

# **ADVA Optical Networking SE**

Germany / Technology Frankfurt Bloomberg: ADV GR ISIN: DE0005103006

2019 annual report

RATING PRICE TARGET

ADD € 8.00

Return Potential 13.3% Risk Rating High

## SALES/PROFITS TO GROW THIS YEAR DESPITE CORONAVIRUS

ADVA's fourth quarter produced a strong finish to 2019 with revenue growing 14.9% y-o-y compared with 10.9% for the full year. Meanwhile the Q4/19 pro forma EBIT margin (before amortisation of acquisition-related intangible assets, stock compensation expenses and restructuring expenses) was 6.8% versus the full year figure of 4.5%. However, the outbreak of the coronavirus in China has severely interrupted ADVA's supply chain since the beginning of this year and management expects a pro forma operating loss in Q1/20. Current supply chain problems in China notwithstanding, ADVA is guiding towards a full year revenue increase of 5% to >€580m and a 5% pro forma EBIT margin. Based on conversations with management following the results, we gather that this guidance is based on a recovery in output by Chinese suppliers by early Q2/20. We expect the Chinese authorities to succeed in suppressing the coronavirus on a time scale similar to this and so adopt management guidance for 2020 as our own forecast. Our previous 2020 revenue forecast was €598m, but we have left forecasts for 2021 and subsequent years unchanged on the assumption that revenue forgone in 2020 will be recouped later. We have reduced our price target from €8.60 to €8.00 to reflect our lower 2020 forecast but also an increase in our WACC estimate from 9.3% to 10.0% to capture the increasing risk that the coronavirus will negatively impact economies outside China. We maintain our Add recommendation.

Broad-based rise in demand ADVA's revenue rose 10.9% in 2019 to €556.8m (FBe: €552.7m; consensus: €551m; 2018: €502.0m). Po forma EBIT climbed 6.6% to €24.8m (FBe: €22.6m; consensus: €24.1m; 2018: €23.3n). The rise in sales was generated by demand from all customer groups and technology areas. The slight decrease in the pro forma EBIT margin to 4.5% (2018: 4.6%) was attributable to the impact of US dollar strength (ca. 80% of ADVA's cost of goods are denominated in USD) and the impact of rising tariffs. (p.t.o.)

## **FINANCIAL HISTORY & PROJECTIONS**

	2016	2017	2018	2019	2020E	2021E
Revenue (€m)	566.69	514.47	501.98	556.82	580.21	655.36
Y-o-y growth	28.2%	-9.2%	-2.4%	10.9%	4.2%	13.0%
EBIT (€m)	19.37	4.40	14.99	12.00	20.91	29.51
EBIT margin	3.4%	0.9%	3.0%	2.2%	3.6%	4.5%
Net income (€m)	21.35	-4.23	9.68	7.05	14.08	21.03
EPS (diluted) (€)	0.43	-0.09	0.19	0.14	0.28	0.41
DPS (€)	0.00	0.00	0.00	0.00	0.00	0.00
FCF (€m)	7.14	-27.44	12.09	6.42	6.38	6.50
Net gearing	-8.7%	19.4%	13.2%	26.9%	23.7%	21.6%
Liquid assets (€m)	84.87	58.38	62.65	54.26	52.22	58.98

## **RISKS**

Risks include but are not limited to: loss of key customers/channel partners, currency risk (particularly USD appreciation/GBP depreciation), the US-China trade conflict, price pressure from Huawei.

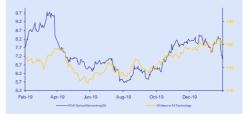
## **COMPANY PROFILE**

ADVA develops, manufactures, and sells optical networking solutions to deliver data, storage, voice, and video services. To date, the company's networking solutions have been deployed in more than 10,000 enterprises and more than 300 carrier networks around the world. Founded in 1994 and headquartered in Munich, Germany, ADVA had 1,903 employees at the end of December 2019.

MARKET DATA	As of 21 Feb 2020
Closing Price	€ 7.06
Shares outstanding	50.18m
Market Capitalisation	€ 354.28m
52-week Range	€ 5.66 / 9.78
Ava Volume (12 Months)	153 731

Multiples	2019A	2020E	2021E
P/E	49.5	25.5	17.1
EV/Sales	0.8	0.7	0.6
EV/EBIT	35.3	20.2	14.3
Div. Yield	0.0%	0.0%	0.0%

## STOCK OVERVIEW



COMPANY DATA	As of 31 Dec 2019
Liquid Assets	€ 54.26m
Current Assets	€ 269.24m
Intangible Assets	€ 192.76m
Total Assets	€ 536.36m
Current Liabilities	€ 159.14m
Shareholders' Equity	€ 255.79m

## SHARFHOI DERS

OHMICEHOLDENO	
Teleios Capital Partners GmbH	20.0%
EGORA Group	15.0%
Dimensional Fund Advisors LP	3.1%
DNB SA	3.0%
Free float and other	58.9%

Figure 1: FY results vs. our forecasts

€000's	Q4/19A	Q4/19E	Δ%	Q4/18A	Δ%	FY/19A	FY/19E	Δ%	FY/18A	Δ%
Sales	151,135	147,000	2.8%	131,513	14.9%	556,821	552,686	0.7%	501,981	10.9%
Proforma gross profit	54,633	50,528	8.1%	48,665	12.3%	195,364	192,181	1.7%	185,621	5.2%
margin (%)	36.1%	34.4%		37.0%		35.1%	34.8%		37.0%	
Proforma EBIT	10,333	8,085	27.8%	8,106	27.5%	24,811	22,563	10.0%	23,266	6.6%
margin (%)	6.8%	5.5%		6.2%		4.5%	4.1%		4.6%	
Reported EBIT	5,438	4,225	28.7%	6,332	-14.1%	12,003	10,790	11.2%	14,989	-19.9%
margin (%)	3.6%	2.9%		4.8%		2.2%	2.0%		3.0%	

Source: ADVA Optical Networking SE, First Berlin Equity Research estimates

A cost cutting programme which helped reduce pro forma operating costs as a percentage of sales by 170 basis points to 30.6% (2018: 32.3%) could not quite compensate for a 190 basis point narrowing in the gross margin. The Q4/19 numbers were at the top end of management guidance given in October for revenue of €142-152m and a pro forma EBIT margin of 5-7%. Q4/19 was also the quarter with the strongest y-o-y sales growth of the year as well as the highest pro forma gross and EBIT margins. Strong Q4/19 sales growth was accompanied by strong order bookings which exceeded revenues in Q4/19 by ca. 20%. Multi-year service contracts accounted for only some of this gap.

Wuhan is the worst affected of ADVA's two Chinese supply hubs A significant portion of the inputs incorporated in products sold by ADVA are imported from China. ADVA's two most important supply hubs in China are the cities of Shenzen (carrier ethernet components) and Wuhan (photonic components and subsystems). Of these two cities, Wuhan is the worst affected by the coronavirus outbreak. Wuhan is currently in quarantine whereas ADVA's management estimated during the results conference call that Shenzen is currently operating at 30% of capacity. During the results conference management further estimated the Q1/20 revenue impact due to non-functioning Chinese suppliers at €10-20m.

Management wrote in the ad-hoc release of 18 February that from now on ADVA will concentrate on annual guidance for revenue and pro forma EBIT and cease its previous practice of giving quarterly guidance. This move has been prompted in our view by short term uncertainty surrounding the Chinese supply chain as well as a general deterioration in geopolitical visibility. Management have stated that "It is currently difficult for us to assess what impact the crisis in China will have on our 2020 results", and expect a negative pro forma EBIT margin for the current quarter. Nevertheless, ADVA also expect that for the year as a whole the impact will be fairly limited: "Some revenue will shift to the following quarters and... the decline in the pro forma operating income margin will recover on an annualized basis". For the full year management are guiding towards revenue of >€580m (+ca. 5% vs. 2019) and a proforma EBIT margin of >5% (2019: 4.5%).

2020 revenue guidance of €580m compares with a consensus estimate of €590m on Bloomberg before publication of the 2019 results. On the basis of discussions with management during the conference call, we gather that 2020 revenue guidance is based on the recovery of production by ADVA's Chinese suppliers during the second quarter. This would allow most shipments held over from Q1 to be made by the end of the calendar year. We find this the most likely scenario for 2020 and so have adopted management guidance in our own figures.

Higher depreciation in connection with the adoption of IFRS16 (leased assets) and higher R&D amortisation meant that operating cashflow climbed 10.8% to €66.9m (2018: €60.4m) despite increased working capital expenditure in connection with stock purchases due to Brexit and US tariffs. Free cash flow fell to €6.6m (2018: €12.3m) as investing cash outflow increased to €60.3m (2018: €48.1m) mainly because d an increase in R&D investments (ADVA capitalises ca. one third of its R&D expenditure each year).

Figure 2: Cashflow breakdown

	2019	2018
Earnings before taxes	8.9	12.5
Depreciation and amortisation	62.2	49.4
Working capital	-8.0	3.1
Other	3.8	-4.6
Operating cashflow	66.9	60.4
Investing cashflow	-60.3	-48.1
Free cashflow	6.6	12.3

Source: ADVA Optical Networking SE

Including leasing liabilities end 2019 net gearing was 26.9% Net debt including pensions but excluding leasing liabilities, which appeared on the balance sheet for the first time in 2019, rose to €34.5m (2018: €32.4m) equivalent to net gearing of 13.5% (2018: 13.2%). Including leasing liabilities, 2019 net debt was €68.9m equivalent to net gearing of 26.9%. Net debt including pensions but excluding leasing liabilities rose slightly despite free cash flow generation because of a €4.5m repayment of lease liabilities and €2.8m in interest payments in cash flow from financing.

Add recommendation maintained; price target lowered from €8.60 to €8.00 We expect the actions of the Chinese authorities to suppress the coronavirus in China by early in Q2/20 and so adopt management guidance for 2020 as our own forecast. As figure 3 shows, the reduction in our 2020 revenue forecast entails a reduction in our pro forma EBIT estimate. We have reduced our price target from €8.60 to €8.00 to reflect our lower 2020 forecast but also an increase in our WACC estimate from 9.3% to 10.0% to capture the increasing risk that the coronavirus will negatively impact economies outside China. We maintain our Add recommendation.

Figure 3: Changes to our forecasts

€000's	2020E	2020E	Δ%	2021E	2021E	Δ%
	New	Old		New	Old	
Sales	580,213	598,398	-3.0%	655,356	655,382	0.0%
Proforma gross profit	207,716	211,649	-1.9%	239,205	236,953	1.0%
margin (%)	35.8%	35.4%		36.5%	36.2%	
Proforma EBIT	29,011	29,560	-1.9%	38,666	38,302	1.0%
margin (%)	5.0%	4.9%		5.9%	5.8%	
Reported EBIT	20,909	21,564	-3.0%	29,515	29,516	0.0%
margin (%)	3.6%	3.6%		4.5%	4.5%	
Net profit	14,081	14,455	-2.6%	21,030	20,858	0.8%
margin (%)	2.4%	2.4%		3.2%	3.2%	
EPS (€)	0.28	0.28	-2.6%	0.41	0.41	0.8%

Source: First Berlin Equity Research estimates



DCF valuation model All figures in EUR '000	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E
Net sales	580,213	655,356	713,507	779,064	850,299	927,434	1,013,898	1,109,410
NOPLAT	16,971	23,593	34,783	49,643	61,222	66,775	73,001	75,617
+ depreciation & amortisation	-62,902	-69,919	-74,561	-73,652	-79,503	-86,715	-94,799	-103,730
Net operating cash flow	79,873	93,511	109,345	123,294	140,724	153,490	167,800	179,347
- total investments (CAPEX and WC)	-72,324	-86,393	-94,093	-101,101	-115,302	-121,390	-133,190	-147,064
Capital expenditures	-68,899	-77,692	-83,115	-90,796	-99,003	-107,874	-117,979	-129,067
Working capital	-3,425	-8,700	-10,978	-10,305	-16,300	-13,516	-15,211	-17,997
Free cash flows (FCF)	7,549	7,119	15,252	22,193	25,422	32,100	34,610	32,283
PV of FCF's	6,962	5,969	11,626	15,379	16,015	18,384	18,020	15,281

All figures in thousands	
PV of FCFs in explicit period (2019E-2035E)	221,152
PV of FCFs in terminal period	228,761
Enterprise value (EV)	449,914
+ Net cash / - net debt	-68,902
+ PV cash proceeds of future option exercise	61,319
Shareholder value	442,330
Current shares outstanding	50,182
+ PV no shares issued against future option exercise	4,910
Proforma no shares	55,092
Fair value per share in EUR	8.03

	Terminal growth rate								
WACC	10.0%		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%
Cost of equity	13.0%	6.00%	17.51	18.85	20.57	22.87	26.09	30.93	38.99
Pre-tax cost of debt	1.5%	7.00%	13.49	14.23	15.12	16.25	17.69	19.62	22.32
Tax rate	30.0%	8.00%	10.79	11.22	11.73	12.35	13.10	14.04	15.25
After-tax cost of debt	1.1%	9.00%	8.86	9.13	9.44	9.81	10.24	10.75	11.38
Share of equity capital	75.0%	10.00%	7.43	7.60	7.80	8.03	8.29	8.60	8.96
Share of debt capital	25.0%	11.00%	6.33	6.45	6.58	6.73	6.89	7.08	7.30
		12.00%	5.47	5.55	5.64	5.74	5.85	5.97	6.11
Price target in EUR	8.00	13.00%	4.78	4.84	4.90	4.97	5.04	5.12	5.22

 $<sup>^{\</sup>star}$  for layout purposes the model shows numbers only to 2027, but runs until 2035

Source: First Berlin Equity Research estimates



## **INCOME STATEMENT**

24 February 2020

All figures in EUR '000	2016A	2017A	2018A	2019A	2020E	2021E
Revenues	566,686	514,471	501,981	556,821	580,213	655,356
Cost of goods sold	-400,397	-348,251	-320,253	-365,908	-376,656	-420,849
Gross profit	166,289	166,220	181,728	190,913	203,557	234,507
Sales and marketing expenses	-60,014	-62,889	-63,569	-72,828	-76,038	-85,885
General and administrative expenses	-32,252	-36,260	-35,024	-35,126	-38,065	-42,995
Research and development expenses	-60,468	-69,037	-76,588	-75,186	-75,508	-83,976
Net other operating income	5,812	6,369	8,442	4,230	6,963	7,864
Operating income (EBIT)	19,367	4,403	14,989	12,003	20,909	29,515
Net interest income/(expense)	-60	-785	-1,408	-2,304	-1,560	-827
Other financial gains and losses,net	-292	-3,809	-1,096	-770	0	0
Pre-tax income (EBT)	19,015	-191	12,485	8,929	19,349	28,688
Income taxes	2,517	-4,037	-2,807	-1,884	-5,267	-7,657
Minority interests	0	0	0	0	0	0
Net income / loss	21,352	-4,228	9,678	7,045	14,081	21,030
Diluted EPS (in €)	0.43	-0.09	0.19	0.14	0.28	0.41
EBITDA	58,942	51,267	64,356	74,905	83,811	99,433
Ratios						
Gross margin	29.3%	32.3%	36.2%	34.3%	35.1%	35.8%
EBITDA margin on revenues	10.4%	10.0%	12.8%	13.5%	14.4%	15.2%
EBIT margin on revenues	3.4%	0.9%	3.0%	2.2%	3.6%	4.5%
Net margin on revenues	3.8%	-0.8%	1.9%	1.3%	2.4%	3.2%
Tax rate	13.2%	2113.6%	-22.5%	-21.1%	-27.2%	-26.7%
Expenses as % of revenues						
Sales and marketing expenses	10.6%	12.2%	12.7%	13.1%	13.1%	13.1%
General and administrative expenses	5.7%	7.0%	7.0%	6.3%	6.6%	6.6%
Research and development expenses	10.7%	13.4%	15.3%	13.5%	13.0%	12.8%
Y-Y Growth						
Revenues	28.2%	-9.2%	-2.4%	334.5%	5.0%	13.0%
Operating income	-27.6%	-77.3%	240.4%	1282.8%	93.8%	41.2%
Net income/ loss	-20.5%	n.m.	n.m.	580.0%	93.6%	49.3%



## **BALANCE SHEET**

All figures in EUR '000	2016A	2017A	2018A	2019A	2020E	2021E
Assets						
Current assets, total	268,361	232,639	257,216	269,240	277,079	309,686
Cash and cash equivalents	84,871	58,376	62,652	54,263	52,219	58,982
Receivables	78,474	81,327	97,936	96,193	100,984	114,062
Contract assets	0	0	320	654	290	328
Inventories	92,800	81,694	85,734	105,355	110,240	121,241
Tax assets	1,474	1,438	1,675	1,857	1,741	1,966
Other current assets	10,742	9,804	8,899	10,918	11,604	13,107
Non-current assets, total	176,191	231,249	229,322	267,122	274,629	288,320
Right of use assets	0	0	0	31,985	33,117	37,723
Property, plant & equipment	25,126	26,898	29,052	32,622	34,247	38,682
Goodwill	41,538	68,036	70,400	72,023	72,863	73,703
Capitalised development projects	76,263	85,175	87,926	96,169	108,353	119,495
Intangible assets from acquistions	14,284	30,505	26,012	20,864	14,482	7,273
Other intangible assets	2,145	6,280	5,512	3,704	1,434	0
Deferred tax assets	12,659	10,614	7,315	6,336	6,652	7,513
Other non-current assets	4,176	3,741	3,105	3,419	3,481	3,932
Total assets	444,552	463,888	486,538	536,362	551,707	598,006
Shareholders' equity & debt	444.500	400.00	445.550	450 440	400.000	100.000
Current liabilities, total	141,526	188,985	145,576	159,140	169,062	190,062
Lease liabilities	0	0	0	6,082	5,802	6,554
Financial liabilities	18,648	79,061	19,400	19,221	19,000	18,845
Accounts payable	73,290	39,193	63,195	73,398	77,054	87,033
Advance payments received	352	93	0	0	0	0
Current provisions	11,789	21,994	15,005	14,379	16,815	20,712
Tax liabilities	2,957	6,446	5,067	1,686	1,770	1,999
Contract liabilities	0	0	14,061	12,448	14,969	16,908
Refund liabilities	0	0 45.063	511	709	1,160	1,311
Deferred revenues Other current liabilities	11,347	15,062	0	0	0	0
Other current liabilities	23,143	27,136	28,337	31,217	32,492	36,700
Long-term liabilities, total	64,079	47,882	96,321	121,430	114,279	121,558
Lease liabilities	0	0	0	28,348	29,760	33,614
Financial liabilities	40,717	17,500	70,084	61,758	54,640	54,195
Provisions for pensions	4,705	5,822	5,531	7,756	6,672	7,537
Other provisions	1,507	1,478	1,453	1,380	1,449	1,636
Deferred tax liabilities	6,916	12,502	10,828	12,307	13,345	15,073
Contract liabilities	0	0	6,469	7,070	6,963	7,864
Deferred revenues	6,971	7,402	0	0	0	0
Other non-current liabilities	3,263	3,178	1,956	2,811	1,451	1,638
Shareholders' equity	238,947	227,021	244,641	255,792	268,366	286,387
Total consolidated equity and debt	444,552	463,888	486,538	536,362	551,707	598,006
Ratios						
Net debt	-20,801	44,007	32,363	68,902	63,655	61,762
Net gearing	-8.7%	19.4%	13.2%	26.9%	23.7%	21.6%
Book value per share (in €)	4.83	4.56	4.90	5.10	5.35	5.71
Return on equity (ROE)	9.4%	-1.8%	4.1%	2.9%	5.4%	7.6%



## **CASH FLOW STATEMENT**

All figures in EUR '000	2016A	2017A	2018A	2019A	2020E	2021E
Income before tax	19,015	-191	12,485	8,929	19,349	28,688
Depreciation and amortisation	39,575	46,864	49,367	62,191	62,902	69,919
Changes in working capital	2,571	-16,551	-2,207	-3,516	-3,425	-8,700
Income tax paid	-599	-1,666	-2,351	-1,684	-5,267	-7,657
Other adjustments	788	-1,322	3,066	971	1,720	1,942
Operating cash flow	61,350	27,134	60,360	66,891	75,278	84,191
Investments in PP&E	-12,889	-10,559	-14,029	-16,888	-22,222	-27,700
Investments in intangibles	-41,325	-44,014	-34,239	-43,584	-46,677	-49,992
Free cash flow	7,136	-27,439	12,092	6,419	6,379	6,499
Acquisitions & disposals, net	-32,509	-36,213	0	0	0	0
Other	350	248	207	169	0	0
Investment cash flow	-86,373	-90,538	-48,061	-60,303	-68,899	-77,692
Debt financing, net	16,676	37,184	-7,083	-12,988	-8,423	264
Equity financing, exercise of stock options	421	1,029	810	1,257	0	0
Dividends paid	0	0	0	0	0	0
Other	-1,318	-1,291	-1,953	-2,801	0	0
Financing cash flow	15,779	36,922	-8,226	-14,532	-8,423	264
FOREX & other effects	265	-13	203	-445	0	0
Net cash flows	-8,979	-26,495	4,276	-8,389	-2,044	6,763
Cash, start of the year	93,850	84,871	58,376	62,652	54,263	52,219
Cash, end of the year	84,871	58,376	62,652	54,263	52,219	58,982
EBITDA/share (in €)	1.18	1.02	1.28	1.30	1.65	1.95
Y-Y Growth						
Operating cash flow	55.7%	-55.8%	122.5%	10.8%	12.5%	11.8%
Free cash flow	n.m.	n.m.	n.m.	-46.9%	-0.6%	1.9%
EBITDA/share	-10.8%	-13.2%	25.4%	1.7%	26.4%	18.6%



## FIRST BERLIN RECOMMENDATION & PRICE TARGET HISTORY

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	17 September 2019	€6.53	Buy	€8.50
2	5 November 2019	€7.01	Add	€8.60
3	Today	€7.06	Add	€8.00

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First Berlin's system for asset valuation is divided into an asset recommendation and a risk assessment.

#### ASSET RECOMMENDATION

The recommendations determined in accordance with the share price trend anticipated by First Berlin in the respectively indicated investment period are as follows:

Category Current market capitalisation (in €)		1	2 > 2 billion	
		0 - 2 billion		
Strong Buy <sup>1</sup>	An expected favourable price trend of:	> 50%	> 30%	
Buy	An expected favourable price trend of:	> 25%	> 15%	
Add	An expected favourable price trend of:	0% to 25%	0% to 15%	
Reduce	An expected negative price trend of:	0% to -15%	0% to -10%	
Sell	An expected negative price trend of:	< -15%	< -10%	

<sup>&</sup>lt;sup>1</sup> The expected price trend is in combination with sizable confidence in the quality and forecast security of management.

Our recommendation system places each company into one of two market capitalisation categories. Category 1 companies have a market capitalisation of  $\in 0 - \in 2$  billion, and Category 2 companies have a market capitalisation of  $> \in 2$  billion. The expected return thresholds underlying our recommendation system are lower for Category 2 companies than for Category 1 companies. This reflects the generally lower level of risk associated with higher market capitalisation companies.

#### **RISK ASSESSMENT**

The First Berlin categories for risk assessment are low, average, high and speculative. They are determined by ten factors: Corporate governance, quality of earnings, management strength, balance sheet and financial risk, competitive position, standard of financial disclosure, regulatory and political uncertainty, strength of brandname, market capitalisation and free float. These risk factors are incorporated into the First Berlin valuation models and are thus included in the target prices. First Berlin customers may request the models.

#### **INVESTMENT HORIZON**

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## Legally required information regarding

- key sources of information in the preparation of this research report
- valuation methods and principles
- sensitivity of valuation parameters

can be accessed through the following internet link: http://firstberlin.com/disclaimer-english-link/

SUPERVISORY AUTHORITY: Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority) [BaFin], Graurheindorferstraße 108, 53117 Bonn and Lurgiallee 12, 60439 Frankfurt

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