.4	18.8	18.1

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 -739 billion won in 2018. It had improved until 2017, but turned to a deficit by 738 billion won in one year. It is due to the increase in the number of accidents and the rise in the cost of labour rates and auto parts.

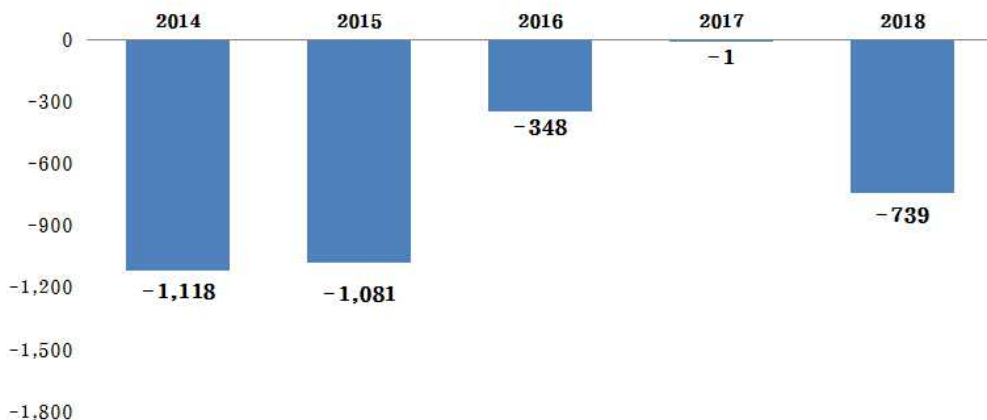
Trends in Underwriting Results

	Billion won, %	
	Underwriting Results	Annual % change
2014	-1,118	-17.9
2015	-1,081	3.4
2016	-348	67.8
2017	-1	99.6
2018	-739	-56,434.0

- Underwriting results have usually been in negative figures, and the fluctuations in annual underwriting results have been wide and irregular.
- As shown from the left table, in 2018, 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

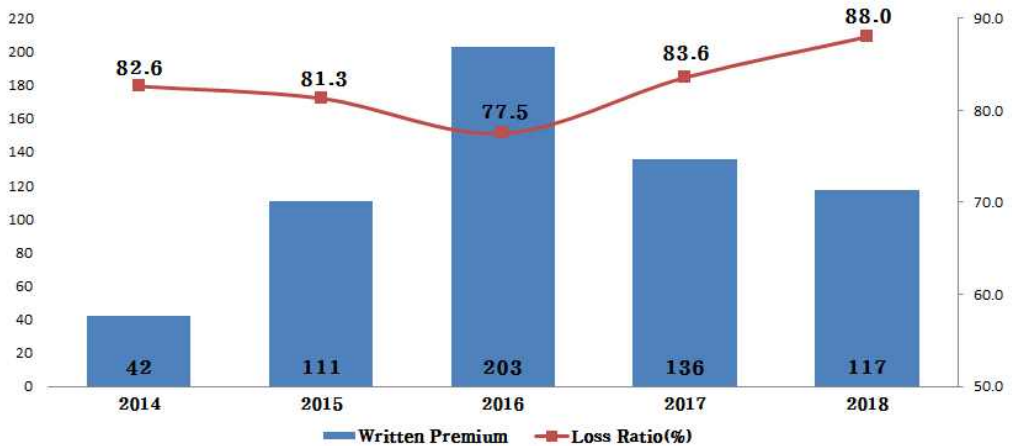
The residual market continues to provide coverage for those who cannot purchase insurance in the regular market. Written premiums for residual market have shrunk since 2016, recorded 117 billion won in 2018. However, the loss ratio has gone up to 88.0 percent, which is an increase by 4.4 percent point compared to the previous year.

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

	Written premiums	Earned premiums	Incurred Losses	loss ratio(%)
2014	42	28	23	82.6
2015	111	75	61	81.3
2016	203	163	126	77.5
2017	136	176	147	83.6
2018	117	119	105	88.0

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%
Group	2	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	Liberal Rate
								Liberalization of Loading Charge	Liberalization of Loading Charge	
'01.1								Liberalization of Pure Premium of Multi-personnel Vehicle		
'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	

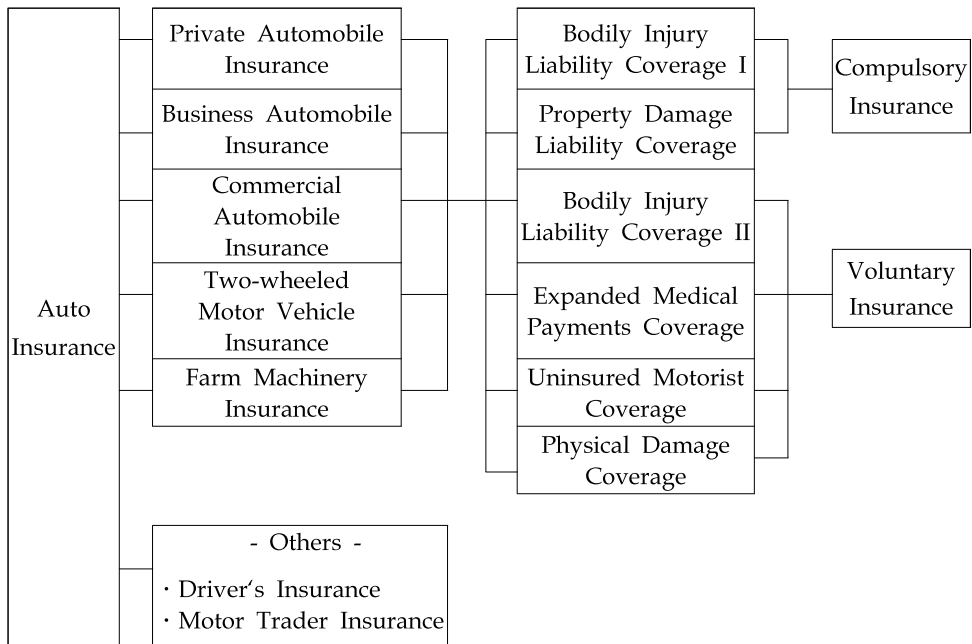
【APPENDICES】

- **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

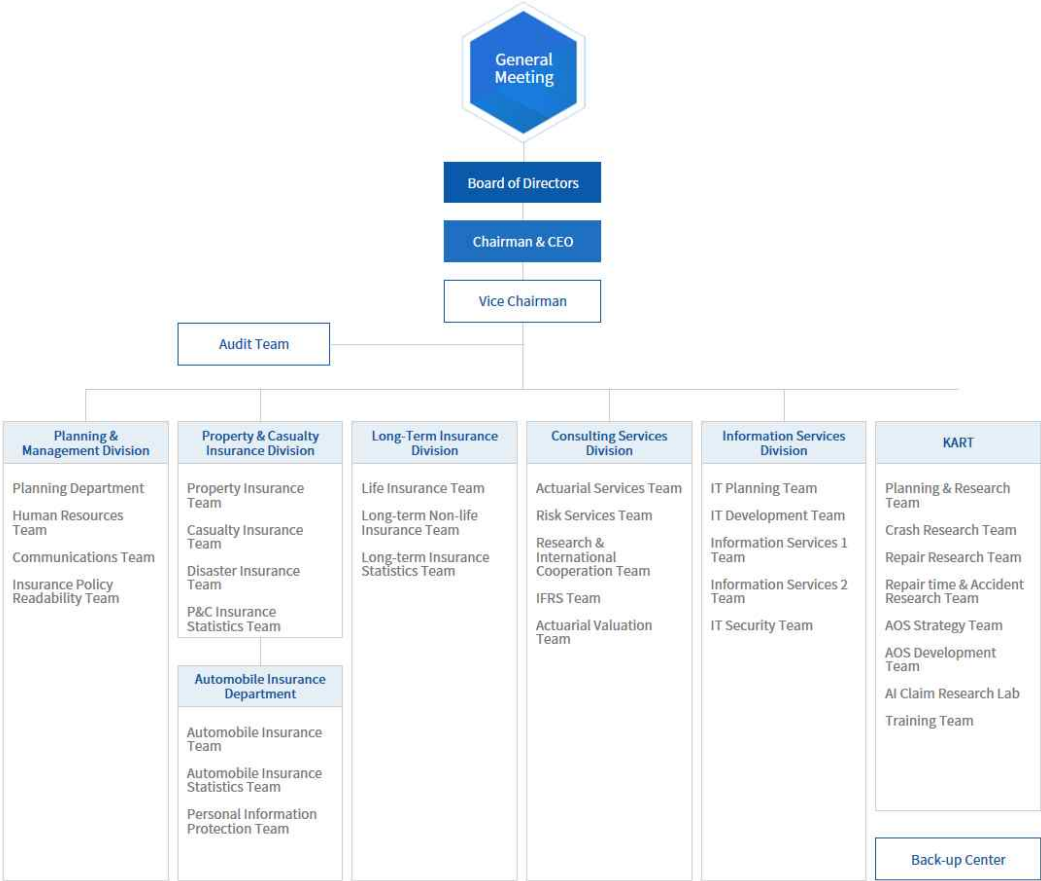
1983. 12. 16	Established Korea Non-life Insurance Rating Association
1988. 12. 31	Insurance Business Law amended to include a provision regarding the legal background for the establishment of an insurance rate-making organization
1989. 11. 18	Officially authorized to establish Korea Insurance Development 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

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.	• The-K Non-life Insurance Co., Ltd.
• Mirae Asset Life Insurance Co., Ltd.	• BNP Paribas Cardif General Insurance Co., Ltd.
• KB Life Insurance Co., Ltd.	• ACE American Fire & Marine Insurance Company Korea, Ltd.
• LINA Life Korea, Ltd.	
• AIA Life Korea, Ltd.	• Mitsui Sumitomo Insurance Co., Ltd. Korea Branch
• Prudential Life Insurance Co. of Korea, Ltd.	
• Orange Life Insurance Co., Ltd.	• Nonghyup Property & Casualty Insurance Co., Ltd.
• HANA Life Co., Ltd.	• Allianz Global Corporate & Specialty Co., Ltd.
• BNP PARIBAS CARDIF Life Insurance 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
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