

Ferd's principles in the measurement of fair value, in general

Ferd applies the valuation method that is considered to be the most representative estimate of an assumed sales value. Such a sale shall be carried out in an orderly transaction at the balance sheet date. As a consequence, all assets for which there is observable market information, or where a transaction recently has been carried out, these prices are applied (the market method). When a price for an identical asset is not observable, the fair value is calculated by another valuation method. In the valuations, Ferd applies relevant and observable data at the largest possible extent.

For all investments where the value is determined by another method than the market method, analyses of changes in value from period to period are carried out. Thorough analyses on several levels are made, both overall within the business area, by Ferd's group management and finally by Ferd's Board. Sensitivity analyses for the most central and critical input data in the valuation model are prepared, and in some instances recalculations of the valuation are made by using alternative valuation methods in order to confirm the calculated value.

Ferd is consistent in the application of valuation method and normally does not change the valuation principles. A change of principles will deteriorate the reliability of the reporting and weaken the comparability between periods. The principle for the valuation and use of method is determined for the investment before it is carried out, and is changed only exceptionally and if the change results in a measurement that under the circumstances is more representative for the fair value.

Valuation methods

The value of subsidiaries is determined on the basis of the companies' recorded equity and adjust for changes in value not recognised. Underlying investments are valued according to the same principles as investments directly owned by Ferd AS, as described below.

Investments in listed shares are valued by applying the market method. The quoted price for the most recent carried-out transaction on the market place is the basis.

Investments in unlisted shares managed in-house are normally valued on the basis of an earnings multiple. In calculating the value (Enterprise Value - EV), ratios like EV/EBITDA, EV/EBITA, EV/EBIT and EV / EBITDA-CAPEX) are applied. Ferd obtains relevant multiples for comparable companies. The multiples for the portfolio companies are adjusted if the assumptions are not the same as the peer group. Such assumptions can include a control premium, a liquidity discount, growth assumptions, margins or similar. The company's result applied in the valuation is normalised for one-off effects. Finally, the equity value is calculated by deducting net interest-bearing debt. In the event that an independent transaction has taken place in the security, this is normally used as a basis for our valuation.

The valuation of investments in externally managed private equity and hedge funds is based on value reports received from the funds (NAV). Ferd makes a critical assessment of whether the reported NAV can be used as a basis.

The part of the hedge funds portfolio reported under Other areas is acquired in the second-hand market, often at a considerable discount compared to the reported value from the funds (NAV). In the measurement of these hedge funds, estimates from several external brokers are obtained to evaluate at which discount these hedge funds are traded, compared to the most recently reported NAV. Ferd makes an assessment of the broker estimates, makes a best estimate for discount and uses this estimate in the valuation of the hedge funds.

Rental properties are valued by discounting future expected cash flows. The value of properties being part of building projects is valued at an assumed sales value on a continuous basis. There is often a shift in value at achieved milestones. Our calculated values are regularly compared to independent valuations.

The table below is an overview of carrying and fair value of the Company's financial instruments and how they are recognised in the financial statements. It is the starting point for additional information on the Company's financial risk and refers to notes to follow.

	Financial instruments measured at amortised cost			Total	Fair value
	Financial instruments at fair value over profit and loss	Loans and receivables	Financial liability		
NOK 1 000					
Non-current assets					
Investments in subsidiaries	11 440 623			11 440 623	11 440 623

Other non-current receivables		100 841	100 841	100 841
Total 2015	11 440 623	100 841	11 541 464	11 541 464
Total 2014	10 824 395	841	10 825 236	10 825 236

Current assets

Short-term receivables on group companies		118 691	118 691	118 691
Other short-term receivables		286 656	286 656	286 656
Listed shares and bonds	7 283 017		7 283 017	7 283 017
Unlisted shares and bonds	2 144 722		2 144 722	2 144 722
Hedge funds	5 177 254		5 177 254	5 177 254
investments in interest-bearing debt	135 912		135 912	135 912
Bank deposits		3 285	3 285	3 285
Total 2015	14 740 904	408 633	15 149 537	15 149 537
Total 2014	13 501 782	1 862 113	15 363 895	15 363 895

Short-term debt

Trade accounts payable			1 217	1 217
Public duties etc.			6 195	6 195
Debt to group companies			71 125	71 125
Other short-term debt	73 578	32 002	105 580	105 580
Total 2015	3 079	1 439 052	1 442 132	1 442 132
Total 2014	3 079	1 439 052	1 442 132	1 442 132

Fair value hierarchy - financial assets and liabilities

Ferd classifies assets and liabilities measured at fair value in the balance sheet by a hierarchy based on the underlying object for the valuation. The hierarchy has the following levels:

Level 1: Valuation based on quoted prices in active markets for identical assets without adjustments. An active market is characterised by the fact that the security is traded with adequate frequency and volume in the market. The price information shall be continuously updated and represent expected sales proceeds. Only listed shares are considered to be level 1 investments.

Level 2: Level 2 comprises investments where there are quoted prices, but the markets do not meet the requirements for being characterised as active. Also included are investments where the valuation can be fully derived from the value of other quoted prices, including the value of underlying securities, interest rate level, exchange rate etc. In addition, financial derivatives like interest rate swaps and currency futures are considered to be level 2 investments. Ferd's hedge fund portfolio is assessed to meet the requirements of level 2. These funds comprise composite portfolios of shares, interest securities, raw materials and other negotiable derivatives. For such funds the value (NAV) is reported on a continuous basis, and the reported NAV is applied on transactions in the fund.

Level 3: All Ferd's other securities are valued on level 3. This concerns investments where all or parts of the information about value cannot be observed in the market. Ferd is also applying valuation models for investments where the share has little or no trading. Securities valued on the basis of quoted prices or reported value (NAV), but where significant adjustments are required, are assessed on level 3. For Ferd this concerns all private equity investments and funds investments reported under Other areas, where reported NAV has to be adjusted for discounts. A reconciliation of the movements of assets on level 3 is shown in a separate table.

Ferd allocates each investment to its respective level in the hierarchy at the acquisition. Transfers from one level to another are made only exceptionally and only if there have been changes of significance for the level classification concerning the financial asset. This can be the case when an unlisted share has been listed or correspondingly. A transfer between levels will then take place when Ferd has become aware of the change.

The table shows at what level in the valuation hierarchy the different measurement methods for the Group's financial assets at fair value are considered to be:

NOK 1 000	Level 1	Level 2	Level 3	Total 2015
Investments in subsidiaries			11 440 623	11 440 623
Other short-term receivables				
Listed shares and bonds	7 283 017			7 283 017
Unlisted shares and bonds			2 144 722	2 144 722
Hedge funds		3 887 561	1 289 693	5 177 254
Investments in interest-bearing debt		135 912		135 912
Other short-term debt		- 73 578		- 73 578
Total 2015	7 283 017	3 949 894	14 875 038	26 107 949

NOK 1 000	Nivå 1	Nivå 2	Nivå 3	Sum 2014
Investments in subsidiaries			10 824 395	10 824 395
Other short-term receivables		34 964		34 964
Listed shares and bonds	6 622 552			6 622 552
Unlisted shares and bonds			2 215 184	2 215 184
Hedge funds		2 869 671	1 759 410	4 629 081
Other short-term debt		- 3 079		- 3 079
Total 2014	6 622 552	2 901 556	14 798 989	24 323 097

Reconciliation of movements in assets on level 3

NOK 1 000	Op.bal.1 Jan. 2015	Purchases/share issues	Sales and proceeds from investments	Unrealised gain and loss, recognised in the result	Gain and loss recognised in the result	Closing bal. on 31 Dec. 2015
Investments in subsidiaries	10 824 395	117 630		498 597		11 440 623
Unlisted shares and bonds	2 215 184	486 274	- 358 003	-243 420	44 687	2 144 722

Hedge funds	1 759 410	199 069	- 730 396	- 445 596	507 206	1 289 693
Total	14 798 989	802 973	-1 088 399	- 190 419	44 687	14 875 038

	Op.bal.1 Jan. 2014	Purchases/share issues	Sales and proceeds from investments	Unrealised gain and loss, recognised in the result	Gain and loss recognised in the result	Closing bal. on 31 Dec. 2014
NOK 1 000						
Investments in subsidiaries	11 403 639	1 325 568	- 150	-1 904 662		10 824 395
Unlisted shares and bonds	2 922 904	153 471	- 647 684	- 93 388	- 120 119	2 215 184
Hedge funds	2 001 380	91 680	- 901 293	567 643		1 759 410
Total	16 327 923	1 570 719	-1 549 127	-1 430 407	- 120 119	14 798 989

Specification of applied indata and sensitivity analysis

The table below gives an overview over the most central assumptions used when measuring the fair value of Ferd's investments, allocated to level 3 in the hierarchy. We also show how sensitive the value of the investments is for changes in the assumptions.

	Balance sheet value at 31 Dec. 2015	Applied and implicit EBITDA multiples	Value, if the multiple is reduced by 10 %	Value, if the multiple is increased by 10%	Applied discount rate	Value, if the interest is increased by 1 percentage point	Value, if the interest is reduced by 1 percentage point
NOK 1 000							
Investment in Ferd Eiendom AS 1)	2 423 426				7,0% - 11,7%	2 094 119	2 911 119
Other investments in subsidiaries	9 017 197	9,2 - 15,7	7 638 197	10 396 197			
Unlisted shares and bonds 2)	402 777						
NOK 1 000					Estimated discounts acc. to broker (interval)	Value if discount increased by 10%	Value if discount reduced by 10%
Hedge funds 3)	1 289 693				1 % - 83 %	1 190 048	1 389 338

1) Appr. 68% of Ferd Eiendom AS' portfolio constitutes rental property sensitive for changes in the discount interest rate.

2) Appr. 19 % of the value of unlisted shares and bonds are sensitive for a change in multiple. The other investments are valued on the basis på reported NAV whereby Ferd cannot calculate the sensitivity, even though multiples probably have been applied in determining NAV.

3) Appr. 80 % of the hedge funds on level 3 are sensitive for changes in discount.