<b>Documentation of ICAAP</b>	and capital requirements for	Volkswagen Moller	Bilfinans AS per
31.03.2016			

Chairman of the board of directors: Jens Legenbauer

Contact person in the institution: Jan Bendiksby

1.0 EXECUTIVE SUMMARY	4
1.1 Introduction	4
1.2 Conclusion of the ICAAP-analysis – executive summary	4
1.3 Financial position and expected future earnings development	7
1.4 Capital and dividend policy	8
1.5 Implementation and approval of the report	
2.0 THE ICAAP PROCESS	8
2.1 The purpose of the ICAAP	8
2.2 Organization	9
2.3 New risks and requirements	10
3.0 CURRENT CAPITAL SITUATION AND EXPECTED FINANCIAL DEVELOPMENT	10
3.1 Financial position VWMBF	10
3.1.1 Portfolio	10
3.1.2 Profit and losses	11
3.1.3 Losses	12
3.1.4 Capital adequacy	12
3.2 Strategic focus and expected changes	13
4.0 CAPITAL REQUIREMENT	14
4.1 Overall target for risk management	14
4.2 Reporting period	16
4.3 Substantial risk	16
4.3.1 Credit risk	16
4.3.2 Concentration risk	25
4.3.3 Market risk	31
4.3.4 Operational risk	33
4.3.5 Risk connected to securities	38
4.3.6 Liquidity risk	38
4.3.7 Insurance risk	45
4.3.8 Business risk	46
4.3.9 Reputational risk	49
4.3.10 Systemic risk	49

4.3.11 Pension obligations	50
4.3.12 Other risks	51
4.4 Possibility to transfer capital	51
5.0 STRESS TESTING	51
5.1 Normal stress testing	51
5.1.1 Description of macro-economic scenario	51
5.1.2 Scenario analysis	52
5.2 Reverse stress test	53
5.2.1 Description of likely severe scenario	53
5.2.2 Scenario analysis	53
5.3 Capital and contingency plan	54
6.0 SUMMARY OF CAPITAL REQUIREMENT FOR DIFFERENT RISKS	55
6.1 Summary of capital requirement	55
7. QUALITY CONTROL AND APPROVING OF ICAAP	56
8. USE OF ICAAP IN THE INSTITUTION	56

# 1.0 EXECUTIVE SUMMARY

# 1.1 Introduction

Volkswagen Møller Bilfinans AS (here after VWMBF or the company) is owned 51 % by Volkswagen Financial Services AG (VWFS) and 49 % by MøllerGruppen AS (MG).

VWMBF's strategy is to support the sales of vehicles of Volkswagen Group brands in the market, and in a sustainable manner increase customer's loyalty throughout the value chain. Products offered are loan, leasing and car administration. Sales are mainly channeled through dealers within the Volkswagen (VW), Audi and Skoda chain. These are dealers that traditionally have shown healthy financial statements, and have few defaults. VWMBF offers insurance through the insurance companies If and Enter.

The business, apart from the ongoing portfolio, was acquired in December 2009 from Møller Bilfinans AS (MBF) which had performed its business since 1997. VWMBF has been administrating the loan and lease portfolios that were in MBF until the end of 2013 when VWMBF bought the remaining portfolio.

VWMBF presents in this document an overview of methods and results for evaluation of the risk profile and capital requirements. The document is based on the Financial supervisory's methodologies for assessing risk and capital needs in relation to the company's risk profile, stated in Circular 9/2015. The document is also based on the regulation concerning CRD IV which was released in June 2014. In addition the firm's strategy, financial situation and maintenance of capital requirements levels are covered in this document. BASEL III regulations from the EU and CRD IV is implemented in the firm's capital requirements calculations and is reported regularly to VWFS.

The company is exposed to different types of risk such as credit, market (interest), liquidity, operational, concentration and business risk. The significant risk types are continuously monitored by the company's management and risk department, and are reported to the board of directors, authorities in Norway, and the headquarter in Germany. The document includes quantified risk adjusted capital requirements for each of the relevant risks in the company.

# 1.2 Conclusion of the ICAAP-analysis – executive summary

The ICAAP analysis shows that the company has a capital base (Tier 1 and Tier 2 capital) of 1721.5 MNOK by 31.03.16 which is above the ICAAP capital target and above the legal minimum requirement. The table below shows calculated requirements to the capital base in VWMBF in accordance with BASEL III standards and CRD IV standards.

*Table 1.2.1* 

		Minimum	
		requirement	Percent
31-03-16 (IN MNOK)	%	Basel II Standard	aggregated
Pillar 1			
Credit risk		763,7	
Operational risk		52,2	8,00 %
Capital conservation buffer	2,5 %	255,0	10,50 %
Countercyclical capital buffer*	1,0 %	102,0	11,50 %
Systemic risk buffer	3,0 %	306,0	14,50 %
Sum Pillar 1		1 479,0	14,50 %
Pillar 2			
Credit risk - Off balance		37,3	
Operational risk		5,0	
Interest rate risk		2,9	
Concentration risk large customers		30,5	
Concentration risk customer sector		15,3	
Liquidity risk		44,4	
Insurance risk		0,0	
Business risk		0,0	
Other risk		0,0	
Sum Pillar 2	1,3 %	135,4	15,83 %
Sum capital requirement		1 614,4	15,83 %
Adjustments diversification			
Total required capital		1 614,4	15,83 %
			T
Capital (capital base)		1 721,5	
Core capital		1 721,5	16,88 %
			1
Risk Weighted Assets		10 199,7	
ICAAP Capital requirement		15,83 %	
Actual capital ratio		16,88 %	
Core capital ratio		16,88 %	

The actual capital ratio is above the target and the ICAAP capital requirement at the reporting date. The capital ratio expected to be above the Pillar I and Pillar II requirement for 2016.

Table 1.2.2

IN MNOK	30.06.16	30.09.16	31.12.16	31.03.17	30.06.17	30.09.17	31.12.17
NET CORE CAPITAL	1 718	1 717	1 903	1 903	1 902	1 901	2 025
CAPITAL REQUIREMENT CREDIT RISK	772	773	775	777	786	788	793
CAPITAL REQUIREMENT OPERATIONAL RISK	653	653	653	653	653	653	653

CAPITAL RATIO	17,6 %	17,7 %	18,4 %	18,4 %	18,2 %	18,1 %	19,2 %
CAPITAL REQUIREMENT (PILLAR 1+2)	15,8 %	16,3 %	16,3 %	16,3 %	16,3 %	16,3 %	16,3 %
EQUTY TARGET	16,3 %	16,8 %	16,8 %	16,8 %	16,8 %	16,8 %	16,8 %

This ICAAP report shows a pillar 1 + 2 capital requirement of 15.8%, which increases to 16.3% in June 2016. On top of this the board set a buffer of 0.5%. This gives a total capital target of 16.8% from July 2016.

Internal capital targets have increased from 2010 – 2015; targets have been 11.0 %, 12.0 %, 12.5 %, 14.0%, 15.3%, 16.3% respectively. The target for 2016 was increased to 16.8 % in the board meeting September 08<sup>th</sup> 2015. The capital ratio is above internal capital target in table 1.2.2. An audit will be performed in June that will increase the capital ratio to 17.6%. Further, an additional audit will be performed in September; this will increase the capital ratio to 17.7%.

*Table 1.2.3* 

	CRD IV capital requirements	13,5%-15,5%
PILLAR II	Pillar II	0-2%
	Systemic risk buffer	3,0 %
	Capital conservation buffer	2,5 %
PILLAR I	Tier 2	2,0 %
TILLANT	Additional Tier 1	1,5 %
	Common equity Tier 1	4,5 %

*Table 1.2.4* 

		VWMBF capital requirement					
		Until 31.06.2016	01.07.16	01.07.17			
	Credit & operational risk	8,0 %	8,0 %	8,0 %			
	Capital conservation buffer	2,5 %	2,5 %	2,5 %			
PILLAR I	Systematic risk buffer	3,0 %	3,0 %	3,0 %			
	Countercyclical capital buffer	1,0 %	1,5 %	1,5 %			
	SUM	14,5 %	15,0 %	15,0 %			
PILLAR II		1,3 %	1,3 %	1,3 %			
VWMBF ICAAP	capital requirement	15,8 %	16,3 %	16,3 %			

The BoD decided a capital target of 16.3 % including a 0.5 % buffer to the ICAAP capital requirement of 15.8 %, the board of directors regards the target being sufficient at this time. The countercyclical capital buffer will increase with 0.5% from 30.06.2016, the BoD has decided the capital target should increase correspondingly to 16.8%.

The company uses up to six month process of obtaining new capital from the owners. The board of directors therefore keeps close attention to the level of capital base and CRD IV requirements, and development in capital ratios is a continuous topic in board meetings.

The company's credit directive, refinancing policy and authorization system are updated continuously and approved by the board of directors. The company's own guidelines and documented routines ensures that the firm has a satisfactory risk process.

The company considers the internal control as good. This is evident of the last management report on the internal control regulation, which is approved by the board of directors and has been subject to independent reviews by PwC. Several risk factors under Pillar II have been taken into account and thus further capital has been added in response.

Credit risk is a very significant risk for the company. The company's credit directive ensures that the company achieves desired credit exposure. The company has implemented a new behaviour scoring model for retail customers that will improve the ability to monitor the risk development. Corporate customers are scored manually by a credit analyst based on the rating system provided by VWFS AG. The company has also implemented a new LGD model that will ensure satisfactory risk management of the portfolio.

Concentration risk is monitored by the risk department through a quarterly collateral concentration report. This report must be approved by VWFS AG. The company has most exposure in the retail market, which have high diversity in sector and geographical location.

Regarding market risk, the company is subject to interest rate risk. The exposure for interest rate risk is mainly under liquidity risk.

Operational risk is attached to the daily operational tasks within the company. Incidents under operational risk are controlled through delivery of GOLD forms. The focus is to identify where the risk are and prevent repeated incidents. Operational risk is in accordance with BASEL III, calculated based on the standard method for pillar I and an estimate of the risk for pillar II.

Liquidity risk is considered moderate, but there is a risk of refinancing. VWMBF's funding is provided by the parent company VWFS. The company considers it unlikely that the funding situation for VWFS will worsen over the next 12 months to such an extent that it will not be able to provide the liquidity needed by VWMBF. Risk monitoring from both VWMBF and VWFS is done continuously.

The normal stress test (5.1) shows 3 scenarios: medium to low, severe economic downturn and normal sales and lower used car prices. Based on these scenarios there is no need for additional capital due to a strong capital base. The company's portfolio carries a relatively short maturity and the company can also improve the capital ratio by reducing or stopping new sales, if necessary. In addition, the reverse stress test shows that there is no need for additional capital under the scenario of increased growth.

# 1.3 Financial position and expected future earnings development

The company offers financing of vehicles sold through dealers within the VW, Audi and Skoda chain and through a few third party dealers. Since the establishment of the company in December 2009 there has been rapid growth, with the portfolio growing from 0 in December 2009 to 12 033 MNOK by 31.03.2016 in interest bearing value. Margins are expected to decrease until end of 2018, mainly due to increased funding cost and competitive pressure.

Total car sales in Norway increased by 6 484 vehicles in 2015 compared to 2014, equivalent to a 4 % increase, making a total car sales in Norway in 2015 of 150 686 vehicles. The expected total car sales in Norway in 2016 are expected to decrease compared to 2015. The PDs and LGD are expected to follow the development of the portfolio. The implementation of the new behaviour scoring and LGD models resulted in a release of provisions of MNOK 94.0 in 2016 (3+9). The company expects the overall risk profile of the portfolio to remain constant in terms of average PD and LGD. The column 2016 (3+9) represents 3 actual months and 9 forecasted months of 2016. This terminology will be used in other tables in this document.

*Table 1.3.1* 

(amounts in M NOK)	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Margin	379,00	357,03	363,86	369,99	384,11	406,18	426,22
Operating cost	125,68	139,93	145,51	153,18	154,63	160,69	165,61
Other direct costs	6,81	6,00	6,72	7,20	7,46	7,79	8,53
Total risk cost	18,37	(50,54)	41,21	41,11	43,45	44,18	45,87
Operating profits	228,15	261,64	170,41	168,50	178,57	193,53	206,21
Tax	41,35	70,64	46,01	45,49	48,21	52,25	55,68
Profits after tax	111,79	191,00	124,40	123,00	130,35	141,27	150,53
Portfolio (Ending balance)	11 650,06	12 340,23	12 630,67	13 000,33	13 444,52	13 728,62	14 113,68
Capital ratio	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %
Core capital (%)	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %
Total responsible capital (Core capital)	1 706,9	1 721,53	2 024,6	2 146,7	2 278,5	2 419,9	2 570,5

Data has been collected from the company's yearly budget and forecast review (PR65) which has been approved by the board of directors.

# 1.4 Capital and dividend policy

Capital requirements follow BASEL III's calculation as well as a self-assessment, and the board of directors has set a target capital ratio which includes all risk elements mentioned in this ICAAP report. The company's board of directors proceeds with capital target of 16.3 % on the board meeting 08.09.2015, and the long term capital target will increase to 16.8% in July 2016.

The company has thus far not paid no dividends and has no dividend policy in place.

# 1.5 Implementation and approval of the report

This report is carried out by the management and risk controllers. The board of directors has gone through the company's complete risk profile, capital requirements and the ICAAP document. Approval of the results was done by the board on the 22.06.2016. The ICAAP report has been subject to an independent review performed by PWC.

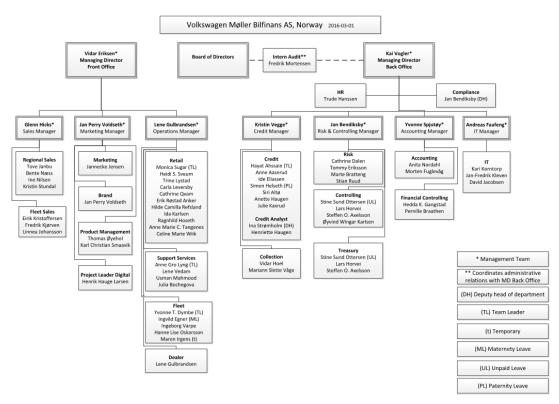
# 2.0 THE ICAAP PROCESS

# 2.1 The purpose of the ICAAP

The purpose of the Internal Capital Adequacy Assessment Process (ICAAP) is to assess the company's capital requirements based on the company's risk situation and expectations for the future. The assessment of the capital requirements needs to be forward-looking, meaning that the need for capital will be evaluated in relation to the company's current and future risk profile. Any future growth or strategic changes etc. will therefore need to be accounted for in the ICAAP.

# 2.2 Organization

*Figure 2.2.1* 



Risk management is an essential part of the company's business strategy. The risk department is continuously working on identifying, measuring, controlling and reporting risk, as well as maintaining company guidelines. In 2016 the risk department employed two new risk controllers, which has strengthened the department.

In addition to the risk department, the company has two independent job positions for increased risk- and regulatory control; one Internal Auditor and one Compliance Officer.

Combined these employees/departments will strengthen the work on management and risk control of the company through;

- Yearly strategy process
- Monthly forecasts and yearly budgeting
- Yearly ICAAP process
- Monthly and quarterly risk reports
- Ad-hoc reports and analyses
- Compliance reporting
- Internal review

# 2.3 New risks and requirements

The document is based on the Financial supervisory's methodologies for assessing risk and capital needs in the relation to the company's risk profile, stated in Circular 9/2015. Calculations of capital requirements follow BASEL III and CRD IV regulations.

This ICAAP report is based on the same main principals as the ICAAP 2015 report, utilizing the same methods of calculation and control. However, some new requirements have been implemented in the ICAAP 2016 report. We have added a scenario on high increase in lending under credit risk, Ilaap under liquidity risk and a reverse stress test showing worst case scenario. Based on the ICAAP report for 2015 the company's board of directors decided to increase the long term core capital and capital target from 16.3% to 16.8% in July 2016, when the countercyclical capital buffer will increase with 0.5%.

# 3.0 CURRENT CAPITAL SITUATION AND EXPECTED FINANCIAL DEVELOPMENT

# 3.1 Financial position VWMBF

VWMBF is owned 51 % by VWFS and 49 % by MøllerGruppen AS. The company's business is to provide loan and leasing financing of vehicles sold through the VW, Audi and Skoda chain. The company's` business commenced on the 7<sup>th</sup> of December 2009. The business, apart from the ongoing portfolio, was acquired from Møller BilFinans AS which had performed its business since 1997. Products are loan, leasing and car administration. VWMBF has been administrating the financing and leasing portfolio from the previous owner Møller Bilfinans AS from December 2009 until the end of 2013, where VWMBF bought the remaining portfolio. Sales are mainly carried out through dealers within the Volkswagen, Audi and Skoda chain. These are dealers traditionally known to hold healthy financial statements and the chain has very few defaults.

## 3.1.1 Portfolio

The company's portfolio is for risk purposes split into retail and corporate customers. Corporate customers are further split into corporate dealers and corporate non-dealers. To achieve a corporate customer status the customer must hold an exposure of at least 3 MNOK. In addition all dealers in the portfolio are defined as corporate customers. Retail customers are private persons or small to medium firms with smaller exposures (under 3 MNOK). Per 31.03.2016 the retail customers made up 88.9% of the portfolio, while corporate customers made up 11.1%. We expect the portfolio to remain at this level for the retail and corporate customers in the next five years.

VWMBF has shown strong growth in sales and portfolio exposure since the establishment in December 2009. Total portfolio has increased from 11 568 MNOK per 31.12.2015 to 12 033 MNOK as per 31.03.2016 and is expected to grow another 152 MNOK this year giving a total portfolio of 12 185 MNOK by the end of 2016. Current expectations are that the portfolio growth will level out as the company does not expect a significant increase in sale in the next five years; however we expect a small increase in sales in the next couple of years. The expected growth is a result of high national car sales and increased loyalty among the dealers. The company's penetration for 2016 is expected to be 29.5%. Penetration is defined as the share of new vehicles financed by VWMBF of total new vehicles sold by the authorized dealers in VW, Audi and Skoda chain. The long term target for penetration is

30.7 %. Expected development in the portfolio in the period 2016-2021 can be viewed from table 3.1.1.1 below.

Table 3.1.1.1

(amounts in millions)	2014	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Loan	3 657	4 269	4 514	4 751	4 732	4 889	5 057	5 279
Leasing	7 007	7 310	7 671	7 721	8 107	8 397	8 5 1 5	8 678
Total portfolio	10 664	11 579	12 185	12 471	12 840	13 286	13 571	13 958

The company's main portfolio of loan financing is in the retail market while leasing is concentrated more in the corporate market. Retail leasing accounts for 53.7% of the total leasing portfolio per 31.03.2016, up from 51.9% as per 31.12.2015. For the 5 year forecast period the company expects consumer leasing to maintain at present level.

Each quarter a risk management report is made with separation of risk classes and customer types and sent to VWFS. The data is analyzed and the management receives in return feedback on the portfolio development.

#### 3.1.2 Profit and losses

The average 3 month Norwegian interbank offered rate (NIBOR3M) of 2015 was 1.29%, starting at an average of 1.39% in January 2015 and increasing slightly before decreasing to an average of 1.14% in December 2015. In March 2016 the NIBOR3M rate held an average of 1.02%. The Central Bank of Norway kept the key reference rate to 1.0% in June 2015, and lowered it further down to 0.75% in September 2015 and 0.5% in March 2016. The key interest rate and NIBOR3M rate have both been at a low level throughout the last year, and they are both expected to gradually increase in the next five years. But after the "Diesel gate" scandal the cost of funding has increased significantly. While the average portfolio spread on 3M funding was 0.15% in October 2015, the average of new 3M funding was 0.56% from March to May 2016. The forecast in table 3.1.2.1 shows lower future margins for the next five years due to suffering from the full effect of increased interest rates/spreads and a somewhat lower margin on new business. The company does not expect to regain margins within the next five years compared to the present level.

*Table 3.1.2.1* 

Year	2014	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Interest rate margin	3,22 %	3,17 %	2,78 %	2,63 %	2,53 %	2,60 %	2,63 %	2,65 %

Expected development in profits and losses from 2015 and the 2016 - 2021 forecasts is shown in the table below. The risk costs in 2016 (3+9) is influenced by the new behaviour scoring model and LGD model. The implementation of the new models resulted in a release of provisions of MNOK 94.0.

Table 3.1.2.2

(amounts in M NOK)	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Margin	379,00	357,03	363,86	369,99	384,11	406,18	426,22
Operating cost	125,68	139,93	145,51	153,18	154,63	160,69	165,61
Other direct costs	6,81	6,00	6,72	7,20	7,46	7,79	8,53
Total risk cost	18,37	(50,54)	41,21	41,11	43,45	44,18	45,87
Operating profits	228,15	261,64	170,41	168,50	178,57	193,53	206,21
Tax	41,35	70,64	46,01	45,49	48,21	52,25	55,68
Profits after tax	111,79	191,00	124,40	123,00	130,35	141,27	150,53
Portfolio (Ending balance)	11 650,06	12 340,23	12 630,67	13 000,33	13 444,52	13 728,62	14 113,68
Capital ratio	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %
Core capital (%)	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %
Total responsible capital (Core capital)	1 706,9	1 721,53	2 024,6	2 146,7	2 278,5	2 419,9	2 570,5

#### **3.1.3 Losses**

Commitments more than 90 days overdue or are unlikely to be paid are considered default. Development of the portfolio default rate is expected to be stable in the planning period. Per 31.03.2016 0.22% of the portfolio was considered default, compared to 0.18% per 31.12.2015 and 0.13% per 31.12.2014. The small fluctuations are in relative terms within the norm and due to the fact that the portfolio is maturing. Levels are as expected. However, due to a worsened outlook in the Norwegian economy direct write offs is expected to increase.

While a growing portfolio explains the increased portfolio based provisions and individual provisions, a maturing portfolio and worsened outlook for the Norwegian economy will result in increased direct write-offs as shown in the forecast below. The risk costs up to March 2016 are mainly based on the size of the group provisions; these group provisions have followed the growth of the portfolio. However, in March 2016 the company implemented and developed a new company specific behaviour scoring and LGD model which have affected the risk costs. These models was prepared in collaboration with HQ and approved by GRM in Germany. Per 31.03.2016, the group provisions were significantly reduced due to the implementation of these models. But after this adjustment, the risk costs are expected to remain stable over the next five years.

*Table 3.1.3.1* 

(amounts in millions)	2014	2015	2016 (3+9)	PR65 2017	PR66 2018	PR65 2019	PR65 2020	PR65 2021
Portfolio based provisions	29,27	15,50	(88,10)	1,60	0,98	1,74	1,32	1,66
Individual provisions	(1,53)	8,08	2,66	0,57	0,05	0,40	0,38	0,48
Total provisions	27,74	23,58	(85,44)	2,16	1,02	2,14	1,69	2,14
Direct write-offs	17,45	18,89	37,50	39,05	40,09	41,30	42,49	43,73
Risk cost	45,19	42,47	(47,94)	41,21	41,11	43,45	44,18	45,87
Risk cost % of AEA	0,51 %	0,42 %	-0,43 %	0,36 %	0,36 %	0,38 %	0,38 %	0,38 %

<sup>\*</sup>AEA = Average Earning Assets

*Table 3.1.3.2* 

(amounts in millions)	2014	2015	2016 (3+9)	PR65 2017	PR66 2018	PR65 2019	PR65 2020	PR65 2021
Portfolio based provisions	122,54	132,27	44,17	45,76	46,74	48,48	49,80	51,46
Individual provisions	6,24	8,08	10,74	11,31	11,35	11,75	12,13	12,61
Total provisions	128,78	140,35	54,91	57,07	58,09	60,24	61,93	64,07
Provisions % of AEA	1.28 %	1.18 %	0.46 %	0.46 %	0.46 %	0.46 %	0.46 %	0.46 %

# 3.1.4 Capital adequacy

Core capital consists of recognized equity less book value of intangible assets. Per 31.03.2016 the core capital was 1 721.5 MNOK, with a capital ratio of 16.9%. The board has decided to increase the

long term target for capital and core capital from 16.3% to 16.8 in July 2016 in the board meeting on 08<sup>th</sup> of September. Parts of the portfolio are defined as mass market segment with a 75 % risk weight and may therefore require less capital. Mass market sector is defined in accordance with the Kapitalkravforskriften § 5-8 and includes commitments that satisfy the following criteria:

- A customer is either a private person or a small business. Smaller businesses are defined as companies with revenues less than 20.0 MNOK or with fewer than 20 employees.
- The customer's total exposure does not exceed 5.0 MNOK or 0.2 % of the total portfolio. In any case it shall not exceed 1.0 MEUR.
- All exposures are based on the standard products car loans and car leasing financing. All cases and routines for these products are treated equally. The company therefore recognizes these exposures with equal attributes.

The company has thus far not paid any dividends and there is no dividend policy in the company. Equity shall in accordance with the shareholder agreement only come from the current owners. Table 3.1.4.1 below shows the company's development in capital ratio.

*Table 3.1.4.1* 

(amounts in M NOK)	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Share Capital	1 165,00	1 165,00	1 165,00	1 165,00	1 165,00	1 165,00	1 165,00
Profit after Tax	180,90	191,00	124,40	123,00	130,35	141,27	150,53
Retained earnings	381,3	562,2	753,2	877,6	1 000,6	1 130,9	1 272,2
Total Core capital	1 727,2	1 918,2	2 042,6	2 165,6	2 295,9	2 437,2	2 587,7
- where of Increase in core capital	250,0	0,0	0,0	0,0	0,0	0,0	0,0
Capital ratio %	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %
Core capital %	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %

The company's leverage ratio is 15.4 % in 2016 (3+9) compared to 14.7% in 2015 and 12.1 % in 2014 (see table 3.1.4.2), which is the relative size of the company's own funds (Tier 1 capital) compared to its assets. It is expected that a leverage ratio requirement of 3% will be introduced within 2018. Given the company's current leverage ratio and the expected development, the company is expected to be compliant with a good margin once this requirement is introduced.

Table 3.1.4.2

(amounts in M NOK)	2014	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Total Core capital	1 297,2	1 713,7	1 904,7	2 029,1	2 152,1	2 282,5	2 423,8	2 574,3
Total assets	10 710,7	11 650,1	12 340,2	12 630,7	13 000,3	13 444,5	13 728,6	14 113,7
Leverage ratio	12,1 %	14,7 %	15,4 %	16,1 %	16,6 %	17,0 %	17,7 %	18,2 %

# 3.2 Strategic focus and expected changes

The company's strategic goals mainly focuses on return on equity, cost income ratio, penetration leasing and financing, FS-pulse (employee satisfaction survey) and end customer satisfaction. These strategic goals are meant to ensure profitable growth for the company and satisfied employees.

The company expects the total cars sold in Norway to be 180 000 in 2016 and 166 000 cars each single year from 2017–2021. The expectation includes yearly sales of light commercial vehicles. Volkswagen AG has bought the truck and bus companies Scania and MAN. VWMBF will start commission business for MAN in 2016. It has also briefly been discussed if VWMBF will start financing business for Scania in the future. However financing of truck and buses will depend on a board

approved business case. This is not included in the current planning round but may be added as a new business case later.

Penetration, meaning number of financed vehicles compared to number of sold vehicles by the importer Harald A. Møller AS, is expected to increase slowly coming years, reaching 30.7% in 2021. Total portfolio (see table 3.1.1.1) is also expected to increase steadily from 2016-2021. The increase in this period is expected to be lower than in the previous years due to a maturing portfolio. The company is not planning to implement any new sales channels nor any new products in the planning period.

Changes in the portfolio that affects capital requirement are reported to the board of directors at an early stage due to continuous adjustments of the forecast for the next five years.

The company expects the 3 month NIBOR to remain 1.09% from March 2016 until year end 2016. Thereafter the rate is expected to increase over the next years, reaching 2.30% by the end of 2021.

The company expects an increase in funding cost (spread) due to the downgrading of VWFS AG in the wake of the diesel crises. Operating costs are expected to increase mainly with the volume and inflation. The long term budget which has been approved by the board shows the following expected development for 2016 - 2021:

*Table 3.2.1* 

(amounts in M NOK)	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Margin	379,00	357,03	363,86	369,99	384,11	406,18	426,22
Operating cost	125,68	139,93	145,51	153,18	154,63	160,69	165,61
Other direct costs	6,81	6,00	6,72	7,20	7,46	7,79	8,53
Total risk cost	18,37	(50,54)	41,21	41,11	43,45	44,18	45,87
Operating profits	228,15	261,64	170,41	168,50	178,57	193,53	206,21
Tax	41,35	70,64	46,01	45,49	48,21	52,25	55,68
Profits after tax	111,79	191,00	124,40	123,00	130,35	141,27	150,53
Portfolio (Ending balance)	11 650,06	12 340,23	12 630,67	13 000,33	13 444,52	13 728,62	14 113,68
Capital ratio	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %
Core capital (%)	17,8 %	18,4 %	19,2 %	19,8 %	20,3 %	21,2 %	21,9 %
Total responsible capital (Core capital)	1 706,9	1 721,53	2 024,6	2 146,7	2 278,5	2 419,9	2 570,5

# 4.0 CAPITAL REQUIREMENT

# 4.1 Overall target for risk management

VWMBF is exposed to various kinds of risk, where the most important are credit, interest, liquidity, operational, concentration and business risk. The company works toward maintaining risk levels within targets by utilizing current applied risk tools and continuously developing new methods and procedures.

The practice regarding measuring and controlling the various types of risks for the company is performed by the risk department under the supervision of management and presented to the board of directors. Reporting done by the risk department is sent to headquarters in Germany. The results from these reports provided by headquarter is sent to the board for regular control and supervision.

The company's risk appetite is listed below in table 4.1.1. Risk appetite is the amount of risk that the company is willing to take on in pursuit of profit and it is closely related to the company's business strategy. The company regularly oversees, set and monitor its risk appetite. VWMBF has a low risk appetite, except for credit risk and liquidity risk where the risk appetite is moderate.

*Table 4.1.1* 

		Concentration				
	Credit risk	risk	Market risk	Operational risk	Liquidity risk	Business risk
VWMBF	Moderate	Low	Low	Low	Moderate	Low

Credit risk is the most substantial risk for the company. The adopted credit directive shall secure that the company achieves desired credit exposure in accordance with the company's risk strategy. VWMBF has two different scorecards, one for consumers and one for companies based on characteristics which optimize scoring for each customer group. The company has implemented a new behaviour scoring model which applies to all consumers. The PD that is given by this model is principally based on in-house knowledge and statistics of included parameters. The behaviour scorecard returns a PD which is mapped into VWFS master scale which ranges from risk class 1 to 15, where 1 is the lowest risk class. Corporate customers are rated manually by the credit analyst. The rating ranges from 1-10, where 1 is the lowest risk class. The approval process is described in the company's credit directive which has been approved by the board of directors. The company expects that risk costs shall not exceed 0.5 % of the average earning assets measured over an economic cycle. Risk cost in the context of this paper is defined as the sum of changes in group provisions, individual provisions, and the sum of direct write-offs. Expectations are based on actual losses from MBF during the years 2000 - 2012.

It is company policy for VWMBF to match the interest fixing period on funding with the interest fixing period on the company's loan and leasing contracts. The board has decided on a set limit of 4 MNOK, this is measured on a monthly basis.

Concerning liquidity risk, the company needs to be compliant with the boards approved refinancing policy:

- Maintaining liquidity on such a level that current payment obligations are met at the same time there is available contingency payment capacity for unforeseen events. A certain degree of contingency payment capacity is necessary to cover the situation where assets and liabilities have different due dates. Contingency payment capacity is assured by having a sufficient volume of borrowing facilities that can be transformed at short notice into liquid funds.
- The maturity structure of the assets and the funding should be considered when the maturity on refinancing is decided. The company should aim at a funding mix where a majority of the assets with maturities with >12 months is covered by stable funding >12 months.

Operational risk represents a real risk in terms costs related to everyday business operations. The company's goal is to continue to monitor and assess each incident through the use of GOLD reports and a yearly self-assessment. The target is to avoid repetitive incidents, which means that after an incident has occurred and dealt with the procedures and reporting currently used shall prohibit a repetitive event.

As for concentration risk, the company's target is to remain within Herfindahl-Hirschman Index (HHI) for low risk in both tables for individual and sectorial concentration. For the sectorial index the company's target is to not exceed values of 25 and for individual concentration not above 0.4, which is considered low concentration risk. The company continuously measures concentration risk via quarterly collateral concentration analysis to maintain these targets.

Targets for business risk are currently based on a qualitative approach via a close relationship with the dealers and the importer on what the market demands.

# 4.2 Reporting period

The ICAAP reporting is based on 31.03.2016 data. Some of the comparison tables will represent the forecast for the end of 2016 (FC 3+9) and also end of last year 2015. As the PR65 (Planungsrunde 65) held 5 years of budget for the company, some of that data has been implemented accordingly.

# 4.3 Substantial risk

#### 4.3.1 Credit risk

Credit risk is the risk that losses could incur due to defaults in customer transaction, particularly by the default of borrowers or lessees. The default is generally caused by insolvency or unwillingness of the borrower or lessee to pay.

#### **4.3.1.1 EXPOSURE**

The VWMBF portfolio consists of loan and leasing contracts. Loans are secured with a pledge on the vehicle and are mainly sold to the private market. Leasing contracts are secured through ownership or leasing pledge for contracts with a residual value below 20 % of vehicle purchase price. The private leasing portfolio has shown a steady growth, however the company expects the current portfolio mix to remain stable and the portfolio size to stabilize due to the maturity of the portfolio.

# **Portfolio**

From 2015 to 2016 the portfolio grew by 7.9 % (table 4.3.1.1.1). The 2016 forecast and the next five years to come, indicate a continuous growth rate, although the growth rates are diminishing compared to previous years. The reason for these expectations is that the portfolio is maturing. The amount of inflow (new contracts) and outflow of contracts (terminating contracts) is expected to converge.

A divergent high increase in lending over a period of time could contribute to increase the credit risk of the portfolio. If there is a positive deviation between the banks' lending growth and normal lending growth this will form the basis for additional capital requirement under Pillar II. The expected annual portfolio growth for 2016 and five year forecast is below 5 %. Based on this limited expected portfolio growth we assess there is no need for additional Pillar 2 capital due to excessive lending growth.

Table 4.3.1.1.1

(amounts in millions)	2013	2014	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Loan	3 530	3 657	4 269	4 514	4 751	4 732	4 889	5 057	5 279
Leasing	5 893	7 007	7 310	7 671	7 721	8 107	8 397	8 515	8 678
Total portfolio	9 423	10 664	11 579	12 185	12 471	12 840	13 286	13 571	13 958
% increase in portfolio		11,64 %	7,90 %	4,98 %	2,30 %	2,87 %	3,36 %	2,10 %	2,77 %

Table 3.1.3.2 shows that the provisions will stabilize in the next five years. There is a decrease in the provisions 31.03.2016 which is caused by the implementation of the new Loss Given Default (LGD) model and behaviour scoring. The new method for calculating provisions is based on the company's own default data and gives a more correct provisioning level. However, the risk profile of the company remains the same; the former model for calculation of provisions gave too high provisions compared to the risk level of the company. Further, direct write-offs are expected to increase as a

result of a maturing portfolio and a worsened economic outlook for the Norwegian economy. In the next five years the portfolio is expected to stabilize, which means that provisions will not change significantly in this period.

The table below shows the expected loss for the total portfolio (based on the company's own PD and LGD models) and total provisions for the portfolio. The company sets aside provisions to cover the expected loss. The expected loss is based on the customer's probability of default (PD) and loss given default (LGD). The company has already included this credit risk in the budget and prognoses, and assesses no need for additional capital under pillar I and pillar II.

Table 4.3.1.1.2

(amounts in M NOK)	2014	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Unsecured	3 150,7	3 104,8	3 129,9	3 224,1	3 292,4	3 408,1	3 494,5	3 609,0
PD %	4,07 %	3,96 %	1,80 %	1,80 %	1,80 %	1,80 %	1,80 %	1,80 %
Expected Loss	128,8	140,4	54,9	57,1	58,1	60,2	61,9	64,1
Provisions	128,8	140,4	54,9	57,1	58,1	60,2	61,9	64,1
Provisions % of AEA	1,28 %	1,27 %	0,46 %	0,46 %	0,46 %	0,46 %	0,46 %	0,46 %
Expected loss - provisions	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Table 4.3.1.1.3 below shows the portfolio split with risk weights (% in first column). Contracts with 150% risk weight are defaulted contracts. By March 2016 0.22% of the portfolio was considered default. Contracts with 75% and 100% risk weights make up 98.38% of the portfolio.

Table 4.3.1.1.3

Portfolio split (% of book value)	2014	2015	31.03.2016
0 %	0,10 %	0,47 %	0,45 %
20 %	0,98 %	1,01 %	0,96 %
75 %	76,06 %	79,02 %	79,95 %
100 %	22,73 %	19,34 %	18,43 %
150 %	0,13 %	0,16 %	0,22 %
Total	100,00 %	100,00 %	100 %

#### Loans

VWMBF offers loans with a maturity of up to 10 years and a financing degree up to 100 %. All loans are secured with a pledge valid for 5 years. Contracts with longer maturity will carry a higher risk, not only due to an expiring pledge, but because the annual amortizations on the contract will diminish.

Higher financing degree leads to higher risk for the company. To stimulate the customers to pay a down payment, the interest rate is differentiated pending on the degree of financing.

The development in maturity structure is reported to management. Table 4.3.1.1.4 shows the new loan contracts split on maturity and down payment per 31.12.2015. In the table below, the change represents relative change in percentage points from 31.12.2014.

Table 4.3.1.1.4

	Full fi	nance	1-1	0%	10-20%		20-3	35%	Over	35%	Total	
Maturity	Δ from 2014	2015	Δ from 2014	2015	Δ from 2014	2015	Δ from 2014	2015	Δ from 2014	2015	Δ from 2014	2015
Up to 5 years	-1,1 %	7,9 %	0,0 %	0,9 %	0,0 %	4,1 %	0,7 %	4,5 %	-3,2 %	23,3 %	-3,5 %	40,8 %
6 years	0,5 %	2,0 %	0,1 %	0,4 %	0,1 %	0,8 %	0,2 %	0,8 %	0,1 %	1,9 %	0,9 %	5,8 %
7 years	-0,2 %	12,9 %	0,1 %	1,9 %	0,1 %	4,4 %	0,5 %	3,4 %	-0,5 %	7,3 %	-0,1 %	29,8 %
8 years	1,7 %	4,8 %	0,2 %	0,8 %	0,3 %	1,3 %	0,3 %	0,8 %	0,1 %	1,3 %	2,5 %	8,9 %
9 years	0,1 %	0,5 %	0,0 %	0,1 %	0,0 %	0,1 %	0,0 %	0,1 %	0,0 %	0,1 %	0,1 %	0,9 %
10 years	0,0 %	6,9 %	0,2 %	1,2 %	0,4 %	1,9 %	0,0 %	1,3 %	-0,5 %	2,6 %	0,1 %	13,9 %
Total	0,9 %	34,9 %	0,6 %	5,3 %	0,8 %	12,5 %	1,6 %	10,8 %	-4,1 %	36,4 %	-0,1 %	100,0 %

There are stable development from 2014 to 2015 and contracts with more than 35% down payment and up to 5 years maturity is still the largest segment. We require a 35 % down payment when a loan to a private person is mediated through our car dealers, which is currently the case for most of our financing. However, these loans were reduced by 4.1% compared to 2014, and the share of full financing is increasing.

Loans with less than 35 % equity are mainly private customers who have contacted VWMBF directly e.g. through the internet. Only a few contracts come from commercial customers. For fully financed contracts we can see a small tendency of longer maturities on the contracts. Full finance contracts and contracts with maturities from 7-10 years are considered higher risk from an isolated point of view. These contracts are manually controlled before a credit decision is set by our credit department; higher interest rates, better customer scoring and security are required. The high risk on these contracts is usually reduced by the requirements resulting from the manual control.

It is expected that the risk cost for loans in % of AEA will stabilize around 0.58% -0.63% during the five year forecast. When the portfolio has reached a mature and stabilizing stage, it is expected that both portfolio based provisions and individual provisions will level out. The company does not expect any changes to the company's risk profile when the portfolio has stabilized, meaning the provisions will not change significantly. However the direct write-offs are expected to increase due to a worsened outlook of the Norwegian economy.

*Table 4.3.1.1.5* 

(amounts in millions)	2014	2015	2016 (3+9)	PR65 2017	PR66 2018	PR65 2019	PR65 2020	PR65 2021
Portfolio based provisions	7,9	27,4	(46,0)	1,4	(0,1)	0,8	0,9	1,2
Individual provisions	(2,0)	6,4	3,1	0,5	(0,0)	0,3	0,4	0,5
Total provisions	5,8	33,8	(42,9)	1,9	(0,1)	1,2	1,2	1,6
Direct write-offs	12,1	9,0	19,6	21,1	21,6	21,9	22,7	23,7
Risk cost	17,9	42,9	(23,3)	23,0	21,5	23,1	23,9	25,3
Risk cost % of AEA	0,56 %	1,19 %	-0,61 %	0,58 %	0,56 %	0,59 %	0,60 %	0,63 %

#### Leasing

Leasing contracts in VWMBF have a maturity from 3 to 5 years, with a few exceptions of 6 to 7 years and some below 3 years. Per 31.03.2016, 90.7 % of contracts have a residual value attached to them guaranteed by the dealer who delivered the vehicle. The remaining leasing portfolio of 9.3 % carries zero residual value. The residual value is dependent on mileage, maturity and reflects expected market value at the end of the contract. A change in maturity on leasing contracts has therefore little or no effect on the object risk because the residual value is set based on maturity, model and utilized miles. The depreciation is adjusted accordingly. In cases where there is no residual value from the

dealer, most of the contracts will be written down to 0 after 5 years (full payout lease). No additional risk is therefore attached to these contracts.

The total risk cost development for the leasing portfolio is shown below. Compared solely on the risk cost in % of the AEA, the leasing portfolio shows lower level of risk compared to the loan portfolio. The PD's in the leasing portfolio is lower than in the loan portfolio, shown in table 4.3.1.2.2 below. There is also a lower LGD which gives lower direct write-offs. In table 4.3.1.1.6, we see the leasing portfolio with lower provisions and increasing direct write-offs. The risk cost is expected to stabilize at around 0.24% - 0.26% of AEA in the five year forecast.

Table 4.3.1.1.6

(amounts in millions)	2014	2015	2016 (3+9)	PR65 2017	PR66 2018	PR65 2019	PR65 2020	PR65 2021
Portfolio based provisions	21,4	(11,9)	(42,1)	0,2	1,0	0,9	0,4	0,5
Individual provisions	0,5	1,7	(0,5)	0,0	0,1	0,1	0,0	0,0
Total provisions	21,9	(10,3)	(42,5)	0,3	1,1	1,0	0,5	0,5
Direct write-offs	5,3	9,9	17,9	17,9	18,5	19,4	19,8	20,1
Risk cost	27,3	(0,4)	(24,6)	18,2	19,7	20,3	20,3	20,6
Risk cost % of AEA	0,49 %	-0,01 %	-0,34 %	0,24 %	0,26 %	0,27 %	0,26 %	0,26 %

#### **4.3.1.2 CONTROL**

The company's risk appetite for credit risk is moderate. According to the board approved risk strategy the retail credit portfolio should have a weighted PD for new business of maximum 5.0% and the an average LGD lower than 33% of total business. Further the risk cost ratio shall remain at 0.5% and the default ratio kept under 1.0%. For the retail lease portfolio the weighted PD for new business is 4.0% maximum and the average LGD is lower than 30% of total business. Further the risk cost ratio shall remain at 0.45% and the default ratio kept under 1.0%. For the corporate non-dealer portfolio the weighted PD for new business is 3.0% maximum and the average LGD is lower than 30% of total business. For the corporate dealer portfolio the weighted PD for new business is 4.0% maximum and the average LGD is lower than 33% of total business. For the total corporate portfolio the risk cost ratio shall remain below 0.2% and the default ratio kept under 0.5%. These figures are based on the company board's decision of risk strategy.

#### Credit process

Credit risk is a significant risk factor for the company. The company's credit directive secures that the company achieves desired credit exposure. When loan or leasing financing is given by the company, either a pledge (loans) on the vehicle is required or the company keeps ownership (leasing) over the vehicle. The directive is set by the board of directors and is revised continuously.

There are two scorecards for the retail portfolio; one for consumers and one for small companies based on characteristics which optimize scoring for each customer group. The characteristics used are the ones that VWMBF found to be statistically significant. VWMBF has implemented the current application scorecards in March 2014 to assess risk of retail customers. The scorecard is developed based on the history of VWMBFS retail portfolio and is approved by Volkswagen HQ. In addition to characteristics there are policy rules like payment records, residual value, value of the object compared to income, maturity etc that contribute in the credit decision. Another component is Bisnode's policy rules which flags for hard criteria's if company or owner is insolvent, personal

number is blocked, individual without residence etc. For both types of customers, own experience on customers payment history (if any) and the size of the exposure is also taken into account.

The company has 5 authority/approval levels:

**Level 1:** Automatic scoring approval possible for up to 1 MNOK. This is in accordance with certificate of authority/defined framework.

Level 2: 2 Credit consultants together or the team leader may approve credit up to 2 MNOK.

**Level 3**: The head of credit department (or his/her deputy) or the team leader together with a credit consultant may approve up to 3 MNOK.

**Level 4**: The Credit Committee approves over 3 MNOK up to 2.5 MEUR.

Level 5: The Credit Committee with recommendation from VWFS AG, approves over 2.5 MEUR.

The company has implemented a new behaviour scoring model which applies to all retail contracts. The PDs based on the behaviour scoring are mapped into VWFS master scale which ranges from risk class 1 to 15 (see table 4.3.1.2.1), where 1 is the lowest risk class. In addition there is a default class.

*Table 4.3.1.2.1* 

	Lower			Risk
Risk Class	Limit	Upper Limit	Risk Class PD	Class
1	0,00 %	0,06 %	0,03 %	1
2	0,06 %	0,09 %	0,06 %	2
3	0,09 %	0,15 %	0,09 %	3
4	0,15 %	0,23 %	0,15 %	4
5	0,23 %	0,36 %	0,29 %	5
6	0,36 %	0,56 %	0,45 %	6
7	0,56 %	0,88 %	0,70 %	7
8	0,88 %	1,37 %	1,20 %	8
9	1,37 %	2,14 %	2,00 %	9
10	2,14 %	3,35 %	2,75 %	10
11	3,35 %	5,23 %	4,40 %	11
12	5,23 %	8,18 %	7,30 %	12
13	8,18 %	12,79 %	10,75 %	13
14	12,79 %	20,00 %	18,00 %	14
15	20,00 %	100,00 %	40,00 %	15

The table below shows the risk class distribution for the retail lease and retail loan portfolio based on the scale from 1 - 15, where 1 represents the lowest risk. The trend shows a small increase in higher risk classes from 2013 to 2014. In 2015 the portfolio was concentrated in risk class 10 caused by the use of arrear class PDs. Arrear class PDs was based on the maturity of the contract and days in arrears. This PD model was approved by HQ in Germany. 31.03.2016 the new behaviour scoring model was implemented and the effect of this was exposure concentrating in risk classes 3-7. This is the expected level the PDs will remain at in the next five years. The new model is based on the company's own default data and gives a more correct PD level. However, the risk profile of the

company remains the same; the former PD model gave too high PDs. More than 97.3 % of the portfolio per 31.03.2016 is assigned risk class 1-12 which are considered as low to medium high risk.

Table 4.3.1.2.2

	20	13	20	14	2015		2016	March	Δ 2013, 20	016 March
Risk classes	Retail Lease	Retail Loan								
1	0,00 %	0,70 %	0,00 %	0,70 %	0,48 %	0,07 %	3,29 %	1,93 %	3,29 %	1,23 %
2	0,10 %	1,30 %	0,10 %	1,30 %	0,02 %	0,09 %	5,83 %	3,39 %	5,73 %	2,09 %
3	0,40 %	2,70 %	0,40 %	2,70 %	0,07 %	0,54 %	13,39 %	9,12 %	12,99 %	6,42 %
4	1,00 %	4,20 %	1,10 %	4,20 %	0,33 %	0,89 %	16,67 %	13,01 %	15,67 %	8,81 %
5	5,30 %	7,00 %	5,60 %	6,80 %	4,07 %	1,56 %	18,81 %	18,71 %	13,51 %	11,71 %
6	9,50 %	9,20 %	9,70 %	9,30 %	1,72 %	2,55 %	13,78 %	19,42 %	4,28 %	10,22 %
7	13,40 %	11,10 %	13,00 %	10,80 %	2,40 %	3,42 %	10,24 %	14,84 %	-3,16 %	3,74 %
8	14,80 %	13,70 %	14,30 %	13,60 %	4,34 %	4,28 %	5,81 %	8,37 %	-8,99 %	-5,33 %
9	18,30 %	14,40 %	17,50 %	14,10 %	6,15 %	6,35 %	4,10 %	3,88 %	-14,20 %	-10,52 %
10	16,40 %	13,20 %	16,20 %	12,90 %	61,35 %	56,17 %	2,39 %	2,29 %	-14,01 %	-10,91 %
11	9,50 %	11,40 %	9,50 %	11,70 %	6,49 %	6,82 %	1,52 %	1,39 %	-7,98 %	-10,01 %
12	5,30 %	6,30 %	5,40 %	6,60 %	3,48 %	5,52 %	1,47 %	0,90 %	-3,83 %	-5,40 %
13	3,50 %	2,60 %	3,50 %	2,90 %	1,23 %	2,18 %	1,03 %	0,66 %	-2,47 %	-1,94 %
14	1,10 %	1,20 %	1,40 %	1,30 %	6,53 %	7,41 %	0,79 %	0,78 %	-0,31 %	-0,42 %
15	1,40 %	1,10 %	2,00 %	1,10 %	1,31 %	2,12 %	0,89 %	1,33 %	-0,51 %	0,23 %
No rating	0,00 %	0,00 %	0,10 %	0,10 %	0,01%	0,01%	0,00 %	0,00 %	0,00 %	0,00 %
Total average	100,00 %	100,00 %	100,00 %	100,00 %	100,00 %	100,00 %	100,00 %	100,00 %	0,00 %	0,00 %
Total average PD	2,68 %	2,48 %	2,85 %	2,54 %	3,77 %	4,44 %	1,54 %	2,07 %	-1,14 %	-0,41 %

By diving deeper into what lies behind the risk classes, the average PD's can be reviewed. The table 4.3.1.2.2 shows the total average PD's which have both increased from 2013 to 2015 and then decreased for lease from 3.77 % in 2015 to 2.07 % in March 2016 and for loan 4.44 % in 2015 to 2.07 % in March 2016. The company deems the development to be normal in the period from 2013 to 2014. The PDs increased from 2014 to 2015 due to the implementation of the behaviour model that was based on days in arrear in 2014. We have a new credit directive in place but the principles for the risk appetite are the same as before. This means that the company has not accepted worse customers than desired in order to increase growth. The table 4.3.1.2.2 shows an increase in average PD's from 2014 to 2015, but this is because of the implementation of the arrear PD model. The forecasted growth is expected to stabilize in the next years and the taken risk is expected to remain at the same level. However, in March 2016 the company implemented a new behaviour scoring model which in total decreased the PDs in the portfolio. The decrease in average PD is a result of the improved model. The risk in the portfolio has not significantly changed from 2015 to March 2016. After the implementation effect of this model the average PD is expected to remain at present level. The implementation effect is lower provisions and risk costs.

The corporate non-dealer and corporate dealer portfolio is shown below. The PD's for each class is static and is based on VW FS AG's own rating model. The PDs are mapped in the scale ranging from 1-10, where 10 is default. These are customers with exposure higher than 3 MNOK. Rating of these customers are done manually by the company's credit analyst. The higher variation in class distributions, compared to the retail portfolio, can be explained by the relatively smaller size of the corporate non-dealer portfolio and dealer portfolio. For the period 2013- March 2016 shown below the risk distribution have some variations in the corporate non-dealer portfolio and the corporate dealer portfolio. These are relatively small portfolios and are therefore subject to fluctuations. The majority of the exposure is placed in risk classes 1-5 in the whole period.

Table 4.3.1.2.3

_	20	)13	20	14	2015		2016	March	Δ 2013, 2016 March		
Risk classes	Fleet	Dealer	Fleet	Dealer	Fleet	Dealer	Fleet	Dealer	Fleet	Dealer	
1	11,8 %	1,4 %	12,8 %	13,2 %	54,8 %	28,4 %	26,8 %	12,4 %	15,0 %	11,0 %	
2	12,0 %	18,3 %	8,6 %	3,2 %	8,8 %	10,3 %	0,0 %	19,7 %	-12,0 %	1,4 %	
3	45,5 %	31,2 %	35,9 %	35,7 %	13,8 %	12,7 %	23,2 %	32,7 %	-22,3 %	1,5 %	
4	11,0 %	19,1 %	19,0 %	15,7 %	4,3 %	14,0 %	14,0 %	14,3 %	3,0 %	-4,8%	
5	4,8%	25,0 %	6,5 %	25,2 %	4,7 %	29,1%	34,0 %	7,0 %	29,2 %	-18,0 %	
6	4,6 %	0,8 %	4,0 %	5,9 %	2,2 %	5,5 %	2,0 %	6,4 %	-2,6 %	5,6%	
7	7,4 %	4,1 %	9,8%	1,1 %	1,0 %	0,0 %	0,0 %	3,8 %	-7,4 %	-0,3 %	
8	1,3 %	0,0 %	3,4 %	0,0 %	0,7 %	0,0 %	0,0 %	1,7 %	-1,3 %	1,7 %	
9	1,0 %	0,0 %	0,0 %	0,0 %	1,2 %	0,0 %	0,0 %	1,9 %	-1,0 %	1,9 %	
10	0,0 %	0,0 %	0,0 %	0,0 %	0,1%	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	
No rating	0,6%	0,0 %	0,0 %	0,0 %	8,3 %	0,0 %	0,0 %	0,0%	-0,6%	0,0 %	
Total averag	100,00 %	100,00 %	100,00 %	100,00 %	100 %	100 %	100,00 %	100,00 %	0,00 %	0,00 %	

## Credit default development

The portfolio consists of some defaulted contracts, see below in table 4.3.1.2.4. Per 31.03.2016 defaulted contracts consisted only of retail customers. There are no defaulted contracts in the corporate portfolio. In 2015 defaulted contracts were 0.18 of total exposure, and it is expected that the level will be at 0.22% for 2016 and the next five years (see table 4.3.1.2.4). The default % of the portfolio is expected to increase slightly but direct write-offs are expected to increase due to worsened economic situation in Norway. The company has budgeted high levels of direct write-offs to cover this risk, compared to actual losses in previous years. There is an increase in defaulted contracts from 2014 to 2015, but this is normal fluctuations caused by the low number in defaults. 95.8% of total portfolio is in risk classes 1-11, which has a PD between 0 to 5.23%, see table 4.3.1.2.2. The high risk classes 12-16 are a very small portion of total exposure. Based on low exposure of defaulted contracts, direct write offs and general PD level the company assess there is no need for additional Pillar 2 capital due to default development.

Table 4.3.1.2.4

(amounts in M NOK)	2014	2015	2016 (3+9)	PR65 2017	PR65 2018	PR65 2019	PR65 2020	PR65 2021
Exposure in default	10,43	20,26	26,24	27,58	27,94	28,97	29,79	30,84
% default of total portfolio	0,10 %	0,18 %	0,22 %	0,22 %	0,22 %	0,22 %	0,22 %	0,22 %
Direct write-offs	17,45	18,89	37,50	39,05	40,09	41,30	42,49	43,73
Direct write-offs % of AEA	0,17 %	0,17 %	0,31 %	0,32 %	0,32 %	0,32 %	0,32 %	0,32 %

#### Risk management

VWMBF is mainly monitoring the credit risk development of the portfolio through assessment of the risk management report (RM). The RM report is reported on a quarterly basis to headquarters. The groundsheet which is the basis for this report is produced monthly for control and provisioning calculation purposes. The RM report is also used to monitor the development of specific- and group provisions, development of risk classes, customers in high risk classes, payments overdue, probability of default, and unsecured amount. Further the development is split in loan and lease, new and used vehicles, retail and corporate customers, and remaining maturity. In addition, the report functions as a monitoring device for the development of defaulted contracts and customers. Prior to creating the RM report, the entire portfolio is data quality checked, and risk weights are assigned based on customer type and behavior. In addition the company has a Business Financial Review of key numbers on the whole portfolio twice a year.

#### Indirect residual value

The dealers guarantee currently all residual values on the leasing contracts. There is always a related risk for a dealer to default, where VWMBF will be left with the residual value responsibility. This risk is the indirect residual value risk and provisions are put aside to cover this risk. The risk is calculated by using the Møller's list of residual values for vehicles as a basis. These residual values are considered conservative and has historical given the dealer healthy margin on the sales of these used vehicles. Deviations in the residual values given by VWMBF compared to this list of residual values are considered a risk and are multiplied by the dealers PD to give the estimated indirect residual value risk. Per March 2016 this risk was calculated to be 5.5 MNOK. Indirect residual value risk is considered low. Per 31.03.2016, 90.7 % of all leasing contracts held a residual value guaranteed by the dealer. The remaining represents full pay out contracts.

The table below shows per 31.03.2016 how much residual value is backed by the groups of Møller dealers within each risk class. Per 31.03.2016, 100 % of the total residual value is distributed with dealers with low and medium risk. There is no history in VWMBF of dealers not being able to fulfill their residual value guarantees.

*Table 4.3.1.2.5* 

(Pr. 31.03.2016)	1 - low	2 - low	3 - low	4 - medium	5 - medium	6 - medium	7 - high	8 - high	9 - high	10 - default	No Scores	Total
Number of contracts	-	-	2 273	8 707	6 033	799	-	-	-	-	-	17 812
Resiudal value (MNOK)	-	i	421	1 887	1 258	163	-	-	1	-	-	3 729
% of total residual value	0,0 %	0,0 %	11,3 %	50,6 %	33,7 %	4,4 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0%	100 %

The table below shows per 31.03.2016 how much residual value is linked with independent dealers. 97.6 % of all dealers are within low to medium risk. The company considers this risk low and no need for further capital requirements.

Table 4.3.1.2.6

(Pr. 31.03.2016)	1 - low	2 - low	3 - low	4 - medium	5 - medium	6 - medium	7 - high	8 - high	9 - high	10 - default	No Scores	Total
Number of contracts	1 211	650	5 077	1 216	1 882	85	41	70		-	178	10 410
Resiudal value (MNOK)	283,97	118,14	984,69	224,48	360,12	15,92	7,91	13,39	-	•	34,04	2 043
% of total residual value	13,9 %	5,8%	48,2 %	11,0 %	17,6%	0,8 %	0,4 %	0,7%	0,0%	0,0 %	1,7 %	100 %

## Collection

If customer does not pay an invoice, the company sends out reminders to the customer after day 14 after the due date. The company separates the reminder and collection process based on the products lease and loan.

<u>Lease contracts:</u> A second reminder and a collection warning are sent on day 35 overdue. If the demand is not met by day 50 overdue, the contract information is sent to the collection agency for recovery. On day 50 overdue the contract status is then changed to "send to collection" and the invoicing of the lease installments stops. Incurred expenses will be sent to the customer.

The collection company starts the collection process based on the overdue invoices and sends a payment request on the overdue lease installments and a termination of the contract.

<u>Loan contract</u>s: A second reminder and a termination are sent on day 35 overdue. If the demand is not met by day 49 overdue, a collection warning is sent. On day 64 the contract information is sent to the collection agency for recovery. On day 64 overdue the contract status is then changed to "sent to

collection" and the invoicing on the contract stops. The collection company immediately starts the process and sends a payment request on the loan balance of the contract.

The collection company shall, in addition to follow up the payment with the customer, start the process to secure the pledge. The collection department then follows up the collection company repeatedly until the case has been solved. If a contract is default, the collection company will secure the vehicle and bring it to Autoringen where the vehicle is sold at auction. This is done to get the best possible price along with an orderly sales process for the defaulted customer.

# Off-balance credit

The off-balance credit risk consists of loan commitments on contracts that are approved but not started. Several contracts are approved by the credit department but never started as an actual contract. We have a credit risk related to the contracts that are only approved as they attach us with a loan commitment that might be realized in the future. The loan commitment is not binding after three months, so only contracts approved but not started during the last three months are included in the calculations.

The company has a conversion factor of 20 %, this means that the bottom 20 % of the loan commitments are included in Pillar I. The remaining 50 % has to be accounted for in Pillar II. Per 31.03.2016, the additional capital needed under Pillar II is 37.3 MNOK.

Table 4.3.1.2.7

	Basis for
	calculation
Total granted but not paid out (excl	
granted more than 3 months ago)	1 188,1
Risk weighted portfolio (of 78,49 % RWA)	932,5
Application to contract rate	70 %
Basis	20 %
	50 %
RWA for calculating equity	466,3
Equity requirement	37,3

## **4.3.1.3 CAPITAL REQUIREMENT**

The capital requirement report (COREP) is provided to the Norwegian Financial authorities (Finanstilsynet) and is made on a quarterly basis. In accordance to the standard method, per 31.03.2016 the capital requirement for credit risk under Pillar I is calculated at 763.7 MNOK. This amount is 8.0 % of the risk weighted portfolio, and thus with a significant margin towards the risk cost which fluctuates around 0.45 %. In addition, 37.3 MNOK is set aside to cover off-balance credit risk under Pillar II. In total the company will set aside 801.0 MNOK to cover credit risk.

Table 4.3.1.3.1

	Basis of calculation	Capital requirements
(amount in MNOK)	31.03.2016	31.03.2016
Local and regional authorities	22,4	1,8
Institutions	0,7	0,1
Corporate	2 210,6	176,8
Retail	7 187,2	575,0
Overdue liabilities	23,4	1,9
Other assets	102,4	8,2
Sum credit risk pillar 1	9 546,7	763,7
Off balance credit	466,3	37,3
Sum credit risk pillar 2	466,3	37,3
Sum credit risk pillar 1+2	10 013,0	801,0

## 4.3.2 Concentration risk

Concentration risk is the risk for losses due to high concentration of specific car model, individual customers, customer sector or geographical areas (with same risk for losses.)

#### **4.3.2.1 EXPOSURE**

# Pledge/Ownership concentration of brand and model

VWMBF finances vehicles and primarily Audi, Skoda and Volkswagen. Volkswagen is Norway's largest car brand and is represented with the largest share of the portfolio in the company.

During a negative economic cycle these brands may experience an increase in defaulted contracts and flood the used car marked which results in reduced prices. Table 4.3.2.1.1 below represents a split on the brands in the company portfolio. A total of 99.0 % of the entire portfolio represents cars from the importer Harald A. Møller AS, which means that the models in our portfolio directly reflect the cars sold by our dealers.

*Table 4.3.2.1.1* 

Portfolio 31.03.2016	Contracts	<b>Exposure in M NOK</b>	% of total portfolio
Volkswagen	39 397	7 641	63 %
Audi	10 745	2 929	24 %
Skoda	6 691	1 289	11 %
Others	1 155	174	1%
Grand total	57 988	12 033	100 %

Table 4.3.2.1.2 below displays the concentration of the various models within each brand financed by VWMBF.

Table 4.3.2.1.2

						% of No.	
			Exposure in	% of Brand No.	% of Brand	Contracts of Total	% Model of Total
Portfolio by 31.03.2016	Model	No. Contracts	M NOK	Contracts	Exposure	Portfolio	Exposure
VOLKSWAGEN	Golf	12766	2 550,8	32,4 %	33,4 %	22,0 %	21,2 %
	Transporter	4 869	1 049,1	12,4 %	13,7 %	8,4 %	8,7 %
	Passat	4 357	1 021,5	11,1 %	13,4 %	7,5 %	8,5 %
	Caddy	4 965	720,4	12,6 %	9,4 %	8,6 %	6,0 %
	Tiguan	2 515	621,0	6,4 %	8,1%	4,3 %	5,2 %
	Polo	2 999	396,3	7,6 %	5,2 %	5,2 %	3,3 %
	Touran	2 193	350,2	5,6 %	4,6 %	3,8 %	2,9 %
	Amarok	1 014	269,2	2,6 %	3,5 %	1,7 %	2,2 %
	Up!	1 987	240,0	5,0 %	3,1%	3,4 %	2,0 %
	Crafter	518	121,4	1,3 %	1,6 %	0,9 %	1,0 %
	Annet	1 214	300,6	3,1 %	3,9 %	2,1%	2,5 %
Total VOLKSWAGEN		39397	7 640,6	100,0 %	100,0 %	67,9 %	63,5 %
AUDI	A3	4 222	959,7	39,3 %	32,8 %	7,3 %	8,0 %
	A4	2 081	563,8	19,4 %	19,3 %	3,6 %	4,7 %
	Q5	1 246	490,3	11,6 %	16,7 %	2,1%	4,1%
	A6	1 057	403,4	9,8 %	13,8 %	1,8 %	3,4 %
	A1	1 217	197,1	11,3 %	6,7 %	2,1%	1,6 %
	Q3	380	117,2	3,5 %	4,0 %	0,7 %	1,0 %
	Others	542	197,2	5,0 %	6,7 %	0,9 %	1,6 %
Total AUDI		10 745	2 928,8	100,0 %	100,0 %	18,5 %	24,3 %
SKODA	Octavia	3 314	704,7	49,5 %	54,7 %	5,7 %	5,9 %
	Superb	980	252,4	14,6 %	19,6 %	1,7 %	2,1%
	Fabia	967	116,7	14,5 %	9,0 %	1,7 %	1,0 %
	Others	1 430	215,6	21,4 %	16,7 %	2,5 %	1,8 %
Total SKODA		6 691	1 289,4	100,0 %	100,0 %	11,5 %	10,7 %
OTHER BRANDS		1155	173,8	100 %	100 %	2%	1%
TOTAL		F7.000	12.022.5				
IUIAL		57 988	12 032,5				

The table shows the split for Møller's own car brands; Volkswagen, Audi and Skoda. There is an overweight of the VW Golf model with 21.2 % of the entire portfolio exposure. The VW Transporter and Passat models also make an impact with 8.7 % and 8.5 %, while Caddy has 6.0 % and Tiguan 5.2 %. The most significant other models are Audi A3, Skoda Octavia and Audi A4 with 8.0 %, 5.9 % and 4.7 % respectively. The models mentioned above have a combined exposure of 68.1 % of the total portfolio exposure. Models with 1 % of total portfolio in the column to the right are summarized and grouped as "others".

## Large customers

Table 4.3.2.1.3 below shows the 20 largest customers, which make up 5.2 % of the total portfolio and 36.3 % of the capital base. These figures are down from 7.8 % and 61.3 % in March 2015 and from 8.0 % and 69.9% in March 2014. The largest customer RAC Norway AS makes up 2.1 % of the total portfolio and 14.6 % of the capital base, which is also a reduction from 2015. The exposure this customer holds is financially guaranteed up to a fixed amount by VWFS so that the company is not in conflict with regulations on large exposures. Per 31.03.2016 VWFS guaranteed 130 MNOK for RAC Norway AS. For RAC Norway AS, the company hold only leasing contracts where residual value is a possible risk factor. The residual value for these contracts is applied after 16 months, and the residual value is close to book value. In addition, the residual value on these contracts is guaranteed by the importer Harald A. Møller. Therefore no concentration risk is considered for this customer and it is exempt from the calculation under capital requirement for large Customers.

*Table 4.3.2.1.3* 

			Exposure in M	% of Capital Base,	% of Total	Loss potential
Single customer unit 31.03.2016	Book Value	Unsecured amount	NOK	•	Portfolio	(unsec. amount)
RAC NORWAY AS	251 597 960	47 803 612	251,6	14,6 %	2,1 %	47,8
FIRST RENT A CAR NORWAY AS	66 512 208	13 562 420	66,5	3,9 %	0,6 %	13,6
NORSK RIKSKRINGKASTING AS	63 840 379	12 797 540	63,8	3,7 %	0,5 %	12,8
LØVENSKIOLD-VÆKERØ AS	27 506 100	5 368 030	27,5	1,6 %	0,2 %	5,4
INTERRENT AS	21 912 022	4 231 875	21,9	1,3 %	0,2 %	4,2
SITE SERVICE AS	19 598 850	3 880 127	19,6	1,1 %	0,2 %	3,9
MØRE OG ROMSDAL BILUTLEIE AS	17 695 659	3 362 175	17,7	1,0 %	0,1 %	3,4
EASY RENT AS	14 736 290	3 264 023	14,7	0,9 %	0,1 %	3,3
FONNA BILUTLEIE AS	14 704 839	2 793 919	14,7	0,9 %	0,1 %	2,8
BILUTLEIE MOSJØEN AS	14 149 495	2 688 404	14,1	0,8 %	0,1 %	2,7
NORDLIE AUTO AS	13 491 552	5 107 490	13,5	0,8 %	0,1 %	5,1
MILJØDIREKTORATET	13 153 195	2 977 769	13,2	0,8 %	0,1 %	3,0
BJARNE ØVERLAND AS	13 027 061	2 519 959	13,0	0,8 %	0,1 %	2,5
AF DECOM AS	12 882 864	2 928 149	12,9	0,7 %	0,1 %	2,9
VEIDEKKE INDUSTRI AS	11 400 141	2 507 797	11,4	0,7 %	0,1 %	2,5
ELTERA AS	10 212 883	2 379 863	10,2	0,6 %	0,1 %	2,4
NORGES VASSDRAGS- OG ENERGIDIREKTORAT	10 137 612	1 957 889	10,1	0,6 %	0,1 %	2,0
LUNDBERG BILUTLEIE AS	9 824 851	1 866 722	9,8	0,6 %	0,1 %	1,9
ØSTER HUS DRIFT AS	9 431 474	2 090 709	9,4	0,5 %	0,1 %	2,1
SJØFARTSDIREKTORATET	9 229 686	1 753 640	9,2	0,5 %	0,1 %	1,8
Total	625 045 122	125 842 111	625,0	36,3 %	5,2 %	125,8

Financial Guarantees by VWFS AG	31.03.2016	% of Exposure
RAC NORWAY AS	130,0	51,7 %

#### **Customer sector**

Table 4.3.2.1.4 below represents the total exposures of each customer sector and the exposure of number of contracts whereas the exposure is split on lease and loan. Retail customers, referred to as consumers in the table below, are considered to be a well-diversified group. For this reason the company has decided to exclude this group, constituting 68.2% of the total portfolio, from the concentration risk calculation. The remaining 31.8 % is commercial where wholesale, administrative, and construction trades aggregates to 31.8 % of the total portfolio.

Concerning a possible economic downturn or some other microeconomic events leading to a fall in one of these sectors, a concentration risk is present for the company. A general decline in these industries could result in increased loss. The separate industries represent several business sectors that are not necessarily identical business cycles. This reduces the risk within the various industries.

Table 4.3.2.1.4

			Tot. Exp. in	% of Tot.		
NACE	Portfolio split in sectors by 31.03.2016	No. Contracts	MNOK	Port.	Lease	Loan
PRIV.	Consumers	39 977	8 202,9	68,2 %	5 221,5	2 981,4
F	Construction	4 756	1 024,8	8,5 %	623,7	401,1
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	3 017	657,8	5,5 %	433,5	224,3
N	Administrative and support service activities	3 082	582,7	4,8%	222,2	360,5
O-T	Public administration and defence & Compulsory Social Security and Arts, & Entertainment and Recreation	1 537	332,1	2,8%	174,3	157,8
S	Other Service Activities	1 201	277,2	2,3 %	270,8	6,4
С	Manufacturing	1 194	257,9	2,1%	162,1	95,8
KM	Financial and Insurance activities & Professional, Scientific and Technical activities	916	195,2	1,6%	125,9	69,3
J	Information and communication	651	144,2	1,2 %	83,6	60,6
Н	Transportation and storage	591	125,0	1,0 %	76,0	49,0
L	Real Estate activities	353	79,5	0,7 %	54,2	25,4
Α	Agriculture, Forestry and Fishing	249	53,8	0,4%	40,1	13,7
- 1	Accommodation and Food Service activities	200	43,0	0,4%	30,3	12,7
D	Electricity, Gas, Steam and Air Conditioning supply	75	17,1	0,1%	9,8	7,3
E	Water supply; Sewerage, Waste management and Remediation activities	63	14,3	0,1%	11,2	3,1
В	Mining and Quarrying	30	5,3	0,0 %	3,0	2,3
Other	Other	96	19,7	0,2%	17,5	2,3
		57 988	12 032,5	100,0 %	7 559,6	4 473,0

# Geographical assessment

During a negative economic cycle the impact can vary across the different regions in Norway; high geographical concentration can therefore increase the concentration risk.

Table 4.3.2.1.5 represents VWMBFs geographical exposure, split on number and amount per contract per region. The dealers are located across Norway, which are reflected in the table below. The main exposure is in Oslo and Akershus, constituting 34.5 % of the total portfolio. 24% of the population in Norway is located in these counties.

*Table 4.3.2.1.5* 

	No.	Exposure in	% of total	
County by 31.03.2016	Contracts	MNOK	exposure	HHI
Akershus	8945	1 855	15,4 %	237,73
Aust-Agder	900	192	2 %	2,56
Buskerud	2944	630	5%	27,41
Finnmark	494	94	1%	0,61
Foreign	1844	418	3%	12,05
Hedmark	2294	461	4 %	14,67
Hordaland	5167	982	8%	66,55
Møre og Romsdal	2765	590	5%	24,04
Nordland	1087	227	2 %	3,57
Nord-Trøndelag	710	145	1%	1,44
Oppland	1783	372	3%	9,56
Oslo	8380	1 875	15,6 %	242,86
Rogaland	4995	963	8%	64,08
Sogn og Fjordane	657	147	1%	1,49
Svalbard	2	0	0%	0,00
Sør-Trøndelag	3237	694	6%	33,28
Telemark	1979	415	3 %	11,88
Troms	491	100	1%	0,70
Vest-Agder	1493	319	3 %	7,04
Vestfold	3620	751	6%	38,95
Østfold	4201	802	7%	44,44
Total	57988	12 033	100 %	844,90

Table 4.3.2.1.6 shows VWMBFs geographical exposure for business customers, split on number and amount per contract per region. The exposure is gathered in the regions where the company performs its main business activities. The company assesses no further risk based on these exposures.

Table 4.3.2.1.6

County pr. 31.03.2016	No. Contracts	Exposure in NOK	% of total expo	HHI
Oslo	5 875	1 247 409 771	17,0 %	289,88
Akershus	5 712	1 088 302 454	14,9 %	220,65
Rogaland	3 437	610 915 751	8,3 %	69,53
Hordaland	3 448	598 027 123	8,2 %	66,63
Østfold	2 747	488 508 245	6,7 %	44,46
Vestfold	2 309	443 209 109	6,0 %	36,60
Sør-Trøndelag	2 175	429 828 616	5,9 %	34,42
Foreign	1642	362 909 112	5,0 %	24,54
Møre og Romsdal	1 812	352 409 517	4,8 %	23,14
Buskerud	1 694	337 611 281	4,6 %	21,23
Hedmark	1 510	273 310 250	3,7 %	13,92
Oppland	1 160	221 420 591	3,0 %	9,13
Telemark	1 106	208 038 342	2,8 %	8,06
Nordland	818	161 186 219	2,2 %	4,84
Vest-Agder	529	103 973 434	1,4 %	2,01
Sogn og Fjordane	482	103 374 019	1,4 %	1,99
Aust-Agder	396	84 076 489	1,1 %	1,32
Finnmark	405	73 280 353	1,0 %	1,00
Nord-Trøndelag	380	70 673 418	1,0 %	0,93
Troms	358	67 743 606	0,9 %	0,85
Svalbard	2	290 188	0,0 %	0,00
Total	37 997	7 326 497 891	100 %	875,13

## **4.3.2.2 CONTROL**

The company's risk appetite for concentration risk is low. Control routines for several aspects are in place to maintain and reduce concentration risk. Risk department carry out a collateral concentration report on quarterly basis that can reveal significant changes in exposure per vehicle model. The company has the highest exposure in the retail market and control is kept closely on this market. Due to the high diversity in sector and geographic location for these customers it is determined that this sector is less risk sensitive during economic down turns.

# **4.3.2.3 CAPITAL REQUIREMENT**

Herfindahl-Hirschman Index (HHI) is a simple index that calculates and describes a degree of concentration found in different segments. HHI is calculated in slightly different ways pending on what is measured. The three tests performed are towards large exposures, geographical exposures and sector exposures. Banco De Espana has suggested these tables for additional capital requirements under Pillar II for concentration risk. These tables and methodologies are widely used in the financial sector in Norway.

Table 4.3.2.3.1

Table 4.3.2.3.2

Sectoral	
concentration	
index	Multiplier
0 < SCI ≤ 12	1.00
12 < SCI ≤ 15	1.02
15 < SCI ≤ 20	1.04
20 < SCI ≤ 25	1.06
25 < SCI ≤ 100	1.08

Individual	
concentration	
index	Multiplier
0.0 < ICI ≤ 0.1	1.00
0.1 < ICI ≤ 0.2	1.02
0.2 < ICI ≤ 0.4	1.04
0.4 < ICI ≤ 1.0	1.06

Reference: Banco De Èspana

Table 4.3.2.3.1 shows the percentage of required capital for the concentration of customer sector under pillar II. Table 4.3.2.3.2 shows the percentage of required capital for the concentration of exposure of the 20 largest customers.

# Pledge/Ownership concentration of brand and model

Analyzed isolated, the models mentioned in table 4.3.2.1.2 would represent a high degree of concentration and thus increased risk. However regulations require no added capital for this type of concentration risk, and the brands and models that are heavily represented are well established in the market and are expected to remain among the most sold in Norway.

## Large customers

In accordance with Banco De Espana and the HHI methodology, the following calculations have been applied for calculating the capital requirements for the concentration risk of large customers.

$$\beta = \frac{\sum x^2}{(\sum x)^2} * \frac{\sum x}{\sum y} * 100$$

$$\beta = \frac{12,365.5^2}{139\,462.8^2} * \frac{373.5}{12\,032.5} * 100 = 0.28$$

 $\sum x^2$  = Exposures squared, then summarized, excluding RAC equal 12 365.5". ( $\sum x^2$ ) = The same calculations as previous, but squared after the summarizing all exposures comes to 139 462.8.  $\sum x$  Represent 373.5 which simply show the summarized exposures.  $\sum y$  is 12 032.5 which is the total portfolio exposure.

Utilizing the multiplier suggested by Banco De Espana on large exposures (see table 4.3.2.3.1 and 4.3.2.3.2), an additional capital of 4 % shall be added resulting in 30.5 MNOK.

#### **Customer sector**

In accordance with Banco De Espana and the HHI methodology, the following calculations have been applied.

$$\alpha = \frac{\sum x^2}{(\sum x)^2} 100$$
 $\alpha = \frac{2162540^2}{14665881^2} * 100 = 14.75$ 

 $\sum x^2$  = Total exposures to the power of two then summarized, excluding retail private equals 2 162 540. ( $\sum x^2$ ) = The same calculations as previous, but to the power of two after the summarizing of all exposures comes to 14 665 881. In line with Banco De Èspana, table 4.3.2.3.1, a HHI of 14.75 equals a 2% additional capital requirement. In absolute terms, this amounts to 15.3 MNOK.

#### Geographical assessment

In accordance with Banco De Espana and the HHI methodology, the following calculations have been applied.

$$HHI = \sum_{i=1}^{N} S_i = S_1^2 + S_2^2 + S_{3+\dots+}^2 S_N^2$$

HHI = 
$$237.5^2 + 2.6^2 + 27.4^2 + 44.4^2 = 844.3$$

 $S_N^2$  is the percentage of each customer's exposure of the total exposure.

HHI < 100	Very low concentration
$100 \le HHI \le 1500$	Low concentration
$1500 \le HHI \le 2500$	Moderate concentration
HHI > 2500	High concentration

As there is no formal capital requirement on the aspect of geographical concentration risk along with a low concentration risk observed above, no additional capital is deemed necessary by the company.

# Total capital requirement

In total, the company will set aside 45.8 MNOK under Pillar II to cover for concentration risk.

#### 4.3.3 Market risk

Market risk is the risk of unexpected losses resulting from changes in market prices and interest rates.

Market risk related to changes in interest rate arises from fluctuating interest rates and with fluctuating interest rates a gap between the interest rates on funding and the interest rates on loan and leasing contracts, resulting in a possible loss.

#### **4.3.3.1. EXPOSURE**

VWMBF is exposed to market risk through financing of lease and loan contracts, and is mainly affected by interest rate risk. VWMBF is exposed to interest rate risk as interest rates are constantly fluctuating and the company's portfolio mostly consists of contracts with variable interest rates. The company has less than 0.01% contracts with fixed rate. It is company policy to match the interest fixing period on funding with the interest fixing period on the company's loan and leasing contracts. Thus, in the event of an increase or decrease in interest rates, the company can transfer this change to the customers. It is estimated that it takes around 40 days for the changes to be completely transferred to the customers. It is in this period of 40 days that profit/loss from differences in the interest rate on funding and that on loan and leasing contracts can arise.

The company has no risk related to exchanges rates or market prices, as the company has no significant transactions or financial instruments in foreign currency and no financial instruments related to market price development. VWMBF is funded through VWFS and the funding is provided in NOK and the foreign exchange risk is held by VWFS.

#### **4.3.3.2 CONTROL**

The company's risk appetite for market risk is low. Group Risk at headquarters in Braunschweig provides a complex and thorough analysis each month based upon the asset liability management report that the company sends to HQ. The report shows the maturity on all leasing and loan contracts in the company's portfolio with weighted average interest rates, as well as the maturity on all liabilities. All interest and non-interest bearing entities are included with maturities. Headquarter calculates the Value-at-Risk based on a historical simulation, which shows what the company's equity might increase or decrease by, in a day within a 40 day window (which is the company's respond time to an interest rate change) with a 99 % confidence level. The historical basis for testing is the last 1000 days of NIBOR development.

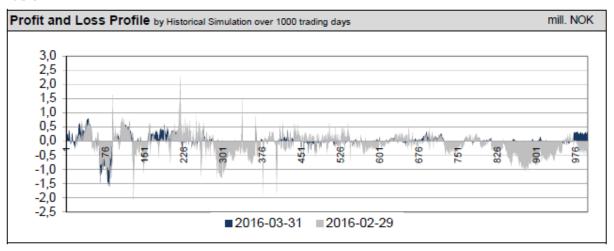
The table below shows a risk limit of 4 MNOK. The limit is set by the ALM committee in HQ in accordance with VWFS standards and the result is reviewed by the Board of Directors on each board meeting. Based on the 31.03.2016 asset liability situation, the equity in the company would depreciate by 0.9 MNOK with 99 % certainty.

Table 4.3.3.2.1

Overview			mill. NOK
	Risk	Utilisation	
Limit	4,0	22,3%	
Value-at-Risk	0,9	22,0 /0	
thereof Interest Rate Risk	0,9		+
<ul> <li>thereof Currency Risk</li> </ul>	0,0		$\Rightarrow$
— thereof Price Risk	0,0		$\Rightarrow$
Value-at-Risk (99,93%)	1,6		

If the confidence level is increased to 99.93 %, the interest rate risk would be 1.6 MNOK. In other words, in 99.93 % of the observations in the historical simulation period, the company would lose no more than 1.6 MNOK. The amount is well below the limit of 4 MNOK and thus the interest rate risk in this aspect is considered quite low. The graph below shows how the current equity could have changed given the NIBOR interest rate development during the last 1000 days.

Table 4.3.3.2.2



The funding in VWMBF arrives from Volkswagen Financial Services N.V. (VWFS NV) in Amsterdam Holland, VW Bank AG and VW Financial Services AG in Germany. The fixed interest period is from one month until 3 months, with an aim to reduce the interest rate risk. Average interest-bearing time on deposits is followed up by the controlling and risk manager every time a loan is renewed.

## 4.3.3.3 CAPITAL REQUIREMENT

A method used to calculate interest risk, is a plus/minus 200 basis points change in market interest rates and the following effect on the company's equity. Headquarter performs a monthly stress test based on the company's funding mix and portfolio interest maturity scheme provided via the company's asset and liability management reporting (ALM 2.0). Per 31.03.2016, a ±200bp change in the interest rates would lead to the following effects on the company's equity.

```
+200bp = (2.9) MNOK
```

-200bp = 2.8 MNOK

The stress test performed is under Basel III standards.

2.9 MNOK is the amount that could reduce the equity of the company in this event; the company sets aside this amount under Pillar II to cover interest rate risk.

# 4.3.4 Operational risk

The company is exposed to operational risk. Risks that lie under operational risk regarded by the company as essential are described below.

VWMBF has adopted the operational risk definition of the Basel III, which states that operational risk is defined as "the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events."

#### **4.3.4.1 EXPOSURE**

# Insurance on leased vehicles

In the event that a leased vehicle is involved in an accident and causes damages to itself and/or other parties, and there is no vehicle insurance attached, the company as the owner may be liable for costs. Therefore the company has thorough routines to avoid such incidents. VWMBF has control routines assuring that the customers have insurance on the leased vehicle. During the maturity of the contracts, the responsibility is under customer service and the collection department in the event of the company being notified by authorities that an insurance policy has expired. The routines are thoroughly controlled and supervised by the managers in each department. In the unlikely event that a vehicle is somehow not insured during the maturity of the contract the company will be notified by Statens Veivesen, and the contract is placed on a separate insurance the company possesses especially for such events.

#### Fraud

Table 4.3.4.1.1

			Date of	Loss in
Contract	Case	Date of occurence	loss	NOK

80081688	Α	07.12.2015	15.01.2016	254 190
80078522	В	18.11.2015	16.02.2016	305 190
80088630	С	26.01.2016	02.02.2016	417 550
TOTAL				976 930

As the company provides leasing and loan contracts to customers there will always be present a risk of fraudulent behavior. During the last 11 months, 31.04.2015 to 31.03.2016, VWMBF has experienced some cases of fraud, presented in table 4.3.4.1.1. The company has experienced losses tied to fraud with a total of 0.977 MNOK within the above mentioned period. The following fraud incidents were discovered:

- A: A customer was granted financing on a car from a dealer. The car was handed over to the
  customer in December 2015. Based on a tip, Lindorff AS investigation discovered that the
  customer had collected 7 additional cars in the course of 14 days. The person was arrested with 4
  of total 8 cars. None of the cars found belonged to VWMBF.
- B: A customer was granted financing on a car from a dealer. The car was handed over to the customer in November 2015. Based on a tip, Lindorff AS investigation discovered that the customer had collected 5 additional cars in the course of 7 days.
- C: A customer was granted financing on a car from a dealer. The car was handed over to the customer in January 2016. Based on a tip, Lindorff AS investigation discovered that the customer had collected 6 additional cars in the course of 3 weeks.

An additional capital requirement under Pillar II for operational risk is reasonable as there will always be associated risk involved. The company could add 0.977 MNOK in additional capital based on the low figures of direct losses in the fraud cases. However, the company has already included losses from fraud in the forecast and budgets which are placed under credit risk. The company does not see the need to add any additional capital for fraud to cover operational risk.

## Approval exceeds authority

The company has a credit directive that shall secure the intended risk profile of the portfolio. If a credit consultant working for VWMBF exceeds the given authorities and limits, it can result in higher risk of loss. There have been no such incidents. All applications must be approved in the application system of the company before they are transferred to the production system and are finally disbursed. In the application system consultants are given rights according to their authorities, previously described in chapter 4.3.1.2 under control / credit process. In addition it can be mentioned that all finance applications asking for more than 7 years down payment must be approved by authority 2 (two Credit consultants together or the team leader), a measure set in place to ensure high quality assessment of finance contracts with a potentially higher risk. For a loss to be realized there must be mistakes in several segments and involve several people in the company. The company regards this as unlikely.

#### Errors in IT systems

The company bases major parts of the business on effective IT systems. An error in an IT system could therefore result in major consequences for the company. A number of errors can arise, such as error in the invoice system, which can prevent communication to customers that put off payment. A

halt in the production system (Coreview) and the front system (Applikator) will prevent the main part of daily operations. The company depends on secure and stable IT systems so that operational difficulties can be resolved quickly should there be incidents. Good contact with IT suppliers and having effective IT personnel in house reduces risk of severe errors in the IT systems. VWMBF also has a thorough test procedure for installation of new software, software updates etc. to ensure that these processes are done with a high level of performance which minimizing the risk of error.

# Internal control system

The company has a routine to control that alterations (including routine specifications) are clarified with all affected departments and the alterations need to be approved by these departments. This is a standard process concerning all alterations on systems and routines.

# Launching of new products

Before launching a new product several aspects have to be in place. WVMBF has an own guideline for new products process (NPP). It shows the steps that needs to be followed prior to commencing business activities with new products, when making changes to an existing product or when implementing chains of distribution that have not been used before. The process involves documentation requirements, product pilot and a written product/distribution concept. The responsible product manager has to involve the following departments: Risk management, controlling, accounting, compliance, IT, treasury and audit. It's a comprehensive process and it must be approved by HQ.

# Facilities of the company made inaccessible due to fire or other causes

There is always a risk that the company will not have access to facilities over a specific time period due to natural or unnatural events such as fire, sabotage or natural disasters. All documents are scanned and stored externally at Recall. The company has a contingency plan, approved by HQ, that ensures the company being in operation with employees within 72 hours.

#### Incidents

VWMBF uses GOLD forms to report incidents. During the time period 30.04.2015 to 31.03.2015, 19 GOLD forms were reported. The total amount came to 0.729 MNOK.

Table 4.3.4.1.2

			Date of	Loss in
Contract	Case	Date of occurence	loss	NOK
80042792	Α	08.04.2015	28.05.2015	14 297
	В	03.03.2016	09.03.2016	300 000
80073525	С	25.11.2015	10.03.2016	10 914
80061757	D	09.02.2016	07.03.2016	17 331
80069424	Ε	29.12.2015	10.03.2016	1 187
80071992	F	03.12.2015	10.03.2016	10 344
80073708	G	28.12.2015	14.03.2016	819
80075379	Н	24.11.2016	10.03.2016	8 112
80075688	1	11.01.2016	10.03.2016	1 511
80081734	J	13.01.2016	10.03.2016	3 560

80082251	K	05.01.2016	10.03.2016	877
	L	04.03.2016	16.03.2016	0
60558527	M	26.08.2015	09.09.2015	0
	N	02.04.2015	28.05.2015	0
80052889	0	28.05.2015	29.11.2015	5 071
	Р	03.08.2015	03.08.2015	18 285
	Q	23.07.2015	23.07.2015	59 404
	R	19.08.2015	19.08.2015	146 348
	S	26.06.2015	26.06.2015	131 090
TOTAL				729 149

#### The following incidents were discovered:

- A: A car loan was started on the wrong registration number of the vehicle. This means that the
  contract that was signed by the customer has the wrong registration number attached to it. We
  have taken a new pledge in the right car, but the contract signed is still wrong. The loan has now
  no security attached to it.
- B: The calculator for loans on our webpage stopped working for 14 days. This means that no
  direct loans were granted in this period. The calculator was fixed but the company is working on
  a long-term solution to this problem.
- C: We do not have a pledge in a car due to error when the customer was using e-signing. A new
  pledge is sent manually. The company is working on improving the set up for e-signing.
- D: Wrong date of birth was registered on a customer. The pledge document was sent back. New pledge sent to the customer to sign.
- E: We do not have a pledge in a car due to error when the customer was using e-signing. A new pledge is sent manually. The company is working on improving the set up for e-signing.
- F: We do not have a pledge in a car. A new pledge is sent when the company discovered the missing pledge.
- G: We do not have a pledge in a car. A new pledge is sent when the company discovered the missing pledge.
- H: We do not have a pledge in a car. A new pledge is sent when the company discovered the missing pledge.
- I: We do not have a pledge in a car due to error when the customer was using e-signing. A new pledge is sent manually. The company is working on improving the set up for e-signing.
- J: We do not have a pledge in a car due to error when the customer was using e-signing. A new pledge is sent manually. The company is working on improving the set up for e-signing.
- K: Wrong date of birth was registered on a customer. The pledge document was sent back. New pledge sent to the customer to sign.
- L: Applications were not transferred from Mnet to Applikator. The dealers instead had to call the credit department and get the credit department to manually enter the applications.
- M: License of registration was sent on a car where the final invoice was not paid. The registration was sent back to us at discovery.
- O: Received payment was charged on the wrong contract due to the payment was marked with the wrong invoice number.

- P: The contract was started as a lease and not as a loan as it was supposed to. We had to reregister the car and pay a VAT amount that was linked to the leasing contract.
- Q: We have wrongfully not taken pledge in 1 car. A new pledge is sent when the company discovered the missing pledge.
- R: We have wrongfully not taken pledges in 6 cars. New pledges were sent when the company discovered the missing pledges. We have wrongfully not taken pledges in 8 cars. New pledges were sent when the company discovered the missing pledges. We have gone through our routine for securing pledges and are working on improving the process.
- S: We have wrongfully not taken pledges in 14 cars. New pledges were sent when the company discovered the missing pledges. We have wrongfully not taken pledges in 8 cars. New pledges were sent when the company discovered the missing pledges. We have gone through our routine for securing pledges and are working on improving the process.
- T: We have wrongfully not taken pledges in 8 cars. New pledges were sent when the company discovered the missing pledges. We have gone through our routine for securing pledges and are working on improving the process.

#### **4.3.4.2 CONTROL**

The company's risk appetite for operational risk is low. Mentioned below are the measures taken to reduce the risk.

To follow up operational risk the risk controllers receive GOLD forms from the other departments. The GOLD forms show the actual incident, cause for the incident, estimated or actual cost, proposed solution, and prevention of repeated incidents. The incident is then reported by the risk controllers to the headquarter in Germany. On a yearly basis a self-assessment form based on these incidents is updated, reported and stored. This internal control is made in agreement with the management and possible changes to be made are reviewed.

The company uses a standard IT contract management system (Banqsoft), which is also used by a number of other finance companies. New versions of the system are thoroughly tested prior to installment. The test group consists of persons from all internal departments, including a person from IT. All tests are documented and the version must be approved by the whole test group before installing it in the live production system. The company is subject to and follows the ICT (information and communication technology) regulations, and all routines regarding IT are therefore reviewed annually by an IT compliance officer. In the future a report will be presented to the management. However there has been an issue with the front system (Applikator). The company has started with digital e-signing of pledges, but there have been some incidents with the functionality. The company is working hard to get the e-signing in order, and in the meantime the solution is to sign manual pledges.

The company has an internal control system in place for alterations in systems and routines. It is necessary that any alterations that could affect other departments in different ways are controlled by following a standard routine for such changes. This will reduce the operational risk.

Launching of new products can result in an operational risk. VWMBF follows the local guideline for approving new products, which is based on the framework of VWFS. This is a comprehensive process which reduces risk of a potential product launch. The necessary departments in the company go through check lists and send a statement to the country managers to state if they support the

decision. If all departments give acceptance, the country managers must approve it before sending it to HQ for approval. An approval from HQ is needed before the release of a new product. There are aspects concerning accounting, customer service, controlling and IT that need to be addressed properly to achieve successful launches.

Attempts on fraud are mainly handled by the collection agency. The collection agency specializes in such tasks. Three times a week the collection department at VWMBF sends a file with all customers that have defaulted. The collection agency analyzes this list and attempts to discover any fraudulent behavior on these customers.

The company is subject to internal audits on a regular basis based on a board decided internal audit plan. Such audits pay particular attention to the quality of guidelines and procedures, and are a qualitative support to the company's own internal control and everyday department specific responsibilities. In 2015/2016 VWFS carried out internal audits on risk, treasury, retail credit and leasing business, back office activities and compliance. As VWMBF has grown significantly in recent years the company has decided to strengthen its own internal control with a new position, which took place in 2014.

#### 4.3.4.3 CAPITAL REQUIREMENT

The company is today reporting by the standard method for operational risk and thus 15 % of the average of the previous 3 years revenues is added to the capital requirement. The table below shows an addition to the Pillar 1 to cover operational risk of 52.2 MNOK.

Table 4.3.4.3.1

in NOK	2013	2014	2015
Revenues	318,0	357,3	369,5
Average			348,3
15 % cap.req			52,2

Due to the high increase in portfolio size the previous years the company also regards that an addition to operational risk in Pillar II should be in place. However; the portfolio is expected to level out the next years and this must be taken into consideration when calculating an addition to Pillar II.

The total amount of 0.729 MNOK is the expected loss for the incidents reported. For all incidents a risk assessment has been made and expected loss is calculated according to this. The company assesses that the risk could be higher than what is expected and will set aside 5.0 MNOK to cover this risk under Pillar II. The capital set under pillar II is based on a rough estimate compared to last year's additional capital under pillar II for operational risk. Per 31.03.2015 the company reported a total of incidents for 3.265 MNOK and assessed additional capital under pillar II for 13.4 MNOK.

#### 4.3.5 Risk connected to securities

No securities are held in VWMBF, thus no inherent risk.

# 4.3.6 Liquidity risk

#### **4.3.6.1 EXPOSURE**

Liquidity risk is defined as the risk that the company is unable to raise funds to meet commitment by due date. Three factors are of particular importance for the company's liquidity risk. The first is the

structure of the balance sheet. Based on the difference in turnover and maturities on assets and liabilities, a liquidity risk emerges due to a continuous need to refinance the company's obligations. Second and third is the liquidity in the market and the creditworthiness of the company.

#### **4.3.6.2 CONTROL**

All funding in the company are obtained from VWFS central treasury department. To renew existing or obtain new loans, the company requests new funding three days prior to the maturity. The money is then transferred to VWMBF within 72 hours after the initial request. When the order is placed, the HQ treasury department either draws this against the 280 MEUR (700 MEUR from June) credit line that VWMBF has with VW Bank GmbH or the funding is done through VWFS NV who place the order with investors using various instruments, but mostly these are private placements of commercial papers. VWFS ensures that sufficient limits are in place to cover changes in borrowing requirements. The limit is changed according to liquidity reported monthly by the company. Since the onset of the "Dieselgate" (September 2015), VWFS N.V. is however currently not eligible for the capital market. This is mainly due to the considerable uncertainty and caution amongst investors and the obligation to adjust the capital market prospectuses. It is assumed that VWFS N.V. can return to the capital market as of July 2016. Thus, for the first half of the year 2016 there will not be any funding potential via VWFS N.V. for the insolvency risk.

To reduce liquidity risk the long term strategy of VWMBF is to have the majority of the assets maturing in more than 12 months matched by funding with maturity over 12 months. As of 30.03.2016 72.2% of VWMBF's portfolio and 40% of the funding was in this category. However due to early termination the expected maturity for the portfolio is lower. This funding mix is slightly above the long term funding target. The share of long term funding has decreased during 2016 since VWFS has not been able to raise long term funding in the capital market and the cost of long-term funding (spread) in other channels has been very high. This is expected to improve in the 2nd half of 2016 where VWMBF plans to obtain new 3Y funding.

The table below shows the split of funding and portfolio in different maturity classes as March 2016:

Table 4.3.6.2.1

			2016		Portf
	Funding	Funding	O/(U)	Portfolio	O/(U)
Time to maturity	31.02.15	31.02.16	2015	31.03.16	Funding
<= 1 mo	22,2 %	42,5 %	(20,3%)	1,5 %	(41,0%)
1-3 mo	14,0 %	11,1 %	2,9 %	4,8 %	(6,3%)
>3 -12mo	9,5 %	6,4 %	3,1%	21,5 %	15,2 %
>=12 mo( incl. Equity)	54,3 %	40,0 %	14,3 %	72,2 %	32,2 %
	100,0 %	100,0 %	0,0 %	100,0 %	0,0 %

The company plans to increase long-term funding during the planning period (2016-2021) so that from 2017 onwards more than 50 % of the funding has more than 12 months to maturity. From 2018 the expected maturity structure of assets and liabilities is planned to be nearly matched.

To measure the profit effect of having different maturity structure on the liabilities and assets the method "OIR" (Opportunity Interest Rate) was introduced in 2014, a method used by all VWFS companies. The method calculates the funding cost based on a fully match between the maturity structure on the assets and the liabilities. The effect of having equity and other non-interest-bearing

liabilities is excluded to arrive at the profit contribution of the company. The profit contribution is viewed as the real performance of the company. The profit effect of having non-interest bearing liabilities and equity is shown as interest income (calc.) The maturity transformation result (MTR) is the differences between actual funding cost and the calculated funding cost based on match funding, excluding any effect of having equity and other non-interest bearing liabilities. The MTR is therefore the profit effect of not having fully matched funding; this is viewed as a treasury result. The MTR is expected to increase from 13.1 MNOK this year to 31.2 MNOK in 2017 due to less long term funding and higher difference in cost (spread) for long-term vs. short term funds; as direct result of the "Diesel" crisis. The company plans to increase the long-term funding during 2017 and 2018 resulting in a sharp decline in the MTR. See table below:

Table 4.3.6.2.2

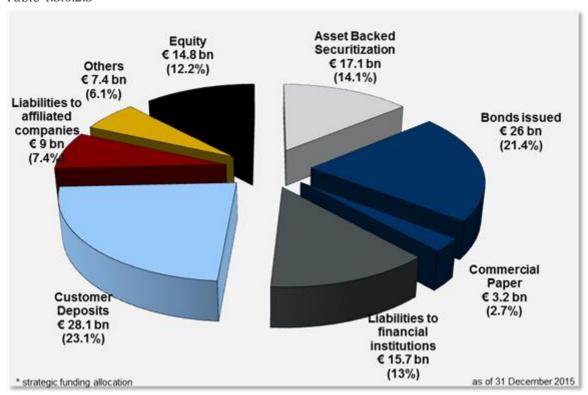
in Mio.LC	Act.	Budget	FC 3+9		PR 65			
III WIIO.LC	2015	2016	2016	2017	2018	2019	2020	2021
Ø Earning Assets (Total)	11 078,9	11 915,6	12 049,0	12 330,0	12 665,2	13 071,6	13 431,3	13 786,3
Profit Contribution	292,0	276,1	343,8	235,0	224,7	234,8	243,4	245,3
Profit Contr. in % of Total Ø EA	2,6%	2,3%	2,9%	1,9%	1,8%	1,8%	1,8%	1,8%
Overheads	125,7	142,5	139,9	145,5	153,2	154,6	160,7	165,6
011	166,0	133,6	204,1	89,5	71,5	80,2	82,7	79,6
Interest income (calc.)	35,7	39,0	44,2	49,6	66,9	82,1	95,2	110,9
OI II	201,7	172,5	248,3	139,1	138,4	162,3	177,9	190,5
Maturity transformation result	26,5	8,5	13,3	31,3	30,1	16,3	15,6	15,7
OI III	228,1	181,1	261,6	170,4	168,5	178,6	193,5	206,2
Profit before Tax	228,1	181,1	261,6	170,4	168,5	178,6	193,5	206,2

The company has a credit facility with SEB of 100 MNOK to cover short-term fluctuations in liquidity, and to further strengthen the liquidity reserves VWMBF is in the final phase of negotiating a credit facility of 300 MNOK with another bank.

VWFS and VWMBF are financially sound companies however due to the "Diesel crisis" S&P and Moody's ratings have downgraded VWFS AG compared to previous years. The S&P rating has been reduced from an A- to a BBB+ (long term), and the Moody's rating has been reduced from Aa3 to A1 (long-term) compared to 2015. Both classified with a negative outlook. The result of this has been a significant increase in funding cost (spreads), especially for longer term funding.

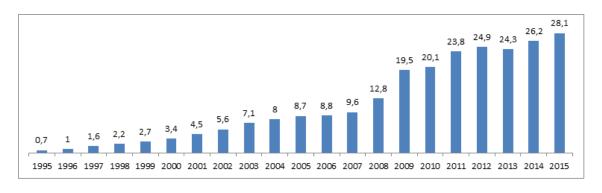
The split of the total VWFS AG funding of 121.3 BEUR as of 31.12.2015 is shown below:

Table 4.3.6.2.3



In the wake of the financial crises customers deposit has increased significantly as customers has shifted their deposits to banks viewed as financially sound with a good reputation. The graph below shows the development of customer deposits in BEUR for VWFS as of 31.12.2015.

Table 4.3.6.2.4



VWFS NV is one of the funding vehicles of VWFS and its subsidiaries. VWFS NV raises funds from the capital markets by issuing notes and lends the proceeds on to Group and joint venture companies. Basis for the issuing activities are the 18 BEUR Debt Issuance Program that adheres to the European Prospective Directive Standards and is regularly updated, as well as the 10 BEUR Commercial Paper Programme. All issues are guaranteed by the mother company, VWFS. Therefore, the VWFS NV rating by Moody's and Standard & Poor's is derived from the VWFS rating. In 2015 VWFS NV placed issues under the DIP with a total EUR equivalent volume of 1.2 BEUR (2014: 2.0 BEUR), and under the CP Program with a total EUR equivalent volume of 1.6 BEUR (2014: 2.8 BEUR). The proceeds of these issues have been granted to the VWFS Group companies.

Based on the well diversified funding structure of VWFS and VWFS NV, the funding of VWMBF considers its funding to be indirectly well diversified. The funding is mainly provided by VWFS/VWFS NV, a financially strong company despite the recent downgrading resulting from the "Diesel Crises" The company has been, and is expected to be, a considerable player in the financial market. We therefore view it as unlikely that the funding situation for VWFS/VWFS NV will worsen over the next 12 months to such an extent that it will not be able to provide the liquidity needed by VWMBF. To ensure funding the limit VWMBF has with VW Bank has been increased to 700 MEUR from June 2016. This covers 2/3 of the funding need during the next 12 months.

The concept for measuring and managing liquidity risk was introduced by VWFS treasury department in 2012, and has been approved by VWMBF's board of directors. The liquidity risk is measured as the difference between the funding potential and the forecasted cash flow the next 12 months. To quantify the insolvency risk, three stress scenarios are used. Below there is the overview of the defined stress scenarios built within a 9-cell-matrix. The shaded squares are the chosen ones which will be reported. The choice of those three is being made to meet all possible combinations of the characteristics institute specific, market wide and combined and historical and hypothetical within the reporting. As well those chosen ones provide the most relevant information in regard to steering purposes. A new scenario was introduced this year, "Dieselgate", as a result of the reduced funding potential that due to crises such as "Dieselgate" where VWFS may not be eligible to raise funds in the capital market mainly due to the considerable uncertainty and caution amongst investors and the obligation to adjust the capital market prospectuses. See table 4.3.6.2.5. below.

	Historical Scenario	Hypothetical Scenario (Bad)	Hypothetical Scenario (Stress)
Institute- Specific Scenario	n.a.	Unexpected Growth	Unexpected Growth
Market Wide Scenario	Financial crisis (Oct. 2008 to Mar. 2009)	Big EU State gets in Trouble	Like Bad and additional Bailout of an Important Bank
Combined Scenario	n.a.	Worst of Each	Worst of Each
		+	



VWMBF reports the expected future cash flow to VWFS on a monthly basis. Based on these data Group Risk calculates VWMBF's liquidity risk for the next 12 months period based on the scenarios describe above. For calculating liquidity risk, a limit system is integrated in order to define shortages from minor to major. The respective liquidity shortage is determined by the utilization level of the funding potential as well as the period/timing of the incident. A Liquidity Risk report is prepared by the Risk department of VWFS on a monthly basis. This report is sent to VWMBF Directors, Risk Management department and the Treasury department. If the report show as that the funding

potential is below the funding need in any of the scenarios, a red flag is market and VWMBF has to set up a contingency plan to close the gap before the next report. The result the report for March 2016 is shown below. The result is a red flag for all scenarios. This result was expected and is due to an action plan has been developed together with HQ treasury maturing long-term funds being replaces by short term funding due the high price of long-term funding. In addition the funding potential has been reduced, both direct effects of the "Diesel Crises". Based on this report with the aim to change all flags to green during 3Q 2016. This plan is presented to our Management board and VWFS liquidity steering committee.

Table 4.3.6.2.6

#### Insolvency Risk

<u>Major shortage</u>: Due to the degree of utilization over 100% in the Normal Case (144%), the month May 2016 results in a red traffic light and thus triggers a major shortage. This shortage is interlinked to your contingency plan as agreed in the liquidity risk concept.

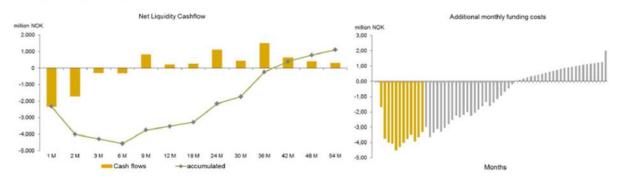
maturity scenario	Overall	≤3 Months	≤6 Months	≤12 Months
Normal Case				
Financial crisis				
Bad Combined				
Unexpected growth				
Dieselgate				

The risk of refinancing is also analyzed monthly. The spread which is currently used for calculating the risk of refinancing is derived from the 99 % confidence level over the monthly spread changes of VWMBF for the NOK market. On a 12 month horizon, with 99 % probability, the liquidity gaps weighted by a shift in spreads of 112 basis points, leads to 44.4 MNOK in additional funding cost to close the liquidity gap. Since the loan and leasing portfolio has variable rate an increase of this magnitude could be compensated by an increase in the interest rates in the portfolio. For competitive reasons it may however not be possible to raise the customer rates to compensate for this increase since it will not affect all competitors equally, and would depend on the funding structure of the different companies. VWMBF therefore consider this as the refinancing risk in a stressed scenario.

Table 4.3.6.2.7

# **Funding Risk**

On a 12 month horizon, the liquidity gaps weighted by a shift in spreads of 112 basis points, lead to NOK 44.4m additional funding costs. The limit of NOK 23.2m is utilized by 191%.



VWFS has a stated aim to be the lender of last resort for VWMBF. This is stated in the refinancing policy that is approved by the board. The liquidity risk will therefore depend on VWFS's ability to obtain funding in the credit market. VWFS has well diversified funding mix (table 4.3.6.2.3) and we view it as highly unlikely that VWMBF will not obtain funding during the next 12 months through one of these sources. If however VWFS and VWMBF in a highly unlikely situation should not be able to obtain funds a run-down scenario may be initiated.

In accordance to the shareholders' agreement between VWFS and MøllerGruppen Bil AS, VWFS shall provide funding for VWMBF. The parties have the option to resign from this agreement, but the term of notice is minimum one year. Should the owners exercise this option the company can stop new sales in order to substantially reduce the need for liquidity.

VWMBF has developed a liquidity crises plan that is reviewed yearly by the local management and VWFS treasury department. The plan shows which action should be taken in case of a short term and a medium term liquidity crises situation. The plan specifies several steps but during the first phase the company should draw a 280 MEUR (700 MEUR) credit line from VW Bank GmbH and credit facilities with local banks. The company and VWFS have contacted local banks to increase the uncommitted credit lines and it is expected that the agreement will be signed during 2016. Based on the offer from one of the banks this funding will be app. 50 BP higher than funding through VWFS. The cost for these uncommitted credit lines is included in the forecast for 2016 - 2021. Also, in order to minimize liquidity risk the treasury department in VWMBF monitors the liquidity situation of material bank accounts and credit facilities on a daily basis. The company and VWFS treasury department aim to have a diversified funding maturity structure in order to avoid having too many loans with the same maturity. Furthermore, our target is to have immediate access to at least 50 MNOK at SEB's credit facility on a daily basis.

One of the new minimum standards is a 30-day Liquidity Coverage Ratio (LCR) which is intended to promote short-term resilience to potential liquidity disruptions. The LCR requires banks to have sufficient high-quality liquid assets to withstand a stressed 30-day funding scenario. The LCR defines the minimum stock of unencumbered, high-quality liquid assets that must be available to cover the net outflow expected to occur in a severe stress scenario. Cash inflows are subject to a cap of 75% of total outflows. Consequently, a minimum of 25% of cash outflows have to be covered by liquid

assets. According to recent revisions of the LCR, the minimum requirement will be set at 70% in 2018 and rise in equal annual steps to reach 100% in 2018. However, VWMBF is not required to follow these legal requirements at the present time as they do not apply to financial institution.

*Table 4.3.6.2.8* 

LCR Requirement	2017	2018	2019	2020	2021
Minimum requirements	80 %	100 %	100 %	100 %	100 %

As of 31.03.2016 we have a LCR equal to 0 % due to no highly liquid assets in our portfolio. One way to adapt to the LCR regulations within 2015 is to increase our highly liquid assets and change the maturity mix of our funding.

The second liquidity standard introduced by the Basel III is the Net Stable Funding Ratio (NSFR), a longer-term structural ratio to address liquidity mismatch and provide incentives for banks to use stable sources to fund their activities. The NSFR requirement will be applicable from 2018. However, we are not required to follow these legal requirements at the present time as they do not apply to financial institutions.

Table 4.3.6.2.9

NSFR Requirement	2017	2018	2019	2020	2021
Minimum requirements		100 %	100 %	100 %	100 %

#### 4.3.6.3 CAPITAL REQUIREMENT

VWMBF's funding is provided by the parent company VWFS, company with a strong brand name and a well-diversified funding structure. As a result of the "Diesel Crisis" the company has been downgraded to a S&P poor rating of BBB+ which has resulted in higher cost of funds and some funding vehicles being unavailable. Nevertheless we consider it unlikely that the funding situation for VWFS will worsen over the next 12 months to such an extent that it will not be able to provide the liquidity needed by VWMBF.

Risk monitoring from both VWMBF and VWFS is done continuously. The current situation where the funding potential is lower than the funding need for all scenarios is expected to be resolved in Q3 2016.

The agreement between VWFS and MøllerGruppen Bil AS states that VWFS shall provide funding for VWMBF. The parties have the option to resign from this agreement on a minimum one year notice. Should this be the case VWMBF can stop new sales in order to substantially reduce the need for liquidity.

The company therefore considers the liquidity risk as moderate. However there is a refinancing risk that was measured to 44.4 MNOK as of March 31<sup>st</sup> 2016. The company sets aside 44.4 MNOK for liquidity risk under Pillar II.

## 4.3.7 Insurance risk

The company does not offer any insurance products, but mediate insurance on behalf of IF and Enter.

#### 4.3.8 Business risk

#### **4.3.8.1 EXPOSURE**

Business risk is defined as the probability of loss in the company's operations and environment that may reduce its capability to provide returns on investment. The ability to predict the future portfolio fluctuations is crucial in order to assess capital requirements.

We divide business risk into company specific risk and general market risk (unsystematic and systematic risk). Company specific risk is risk that is specific to a certain company's operations and reputation. Overall market risk is dependent on macroeconomic factors. The company's portfolio may change based on these different factors. A company specific change may point the portfolio growth in either direction and will ultimately lead to a change in required capital. Examples of overall market changes can be represented by a sudden and strong demand for short term leasing, new legal requirements on private loans on vehicles or complete stop in demand for commercial leasing. Such examples are exotic in nature and a less probable.

# Company specific risk

From a sales perspective, the company is dependent on the dealer network. 86 % of the current portfolio derives via dealers and the remaining via the internet. In the worst case scenario where most or all dealers no longer wishes to use VWMBF as a provider of financial services sales would fall drastically. However, as the scenario analysis will show, this is not an issue related to increase in capital requirements. Rather the opposite, zero sales with a diminishing portfolio will only reduce the amount of required capital. The actual risk is if the portfolio grows more than what is expected and does not have a sufficient capital base.

The strategic goals of the company are continually threatened by different risks. In order to manage these risks the company must have developed strategies that enable it to meet its goals. The strategies determine which processes are necessary to meet the strategic goals and which processes require controls to mitigate business risk. The below table contains the company's strategic goals.

Table 4.3.8.1.1

Goals	Staus pr 31.03.2016	Status
Return on Equity (normalised)	Fully on track towards strategic goals	
CIR external	Fully on track towards strategic goals	
Penetration financing and leasing	Fully on track towards strategic goals	
FS-pulse: questions #5 and #6	Fully on track towards strategic goals	
End customer satisfaction	Measure "complain index" as a proxy from 01/2015	

#### General market risk

As the car market is considered a stable market in terms of development and new technology; risk of any drastic changes is considered low. However the introduction of electric cars has shown a steady growth in Norway and could represents a risk for the standard petrol driven vehicles. The growth is partially due to beneficial tax legislation, but also due to the growing awareness of climate change

and dedication to living green. For now, the electrical cars cannot compete on distance. However, in the long run, with new and improved technology, electrical cars could become a real alternative to traditional cars running on diesel or gasoline. Volkswagen is deeply invested in producing cars that run on alternative fuel sources, and as of 31.03.2016 Volkswagen sold more electric cars than any other brand in Norway. In addition, Volkswagen and Audi have focused on producing hybrids in the last year. This is a good option for both electric cars and gasoline cars, and is also considered more environmental friendly.

Market changes demanding technological investments such as increased digitalization of the sector could impose some risk to the company. Any strategic decision resulting in large technological investments could lead to financial losses if the strategy fails. At the current time the management has started to plan such strategic measures in collaboration with Harald A. Møller, and projects have been initialized. Such as at the end of 2015 for instance, MG introduced digitalized car sale for some selected car models. The cost for this strategy to increase digitalization is included in the prognoses and in the budget for the years to come. Thus, we currently see no need to set aside additional Pillar II capital to cover this risk.

In recent times a political element has risen that could potentially threaten parts of the vehicle industry as it is today. There has been a political agenda regarding the possibility of prohibiting the use of diesel cars in the larger cities during winter season. In February 2016 the city council of Oslo decided to prohibit diesel cars on days with high air pollution. So far other cities in Norway have not decided on such regulation. The effect of such regulation could lead to a drastic fall in the sales of diesel cars. VWMBF already own a substantial portfolio of leased diesel cars, dealers can face a fall in used car prices and struggle to meet agreed upon residual values towards VWMBF. So far the VW dealers have not noticed any changes in the used car prices. The potential fall in prices of diesel cars will only affect VWMBF indirectly. VWMBF accounts for this risk through provisions for if a dealer will default and leave the residual value responsibility on VWMBF. This risk is already considered under indirect residual value, further provisions are not considered necessary.

# **4.3.8.2 CONTROL**

The company's risk appetite for market risk is low. Company specific risk and general market risk are followed up on a regular basis.

# Company specific risk

It is vital to have good budgeting and forecast models for estimating the future growth of the portfolio. Each year during the first quarter, Harald A. Møller AS (the importer) provides a yearly sales forecast for the number of vehicles that is budgeted to be sold during the year. VWMBF utilizes these numbers into the budget and forecast models. Each month a forecast is created based on yearly expectations and actual portfolio development from previous months. If forecasted numbers are substantially different, the company can act accordingly. In order to avoid an unforeseen significant portfolio growth, the company can "put the brakes on" if more equity from the owners is not provided. By doing this, the RWA will be kept on a level that will not require further increases in the capital base.

The control performed on fundamental market changes is done on a qualitative level. The company is in close continuous contact with the largest importer of vehicles in Norway, which uses significant recourses in order to meet market demands. Results are handed down to VWMBF's brand managers and regional sales team. The company therefore deems this risk to not be significant and no extra capital requirements are set.

The company keeps close ties to all dealers through different approaches. A sales club has been created called "The exclusive club" which invites only the best sales representatives that use VWMBF as a financing provider. These members participate in exclusive events and on organized travels, which functions as a very successful motivator towards the dealers. "The exclusive club" also serves as a good channel for communication. Another important factor is that VWMBF holds a strong emphasis on service towards the dealers by being able to provide tailored solutions and quick response time when needed. The most recent dealer survey conducted in early 2013 gave an average score of 5.42 out of 6. Questions ranged from response time, service, prices, commissions and flexibility. Based on the current well established dealer network with strong relationships, the company deems the risk low with no needed extra capital set aside.

#### General market risk

Concerning the risk of electric and hybrid vehicles taking market shares in the current market, the company is in direct contact with the importer and market analysts who provide important input on how the market responds and what the market currently seeks. The release of the E-Up and the E-Golf has been very successful, and also the sale of Golf GTE and Audi A3 e-tron. We are the leading company in the market for electric and hybrid cars. VWMBF will continue to focus on this in the future.

Regarding the risk of regulatory and market changes, VWMBF updates all guidelines and routines yearly, and during this process VWMBF assess whether regulatory or market changes affect our routines and provision calculation.

## 4.3.8.3 CAPITAL REQUIREMENT

The company is exposed to some degree of business risk, but the potential downside is considered to be low.

Substantial reductions in sales will not result in increased capital requirement, rather the opposite. Should the dealers no longer wish to use VWMBF as a provider of financial services, the company could perform a voluntary liquidation. This would be performed by only keeping a minimum of operations services to support the remaining portfolio, until all the contracts of the existing portfolio expires. By doing this, the company would continue to generate profits until the portfolio reaches zero and the company is liquidated.

The chance of unexpected and substantial increase in the portfolio size is considered to be low, as the company continuously creates forecasts and budgets to foresee future development.

The capital conservation buffer of 2.5 % in Pillar 1 is described as a buffer meant to preserve capital in financially good periods in order to withstand financially negative periods. As the company is in a positive period, approximately 224.0 MNOK is set aside for this purpose. In other words, periods of sudden drastic changes in the portfolio that might require further capital should be covered from this buffer.

The company considers the general market risk to be covered by the countercyclical capital buffer and the specific market risk to be covered under pillar II additions for other risks mentioned in the report. The company sees no need to add capital under Pillar 2 to cover business risk.

# 4.3.9 Reputational risk

Reputational risk is the risk of loss due to impaired reputation through negative reviews.

#### **4.3.9.1 EXPOSURE**

The company's reputational risk is mainly related to how the company conducts its business, as well as to the company's dealers and the car brands of the Volkswagen Group. Unfortunate incidents concerning any of these could potentially lead to rumors and consequences that VWMBF would need to handle. Further, the company is also exposed to effects from political changes.

During autumn 2015 it became known that VW had installed software in their diesel cars with EA-189 engines. This software was meant to manipulate the emissions data in connection with authorization. Globally VW admitted that this applies to at least 11 million cars, and approximately 165 thousand cars were affected in Norway. This incident has harmed VW reputation, which indirectly affects VWMBF.

In Norway, MG has worked hard to handle the diesel gate situation, and the reputation does not seem affected by this incident. MG achieved sales record in 2015 and continues to reach a stable and high customer satisfaction. Further, VWMBF's own reputation has not been significantly affected by the diesel gate when it comes to sales. The company reached its all-time high in 2016 after the diesel gate got revealed to the public. However, the diesel gate situation has negatively impacted VWMBF through higher interest rates on funding. VWMBF gets its funding through VWFS and VWFS' credit rating has fallen as an effect of diesel gate. This effect is discussed further under liquidity risk chapter 4.3.6.

#### **4.3.9.2 CONTROL**

The company focuses on high quality risk management, internal control, ethics, managing conflicts of interest as well as other company policies, guidelines and strategies. This is contributing to the company management processes concerning reputational risk in a good way. The company emphasizes the importance of having guidelines of high quality to ensure the trust and happiness of its customers, dealers and investors.

#### 4.3.9.3 CAPITAL REQUIREMENT

Based on the high and stable customer loyalty VWMBF finds the reputational risk as low. The company does not see it necessary to set aside any further capital for reputational risk under Pillar II. The consequence of an impaired reputation will ultimately lead to reduced customer base and this would result in a reduced capital requirement as shown in Scenario 1 and 2 in the stress test.

## 4.3.10 Systemic risk

Systemic risk is the risk that an event at company level could become so widespread as to trigger severe instability or collapse of an entire industry or economy.

The systemic risk is included in the capital requirement under Pillar I with a general buffer of 3% and an additional buffer for systemically important institutions of 1%. Pursuant to CRD IV, different measures have been introduced in order to deal with the potential systemic risk which banks and other financial institutions represent. Systemically important financial institutions shall fulfil an additional capital buffer requirement of 1 % from 1 July 2015 and 2 % from 1 July 2016.

The Ministry of Finance has adopted regulation on the procedure and criteria for identifying and designating systemically important financial institutions in Norway. As a general rule, an institution shall be deemed as systemically important if it has total assets corresponding to at least 10 % of Mainland Norway's GDP, or a share of the Norwegian lending market of at least 5 %. Institutions may also be considered systemically important on the basis of e.g. their size, scope of operations in Norway and other countries, complexity, role in the financial infrastructure and their interconnectedness with the rest of the financial system.

In addition to the separate capital buffer requirement, the Financial Supervisory Authority of Norway has proposed that systemically important institutions should be subject to requirements on liquidity coverage, stable funding and recovery plans earlier than other institutions.

#### **4.3.10.1 EXPOSURE**

As a financial institution VWMBF is particularly vulnerable to systemic risk. Changes in the financial market could affect VWMBF in several ways, e.g. the development in interest rates, people's ability to pay and other factors that are important to VWMBF for the company to be successful.

However, VWMBF is not a systemically important institution. The ministry of Finance defines yearly which institutions are considered as system important institution, and VWMBF are not one of these companies.

#### 4.3.10.2 CONTROL

To control and reduce systemic risk VWMBF focuses on high quality risk management through good internal controls, high ethical standards and managing conflicts of interest. To ensure high quality risk management VWMBF has in the first part of 2016 updated and quality assured all guidelines and routine descriptions. This work has been done in all departments, and the risk department has been contributing across the whole company.

# 4.3.10.3 CAPITAL REQUIREMENT

The systemic risk buffer of 3% is included in the calculation of Pillar I capital requirements. The buffer is calculated to be 268.8 MNOK per 31.03.2016. VWMBF is not considered as a systemically important financial institution and the company does not deem it necessary to set aside any further capital for systemic risk under Pillar II.

# 4.3.11 Pension obligations

The company's pension obligations are contribution-based pensions. Yearly contribution is according to contract with the employees and the law regarding pensions. The company does not deem it necessary to set aside any further capital for pension obligations under pillar II.

#### 4.3.12 Other risks

The company has not identified other risks.

# 4.4 Possibility to transfer capital

VWMBF has no subsidiaries and it is therefore not relevant to transfer capital.

## 5.0 STRESS TESTING

VWMBF are performing two types of stress tests; normal stress test and reverse stress test. The normal stress test is performed in order to estimate future capital requirements under different scenarios of economic downturns, and reverse stress test is performed to identify the factors that could lead the company to become insolvent.

First, VWMBF will perform a stress test based on three macroeconomic scenarios; severe economic downturn, medium to low economic downturn and normal sales and lower used car prices. Logical outcomes from such economic reactions are increased risk costs and drop in sales.

Secondly, VWMBF will perform a reverse stress test to identify the most likely scenario which leads the company to go bankrupt. The company must at all time fulfill the capital requirement of Basel III and CRD IV, and therefore the company uses the capital target as a measure to identify the risk of becoming insolvent.

# 5.1 Normal stress testing

# 5.1.1 Description of macro-economic scenario

#### Scenario 1: Medium to low economic downturn:

Parameters are 15 % drop in sales (number of financed vehicles) from the forecasted values on sales equal set for the years 2017, 2018 and 2019. The risk cost is set to 1.0 %, 1.25 % and 1.25 % of average earning assets in the consecutive periods.

#### Scenario 2: Severe economic downturn:

Parameters are 30 % drop in sales (number of financed vehicles) from the forecasted values on sales equal set for the years 2017, 2018 and 2019. The risk cost is set to 2.0 %, 2.5 % and 2.5 % of the average earning assets of the portfolio in the consecutive periods. The increased risk cost is a result of increased number of contracts in default and lower used car prices.

#### Scenario 3: Normal sales, lower used car prices:

Sales will be equal to the forecasted values for the years 2017, 2018 and 2019. To reflect the drop in used car prices, risk cost is set to 2.0%, 2.0% and 2.0% of the average earning assets of the portfolio in the consecutive periods.

Results are calculated based upon the PR65 calculations with adjusted parameters, mentioned in the scenarios above.

Risk cost is defined as the additions/releases in provisions over the year plus direct write-offs for the year. It is assumed that all profits or losses are brought forward and it is not paid in dividends and that the forecast for 2016 will end as estimated.

# 5.1.2 Scenario analysis

#### Scenario 1

PR65 2017	PR65 2018	PR65 2019
338,29	315,40	306,44
(119,61)	(146,42)	(146,51)
34,18	(13,70)	(20,90)
19,07 %	19,30 %	19,10 %
1 934,42	1 919,75	1 900,29
	338,29 (119,61) 34,18 19,07 %	338,29 315,40 (119,61) (146,42) 34,18 (13,70) 19,07% 19,30%

Based on the assumptions under scenario 1, the profit contribution (w/o risk cost) will only be slightly reduced each year. This is due to a portfolio that has become quite significant in size and ultimately continues to generate revenues. The risk cost increases as expected in 2017 and 2018, and increases marginally in 2019 due to the portfolio starting slowly to decrease in size. Profits are reduced each year as a result, and have become negative in 2018 and 2019. The increased risk cost and reduced profit contribution will have a negative impact on the capital base, which falls every year. The capital ratio stays over the capital target of 16.8 % for each consecutive year.

Based on the results from scenario 1, the company has not deemed it necessary to increase the capital base.

#### Scenario 2

PR65 2017	PR65 2018	PR65 2019
323,98	275,51	243,96
		-
(231,89)	(269,46)	(259,65)
(89,84)	(167,61)	(181,76)
18,38 %	17,84 %	16,44 %
1 810,40	1 641,81	1 461,50
	(231,89) (89,84) 18,38 %	323,98 275,51 (231,89) (269,46) (89,84) (167,61) 18,38 % 17,84 %

Under the second scenario, the results are unsurprisingly less desirable. Revenues fall more rapidly compared to scenario 1. The risk cost is considerably increased in both 2017 and 2018 with a slight improvement in 2019. This is due to a dwindling portfolio. As a result of these effects the profit is negative each year. The increase in risk cost and negative results will have a negative impact on the capital base which decreases each year. The capital ratio falls every year, but are above the capital

target at 16.8% in 2017 and 2018. In 2019 the capital ratio are under capital target, but above minimum capital ratio of 16.3%.

Under such severe economic events as assumed in Scenario 2, the company will quickly adjust and stop incoming new contracts. This will not reduce losses, but it will reduce the risk weighted assets and thus the capital ratio will improve. The scenario analysis does not measure a possible need for further capital than already decided and thus the company deems it not necessary to currently set aside additional capital.

#### Scenario 3

PR65 2017	PR65 2018	PR65 2019
352,7	356,0	369,6
(246,6)	(253,3)	(261,4)
(81,0)	(89,2)	(87,6)
17,4 %	16,2 %	14,9 %
1 819,3	1 729,1	1 642,9
	(246,6) (81,0)	352,7 356,0 (246,6) (253,3) (81,0) (89,2) 17,4 % 16,2 %

In the event that sales remains as originally forecasted and the used car prices drops, the capital ratio remains above the target of 16.8% only in 2017. Because of the growing portfolio the risk cost increases each year, and the profit becomes negative from 2017-2019. The scenario is however unlikely as the company would, as mentioned under Scenario 2, under these circumstances seek to stop incoming new contracts.

#### Planning buffer

The result of the stress tests reveals that the capital ratio does not fall more than 2.5%. This is less than the size of the mandatory planning buffer; therefore VWMBF deems it not necessary to set aside additional capital.

# 5.2 Reverse stress test

# 5.2.1 Description of likely severe scenario

## Scenario 1: Increase of the portfolio

Changes in the portfolio affect the capital requirement, and historically VWMBF has experienced that increased portfolio increases the capital base. An uncontrolled growth of the portfolio and insufficient monitoring can cause breaches of the capital requirements. The last years VWMBF has experienced a significant growth and can therefore consider this scenario to be highly relevant.

# 5.2.2 Scenario analysis

## Scenario 1: Increase of the portfolio

Based on the purpose of reverse stress test VWMBF has estimated how much the portfolio can increase before the company breaches the capital requirements.

#### Reverse stress test

	PR65 2017	PR65 2018	PR65 2019
Profit Contribution (w/o Risk Cost)	423,46	554,09	679,19
	•		
Risk Cost	(63,05)	(66,55)	(71,97)
	•		
Profit After Tax	160,61	250,91	338,15
Capital Ratio	17,36 %	16,06 %	16,29 %
Capital Base	2 060,86	2 310,79	2 650,38
	•		
Minimum Capital Ratio	16,3 %	16,3 %	16,3 %

The reverse stress test reveals that in a three year perspective with average growth in sales of 73.8% each year, the company will not be able to meet the current target capital ratio in 2018 and 2019.

Under such scenario the company will quickly adjust and stop incoming new contracts, which will reduce the risk weighted assets and thus the capital ratio will improve. The scenario analysis does not show a need for more capital than already decided. The company deems it not necessary to set aside additional capital.

# 5.3 Capital and contingency plan

The company has a continuous follow-up of the capital ratio which is put into all long term forecasts. To ensure the capital does not fall beneath the target or the governed requirements the company has created a capital contingency plan. The plan is referred to in the E.3.06 ICAAP Policy under chapter 6.2. All necessary roles and parameters are accounted for and described in the policy. In short the capital contingency plan functions as a tool for local management with clear and detailed choices to be made during either a current capital shortage or an upcoming capital shortage.

Extract from the chapter: 6.2 capital contingency plan

When triggered following steps occur:

- 1. Uncover if the actual capital ratio has fallen below the company's official target ratio including a 0.5 % buffer, or if it is likely to fall below in the near future.
- 2. Local risk manager immediately informs the CMBO with all necessary details.
- 3. The CMBO may choose to stop or drastically reduce intake of new contracts in order to reduce the RWA.
- 4. The CMBO may contact the board of directors and suggest increasing the company's equity.

# 6.0 SUMMARY OF CAPITAL REQUIREMENT FOR DIFFERENT RISKS.

# 6.1 Summary of capital requirement

Summarized capital for the different categories of risks is shown below:

		Minimum	
		requirement	Percent
31-03-16 (IN MNOK)	%	Basel II Standard	aggregated
Pillar 1			
Credit risk		763,7	
Operational risk		52,2	8,00 %
Capital conservation buffer	2,5 %	255,0	10,50 %
Countercyclical capital buffer*	1,0 %	102,0	11,50 %
Systemic risk buffer	3,0 %	306,0	
Sum Pillar 1		1 479,0	14,50 %
Pillar 2			
Credit risk - Off balance		37,3	
Operational risk		5,0	
Interest rate risk		2,9	
Concentration risk large customers		30,5	
Concentration risk customer sector		15,3	
Liquidity risk		44,4	
Insurance risk		0,0	
Business risk		0,0	
Other risk		0,0	
Sum Pillar 2	1,3 %	135,4	15,83 %
Sum capital requirement		1 614,4	15,83 %
Adjustments diversification			
Total required capital		1 614,4	15,83 %
Capital (capital base)		1 721,5	16,88 %
Core capital		1 721,5	16,88 %
Oore capital		1 121,3	10,00 70
Risk Weighted Assets		10 199,7	
ICAAP Capital requirement		15,83 %	
Actual capital ratio		16,88 %	
Core capital ratio		16,88 %	

The analysis of the company's risks shows that the company has a capital requirement of 1 614.4 MNOK per 31.03.2016. This provides an ICAAP capital ratio of 15.83 %. The company had per 31.03.2016 an actual capital ratio of 16.88 %, which is above target of 16.3 %. The board has decided a target capital ratio of 16.8 % and tier one capital of 16.8 % to be reached by July 2016.

# 7. QUALITY CONTROL AND APPROVING OF ICAAP

This report, including its calculations, is carried out and controlled by the company's risk controllers. The major part of the figures used for the calculations of this report are found in budget and prognosis models, and has been controlled by the business controllers of the company. The board of directors has gone through the company's complete risk profile, capital requirements and the ICAAP document. The final version of the report will be presented to the board for approval on the 22.06.2016. The ICAAP report has been subject to an independent review performed by PWC.

# 8. USE OF ICAAP IN THE INSTITUTION

ICAAP is an integrated part of the company strategy and budget process. On a monthly basis the management examines the development in losses and defaults to evaluate if there is need for changes in the credit directive to accomplish the desired risk profile. The company works continuously to improve KPI numbers the company is using today on risk and has a plan that all elements shall be considered if KPI numbers are sufficient.

The board has discussed and addressed ICAAP yearly, and capital ratio has been discussed on a regular basis. The board has decided to increase the target capital ratio from 16.3% to 16.8 in July 2016. This means an increase of 0.5% during 2016.

The time schedule on the ICAAP process was the 22<sup>th</sup> of June, 2016.