

# ADVA Optical Networking SE

Germany / Technology  
 Frankfurt  
 Bloomberg: ADV GR  
 ISIN: DE0005103006

Proposed  
**ADVA/ADTRAN**  
 merger

**RATING**  
**BUY**

**PRICE TARGET**  
**€ 18.00**

Return Potential 32.0%  
 Risk Rating High

## GREATER CRITICAL MASS, SUBSIDIES DOUBLE ADDRESSABLE MARKET

The proposed merger of ADVA and ADTRAN brings together two fibre optic edge networking specialists in the second year of an edge network investment boom. The shift towards home-based work and leisure caused by the COVID-19 pandemic acted as the initial trigger for accelerating investment at the network edge. US and European government funding of USD190bn in broadband infrastructure investment, the roll-out of 5G, the growth of the Internet of Things, the replacement of Huawei infrastructure, and the emergence of the metaverse look set to ensure that the boom continues without interruption until at least the end of this decade. ADVA and ADTRAN are both edge networking specialists but ADTRAN is focused on the “first mile” of the network (from the end-user’s perspective) with state-of-the-art solutions for residential access, while ADVA offers first-mile solutions for enterprise users and is strong in the “second mile” which links the local to the core network. There is little product overlap between the two companies. Together ADVA and ADTRAN will have a complementary product range and an R&D budget of USD240m. The latter will allow the merged entity to achieve strategic vendor status with a larger number of customers than would have been possible for the two companies in isolation. We see government broadband investment, the Huawei replacement opportunity and deeper market penetration doubling the combined entity’s total addressable market to USD13.7bn compared with USD7.1bn previously addressable by ADVA and ADTRAN on a standalone basis. In addition, management expects the merger to generate USD52m in cost synergies and USD60-120m in revenue growth synergies. Under the merger’s proposed terms, each ADVA share will be exchanged for 0.82x the value of each ADTRAN share. The Acceptance Period for ADVA shareholders ends on 12 January. On the assumption that the merger goes ahead under the existing terms, and based on a DCF valuation of the combined entity, we value the ADVA share at €18.0 (previously: €14.4). Our rating is Buy (previously: Add) and we recommend ADVA shareholders accept the merger offer. (p.t.o.)

### FINANCIAL HISTORY & PROJECTIONS\*

	2020	2021E	2022E	2023E	2024E	2025E
Revenue (€m)	564.96	598.83	1168.72	1279.15	1393.03	1504.47
Y-o-y growth	9.8%	6.0%	95.2%	9.4%	8.9%	8.0%
EBIT (€m)	27.47	40.94	-5.93	116.93	176.16	217.81
EBIT margin	4.9%	6.8%	-0.5%	9.1%	12.6%	14.5%
Net income (€m)	20.31	34.72	-4.85	87.26	131.64	162.83
EPS (diluted) (€)	0.40	0.68	-0.05	0.92	1.37	1.67
DPS (€)	0.00	0.16	0.32	0.32	0.32	0.32
FCF (€m)	38.76	-17.92	-44.69	7.69	48.78	70.46
Net gearing	13.0%	18.3%	14.4%	16.2%	12.2%	6.6%
Liquid assets (€m)	64.88	94.02	112.27	169.79	232.18	101.57

\*forecasts up to and including 2021 for ADVA standalone, from 2022 for the merged entity

### RISKS

Risks include but are not limited to: higher prices and restricted availability of components due to the semiconductor crisis, currency risk (particularly USD appreciation/GBP depreciation).

### 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 1,944 employees at the end of September 2021.

### MARKET DATA

As of 07 Jan 2022

Closing Price	€ 13.64
Shares outstanding	51.45m
Market Capitalisation	€ 701.72m
52-week Range	€ 7.78 / 14.14
Avg. Volume (12 Months)	187,836

Multiples	2020	2021E	2022E
P/E	33.9	20.0	n.a.
EV/Sales	1.2	1.2	1.1
EV/EBIT	25.1	16.9	n.a.
Div. Yield	0.0%	1.2%	2.3%

### STOCK OVERVIEW



### COMPANY DATA

As of 30 Sep 2021

Liquid Assets	€ 110.51m
Current Assets	€ 305.48m
Intangible Assets	€ 180.06m
Total Assets	€ 556.18m
Current Liabilities	€ 163.33m
Shareholders' Equity	€ 315.33m

### SHAREHOLDERS

EGORA Group	14.5%
Deutsche Bank AG	6.8%
UBS AG	5.5%
Janus Henderson Group PLC	4.4%
Free float and other	68.8%



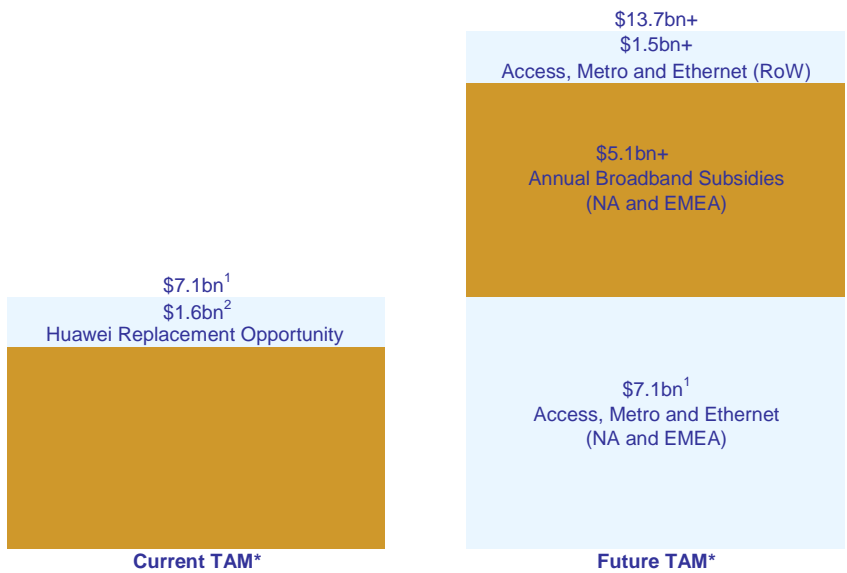
**Figure 1: Medium term funding of broadband investment in US and Europe**



(1) Rural Digital Opportunity Fund  
 (2) American Rescue Plan Act  
 (3) Gov.UK policy paper on project Gigabit Phase One Delivery Plan published 19 March 2021  
 (4) London Times article on British Telecom's promise of fast internet connectivity published 13 May 2021  
 (5) Includes publicly disclosed funding for the following programmes: Gigabit Broadband for Germany (€12.0bn), Gigabit for Bavaria (€2.0bn), Digitalisation of Baden Württemberg (€1.2bn), Digital Poland (€2.6bn), Recovery Plan Italy (€4.2bn), Connecting Europe Facility -2 (€2.0bn), Connecting Europe Broadband Fund (€05bn), European Structural Investment Fund (€6.9bn).

**Greater critical mass, subsidies double total addressable market** Figure 1 above shows USD190bn of predominantly government funding of broadband infrastructure planned in the US and Europe over the next six years. This funding is a key driver of what we expect will be a near doubling of the merged entity's total addressable market to USD13.7bn compared with USD7.1bn addressable by ADVA and ADTRAN on a standalone basis prior to the merger. As indicated above, we think the merger will enhance the new entity's ability to achieve strategic vendor status with a larger number of customers than would have been possible for the two companies in isolation.

**Figure 2: ADTRAN + ADVA TAM expansion opportunity**



\*TAM = Total Addressable Market

Note: NA = North America, EMEA = Europe, Middle East and Africa, RoW = Rest of World  
 Source: Omdia: a) Broadband Access Equipment Q1 2021 market report, b) Optical Networks Forecast 2021-26, publ. June 2021  
 c) Service Provider Switching and Routing Forecast, publ. July 2021.  
 (1) Representative of \$4.4bn Metro WDM & Carrier Ethernet + \$2.7bn Passive Optical Networking 2021 market opportunity for North America and EMEA regions.  
 (2) ADVA, ADTRAN estimates for Huawei displacement opportunity in EMEA.

**Figure 3: Q4/21E forecast and Q3/21 results**

€000's	Q4/21E	Q4/20A	Δ%	Q3/21A	Q3/21E	Δ%	Q3/20A	Δ%
Sales	153,226	140,572	9.0%	151,777	151,000	0.5%	146,676	3.5%
Proforma gross profit	50,565	54,641	-7.5%	52,153	55,870	-6.7%	51,930	0.4%
margin (%)	33.0%	38.9%	-	34.4%	37.0%	-	35.4%	-
Proforma selling/mkting expenses	-14,403	-13,418	-	-14,290	-15,100	-	-13,991	-
% sales	-9.4%	-9.5%	-	-9.4%	-10.0%	-	-9.6%	-
Proforma G&A expenses	-7,968	-9,116	-	-7,849	-9,362	-	-9,666	-
% sales	-5.2%	-6.5%	-	-5.2%	-6.3%	-	-6.6%	-
Proforma net R&D expenses	-18,847	-19,144	-	-18,649	-19,328	-	-18,054	-
% sales	-12.3%	-13.6%	-	-12.3%	-12.5%	-	-12.3%	-
Other op. income and expenses	766	1,380	-44.5%	1,647	755	118.1%	834	97.5%
% sales	0.5%	1.0%	-	1.1%	0.5%	-	0.6%	-
Proforma EBIT	10,113	14,343	-29.5%	13,012	12,835	1.4%	11,053	17.7%
margin (%)	6.6%	10.2%	-	8.6%	8.0%	-	7.6%	-
Reported EBIT	6,836	13,085	-47.8%	9,496	11,322	-16.1%	9,768	-2.8%
margin (%)	4.5%	9.3%	-	6.3%	7.0%	-	6.7%	-

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

**ADVA is on track to achieve FY2021 guidance despite chip shortage impact from Q3** Figure 3 above shows ADVA's Q3/21 results and our forecasts for Q4/21. The semiconductor shortage began hampering ADVA's deliveries to its customers at the beginning of 2021. Each quarter, sales of ca. €20m were delayed until the following period. However, the parts shortage had only a limited impact on profitability during the first half of the year. Indeed ADVA's proforma gross margin figures of 38.3% in both Q1/21 and Q2/21 were the highest figures for this metric recorded by the company since H1/13. But in Q3/21 the semiconductor shortage began to bite into profitability, and the proforma gross margin narrowed to 34.4%. Q3/21 sales and adjusted EBIT were close to our forecasts, but this was because lower operating costs than we had modelled compensated for a weaker gross margin than we had forecast. ADVA's management stated in the Q3/21 report that up until mid-2021 they had expected the worst of the semiconductor crisis to be over by the final quarter of last year. However, management's current expectation is that coming quarters will also be strongly influenced by the crisis. ADVA has maintained the full year 2021 guidance dating from the Q2/21 report for sales of €580-€610m and a proforma EBIT margin of 7-10%. Despite the weakness in the Q3/21 proforma gross margin, these numbers are still readily achievable. We have assumed sequential sales growth of only 1.0% in Q4/21 (after 1.6% in Q3/21 and 3.4% in Q2/21), a further narrowing in the proforma gross margin to 33.0%, and operating costs close to the Q3/21 level. Despite this, our full year numbers (sales and proforma EBIT of €598.8m and €50.4m respectively) are still in the middle of the guided range.

**Figure 4: ADTRAN Q3/21 results**

USD 000's	Q3/21A	Q3/21 guidance*	Δ%	Q3/20A	Δ%
Sales	138,081	138,000 to 158,000	0.1% to -12.6%	133,143	3.7%
GAAP gross profit	47,673	-	n.a.	58,962	-19.1%
margin (%)	34.5%	-	-	44.3%	-
Stock-based compensation expense	-133	-	-	101	n.a.
Restructuring expenses	0	-	-	232	n.a.
Settlement income	0	-	-	-28	n.a.
Non-GAAP gross profit	47,806	56,580 to 67,940	-15.5% to -29.6%	59,267	-
margin (%)	34.6%	41-43%	-	44.5%	-
GAAP operating result	-10,058	-	-	4,534	n.a.
margin (%)	-7.3%	-	-	3.4%	-
Acquisition-related expenses, amortisation etc.	6,041	-	-	1,042	479.8%
Stock-based compensation expense	1,709	-	-	1,610	6.1%
Restructuring expenses	0	-	-	1,903	n.a.
Settlement income	0	-	-	-28	n.a.
Deferred compensation adjustments	-459	-	-	791	n.a.
Non-GAAP operating expenses	-50,440	-53,000 to -54,000	n.a.	-51,290	n.a.
Non-GAAP operating result	-2,634	3,580 to 13,940	n.a.	9,852	n.a.
margin (%)	-1.9%	-	-	7.4%	-

Source: ADTRAN, Inc.



**ADTRAN's Q3/21 results were also adversely affected by the chip shortage...** ADTRAN reported Q3/21 results on 1 November. The Q3/21 order intake was up 43% y-o-y. The book-to-bill ratio was 1.43 for the quarter and 1.34 for the first nine months. The semiconductor shortage also hampered deliveries at Adtran. Q3/21 sales rose only 3.7% y-o-y. The company also experienced a sharp deterioration in its gross margin. The non-GAAP gross margin, which corresponds to ADVA's proforma gross margin, came in at 34.6% after 43.0% in H1/21. Guidance given during the H1/21 conference call on 5 August management was for a figure of 41-43%. Management attributed the fall in profitability during the quarter to "approximately USD9m in quantifiable supply chain constraint-related expenses." Without these expenses the non-GAAP gross margin would have been 41.1%.

**...but 9M/21 sales growth of 8.6% was higher than any annual figure since 2011** Figure 5 shows Adtran's sales and profits development since 2015. The sales CAGR for the five years to 2020 was -3.3% as growth in the company's Subscriber Solutions & Experience business area was cancelled out by declining sales at the Access & Aggregation and Traditional & Other Products business areas. Access & Aggregation sales were hit particularly hard in 2018 by the termination of a multi-city broadband project resulting from merger-related spending review at a domestic tier 1 customer. The decline in the business area's sales continued in 2019 and 2020 as a result of reduced deliveries to international tier 1 customers. Encouragingly, 9M/21 sales at the Access & Aggregation business area rose 6.4%. Full year sales at the business area look set to climb for the first time since 2017. Overall group 9M/21 sales growth of 8.6% was higher than any annual figure since 2011. We expect the renewed growth momentum at the Access & Aggregation business area to be reinforced by customers' increasing tendency to shun Huawei infrastructure.

**Figure 5: ADTRAN sales and profit development 2015 – 9M/21**

	2015	2016	2017	2018	2019	2020	% Yr CAGR 2015-20	9M 21
Sales	600,064	636,781	666,900	529,277	530,061	506,510	-3.3%	408,846
change (%)	-4.8%	6.1%	4.7%	-20.6%	0.1%	-4.4%	-	8.6%
by region:								0
United States	419,366	501,337	508,178	288,243	300,853	352,079	-3.4%	273,009
change (%)	31.7%	19.5%	1.4%	-43.3%	4.4%	17.0%	-	6.5%
Germany	111,666	85,780	119,502	167,251	78,062	74,882	-7.7%	n.a.
change (%)	26.0%	-23.2%	39.3%	40.0%	-53.3%	-4.1%	-	n.a.
Other international	69,032	49,664	39,220	73,183	151,146	79,549	2.9%	n.a.
change (%)	-29.3%	-28.1%	-21.0%	86.6%	106.5%	-47.4%	-	n.a.
Total international	180,698	135,444	158,722	240,434	229,208	154,431	-3.1%	135,837
change (%)	-42.0%	-25.0%	17.2%	51.5%	-4.7%	-32.6%	-	13.1%
by category:								
Access & Aggregation	405,698	436,372	473,994	358,870	348,874	313,138	-5.0%	249,211
change (%)	1.0%	7.6%	8.6%	-24.3%	-2.8%	-10.2%	-	6.4%
Subscriber Solutions & Experience	125,565	137,608	138,456	134,460	152,920	171,087	6.4%	147,291
change (%)	-9.0%	9.6%	0.6%	-2.9%	13.7%	11.9%	-	16.9%
Traditional & Other Products	68,801	62,801	54,500	35,947	28,267	22,285	-20.2%	12,344
change (%)	-23.7%	-8.7%	-13.2%	-34.0%	-21.4%	-21.2%	-	-25.3%
GAAP gross profit	266,898	291,330	303,635	203,565	219,167	217,551	-4.0%	163,942
margin (%)	44.5%	45.8%	45.5%	38.5%	41.3%	43.0%	-	40.1%
SG&A	123,540	131,848	135,583	124,440	130,288	113,972	-	30,972
% sales	20.6%	20.7%	20.3%	23.5%	24.6%	22.5%	-	7.6%
R&D	129,868	124,909	130,666	124,547	126,200	113,287	-	26,759
% sales	21.6%	19.6%	19.6%	23.5%	27.7%	25.9%	-	7.4%
Asset impairments	0	0	0	0	3,872	65	-	0
Gain on contingency	0	0	0	0	-1,230	0	-	0
GAAP operating profit	13,490	34,573	37,386	-45,422	-39,963	-9,773	-	-10,058
margin (%)	2.2%	5.4%	5.6%	-8.6%	-7.5%	-1.9%	-	-2.5%

Source: ADTRAN Inc.



## FORECASTS/VALUATION

Figure 6: Forecasts for ADVA and ADTRAN from Form S-4; summarised FB forecasts for merged entity

	2021E	2022E	2023E	2024E	2025E	2026E	CAGR 2021-26E
<b>ADVA (€m)*</b>							
Sales	600	640	672	700	730	760	4.8%
chng. (%)	6.2%	6.7%	5.0%	4.2%	4.3%	4.1%	
Adjusted EBITDA	80	85	94	103	111	115	7.5%
margin (%)	13.3%	13.3%	14.0%	14.7%	15.2%	15.1%	
<b>ADTRAN (€m)**</b>							
Sales	476	546	602	626	651	678	5.7%
chng. (%)	7.3%	14.7%	10.3%	3.9%	4.1%	4.1%	
Adjusted EBITDA	35	55	77	84	92	99	19.8%
margin (%)	7.3%	10.2%	12.7%	13.4%	14.1%	14.7%	
<b>ADVA/ADTRAN* ** combined pre-synergies/ merger costs (€m)</b>							
Sales	1,076	1,186	1,274	1,326	1,381	1,438	6.0%
chng. (%)	6.7%	10.2%	7.4%	4.1%	4.2%	4.1%	
Adjusted EBITDA	115	140	171	187	203	214	13.3%
margin (%)	10.7%	11.8%	13.4%	14.1%	14.7%	14.9%	
<b>ADVA/ADTRAN*** FB f/casts for merged entity inc. synergies/merger costs (€ m)</b>							
Sales	1,064	1,169	1,279	1,393	1,504	1,617	8.7%
chng. (%)	n.a.	9.9%	9.4%	8.9%	8.0%	7.5%	
Adjusted EBITDA	88	56	162	229	268	292	27.1%
margin (%)	8.3%	4.8%	12.6%	16.4%	17.8%	18.1%	

\* Source: ADVA; \*\* Source: ADTRAN; \*\*\* Source: First Berlin Equity Research forecasts

Figure 6 shows forecasts to 2026 for ADVA and ADTRAN on a standalone basis drawn from the Amendment No. 1 to Form S-4 (Form S-4) filed with the SEC on 18 October. The document contains a prospectus in connection with the exchange offer of ADTRAN for ADVA shares. The numbers above show 2021-26 sales and adjusted EBITDA CAGRs for ADVA of 4.8% and 7.5% respectively compared with 5.7% and 19.8% respectively for ADTRAN. ADTRAN is slated to outpace ADVA, both in terms of sales growth and margin expansion, because of the former's residential sector exposure, which is one of the fastest growing/most profitable areas within access networking.

Summing these two standalone forecasts produces 2021-26 sales and adjusted EBITDA CAGRs of 6.0% and 13.3% respectively. Our CAGR forecasts for the merged entity are higher because we take into account the prospects of medium term cost and revenue synergies. ADVA/ADTRAN have quantified medium term cost synergies at USD52m stemming from consolidation of corporate costs, optimisation of procurement and logistics, elimination of overlaps in the sales/marketing function and increased R&D efficiency. ADVA/ADTRAN also see potential for revenue synergies of USD60-120m through cross-selling benefits arising from the complementarity of the two companies' product ranges and geographic strengths (ADVA in Europe and Adtran in the US) and also from the combined R&D budget of USD240m. The latter will allow the merged entity to achieve strategic vendor status with a larger number of customers than would have been possible for the two companies in isolation.

Component shortages dented profitability at both ADVA and ADTRAN during Q3/21 and we expect that the final quarter of the year will also have been adversely affected. Our current assumption is that this issue will continue to impact sales and margins during H1/22. Given that synergies arising from the merger are not likely to kick in significantly until 2023, we see underlying profitability at ADVA and ADTRAN at a similar level in 2022 as in 2021. Our adjusted EBITDA forecasts for 2021 are below the numbers in Form S-4.



We think this is because Form S-4 was published ahead of both companies Q3/21 results, i.e. before the full extent of the impact of the components shortage on profitability was known. Our 2022 forecast incorporates USD22.3m (€18.9m) of transaction costs and USD24.9m (€21.1m) of costs relating to the replacement of ADVA stock options and the modification of ADTRAN performance stock units. These costs are detailed in Form S-4. The proforma end June 2021 balance sheet in Form S-4 shows a net USD479.4m increase in intangible assets over and above the combined standalone balance sheets. This reflects developed technology, customer backlog, customer relationships and brand value identified at ADVA. We have assumed that this figure is written off against the combined entity's opening balance sheet and so have not shown any related depreciation in our forecasts from 2022.

**Recommendation raised from Add to Buy and price target from €14.4 to €18.0** Under the merger's proposed terms, each ADVA share will be exchanged for 0.8244x the value of each ADTRAN share. The Acceptance Period for ADVA shareholders ends on 12 January. On the assumption that the merger goes ahead under the existing terms, and based on a DCF valuation of the combined entity, we value the ADTRAN share at USD24.86. Multiplying this figure by 0.8244 and dividing by the current EURUSD exchange rate of 1.136 produces a value for the ADVA share of €18.0 (previously: €14.4). Our rating is Buy (previously: Add) and we recommend ADVA shareholders accept the merger offer.

Figure 7: DCF Model

DCF valuation model									
All figures in USD 000s									
	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	
Net sales	1,327,663	1,453,115	1,582,481	1,709,080	1,836,507	1,973,477	2,120,709	2,278,974	
NOPLAT	-5,291	105,150	158,643	196,220	216,553	231,691	247,912	236,614	
+ depreciation & amortisation	42,787	46,308	50,396	54,541	58,777	63,119	67,782	72,792	
Stock compensation	27,039	4,618	9,116	2,717	2,915	3,128	3,355	3,600	
Net operating cash flow	64,535	156,076	218,155	253,478	278,245	297,937	319,049	313,005	
- total investments (CAPEX and WC)	-115,362	-139,308	-153,637	-162,190	-172,352	-185,568	-199,793	-215,105	
Capital expenditures	-101,519	-111,733	-124,411	-133,712	-143,027	-153,370	-164,463	-176,361	
Working capital	-13,843	-27,575	-29,226	-28,478	-29,325	-32,198	-35,330	-38,744	
Free cash flows (FCF)	-50,827	16,768	64,517	91,288	105,893	112,369	119,256	97,900	
PV of FCF's	-48,104	14,996	54,524	72,901	79,909	80,129	80,359	62,338	
All figures in thousands									
PV of FCFs in explicit period (2022E-2035E)	750,843								
PV of FCFs in terminal period	1,682,211								
Enterprise value (EV)	2,433,054								
+ Net cash / - net debt	47,751								
+ PV cash proceeds of future option exercise	41,054								
Shareholder value	2,426,357								
Current shares outstanding	94,105								
+ PV no shares issued against future option exercise	3,489								
Proforma no shares	97,594								
Fair value per ADTRAN share in USD	24.86								
Terminal growth rate									
WACC	5.8%								
Cost of equity	7.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	
Pre-tax cost of debt	1.5%	3.83%	62.17	65.77	72.09	86.07	143.05	-125.59	3.76
Tax rate	25.0%	4.33%	49.55	50.30	51.46	53.50	58.01	76.41	-10.31
After-tax cost of debt	1.1%	4.83%	40.79	40.35	39.72	38.75	37.04	33.25	17.83
Share of equity capital	80.0%	5.33%	34.39	33.44	32.16	30.32	27.48	22.49	11.46
Share of debt capital	20.0%	5.83%	29.51	28.37	26.88	24.86	21.98	17.51	9.68
Fair value per ADTRAN share in USD	24.86	6.33%	25.69	24.50	22.99	21.03	18.38	14.59	8.71
Fair value per ADVA share in EUR	18.04	7.33%	22.62	21.45	20.01	18.19	15.83	12.63	8.06
			20.11	19.00	17.65	16.00	13.92	11.21	7.54

\* for layout purposes the model shows numbers only to 2029, but runs until 2035

Source: First Berlin Equity Research estimates



## INCOME STATEMENT

All figures in EUR '000	2019A	2020A	2021E	2022E	2023E	2024E	2025E
<b>Income before tax</b>	<b>8,929</b>	<b>24,819</b>	<b>38,713</b>	<b>-6,463</b>	<b>116,353</b>	<b>175,522</b>	<b>217,112</b>
Depreciation and amortisation	62,191	64,729	65,831	37,665	40,764	44,362	48,011
Changes in working capital	-3,516	11,968	-61,192	-12,181	-25,010	-25,727	-25,069
Income tax paid	-1,684	-2,099	-3,997	1,616	-29,088	-43,881	-54,278
Other adjustments inc. stock compensation	971	-2,274	1,260	23,802	4,065	8,025	2,392
<b>Operating cash flow</b>	<b>66,891</b>	<b>97,143</b>	<b>40,616</b>	<b>44,439</b>	<b>107,083</b>	<b>158,302</b>	<b>188,169</b>
Investments in PP&E	-16,888	-13,648	-16,073	-33,316	-37,017	-39,228	-42,254
Investments in intangibles	-43,584	-44,740	-42,461	-55,814	-62,371	-70,289	-75,451
<b>Free cash flow</b>	<b>6,419</b>	<b>38,755</b>	<b>-17,918</b>	<b>-44,691</b>	<b>7,695</b>	<b>48,785</b>	<b>70,464</b>
Acquisitions & disposals, net	0	0	0	0	0	0	0
Other	169	34	0	0	0	0	0
<b>Investment cash flow</b>	<b>-60,303</b>	<b>-58,354</b>	<b>-58,533</b>	<b>-89,129</b>	<b>-99,389</b>	<b>-109,517</b>	<b>-117,705</b>
Debt financing, net	-8,500	-18,500	49,173	48,433	79,797	44,004	-170,243
Lease liabilities	-4,488	-6,986	0	0	0	0	0
Equity financing, exercise of stock options	1,257	1,273	0	0	0	0	0
Dividends paid	0	0	0	-14,911	-29,972	-30,396	-30,820
Other	-2,801	-2,553	0	0	0	0	0
<b>Financing cash flow</b>	<b>-14,532</b>	<b>-26,766</b>	<b>49,173</b>	<b>33,522</b>	<b>49,825</b>	<b>13,608</b>	<b>-201,063</b>
FOREX & other effects	-445	-1,405	-2,120	0	0	0	0
<b>Net cash flows</b>	<b>-8,389</b>	<b>10,618</b>	<b>29,136</b>	<b>-11,169</b>	<b>57,520</b>	<b>62,393</b>	<b>-130,599</b>
Cash, start of the year	62,652	54,263	64,881	123,449	112,280	169,800	232,193
<b>Cash, end of the year</b>	<b>54,263</b>	<b>64,881</b>	<b>94,016</b>	<b>112,280</b>	<b>169,800</b>	<b>232,193</b>	<b>101,593</b>
<b>EBITDA/share (in €)</b>	<b>1.44</b>	<b>1.08</b>	<b>1.39</b>	<b>0.59</b>	<b>1.71</b>	<b>2.38</b>	<b>2.76</b>
<b>Y-Y Growth</b>							
Operating cash flow	10.8%	45.2%	-58.2%	9.4%	141.0%	47.8%	18.9%
Free cash flow	-46.9%	503.8%	n.m.	n.m.	n.m.	534.0%	44.4%
EBITDA/share	12.8%	-25.4%	28.7%	-57.4%	189.8%	39.3%	15.7%



## BALANCE SHEET

All figures in EUR '000	2019A	2020A	2021E	2022E	2023E	2024E	2025E
<b>Assets</b>							
<b>Current assets, total</b>	<b>269,240</b>	<b>247,575</b>	<b>351,752</b>	<b>651,246</b>	<b>761,501</b>	<b>877,023</b>	<b>798,010</b>
Cash and cash equivalents	54,263	64,881	94,016	112,273	169,790	232,180	101,574
Restricted cash	0	0	0	7	9	12	19
Receivables	96,193	83,880	101,801	233,596	256,497	279,760	302,141
Inventories	105,355	90,124	146,713	286,914	314,944	343,000	370,440
Other current assets	13,429	8,690	9,222	18,456	20,260	22,070	23,836
<b>Non-current assets, total</b>	<b>267,122</b>	<b>252,397</b>	<b>258,353</b>	<b>747,806</b>	<b>811,771</b>	<b>882,904</b>	<b>958,856</b>
Property, plant & equipment	32,622	31,235	32,936	99,884	109,035	117,897	127,328
Goodwill	72,023	67,036	67,876	405,492	405,492	405,492	405,492
Other intangible assets	120,737	118,913	117,638	100,894	150,368	206,661	266,923
Deferred tax assets	6,336	7,233	7,667	18,426	20,234	22,078	23,844
Other non-current assets	35,404	27,980	32,237	123,110	126,642	130,777	135,269
<b>Total assets</b>	<b>536,362</b>	<b>499,972</b>	<b>610,106</b>	<b>1,399,052</b>	<b>1,573,272</b>	<b>1,759,927</b>	<b>1,756,866</b>
<b>Shareholders' equity &amp; debt</b>							
<b>Current liabilities, total</b>	<b>159,140</b>	<b>130,638</b>	<b>166,328</b>	<b>305,319</b>	<b>347,856</b>	<b>382,449</b>	<b>369,554</b>
Financial liabilities	19,221	15,492	25,000	40,884	57,917	67,002	28,698
Accounts payable	73,398	44,151	64,674	120,906	132,705	144,460	156,017
Tax liabilities	1,686	1,808	1,916	3,399	3,730	4,058	4,383
Other current liabilities	64,835	69,187	74,738	140,130	153,504	166,929	180,457
<b>Long-term liabilities, total</b>	<b>121,430</b>	<b>106,116</b>	<b>147,526</b>	<b>390,477</b>	<b>464,531</b>	<b>514,852</b>	<b>392,361</b>
Financial liabilities	61,758	47,129	86,357	143,799	203,708	235,659	100,938
Provisions for pensions	7,756	8,545	8,982	28,947	31,801	34,771	37,552
Other provisions	1,380	1,558	1,651	1,776	1,935	2,090	2,257
Deferred tax liabilities	12,307	13,522	14,372	135,691	137,163	138,510	139,966
Other non-current liabilities	39,609	36,920	37,815	82,041	91,859	105,912	113,905
<b>Shareholders' equity</b>	<b>255,792</b>	<b>263,218</b>	<b>296,252</b>	<b>703,256</b>	<b>760,884</b>	<b>862,626</b>	<b>994,951</b>
<b>Total consolidated equity and debt</b>	<b>536,362</b>	<b>499,972</b>	<b>610,106</b>	<b>1,399,052</b>	<b>1,573,272</b>	<b>1,759,927</b>	<b>1,756,866</b>
<b>Ratios</b>							
Net debt	68,902	34,090	54,128	101,350	123,627	105,239	65,595
Net gearing	26.9%	13.0%	18.3%	14.4%	16.2%	12.2%	6.6%
Book value per share (in €)	5.11	5.24	5.85	7.44	7.93	8.87	10.19
Return on equity (ROE)	2.9%	2.7%	12.4%	-1.0%	11.9%	16.2%	17.5%





## CASH FLOW STATEMENT

All figures in EUR '000	2019A	2020A	2021E	2022E	2023E	2024E	2025E
<b>Income before tax</b>	<b>8,929</b>	<b>24,819</b>	<b>38,713</b>	<b>-6,463</b>	<b>116,353</b>	<b>175,522</b>	<b>217,112</b>
Depreciation and amortisation	62,191	64,729	65,831	37,665	40,764	44,362	48,011
Changes in working capital	-3,516	11,968	-61,192	-12,181	-25,010	-25,727	-25,069
Income tax paid	-1,684	-2,099	-3,997	1,616	-29,088	-43,881	-54,278
Other adjustments inc. stock compensation	971	-2,274	1,260	23,802	4,065	8,025	2,392
<b>Operating cash flow</b>	<b>66,891</b>	<b>97,143</b>	<b>40,616</b>	<b>44,439</b>	<b>107,083</b>	<b>158,302</b>	<b>188,169</b>
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<b>Free cash flow</b>	<b>6,419</b>	<b>38,755</b>	<b>-17,918</b>	<b>-44,691</b>	<b>7,695</b>	<b>48,785</b>	<b>70,464</b>
Acquisitions & disposals, net	0	0	0	0	0	0	0
Other	169	34	0	0	0	0	0
<b>Investment cash flow</b>	<b>-60,303</b>	<b>-58,354</b>	<b>-58,533</b>	<b>-89,129</b>	<b>-99,389</b>	<b>-109,517</b>	<b>-117,705</b>
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<b>Y-Y Growth</b>							
Operating cash flow	10.8%	45.2%	-58.2%	9.4%	141.0%	47.8%	18.9%
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EBITDA/share	12.8%	-25.4%	28.7%	-57.4%	189.8%	39.3%	15.7%

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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		1	2
Current market capitalisation (in €)		0 - 2 billion	> 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>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 €0 – €2 billion, and Category 2 companies have a market capitalisation of > €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**

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**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...1	↓	↓	↓	↓
2	28 April 2020	€5.79	Add	€7.10
3	27 July 2020	€7.07	Add	€8.00
4	27 October 2020	€6.34	Add	€8.20
5	12 January 2021	€8.05	Buy	€11.00
6	2 March 2021	€9.63	Buy	€12.50
7	27 April 2021	€10.04	Buy	€13.00
8	27 July 2021	€12.96	Add	€14.40
9	2 September 2021	€13.72	Add	€14.40
10	Today	€13.64	Buy	€18.00

**INVESTMENT HORIZON**

Unless otherwise stated in the financial analysis, the ratings refer to an investment period of twelve months.

### UPDATES

At the time of publication of this financial analysis it is not certain whether, when and on what occasion an update will be provided. In general First Berlin strives to review the financial analysis for its topicality and, if required, to update it in a very timely manner in connection with the reporting obligations of the analysed company or on the occasion of ad hoc notifications.

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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

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