MAINFIRST

17 January 2019

DEUTSCHE FAMILIENVERSICHERUNG (DFV)

Successful IPO triggers next step in DFV's digital journey

Outperform, Price Target: EUR 17.2

For important disclosure information please see Appendix section at the end of this report

MAINFIRST

Insurance
Germany

DFV

DFV GY | 63 Pages | 17 January 2019

OUTPERFORM

Price Target: EUR 17.2

Successful IPO triggers next step in DFV's digital journey

Deutsche Familienversicherung (DFV), which raised EUR 52.1m of gross proceeds through an IPO, plans to disrupt the traditional insurance industry with superior products, fully digitalised processes, event-based IT, and direct sales capability.

Our investment case is based on highly dynamic customer and revenue growth driven by investments in sales and marketing. The recently announced deal with Henkel shows DFV's growth potential. New innovative products, e.g. product bundle, will be the icing on the cake.

In contrast to many other InsurTechs, we believe that DFV has the right management and all the ingredients it needs to significantly grow its market share in the German insurance market and abroad.

HENKEL / IG BCE COOPERATION: DFV IS DELIVERING ON ITS PROMISES

DFV has started the cooperation with consumer goods manufacturer Henkel on an exclusive supplementary nursing care insurance product for its c.9,000 employees and trainees called Henkelcareflex. The product was launched in cooperation with the Mining, Chemical and Energy Industrial Union (IG Bergbau, Chemie, Energie), which has more than 600,000 members. These co-operations illustrate DFV's expertise in implementing social partnership models and we agree that such insurance co-operations are highly scalable. Additional key drivers are the next product generation, including a comprehensive product bundle and a market entry in other European markets via the EU single passport directive. DFV has set itself an ambitious target of 100,000 new customers in 2019.

DFV: FULLY DIGITALISED INSURER WITH AN OUTSTANDING PRODUCT OFFERING

DFV offers easy-to-use, award-winning products (16 Matrix) via all relevant sales channels, whereof the direct sales channel and Direct Response TV (DRTV) together account for ~75% of total sales. Contract sign-off, policy process, customer service and claims service are fully digitalised. The 'personnel-light' business model is supported by its scalable IT core system, which can accommodate 10x the current client base (that is, up to 5m customers) at little incremental cost. This is operating leverage at its best, and we expect DFV's expense ratio to improve in the medium-term. Direct insurers Hastings Group in the UK, and Allianz-owned Genialloyd in Italy, show that an expense ratio below 20% is achievable.

VALUATION

As with other InsurTech companies, traditional insurance valuation multiples cannot be applied to value DFV. The discounted cash flow model (FCFE) is our preferred valuation model for DFV, as it best captures DFV's entire growth trajectory. We derive a price target of EUR 17.2, which offers 46% upside to the current share price, hence our Outperform rating.

LAST CLOSE (EUR)	**11.8**
MKTCAP (EUR m)	**157**
UPSIDE (%)	**46.4**

CHANGES TO ESTIMATES	**2018E**	**2019E**

YEAR TO DEC (EUR M)	**2016**	**2017**	**2018E**	**2019E**	**2020E**
Business volume	64	71	71	95	123
Net premiums	28	32	37	57	71
Operating result	2	2	(5)	(3)	5
Net result sh. (adj.)	2	1	(4)	(2)	3
EPS (adj.) (EUR)	0.19	0.17	(0.27)	(0.16)	0.24
DPS (EUR)	0.00	0.00	0.00	0.00	0.00
Shareholders' equity	19	19	68	65	69
Total assets	73	94	164	181	204
P/E	0.00	0.00	(43.4)	(75.0)	49.2
Oper. margin (%)	3.2	3.0	-7.6	-3.3	3.9
Dividend yield (%)			0.0	0.0	0.0
P/BV	0.00	0.00	2.32	2.39	2.28
P/TNAV	0.00	0.00	2.32	2.39	2.28
ROE (adj.) (%)	18.3	7.8	-8.3	-3.1	4.7
RONAV (adj.) (%)	9.2	7.6	-5.3	-3.2	4.6
P&C comb. ratio (%)	86.8	93.2	96.1	97.4	94.7

Next event: Q4/FY Results (10 Apr 2019)

ANALYSTS

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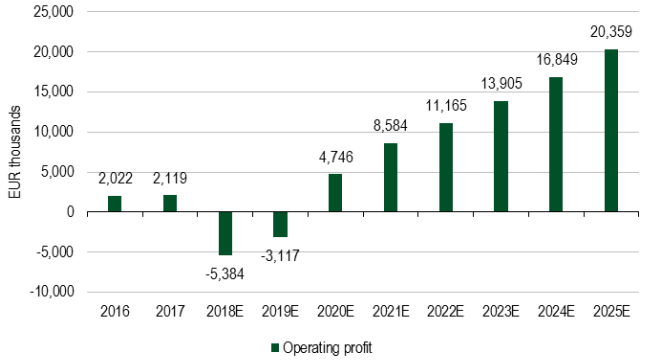
KEY FINANCIALS

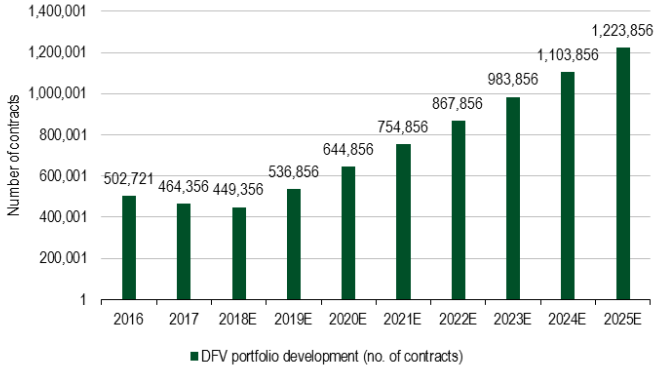
YEAR TO DECEMBER (EUR M)	2016	2017	2018E	2019E	2020E
PROFIT & LOSS ACCOUNT					
Business volume	64	71	71	95	123
Gross written premiums	64	71	71	95	123
Net earned premiums	28	32	37	57	71
Net investment income	(1)	1	1	1	1
Total income	**28**	**33**	**38**	**59**	**73**
Net claims and benefits	17	18	22	35	43
Net administrative expenses	8	11	13	21	25
Other operating expenses	1	2	8	6	1
Total expenses	**26**	**31**	**43**	**62**	**68**
Operating result	**2**	**2**	**(5)**	**(3)**	**5**
Pre-tax result	**2**	**2**	**(5)**	**(3)**	**5**
Income taxes	0	1	(2)	(1)	2
Net result	**2**	**1**	**(4)**	**(2)**	**3**
Net result (shareholders, reported)	**2**	**1**	**(4)**	**(2)**	**3**
MF adjustments	0	0	0	0	0
Net result (shareholders, adjusted)	**2**	**1**	**(4)**	**(2)**	**3**
BALANCE SHEET					
Investments	32	46	47	64	82
Goodwill, other intangibles	0	0	0	0	0
Other assets	41	48	118	117	122
Total assets	**73**	**94**	**164**	**181**	**204**
Shareholders' equity	19	19	68	65	69
Policyholder reserves	35	47	40	58	77
Total liabilities	**73**	**94**	**164**	**181**	**204**
OPERATING METRICS & RATIOS					
Business volume growth y/y		10.3%	0.2%	34.7%	28.9%
Pre-tax result growth y/y		4.8%	-	-	-
Net result (adjusted) growth y/y		-	-	-	-
Operating margin	3.2%	3.0%	-7.6%	-3.3%	3.9%
Pre-tax margin	3.2%	3.0%	-7.6%	-3.3%	3.9%
P&C expense ratio	27.7%	36.2%	35.7%	36.6%	34.6%
P&C net claims ratio	59.1%	57.0%	60.4%	60.8%	60.1%
P&C combined ratio	86.8%	93.2%	96.1%	97.4%	94.7%
EPS (reported) (EUR)	0.19	0.17	(0.27)	(0.16)	0.24
EPS (adjusted) (EUR)	0.19	0.17	(0.27)	(0.16)	0.24
P/E (reported)	0.00	0.00	(43.4)	(75.0)	49.2
P/E (adjusted)	0.00	0.00	(43.4)	(75.0)	49.2
DPS (EUR)	0.00	0.00	0.00	0.00	0.00
Dividend yield			0.0%	0.0%	0.0%
BV/share (EUR)	2.07	2.17	5.07	4.91	5.15
NAV/share	2.07	2.17	5.07	4.91	5.15
P/BV	0.00	0.00	2.32	2.39	2.28
P/NAV	0.00	0.00	2.32	2.39	2.28
ROE (adj.)	18.3%	7.8%	-8.3%	-3.1%	4.7%
RONAV (adj.)	9.2%	7.6%	-5.3%	-3.2%	4.6%

CHART ONE: OPERATING PROFIT



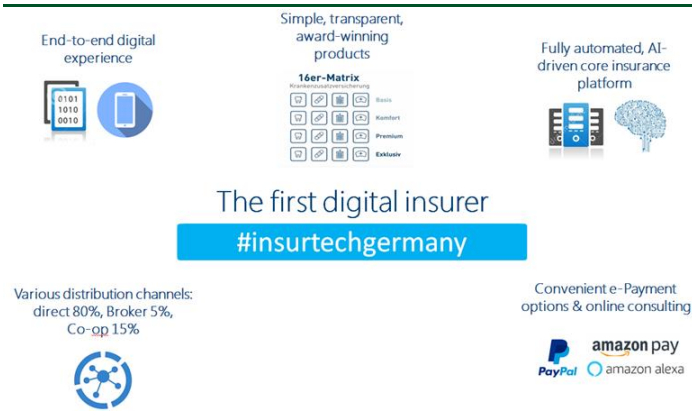
Source: MainFirst, DFV

CHART TWO: DFV PORTFOLIO DEVELOPMENT



Source: MainFirst, DFV

CHART THREE: A TRULY DIGITAL JOURNEY – CUSTOMER CENTRICITY



Source: DFV

Investment case summary

Successful IPO triggers next step in DFV's digital journey

The successful IPO triggers the next step in DFV's digital journey: The placement of all new shares and the full exercise of the greenshoe option have resulted in an increase of EUR 8.74m in share capital by issuance of 4,370,000 offer shares and the company has received net proceeds from the offering in the amount of EUR 49.9m (gross proceeds: EUR 52.1m).

72% of the net proceeds of EUR 49.9m will be used to fund additional spending for sales and marketing

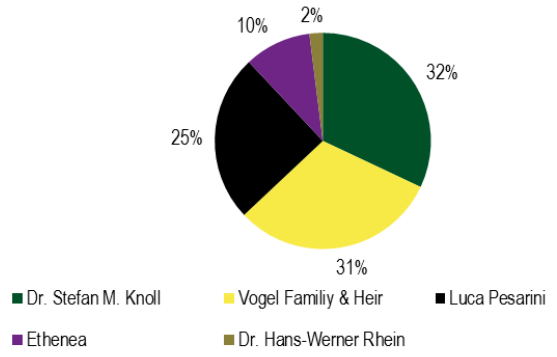
DFV currently intends to use the net proceeds from the IPO of EUR 49.9m as follows:

- EUR 35.9m to fund additional spending for sales and marketing purposes, in particular by increasing advertising budgets for Google, Bing, as well as state of the art TV channels and by financing offline campaigns with leading German magazines;
- EUR 7.2m to introduce new insurance products and bundles (such as the reinvention of its property and accident insurance products on the basis of its 16 matrix) as well as to internationalise its business, starting in Benelux, France and/or Spain;
- EUR 3.4m for investing in its IT infrastructure, in particular by adding functionality to its core insurance platform, and refining its AI intelligence processes;
- EUR 3.4m for safeguarding and matching Solvency II levels.

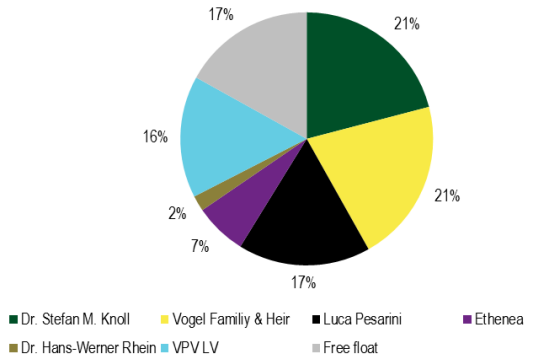
None of the major shareholders will continue to hold more than 30% of the voting rights in the company

Following the IPO CEO Dr. Stefan Knoll (via his SK Beteiligungen GmbH), the Community of Heirs (Erbengemeinschaft) Vogel, and Luca Pesarini (directly and indirectly through Ethenea Independent Investors) are now holding 21.15%, 20.93%, and 23.92% (formerly 18.42%, 22.39%, and 25.59%), respectively, of the Company's shares. As a result, none of the major shareholders will continue to hold more than 30% of the voting rights in the company and, thus, none of the major shareholders will hold a controlling interest in DFV pursuant to the *WpÜG (Wertpapiererwerbs- und Übernahmegesetz)* anymore.

Figure 1: DFV shareholders – Pre-IPO



DFV shareholders – Post-IPO



Source: MainFirst Research, DFV

Free float of 17%

The current free float amounts to 17.16%.

VPV Versicherungen as new anchor shareholder

The new anchor shareholder VPV Versicherungen (15.64%), one of the medium-sized insurance companies in Germany, has total assets of more than EUR 8.2bn, approximately 1000 employees, and a premium income of c.EUR 500m.

"Henkelcareflex" is the first important milestone for DFV

DFV is delivering on its promises: As a first milestone, DFV has started the cooperation with consumer goods manufacturer Henkel on an exclusive supplementary nursing care insurance for its c.9,000 employees and trainees called "Henkelcareflex". In addition to basic coverage, employees can supplement this long-term care insurance individually and also include family members – life partners, children, parents and parents-in-law.

IG Bergbau, Chemie, Energie has more than 600,000 members

The product was launched in cooperation with the Mining, Chemical and Energy Industrial Union (IG Bergbau, Chemie, Energie), which has more than 600,000 members. The cooperation with Henkel and IG BCE illustrates DFV's expertise in implementing social partnership models. We believe the exclusive partnership with IG BCE opens the door for further industry solutions and co-operations.

DFV has set an ambitious target of 100,000 new customers in 2019

According to DFV the cooperation with Henkel has resulted in the signing of several thousands of contracts since the beginning of 2019. We agree that insurance co-operations such as HenkelCareFlex are highly scalable. DFV has set itself an ambitious target of 100,000 new customers in 2019. In our financial model we are looking for 87,500 new contracts in the current business year.

DFV stands for "Digitalisation at its best"

Deutsche Familienversicherung (DFV) was founded in 2007. The company has substantially changed its business model over the last four years. DFV today offers easy-to-use, award-winning products (16 Matrix) via all relevant sales channels, whereof the direct sales channel and Direct Response TV (DRTV) together account for ~75% of total sales. Contract sign-off, policy process, customer service and claims service are fully digitalised. The 'personnel-light' business model is supported by its scalable IT core system, which can accommodate 10x the current client base (that is, up to 5m customers) at little incremental cost.

In our model, we assume that DFV will invest more than EUR 46m in the operating business over the next 2 years. The remaining c. EUR 3m are budgeted as solvency capital to support future growth

To finance future volume growth in Germany and abroad, introduce new products and bundles and further refine its information technology, DFV has raised net proceeds of EUR 49.9m. In our financial model, we assume that DFV will invest more than EUR 46m (incl. EUR 3.4m in its IT infrastructure) in future growth over the next 2 years. The remaining EUR c. 3m (less IPO costs) is budgeted as solvency capital to support future growth. In the medium-term, DFV expects dynamic customer and revenue growth, driven by sales and marketing investments, new products, including a comprehensive product bundle, its cooperation with Henkel and the IG BCE (Mining, Chemical and Energy Industries Union) and its growth strategy in additional European markets like for example France, Spain or Benelux.

We conclude that DFV can achieve a substantial volume growth (CAGR: 22%) in the period 2018-2025E

According to our financial model, DVF can achieve an impressive business volume growth CAGR of 22% in the period 2018-2025E. Statistics provided by German health insurers' association (www.pkv.de) show that the segments of health and nursing insurance reported declines of 0.2% (to 8.8m) and 0.4% (to 9.4m) in 2016. The supplemental health insurance market reported a substantial portfolio growth of 313,800 (+1%) to 25.1m in 2016. Key driver was supplemental dental insurance, which added 421,900 policies in 2016. Please note that supplemental dental insurance is one of DFV's award-winning and top-selling products.

We are looking for a 2018-2025E CAGR in policies of 15%, to 1.2m

In our model, we are looking for a 2018-25E CAGR in policies of 15%, to 1.2m. The supplementary health insurance is expected to grow at a CAGR of 15%, while the Damage/Accident segment is expected to grow at a CAGR of 19% in the same period.

The planned launch of ‘flat-fee-worry-free’ product bundles could disrupt the insurance market and substantially increase business volume

The planned launch of ‘flat-fee-worry-free’ product bundles (incl. Dental Care, Inpatient Care, Risk Life Care etc.) could substantially increase the average premium volume per contract, as well as overall number of contracts and hence DVF’s business volume. We are not aware of any other competitor which plans to launch such a product as this requires a DFV like state-of-the-art IT system.

The Germans are online. The proportion of online users in Germany has risen to around 89%

According to an ARD/ZDF online study, around 62 million people in Germany used the Internet in 2017. The proportion of online users in Germany has thus risen to around 89%. According to the D21 Digital Index 2016, around 62% of households in Germany use broadband Internet access.

The average Internet usage time per day in Germany in 2017 was 149 minutes

Even in the 60+ generation, the share of Internet users is 74%. Among 14 to 19 year-olds, 100% are considered Internet users. With regard to the gender of Internet users in Germany, the following picture emerges: around 91% of the male and 89% of the female population used the Internet in 2017. The average Internet usage time per day in Germany in 2017 amounted to 149 minutes.

The proportion of mobile Internet users has substantially increased

The increasing use of mobile devices has also changed the proportion of mobile Internet users. While the proportion of Internet users using the Internet on the move in 2011 was still around 13%, it steeply rose to 63% in 2016. Around 30% of people in Germany use the Internet every day while on the move.

Adcubum: 57% of German citizens can imagine taking out an insurance policy completely online

Already today, 57% of German citizens can imagine taking out an insurance policy completely online. According to a study by software manufacturer Adcubum ("*Digitale Versicherung 2018*"), the favourite categories for taking out insurance online are motor, liability and household insurance. In addition, language assistants such as Alexa are gaining popularity when taking out insurance policies.

Volume growth is needed to support our investment case. The combined ratio target of 85-95% looks reasonable, in our view, but there is room for further improvement

Volume growth is needed to support our investment case. We believe that DFV has the right management and all the ingredients to disproportionately grow its insurance portfolio. One key KPI to focus on is the combined ratio. DFV guides for a combined ratio target range of 85% to 95%. In our model, we assume an average combined ratio of c.90%, broadly at mid-point of the company guidance. According to management, DFV currently spends up to 12 monthly premiums to acquire a new customer (MFe: competition: 29-35 monthly premiums). This nicely illustrates the competitive edge DFV has over its competitors via their simplified product offering and easy to use platform. However, we see further room for improvement in the combined ratio. Direct insurers Hastings Group in the UK (Hastings is a fast growing, agile, data and digitally focused general insurance provider to the UK car, van, bike and home insurance market) and Allianz-owned Genialloyd in Italy (# 1 direct insurer in Italy, # 5 in Europe) run their business models at an expense ratio of c. 15%.

What is different at DFV? Management is very experienced in insurance and DFV is making money

Two very important facts support our investment case compared to other InsurTechs: 1) DFV’s management knows the insurance business inside-out. This is, in our view, a key differentiator from most of the other InsurTechs; 2) In strong contrast to most of its competitors, DFV is making money and achieved operating profits (EBIT) of EUR 2m and EUR 2.1m in 2016 and 2017 respectively. In H1-18, the operating profit amounted to EUR 163,501.

The key risk to our positive investment case is that the substantial sales and marketing investments of c. EUR 36m will not result in the expected above-average growth in the number of contracts (20-2025E CAGR: 15%).

An InsurTech peer comparison (e.g. USD/contract) yields a company value in excess of USD 1bn. Based on our discounted cash flow model (FCFE) we derive a price target of EUR 17.2, which offers 46% upside to the current share price, hence our outperform rating.

The key risk to our positive investment case is that the substantial sales and marketing investments of c. EUR 36m will not result in the expected above-average growth in the number of contracts (2018-25E CAGR: 15%). In the fiscal year 2017, DFV met the statutory minimum solvency requirements pursuant to Solvency II. On 31 December 2017, DFV's provisional regulatory risk-bearing capacity was 214% (previous year: 190%). DFV's SFCR report reveals that the company's key risks are underwriting and market risks.

As with other InsurTech companies, traditional insurance valuation multiples cannot be applied to value Deutsche Familienversicherung (DFV). An InsurTech peer comparison (e.g. USD/contract) yields a company value in excess of USD 1bn. The discounted cash flow model (FCFE) is the preferred valuation model for DFV, as it best captures DFV's entire growth trajectory. We derive a price target of EUR 17.2, which offers 46% upside to the current share price, hence our Outperform rating.

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Financial Estimates

Revenue and Earnings Model

Our financial model for DFV includes the following four business units:

- Supplementary health insurance
- Damage/Accident
- Other
- Consolidation

The following tables show a summary of DFV's financial model:

Figure 2: Summary DFV P/L account

Group P/L (EUR '000)	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Written premiums										
Gross	64,076	70,655	70,790	95,370	122,980	149,482	174,891	208,481	246,290	288,119
Share of reinsurers	36,319	39,659								
Total written premiums	**27,757**	**30,996**								
Change in unearned premiums										
Gross	-334	-549	256	-209	-167	-40	-139	-116	-98	-118
Share of reinsurers	337	11	515	288	271	358	305	311	325	314
Total change in unearned premiums	**-671**	**-560**	**-259**	**-497**	**-439**	**-398**	**-444**	**-427**	**-423**	**-432**
Net earned premiums	**28,428**	**31,556**	**36,636**	**57,222**	**71,210**	**84,373**	**97,939**	**117,193**	**138,179**	**161,788**
Results from investments	**-605**	**1,066**	**659**	**934**	**1,304**	**1,539**	**1,627**	**1,918**	**2,269**	**2,658**
of which result from associated companies	0	0	0	0	0	0	0	0	0	0
Other income	243	475	423	389	431	416	414	422	419	421
Total income	**28,066**	**33,097**	**37,718**	**58,545**	**72,945**	**86,328**	**99,980**	**119,533**	**140,868**	**164,867**
Benefits paid to customers										
Gross	36,822	38,899								
Share of reinsurers	20,011	20,913								
Total benefits paid to customers	**16,811**	**17,986**	**22,143**	**34,766**	**42,774**	**49,038**	**55,922**	**66,787**	**78,580**	**91,634**
Expenses for insurance operations										
Gross	22,208	26,044								
Share of reinsurers	14,335	14,622								
Total expenses for insurance operations	**7,873**	**11,422**	**13,080**	**20,968**	**24,664**	**27,915**	**32,065**	**38,046**	**44,632**	**52,063**
Investments in growth										
Other expensens	**1,360**	**1,570**	**7,879**	**5,928**	**760**	**791**	**828**	**795**	**807**	**812**
Total expenses	26,044	30,978	43,101	61,662	68,198	77,744	88,815	105,629	124,018	144,509
Operating profit	**2,022**	**2,119**	**-5,384**	**-3,117**	**4,746**	**8,584**	**11,165**	**13,905**	**16,849**	**20,359**
Financing expenses	0	0	0	0	0	0	0	0	0	0
Net income before income taxes	**2,022**	**2,119**	**-5,384**	**-3,117**	**4,746**	**8,584**	**11,165**	**13,905**	**16,849**	**20,359**
Income taxes	323	637	-1,777	-1,029	1,566	2,833	3,684	4,589	5,560	6,718
Net result	**1,699**	**1,482**	**-3,607**	**-2,088**	**3,180**	**5,751**	**7,481**	**9,316**	**11,289**	**13,640**
Minorities	0	0	0	0	0	0	0	0	0	0
Net result attributable to shareholders	**1,699**	**1,482**	**-3,607**	**-2,088**	**3,180**	**5,751**	**7,481**	**9,316**	**11,289**	**13,640**

Source: MainFirst Research, DFV

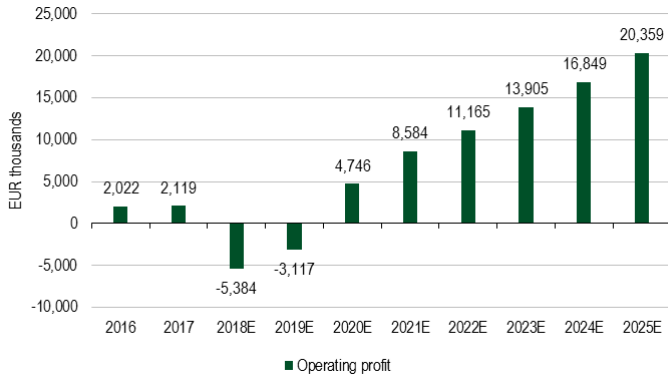
Figure 3: Analysis of DFV P/L account

Group P/L - in %	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Written premiums										
Growth in GWP	1.4%	10.3%	0.2%	34.7%	28.9%	21.6%	17.0%	19.2%	18.1%	17.0%
Share of reinsurers	4.5%	9.2%								
Total written premiums	-2.3%	11.7%								
Change in unearned premiums										
Gross	-120.2%	64.4%	-146.6%	-181.8%	-19.9%	-75.9%	244.8%	-16.8%	-15.0%	19.7%
Share of reinsurers	-71.8%	-96.7%	4578.8%	-44.1%	-5.7%	32.0%	-14.6%	2.0%	4.3%	-3.4%
Total change in unearned premiums	-247.8%	-16.5%	-53.8%	91.8%	-11.7%	-9.2%	11.6%	-3.9%	-0.9%	2.0%
Net earned premiums	1.7%	11.0%	16.1%	56.2%	24.4%	18.5%	16.1%	19.7%	17.9%	17.1%
Results from investments	-405.6%	-276.2%	-38.2%	41.6%	39.7%	18.0%	5.7%	17.9%	18.3%	17.2%
of which result from associated companies										
Other income	2.1%	95.5%	-10.9%	-8.0%	10.7%	-3.4%	-0.5%	2.0%	-0.7%	0.3%
Total income	-1.2%	17.9%	14.0%	55.2%	24.6%	18.3%	15.8%	19.6%	17.8%	17.0%
Benefits paid to customers										
Gross	-2.8%	5.6%								
Share of reinsurers	7.8%	4.5%								
Total benefits paid to customers	-13.0%	7.0%	23.1%	57.0%	23.0%	14.6%	14.0%	19.4%	17.7%	16.6%
Expenses for insurance operations										
Gross	-6.7%	17.3%								
Share of reinsurers	-10.8%	2.0%								
Total expenses for insurance operations	2.0%	45.1%	14.5%	60.3%	17.6%	13.2%	14.9%	18.7%	17.3%	16.6%
Other expensens	113.8%	15.4%	401.8%	-24.8%	-87.2%	4.0%	4.7%	-4.0%	1.5%	0.7%
Total expenses	-5.9%	18.9%	39.1%	43.1%	10.6%	14.0%	14.2%	18.9%	17.4%	16.5%
Operating profit	185.6%	4.8%	-354.1%	-42.1%	-252.3%	80.9%	30.1%	24.5%	21.2%	20.8%
Financing expenses	0	0	0	0	0	0	0	0	0	0
Net income before income taxes	185.6%	4.8%	-354.1%	-42.1%	-252.3%	80.9%	30.1%	24.5%	21.2%	20.8%
Income taxes	-300.6%	97.2%	-378.9%	-42.1%	-252.3%	80.9%	30.1%	24.5%	21.2%	20.8%
Net result	95.5%	-12.8%	-343.4%	-42.1%	-252.3%	80.9%	30.1%	24.5%	21.2%	20.8%
Minorities										
Net result attributable to shareholders	95.5%	-12.8%	-343.4%	-42.1%	-252.3%	80.9%	30.1%	24.5%	21.2%	20.8%

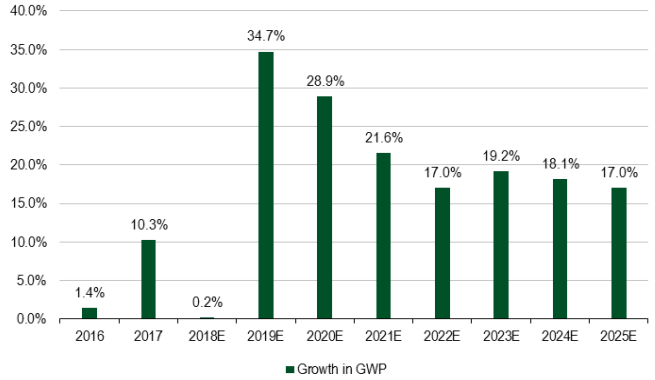
Group P/L - KPI	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Retention ratio	43.3%	43.9%								
Earned net premiums / Gross written premiums	44.4%	44.7%	51.8%	60.0%	57.9%	56.4%	56.0%	56.2%	56.1%	56.2%
Earned net premiums / Net written premiums	102.4%	101.8%								
Claims ratio (gross)	57.5%	55.1%								
Expense ratio (gross)	34.7%	36.9%								
Combined ratio (gross)	**92.1%**	**91.9%**								
Claims ratio (net; as a % of Net earned premiums)	59.1%	57.0%	60.4%	60.8%	60.1%	58.1%	57.1%	57.0%	56.9%	56.6%
Expense ratio (net; as a % of Net earned premiums)	27.7%	36.2%	35.7%	36.6%	34.6%	33.1%	32.7%	32.5%	32.3%	32.2%
Combined ratio (net; as a % of Net earned premiums)	**86.8%**	**93.2%**	**96.1%**	**97.4%**	**94.7%**	**91.2%**	**89.8%**	**89.5%**	**89.2%**	**88.8%**
Return on Investments (ROI)										
Operating margin (on gross written premiums)	3.2%	3.0%	-7.6%	-3.3%	3.9%	5.7%	6.4%	6.7%	6.8%	7.1%
Operating margin (on net earned premiums)	7.1%	6.7%	-14.7%	-5.4%	6.7%	10.2%	11.4%	11.9%	12.2%	12.6%
Tax rate	16.0%	30.1%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%

Source: MainFirst Research, DFV

Figure 4: Group operating profit

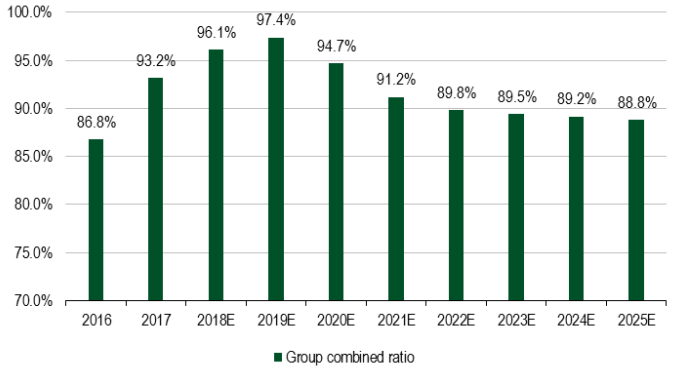


Strong group top-line growth due to investments in sales & marketing

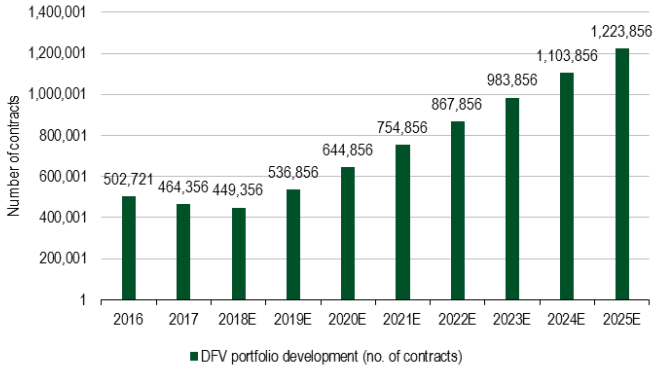


Source: MainFirst Research, DFV

Figure 5: Group combined ratio forecast at mid-point of 85%-95% target



Strong growth in number of contracts



Source: MainFirst Research, DFV

Profit & Loss Account

Our financial model mainly focuses on the two business units

1. supplementary health insurance - the growth engine -
2. and damage/accident which should benefit disproportionately from DFV's planned expansion in Europe.

Figure 6: Supplementary Health Insurance - Profit and Loss Account

Suppl. Health Insurance (EUR '000)	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Written premiums										
Gross	45,482	53,519	62,039	86,831	111,139	132,580	151,818	177,522	205,415	235,655
Share of reinsurers										
Total written premiums										
Change in unearned premiums										
Gross										
Share of reinsurers										
Total change in unearned premiums										
Net earned premiums	**20,129**	**24,390**	**32,260**	**52,098**	**64,461**	**74,908**	**85,018**	**99,856**	**115,289**	**132,409**
Results from investments	**-340**	**835**	**602**	**877**	**1,235**	**1,436**	**1,479**	**1,713**	**1,991**	**2,294**
of which result from associated companies	0	0	0	0	0	0	0	0	0	0
Other income	156	331	273	253	286	271	270	276	272	273
Total income	**19,945**	**25,556**	**33,136**	**53,229**	**65,982**	**76,615**	**86,767**	**101,844**	**117,553**	**134,975**
Benefits paid to customers										
Gross										
Share of reinsurers										
Total benefits paid to customers	**12,089**	**14,320**	**19,904**	**32,145**	**39,321**	**44,196**	**49,311**	**57,916**	**66,868**	**76,797**
Expenses for insurance operations										
Gross										
Share of reinsurers										
Total expenses for insurance operations	**6,177**	**8,547**	**10,323**	**16,411**	**19,532**	**21,723**	**24,655**	**28,958**	**33,434**	**38,399**
Other expensens	**797**	**1,163**	**2,774**	**378**	**238**	**230**	**282**	**250**	**254**	**262**
Total expenses	19,063	24,030	33,001	48,934	59,091	66,149	74,248	87,125	100,556	115,458
Operating profit	**882**	**1,526**	**134**	**4,296**	**6,891**	**10,466**	**12,520**	**14,720**	**16,997**	**19,518**

Suppl. health insurance P/L - in %	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Written premiums										
Growth in GWP	15.1%	17.7%	15.9%	40.0%	28.0%	19.3%	14.5%	16.9%	15.7%	14.7%
Net earned premiums	4.2%	21.2%	32.3%	61.5%	23.7%	16.2%	13.5%	17.5%	15.5%	14.8%
Results from investments	-214.5%	-345.6%	-27.9%	45.7%	40.8%	16.3%	3.0%	15.8%	16.3%	15.2%
of which result from associated companies										
Other income	-53.2%	112.2%	-17.4%	-7.3%	12.8%	-5.3%	-0.3%	2.1%	-1.2%	0.2%
Total income	0.0%	28.1%	29.7%	60.6%	24.0%	16.1%	13.3%	17.4%	15.4%	14.8%
Benefits paid to customers										
Gross										
Share of reinsurers										
Total benefits paid to customers	9.9%	18.5%	39.0%	61.5%	22.3%	12.4%	11.6%	17.5%	15.5%	14.8%
Expenses for insurance operations										
Gross										
Share of reinsurers										
Total expenses for insurance operations	23.7%	38.4%	20.8%	59.0%	19.0%	11.2%	13.5%	17.5%	15.5%	14.8%
Other expensens	120.8%	45.9%	138.5%	-86.4%	-37.0%	-3.5%	22.7%	-11.3%	1.6%	3.2%
Total expenses	16.6%	26.1%	37.3%	48.3%	20.8%	11.9%	12.2%	17.3%	15.4%	14.8%
Operating profit	-75.5%	73.0%	-91.2%	3098.5%	60.4%	51.9%	19.6%	17.6%	15.5%	14.8%

Source: MainFirst Research, DFV

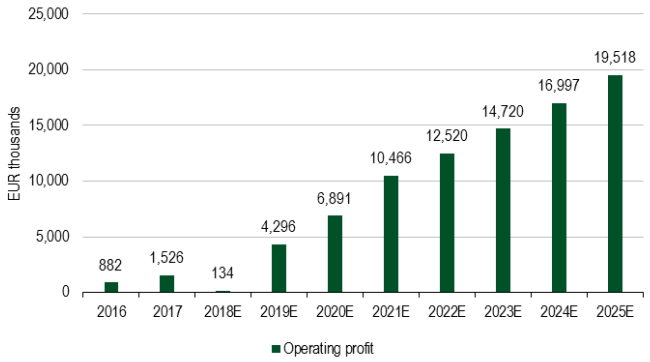
The following charts summarise the most important KPIs for DFV's supplementary health insurance.

Figure 7: Suppl. health insurance - KPI

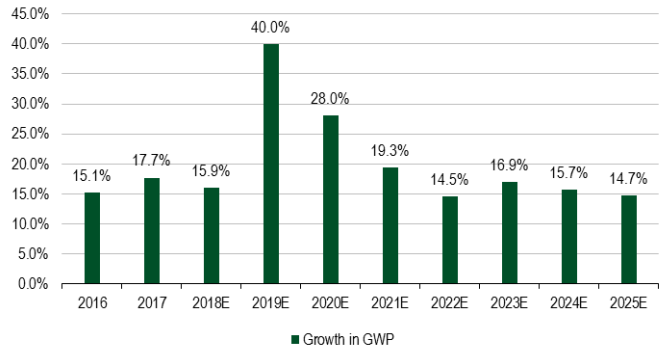
Suppl. health insurance P/L - KPI	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Retention ratio										
Earned net premiums / Gross written premiums	44.3%	45.6%	52.0%	60.0%	58.0%	56.5%	56.0%	56.3%	56.1%	56.2%
Earned net premiums / Net written premiums										
Claims ratio (gross)										
Expense ratio (gross)										
Combined ratio (gross)										
Claims ratio (net; as a % of Net earned premiums)	60.1%	58.7%	61.7%	61.7%	61.0%	59.0%	58.0%	58.0%	58.0%	58.0%
Expense ratio (net; as a % of Net earned premiums)	30.7%	35.0%	32.0%	31.5%	30.3%	29.0%	29.0%	29.0%	29.0%	29.0%
Combined ratio (net; as a % of Net earned premiums)	**90.7%**	**93.8%**	**93.7%**	**93.2%**	**91.3%**	**88.0%**	**87.0%**	**87.0%**	**87.0%**	**87.0%**
Return on Investments (ROI)										
Operating margin (on gross written premiums)	1.9%	2.9%	0.2%	4.9%	6.2%	7.9%	8.2%	8.3%	8.3%	8.3%
Operating margin (on net earned premiums)	4.4%	6.3%	0.4%	8.2%	10.7%	14.0%	14.7%	14.7%	14.7%	14.7%
Suppl. health insurance P/L - no. of contracts	**2016**	**2017**	**2018E**	**2019E**	**2020E**	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**
No. of contracts ('Bestand')	274,573	314,095	364,095	459,095	544,095	624,095	704,095	784,095	864,095	944,095
New contracts ('Bestand')	27,679	39,522	50,000	95,000	85,000	80,000	80,000	80,000	80,000	80,000
Growth no. of contracts	**11%**	**14%**	**16%**	**26%**	**19%**	**15%**	**13%**	**11%**	**10%**	**9%**
GWP/contract	166	170	170	189	204	212	216	226	238	250

Source: : MainFirst Research, DFV

Figure 8: Operating profit

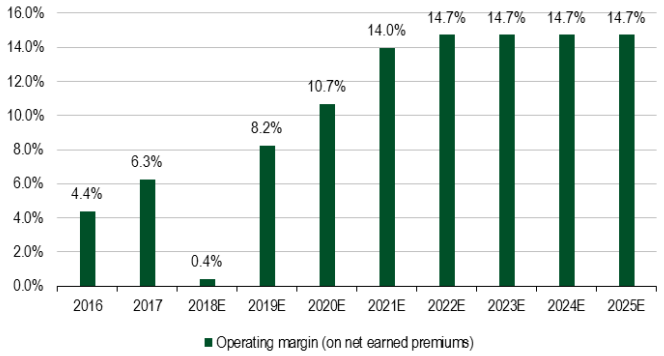


Growth in gross written premiums (GWP)

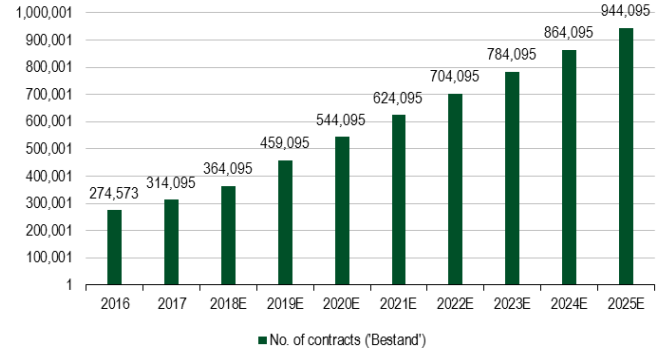


Source: : MainFirst Research, DFV

Figure 9: Development of operating margin



Strong growth in number of contracts



Source: : MainFirst Research, DFV

DFV's damage/accident insurance should support the companies' growth ambition outside Germany.

Figure 10: Damage/accident insurance - Profit and Loss Account

Damage/Accident (EUR '000)	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Written premiums										
Gross	18,594	17,136	8,751	8,540	11,840	16,902	23,073	30,960	40,875	52,464
Share of reinsurers										
Total written premiums										
Change in unearned premiums										
Gross										
Share of reinsurers										
Total change in unearned premiums										
Net earned premiums	**8,299**	**7,165**	**4,375**	**5,124**	**6,749**	**9,465**	**12,921**	**17,337**	**22,890**	**29,380**
Results from investments	**-140**	**245**	**71**	**70**	**83**	**117**	**162**	**219**	**291**	**378**
of which result from associated companies	0	0	0	0	0	0	0	0	0	0
Other income	64	98	104	89	97	96	94	96	95	95
Total income	**8,223**	**7,508**	**4,550**	**5,283**	**6,928**	**9,678**	**13,177**	**17,652**	**23,276**	**29,853**
Benefits paid to customers										
Gross										
Share of reinsurers										
Total benefits paid to customers	**4,722**	**3,666**	**2,239**	**2,622**	**3,453**	**4,843**	**6,611**	**8,871**	**11,712**	**14,837**
Expenses for insurance operations										
Gross										
Share of reinsurers										
Total expenses for insurance operations	**1,696**	**2,876**	**1,756**	**2,057**	**2,632**	**3,691**	**4,910**	**6,588**	**8,698**	**11,164**
Other expensens	**625**	**395**	**594**	**538**	**509**	**547**	**531**	**529**	**536**	**532**
Total expenses	**7,043**	**6,937**	**4,589**	**5,216**	**6,594**	**9,081**	**12,052**	**15,988**	**20,946**	**26,533**
Operating profit	**1,180**	**571**	**-39**	**66**	**334**	**597**	**1,125**	**1,664**	**2,331**	**3,320**

Damage/accident P/L - in %	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Written premiums										
Growth in GWP	-21.4%	-7.8%	-48.9%	-2.4%	38.6%	42.8%	36.5%	34.2%	32.0%	28.4%
Share of reinsurers										
Total written premiums										
Change in unearned premiums										
Gross										
Share of reinsurers										
Total change in unearned premiums										
Net earned premiums	-3.9%	-13.7%	-38.9%	17.1%	31.7%	40.2%	36.5%	34.2%	32.0%	28.4%
Share of reinsurers										
Total benefits paid to customers	-43.4%	-22.4%	-38.9%	17.1%	31.7%	40.2%	36.5%	34.2%	32.0%	26.7%
Expenses for insurance operations										
Gross										
Share of reinsurers										
Total expenses for insurance operations	-37.9%	69.6%	-38.9%	17.1%	28.0%	40.2%	33.0%	34.2%	32.0%	28.4%
Other expensens	-18.0%	-36.8%	50.4%	-9.4%	-5.4%	7.5%	-2.9%	-0.4%	1.3%	-0.7%
Total expenses	-40.5%	-1.5%	-33.8%	13.7%	26.4%	37.7%	32.7%	32.7%	31.0%	26.7%
Operating profit	-140.6%	-51.6%	-106.8%	-270.0%	404.8%	78.6%	88.5%	48.0%	40.1%	42.4%

Source: : MainFirst Research, DFV

The following charts summarise the most important KPIs for DFV's damage/accident insurance.

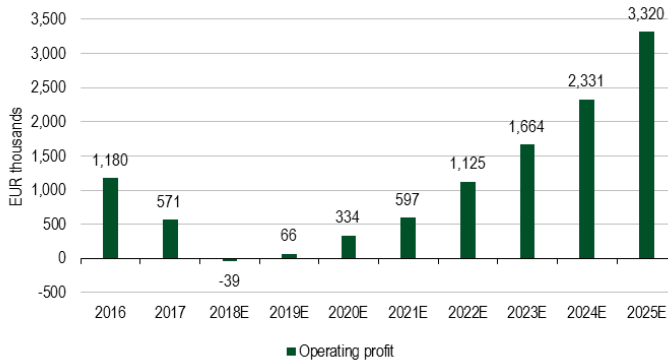
Figure 11: Damage/accident insurance - KPI

Damage/accident P/L - KPI	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Retention ratio										
Earned net premiums / Gross written premiums	44.6%	41.8%	50.0%	60.0%	57.0%	56.0%	56.0%	56.0%	56.0%	56.0%
Earned net premiums / Net written premiums										
Claims ratio (gross)										
Expense ratio (gross)										
Combined ratio (gross)										
Claims ratio (net; as a % of Net earned premiums)	56.9%	51.2%	51.2%	51.2%	51.2%	51.2%	51.2%	51.2%	51.2%	50.5%
Expense ratio (net; as a % of Net earned premiums)	20.4%	40.1%	40.1%	40.1%	39.0%	39.0%	38.0%	38.0%	38.0%	38.0%
Combined ratio (net; as a % of Net earned premiums)	**77.3%**	**91.3%**	**91.3%**	**91.3%**	**90.2%**	**90.2%**	**89.2%**	**89.2%**	**89.2%**	**88.5%**
Operating margin (on gross written premiums)	6.3%	3.3%	-0.4%	0.8%	2.8%	3.5%	4.9%	5.4%	5.7%	6.3%
Operating margin (on earned net premiums)	14.2%	8.0%	-0.9%	1.3%	5.0%	6.3%	8.7%	9.6%	10.2%	11.3%

Damage/accident P/L - KPI	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
No. of contracts ('Bestand')	228,148	150,261	85,261	77,761	100,761	130,761	163,761	199,761	239,761	279,761
New contracts ('Bestand')	-70,669	-77,887	-65,000	-7,500	23,000	30,000	33,000	36,000	40,000	40,000
Growth no. of contracts	**-24%**	**-34%**	**-43%**	**-9%**	**30%**	**30%**	**25%**	**22%**	**20%**	**17%**
GWP/contract	81	114	103	110	118	129	141	155	170	188

Source: : MainFirst Research, DFV

Figure 12: Operating profit



Source: : MainFirst Research, DFV

Growth in gross written premiums (GWP)

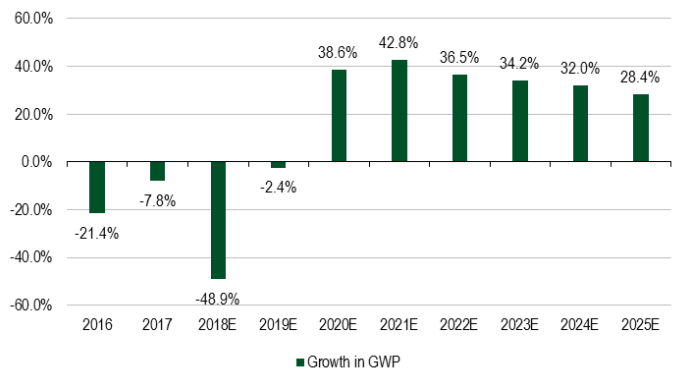
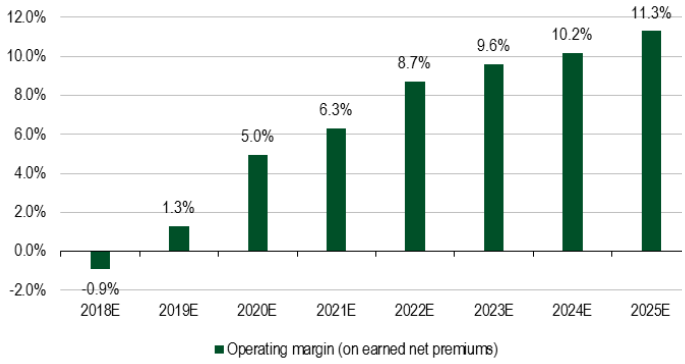
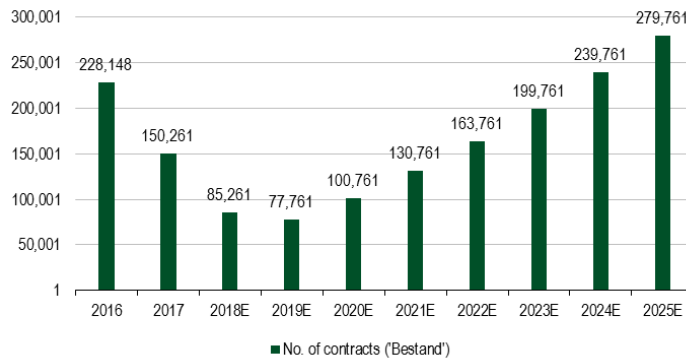


Figure 13: Development of operating margin



Source: : MainFirst Research, DFV

Strong growth in number of contracts



Balance Sheet

The following table shows DFV's balance sheet (post-IPO from 2018E on):

Figure 14: DFV - Balance sheet

Balance sheet (EUR '000)	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Assets										
Intangible assets										
Goodwill	0	0	0	0	0	0	0	0	0	0
Other intangible assets	9,610	9,320	9,320	24,820	34,320	31,820	29,320	26,820	24,320	21,820
Total intangible assets	**9,610**	**9,320**	**9,320**	**24,820**	**34,320**	**31,820**	**29,320**	**26,820**	**24,320**	**21,820**
Investments										
Loans	0	0	0	0	0	0	0	0	0	0
Financial investments available for sale	31,711	46,357	46,566	63,671	81,866	98,785	114,627	135,647	159,009	184,676
Financial investments at fair value through profit and loss	0	0	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0	0	0
Total investments	**31,711**	**46,357**	**46,566**	**63,671**	**81,866**	**98,785**	**114,627**	**135,647**	**159,009**	**184,676**
Receivables										
Receivables from direct insurance business										
to policyholders	748	517								
to insurance brokers	241	605								
Subtotal	989	1,122								
Other receivables	2,423	782								
Total receivables	**3,412**	**1,904**	**2,210**	**3,453**	**4,297**	**5,091**	**5,909**	**7,071**	**8,337**	**9,762**
Current accounts at bank	**4,658**	**5,510**	**56,237**	**31,237**	**10,237**	**10,237**	**10,237**	**10,237**	**10,237**	**10,237**
Share of reinsurers in underwriting provisions										
Unearned premiums	1,996	2,007								
Actuarial reserves	14,141	22,030								
Reserves for outstanding claims	4,517	5,375								
Other underwriting provisions	27	1								
Total share of reinsurers in underwriting provisions	**20,681**	**29,413**	**48,084**	**55,467**	**71,222**	**77,298**	**87,799**	**99,702**	**112,633**	**128,782**
Tax refund claims										
from actual taxes	0	0								
from deferred taxes	454	402								
Total tax refund claims	**454**	**402**	**369**	**408**	**393**	**390**	**397**	**393**	**394**	**395**
Other assets	**2,102**	**1,377**	**1,687**	**1,722**	**1,595**	**1,668**	**1,662**	**1,642**	**1,657**	**1,654**
Total assets	**72,628**	**94,283**	**164,473**	**180,779**	**203,930**	**225,289**	**249,951**	**281,513**	**316,588**	**357,325**
Equity										
Authorized capital	34,110	34,110	26,648	26,648	26,648	26,648	26,648	26,648	26,648	26,648
Capital reserves	3,894	3,894	45,494	45,494	45,494	45,494	45,494	45,494	45,494	45,494
Retained earnings	-21,030	-19,331	-297	-3,904	-5,993	-2,812	2,939	10,420	19,736	31,025
Other reserves										
Unrealized gains and losses	-152	-699	-699	-699	-699	-699	-699	-699	-699	-699
Reserve from currency conversion	0	0	0	0	0	0	0	0	0	0
Subtotal other reserves	-152	-699	-699	-699	-699	-699	-699	-699	-699	-699
Consolidated net income attributable to shareholders	1,699	1,481	-3,607	-2,088	3,180	5,751	7,481	9,316	11,289	13,640
Total Equity	**18,521**	**19,455**	**67,539**	**65,450**	**68,631**	**74,382**	**81,863**	**91,179**	**102,468**	**116,108**
Gross underwriting provisions										
Unearned premiums	4,887	4,338								
Actuarial reserves	20,201	30,941								
Reserves for outstanding claims	9,480	10,714								
Other underwriting provisions	762	819								
Total gross underwriting provisions	**35,330**	**46,812**	**40,474**	**57,665**	**76,542**	**91,036**	**107,036**	**128,106**	**150,689**	**176,552**
Other reserves	**739**	**484**	**547**	**590**	**540**	**559**	**563**	**554**	**559**	**559**
Liabilities from direct insurance business										
to policyholders	216	238								
to insurance brokers	806	460								
Subtotal liabilities from direct insurance business	1,022	698								
Other liabilities	15,745	25,319								
Total liabilities from direct insurance business	**16,767**	**26,017**	**54,622**	**55,714**	**56,829**	**57,965**	**59,125**	**60,307**	**61,513**	**62,744**
Tax debt										
from actual taxes	320	315								
from deferred taxes	951	1,200								
Total tax debt	**1,271**	**1,515**	**1,291**	**1,359**	**1,388**	**1,346**	**1,365**	**1,366**	**1,359**	**1,363**
Total equity and liabilities	**72,628**	**94,283**	**164,473**	**180,779**	**203,930**	**225,289**	**249,951**	**281,513**	**316,588**	**357,325**

Source: MainFirst Research, DFV

Financial instruments are currently held exclusively in the category "available for sale"

Investments – Financial instruments

Financial instruments are currently held exclusively in the category "available for sale". They are reported pursuant to IAS 39. Financial instruments are initially recognised on the fulfilment date.

Generally, fair values of financial instruments are determined based on parameters that can be observed on the market. IFRS 13 defines the fair value as "sales price" (price that would be received in an ordinary transaction between market participants on the measurement date upon sale of an asset or upon transfer of a liability). The portfolio currently consists exclusively of stock exchange-traded financial instruments, which are valued based on current market prices.

Pursuant to IFRS 13, the method to determine the fair values results in an allocation to a specific hierarchy level. Comprehensive explanations of the hierarchy levels and their underlying individual valuation procedures as well as the used calculation parameters, are presented below.

The category "financial instruments available for sale" is a residual. It contains all financial instruments which, due to their nature, do not have to be allocated to another category and for which no other option has been exercised. This item mainly shows shares, investment shares and other shareholdings. "Financial instruments available for sale" are measured at fair value. For listed securities, this is generally the market value.

Changes in value are recognised directly in equity

Changes in value resulting from the difference between fair value and amortised acquisition cost are recognised directly in equity.

An impairment loss is recognised through profit or loss if the fair value of equity instruments in an active market is below cost for more than six months, or more than 20% on the balance sheet date. Write-ups through profit or loss of equity instruments are not permitted. Reversals of impairment losses are recognised directly in equity.

Profits or losses on the disposal of "financial instruments available for sale" are calculated from the difference between the proceeds from the sale and the carrying amount on the date of sale. They are reported under investment income or expenses. Profits or losses from an interim revaluation that were initially recognised directly in equity are realised upon sale.

We expect a solid result from investments from 2019 onwards – 2018 could be negatively impacted by volatile financial markets

Investment income and expenses

Investment income includes current income, income from write-ups, profits from changes in fair value and profits from the disposal of investments. Current income mainly includes interest income from fixed-interest securities and dividend income. The inflow principle applies to dividends; interest income is recognised on an accrual basis.

Investment expenses include expenses for the management of investments, depreciation and impairment losses on investments, losses from changes in fair value and losses from the disposal of investments.

Figure 15: Investment income, classification and ratings

Investment income (EUR '000)	2015	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Income from investments											
Current income from investments	203	481	1,107								
Income from additions	0	0	0								
Profits from changes in fair value	0	0	0								
Profits from the disposal of investments	1,124	1,161	1,931								
Total income from investments	**1,327**	**1,642**	**3,038**								
Expenses for investments											
Expenses for management of investments, other expenses	155	614	378								
Depreciation and impariments on investments	0	0	0								
Losses from changes in fair value	0	0	0								
Losses from the disposal of investments	973	1,633	1,594								
Total expenses for investments	**1,128**	**2,247**	**1,972**								
Result from investments	**199**	**-605**	**1,066**	**659**	**934**	**1,304**	**1,539**	**1,627**	**1,918**	**2,269**	**2,658**

Financial instruments - available for sale	2015	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Not fixed interest											
- shares	3,259	3,021	7,675								
- investment fund units	4	5	5								
- other (incl. accounts)	8,638	24,189	36,376								
Total I	**11,901**	**27,215**	**44,057**								
Fixed interest+call monies	3,728	4,496	2,300								
Total II	**15,629**	**31,711**	**46,357**	**46,566**	**63,671**	**81,866**	**98,785**	**114,627**	**135,647**	**159,009**	**184,676**

Credit quality of the portfolio (in thousands)	2015	2016	2017		2019E	2020E	2021E	2022E	2023E	2024E	2025E
AAA	3,136	3,926	5,595								
AA	597	2,508	6,335								
A	730	2,879	4,408								
BBB	4,539	14,876	20,038								
BB and lower	0	0	0								
No rating	0	0	0								
Total	**9,001**	**24,189**	**36,376**								

Credit quality of the portfolio (in %)	2015	2016	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
AAA	34.8%	16.2%	15.4%								
AA	6.6%	10.4%	17.4%								
A	8.1%	11.9%	12.1%								
BBB	50.4%	61.5%	55.1%								
BB and lower	0.0%	0.0%	0.0%								
No rating	0.0%	0.0%	0.0%								
Total	**100.0%**	**100.0%**	**100.0%**								

Source: MainFirst Research, DFV

DFV makes use of reinsurance to grow the business and to reduce volatility in its results

At the end of 2017 the following companies were major reinsurance partners:

- BNP Paribas Cardif Allgemeine Versicherung
- Echo Rückversicherungs AG, Schweiz, Zurich
- E+S Rückversicherung, Hannover
- Hanse Merkur Reiseversicherung
- Helvetia Schweizerische Versicherung
- Partner Reinsurance Europe
- SCOR Global Life Deutschland
- VIG Re as, Prague

Share of reinsurers in underwriting provisions

According to IFRS, reinsurers' shares in underwriting provisions are shown under assets in the balance sheet. The corresponding gross amounts have to be shown on the liabilities side. The reinsurers' shares in underwriting provisions are determined by taking the contractual terms of the underlying reinsurance contracts into consideration.

Receivables

Receivables mainly include interest receivable, receivables from direct insurance business (dIB) and accounts receivable from reinsurance business. They are reported at nominal value less payments made. Based on past experience, a standardised specific allowance is made for receivables from the dIB. Credit risks are adequately taken into consideration after an individual risk assessment.

For reinsurance, allowances are made on a strict case-by-case basis. Write-offs through profit and loss are generally only made in the case of insolvency. Based on past experience, no further allowances are made, even with regard to essential items.

In the DFV Group, allowances through profit and loss are made and reduce the premium income and the book value of the receivables. If fair values of receivables are to be determined for the required disclosures in the notes, it is assumed pursuant to IFRS 7.29 (a) that the carrying amount represents the best approximate value. According to the regulations of IFRS 13, this results in an allocation of these fair values to hierarchy level 3.

Actuarial reserves

For health insurance business conducted like life insurance, the company strictly calculates according to the actuarial equivalence principle, i.e. the present value of premiums and benefits are calculated in parity during the initial calculation. Unless premium adjustments have to be made, the premiums per tariff and policyholder will remain the same throughout the life of the policyholder.

Reserve for outstanding claims

The reserve for outstanding claims represents benefit obligations from claims for which the amount and/or time of payment cannot yet be reliably determined. The reserve is reported but is also created for claims that have already been incurred but not yet reported. This also includes both internal and external expenses as well as claims settlement costs.

For known claims, the reserve for outstanding claims is generally calculated individually. Receivables from recourses, claim recoveries and distribution agreements are offset. For claims incurred or caused but not yet reported as of the balance sheet date, the reserve was increased by a reserve for claims incurred but not reported as of the balance sheet date based on the subsequent claims reports observed in previous years. Claims not yet reported at the balance sheet date are assessed with a lump sum. The reserve for outstanding claims is not discounted. The reserves for claims settlement expenses also included in this item are determined using a lump-sum method. The share of reinsurers in the reserve is determined pursuant to the reinsurance contracts.

Valuation

Summary

We cannot apply traditional insurance valuation multiples to value DFV

As with other InsurTech companies, traditional insurance valuation multiples cannot be applied to value Deutsche Familienversicherung (DFV). The following tables show valuation multiples which are currently paid by investors for traditional German and Swiss insurance companies.

Figure 16: Valuation overview - Swiss/German insurers

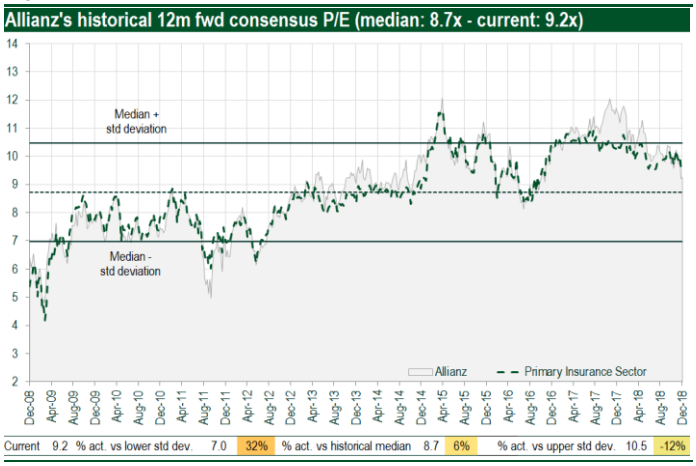
Company	Rating	Price Target	Share Price	Up/ Down	Market Cap (EUR bn)	EPS 2018	EPS 2019	EPS 2020	PE 2019	PE 2020	P/NAV 2019	P/NAV 2020	RoNAV 2020	P/B 2020	RoE 2020	Div. Yield 2020
INSURANCE																
Allianz	Neutral	210	179	+17.3%	75.7	17.5	18.7	19.6	9.5	9.1	1.41	1.30	14.2%	1.10	12.4%	5.3%
Bâloise	Outperform	170	145	+17.3%	6.27	11.5	13.1	13.9	11.0	10.4	1.02	0.98	8.9%	0.97	9.0%	4.8%
Hannover Re	Outperform	125	123	+1.8%	14.8	8.33	10.1	10.4	12.1	11.8	1.63	1.55	13.2%	1.53	13.3%	4.3%
Helvetia	Neutral	590	600	-1.6%	5.25	50.7	51.1	51.3	11.7	11.7	1.37	1.24	10.6%	1.00	8.9%	4.3%
Munich Re	Outperform	205	192	+7.0%	27.0	16.4	18.2	19.9	10.5	9.6	1.25	1.18	12.5%	0.89	9.5%	5.0%
Scor	Neutral	35.0	41.5	-15.8%	7.73	2.88	3.49	3.72	11.9	11.2	1.32	1.24	11.1%	1.08	9.9%	4.7%
Swiss Life	Outperform	400	402	-0.5%	11.4	30.1	32.1	34.4	12.5	11.7	1.00	1.01	8.7%	0.91	7.8%	5.1%
Swiss Re	Outperform	105	93.6	+12.2%	25.7	8.54	9.17	9.17	10.4	10.4	0.98	0.98	9.7%	0.89	8.8%	5.5%
Talanx	Neutral	34.0	31.8	+6.8%	8.05	2.81	3.39	3.49	9.4	9.1	0.88	0.85	9.4%	0.79	8.9%	4.9%
Zurich Insurance	Outperform	350	305	+14.9%	39.7	24.9	30.8	32.0	10.1	9.7	1.51	1.44	14.9%	1.34	14.1%	7.4%
Sector					**222**				**10.9**	**10.5**	**1.24**	**1.18**	**11.3%**	**1.05**	**10.3%**	**5.1%**

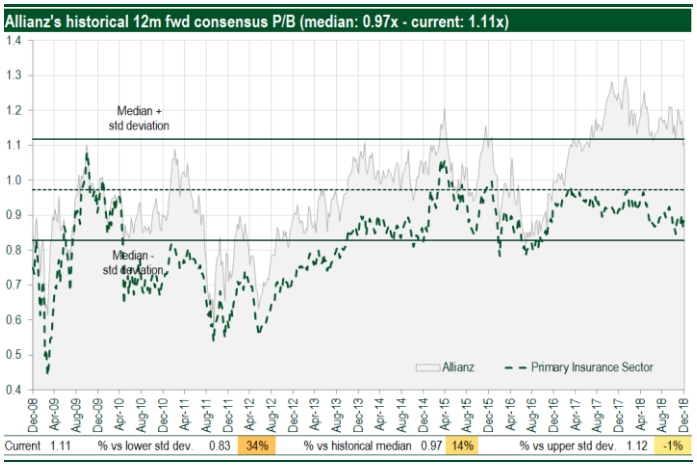
Source: MainFirst Research

Valuation multiple expansion in the traditional insurance segment

The following two tables explain the development of the P/E and P/BV multiples for Allianz, which we consider to be a good market proxy. The ten-year median for the P/E multiple was 8.7x and for the P/BV multiple 0.97x.

Figure 17: Development of the P/E and P/BV multiples for Allianz





Source: MainFirst Research, Factset

We compare DFV with InsurTech companies and calculate the net present value of DFV's investments

With regard to valuation, we believe that one approach could be to compare DFV with InsurTech companies such as ottonova, Lemonade or Oscar. In addition we have built a DCF-based valuation tool, which reflects DFV's earnings power following the successful investments in its future growth.

Peer Group Analysis

The InsurTech segment in Germany is booming and the investment rounds in the young segment are getting bigger and bigger.

ottonova, with a few hundred customers, is valued at USD 115m

Munich-based health insurer ottonova (https://www.ottonova.de), which started business on 21 June 2017, is said to have between 200 and 1,000 customers (the founder declined to give an exact number). The company is valued at c.USD 115m. ottonova was the first new health insurance company to be founded in Germany in almost two decades.

In the US InsurTech space there are many "unicorns" around

Looking at the US InsurTech market, valuations are even more impressive.

- Health insurer Oscar is valued at c.USD 3.2bn https://www.hioscar.com/ny
- Car insurer Root is valued at c.USD 1bn https://www.joinroot.com
- Renters and home insurer Lemonade is valued at c.USD 1bn https://www.lemonade.com

In the following table we have summarised a few key figures of the above-mentioned InsurTechs.

Figure 18: Peer Group Comparison

	Premium volume (USD, m)	# of customers/contracts	Combined ratio	Valuation (USD)
DEUTSCHE Familienversicherung	83.5	464,356	91%	?
oscar	c. 400	c. 260,000	c. 94%	3.2bn
ROOT	c. 14.9	n.a.	c. 324%	1.0bn
Lemonade	c. 9.9	c. 200,000	c. 138%	1.0bn
ottonova	c. 0.036	>200 - <1,000	c. 2000%	116m

Source: Herbert Frommes „Versicherungsmonitor": https://versicherungsmonitor.de/2018/08/30/us-insurtechs-wachsen-aber-noch-nicht-profitabel/ // https://www.ottonova.de/SFCR_2017.pdf

DFV merits a valuation in the same broad range as other InsurTech companies

Although a valuation pattern is not visible in the table above, we conclude that Deutsche Familienversicherung merits a valuation in the same broad range for the following reasons:

- In strong contrast to many other InsurTech companies, DFV is profitable. The company generated 2016 and 2017 operating profits of EUR 2.0m and 2.1m respectively.
- At the end of 2017, DFV's insurance portfolio amounted to 464,356 insurance contracts.
- DFV owns a scalable digital insurance platform designed to accommodate 10x the current customer base.
- DFV offers easy-to-understand, award-winning insurance products.
- DFV is run by a very experienced management team, most of whom have spent decades in the insurance industry.

InsurTechs have secured substantial amounts of money to wake up the larger players in a global market with total business volume (premiums) of USD 4,891bn

In addition to ottonova, several other companies in the German InsurTech segment are competing for customers. Intermediaries and brokers such as **simplesurance** (known in Germany as the insurance service **Schutzklick)** and **Clark**, a digital insurance manager, have just secured USD 24m and USD 29m respectively to drive their businesses forward. The insurance manager **Wefox**, formerly known as FinanceFox, has secured EUR 55m so far. Under

the name **One**, the start-up recently launched its own insurance company. **simplesurance**, on the other hand, allied itself with the digital insurer **Element** in order to offer its own digital policies. **Coya**, another digital insurance with a BaFin licence, has already secured around USD 40m – from Valar Ventures, Peter Thiel, eVentures and La Famiglia, among others. Coya is competing to "become Europe's leading digital insurance company".

The InsurTech segment has become the hot ticket for venture investors

According to Willis Tower Watson, the once sleepy world of insurance has become the hot ticket for venture investors. Insurance technology companies have raised many billions of dollars in the past four years.

Figure 19: Selected InsurTech companies in the Life & Health sector

Source: Willis Tower Watson

Financial analysis of US-based InsurTech companies

InsurTech financials are not yet convincing

In Matteo Carbone's blog, 'Q2-18 in InsurTech financials', we found this summary of the Q2-18 statutory financials of three venture-backed insurance companies. In the US, only insurance companies have to file statutory results, not agents and brokers (i.e., most InsurTech underwriters).

Figure 20: Peer Group Comparison

2Q18 Statutory Financials	Lemonade	Metromile	Root
Best known for	$5 renters insurance and conference keynote speeches	Pay-per-mile auto; being an InsurTech before the word existed	Try-before-you-buy auto insurance and claiming unicorn status
Founded	2015	2011	2015
Funding	$180M	$296M	$178M
Selected backers	Softbank, Sequoia, Allianz	Intact, Tokio Marine, CPIC	Tiger Global, Ribbit, SVB
Direct Premium Written	**9,855,612**	**20,232,559**	**14,874,471**
Growth rate over prior quarter	32%	6%	88%
Net premiums earned	3,965,193	8,780,650	5,192,543
Net losses incurred	2,576,813	7,331,937	4,240,219
Loss adjustment expenses	247,881	2,059,817	725,758
Other underwriting expenses	2,664,218	2,512,163	11,871,636
Net underwriting gain (loss)	**(1,523,719)**	**(3,123,267)**	**(11,645,070)**
Loss & LAE ratio - Gross (gross loss / gross premium)	**120%**	**95%**	**112%**
Loss & LAE Ratio - Net (net loss / net premium earned)	71%	107%	96%
Ceded loss ratio (ceded losses / ceded premium)	361%	86%	143%
Combined ratio - Gross (losses plus expenses / premium)	176%	108%	261%
Combined ratio - Net	**138%**	**136%**	**324%**

Source: Statutory filings

DFV's operating profit could increase tenfold in the next five years

The most interesting observation is the net combined ratio (from 136% to 324%) of these companies. This clearly shows that none of the three InsurTech companies mentioned currently posts any profits. However, their investors are betting that all three companies will become very successful in the future, hence the optimistic valuations of between USD 1bn and USD 3.2bn. Investors should keep in mind that DFV is already generating an operating profit of EUR 2m, which could increase tenfold in the next five years.

DCF Analysis

As traditional valuation multiples do not 'work' to value Deutsche Familienversicherung (DFV), we use the Free Cash Flow to Equity (FCFE) method. This valuation method is based on the work of Richard Goldfarb's 'P&C Insurance Company Valuation'.

DFV has no debt outstanding

FCFE is very similar to the Free Cash Flow to the Firm (FCFF) method, but it reflects free cash flows after deductions for interest payments (please note that DFV has no debt outstanding), net of any tax consequences of these interest payments, and any net change in borrowings (i.e. repayment of debt and new debt issued).

The typical textbook definition of FCFE and a simplified definition of FCFE for P&C insurers are summarised as shown in the following tables:

Figure 21: Definition of Free Cash Flow to Equity (FCFE)

	Net Income
plus	Non-Cash Charges (Expenses)
less	Net Working Capital Investment
less	Capital Expenditures
plus	Net Borrowing
	Free Cash Flow to Equity (FCFE)

Simplified definition of FCFE for P&C insurer

	Net Income
Plus	Non-Cash Charges – Excluding Changes in Reserves
Less	Net Working Capital Investment
Less	Increase in Required Capital
Plus	Net Borrowing
	Free Cash Flow to Equity (FCFE)

Source: P&C Insurance Company Valuation, Richard Goldfarb, FCAS, CFA, FRM

Increases in insurance reserves have a large impact on the reported income, but not on the actual cash flow

For a P&C insurer, the most significant of the “non-cash” expense items on the income statement are the increases in the loss and expense reserves. These reserve increases could have a substantial impact on the reported income but not on the actual cash flow. This would seem to suggest that changes in reserves could be added back to net income, but we understand that this is not the case.

When calculating FCFE, changes in loss and expense reserves can be included in the definition of capital expenditures. Since these changes in reserves reflect the most significant non-cash charges, which according to the usual definition of FCFE would be added back to net income, and also reflect a significant portion of capital expenditures, which would be subtracted from net income, these two adjustments will cancel each other out

The FCFE represents the cash flow that could be paid to shareholders in any particular period. In the simple case of a two-year insurance policy where the firm collects the premium net of expenses up front and then pays claims at the end of the second period, it would not be sufficient to treat the net premiums as the (positive) free cash flow in the first period and the claim payments as the (negative) free cash flow in the second period. This is because some of the premium collected in the first period is not free to be paid to shareholders. Instead, some portion of the premium must be held in claim reserves. The implication of this is that, when calculating FCFE, changes in loss and expense reserves can be included in the definition of capital expenditures. Since these changes in reserves reflect the most significant Non-Cash Charges, which according to the usual definition of FCFE would be added back to Net Income, and also reflect a significant portion of Capital Expenditures, which would be subtracted from Net Income, these two adjustments will cancel each other out. The result is that the increases in loss and expense reserves, which have already been reflected in the net income figures, can be ignored in the steps used to estimate FCFE through adjustments to net income.

Notice that two other components of the free cash flow to equity calculation include changes in net working capital and capital expenditures. Both of these amounts represent uses of cash flow needed to maintain the firm’s operations and support the growth that is planned. Working Capital Investment shown in the above table reflects net short-term (non-cash) assets held to facilitate company operations, such as inventory or accounts receivable. Capital Expenditures typically refer to investment in property, plant, equipment and other physical items. For P&C insurance companies, net working capital is not typically significant and will not be discussed in detail here.

Capital expenditures include increases in capital held to meet regulatory requirements (e.g. Solvency II).

The definition of capital expenditures for P&C insurance companies is more complicated, because it must be adjusted to include changes in loss and expense reserve balances as well as increases in capital held to meet regulatory requirements (e.g. Solvency II), consistent with the company’s business plan. Such regulatory minimum capital requirements should be treated as "capital expenditures" for the purposes of determining free cash flow. Furthermore, the ability of an insurer to meet its growth and profitability targets is tied closely to public perception of its financial strength.

We derive a price target of EUR 17.2, which offers 46% upside to the current share price

The discounted cash flow model is a preferred valuation model for DFV as it captures DFV's entire growth trajectory. For the terminal value, we assume: (1) a discount rate of 8%; (2) an operating margin of 15% from 2026 onwards; (3) a tax rate of 33%, and (4) a terminal growth rate of 3%.

Figure 22: DCF Analysis

DCF valuation (EUR m)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Net earned premiums	**57.2**	**71.2**	**84.4**	**97.9**	**117.2**	**138.2**	**161.8**	**174.7**	**188.7**	**203.8**	**220.1**	**237.7**	**256.7**	**277.3**
Operating margin	**-5.4%**	**6.7%**	**10.2%**	**11.4%**	**11.9%**	**12.2%**	**12.6%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**
Operating profit	**(3.1)**	**4.7**	**8.6**	**11.2**	**13.9**	**16.8**	**20.4**	**26.2**	**28.3**	**30.6**	**33.0**	**35.7**	**38.5**	**41.6**
Other non-cash items	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash pre-tax profit	**(3.1)**	**4.7**	**8.6**	**11.2**	**13.9**	**16.8**	**20.4**	**26.2**	**28.3**	**30.6**	**33.0**	**35.7**	**38.5**	**41.6**
Tax rate	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%
Taxes	1.0	(1.6)	(2.8)	(3.7)	(4.6)	(5.6)	(6.7)	(8.6)	(9.3)	(10.1)	(10.9)	(11.8)	(12.7)	(13.7)
Net cash income	**(2.1)**	**3.2**	**5.8**	**7.5**	**9.3**	**11.3**	**13.6**	**17.6**	**19.0**	**20.5**	**22.1**	**23.9**	**25.8**	**27.9**
Increase in equity	(2)	(2)	(2)	(3)	(3)	(3)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Other comprehensive income		-	-	-	-	-	-	-	-	-	-	-	-	-
= Free Cash Flows to Equity	(4.1)	1.2	3.8	4.5	6.3	8.3	8.6	12.6	14.0	15.5	17.1	18.9	20.8	22.9
Discounting rate (=COE)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Discounting coefficient	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0
Discounted FCF	**(4)**	**1**	**3**	**3**	**4**	**5**	**5**	**7**	**7**	**7**	**7**	**8**	**8**	**8**

Perpetual growth rate	3.0%	
Terminal value (at perpetual growth rate)	471	
Discounted terminal value	160	70%
+ Sum of discounted FCF	69	30%
= Equity value of future CF	230	
+ Surplus capital YE-19	-	
= Equity value	**230**	
no. of shares	13.32	
per share (in EUR)	**17.2**	
share price	**11.8**	
Upside/downside	**46%**	

Source: MainFirst Research

Figure 23: Sensitivity analysis

		Terminal value growth				
	230	**2.0%**	**2.5%**	**3.0%**	**3.5%**	**4.0%**
Cost of equity	**10.50%**	123	128	**133**	139	146
	10.00%	135	140	**147**	154	162
	9.50%	148	155	**162**	171	182
	9.00%	163	171	**181**	192	206
	8.50%	181	191	**203**	217	235
	8.00%	202	214	**230**	248	272
	7.50%	227	243	**263**	287	319
	7.00%	257	278	**304**	338	383
	6.50%	294	322	**358**	406	473
	6.00%	341	379	**431**	502	609
	5.50%	402	456	**532**	646	836

Source: MainFirst Research

DFV's digital approach

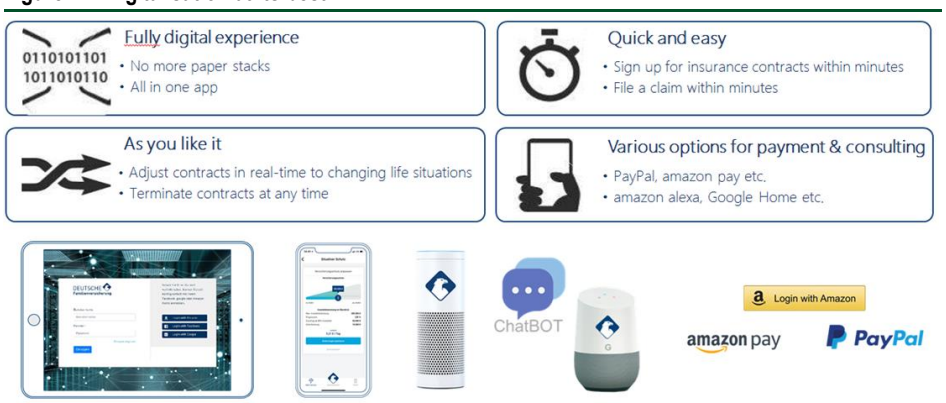
DFV's goal is to offer easy-to-understand insurance products and to combine this approach with an easy-to-use contracting process

DFV's goal is to offer easy-to-understand insurance products and to combine this approach with an easy-to-use contracting process. The company has developed an innovative suite of insurance offerings that are highly flexible, comprehensive and responsive to the needs of the individual consumer. The customer can immediately recognise the benefits and premiums of each insurance product at a glance. As a mass-market player, DFV offers insurance products and price levels that are highly competitive and suitable for the vast majority of potential customers.

What a change. DFV took its 100+ insurance product offerings and reduced them to 16 core products

DFV took its 100+ insurance product offerings and reduced them to 16 core products (four product families across four levels of protection = "16 Matrix"). This digital product concept allows customers to simply disclose their age through either an in-person broker, over the phone, through the DFV app or website, or even through Amazon Alexa to receive an instant pricing proposal.

Figure 24: Digitalisation at its best



Source: DFV

DFV wants to deliver an efficient digital experience for the customer

DFV wants to deliver an efficient digital experience for its customers, which in 2014 led the company to develop its own innovative technological processes to become a truly digital company. DFV relies on one simplified set of processes, product information sheets and a policy that covers all product families, resulting in a streamlined and accelerated customer journey.

From batch processing to event-based process – a mandatory requirement for any truly digital insurer

DFV can map all customer requests and policy contract changes in real time, unlike traditional insurers in the market that still rely on traditional batch processing that involves slower turnaround times and complex form requirements. This system also means that product changes are possible almost immediately and new product innovations within a matter of days. DFV also provides customers an extended, eight-week withdrawal ('cooling-off') period, a right to cancel at no notice and an exemption from fees in the event of unemployment or an inability to work.

Quick and uncomplicated settlement of claims with the help of Artificial Intelligence (AI)

On the claims side, DFV uses artificial intelligence (AI) to decide the validity of claims, and has also developed an algorithm that can generate and interpret medical codes (ICD = International Statistical Classification of Diseases and Related Health Problems) from medical bills and thus to tremendously expedite the claims payment process.

The flexibility of customer interaction with the company extends well beyond the initial sales touchpoint

The flexibility of customer interaction with the company extends well beyond the initial sales touchpoint, as DFV offers customer service and insurance consultancy through its own AI chat-bot, Amazon Echo and Google Home as well as by the more conventional means. In adopting a fully digital insurance

strategy, DFV has not failed to overlook the unique needs of its customers. The diversity of customer touchpoints, from traditional methods to chat-bots, reflects the nuanced and individual requirements of the modern consumer and fulfils the company's maxim of providing simple and sensible products that offer full transparency and maximum convenience.

US InsurTech: Insurance industry veterans are outperforming the newbies on the loss ratio - it is of utmost importance that management understands the underlying business model

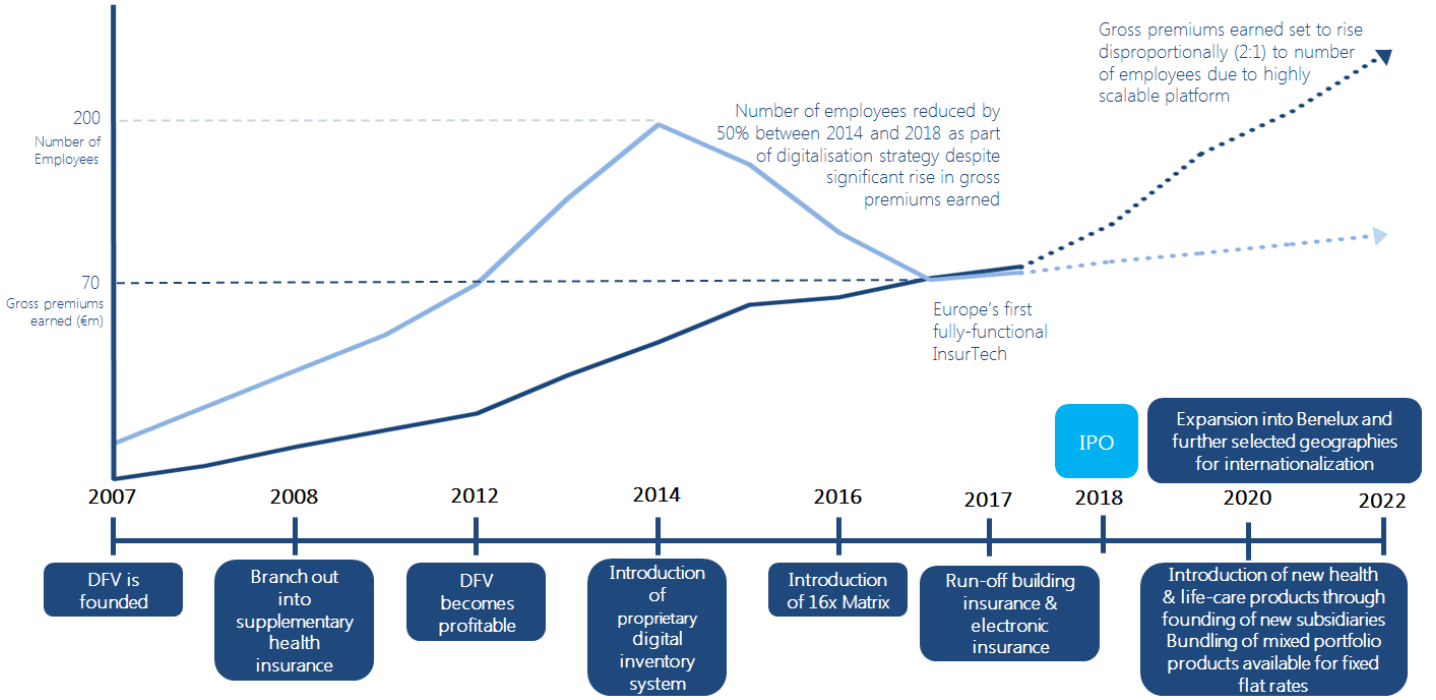
As a company that is now 12 years old, DFV challenges the perception that something can only be called 'InsurTech' if it was founded in the last few years. Interestingly, an analysis of the US InsurTech space shows that insurance industry veterans are outperforming the newbies on the loss ratio but not premium growth, as the experienced insurance managers understand the insurance business much better than the young InsurTech players. Profitable growth is key in the insurance business. DFV's highly experienced management team is one of its most important USPs, in our view.

Grow the market share in the home market and 'go Europe' in a next step

We believe that DFV's modular platform allows each part of the product offering to be continuously updated, to remain relevant and appropriate for the growing market it looks to serve. With c. 450,000 customers in the German market, DFV has far greater ambitions and will look to continue to increase its share of the German insurance market. The company is also thinking about expansion into Benelux and further selected geographies (via European Passport/Single-Licence-Principle).

Deutsche Familienversicherung (DFV) – Milestones

Figure 25: DFV - Milestones



Source: DFV

The market opportunity

The online penetration in the German insurance industry is still relatively low

The online penetration in the German insurance industry is still relatively low, with only 16.9% of accident insurance policies being sold through direct sales (Direktvertrieb) in 2016, of which only a portion was underwritten online. Nevertheless, this is a growing trend as customers increasingly use messenger apps and social networks in insurance matters. We believe that this represents a material catch-up potential driven by the general trend towards the use of online media for the acquisition of new products.

The 1910 population pyramids for Germany do resemble a pyramid. By 2005 there was a bulge of adults around age 40. This bulge will rise to age 60 in 2025

Favourable demographic developments will further accelerate the migration from offline to online in the insurance industry, driven by the so-called millennials with high affinity to the internet in general and e-commerce in particular, who are beginning to spend their rising disposable incomes on online purchases.

The Germans are online - The proportion of online users in Germany has risen to around 89%

According to an ARD/ZDF online study, around 62 million people in Germany used the Internet in 2017. The proportion of online users in Germany has thus risen to around 89%. According to the D21 Digital Index 2016, around 62% of households in Germany use broadband Internet access.

The average Internet usage time per day in Germany in 2017 was 149 minutes

In the 60+ generation, the share of Internet users is 74%. Among 14- to 19-year-olds, 100% are considered Internet users. With regard to the gender of Internet users in Germany, the following picture emerges: around 91% of the male and 89% of the female population used the Internet in 2017. The average Internet usage time per day in Germany in 2017 was 149 minutes.

The proportion of mobile Internet users substantially increased

The increasing use of mobile devices has also changed the proportion of mobile Internet users. While the proportion of Internet users using it on the move in 2011 was still around 13%, that figure rose to 63% in 2016. Around 30% of people in Germany even use the Internet every day on the move.

Adcubum: 57% of German citizens can imagine taking out an insurance policy completely online

57% of German citizens can imagine taking out an insurance policy completely online. According to a study by software manufacturer Adcubum ("*Digitale Versicherung 2018*"), the favourite categories for taking out insurance online are motor, liability and household insurance. In addition, language assistants such as Alexa are gaining popularity when taking out insurance policies.

The following table calculates the penetration potential in the German insurance market. The target group comprises all Germans between the ages of 20 and 60, which amounts to 45m people.

The German market offers a substantial penetration potential

Figure 26: Penetration potential and market share gains offer huge opportunities

Insurance type	Remaining penetration potential in Germany	Implied penetration potential in million contracts*
Long-term care	94%	42.3
Accident	70%	31.5
Nursing care	70%	31.5
Dental	60%	27.0
Household	30%	13.5
Liability	20%	9.0

The market potential from underpenetration amounts to 165m insurance contracts in Germany.

Source: DFV

Statistics published by the Association of German Health Insurers (www.pkv.de)

The number of private health insurance policies developed positively in 2016, rising to 33.9m full and supplementary policies. New business from full and supplementary insurance amounted to 299,200 policies, with supplementary insurances growing by 1.3% and, with 25.1m policies, crossed the threshold of 25m for the first time.

Once again, the strongest growth was in supplementary long-term care insurance: The number of state-subsidised policies rose by 13.7% in 2016 to 777,200 contracts. The number of unsubsidised insurance policies increased by 3.6% to 2.7m, so that there were a total of 3.5m private supplementary nursing care insurance contracts in place at the end of 2016. Furthermore, the number of dental tariffs as a supplement to the statutory health insurance system increased particularly strongly, with growth of 3.5%, and reached 15.5m policies at the end of 2016. The trend in private supplementary health insurance remains positive.

Sales Structure and Selected Sales Activities

Omni-channel approach

DFV offers the following sales channels:

- Direct
- Online
- DRTV - Direct Response TV
- Cooperations
- Intermediaries

DFV is a premium partner of Eintracht Frankfurt

In addition, the co-operation between DFV and the German soccer club Eintracht Frankfurt is a key element of the company's sales and marketing presence. From the 2018/19 season on, DFV is a premium partner of Eintracht Frankfurt.

Online

Online accounts for ~60% of new business

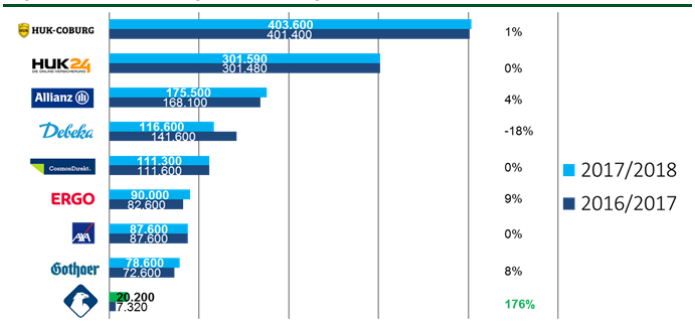
The online sales channel is currently DFV's strongest sales channel. It accounts for approximately 60% of the Company's new business. The activities mainly include search engine marketing (SEM) with Google Ads and Bing Ads, search engine optimisation (SEO) for Google and Bing Search, as well as affiliate marketing with over 3,400 affiliate partners.

Using SEO (Search Engine Optimisation), SEA (Search Engine Advertising), Bing and affiliate marketing, DFV is the fastest growing direct insurer in supplementary health insurance with

- 296,000 unique users per month
- 425,000 page views per month
- 85% new users

According to mediaworx (digital specialist in Berlin) DFV is the fastest growing direct insurer in 2017/2018, based on monthly trademark search in Google (see Figure 9 below). With a Google Visibility Index of 8.4, Deutsche Familienversicherung is one of the best-placed insurance companies in the market.

Figure 27: Increasing brand recognition



Source: mediaworx ranking (13/8/2018)

Top positioning within Google

company	domain	google visibility 2017	google visibility 2018	change
	deutsche-familienversicherung.de	6,307	8,47	34%
HanseMerkur	hansemerkur.de	4,885	6,422	29%
ERGO Direkt	ergodirekt.de	6,137	6,564	7%
CosmosDirekt.	cosmosdirekt.de	13,51	13,91	3%
AXA	axa.de	8,399	7,446	-11%
Allianz	allianz.de	15,25	13,32	-13%
Debeka	debeka.de	3,17	2,55	-20%
HUK24	Huk24.de	9,65	6,904	-28%

Online brokers such as Check24 are also supported by online sales. In addition, display networks such as Google Ads, Yahoo Gemini (Oath) and Taboola are used to manage performance-oriented display campaigns. In addition to campaign management, the special focus of online sales is on the continuous development of the companies' internet presence.

DRTV (Direct Response TV)

MAXCARE is a joint white-label offering with Germany's largest broadcasting group, ProSiebenSat.1 Group (three-year contract). The two partners aim to generate 25,000 new contracts a year across DFV's product range.

Cooperation Agreement with KKH

On 2 October 2012, the Company and Kaufmännische Krankenkasse ("KKH") entered into a cooperation agreement in connection with the distribution of the Company´s private supplementary health and nursing care insurance to members of KKH as statutory health insurer and the recruitment of new members for KKH. The cooperation agreement is open-ended, and can be terminated by either party with six months prior notice for the end of the calendar year but not before the end of 2019. The right to terminate the cooperation for good cause remains unaffected. As of 1 September 2018, the agreement has been amended. According to the amended cooperation agreement, KKH is now only acting as an adviser.

Additional co-operations

The co-operation sales channel is volatile. Acquisition periods of 12 to 24 months from the first meeting to the first sale are common in the cooperation business. The sales focus is on partners with high potential, so that the conclusion of a co-operation agreement can generate high volumes over a period of two to three years. Thereafter, the potential in the partner's portfolio naturally flattens out and is limited to winning new partner customers.

DFV's co-operation partners include

- Health insurer Knappschaft (1.7m members)
- IG BCE Bonusagentur, now Bonusassekuranz GmbH, a subsidiary of IG BCE Bonusagentur GmbH, which is itself a subsidiary of the Mining, Chemical and Energy Industries Union (Industriegewerkschaft Bergbau, Chemie, Energie) which has 637,623 members)
- Siemens Financial Services
- BMW

For occupational health insurance, the 'DFV-DeutschlandPflege' was tailored together with the IG BCE Bonusagentur for operational matters via a group insurance, and is currently unique in Germany.

Effective 1 January 2019, DFV started the cooperation with consumer goods manufacturer Henkel on an exclusive supplementary nursing care insurance product for its c. 9,000 employees and trainees called Henkelcareflex. The product was launched in cooperation with the Mining, Chemical and Energy Industrial Union (IG Bergbau, Chemie, Energie), which has more than 600,000 members. The implementation at Henkel serves as a blueprint for introduction at other companies in the chemical and pharmaceutical industry that have already expressed interest in this solution.

The cooperation sales channel contributes between 5% and 20% to the new business, depending on the acquisition status.

Intermediaries

The intermediaries' sales channel is basically very heterogeneous and can be divided between brokerage and agency sales. Besides the aforementioned cooperations, the sale of insurance products through insurance agents is mainly conducted through DFVV Deutsche Familienversicherung Vertriebsgesellschaft mbH ('DFVV'), a wholly-owned subsidiary of the Company. The majority of new business in the brokerage sales channel is generated through direct cooperation with insurance brokers and brokerage pools. Additionally, part of the business is generated through a cooperation with VPV Lebensversicherungs-AG ("VPV").

In June 2018, DFV acquired a 9.9% stake in BCA AG. BCA is one of the broker pools mentioned above. This participation serves to expand the opportunities within the framework of intermediaries' sales by creating additional sales potential.

DFV offers a unique business model

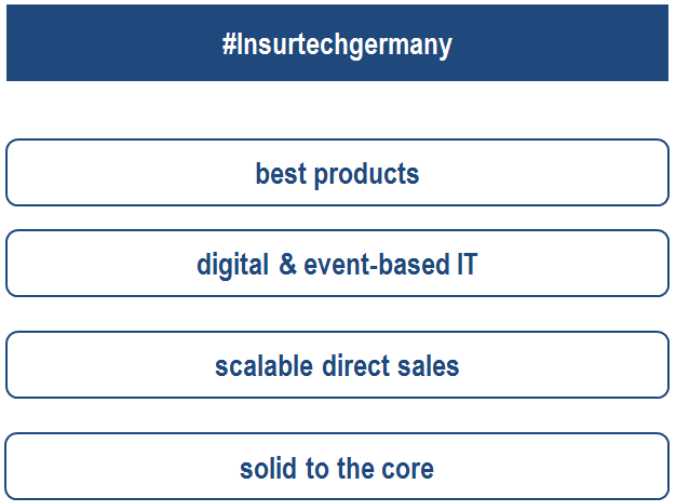
Anytime, anywhere …

Many industries have changed massively over the last two decades. For example, booking an airplane ticket happens online and no longer in a travel agency. Buying a CD and having a player have been replaced by music streaming, so that customers can choose according to their individual preferences, anytime, anywhere.

Why not in insurance?

In contrast to this, the insurance business model has remained fundamentally unchanged over the last few decades. We believe this will change in the next few years, and that DFV already offers a unique business model.

Figure 28: DFV offers a unique business model



Source: DFV

Trigger # 1 – 'Best' products

DFV offers easy-to-understand insurance products in the field of health and P&C insurance

In the past, regulators set the standard for insurance products but, nowadays customers can easily compare products online to get a better offer. Understanding the customer and adjusting ones products timely and accordingly is key and as the next step insurers will have to offer easy-to-understand products to be able to compete. We agree with DFV that InsurTech starts with the product. Simplicity is paramount. Consequently, CEO Dr. Knoll and his team have developed the idea of the '16 Matrix', which offers insurance products structured in product families. The following tables show DFV's lean and clear product offering.

Figure 29: 16 Matrix health insurance

DFV-DentalCare	DFV-OutpatientCare	DFV-ImpatientCare	DFV-LTC
★ Basis	★ Basis	★ Basis	★ Basis
★★ Komfort	★★ Komfort	★★ Komfort	★★ Komfort
★★★ Premium	★★★ Premium	★★★ Premium	★★★ Premium
★★★★ Exklusiv	★★★★ Exklusiv	★★★★ Exklusiv	★★★★ Exklusiv

Source: DFV

In addition DFV offers daily benefits insurance (DFV-DailybenefitsCare) and travel insurance (DFV-TravelCare).

In the field of property & casualty, DFV offers the following products until the end of the year.

Figure 30: 16 Matrix property & casualty insurance

DFV-AccidentCare	DFV-HouseholdCare	DFV-LiabilityCare	DFV-LegalCare
★ Basis	★ Basis	★ Basis	★ Basis
★★ Komfort	★★ Komfort	★★ Komfort	★★ Komfort
★★★ Premium	★★★ Premium	★★★ Premium	★★★ Premium
★★★★ Exklusiv	★★★★ Exklusiv	★★★★ Exklusiv	★★★★ Exklusiv

Source: DFV

The "DFV-HouseholdCare" is the first of a total of three new property insurances that DFV aims to launch in the coming weeks. The offer of the DFV property & casualty insurance is based on the structure of the "16 Matrix" health scheme. After the full launch, the product will consist of household, liability, legal and accident insurance. The last of these has already been implemented during the course of last year.

Run-off portfolios generate healthy profits

In addition, DFV has put two product lines in run-off, namely cell phone insurance (DFV-ElectronicCare) and building insurance (DFV-Building Care). We understand that two employees are in charge of the run-off business. One option would be to sell the portfolios, but we understand that the run-off books generate very healthy profits.

The respective tariffs of the four categories (Basis, Komfort, Premium and Exklusiv), relate to the escalating extent of the insurance cover purchased (30%/60%/90%/100%).

As the products are easily understood, DFV claims to have the fastest online insurance market platform in the market

As the products are easily understood, DFV claims to have the fastest online insurance market platform in the market.

The ability to offer top-ranked products is very important for the client approach

DFV offers award-winning products

The ability to offer top-ranked products is very important for the client approach.

Figure 31: Award-winning products

Source: DFV, Stiftung Warentest

DFV's insurance products have been ranked #1 by 'Stiftung Warentest' for three years in a row. Over the past ten years, DFV has won over 130 awards

In 2019/20, DFV intends to introduce flat-fee product bundles, which would provide target customers with a 'unique, worry-free solution' which is not replicable by traditional insurers due to channel conflicts and legacy IT systems.

DFV's insurance products have been ranked #1 by 'Stiftung Warentest' for three years in a row. Over the past ten years, DFV has won over 130 awards.

In 2019/20, DFV intends to introduce flat-fee product bundles, which would provide target customers with a 'unique, worry-free solution' which is not replicable by traditional insurers due to channel conflicts and legacy IT systems. Such a product bundle could accelerate top-line growth through higher average content/customer, as the typical retail client holds no more than 1.5 contracts with one insurance company on average.

Figure 32: Example product bundle

Source: DFV

Trigger # 2 – Digital & event-based IT

The digital customer journey begins

Once the customer has decided the buy one of DFV's products, the digital customer journey begins.

Figure 33: Online product consulting

Online payment

Source: DFV

DFV is the first insurer to use AmazonEcho and GoogleHome for customer consulting, and the AI-based chatbot 'Victoria' advises customers on the DFV website.

The insurance industry has long recognised the growth opportunities that come with digitalisation

The insurance industry has long recognised the growth opportunities that come with digitalisation. According to market experts, many insurance websites still lack responsive design, so they are not optimised for use with smartphones and other devices. In addition, search engine optimisation has largely been neglected. Even if consumers ask Amazon's language assistant Alexa about insurance, they are often unable to find the corresponding website or retrieve the content.

The future of verbally agreed insurance contracts via digital assistants is uncertain but promising

According to CEO Knoll, there is no reason to conclude an insurance policy exclusively online or in writing. An insurance contract could also be agreed verbally by a digital 'handshake'. However, questions remain over the legal framework of contracts concluded through a digital assistant. Other insurers including Zurich, Generali and Allianz already offer generic information through Siri, Alexa or Google Assistant, but do not allow consumers to finalise any contracts. Reason is a set of new European Union guidelines, which came into force in February, which have increased insurance companies' responsibility to properly inform their clients. Hence, uncertainty surrounding contract conclusions via digital assistants prevails for now, but the space looks highly promising in the future.

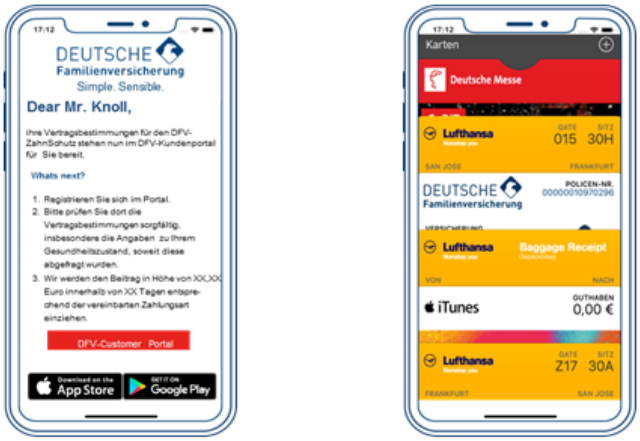
So far, DFV is the first and only Amazon cooperation partner which is offering insurance contracts via an Alexa skill.

Apart from conventional payment methods, PayPal and AmazonPay are also available as payment options. Utilisation of Amazon Log-In further increases customer convenience.

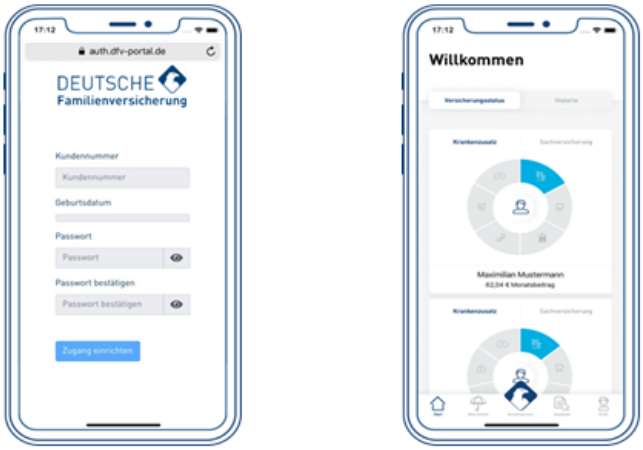
Policy process

Following the online completion, the DFV customer will receive an e-mail with the access data for the DFV customer portal, the download link to the DFV app and an insurance card in wallet format. The customer can make changes to his contract data in real time.

Figure 34: e-policy & wallet card



Customer acceptance



Source: DFV

The policy process of DFV's insurance products works completely online and digitally automated.

Customer service

The Amazon Skill of Deutsche Familienversicherung is designed so comprehensively because the company is convinced that the insurance industry will in the future underwrite contracts mostly in digital and oral form

The Amazon Skill of Deutsche Familienversicherung is designed so comprehensively because the company is convinced that the insurance industry will in the future underwrite contracts mostly in digital and oral form. DFV has explained the practical advantages that language assistants bring with them. For example, they can be accessed anytime, day or night, in case of problems or questions, without an appointment. In addition, a policy alteration, for example with regard to address data, can be made with Alexa within seconds. The digital assistants can also answer questions about current insurance cover at any time.

Claim service

Digitisation must be seen as a helpful tool which brings added value for the customer. Here the buzzword is AI (artificial intelligence) which can support the claim service. In the case of DFV, the customer submits an invoice, artificial intelligence determines what kind of document it is, and assigns the invoice to a service. Next, it will be examined to establish whether the damage or the required medical service is covered by the insurance policy. Thanks to artificial intelligence and digital value creation, this works quickly, easily and fully automatically.

Artificial Intelligence can interpret unstructured documents such as medical reports and invoices and settle claims based on such documentation fully automated

For medical bills or reports, artificial intelligence also generates so-called ICD (International Classification of Diseases) codes from unstructured documents submitted by clients, for example by taking a photo of an invoice with their smartphone. Once the code has been generated and reconciled with the terms of insurance, the claim will be settled within minutes– fully automated, without any need for human interference.

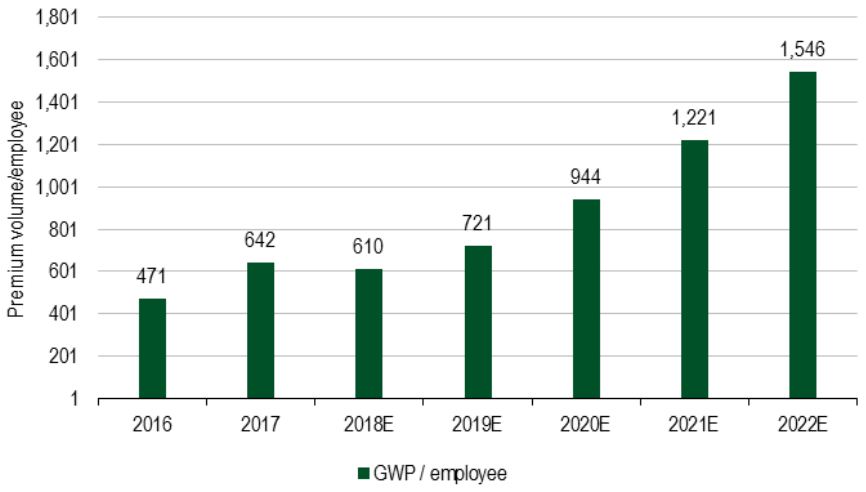
Trigger # 3 – State-of-the-art IT system

DFV has developed an all-in-one and easy-to-handle IT core system

DFV has developed an all-in-one and easy-to-handle IT core system. IT was developed from scratch to meet all of DFV's needs within one integrated solution. The core system is controlled by the in-house product model editor. All insurance products cover more than 1,500 input options so that the entire user interface, correspondence and policy handling is controlled centrally.

Due to the state-of-the-art IT core system, DFV believes it can accommodate 10x the current client base at little incremental cost.

Figure 35: Premium volume per employee (EUR thousands)



Source: DFV

Additional employees in claims settlement are needed only to control, and not to decide on incoming claims.

Trigger # 4 – Experienced management team

DFV's experienced management team can make the difference in the InsurTech world

We believe that DFV's experienced management team can make the difference. In a blog written by Matteo Carbone, founder and director of the Connected Insurance Observatory and a global InsurTech thought leader, we have read that two of the US-based start-up carriers sponsored by highly-regarded underwriters are performing very well in terms of profit. BiBerk, which ultimately reports to Ajit Jain, recorded a respectable 70% gross Loss & LAE ratio in Q2-18. Intrepid, where Rob Berkley sits on the board, turned in a 60% loss ratio (without LAE). Neither company has cracked even USD 4m in quarterly premium, compared with Root at nearly USD15m, but is there something that Ajit and Rob know that the newbies don't? This stands in contrast to the broader space of Insurtec players, where most companies post losses from their insurance business and seem to frequently misjudge the risk underwritten by them. DFV is run by veterans within the insurance industry and has a proven track-record of running a profitable insurance business, combining the digitized angle of the broader InsurTec sector with the experience and cautiousness of established insurance companies. We believe this is a key advantage of DFV and key to the overall investment case.

Risk factors

The risk management system has to include the strategies, processes and internal reporting procedures which are required to identify, assess, monitor and control risks to which the company is or may be exposed and to report these risks in a meaningful manner

Insurance companies must have an effective risk management system that is well integrated into their organisational structure and decision-making processes, while providing reasonable consideration to the information needs of those who actually manage the company or hold key functions, through appropriate internal reporting. The risk management system has to include the strategies, processes and internal reporting procedures which are required to identify, assess, monitor and control risks to which the company is or may be exposed and to report these risks in a meaningful manner.

A risk strategy coordinated with the management of the company, which takes the type, scope and complexity of the business conducted and the risks associated with it into consideration, is in particular part of the strategies that are to be developed.

Due to the uncertainty of future developments, the insurance business is associated with risk

Due to the inherent uncertainty of future developments, the insurance business is (almost by definition) associated with risk. It is important to take specific risks in the context of the existing risk-bearing capacity, if the associated opportunities promise adequate added value.

DFV's overall risk can be divided into the following risk categories:

- **Undertaking risk,**
- **Market risk, particularly in connection with investments,**
- **Credit risk, in particular from the default of receivables from insurance business,**
- **Liquidity risk,**
- **Operational risk,**
- **Reputational risk,**
- **Strategic risks.**

DFV's risk management aims to identify, control and ultimately systematically manage the risks early on

DFV's risk management aims to identify, control and ultimately systematically manage these risks early on. Executive Board members and executives perform active risk management. The department heads report routinely to the divisional or full Executive Board in regard to the current course of business, and also from a potential risk perspective. In addition, the company's Supervisory Board regularly addresses risk strategy issues at its meetings and is informed by the Executive Board about business development and planning.

The company's risk strategy also includes risk transfer to solvent reinsurance companies

The company's risk strategy also includes the transfer of risk to solvent reinsurance companies with first-class ratings via proportional risk assumptions and flexibly expandable coverage for major losses and natural catastrophes, as well as annually adjusted insurance cover for loss of earnings/operating interruptions, public liability, business premises, business inventory and cyber risks.

DFV also implemented an internal risk and solvency assessment process (ORSA – Own Risk and Solvency Assessment) according to the requirements of Solvency II

During the reporting period, DFV also implemented an internal risk and solvency assessment process (ORSA – Own Risk and Solvency Assessment) according to the requirements of Solvency II. While each insurance company applies identical criteria for assessing a risk with the application of the standard formula, and thus determines a Europe-wide comparable solvency capital requirement, individual company assessment criteria are also used in ORSA and the individual overall solvency requirement is determined on that basis. Furthermore, the forecast for the next three to five years runs through certain

stress scenarios to ensure DFV's stable solvency even under considerable pressure.

The Executive Board commissions to perform an ORSA at least once a year (regular ORSA)

The Executive Board requires an ORSA to be performed at least once a year (regular ORSA). If certain criteria established in the Executive Board's guidelines (e.g. the intention to change the company's reinsurance policy or changes on the capital market that exceed established limits) occur, the Executive Board can at any time initiate an additional ORSA to summarise the changes in the procedure, principles, findings and conclusions of ORSA in an internal report to the Executive Board. The Executive Board determines any possible effects on the business strategy and business planning within two weeks after the report is submitted and also decides on any further information to the Supervisory Board and the regulatory authority.

The CFO has the responsibility for independent risk control at DFV.

The company's Head of the Legal/Compliance Department was appointed to the compliance function of DFV

The company's Head of the Legal/Compliance Department was appointed to the compliance function of DFV. He is a fully qualified lawyer, attorney and in-house counsel. As part of the compliance function, he performs the tasks according to Sec. 29, para. 2 of the German Insurance Supervision Act (Versicherungsaufsichtsgesetz). This includes advising the Executive Board on compliance with the laws and administrative regulations that apply to the operation of the insurance business. Furthermore, the compliance function has to assess the possible effects of changes in the legal environment for the company, and identify and assess the risk associated with the violation of legal requirements (compliance risk).

Procedures to implement compliance and the reports to be provided are defined in a compliance plan

Procedures to implement compliance and the reports to be provided are defined in a compliance plan. The Executive Board can implement the approved audit plan through resolution as the approved compliance plan, and may waive the need for a separate compliance plan. The compliance function informs the Executive Board on a regular basis about compliance issues and prepares an annual compliance report.

2017 Solvency and Financial Condition Report (SFCR)

The development of the regulatory risk-bearing capacity is analysed at least quarterly.

Regulatory risk-bearing capacity is determined using the standard formula pursuant to Solvency II. Risk capital requirements (SCR: Solvency Capital Requirement) are calculated as value-at-risk with a confidence level of 99.5%. The regulatory risk-bearing capacity of DFV is shown as a ratio of eligible own funds to the risks resulting from business activity. The development of the regulatory risk-bearing capacity is analysed at least quarterly.

DFV's solvency II ratio amounted to 214%, slightly ahead of the European average of 200%

In the fiscal year 2017, DFV met the statutory minimum solvency requirements pursuant to Solvency II. On 31 December 2017, the provisional regulatory risk-bearing capacity of DFV was 214% (previous year: 190%). As of 31 December 2017, regulatory capital in the amount of EUR 9,991,000 (previous year EUR 6,753,000) was available to cover the solvency requirement of EUR 21,351,000 (previous year EUR 12,855,000).

Figure 36: Solvency II ratio (EUR thousands)

	2016	2017	+/-
Capital requirements	6,753	9,991	48%
Financial resources	12,855	21,351	66%
Solvency II SCR ratio	**190%**	**214%**	

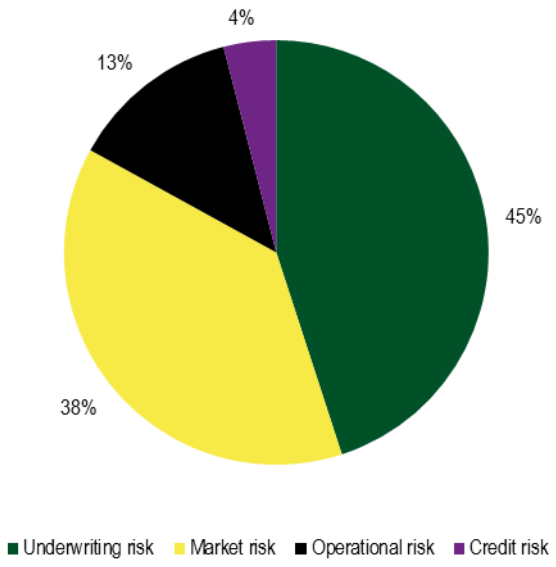
Source: DFV, MainFirst Research

DFV's capital as of 31 December 2017 amounted to EUR 21,351,000

DFV's capital as of 31 December 2017 amounted to EUR 21,351,000 and was thus EUR 1,767,000 above the equity under commercial law (EUR 19,584,000). The valuation differences were mainly due to the non-recognition of intangible assets and valuation differences in underwriting provisions (e.g. unearned premiums, claims equalisation provisions).

The following chart shows the significance of the risk categories relevant to DFV on the basis of the Solvency II standard formula determined risk values:

Figure 37: DFV - Risk categories



Source: DFV, MainFirst Research

The graph shows that DFV's risks focus on underwriting risks and market risks.

We conclude that Deutsche Familienversicherung follows a very cautious investment approach.

However, the 2018E investment income could have suffered from the volatile financial markets

DFV's market risks mainly relate to the investments, which predominantly stem from the investment fund "DFV Sondervermögen". As highlighted in the 2017 SFCR report, the company has a very prudent investment approach. The investment fund consists of more than 80% of very liquid government and corporate bonds, which match the liabilities and are held to maturity.

The investments in equities are also made on the basis of prescribed rules and focus on OECD countries. The equity exposure of the fund is monitored regularly and at regular investment committee meetings.

Management and Supervisory Board

DFV's management team is very experienced and has several decades of experience in the insurance industry.

In strong contrast to many other InsurTech companies, Deutsche Familienversicherung benefits from a very experienced management team with decades of experience in the insurance industry.

Management

Figure 38: DVF's management team

From left: Stephan Schinnenburg (CSO), Michael Morgenstern (CFO), Dr. Stefan Knoll (CEO), Marcus Wollny (COO)

Source: DVF

Dr. Stefan Knoll, CEO

- Lawyer, 1986
- Doctorate in Insurance Law, 1989
- Executive employee at Allianz, 1988-1994
- Founder and CEO:
  - DIATEL DIREKT (EUR 25m sales), 1994-2000
  - SNT Deutschland AG (EUR 200m sales), 2000-2005
  + Deutsche Familienversicherung AG (EUR 72m premium volume)
- Colonel (reserve)

Michael Morgenstern, CFO

- Degree in Business Administration, 1995
- Executive employee, Senior Auditor, at PWC, 1995-1999
- Deputy Head of Department Financial Reporting, GenRE 1999-2004
- Head of Department Management Reporting, GenRE, 2004-2006
- Financial Controller, GenRe, 2006-2013
- CFO, GenRE, 2013-2018
- CFO, Deutsche Familienversicherung, since 04/2018

Stephan Schinnenburg, CSO

- Insurance salesman, Basler Versicherung, 1980-1982
- Head of non-life insurance, Basler Versicherung, 1982-1984
- Director non-life insurance, Neckura Versicherung, 1984-1987
- Director non-life insurance, Colonia Versicherung, 1987-1989
- Manager insurance engineering, Lloyd´s of London, 1989-1991
- Managing Director, Fidessecur Versicherungsmakler, 1991-2001
- Managing Director, Cura Versicherungsmakler, 2002-2004
- CEO, Hartford Life Ltd. Germany, 2008-2009
- Managing Director, Morgen & Morgen, 2010-2014
- Board Member, ERGO & ERGO Life, 2014-2018 C
- CSO (Chief Sales Officer), Deutsche Familienversicherung, since 04/2018

Marcus Wollny, COO

- Special official in charge of dentistry, KKH, 2001-2002
- Head of dentistry, KKH, 2002-2004
- Head of integrated health care, KKH, 2005-2008
- Subject field manager integrated health care, KKH, 2008-2009
- Division manager cooperation sales, KKH, 2009-2010
- Staff leader cooperation sales, KKH, 2010-2013
- Head of Department Corporate Office , KKH, 2013-2015
- Head of HR, Deutsche Familienversicherung, 2016
- General Manager, Deutsche Familienversicherung, 2015-2018
- COO, Deutsche Familienversicherung, since 08/2018

CVs of the Supervisory Board

Dr. Hans-Werner Rhein, Chairman

- Lawyer, 1978
- Doctorate in Insurance Law, 1980
- Reinsurance broker, Jauch & Hübener, 1982 – 1994
- Managing director, Aon Jauch & Hübener, 1994 – 2010
- Lecturer for reinsurance law, University of Münster, since 2006
- Member of supervisory board, Gothaer, since 2013
- Member of supervisory board, Aareal Bank AG, since 2015
- Chairman of supervisory board, DFV, since 2010

Luca Pesarini

- Institutional Customer Support, Dresdner Bank AG, 1987-1991
- Institutional Customer Support, Bank in Liechtenstein, 1991-1995
- Head of Institutional Customer Care, Bear Stearns Bank, 1994-1995
- Member of the Executive Board, Julius Baer AG, 1995-2001
- Ethenea Capital Partners, S.A., since 2002
- Chairman of the Supervisory Board of IFM Immobilien AG, until 2007
- Chairman of the Board, Ethenea Independent Investors S.A., since 2010
- Member of the Supervisory Board, DFV, since 2010

Herbert Pfennig

- Head of Corporate Banking, Dresdner Bank AG, 1989-1995
- Regional Management, Dresdner Bank AG, 1995-2000
- Acquisition Finance, Dresdner Kleinwort Wasserstein, 2000-2001
- Regional Management, Dresdner Bank AG, 2001-2004
- Deputy Chairman of the Board, Frankfurter Sparkasse, 2004-2009
- Spokesman of the Board of Management, Apo-Bank, 2009-2015
- Chairman of the Board of Management, Apo-Bank, 2015-2018
- Member of the Supervisory Board, DFV, since 2017

Georg Glatzel

- Managing Director, IFM Immobilien, 1989-2005
- CEO, IFM Immobilien AG, 2005-2012 (IPO)
- Deputy Chairman of Supervisory Board, InCity Immobilien AG, since 2016
- Member of the Supervisory Board, DFV, since 2017

APPENDIX

Company at a glance: DFV

Object of the company – Have a look at DFV's Articles of Association

According to Section 2 para. 1 of the Articles of Association, the object of the company is the direct operation of property, accident and legal expense insurance, as well as non-substitutive health insurance and private supplementary nursing care insurance, active reinsurance and the distribution of other insurance products in its own name and under other names. Under Section 2 para. 2 of the Articles of Association, the Company is entitled to engage in all businesses connected to the object of the Company or favouring same or directly or indirectly promoting same. The Company can also participate or invest in other businesses or companies with the same or similar objectives. It can also restrict its objectives to some of the activities stated in Section 2 para. 1 of the Articles of Association. Furthermore, the Company can establish branches at home or abroad.

History

Deutsche Familienversicherung DFV was founded in 2006

The Company was founded in 2006 by Dr. Stefan M. Knoll and Philipp J. N. Vogel under the company name *DFV Deutsche Familienversicherung – Vermittlungs-AG*. The objective of the Company was the brokerage of insurance products for families as well as the acquisition of suitable sales partners, who in turn can make customer portfolios available for insurance brokerage. The Company prepared the foundation of an insurance company.

By the end of 2006, DFV Deutsche Familienversicherung – Vermittlungs-AG was granted permission by BaFin to start business

By the end of 2006, *DFV Deutsche Familienversicherung – Vermittlungs-AG* was granted permission by BaFin to start business operations as from 1 January 2007 in the business lines of accident insurance, fire and natural hazards, hail, frost and other property damage, various financial losses as well as legal expenses insurance. With permission to start business operations, the Company was renamed *DFV Deutsche Familienversicherung AG* and the share capital was increased from EUR 50,000 to EUR 5,400,000.

In the beginning, the company offered property insurance, preferably in the form of a combined insurance product

In the beginning, the Company's almost exclusive sales channel was through DRTV (Direct Response Television). The company initially offered property insurance, preferably in the form of a combined insurance product. An IT support contract was concluded with *Helvetia Schweizerische Versicherung,* under which the Company was able to use Helvetia's IT as an inventory management system.

Initially, all shares in the Company were held by their founders, Dr. Knoll and Mr. Vogel. In 2008, Helvetia became a shareholder of the Company.

With BaFin's permission, the Company's insurance portfolio was extended in 2008 to include supplementary health insurances with the types of risk being per diem allowance, cost insurance and combined services.

Over the years the business activity was expanded

In 2011, the Company was licensed by BaFin to operate as a reinsurer in the fields of supplementary health insurances.

In 2012, the Mellinckrodt Fund joined the Company as a new shareholder and Helvetia sold all of its shares in the Company to the founders. In the same year, the Company was granted permission by BaFin to operate supplementary nursing care insurance and to operate as a reinsurer in the fields for which the Company holds a license as primary insurer. The Company's objectives were changed accordingly. The Company's insurance portfolio was extended to include supplementary nursing care insurance.

In 2014, DFV succeeded in gradually introducing its own inventory management system

The IT support contract with Helvetia was terminated on 31 December 2013. Subsequently, DFV launched its own inventory management system. In 2014, DFV succeeded in gradually introducing its own inventory management system (from batch processing to event-based process).

In 2014, Luca Pesarini became a shareholder of DFV

Luca Pesarini became a shareholder in the Company in 2014 and the shares of the Mellinckrodt Fund were transferred to the Ethenea Fund.

In 2015, Mr. Vogel, founding member and member of the Management Board, died. A new chapter started

In 2015, Mr. Vogel, who had been a founding member and member of the Management Board, died. The Company was then completely restructured and realigned. The business line of electronics insurance was suspended, the number of employees was reduced and the sales division was reorganised.

In 2016, the 16 Matrix supplementary health insurance was introduced

In 2016, DFV introduced the so-called 16 Matrix supplementary health insurance, which contains four product lines in four variants. In addition, the broker portal was developed and introduced. This restructuring process was completed in 2017.

Group structure

DFV has five subsidiaries, which are intended to permanently serve the business operations of the DFV Group.

Pursuant to IFRS 10, the consolidated financial statements include all subsidiaries, in addition to DFV Versicherung AG as parent company. The shares in the Group's subsidiaries are held directly by DFV Versicherung AG. The financial information in the consolidated financial statements contains data of the parent company together with its consolidated subsidiaries, presented as an economic unit.

DFV Group consists of seven (previous year: seven) consolidated companies. These include, in addition to the parent company and the five subsidiaries, a special fund (DFV Sondervermögen, registered office in Luxembourg, 100% share).

There are no joint ventures or associated companies.

Figure 39: Group reporting entity

Company	Registered office	Investment BV (in thousands)	Investment quota	Subscribed capital (in thousands)	Equity (in thousands)	Last year's result (in thousands)
DFVS Deutsche Familienversicherung Servicegesellschaft GmbH	Frankfurt am Main	25.0	100%	25.0	38.4	1.2
DFVV Deutsche Familienversicherung-Vertriebsgesellschaft GmbH	Frankfurt am Main	35.0	100%	25.0	25.0	0
Stiftung PflegeZukunft gestalten GmbH	Frankfurt am Main	25.0	100%	25.0	-18.2	-3.8
MeinPlus Servicegesellschaft GmbH	Frankfurt am Main	100.0	100%	100.0	137.1	19.0
DFVR Deutsche Famiienversicherung Rechtsschutz-Schadenabwicklungsgesellchaft GmbH	Frankfurt am Main	25.0	100%	25.0	18.8	-1.7

Source: DFV

The German Insurance Market

The German insurance market is one of the largest in the world

The following tables provide an overview of the German Insurance market.

Figure 40: German insurance market - Key figures

	1980	1990	2000	2010	2014	2015	2016
insurance companies[1] (numbers)							
total	809	729	659	582	548	539	534
of wich:							
life insurers	108	109	119	95	87	84	84
healthcare insurers	51	55	55	48	47	47	46
property & casualty insurers	344	322	254	211	206	205	201
reinsurers	33	28	41	36	30	28	29
premium income (in EUR m)							
primary insurance[2,3]	36,000	69,888	131,335	178,844	192,580	193,904	194,309[4]
life insurance[3]	13,215	27,403	61,225	90,355	93,676	92,659	90,763
healthcare insurance[5]	4,830	9,546	20,712	33,270	36,323	36,822	37,250[4]
property & casualty insurance[6,7]	17,955	32,939	49,398	55,219	62,581	64,422	66,296
reinsurance[8]	7,141	13,713	28,843	36,191	44,697	48,689	•
share of premium income in premium income primary insurance (as %)							
life insurance[3]	36.7	39.2	46.6	50.5	48.6	47.8	46.7[4]
healthcare insurance[5]	13.4	13.7	15.8	18.6	18.9	19.0	19.2[4]
property & casualty insurance[6,7]	49.9	47.1	37.6	30.9	32.5	33.2	34.1[4]
insurance benefits (in EUR m)							
primary insurance[9]	34,101	71,253	152,534	189,253	207,948	208,746	•
life insurance[9,10]	15,157	34,909	88,080	107,361	120,395	116,466	115,060
healthcare insurance[5,11]	4,567	9,504	24,050	38,612	42,168	44,134	•
property & casualty insurance[6,12]	14,352	26,840	40,404	43,281	45,385	48,146	49,253
insurance portfolio (numbers in m)							
primary insurance[3,5,13]	232.0	284.5	371.1	418.3	426.8	428.9	431.1[4]
investment portfolio (in EUR bn)							
primary insurers and reinsurers[9]	126.2	321.7	802.7	1 256.4	1 450.2	1 509.2	•
employment (numbers in 1,000)							
insurance industry	•	•	•	561.6	533.1[13]	529.0	524.1
employees[14]	•	254.7	299.7	298.2	293.5[13]	295.6	295.8
self-employed insurance intermediaries / advisers[15]	•	•	•	263.5	239.6	233.4	228.3

1 life insurers, healthcare insurers, property & casualty insurers, reinsurers, *Pensionskassen* and funeral expenses funds under German federal supervision carrying on actual business as per end of year
2 written gross premiums
3 from 2010 incl. *Pensionskassen* and pension funds covered by the GDV statistics

Source: GDV

The range of German insurance companies is large

The German insurance sector is traditionally shaped by a variety of insurers of different legal and organisational forms, business strategies and target groups. The spectrum ranges from insurance groups with a global reach to regional insurers, from insurances incorporated as stock companies

Aktiengesellschaften) to insurance associations (Versicherungsvereine) to public insurers (öffentlich-rechtlichen Versicherer), from providers of an entire product range to specialist insurers. These various insurers are in intense competition. As a high economic and social significance is attributed to them, insurance markets are traditionally amongst the most heavily state-regulated markets. In Germany, there are currently 84 life insurers, 46 health insurers and 201 property & casualty insurers operating under BaFin's regulatory supervision.

In 2016, there were 84 life insurers, 46 health insurers and 201 property-casualty insurers operating under BaFin's regulatory supervision in Germany.

Figure 41: German insurance companies by class of business

year	federal supervision				
	total number of insurance compa-nies[1]	of which:			
		life insurers	healthcare insurers	property & casualty insurers	reinsurers
	numbers				
1954[3]	864	95	100	295	34
1960	939	102	101	218	34
1970	810	107	67	289	31
1980	809	108	51	344	33
1990	729	109	55	322	28
1995	677	121	58	268	32
1998	682	119	58	266	43
1999	677	120	57	263	44
2000	659	119	55	254	41
2001	640	116	55	249	40
2002	645	110	55	238	43
2003	640	106	54	235	45
2004	633	105	54	231	44
2005	632	104	53	227	47
2006	613	100	52	222	45
2007	609	100	51	224	41
2008	607	99	51	222	41
2009	596	96	51	217	38
2010	582	95	48	211	36
2011	578	94	48	215	34
2012	570	93	49	211	32
2013	560	90	48	210	29
2014	548	87	47	206	30
2015	539	84	47	205	28
2016	534	84	46	201	29

Source: GDV

There is no trend towards consolidation in the German insurance market

There is no trend towards consolidation in the German insurance market. Rather, the market has remained almost stable over the last few years. Usually, consolidation in the insurance market is achieved by takeovers. In the 1990s and around the turn of the millennium, a number of such transactions

shaped the German insurance market. Currently, M&A activity on the German insurance market is at a low level and limited to smaller companies.

Insolvencies are not an issue in the German insurance market

Additionally, insolvencies play no role in market cleansing for the insurance industry. Usually, market withdrawals due to the insolvency of unsuccessful companies are essential for market consolidation in other sectors. Nevertheless, they are very rare in the insurance industry. This can be attributed to the very high statutory safety requirements placed on insurers regarding their financial reserves and their continual scrutiny by BaFin. Thus, in the last ten years there have only been two cases in which very small property/casualty insurers went bankrupt. One of these cases was an independent new company founded by foreign investors in 2009, which proved to be unable to establish itself permanently in the market.

Today, DFV is exclusively active in the German insurance market

DVF offers quite a unique business model in the German insurance market

Deutsche Familienversicherung today is exclusively active in the German insurance market. DFV's target clients are individuals and families. DFV's product range offers easy-to-use products which are devoid of any unnecessary add-ons and are either tendered in combination (Kombiversicherung) or individually (Einzelversicherung). Though the German insurance market has often been described as being saturated and not easy to penetrate for new market participants, in 2017 DFV was already earning EUR 71m in gross written premiums. The success of DFV can be attributed to the fact that the company effectively combines the business model of a direct insurer (Direktversicherer) with the use of digital features. In contrast to pure online broker platforms, DFV sells its own insurance products, primarily consisting of supplementary health insurances and property & casualty insurance.

Market for private supplementary health and nursing care insurance

In Germany, certain types of insurance are mandatory, in particular health and nursing care insurance

In Germany, certain insurances are mandatory, in particular health and nursing care insurance (Gesundheits- und Pflegeversicherung). Principally, it is obligatory to take out statutory health insurance (Gesetzliche Krankenversicherung). An employed customer is only free to choose private health insurance instead when his/her annual gross income amounts to EUR 53,100 (income threshold, Beitragsbemessungsgrenze) or above. In an attempt to cope with salary increases and to enlarge the number of contributors, the income threshold is regularly raised. Additionally, self-employed persons and freelancers, civil servants, students and persons without their own income can choose private health insurance.

The statutory health insurance coverage is limited (begrenzter Behandlungs-katalog)

The statutory health insurance covers only a limited treatment catalogue (begrenzter Behandlungskatalog). The same applies for the nursing care insurances, where the customer is only entitled to limited subsidies measured by the amount of care required, which is categorised into degrees of care levels (Pflegestufen/Pflegegrade). The only way to improve the quality of treatment or care is to buy into a supplementary insurance.

Statutorily insured persons are DFV's primary target group for its dental, outpatient and inpatient insurances

Statutorily insured persons are DFV's primary target group for its dental, outpatient and inpatient insurances. Thus, the aforementioned increases of the income threshold will not adversely affect DFV's economic standing in this business line, but will improve it. Moreover, the statutory health insurances are not allowed to offer own supplementary health insurance policies. Rather, they are allowed to market insurances of this kind offered by private health insurers. The cooperation between DFV and various statutory health insurances, such as Knappschaft and the insurance intermediary IG BCE Bonusagentur, is a

good example for this. Since 2000, the number of people insured in the state healthcare system opting for supplementary health care insurances has almost doubled.

In 2017, the number of customers with a supplementary health care insurance amounted to more than 25.5m customers.

In 2017, the number of customers with a supplementary health care insurance amounted to more than 25.5m customers. Since the end of 2016, approximately 400,000 additional policyholders have found themselves willing to take out this type of insurance. DFV has directly benefitted from this increase as 39,522 new contracts for supplementary health care were underwritten in 2017. This marks an increase of 14.4% y/y to a total of 314,095 insurance policies in this business line.

16 Matrix: the goal is to enable DFV customers to take out insurance quickly and easily online

With the development of DFV's innovative 16 Matrix for its supplementary insurance products, the company has laid the foundation for the digitalisation of its insurance products. The company's goal is to enable its customers to take out insurance quickly and easily online. This is why the company has significantly simplified its insurance products and grouped them into four product families.

The following table shows the 16 Matrix for DFV's health and nursing care insurance products at a glance:

Figure 42: 16 Matrix for DFV's health and nursing care insurance products

	DFV-DentalCare	DFV-OutpatientCare	DFV-InpatientCare	DFV-DeutschlandPflege
★ Basis	50% Refund on all dental treatment	Precautionary consultations Refund of vaccinations and social co-payments	Illnesses caused by external influences (e.g. accident)	25% of the governments monthly care allowance
★★ Komfort	70% Refund on all dental treatment	Precautionary consultations Refund of up to € 3,000 for severe illnesses	Illnesses caused by external influences and serious illnesses	50% of the governments monthly care allowance
★★★ Premium	90% Refund on all dental treatment	Precautionary consultations Refund of up to € 6,000 for severe illnesses	All illnesses regardless of the cause	75% of the governments monthly care allowance
★★★★ Exklusiv	100% Refund on all dental treatment	Precautionary consultations Refund of up to € 12,000 for severe illnesses	All illnesses regardless of the cause plus exclusive assistance and inpatient care services	100% of the governments monthly care allowance

Source: DFV

Market for property and casualty (P&C)

P&C insurance is not mandatory in Germany

P&C insurance is not mandatory in Germany, with the exception of motor insurance, which applies to all vehicle owners and which DFV does not offer. Thus, all the insurances offered by DFV in the field of P&C have a more supplementary nature and are not perceived as must-have, although they might protect the customer from existential risks. However, this is not detrimental to the preferred online sales. Insurance policies have a reputation for being complicated products. The more important the insurance is considered to be, the sooner the customer also wants a more personal service, for which online distribution is not ideally structured.

In 2017, the property insurance premiums in Germany increased by 3% (2016: +4.1%) to EUR 19.3bn (previous year EUR 18.7bn).

DFV's technical insurance is put into run-off, hence the decrease in its business volume

The recent substantial decrease in DFV's P&C premiums is mainly due to the discontinuation of the unprofitable technical insurance (Technikversicherung). The other P&C business lines developed differently:

While DFV was able to record an increase in gross contributions from ~EUR 823,000 to ~EUR 850,000 for legal protection insurance, there was a significant drop for liability insurance in 2017 from ~EUR 1,679,800 to ~EUR

1,248,400. By contrast, there was an increase in both areas throughout the German insurance market. Total 2017 premiums in liability insurance increased by 1.5% to EUR 7.8bn (previous year: EUR 7.6bn). In legal protection insurance, premium income rose by 4% to EUR 4bn (previous year: EUR 3.8bn). This is evidence that the market is far from saturated but shows fierce competition.

The German P&C insurance market is competitive but offers business opportunities

DFV's 2017 German P&C portfolio amounted to 150,261 policies. Gross written premiums amounted to EUR 17.1m. According to DFV, however, the market potential for these insurances is by no means exhausted.

DFV's portfolio decomposition

The following tables show DFV's insurance portfolio decomposition:

DFV's gross written premiums increased by 10% in 2017, and supplementary health insurance accounted for 76% of the portfolio

Figure 43: DFV's portfolio development (premiums)

DFV - Gross written premiums (in €m)	2014	2015	2016	2017
Supplementary Health	34.1	39.5	45.5	53.5
Damage/Accident	15.7	23.7	18.6	17.1
Total	**49.8**	**63.2**	**64.1**	**70.6**
Absolute growth (no. of policyholders				
Development gross written premiums				
Supplementary Health		16%	15%	18%
Damage/Accident		51%	-22%	-8%
Total		27%	1%	10%
DFV portfolio development (% of total portfolio)				
Supplementary Health	68%	63%	71%	76%
Damage/Accident	32%	38%	29%	24%
Total	100%	100%	100%	100%

Source: DFV

The development of the policies in force looks somewhat sluggish, but this was mainly driven by the business put into run-off (technical insurance)

Figure 44: DFV's portfolio development (no. of contracts)

DFV portfolio development (no. of contracts)	2014	2015	2016	2017
Supplementary Health	220,912	246,894	274,573	314,095
Damage/Accident	307,455	298,817	228,148	150,261
Total	**528,367**	**545,711**	**502,721**	**464,356**
Absolute growth (no. of policyholders				
DFV portfolio growth y/y (no. of contracts), in %				
Supplementary Health		12%	11%	14%
Damage/Accident		-3%	-24%	-34%
Total		3%	-8%	-8%
DFV portfolio development (% of total portfolio)				
Supplementary Health	42%	45%	55%	68%
Damage/Accident	58%	55%	45%	32%
Total	100%	100%	100%	100%

Source: DFV

InsurTech in Germany

GDV: Interesting angle - Smart phones and apps could increase insurance demand

In its analysis for the German insurance market, the GDV (*Anbieterlandschaft am Versicherungsmarkt: Ein Ausblick*) considers it possible that new access routes to insurance (smartphones, apps) could increase demand for insurance. This is because they not only facilitate access to traditional insurance products. They also enable customers to take out additional risk protection - by taking out short-term insurance (e.g. during a ski holiday) or by booking additional protection modules for existing insurance contracts (e.g. additional driver protection in motor vehicle insurance). Another important factor is the possibility of taking out insurance cover as an "add-on" when purchasing other products and services (e.g. electrical appliances, travel bookings).

Digital access channels are becoming increasingly important.

An increasing proportion of customers' insurance contracts could, in the future, be concluded via Internet platforms. Against the background of their experience with digital services and their digital lifestyle, the younger generation of digital natives and online affine customers of all other age groups have new expectations of insurers, for example in terms of communication channels, accessibility and reactivity. Digital access channels are becoming increasingly important. The majority of the population now uses the Internet for information on insurance topics.

ottonova: To be an InsurTech is no walk in the park

In addition to the already established insurers, new competitors want to drive this trend forward with fully digitised solutions. Most of these providers are only broker platforms, such as Clark Deutschland or Getsafe Digital GmbH. Other competitors offer their own insurance products, such as Element Insurance AG and One Versicherer AG, which offer household contents and liability insurance. Copy AG and Neodigital Versicherung AG offer accident insurance. Therefore there is only a partial overlap between these companies' offerings and the range of services that DFV can offer. In particular, there is no overlap with its main pillar, supplementary health insurance. ottonova is the exception in this respect, as this InsurTech company also offers supplementary insurance in addition to private health insurance. However, this competitor received a licence to enter the insurance market in 2017. According to a press report, ottonova's client base is below 200 policyholders (ottonova itself talks about a few hundred, but not yet into four digits), and it will require considerable time and investment until ottonova will be established as a reliable brand on the market with the ability to attract customers in greater numbers. Until then, ottonova will have to maintain its business despite the high fixed costs which are caused by the strict regulation shaping the insurance market.

DFV is an InsurTech company, but it started 11 years ago and its management knows the insurance business inside-out

This applies in principle to most of the InsurTech companies that were granted a licence to offer insurance in 2017 or 2018. They are all at the point where DFV started eleven years ago. We believe that DFV has a leading position as an InsurTech, securing the first-mover advantage in Germany.

From batch processing to event-based process, DFV clients are always in real time

For example, when DFV introduced a new portfolio management system, the company did not use batch processing, which is common in the insurance industry. Instead, DFV has opted for an event-based process. This means that all changes and adjustments to insurance contracts can be processed in real time. Without this real-time processing, situational accident insurance, to which the market is heading, would not be possible. In this case, the policyholder must receive real-time confirmation of his increased coverage.

We conclude that EDA is key to run an InsurTech company

As we understand it, the event-driven architecture (EDA) is key to running an InsurTech company and offers a number of benefits, including:

- Real-time processing - Data is processed as it occurs, making real-time data available to policyholders.
- Small payloads - Instead of processing large payloads of data once a day, DFV processes small payloads once they are ready. This reduces risk and does not require time-consuming solutions for unexpected problems.
- Reduced gaps/delays - In long, synchronous workflows, terminating one process (even a long one) triggers the next. In this way, DFV reduces the risk of processes either colliding or creating process gaps that unnecessarily multiply the addition of hours or days to your total processing time.
- Early error detection - Because data is at the heart of most organisations, data integrity is critical. EDA increases visibility and helps insurers better manage problems with their data as they arise.

Will digitalisation leave a mark on the German labour market?

Digitalisation in insurance could have an impact on the German labour market

While digitalisation is in full swing, many of the effects of change are still unclear. The number of jobs will continue to decline as a result of automation and dark processing, said Torsten Utecht, CFO of Zurich Germany, at a recent Conference in Cologne.

Job reductions due to digitalisation is not on the agenda for DFV

The possible job reduction due to digitalisation could lead to years of discussions with employee representatives and trade unions, and could therefore have a negative impact on the operational business. DFV will not need to have these discussions, because it already has a very small number of employees who will be able to process the projected substantial increase in business.

DFV - Personnel statistic

Digitalisation has resulted in reduction of work force

DVF employed an average of 119 people in 2017, 133 in 2016 and 146 in 2015. Since 31 December 2017, there has been no material change in the number of its employees until end September 2018. Most of the recent reduction in labour force was attributable to DFV's strict focus on digitalisation.

Figure 45: DVF - Personnel statistics

	2015	2016	2017	Q2 2018
Employees	205	133	119	109
Personnel expenses (€m)	10.1	8.3	7.8	4.1

Source: DFV

DFV has no obligation via its employees

There are no current arrangements for involving the employees of DFV in the company's capital. The group has not entered into pension arrangements with its employees. Therefore, no amounts have been set aside or accrued by the Group to provide pension, retirement or similar benefits.

Germany is online

Yes, the Germans are online. The proportion of online users in Germany has risen to around 89%

According to an ARD/ZDF online study, around 62 million people in Germany used the Internet in 2017. The proportion of online users in Germany has thus risen to around 89%. According to the D21 Digital Index 2016, around 62% of households in Germany use broadband Internet access.

The average Internet usage time per day in Germany in 2017 was 149 minutes

In the 60+ generation, the share of Internet users is 74%. Among 14 to 19 year-olds, 100% are considered to be Internet users. With regard to the gender of Internet users in Germany, the following picture emerges: around 91% of the male and 89% of the female population used the Internet in 2017. The average Internet usage time per day in Germany in 2017 was 149 minutes.

The proportion of mobile Internet users increased. This fully supports the GDV case

The increasing use of mobile devices has also changed the proportion of mobile Internet users: While the proportion of Internet users using the Internet on the move in 2011 was still around 13%, it rose to 63% in 2016. Around 30% of people in Germany even use the Internet every day while on the move.

German citizens are open for 'online'

Adcubum: 57% of German citizens can imagine taking out an insurance policy completely online

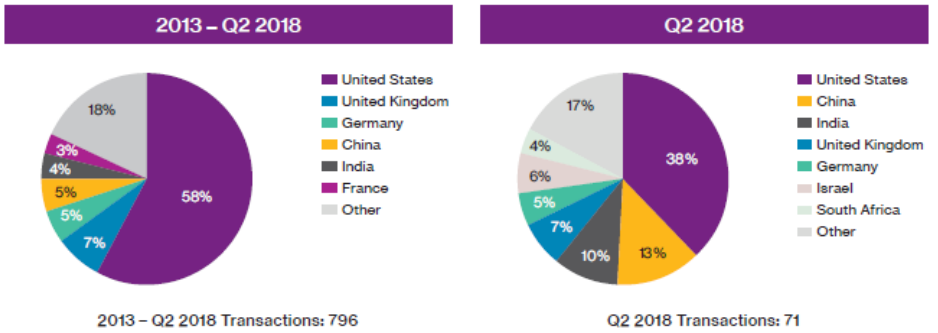
57% of German citizens can imagine taking out an insurance policy completely online. According to a study by software manufacturer Adcubum ("*Digitale Versicherung 2018*"), the favourite categories for taking out insurance online are motor, liability and household insurance. In addition, language assistants such as Alexa are gaining popularity when taking out insurance policies.

InsurTech is a hot topic in Germany

There is life in InsurTech Germany

According to Willis Tower Watson Securities, InsurTech is a hot topic in Germany but when looking at InsurTech transactions in Q2-18 in different countries Germany is lagging behind countries like USA, China, India, UK and Israel.

Figure 46: Quarterly InsurTech transactions by target country



Source: Willis Towers Watson Securities - Quarterly InsurTech Briefing Q2 2018, September 2018

DFV's main competitors

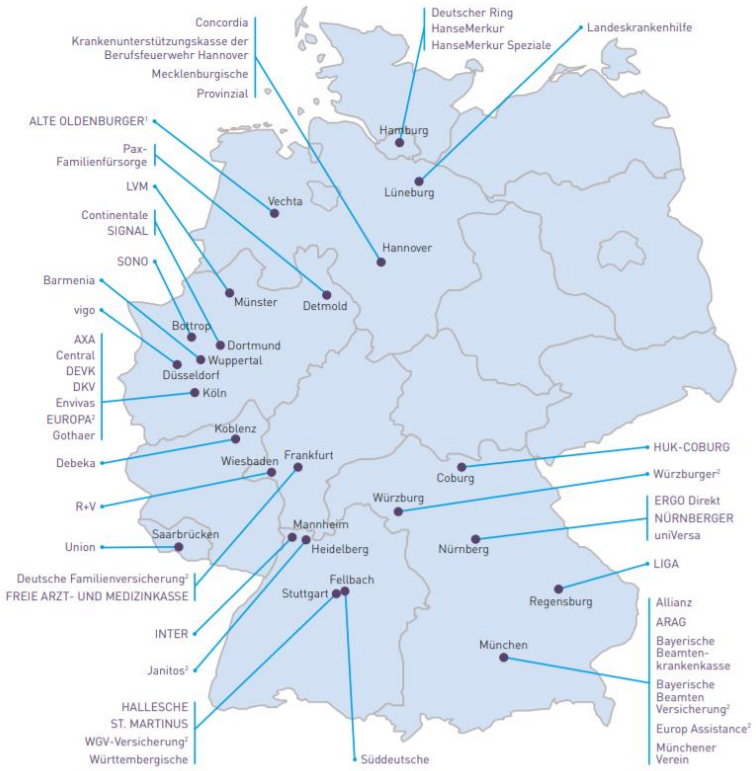
We see ERGO and HanseMerkur as DFV's main competitors in Germany

Deutsche Familienversicherung sees the following as its main competitors:

- *ERGO Direkt Versicherung AG and ERGO Direkt Kranken-versicherung AG* as well as
- *HanseMerkur Allgemeine Versicherung AG and its subsidiary HanseMerkur Krankenversicherung AG*

In areas where competition overlaps with DFV's products, HanseMerkur generated gross premiums of EUR 409.4m and Ergo EUR 616.3m.

Figure 47: Private health insurers in Germany (2016)



Source: PKV

For DFV, direct remains the most important channel

These competitors and other established insurance companies use a variety of distribution channels to enter discussions with new customers. These include mainly branch offices, broker and seller networks, online platforms, direct insurance and cooperation with statutory health insurers or other companies. For DFV, direct remains the most important channel. The current market leader in online is HUK 24 with a gross premium income of EUR 803m. However, HUK 24 is not a direct competitor of DFV, as the major part of HUK 24's business is derived from motor insurance. This is a field in which DFV does not want to get involved. Only around 12% of HUK 24's 2017 gross premiums came from activities in which there is a competitive overlap with DFV, namely property and casualty insurance.

The strong focus on supplementary health insurance sets DFV apart from competitors such as Verti and Ergo Direct

The strong focus on supplementary health insurance also sets DFV apart from competitors such as Verti (700,000 clients) and Ergo Direct (4.5m clients; 2017 business volume of EUR 1bn; 1,640 employees). Both insurance companies focus on motor insurance and accident insurance. Europa's business model focuses mainly on life insurance. WGV Versicherungen offers its customers supplementary health insurance, but has opened a number of service centres in North Rhine-Westphalia and southern and eastern Germany, thus abandoning the advantages of the business model as a pure-play direct insurer, which is DFV's preferred way of acquiring new customers.

… and what Allianz (the market leader) is doing

Allianz is also very active in the world of InsurTech

Digitalisation is very important to Allianz. The company is not only pushing different digitalisation processes within the Group, but it also has a dedicated business unit (Allianz X) which is very closely following the InsurTech world. The following table shows Allianz X's most important investment in InsurTech companies. The most famous names are GO-JEK, American Well and Lemonade.

Figure 48: Insurer venture capital – Allianz X

($ in millions)

Company	Capital Raised	Disclosed Investors	Description
Partnerships/Investments			
GO-JEK	$2,235	▪ **Allianz X** ▪ Astra International ▪ BlackRock ▪ blibli.com ▪ Capital Group Co. ▪ DST Global ▪ Farallon Capital ▪ Formation Group ▪ Google ▪ JD.com ▪ KKR ▪ Meituan-Dianping ▪ Other Investors [a]	▪ Leading on-demand service provider that provides a variety of complete services starting from transportation, logistics, payment, food delivery and other on-demand services ▪ Connecting users to more than 1 million driver partners, more than 150,000 food vendors and more than 30,000 other services ▪ GO-JEK's main focus is to empower informal sector in Indonesia ▪ By joining GO-JEK, partners will have access to financial services such as saving, insurance, mortgage and affordable installments
American Well	200.1	▪ **Allianz X** ▪ inVenture Partners ▪ Teva Pharmaceuticals ▪ Thomas Spiegel	▪ Telehealth services company that connects patients and clinicians through virtual doctor visits using an online and mobile platform
Lemonade	180.0	▪ **Allianz X** ▪ Google Ventures ▪ Sequoia Capital Israel ▪ SoftBank ▪ XL Innovate ▪ Other Investors [b]	▪ Licensed insurance carrier offering homeowners and renters insurance powered by artificial intelligence and behavioral economics through a direct-to-consumer online platform ▪ Targets urban dwellers and promises zero paperwork and instant everything (policy issuance, claims, communication, etc.)
BIMA	114.2	▪ **Allianz X** ▪ Axiata Digital ▪ Kinnevik ▪ LeapFrog Investments ▪ Millicom International	▪ Leading mobile life and health insurance distribution platform in emerging markets ▪ Currently serves seven million people across eight countries in Africa, Asia and Latin America, including Ghana, Senegal, Tanzania, Mauritius, Bangladesh, Sri Lanka, Indonesia and Honduras
simplesurance	32.7	▪ **Allianz X** ▪ Assurant Growth Investing ▪ Mountain Partners ▪ Rakuten Ventures ▪ Rheingau Ventures ▪ Route 66 Ventures ▪ Other Investors [c]	▪ Germany-based technology solutions company facilitating the cross-selling of insurance products at the point of sale in e-commerce transactions ▪ Integrates into the checkout process of online shopping sites to offer a one click experience for customers

Source: willistowerwatson.com

The Allianz Group runs a total IT budget of EUR 3bn p.a., whereof ~EUR 650m p.a. is invested in digitalisation

Allianz has a yearly budget for digitalisation of EUR 650m

Figure 49: What Allianz is doing

Source: Allianz

Group CEO Baete is a strong believer in digitalisation, in our view

Under the helm of CEO Baete, Allianz is thinking hard about what the InsurTech world offers customers and how it can develop new products that work for them. CEO Baete explained in an interview that Allianz *'is not doing this from altruism; but because the most profitable businesses are those with high customer satisfaction. It's not about whether the products are pricey or not, but whether we can deliver great services. For us, technology is a means to achieve higher customer satisfaction*".

The key to this, Baete believes, is personalisation. "*The new world allows for a high degree of personalisation and that is the essence of innovation – to develop personalised services and meet expectations that were too expensive to meet in the past*. C*omplexity used to be the opposite of efficiency, but now you can offer a high degree of specialisation at a low cost*."

In the traditional insurance models, companies sold products, he adds. "*Now customers can compare products and pick what they want; and not buy what they don't want. So, in addition to personalisation, there is a lot for freedom. This means we have to permanently benchmark our offerings against competitors*."

Another component is about ease of use, says Baete, which is in contrast to the traditional model where insurance was difficult for customers. "*Nowadays, a quote for car insurance should take 30 seconds. In the past it would take three hours to get the first price point.This new simplicity allows the user to think about what they want as well*," Bate points out.

DFV – From Frankfurt to London to Las Vegas

DFV is on the way to become a household name in InsurTech outside Germany

Interestingly, Deutsche Familienversicherung is also a household name in InsurTech outside Germany as CEO Dr. Knoll was invited to events which took place in London and Las Vegas. This should definitely help to further increase investors' interest in the company.

Figure 50: DFV conquers the InsurTech-world

… from Frankfurt to London to Las Vegas

Source: DFV

DFV in the news

The following article was published in the well-regarded Willis Tower Watson Quarterly InsurTech Briefing Q2 2018.

Figure 51: DFV in the news

Q2 2018 Industry Theme

Life & Health InsurTech

An InsurTech for the German Health and Wellness Market

Case Study 2

DEUTSCHE Familienversicherung

Founded in 2007, Deutsche Familienversicherung (DFV) has grown to become one of Germany's first fully digital health and wellness InsurTech companies. DFV was established on the premise that insurance policies should be simple and sensible and that digitalization must first start with the product. To achieve this, the company's founder, Dr. Stefan Knoll, has developed an innovative suite of insurance offerings that are highly flexible, comprehensive and responsive to the needs of the individual consumer. The company took its 100+ insurance product offerings and reduced them to 16 core products (four product families across four levels of protection). This digital product concept allows customers to simply enter their age through an in-person broker, over the phone, through the DFV app or website, or Amazon Alexa to receive instant pricing.

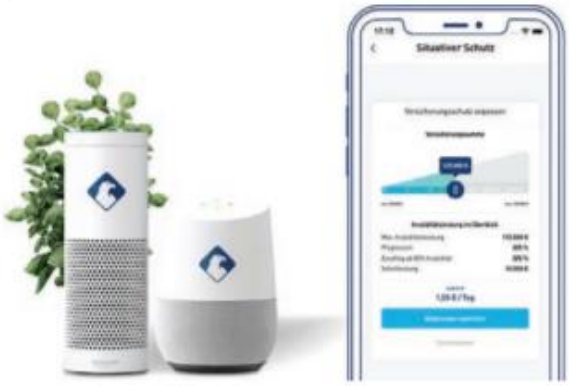
Since inception, DFV has aimed to deliver an efficient digital experience for the customer, which has led the company to develop its own relevant technological processes to become a truly digital company. DFV relies on one simple process, product information sheets and a policy that covers all product families, resulting in a streamlined and expedited process for the customer. DFV can map all customer requests and policy contract changes in real time, unlike traditional insurers in the market that still rely on traditional batch processing that involves slower turnaround times and complex form requirements. This system also means that product changes are possible almost immediately and new product innovations within a matter of days. DFV also grants customers an extended, eight-week withdrawal period, a daily right to cancellation and an exemption from fees in the circumstance of unemployment or inability to work.

On the claims side, DFV uses AI to decide legitimacy of claims and has also developed an algorithm that can read medical codes used by doctors to categorize medical bills and to expedite the claims payment process.

The flexibility of customer interaction with the company extends well beyond the initial sales touchpoint, as DFV offers customer service and insurance consultancy through its AI chat-bot, Amazon Echo and Google Home as well as the more standard avenues. In adopting a fully digital insurance strategy, DFV has not failed to overlook the unique needs of its customers. The diversity of customer touchpoints, from traditional methods to chat-bots reflects the nuanced and individual requirements of the modern consumer and fulfils the company's maxim of simple and sensible products that offer full transparency and maximum convenience.

As a company that is now 10 years old, DFV challenges the perception that something can only be called 'InsurTech' if it is of a certain youthfulness. DFV's modular platform allows each part of the product offering to be continuously updated to remain relevant and appropriate for the growing market it looks to serve. With over 500,000 customers in the German market, DFV has far greater ambitions and will look to continue to take share in the German Life & Health market.

Flexible Customer Interaction & Touchpoints



Customer service and support available through Amazon Echo or Google Home Devices

Through mobile app, customers can quickly change coverage levels

Source: www.deutsche-familienversicherung.de

Source: Willis Tower Watson Quarterly InsurTech Briefing Q2 2018

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Source: MainFirst

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Source: MainFirst

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